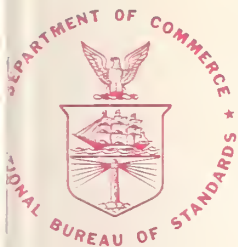


NATL INST OF STAND & TECH



A11107 264192



NBS SPECIAL PUBLICATION 428

U.S. DEPARTMENT OF COMMERCE / National Bureau of Standards

National Bureau of Standards
Library, E-01 Admin. Bldg.

OCT 1 1981

191030

QC

100

.457

Bibliography of Infrared Spectroscopy through 1960

Part 1

NATIONAL BUREAU OF STANDARDS

The National Bureau of Standards¹ was established by an act of Congress March 3, 1901. The Bureau's overall goal is to strengthen and advance the Nation's science and technology and facilitate their effective application for public benefit. To this end, the Bureau conducts research and provides: (1) a basis for the Nation's physical measurement system, (2) scientific and technological services for industry and government, (3) a technical basis for equity in trade, and (4) technical services to promote public safety. The Bureau consists of the Institute for Basic Standards, the Institute for Materials Research, the Institute for Applied Technology, the Institute for Computer Sciences and Technology, and the Office for Information Programs.

THE INSTITUTE FOR BASIC STANDARDS provides the central basis within the United States of a complete and consistent system of physical measurement; coordinates that system with measurement systems of other nations; and furnishes essential services leading to accurate and uniform physical measurements throughout the Nation's scientific community, industry, and commerce. The Institute consists of a Center for Radiation Research, an Office of Measurement Services and the following divisions:

Applied Mathematics — Electricity — Mechanics — Heat — Optical Physics — Nuclear Sciences² — Applied Radiation² — Quantum Electronics³ — Electromagnetics³ — Time and Frequency³ — Laboratory Astrophysics³ — Cryogenics³.

THE INSTITUTE FOR MATERIALS RESEARCH conducts materials research leading to improved methods of measurement, standards, and data on the properties of well-characterized materials needed by industry, commerce, educational institutions, and Government; provides advisory and research services to other Government agencies; and develops, produces, and distributes standard reference materials. The Institute consists of the Office of Standard Reference Materials and the following divisions:

Analytical Chemistry — Polymers — Metallurgy — Inorganic Materials — Reactor Radiation — Physical Chemistry.

THE INSTITUTE FOR APPLIED TECHNOLOGY provides technical services to promote the use of available technology and to facilitate technological innovation in industry and Government; cooperates with public and private organizations leading to the development of technological standards (including mandatory safety standards), codes and methods of test; and provides technical advice and services to Government agencies upon request. The Institute consists of a Center for Building Technology and the following divisions and offices:

Engineering and Product Standards — Weights and Measures — Invention and Innovation — Product Evaluation Technology — Electronic Technology — Technical Analysis — Measurement Engineering — Structures, Materials, and Life Safety⁴ — Building Environment⁴ — Technical Evaluation and Application⁴ — Fire Technology.

THE INSTITUTE FOR COMPUTER SCIENCES AND TECHNOLOGY conducts research and provides technical services designed to aid Government agencies in improving cost effectiveness in the conduct of their programs through the selection, acquisition, and effective utilization of automatic data processing equipment; and serves as the principal focus within the executive branch for the development of Federal standards for automatic data processing equipment, techniques, and computer languages. The Institute consists of the following divisions:

Computer Services — Systems and Software — Computer Systems Engineering — Information Technology.

THE OFFICE FOR INFORMATION PROGRAMS promotes optimum dissemination and accessibility of scientific information generated within NBS and other agencies of the Federal Government; promotes the development of the National Standard Reference Data System and a system of information analysis centers dealing with the broader aspects of the National Measurement System; provides appropriate services to ensure that the NBS staff has optimum accessibility to the scientific information of the world. The Office consists of the following organizational units:

Office of Standard Reference Data — Office of Information Activities — Office of Technical Publications — Library — Office of International Relations.

¹ Headquarters and Laboratories at Gaithersburg, Maryland, unless otherwise noted; mailing address Washington, D.C. 20234.

² Part of the Center for Radiation Research.

³ Located at Boulder, Colorado 80302.

⁴ Part of the Center for Building Technology.

Bibliography of Infrared Spectroscopy through 1960

Part 1

Special publication no. 4281

C. N. R. Rao, S. K. Dikshit, S. A. Kudchadker,
D. S. Gupta, and V. A. Narayan

Department of Chemistry
Indian Institute of Technology
Kanpur 208016, India

and

J. J. Comeford

Institute for Applied Technology
National Bureau of Standards
Washington, D.C. 20234



U.S. DEPARTMENT OF COMMERCE, Rogers C. B. Morton, *Secretary*

James A. Baker, III, *Under Secretary*

Dr. Betsy Ancker-Johnson, *Assistant Secretary for Science and Technology*

NATIONAL BUREAU OF STANDARDS, Ernest Ambler, *Acting Director*

Issued January 1976

OF STANDARDS
LIBRARY
JAN 28 1976
not acc.
QC100
.U57
no-428
pt 1
1976
c.2

US
111

Library of Congress Cataloging in Publication Data

Main entry under title:

Bibliography of Infrared Spectroscopy through 1960.

(NBS Special Publication; 428)

Supt. of Docs. No. C13.10:428/1-3 (pt. 1)

1. Infra-Red Spectrometry—Bibliography. I. Rao, Chintamani
Nagesa Ramachandra, II. Series: United States National Bureau
of Standards. Special Publication; 428. [DNLN: 1. Spectropho-
tometry. Infrared—Bibliography. Z7144.S7 B582]
QC100.U57 No. 428 [Z7144.S7] [QC457] 389'.08s

[016.544'63] 75-619218

National Bureau of Standards Special Publication 428

Nat. Bur. Stand. (U.S.), Spec. Publ. 428/1, pages 1-772 (Jan. 1976)

CODEN: XNBSAV

U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON: 1976

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402

Price \$28.50 for 3 part set; sold in sets only

Stock Number 003-003-01541-5

Catalog Number C 13.10:428/Part 1

Foreword

The National Standard Reference Data System was established in 1963 for the purpose of promoting the critical evaluation and dissemination of numerical data of the physical sciences. The program is coordinated by the Office of Standard Reference Data of the National Bureau of Standards but involves the efforts of many groups in universities, government laboratories, and private industry. The primary aim of the program is to provide compilations of critically evaluated physical and chemical property data. These tables are published in the *Journal of Physical and Chemical Reference Data*, in the NSRDS-NBS series of the National Bureau of Standards, and through other appropriate channels.

The task of critical evaluation is carried out in various data centers, each with a well-defined technical scope. A necessary preliminary step to the critical evaluation process is the retrieval from the world scientific literature of all papers falling within the scope of the center. Each center, therefore, builds up a comprehensive well-indexed bibliographical file which forms the base for the evaluation task. Bibliographies derived from these files are published when they appear to be of value to research workers and others interested in the particular technical area.

Further information on NSRDS and the publications which form the primary output of the program may be obtained by writing to the Office of Standard Reference Data, National Bureau of Standards, Washington, DC 20234.

David R. Lide, Jr., Chief
Office of Standard Reference Data

PREFACE

The National Research Council and the National Bureau of Standards initiated the project on Infrared Bibliography around 1951, but could not complete it due to various reasons. The group at the Indian Institute of Technology Kanpur, India, took up this task in December 1969 under the Special International Programs of the National Bureau of Standards (Project G-78). The NRC-NBS group had gathered data from selected journals on key-sort cards with an average cut-off date of 1956. The IIT Kanpur group, however, decided to make the bibliography as complete as possible up to the end of 1960 although the volume of literature increases very greatly towards the end of 1950's.

This bibliography, arranged according to the empirical formulae of compounds, covers both organic and inorganic substances. In addition to listing the references on the infrared spectra of compounds, the bibliography gives information on the nature of study in each reference, the spectral region covered and the state of the sample.

The preparation of this bibliography has been an enormous task and has involved the painstaking efforts of several workers in addition to the authors. I would like to take this opportunity to thank Mr. E. Carroll Creitz who was the secretary of the NRC Committee on Spectral Absorption Data and directed the early collection of data at the NBS. I would like to thank Mr. Zafar Jamil Dr. H. S. Randhawa, Dr. S. S. Misra, Mr. Jawahar Goel, Miss Barbara J. Miley, Dr. Francis Smith and Mr. James Stewart, for their assistance in collecting the

data. My thanks are also due to Messrs. Vijay Kumar, R. D. Tripathi and Nihal Ahmad for typing the manuscript in final form and the Education Development Centre of IIT Kanpur for support in the preparation of the manuscript.

Kanpur 208016, India

C. N. R. RAO

January 24, 1974

CONTENTS

Preface	iv
Introduction	vi
I. ORGANIC COMPOUNDS	1
II. a. INORGANIC COMPOUNDS OF NONMETALS (Containing elements C, H, D, T, halogens, N, O, P, S, As, B, Se, Si and noble gases)	1861
b. INORGANIC COMPOUNDS OF METALS (Containing elements other than those in IIa)	1985
III. POLYMERIC COMPOUNDS	2295
IV. MINERALS AND CRES	2326

Bibliography of Infrared Spectroscopy Through 1960

C. H. R. Rao, S. K. Dikshit, S. A. Kudchadker, D. S. Gupta, V. A. Marayan,
and J. J. Comeford

This Bibliography is based on a systematic search of the literature on infrared spectroscopy up to the end of 1960. It covers, directly or through abstract journals, 121 periodicals. As a general rule, any paper of interest in the field of infrared spectroscopy is included. Substance coverage is provided in four sections: organic compounds, inorganic compounds, polymeric compounds, and minerals and ores. Information provided includes: empirical formula, compound name, range of wavelengths reported, state of material, type of data presented in paper, and literature reference.

Key words: Bibliography; data; infrared; inorganic, minerals; organic; ores; polymers; spectroscopy.

INTRODUCTION

This infrared bibliography is based on a systematic search of the literature on infrared spectroscopy up to the end of 1960. The literature search has been made by going through journals as well as through Chemical Abstracts. The extent of coverage of various journals is shown in lists A, B and C at the end of the Introduction.

As a general rule, any paper of interest in the field of infrared spectroscopy is included. Examples of fringe areas include microwave spectra where rotational constants are given, papers on preparation of chemical compounds where infrared spectra are used for identification, papers on Beer's law, references to mathematical treatments such as group theory and statistical mechanics and so on. Papers on Raman spectroscopy have, however, not been included.

The bibliography has been divided into four sections: I, Organic Compounds; II, Inorganic Compounds (a, of non-metals; b, of metals); III, Polymeric Compounds; and IV, Minerals and Ores. The coverage in each section is as follows.

Section I : This section includes organic compounds containing C, H, D, T, halogens, N, O, P, S, As, B, Se and Si. Molecular complexes like $C_6H_6 \cdot I_2$, $C_4H_6 \cdot C_4H_2O_3$ and $CH_3NH_2 \cdot BF_3$ have also been included in this section; the inorganic components in the molecular complexes are also made up of the elements mentioned earlier.

Section II(a) : In this section, inorganic compounds containing C, H, D, T, halogens, N, O, P, S, As, B, Se, Si and noble gases have been included. Molecular complexes with inorganic components like $\text{BF}_3 \cdot \text{NH}_3$ and $\text{H}_2\text{SO}_4 \cdot \text{HNO}_3$ are also included in this section; the complexes also contain the elements mentioned earlier.

Section II(b) : In this section, simple and complex compounds of elements not covered in II(a) are included, the elements being arranged alphabetically.

Molecular complexes like $\text{SnCl}_4 \cdot \text{C}_4\text{H}_8\text{O}_2$ are included in the appropriate sub-section dealing with the metallic element (Sn in this case). Complexes like $\text{NaUO}_2(\text{C}_2\text{H}_3\text{O}_2)_3$, $\text{K}_4\text{Fe}(\text{CN})_6$, $\text{K}_3\text{Co}(\text{CN})_5\text{NO}$, and $\text{K PtCl}_3(\text{NH}_3)$ are included under uranium, iron, cobalt and platinum, respectively, and not under sodium or potassium. A complex like $[\text{Co}(\text{NH}_3)_6]^{+3} [\text{Cr}(\text{CN})_6]^{3-}$ (written as $\text{CoC}_6\text{H}_{18}\text{N}_{12}\text{Cr}$) would come under the element which comes first in alphabetical order (Co in this case). After the first IIb element, the elements of sections I and IIa are written followed by the other IIb element.

Section III : Molecules like polystyrene $(\text{C}_6\text{H}_8)_n$, polyethylene $(\text{C}_2\text{H}_4)_n$, paraldehyde, $(\text{CH}_2\text{O})_n$, as well as other polymeric molecules where n is not exactly known are included in this section.

Section IV : Most of the minerals and ores are included in this section.

The bibliography is arranged in the order of empirical formulae of compounds in each of the above categories. The information on each compound is given under the following headings: Empirical formula; Name; Range; State; Remark and Reference.

Empirical Formula : In sections I and II(a), the following order of elements is followed in writing the empirical formulae; C, H, D, T, Br, Cl, F, I, N, O, P, S, As, B, Se and Si (followed by noble gases in section IIa). The following examples would serve to illustrate the order of arrangement.

$C_{13}H_2Cl_{10}N_2O$, $C_{13}H_3F_5N_2O_6$, $C_{13}H_4Cl_2F_6N_2O$, $C_{13}H_4Cl_8N_2O$, $C_{13}H_4F_{20}O_4$, $C_{13}H_5Cl_7N_2O$
; CHN, CO₂, H₂O, D₂O...

Compounds with the same empirical formulae are arranged according to the alphabetic order of the names. In section I, compounds are arranged in the order of increasing number of C atoms. In section II(a), C-compounds are followed by hydrogen compounds which are followed by deuterium compounds and so on. In section II(b), compounds are listed according to the alphabetic order of the element symbols (e.g., Ca comes before Cu). The following examples illustrate the manner in which empirical formulae are given in this section: (i) oxalate complex of Cobalt(III) CoC_6O_{12} ; (ii) acetylacetonate complex of cobalt(III): $CoC_{15}H_{21}O_6$. In section III, the arrangement is similar to sections I and II in the monomer part of the system. The arrangement in section IV can be made clear by taking the example of spodumene $Li_2O \cdot Al_2O_3 \cdot 4SiO_2$. The empirical formula of spodumene is shown as $Al_2O_{12}Si_4Li_2$. The first element in the formula is the one that comes first alphabetically among the metallic elements (of section IIb); this is followed by other elements belonging to sections I, IIa and IIb.

Name of the Compound : In naming compounds, the IUPAC rules have been generally followed, although for some compounds trivial names have also been used when these are well known. The names of transition metal complexes have been simplified in the following manner:

$Pd_2C_{36}H_{30}Cl_4P_2$	Chlorotriphenylphosphinepalladium(II)- μ -dichlorochlorotriphenylphosphinepalladium(II)	Palladium(II)-chloride, triphenylphosphine complex
---------------------------	---	--

Ligands are written in the alphabetical order of their names.

Range : This gives the range of the wavelength over which the measurements are carried out. Whenever the range is not mentioned in the paper or abstract, we have omitted this information. When units are not mentioned, they are in cm^{-1} .

State : This defines the physical state of the compound in which the measurements are carried out. The code used is as follows: S = solid, mull, crystal, pellet or film; L = liquid; G = gas or vapor; Sol = solution.

Remark : This column indicates what the paper is about in a couple of words. The abbreviations used in this column are as follows:

Absorp, Abs	-	Absorption
Act	-	Activation
Amp	-	Amplitude
Anal	-	Analysis
Assign	-	Assignments
Assoc	-	Association
Calc	-	Calculation
Char	-	Characteristic
Compar	-	Comparison
Compd	-	Compound
Config	-	Configuration
Const	-	Constants
Corr	-	Correlation
Decomp	-	Decomposition
Depol	-	Depolarization

Dispers	-	Dispersion
Disso	-	Dissociation
Dist	-	Distance
Distinct	-	Distinction
Elect	-	Electron
Excit	-	Excitation
Ext coeff	-	Extinction coefficient
Fact	-	Factor
FC	-	Force constants
Freq	-	Frequencies
Gr	-	Group
H bond	-	Hydrogen bond
I	-	Intensity
Ident	-	Identification
Int	-	Internal
Intermol	-	Intermolecular
IR	-	Infrared
Iso	-	Isomerism
Mag	-	Magnetic
Micro	-	Microwave
Mol	-	Molecular
Mom inert	-	Moment of Inertia
NCA	-	Normal coordinate analysis
OD	-	Optical Density
Pert	-	Perturbation

Pot func	-	Potential function
Prep	-	Preparation
Prop	-	Properties
Press	-	Pressure
Qual	-	Qualitative
Quant	-	Quantitative
Quant mech	-	Quantum mechanics
Ref	-	Reference
Refl	-	Reflectance
Rot vib	-	Rotation vibration
Sens	-	Sensitive
Sp	-	Specific
Spec	-	Spectrum
Struc, Struct	-	Structure
Substi	-	Substitution
Taut	-	Tautomerism
Temp	-	Temperature
Theo	-	Theoretical
Thermo	-	Thermodynamics
Trans	-	Transmission
Vib	-	Vibrations

Reference : This column gives the literature reference. The reference is complete except that only the name of the first author is given. The reference is arranged in the order: Author, Journal, Volume, Year and Page. The codes used for the journals are given in the accompanying lists A, B and C. A typical reference is as follows: Herzberg, JCP 17 (1949) 1099. For any given compound,

references are generally arranged in chronological order. In cases where there are more than one reference in the same year, the references are arranged according to the alphabetical order of the authors.

LIST OF JOURNALS COVERED

List 'A'

(Journals covered till the end of 1960)

<u>Code</u>	<u>Journal</u>
AC	Anal. Chem.
ACS	Acta Chem. Scandinavica
AJC	Australian J. Chem.
AJP	Australian J. Phys.
AJSR	Australian J. Sc. Res.
AMS	Am. Sci.
APS	Appl. Spectroscopy
BCSJ	Bull. Chem.Soc. Japan
CJC	Can. J. Chem.
CJP	Can. J. Physics
CJR	Can. J. Research (A series)
CR	Chem. Rev.
CS	Current Science
IJP	Ind. J. Phys.
JACS	J. Am. Chem. Soc.

<u>Code</u>	<u>Journal</u>
JAP	J. Appl. Phys.
JCP	J. Chem. Phys.
JCS	J. Chem. Soc.
JINC	J. Inorg. & Nucl. Chem.
JMP	J. Mol. Phys.
JMS	J. Mol. Spect.
JOC	J. Org. Chem.
JOSA	J. Opt. Soc. Am.
JPC	J. Phys. Chem.
JPS	J. Polymer Sci.
JRNB	J. Res. NBS
JSI	J. Sci. Instr.
MG	Makromol Chem.
MP	Mol. Phys.
N	Nature
OS	Opt. Spectroscopiya
PIAS	Proc. Ind. Acad. Sci.
POL	Polymer
PR	Phys. Rev.
PRS	Proc. Roy. Soc. (London)
RMP	Rev. Mod. Phys.
RSI	Rev. Sci. Instr.
SA	Spect. Acta
TE	Tetrahedron
TFS	Trans. Faraday Soc.

List 'B'

(Journals covered through a search in Chemical Abstracts
for the years 1958-1961)

A	Ann
AAN	Atti Accad Nazl Lincei, Rend. Classe, Sci. Fis; mat. e. nat.
ABB	Arch. Biochem. Biophys.
ACR	Acta Cryst
AF	Arikiv Fysik
AM	Am. Minerologist
ANA	Analyst
ANC	Angew. Chem.
ANCR	Ann. Chim. (Rome)
ARK	Arkiv. Kemi
ARS	Anales real soc espan fis y quim (Madrid) Ser.
BAPS	Bull. Am. Phys. Soc.
BASU	Bull. Acad. Sci. U.S.S.R., Phys. Ser.
BSCF	Bull. Soc. Chim. France
CCA	Creat Chem. Acta
CCCC	Collection Czechoslov. Chem. Sommuns.
CIL	Chem. Ind (London)
CPBT	Chem. Pharm. Bull. (Tokyo)
CPR	Compt. Rend.
DA	Dissertation Abstr.
DANS	Doklady Akad Nauk. SSSR

FTT	Fiz Tverdogo Tela
GCI	Gazz Chim. ital.
HCA	Helv. Chim. Acta
IANs	Izvest. Akad. Nauk. SSSR Ser. Fiz.
JAFc	J. Agr. Food Chem.
JAOC	J. Am. Oil Chemists Soc.
JAPCL	J. Appl. Chem. (London)
JAPS	J. Appl. Polymer Sci.
JBC	J. Biological Chem.
JCE	Journal of Chemical Education
JCSJ	J. Chem. Soc. Japan
JiIS	J. Indian Inst. Sci.
JPR	J. Phys. radium
JPRC	J. Pract. Chem.
JPSJ	J. Phys. Soc. Japan
JSIR	J. Sci. Ind. Res.
KKZ	Kogyo Kagaku Zasshi
NC	Nuovo Cimento
NKZ	Nippon Kagaku Zasshi
NWS	Naturwissenschaften
P	Physica
PCS	Phys. and Chem. of Solids
PPSL	Proc. Phys. Soc. (London)
PRCS	Proc. Chem. Soc.
QRL	Quarterly Revs. (London)
RTC	Rec. Trav. Chim.

SK	Soumen Kemistilehti
TEL	Tetrahedron Letters
UFZ	Ukrain Fiz. Zhur
ZAC	Z. anal. Chem.
ZAUA	Z. anorg. U. allgem. Chem.
ZE	Z. Electrochem.
ZN	Z. Naturforsch
ZOK	Zhur. Obshchei. Khim.
ZP	Z. Physik.

List 'C'

(Journals covered by the NBS Group in their data collection up to (approx) 1956, but not included in Lists A and B)

AMAF	Akriv Mat. Astron. Fysik
ASS	Ann. Soc. Sci. Bruxells
BBA	Biochim et. Biophy. Acta
BBS	Bull B S
CIC	Chem. in Canada
DFS	Disc. Far. Soc.
IE	Ind. Eng. Chem.
IEC	Ind. Eng. Chem. (Anal. Ed.)
JA	Jap. Analyst
JP	J. Physique
JPCC	J. Phys. & Coll. Chem.
JPJ	J. Pharm. Japan

PNAS

Proc. NAS

RPCJ

Rev. Phys. Chem. Jap.

ZPC

Z. Physik. Chem. Frankfurt

I. Organic Compounds

(Containing elements C, H, D, T, halogens, N, O, P, S, As, B, Se and Si)

Formula	Name	Range	State	Remarks	Reference
C₁ COMPOUNDS					
CH	CH radical	-	-	Freq 7T-type doubling theory C Valencies	TFS 25 (1929) 936 PR 38 (1931) 85 DFS 2 (1947) 18 TFS 43 (1947) 60 PR 71 (1947) 118 JCP 18 (1950) 932 JCP 18 (1950) 927 JCP 20 (1952) 522 JCP 22 (1954) 564 JCP 23 (1955) 1131
CHDBrCl	Bromochloromethane-d ₁	-	-	FC	PR 100 (1955) 1267
CHDBr ₂	Dibromomethane-d ₁	-	-	FC, Thermo	JCP 22 (1954) 1042
CHDCl ₂ ³⁵	Dichloromethane-d ₁	-	-	Microwave	JCP 20 (1952) 1420
CHDCl ₂ ³⁵ Cl ³⁷	Dichloromethane-d ₁	-	-	Microwave	JCP 20 (1952) 1420
CHDF ₂	Difluoromethane-d ₁	-	-	FC	PR 100 (1955) 1267
CHDN ₂	Diazomethane-d ₁	19000-90000 Mc/sec.	G	Microwave, Mol consts	N 181 (1958) 1000
CHDO	Formaldehyde-d ₁	- 2-15 μ	-	Quant mechs Assign, Rot consts Bond energy, Ion. Pot.	JCP 2 (1934) 432 JCP 22 (1954) 289 TFS 52 (1956) 1195
CHDO	Formaldehyde-O-d ₁	14488-16038 Mc/sec.	G	Mol consts	JCP 31 (1959) 1677
CHDO ₂	Formic acid-d ₁	- - 500-2000 625-3800 400-800	- - G G S G,S	H bond Rot struct Spec, Assign Spec, Assign, Entropy Spec, Assign, Band shift Spec, NCA	JCP 6 (1938) 531 PR 58 (1940) 208 JCP 15 (1947) 232 JCP 27 (1957) 1305 JACS 80 (1958) 3515 JCP 30 (1959) 1076
CHDO ₂	Formic acid-O-d ₁	- 1-15 μ	- G	H bond H bond, Spec	JCP 6 (1938) 531 JCP 6 (1938) 540
		-	-	H bond	JCP 8 (1940) 252
				1	

	1-15 μ	-	Spec	Herman	JCP	8 (1940)	447
	-	-	Rot struct	Smith	PR	58 (1940)	208
	4000-800	G	Spec, Assign	Williams	JCP	15 (1947)	232
	-	-	Microwave, Struct	Trambarulo	JCP	22 (1954)	1622
	-	G	ν OH, ν OD	Bratoz	SA	8 (1956)	249
	500-2000	G	Spec, Assign, Entrop	Millikan	JCP	27 (1957)	1305
	625-3800	S	Spec, Assign, Band shift	Millikan	JACS	80 (1958)	3515
	400-800	G,S	Spec, NCA	Miyazawa	JCP	30 (1959)	1076
	120000-160000 Mc/sec.	-	Mol const	Mirri	NC	18 (1960)	849
	-	-	FC	DeHemptinne	TFS	42 (1946)	5
	-	-	Sum rule	Bernstein	JCP	21 (1953)	2188
	-	-	FC, Thermo	Dowling	JCP	23 (1955)	700
	-	-	FC	DeHemptinne	TFS	42 (1946)	5
	-	G	Microwave	Matlack	JCP	18 (1950)	332
	-	-	FC	DeHemptinne	TFS	42 (1946)	5
	-	-	Sum rule	Bernstein	JCP	21 (1953)	2188
	-	-	Spec	Kurland	JCP	27 (1957)	585
	300-3600	L	NCA, Spec, Assign	Suzuki	BCSJ	33 (1960)	1359
	-	-	Freq, Assign, Vib rot interact	Johnston	PR	48 (1935)	868
	-	-	Quant mech.	Wilson	JCP	3 (1935)	276
	-	-	Freq, Assign	Macwood	JCP	4 (1936)	402
	900-3200	-	Freq, Assign, Analysis	Benedict	JCP	5 (1937)	1
	-	-	Vib, Product rule	Redlich	JCP	7 (1939)	856
	-	-	Mol anal	Glockler	JCP	9 (1941)	224
	-	-	Isotope effect, Ratio rule	Edgell	JCP	13 (1945)	539
	-	-	Mol anal	Halverson	RMP	19 (1947)	87
	-	-	Force field, Freq	Simanouti	JCP	17 (1949)	245
	-	-	Quant mech, Freq	Simanouti	JCP	17 (1949)	734
	-	-	Quant mech, Mol anal	Linnett	TFS	45 (1949)	39
	-	-	Sum rule	Bernstein	JCP	21 (1953)	2188
	-	G	Spec, Mol anal	Bovey	JCP	21 (1953)	830
	-	G	K fine struct in 2	Wiggins	JCP	21 (1953)	1940
	-	G	High resolution of band	Wiggins	JOSA	43 (1953)	330
	3-15 μ	G	Spec, Assign, Mol anal	Rea	TFS	52 (1956)	1304
	800-3400	G	Spec, Freq	Wilmshurst	CJC	35 (1957)	226
	1100-3000	-	Freq, I	Hiller	JMS	5 (1960)	24
	2.5-18 μ	G	Spec, Assign	Noether	JCP	10 (1942)	693

CHD₃⁰ Methanol-d₃

	-	Spect, Ratio rule	JCP	11 (1943)	97
	-	FC	TFS	42 (1946)	5
	3-15 μ	Freq	ASS	61 (1947)	139
	-	Mol anal	RMP	19 (1947)	87
	-	Freq, Assign, Thermo	JCP	23 (1955)	1814
	1000-1500	NCA, Assign	SA	9 (1957)	265
	6000-8000	Splitting of absorp bands	JCP	31 (1959)	300
C ¹² H ₃ O ¹⁶ ₃					
	-	Microwave, Mol const	JCP	23 (1955)	1739
	-	Microwave	JCP	23 (1955)	1195
	-	Microwave	JCP	23 (1955)	1200
Methanol (isotopic)-d ₃	-	Microwave, Mol const	JCP	23 (1955)	124
CHD ₃ S	-	Freq, assign	Glockler	8 (1940)	699
	-	Thermo	Glockler	9 (1941)	527
Bromochlorofluoromethane	2-38 μ	Assign, Spect	Plyler	46 (1951)	382
	-	Freq	Wilmshurst	35 (1957)	937
Bromodichloromethane	-	Freq, Assign	JCP	8 (1940)	699
	-	Thermo	JCP	9 (1941)	527
	-	Freq, Assign	Wu	10 (1942)	116
22-39 μ	L	Freq	Plyler	17 (1949)	218
2-38 μ	L	Spec, Assign	JRNB	47 (1951)	202
700-4000	L	IR	PR	81 (1951)	300
-	-	Sum rule	Bernstein	21 (1953)	2188
40-50 μ	L	Spect	Plyler	43 (1953)	212
400-4000	L, G	Spect, Assign, Thermo, FC	JCP	23 (1955)	833
-	-	Freq	Wilmshurst	35 (1957)	937
CHBrF ₂	-	Freq, Assign	JCP	8 (1940)	699
2-38 μ	G, L	Spec, Vib anal, Assign	JRNB	48 (1952)	92
-	-	Sum rule	JCP	21 (1953)	2188
2-15 μ	G	Spect, Thermo, FC	JCP	23 (1955)	726
-	-	Freq	Wilmshurst	35 (1957)	937
5-Bromotetrazole	2-15 μ	Spec, Freq	Leeber	23 (1951)	1594
CHBrN ₄	-	Freq, Assign	JCP	8 (1940)	699
Chlorodibromomethane	-	Thermo	JCP	9 (1941)	527
	-	Freq, Assign	Wu	10 (1942)	116
2-38 μ	G, Sol, L	Spec, Mol anal	JRNB	47 (1951)	202
400-4300	L, G	IR, Assign, Thermo	Pontarelli	20 (1952)	1949
190-280	L	Spec	Acquista	43 (1953)	977
-	-	Sum rule	JCP	21 (1953)	2188
-	-	FC	Meister	21 (1953)	158

CHBr ₂ F	Dibromofluoromethane	-	-	Freq	Wilmshurst	CJC	35 (1957)	937
		-	-	Freq, Assign	Glockler	JCP	8 (1940)	699
		-	-	Thermo	Glockler	JCP	9 (1941)	527
		-	-	Sum rule	Bernstein	JCP	21 (1953)	2188
		-	-	Thermo, FC	Murata	JCP	23 (1955)	702
		-	-	Freq	Wilmshurst	CJC	35 (1957)	937
CHBr ₂ NO ₂	Dibromonitromethane	-	L	React prod	Schulz	JACS	73 (1951)	2962
CHBr ₃	Bromoform	0-2.5 μ 589-3 μ	L	Spec	Ellis	PR	23 (1924)	48
		-	L	Spec, Assign	Ellis	PR	28 (1926)	25
		-	L	I	Shearin	PR	35 (1930)	973
		-	-	Thermo	Stevenson	JCP	6 (1938)	25
		1-12 μ	L	Dispersion of refr. index	Pittmann	JOSA	29 (1939)	358
		-	-	Spect	Gordy	JCP	7 (1939)	163
		-	-	Vib, Product rule	Redlich	JCP	7 (1939)	856
		-	-	Freq, Assign	Glockler	JCP	8 (1940)	699
		-	-	Freq, Thermo	Pitzer	JCP	8 (1940)	711
		-	G	Thermo chem equil rev	Pitzer	CR	27 (1940)	39
		-	-	Vibra. anal.	Glockler	JCP	9 (1941)	527
		-	-	Thermo	Glockler	JCP	99 (1941)	224
		2.5-15 μ	-	Spec	Wright	IEC	13 (1941)	1
		-	-	Freq, Assign	Wu	JCP	10 (1942)	116
		2-15 μ	L, G	Freq	Jenkins	PR	68 (1945)	99
		-	-	FC	Linnett	TFS	41 (1945)	223
		-	-	Mol anal	Halverson	RMP	19 (1947)	87
		-	L	Band struct.	Chulanouskii	IANS	12 (1948)	628
		-	-	Quant Mech	Decius	JCP	16 (1948)	214
		24-40 μ	-	Freq	Plyler	JCP	16 (1948)	1008
		700-5000	L	IR, Assign	Meister	JCP	18 (1950)	346
		2-15 μ	G	Spec, Assign	Plyler	JRNB	47 (1951)	202
		2-38 μ	L	Spec, Assign	Plyler	JRNB	47 (1951)	202
		-	-	Press broadening, Micro-wave	Mizushima	PR	83 (1951)	94
		-	-	Freq	Edgell	JPC	56 (1952)	326
		-	G	Microwave	Kojima	JCP	20 (1952)	804
		-	-	FC	Pontarelli	JCP	20 (1952)	1949
		2-15 μ	L	Spec, Solvent	Priester	APS	6 (1952)	29
		2-15 μ	L	Spec, Solvent	Tarpley	AC	24 (1952)	315
		-	-	Sum rule	Bernstein	JCP	21 (1953)	2188
		-	-	Freq, Product rule	Pitzer	JCP	21 (1953)	858
		40-50 μ	L	Spec	Plyler	JOSA	43 (1953)	212

	-	1-2.9 μ	-	L, Sol	Microwave Spec, Assign Mol anal, I NCA	Herrmann Kaye Kaye Long Sterzer	JCP SA AC PRS	22 (1954) 6 (1954) 26 (1954) 223 (1954)	2095 257 428 130
	-		-	-	Microwave	Krupp	JCP	22 (1954)	2094
	-		-	-	Mol consts, dipole effect	Krupp	JCP	24 (1956)	355
	-		-	-	Rot, Vib interact	Meal	JCP	24 (1956)	1126
	-	.5-13 μ	-	L	Dispersion	Jaffe	JOSA	47 (1957)	782
	-		-	-	Freq	Wilmshurst	CJC	35 (1957)	937
CHBr_3^{79}	-		-	-	Microwave, Struct	Kojima	JCP	20 (1952)	804
CHBr_3^{81}	-		-	-	Microwave, Struct	Kojima	JCP	20 (1952)	804
$\text{CHBr}_3^{81}\text{Br}_2^{79}$	-		-	-	Microwave, Struct	Kojima	JCP	20 (1952)	804
$\text{CHBr}_3^{81}\text{Br}^{79}$	-		-	-	Microwave, Struct	Kojima	JCP	20 (1952)	804
CHClF_2	-		-	-	Freq, Assign Mol Anal, Thermo	Glockler Glockler	JCP	8 (1940) 9 (1941)	699 224
	-		-	-	Freq, Assign	Wu	JCP	10 (1942)	116
	-	2-29 μ	-	G	Spec, Assign	Plyler	JRNB	47 (1951)	202
	-		-	-	Sum rule	Bernstein	JCP	21 (1953)	2188
	-		-	-	Vib excit	Anne	JCP	23 (1955)	1960
	-		-	-	Collision excit	Rossing	JCP	23 (1955)	1118
	-		-	-	Freq	Wilmshurst	CJC	35 (1957)	937
	-	270-4000	-	G	Spec, Assign, NCA, Thermo	Weissman	JCP	29 (1958)	72
	-	9400 Mc/sec	-	G	Absorption	Boggs	JPC	63 (1959)	1127
	-		-	-	Quant mech	Wilson	JCP	2 (1934)	432
	-		-	-	Freq, Assign	Glockler	JCP	8 (1940)	699
	-		-	-	Mol anal, Thermo	Glockler	JCP	9 (1941)	224
	-		-	-	Thermo	Glockler	JCP	9 (1941)	527
	-		-	-	Freq, Assign	Wu	JCP	10 (1942)	116
	-	500-1500	-	G	Thermo, Spec	Thompson	JCS	- (1948)	1422
	-	2-38 μ	-	G	Assign, Spec	Plyler	JRNB	47 (1951)	202
	-		-	-	Sum rule	Bernstein	JCP	21 (1953)	2188
	-		-	-	Vib excit	Anne	JCP	23 (1955)	1960
	-		-	-	Collision excit	Rossing	JCP	23 (1955)	1118
	-		-	-	Freq	Wilmshurst	CJC	35 (1957)	937
	-	270-4000	-	G	Spec, Assign, NCA, Thermo	Weissman	JCP	29 (1958)	72
	-	9400 Mc/sec	-	G	Absorption	Boggs	JPC	63 (1959)	1127
	-	402 Mc/sec	-	G	Temp effect	Boggs	JCP	33 (1960)	1852
CHCl_2F					Dichlorofluoromethane				

CHCl ₃	Chloroform		L	Absorption, Freq	Ellis	PR	19	(1922)	546
	1-2.8 μ		L	Mag rot	Ingersoll	JOSA	6	(1922)	663
	.8-2.0 μ		L	Spec	Ellis	PR	23	(1924)	48
	0-2.5 μ		L	Spec	Daniels	JACS	47	(1925)	2856
	2-6.5 μ		L	Spec, Assign	Ellis	PR	28	(1926)	25
	.589-3 μ		Sol	Spec	Bennett	JACS	49	(1927)	50
	2-5 μ		L	IR	Ellis	PR	32	(1928)	906
	.59-2.8 μ		L	Bond link heat	Ellis	PR	33	(1929)	27
	-		-	Overtones	Ellis	TFS	25	(1929)	888
	-		-	Freq, Thermo	Lecomte	TFS	25	(1929)	864
	-		-	Vib	Kettering	PR	35	(1930)	531
	-		L	I	Shearin	PR	36	(1930)	973
	6.7-33 μ		G	Transmission	Strong	PR	37	(1931)	1565
	20.7-152 μ		G	Spec	Strong	PR	42	(1932)	267
	-		-	Quant mech	Van Vleck	JCP	1	(1933)	219
	-		-	Freq, Assign	Voge	JCP	4	(1936)	137
	2100-2800		Sol	Spec, H bond	Buswell	JACS	60	(1938)	2528
	-		-	Freq	Ellis	JCP	6	(1938)	497
	5.4-11.7 μ		L, Sol	Spec, H bond	Gordy	JACS	60	(1938)	605
	-		-	Thermo	Stevenson	JCP	6	(1938)	25
	-		-	Spec	Gordy	JCP	7	(1939)	163
	1-10 μ		L	Dispersion, Ref ind	Pittmann	JOSA	29	(1939)	358
	-		-	Vib, Product rule	Redlich	JCP	7	(1939)	856
	-		-	H bond	Rodebush	JPC	43	(1939)	219
	-		-	Freq, Assign	Glockler	JCP	8	(1940)	699
	-		G	Thermo, Chem. equil rev	Pitzer	CR	27	(1940)	39
	-		-	Freq, Thermo	Pitzer	JCP	8	(1940)	711
	-		Sol	H bond	Sutherland	TFS	36	(1940)	889
	-		-	Anal	Glockler	JCP	9	(1941)	224
	-		-	Thermo	Glockler	JCP	9	(1941)	527
	-		-	Freq	Redlich	JCP	9	(1941)	298
	2.5-15 μ		-	Spec	Wright	IEC	13	(1941)	1
	-		-	Freq, Assign	Wu	JCP	10	(1942)	116
	-		-	Freq, FC	Edgell	JCP	13	(1945)	539
	2-15 μ		L, G	Freq	Jenkins	PR	68	(1945)	99
	-		-	FC	Linnett	TFS	41	(1945)	223
	500-1500		L	Spec	Thompson	PRS	184	(1945)	21
	3-20 μ		L	Spec	Torkington	TFS	41	(1945)	184
	-		-	Mol anal	Halverson	RMP	19	(1947)	87
	-		-	Quant mech	Decius	JCP	16	(1948)	214
	24-40 μ		-	Freq	Plyler	JCP	16	(1948)	1008
	-		-	Freq, Quant mech	Simanouti	JCP	17	(1949)	245
	-		-	Mol anal, Quant mech	Simanouti	JCP	17	(1949)	734

-	2-15 μ	FC	Zietlow	PR	75	(1949)	533
1200-2000		Spec	Patinkin	JACS	72	(1950)	2778
650-7500		Spec	Cannon	SA	4	(1951)	373
.7-2.7 μ		Spec	Gi bian	JACS	73	(1951)	1431
400-10000		Spec	Kaye	JOSA	41	(1951)	658
3-38 μ		IR, Freq	Madigan	JCP	19	(1951)	119
.8-2.7 μ		Spec, Asslgn	Plyler	JRNB	47	(1951)	202
4000-12000		Spec	Kaye	JOSA	42	(1952)	567
15-25 μ		Spec, Harmonics	Lauer	APS	6	(1952)	29
23-30 μ		Transaparent solvent	Marri son	JSI	29	(1952)	233
-		IR, Chem binding	Mecke	JCP	20	(1952)	1935
-		Resolution	Plyler	JRNB	49	(1952)	61
-		FC	Pontarelli	JCP	20	(1952)	1949
2-15 μ		Spec, Solvent	Pristera	APS	6	(1952)	29
8-14.5 μ		Table	Urone	AC	24	(1952)	626
200-2800		Spec	Acquista	JOSA	43	(1953)	977
2-16 μ		Solvent	Anderson	JOSA	43	(1953)	221
-		Sum rule	Bernstein	JCP	21	(1953)	2188
-		Freq, Product rule	Pitzer	JCP	21	(1953)	855
2-16 μ		Solvent	Vaughan	JOC	18	(1953)	382
760		L, G, Sol Freq, I	Whiffen	TFS	49	(1953)	878
-		G	Wiggins	JCP	21	(1953)	1368
-		Spec, Anal	Kaye	AC	26	(1954)	428
.8-3.5 μ		L	Kaye	SA	6	(1954)	257
-		Spec, Asslgn	Long	PRS	223	(1954)	130
-		Intensity theory, NCA	Bayliss	AJC	8	(1955)	26
3000		Solvent	Bernstein	JCP	23	(1955)	2201
-		Freq	Biswas	IJP	29	(1955)	446
.7-2.12 μ		Spec	Coates	APS	9	(1955)	14
1160-2998		H bond, I	Halpern	JACS	77	(1955)	4472
-		Energy transfer	Sette	JCP	23	(1955)	787
-		NCA	Weber	JCP	23	(1955)	2207
-		I	Liddel	JCP	25	(1956)	173
-		Mol inter	Meal	JCP	24	(1956)	1126
-		FC, Disso energy	Baughan	TFS	53	(1957)	1046
-		Vib, Mol shift	Benson	JCP	27	(1957)	1164
-		Depolarizing light	Buckingham	TFS	53	(1957)	884
-		Mol const	Dowling	JMS	1	(1957)	265
.5-16 μ		Dispersion	Jaffe	JOSA	47	(1957)	782
-		I	Kagarise	JCP	27	(1957)	827
-		Solvent	Pinchas	AC	29	(1957)	334
-		Freq	Wilmschurst	CJC	35	(1957)	937
-		Microwave	Weatherly	DA	18	(1958)	1469
3 μ		Assoc	Becker	SA	15	(1959)	743

		74000	-	Freq, I	Herranz	ARS	50A (1959)	69
		250-16500	L	I, Spec, Absorption coeff.	Lisita	OS	6 (1959)	605
			-	I	Morcillo	ARS	50A (1959)	77
		700-3100	-	Freq, Assign, I	Morcillo	SA	15 (1959)	110
		13.2 μ	Sol	Absorption	Spell	AC	31 (1959)	621
		-	L	I, Absorption	Lisita	OS	9 (1960)	438
		-	Sol	Freq, H bond	Thompson	ZE	84 (1960)	748
$C^{12}HCl_3^{35}$	Chloroform (isotopic)	-	G	Microwave	Ghosh	JCP	20 (1952)	605
$C^{12}HCl_3^{37}$	Chloroform (isotopic)	-	G	Microwave	Ghosh	JCP	20 (1952)	605
$CHCl_3O_2$	Chloroform peroxide	-	-	OH at 2.95 μ	Schulte	JACS	75 (1953)	2222
CHF_3	Formyl fluoride	-	-	C = O	Kagarise	JACS	77 (1955)	1377
		90-160 Mc/sec	G	Microwave, Struct	Baker	JCP	31 (1959)	566
		500-5000	G	Microwave, Struct	LeBlanc	JCP	33 (1960)	598
			G	Mol consts, Assign	Stratton	JMS	4 (1960)	373
CHF_3	Fluoroform	-	-	Freq	Glockler	JCP	8 (1940)	699
		-	-	Thermo, Mol anal	Glockler	JCP	9 (1941)	224
		-	-	Thermo	Glockler	JCP	9 (1941)	527
		.7-2.4 μ	-	Freq, Assign	Wu	JCP	10 (1942)	116
		-	-	Spec, Assign	Bernstein	JCP	16 (1948)	30
		-	-	Microwave	Gilliam	PR	75 (1949)	1014
		-	-	FC	Pace	JCP	18 (1950)	881
		-	L	Assign	Rank	JCP	18 (1950)	885
		-	-	FC, Thermo	Decker	JCP	19 (1951)	784
		-	-	Press broadening, Micro-wave	Mizushima	PR	83 (1951)	94
		2-24 μ	G	Spec, Assign	Plyler	JRN B	47 (1951)	202
		-	G	Mol spec	Herzberg	N	169 (1952)	997
		8-21 μ	-	Sum rule	Bernstein	JCP	21 (1953)	2188
		-	G	Assign	Edgell	JCP	21 (1953)	1901
		-	-	Bond dist	Huggins	JACS	75 (1953)	4126
		-	-	Freq, Assign	McGee	JCP	21 (1953)	242
		-	-	Freq, Product rule	Pitzer	JCP	21 (1953)	855
		2.2-20 μ	G	Spec, Assign	Rix	JCP	21 (1953)	1077
		-	G	Spec, Anal	Wiggins	JCP	21 (1953)	1368
		300-3000	-	Freq	Edgell	JCP	22 (1954)	1808
		-	-	Vib excit	Anne	JCP	23 (1955)	1960
		-	-	FC	Palm	JCP	23 (1955)	726
		-	-	Collision excit	Rossing	JCP	23 (1955)	1118

CH ₂	Methylene radical	-	-	FC C valency Photo anal	Penney Walsh Milligan	PRS DFS JCP	156 (1936) 2 (1947) 29 (1958)	654 18 1405
CH ₂ DBr	Bromomethane-d ₁	-	-	Freq, FC Sum rule FC, Thermo	DeHemptinne Bernstein Dowling	TFS JCP JCP	42 (1946) 21 (1953) 23 (1955)	5 2188 700
CH ₂ DCI	Chloromethane-d ₁	-	-	Freq, FC	DeHemptinne	TFS	42 (1946)	5
C ¹² H ₂ DCI	Chloromethane-d ₁ (isotopic)	-	G	Microwave	Matlack	JCP	18 (1950)	332
CH ₂ DI	Iodomethane-d ₁	-	-	Freq, FC Sum rule	DeHemptinne Bernstein	TFS JCP	42 (1946) 21 (1953)	5 2188
CH ₂ DNO	Formamide-d ₁	-	-	Spec Spec, Assign, NCA	Kurland Suzuki	JCP BCSJ	27 (1957) 33 (1960)	585 1359
CH ₂ DNO ₂	Formohydroxamic acid-o-d ₁	300-3600	S, Sol	Spec, Struct, H bond	Hadzi	SA	10 (1958)	38
CH ₂ D ₂	Methane-d ₂	-	-	Freq, Mol interact Quant mech Freq, Assign Assign, Anal Vib, Product rule Quant mech Mol anal Force field, Freq Freq, Quant mech Vib anal, Quant mech Sum rule Partition function Spec, Assign Freq, I	Johnston Wilson Macwood Benedict Redlich Shaffer Halverson Linnett Simanouti Simanouti Bernstein Dainton Wilmshurst Hiller	PR JCP JCP JCP JCP JCP RMP TFS JCP JCP JCP TFS CJC JMS	48 (1935) 3 (1935) 4 (1936) 5 (1937) 7 (1939) 12 (1944) 19 (1947) 45 (1949) 17 (1949) 17 (1949) 21 (1953) 53 (1957) 35 (1957) 5 (1960)	868 276 402 1 856 494 87 39 245 734 2188 1204 226 24
CH ₂ D ₂ O	Methanol-d ₂	-	L, G	Spec Freq, Assign Spec, Assoc Freq Mol anal	Boschioter Halford Barker DeHemptinne Halverson	JCP JCP JCP TFS RMP	5 (1937) 5 (1937) 6 (1938) 42 (1946) 19 (1947)	992 927 563 5 87
CH ₂ D ₃ N	Methyl-d ₃ -amine	400-3500	-	Vib assign, Mol struct Microwave	Gray Sastry	JCP FIAS	26 (1957) A51 (1960)	690 301

CH ₂ BrCl	Bromochloromethane	-	-	Freq, Assign	Wu	JCP	10	(1942)	116
		2.3-16 μ	G	Struct	Plyler	PR	83	(1951)	244
		1.6-2.3 μ	G	Spec, Mol anal	Plyler	JRN B	49	(1952)	1
		-	-	Ident	Baker	AC	25	(1953)	1457
		-	-	Sum rule	Bernstein	JCP	21	(1953)	2188
		400-3000	L, G	IR, Thermo, FC	Weber	JCP	21	(1953)	930
		-	-	Freq	Wilmshurst	CJC	35	(1957)	937
CH ₂ BrF	Bromofluoromethane	-	-	Sum rule	Bernstein	JCP	21	(1953)	2188
		-	-	Freq	Wilmshurst	CJC	35	(1957)	937
CH ₂ BrI	Bromoiodomethane	-	-	Freq, Assign	Wu	JCP	10	(1942)	116
		-	-	Freq	Wilmshurst	CJC	35	(1957)	937
CH ₂ Br ₂	Dibromomethane	0-2.5 μ	L	Spec	Ellis	PR	23	(1924)	48
		.589-2.4 μ	L	Spec, Assign	Ellis	PR	28	(1926)	25
		-	-	Thermo	Stevenson	JCP	6	(1938)	25
		-	-	Vib, Product rule	Redlich	JCP	7	(1939)	856
		-	-	Thermo	Edgell	JCP	9	(1941)	484
		-	-	Thermo	Glockler	JCP	9	(1941)	527
		.8-8.5 μ	L	Refr ind, Dispersion	Mahan	JOSA	31	(1941)	248
		-	-	Assign, Freq	Wu	JCP	10	(1942)	116
		-	-	FC	Linnett	TFS	41	(1945)	223
		-	-	Mol anal	Halverson	RMP	19	(1947)	87
		-	-	Quant mech	Deolus	JCP	16	(1948)	214
		2-36 μ	L	Spec, Assign	Plyler	JRN B	44	(1950)	503
		3-18 μ	G	Spec, Mol anal	Plyler	JRN B	47	(1951)	202
		2.3-16 μ	G	Struct	Plyler	PR	83	(1951)	244
		1.6-2.3 μ	G	Spec, Mol anal, Mol consts	Plyler	JRN B	49	(1952)	1
		2-15 μ	L	Spec, Solvents	Tarpley	AC	24	(1952)	315
		-	-	Ident	Baker	AC	25	(1953)	60
		-	-	Sum rule	Bernstein	JCP	21	(1953)	2188
		-	-	Freq	Mizushima	JCP	21	(1953)	215
		-	-	Freq, Product rule	Pitzer	JCP	21	(1953)	855
		-	-	FC, Thermo	Dowling	JCP	22	(1954)	1042
		-	-	Mol anal	Kaye	AC	26	(1954)	428
		.8-3.5 μ	L, Sol	Spec, Assign, I	Kaye	SA	6	(1954)	257
		-	-	I, NCA	Long	PRS	223	(1954)	130
		-	-	I	True	PR	99	(1955)	1624
		-	-	Vib, Shifts	Benson	JCP	27	(1957)	1164
		1-8 μ	L	Summary	Jaffe	JOSA	47	(1957)	782
		-	-	Freq	Wilmshurst	CJC	35	(1957)	937
CH ₂ ClF	Chlorofluoromethane	-	-	Freq assign	Glockler	JCP	8	(1940)	699
		-	-	Thermo	Glockler	JCP	9	(1941)	527

CH ₂ ClI	Chloroiodomethane	-	-	-	Freq, Assign	Wu	JCP	10 (1942)	116
CH ₂ Cl ₂	Dichloromethane	2-30 μ	G	-	Absorption bands	Plyler	JRNB	45 (1950)	204
		-	-	-	Sum rule	Bernstein	JCP	21 (1953)	2188
		-	-	-	Microwave	Wuller	JACS	75 (1953)	860
		-	-	-	Vib excit	Amme	JCP	23 (1955)	1960
		-	-	-	Collision excit	Rossing	JCP	23 (1955)	1118
		-	-	-	Freq	Wilmshurst	CJC	35 (1957)	937
		4230-4550	G	-	IR, Mol consts	Porto	JMS	3 (1959)	248
		-	-	-	Freq	Wilmshurst	CJC	35 (1957)	937
		0-2.5 μ	L	-	Spec	Ellis	PR	23 (1924)	48
		.589-3 μ	-	-	Spec, Assign	Ellis	PR	28 (1926)	25
		-	-	-	Vib theory	Yates	PR	36 (1930)	555
		-	-	-	Quant mech	Van Vleck	JCP	1 (1933)	219
		-	-	-	Quant mech	Wilson	JCP	2 (1934)	432
		2-12 μ	L	-	Spec, Assign	Corin	PRS	165 (1938)	43
		-	-	-	Thermo	Stevenson	JCP	6 (1938)	25
		-	G	-	Thermo, Chem equil	Pitzer	CR	27 (1940)	39
		-	-	-	Thermo, Thermo	Pitzer	JCP	8 (1940)	711
		-	-	-	Thermo	Glockler	JCP	9 (1941)	527
		.7-8.5 μ	L	-	Refr. ind, Dispersion	Mahan	JOSA	31 (1941)	248
		2.5-15 μ	-	-	Anal	Wright	IEC	13 (1941)	1
		-	-	-	Freq, Assign	Wu	JCP	10 (1942)	116
		-	-	-	FC	Glockler	RMP	15 (1943)	111
		-	-	-	FC	Linnett	TFS	41 (1945)	223
		-	-	-	Freq	Chulanovskii	IANS	12 (1948)	628
		-	-	-	Quant mech	Decius	JCP	16 (1948)	214
		24-40 μ	-	-	Freq	Plyler	JCP	16 (1948)	1008
		-	-	-	Freq, Quant mech	Shimanouchi	JCP	17 (1949)	245
		-	-	-	Mol anal, Quant mech	Shimanouchi	JCP	17 (1949)	734
		5-11 μ	L	-	Spec	Morton	JACS	73 (1951)	3300
		2-15 μ	G,L	-	Assign, Spec	Plyler	JRNB	47 (1951)	202
		2.3-16 μ	G	-	Struct	Plyler	PR	83 (1951)	244
		.8-2.7 μ	L,Sol	-	Spec	Kaye	JOSA	42 (1952)	567
		1.6-2.3 μ	G	-	Spec, Mol anal, Mol consts	Plyler	JRNB	49 (1952)	1
		2-15 μ	L	-	Spec, Solvent	Pristera	APS	6 (1952)	49
		8-14.5 μ	Sol	-	Table, Band freq	Urone	AC	24 (1952)	626
		-	-	-	Sum rule	Bernstein	JCP	21 (1953)	2188
		650-1300	Sol	-	Anal	Bernstein	AC	25 (1953)	139
		2-15 μ	L,G	-	IR, Assign	Hawkins	JCP	21 (1953)	360
		-	-	-	Freq	Mizushima	JCP	21 (1953)	215
		-	-	-	Freq, Product rule	Pitzer	JCP	21 (1953)	855

	-	.8-3.4 μ	L, Sol	Anal Spec, Vib, Assign	Kaye	AC	26 (1954)	428
	-	-	-	NCA	Kaye	SA	6 (1954)	257
	-	-	L	Anal	Long	PRS	223 (1954)	130
	-	-	-	Vib amp theory	Semeluk	JACS	76 (1954)	3793
	-	-	G	Energy transfer	Morino	JCP	23 (1955)	737
	-	-	G	NCA, Bond mom, I	Sette	JCP	23 (1955)	787
	-	742-3048	-	I	Straley	JCP	23 (1955)	2183
	-	-	-	Vib, Vap liq shift	True	PR	99 (1955)	1624
	-	1-8 μ	L	Summary	Benson	JCP	27 (1957)	1164
	-	800-3200	Sol	I	Jaffe	JOSA	47 (1957)	782
	-	-	-	Freq	Mallard	JCP	27 (1957)	877
	-	-	-	Solvent	Wilmschurst	CJC	35 (1957)	937
	-	-	Sol	I	Matheson	AC	30 (1958)	63
	-	13.5 μ	Sol	Absorption	Josien	CPR	249 (1959)	256
	-	-	-	Microwave	Spell	AC	31 (1959)	621
Dichloromethane ($^{35}\text{Cl}_2$)	-	-	-	Microwave	Myers	JCP	20 (1952)	1420
Dichloromethane ($^{35}\text{Cl}^{37}\text{Cl}$)	-	-	-	Microwave	Myers	JCP	20 (1952)	1420
Dichloromethane ($^{37}\text{Cl}_2$)	-	-	-	Microwave	Myers	JCP	20 (1952)	1420
Difluoromethane	-	-	-	Thermo	Glockler	JCP	9 (1941)	527
	-	-	-	Freq, Assign	Wu	JCP	10 (1942)	116
	-	-	-	Quant mech	Shaffer	JCP	12 (1944)	494
	-	-	-	FC	Linnett	TFS	41 (1945)	223
	-	-	-	Bond dist	Bernstein	JCP	16 (1948)	30
	-	2.5-20 μ	G	Mol anal	Stewart	PR	75 (1949)	640
	-	-	-	FC	Pace	JCP	18 (1950)	881
	-	-	L	Assign	Rank	JCP	18 (1950)	885
	-	2-30 μ	G	Assign, Spec	Plyler	JRNB	47 (1951)	202
	-	-	-	Sum rule	Bernstein	JCP	21 (1953)	2188
	-	-	-	Bond dist	Huggins	JACS	75 (1953)	4126
	-	-	-	Freq, Product rule	Pitzer	JCP	21 (1953)	855
	-	-	-	Vib excit	Amme	JCP	23 (1955)	1960
	-	-	-	FC	Meister	PR	100 (1955)	1267
	-	-	-	FC	Palm	JCP	23 (1955)	726
	-	-	-	Collision excit	Rossing	JCP	23 (1955)	1118
	-	-	-	Freq	Sheppard	JCP	23 (1955)	582
	-	-	-	Trans moment	McKean	JCP	24 (1956)	1002
	-	-	-	Freq	Wilmschurst	CJC	35 (1957)	937
	-	9400 Mc/sec	G	Absorption	Poggs	JPC	63 (1959)	1127
	-	4230-4550	G	IR, Mol consts	Porto	JMS	3 (1959)	248
Trifluoromethylphosphonic acid	-	-	-	Group freq	Emeleus	JCS	-(1955)	563

$\text{CH}_2\text{F}_3\text{O}_3\text{As}$	Trifluoromethylarsonic acid	-	-	gr freq	Emeleus	JCS	-(1954)	881
$\text{CH}_2\text{F}_3\text{P}$	Trifluoromethylphosphine	-	-	Ident, Freq	Bennett	JCS	-(1954)	3896
$\text{CH}_2\text{F}_3\text{As}$	Trifluoromethylarsine	-	-	gr freq	Bennett	JCS	-(1953)	1551
CH_2I_2	Diiodomethane	.8-2.0 μ 0-2.5 μ .589-2.4 μ 1-8.5 μ - - 2-38 μ 715	L L L L - - L L	Magnetic rotation Spec Spec, Assign Refr ind, Dispersion Freq, Assign FC Spec, Assign I	Ingersoll Ellis Ellis Mahan Wu Linnett Plyler Willis	JOSA PR PR JOSA JCP TFS JRN B AJSR	6 (1922) 23 (1924) 28 (1926) 31 (1941) 10 (1942) 41 (1945) 47 (1951) A4 (1951)	663 48 25 248 116 223 202 172
		600-2200 1-8 μ - 9 μ	L L - L	Ident Spec, Assign, Thermo Summary Freq Absorption	Baker Voelz Jaffe Wilmschurst Kagarise	AC JOSA JOSA CJC JCP	25 (1953) 43 (1953) 47 (1957) 35 (1957) 31 (1959)	1457 1061 782 937 1258
CH_2N_2	Cyanamide	1400-1800	-	Spec	Barnes	IEC	15 (1943)	659
CH_2N_2	Diazomethane	- 400-4500 700-3500 2-30 μ 2-15 μ 19000-90000 Mc/sec 1000-3200	G G G G G G	Absorp band Spec, Assign Spec, Assign, Mol anal Spec, Assign, Mol anal Spec Microwave, Mol consts	Ramsay Grawford Mills Fletcher Pierson Cox	JCP JCP TFS JCP AC N	17 (1949) 19 (1951) 50 (1954) 25 (1956) 28 (1956) 181 (1958)	666 406 1270 50 1218 1000
CH_2N_4	Tetrazole	2-15 μ	S	Spec, Freq	Milligan	JCP	29 (1958)	1405
$\text{CH}_2\text{N}_4\text{S}$	5-Amino-1,2,3,4-Thiatrizole	700-1700	S	Spec, Struct, Assign	Lieber	AC	23 (1951)	1594
$\text{CH}_2\text{N}_6\text{O}_2$	5-Nitroaminotetrazole	2-15 μ	S	Spec, Freq	Lieber	AC	23 (1951)	1594
$\text{CH}_2\text{N}_6\text{O}_2$	Nitroguanilazide	2-15 μ	S	Spec, Freq	Lieber	AC	23 (1951)	1594
CH_2O	Formaldehyde	Vis-3.6 μ 0-7 μ	G G	Absorption Spec, Freq	Salant Patty	PR PR	33 (1929) 39 (1932)	640 957

-	-	-	Mol consts	Villars	CR	11 (1932)	369
-	-	-	Freq	Mecke	TFS	30 (1934)	200
1-11 μ	G	-	Spec, Absorption	Nielsen	PR	45 (1934)	117
-	-	-	IR	Nordsiek	PR	45 (1934)	133
-	-	-	Quant mech	Wilson	JCP	2 (1934)	432
-	-	-	Struct	Mulliken	JCP	3 (1935)	564
-	-	-	FC	Sutherland	PRS	148 (1935)	250
1-11 μ	G	-	Spec	Ebers	JCP	5 (1937)	84
3-10 μ	G	-	Spec, Quant mech	Ebers	JCP	5 (1937)	822
-	G	-	FC	Thompson	JCS	- (1937)	1384
-	G	-	FC, Bond dist	Thompson	JCS	- (1937)	1396
-	-	-	Quant mech	Badger	JCP	6 (1938)	711
2-13 μ	G	-	Struct, Anal	Ebers	JCP	6 (1938)	311
-	-	-	Thermo	Stevenson	JCP	6 (1938)	25
-	-	-	Coriolis coupling theory	Jahn	PR	56 (1939)	680
-	G	-	Thermo, Chem rev	Pitzer	CR	27 (1940)	39
-	-	-	Freq, Thermo	Pitzer	JCP	8 (1940)	711
-	-	-	Freq, Thermo	Thompson	TFS	37 (1941)	251
1200-1800	-	-	Freq, Spec	Barnes	IEC	15 (1943)	659
3.3 μ	G	-	Vib	Nielsen	JOSA	34 (1944)	521
-	-	-	FC	Linnett	TFS	41 (1945)	223
-	-	-	FC, Band dist	Gordy	JCP	14 (1946)	305
-	-	-	Mol anal	Halverson	RMP	19 (1947)	87
10-20 μ	G	-	Absorption	Singer	PR	71 (1947)	531
-	-	-	FC	Walsh	TFS	43 (1947)	60
-	-	-	FC	Walsh	TFS	43 (1947)	158
-	G	-	Freq	Hartwell	JCS	- (1948)	1436
-	-	-	Mol anal, Force field	Linnett	TFS	45 (1949)	832
-	G	-	Anal	Badin	JACS	72 (1950)	832
5-20 μ	L, G	-	Freq, Coriolis perturbation	Brand	TFS	46 (1950)	805
-	-	-	Microwave	Lawrance	PR	83 (1951)	363
-	-	-	FC	Torking	PRS	206 (1951)	17
-	-	-	HDCo study	Davidson	JCP	22 (1954)	289
-	-	-	Freq, Bond dist	Margoshes	JCP	22 (1954)	381
-	-	-	I	Eggers	JCP	23 (1955)	221
2-11.5 μ	G	-	Spec	Donovan	JCP	23 (1955)	1592
-	G	-	NCA, I, Bond mom	Hisatsune	JCP	23 (1955)	487
-	-	-	Effect of substituents	Kagarise	JACS	77 (1955)	1377
-	-	-	Vib amp theory	Morino	JCP	23 (1955)	737
-	-	-	Spec, Effect of substituents	Pinchas	AC	27 (1955)	2
-	G	-	Spec, React study	Neu	JPC	60 (1956)	320
2-15 μ	G	-	Spec	Pierson	AC	28 (1956)	1218

[illegible]

CH_3DO	Methanol-d ₁	-	1100-3000	Freq, I	Hiller	JMS	5 (1960)	24
		G	2900-3100	Spec, Freq, I, Assign	Jones	JMS	4 (1960)	84
		-	-	Freq, Assign	Halford	JCP	5 (1937)	927
		G	2.5-24 μ	Spec, Assoc	Barker	JCP	6 (1938)	563
		-	-	Thermo	Halford	JCP	6 (1938)	571
		L, Sol	-	Solvent	Gordy	JCP	7 (1939)	93
		L, Sol	-	Solvent	Gordy	JCP	8 (1940)	170
		L	-	Solvent	Gordy	JCP	9 (1941)	204
		-	-	Freq	Noether	JCP	10 (1942)	693
		L	-	D exchange	Williams	JACS	64 (1942)	2684
$\text{C}^{12}\text{H}_3\text{DO}^{16}$	Methanol-d ₁ -(isotopic)	-	-	Ratio rule	Noether	JCP	11 (1943)	97
		-	-	Freq, FC	DeHamptinne	TFS	42 (1946)	5
		G, L	3-15 μ	Freq, Assign	Courtoy	ASS	61 (1947)	139
		-	-	Mol anal	Halverson	RMP	19 (1947)	87
		-	-	Association	Davies	JCP	16 (1948)	267
		-	350-800	H bond	Stuart	JCP	20 (1952)	1977
		Sol	-	H bond	Tamres	JACS	74 (1952)	3375
		G, L	-	Deform band	Quinan	JCP	21 (1953)	1896
		Sol	5.2-6.0 μ	H bond	Searles	JACS	75 (1953)	71
		Sol	-	Freq shift	Josien	JCP	22 (1954)	1169
$\text{C}^{13}\text{H}_3\text{DO}^{16}$	Methanol-d ₁ -(isotopic)	G, Sol	-	Exchange	Kwart	JACS	76 (1954)	5998
		Sol	-	Solvent	Tamres	JACS	76 (1954)	3983
		-	-	Freq, Assign, Thermo	Ivash	JCP	23 (1955)	1814
		L, Sol	350-4000	Freq	Stuart	JCP	24 (1956)	559
		G	1000-1500	NCA, Assign	Tanaka	SA	9 (1957)	265
		G	2400-2800	Association	Inskeep	JMS	5 (1960)	284
		-	-	Microwave	Swalen	JCP	23 (1955)	1739
		G	-	Microwave	Venkateswarlu	JCP	23 (1955)	1195
		-	-	Microwave	Venkateswarlu	JCP	23 (1955)	1200
		-	-	Microwave	Swalen	JCP	23 (1955)	1739
CH_3DO	Methanol-d ₁ -(isotopic)	-	-	Microwave	Venkateswarlu	JCP	23 (1955)	1195
		-	-	Microwave	Venkateswarlu	JCP	23 (1955)	1200
		G	-	Microwave	Swalen	JCP	23 (1955)	1739
		-	-	Microwave	Venkateswarlu	JCP	23 (1955)	1195
		-	-	Microwave	Venkateswarlu	JCP	23 (1955)	1200
		G, L, Sol	-	NCA	Tanaka	SA	9 (1957)	265
		-	-	Vib assign, Mol struct	Gray	JCP	26 (1957)	690
		S	400-3500	Spec, Assign, FC	Waldron	JCP	21 (1953)	734
		-	-	FC	Linnett	TFS	41 (1945)	223
		-	-	FC	Linnett	TFS	41 (1945)	223

CH ₃ D ₅ B ₂	Methyl di borane-d ₅	2-15 μ	G	Spec, Assign, Freq	Lehmann	JCP	32 (1960)	1088
CH ₃ Br	Bromomethane	3-14 μ	G	Spec, Freq	Bennett	PR	32 (1928)	888
		16 μ	G	Spec	Sleator	PR	38 (1931)	147
		1.5-3 μ	G	Spec, Freq	Moorhead	PR	39 (1932)	788
		-	G	Spectrometer calibration	Weber	PR	40 (1932)	835
		.7-2.7 μ	L	Spectrometer calibration	Ellis	RSI	4 (1933)	123
		-	-	I	Gerhard	PR	43 (1933)	197
		-	G	Assign	Adel	JCP	2 (1934)	627
		-	-	Quant mech	Wilson	JCP	2 (1934)	432
		640-580	G	D ₅ band	Barker	JCP	3 (1935)	367
		-	-	Mol const	Johnston	PR	48 (1935)	868
		-	-	Bond angle, Energy	Penney	TFS	31 (1935)	734
		-	-	FC	Sutherland	PRS	148 (1935)	250
		-	G	Mol anal	Price	JCP	4 (1936)	539
		-	-	Thermo	Stevenson	JCP	6 (1938)	25
		-	-	Bond dist	Sutherland	TFS	34 (1938)	325
		-	-	Quant mech	Slawsky	JCP	7 (1939)	522
		-	-	Quant mech	Slawsky	JCP	7 (1939)	509
		-	-	Spec	Thompson	JCP	7 (1939)	441
		-	-	Review, Freq	Dennison	RMP	12 (1940)	175
		-	-	FC	Linnett	JCP	8 (1940)	91
		-	-	Quant mech	Mulliken	JCP	8 (1940)	382
		-	-	Thermo, Review	Pitzer	CR	27 (1940)	39
		-	-	FC, Vib freq, Thermo	Pitzer	JCP	8 (1940)	711
		-	-	FC	Crawford	JCP	9 (1941)	69
		-	-	Thermo	Glockler	JCP	9 (1941)	527
		2.8-18 μ	G	Spec, Assign	Noether	JCP	10 (1942)	664
		-	-	Freq	Noether	JCP	10 (1942)	693
		-	-	Freq, Assign	Wu	JCP	10 (1942)	116
		-	-	FC, Bond dist	Noether	JCP	11 (1943)	97
		-	-	FC	Warhurst	TFS	40 (1944)	26
		-	-	Ratio rule	Edgell	JCP	13 (1945)	306
		-	-	FC	Linnett	TFS	41 (1945)	223
		-	-	Mom of inertia, Bond angle	Bak	JCP	14 (1946)	698
		-	-	FC, Bond dist	Gordy	JCP	14 (1946)	305
		-	-	Freq, FC	DeHemptinne	TFS	42 (1946)	5
		-	-	FC	Pitzer	JCP	14 (1946)	586
		-	-	Microwave	Feld	PR	72 (1947)	1116
		-	-	Mol anal	Halverson	RMP	19 (1947)	87
		-	-	Quant mech	Decius	JCP	16 (1948)	214
		-	-	Spec	Doiley	AC	21 (1949)	540
		-	G	I, FC	Barrow	PRS	213 (1952)	27
		-	-	NCA	Edgell	JPC	56 (1952)	326

	-	G	Spec	Herzberg	K	169	(1952)	997
	-	-	Sum rule	Bernstein	JCP	21	(1953)	2188
	-	-	Mol consts	Boyd	TFS	49	(1953)	1281
	-	-	Freq, Product rule	Pitzer	JCP	21	(1953)	855
5800-6200	-	G	Spec, Assign	Rank	JOSA	43	(1953)	157
	-	-	Microwave	Kraitchman	JCP	22	(1954)	1477
	-	-	NCA	Long	PRS	223	(1954)	130
	-	-	Vib excit	Amme	JCP	23	(1955)	1960
	-	-	Collision excit	Rossing	JCP	23	(1955)	1118
	-	-	Freq	Sheppard	TFS	51	(1955)	1465
600-4000	-	G	Spec, Assign, Mol anal	Weissman	JCP	23	(1955)	544
500-3000	-	-	Di sc	Bellamy	JCS	-	(1956)	2753
	-	-	Mol interact	Meal	JCP	24	(1956)	1126
	-	-	FC	Baughan	TFS	53	(1957)	1046
1200-24000	-	G	Spec	Birnbaum	JCP	27	(1957)	360
	Mc/sec							
700-1500	-	G	Freq, Assign	Dickson	JCP	27	(1957)	445
100-600	-	G	Spec, Mol consts	Palik	JCP	26	(1957)	1401
550-1450	-	S	Freq shift, NCA, I	Dows	JCP	29	(1958)	484
	-	-	Press & temp effect	Krishnaji	PR	109	(1958)	1560
	-	-	Assign	Josien	GPR	246	(1958)	1992
9400 Mc/sec	-	G	Absorption	Boggs	JPC	63	(1959)	1127
2900	-	G, Sol	Assign, Resonance	Deschamps	BSCF	-	(1959)	88
	-	-	I	Sverdlov	OS	6	(1959)	729
	-	-	Microwave	Gordy	PR	72	(1947)	344
	-	-	Microwave	Mays	JCP	20	(1952)	1695
	-	-	Microwave	Thomas	JCP	22	(1954)	1718
	-	-	Mol consts	Dowling	JMS	1	(1957)	265
	-	G	Microwave	Gordy	PR	74	(1948)	243
	-	-	Microwave	Gordy	PR	72	(1947)	344
	-	G	Microwave	Thomas	JCP	22	(1954)	1718
	-	G	Microwave	Gordy	PR	74	(1948)	243
600-4000	-	-	Spec, Assign	Schabacher	ZAUA	294	(1958)	183
	-	-	Assign	Shiwauchi	JCP	18	(1950)	1306
	-	-	Assign, NCA	Tobin	JACS	75	(1953)	1788
3-14 μ	-	G	Spec, Freq	Bennett	PR	32	(1928)	888
9.8 μ	-	G	Spec	Barker	TFS	25	(1929)	912

-	-	Freq, Assign	West	TFS	27	(1931)	145
1.5-3 μ	G	Spec, Freq	Moorhead	PR	39	(1932)	788
-	-	I	Gerhard	PR	43	(1933)	197
-	-	Assign	Adel	JCP	2	(1934)	627
1.5-7 μ	G	Spec, Assign	Nielsen	PR	46	(1934)	970
-	-	Quant mech	Wilson	JCP	2	(1934)	432
760-700	G	ν_5 band	Barker	JCP	3	(1935)	364
-	-	Mol const	Johnston	PR	48	(1935)	868
-	-	Bond angle, Energy	Penney	TFS	31	(1935)	734
-	-	FC	Sutherland	PRS	148	(1935)	250
-	G	Mol anal	Price	JCP	4	(1936)	539
-	-	Freq, Assign	Voge	JCP	4	(1936)	137
-	-	Thermo	Stevenson	JCP	6	(1938)	25
-	-	Bond dist	Sutherland	TFS	34	(1938)	325
27 μ	G	Resolution	Nielsen	PR	56	(1939)	274
-	-	Quant mech	Slawsky	JCP	7	(1939)	522
-	-	Quant mech	Slawsky	JCP	7	(1939)	509
-	-	Bond dist	Sutherland	JCP	7	(1939)	1066
-	-	Spec	Thompson	JCP	7	(1939)	441
-	-	Freq, Review	Dennison	RMP	12	(1940)	175
-	-	FC	Linnett	JCP	8	(1940)	91
-	-	Quant mech	Mulliken	JCP	8	(1940)	382
-	-	Thermo, Review	Pitzer	CR	27	(1940)	711
-	-	Freq, Thermo	Crawford	JCP	8	(1940)	39
-	-	FC	Glockler	JCP	9	(1941)	69
-	-	Thermo	Wilson	JCP	9	(1941)	527
-	-	Quant mech	Noether	JCP	9	(1941)	76
2.8-18 μ	G	Spec, Assign	Noether	JCP	10	(1942)	664
-	-	Freq	Noether	JCP	10	(1942)	693
-	-	Freq, Assign	Wu	JCP	10	(1942)	116
-	-	Ratio rule	Noether	JCP	11	(1943)	97
-	-	Spec, FC	Nielsen	RMP	16	(1944)	241
-	G	FC	Warhurst	TFS	40	(1944)	26
-	-	Ratio rule	Edgell	JCP	13	(1945)	306
-	-	FC	Linnett	TFS	41	(1945)	223
-	-	Inertia	Bak	JCP	14	(1946)	698
-	-	FC, Bond dist	Gordy	JCP	14	(1946)	305
-	-	Freq, FC	DeHemptinne	TFS	42	(1946)	5
-	-	FC	Pitzer	JCP	14	(1946)	586
-	-	Microwave	Feld	PR	72	(1947)	1116
-	-	Mol anal	Halverson	RMP	19	(1947)	87
-	-	Valency	Walsh	DPS	2	(1947)	18
-	-	Freq	Chulanovskil	IANS	12	(1948)	628
-	-	Quant mech	Decius	JCP	16	(1948)	214
-	-	Ext coeff	Clal borne	AC	21	(1949)	1165

-	-	-	Micro spec	Dailey	AC	21	(1949)	540
-	-	-	Freq, Quant mech	Simanouti	JCP	17	(1949)	245
-	-	-	Mol anal, Quant mech	Simanouti	JCP	17	(1949)	734
-	-	-	Freq	Sheppard	TFS	46	(1950)	429
-	-	-	FC, I	Barrow	PRS	213	(1952)	27
15-25 μ	-	-	Solvent	Marrison	JSI	29	(1952)	233
-	-	-	Microwave	Simmons	JCP	20	(1952)	122
-	-	-	Sum rule	Bernstein	JCP	21	(1953)	2188
-	-	-	Mol consts	Boyd	TFS	49	(1953)	1281
-	-	-	Centrifugal distortion	Chang	JCP	21	(1953)	1293
-	-	-	Freq, Product rule	Pitzer	JCP	21	(1953)	855
-	-	-	Microwave	Kraitchman	JCP	22	(1954)	1477
-	-	-	I, NCA	Long	PRS	223	(1954)	130
-	-	-	Freq	Lord	JCP	22	(1954)	542
3.5-7.4 μ	-	-	Spec, Mol consts	Pickworth	TFS	50	(1954)	218
-	-	-	I	Starley	PR	95	(1954)	300(A)
-	-	-	Vib excit	Anne	JCP	23	(1955)	1960
-	-	-	Mol const	Bratoz	JCP	23	(1955)	159
-	-	-	Vib amp theory	Morino	JCP	23	(1955)	737
-	-	-	Collision excit	Rossing	JCP	23	(1955)	1118
-	-	-	Energy transfer	Sette	JCP	23	(1955)	787
-	-	-	Freq	Sheppard	TFS	51	(1955)	1465
-	-	-	Freq	Wilmschurst	JCP	23	(1955)	2463
500-3000	-	-	Review	Bellamy	JCS	-	(1956)	2753
2-15 μ	-	-	Spec	Lacher	JPC	60	(1956)	492
-	-	-	Mol interact	Meal	JCP	24	(1956)	1126
2-15 μ	-	-	Spec	Pierson	AC	28	(1956)	1218
-	-	-	Vib, Vap - Liq shift	Benson	JCP	27	(1957)	1164
1200-24000	-	-	Spec, Resonance	Birnbaum	JCP	27	(1957)	360
Mc/sec	-	-						
1000-3200	-	-	Freq, Assign, Bond mom	Dickson	JCP	27	(1957)	445
100-600	-	-	Spec, Mol consts	Palik	JCP	26	(1957)	1401
5980-6040	-	-	Mol anal, Mol consts	Brown	JCP	28	(1958)	384
2800-3800	-	-	Spec	Cromwell	JACS	80	(1958)	4573
600-1450	-	-	Shift freq, Assign, I	Dows	JCP	29	(1958)	484
-	-	-	Press & temp effect	Krishnaji	PR	109	(1958)	1560
3000	-	-	Assign	Joslen	CPR	246	(1958)	1992
9400 Mc/sec	-	-	Absorption	Boggs	JPC	63	(1959)	1127
2900	-	-	Assign, Resonance	Deschamps	BSCF	-	(1959)	88
-	-	-	I	Sverdlov	OS	6	(1959)	729
402 Mc/sec	-	-	Temp effect	Boggs	JCP	33	(1960)	1852
-	-	-	Microwave	Gordy	PR	72	(1947)	344

$\text{CH}_3\text{Cl}^{35}\text{Si}^{28}$	-	-	Spec, Assign	Shimanouchi	JCP	18 (1950)	1306
	-	G, Sol	Freq, Assign	Burnelle	JCP	20 (1952)	1324
	22-25 μ	G	Spec, Assign	Smith	JCP	21 (1953)	1997
	-	-	Assign	Tobin	JACS	75 (1953)	1788
	500-3000	-	Freq	Bellamy	JCS	- (1956)	2753
	400-5000	Sol	Ident	Smith	AC	31 (1959)	1174
	2-16 μ	Sol	Spec, Freq	Smith	SA	16 (1960)	87
$\text{Methyltrichlorosilane}$ (isotopic)	-	-	Microwave	Mockler	JCP	21 (1953)	1710
$\text{C}^{12}\text{H}_3\text{Cl}^{37}\text{Si}^{28}$ (isotopic)	-	-	Microwave	Mockler	JCP	21 (1953)	1710
CH_3F	3-14 μ	G	Spec, Freq	Bennett	PR	32 (1928)	888
	-	-	Spec	Barker	TFS	25 (1929)	912
	10.2-11.2 μ	G	Spec	Bennett	JACS	51 (1929)	377
	-	-	I	Gerhard	PR	43 (1933)	197
	-	G	Assign	Adel	JCP	2 (1934)	627
	-	-	Mol consts	Johnston	PR	48 (1935)	868
	-	-	Bond angle, energy	Penney	TFS	31 (1935)	734
	-	-	Force consts	Sutherland	PRS	148 (1935)	250
	-	-	Quant mech	Wilson	JCP	3 (1935)	818
	-	-	Interatomic dist	Sutherland	TFS	34 (1938)	325
	-	-	Quant mech	Slawsky	JCP	7 (1939)	509
	-	-	Quant mech	Slawsky	JCP	7 (1939)	522
	-	-	Spec	Thompson	JCP	7 (1939)	441
	-	-	Freq	Dennison	RMP	12 (1940)	175
	-	-	Force consts	Linnett	JCP	8 (1940)	91
	-	-	Freq, Thermo	Pitzer	JCP	8 (1940)	711
	-	-	Force consts	Cranford	JCP	9 (1941)	69
	-	-	Thermo	Edgell	JCP	9 (1941)	484
	-	-	Thermo	Glockler	JCP	9 (1941)	224
	-	-	Vib anal	Glockler	JCP	9 (1941)	527
	-	-	Freq	Noether	JCP	10 (1942)	693
	-	-	Freq, Assign	Wu	JCP	10 (1942)	116
	-	-	Ratio rule	Noether	JCP	11 (1943)	97
	9.5 μ	-	Study of ν_5	Yates	PR	63 (1943)	461
	-	-	Force consts	Linnett	TFS	41 (1945)	223
	-	-	Force consts, Bond dist	Gordy	JCP	14 (1946)	305
	-	-	Force consts	Pitzer	JCP	14 (1946)	586
	3-10 μ	G	Spec	Yates	PR	71 (1947)	349
	-	-	Bond dist	Bernstein	JCP	16 (1948)	30
	-	-	Mom of inertia	Skinner	JCP	16 (1948)	553
	-	-	Microwave	Gilliam	PR	75 (1949)	1014

$C^{12}H_3F_3Si^{28}$	Methyltrifluorosilane (isotopic)	-	G	Microwave	Minden	PR	98 (1955)	1160
		-	-	Rot barrier	Bak	JCP	24 (1956)	918
		-	G	Microwave	Thomas	ZE	61 (1957)	935
		-	-	Microwave	Sheridan	PR	77 (1950)	719
CH_3I	Iodomethane	.8-2.0 μ	L	Magnetic rotation	Ingersoll	JOSA	6 (1922)	663
		0-2.5 μ	L	Spec	Ellis	PR	23 (1924)	48
		.589-2.4 μ	L	Spec, Assign	Ellis	PR	28 (1926)	25
		3-14 μ	G	Spec, Freq	Bennett	PR	32 (1928)	888
		0-12 μ	G	Instrument test	Randall	RST	2 (1931)	581
		18 μ	G	Spec	Sleator	PR	38 (1931)	147
		1.5-3 μ	G	Spec, Freq	Moorhead	PR	39 (1932)	788
		20.7-152 μ	G	Spec	Strong	PR	42 (1932)	267
		-	G	Calibration	Weber	PR	40 (1932)	835
		-	-	I	Gerhard	PR	43 (1933)	197
		-	G	Assign	Adel	JCP	2 (1934)	627
		520-550	G	D ₅ band	Barker	JCP	3 (1935)	367
		-	-	Mol consts	Johnston	PR	48 (1935)	868
		-	-	Bond angle, Energy	Penney	TFS	31 (1935)	734
		-	-	FC	Sutherland	PRS	148 (1935)	250
		-	G	Mol anal	Price	JCP	4 (1936)	539
		-	-	Mol dist	Sutherland	TFS	34 (1938)	325
		-	-	Quant mech	Slawsky	JCP	7 (1939)	509
		-	-	Quant mech	Slawsky	JCP	7 (1939)	522
		-	-	Spec	Thompson	JCP	7 (1939)	441
		-	-	Review, Freq	Dennison	RMP	12 (1940)	175
		-	-	FC	Linnett	JCP	8 (1940)	91
		-	-	Quant mech	Mulliken	JCP	8 (1940)	382
		-	-	Thermo, Review	Pitzer	CR	27 (1940)	39
		-	-	FC	Crawford	JCP	9 (1941)	69
		-	-	Thermo	Edgell	JCP	9 (1941)	484
		-	-	Energy, Bond freq	Fuagssi	JCP	46 (1942)	630
		3-11 μ	G	Spec	Hagemann	JCP	10 (1942)	668
		-	-	Freq	Noether	JCP	10 (1942)	693
		-	-	Freq, Assign	Wu	JCP	10 (1942)	116
		-	-	Ratio rule	Noether	JCP	11 (1943)	97
		-	-	FC	Warhurst	TFS	40 (1944)	26
-	-	FC	Linnett	TFS	41 (1945)	223		
-	-	Freq, FC	DeHemptinne	TFS	42 (1946)	5		
-	-	FC	Pitzer	JCP	14 (1946)	586		
-	-	Microwave	Gordy	PR	71 (1947)	917		
-	-	Microwave	Gordy	PR	72 (1947)	249		

	L	IR	Chalanvoskii	IAN S	12	(1948)	628
-	-	Microwave	Gilliam	PR	73	(1948)	635
-	-	IR, Thermo, Assign	Fenlon	JCP	19	(1951)	1561
-	-	FC, I	Barrow	PRS	213	(1952)	27
2-15 μ	-	Spec	Mador	JCP	20	(1952)	1837
-	G	Microwave	Simmons	JCP	20	(1952)	122
-	-	Sum rule	Bernstein	JCP	21	(1953)	2188
-	-	Mol consts	Boyd	TFS	49	(1953)	1281
-	G	Spec, Mol anal	Wiggins	JCP	21	(1953)	1368
-	-	Spec	Wiggins	JOSA	43	(1953)	330
-	L, G	IR	Bernstein	JCP	22	(1954)	193
2-26 μ	Sol	Freq shift	Schuler	JCP	22	(1954)	947
-	-	Freq	Sheppard	TFS	51	(1955)	1465
500-3000	-	Review	Bellamy	JCS	-	(1956)	2753
-	-	Mol interact	Meal	JCP	24	(1956)	1126
-	-	FC, Dissociation energy	Baughan	TFS	53	(1957)	1046
-	-	Vib, shift	Benson	JCP	27	(1957)	1164
1200-24000	G	Spec	Birnbaum	JCP	27	(1957)	360
Mc/sec	G	I, Vib assign	Dickson	JCP	27	(1957)	445
300-500	G	Spec, Consts	Palik	JCP	26	(1957)	1401
100-600	S	Freq, Band splitting, IR	Dows	JCP	29	(1958)	484
510-1450	-	Assign	Josien	CPR	246	(1958)	1992
3000	G, Sol	Assign	Deschamps	BSCF	-	(1959)	88
2900	G	I	Smirnov	OS	7	(1959)	193
-	-	I	Sverdlov	OS	6	(1959)	729
-	-	Dipole moment, Spec	Fletcher	PR	110	(1958)	536
-	G	Microwave	Gordy	PR	74	(1948)	243
-	G	Microwave	Thomas	JCP	22	(1954)	1718
-	-	Dipole moment, Spec	Fletcher	PR	110	(1958)	536
-	L, G	IR, Spec, Mol consts Assign	Bernstein	JCP	22	(1954)	193
-	G	Microwave	Gordy	PR	74	(1948)	243
-	-	Freq	Mecke	TFS	30	(1934)	200
-	-	Spec	Zamwalt	JCP	7	(1939)	235
-	L	Spec	Thompson	JCP	7	(1939)	441

	-	-	Force const	Linnett	TFS	41 (1945)	223
	-	-	Config	Tsabo	BCSJ	22 (1949)	255
	3300	L	Freq, Bonding	Davies	JCP	20 (1952)	342
	15-25 μ	L	Opaque	Marrison	JCI	29 (1952)	233
	650-3800	G, L, Sol	Spec, Assign, Thermo	Evans	JCP	22 (1954)	1228
	-	-	Microwave	Kurland	JCP	23 (1955)	2202
	-	-	Freq, Force const	Miyazawa	JCP	24 (1956)	408
	-	S	H bonding	Pimentel	JCP	24 (1956)	639
	-	G	Microwave, Spec, Struct,	Kurland	JCP	27 (1957)	585
	-	-	Mol consts				
	-	Sol	Freq, I	Brown	JPC	63 (1959)	1324
	2700-3700	G	Spec, Band position	Evans	JCP	31 (1959)	1435
	1200-4500	L, Sol	Association, Bonding	Puranik	JMS	3 (1959)	486
	-	G	Microwave, Struct	Costain	JCP	32 (1960)	158
	300-3600	L	Assign, Spec	Suzuki	BCSJ	33 (1960)	1359
CH ₃ NO.HCl	650-3800	S	Spec	Evans	JCP	22 (1954)	1228
Formamide hydrochloride							
Fluoropicrin	3000-420	G	Assign	Mason	JCS	- (1956)	759
Formohydroxymic acid	700-4000	S, Sol	Spec, Struct, Bonding	Hadzi	SA	10 (1958)	38
	900-1700	S	Struct	Parsons	JMS	2 (1958)	566
	2-23 μ	S	Struct, Freq, Assign	Orville	JMS	2 (1958)	203
Methyl nitrite	-	G	Spec	Thompson	JCP	7 (1939)	441
	-	-	Energy, Band freq	Fugassi	JPC	46 (1942)	630
	2-23 μ	G	Spec	D'or	JCP	19 (1951)	1064
	2-25 μ	G	Spec	Tarte	JCP	20 (1952)	1510
	-	G	Assign, Struct	Haszeldine	JCS	- (1955)	4172
	-	-	Rot, Isom	Tarte	JCP	23 (1955)	979
	-	G, Sol	Correlation between σ^* and ν values	O'Sullivan	JCS	- (1957)	4144
	1000-3800	-	IR	Brown	JCP	29 (1958)	883
Nitromethane							
	2-6 μ	L	Spec	Daniels	JACS	47 (1925)	2856
	1-8 μ	L	Spec, Wave length, Assign	Plyler	PR	35 (1930)	605
	-	-	Theo vib anal	Crawford	JCP	9 (1941)	323
	3-25 μ	G	Spec, Assign	Wells	JCP	9 (1941)	314
	2-15 μ	-	Spec	Nielsen	IEC	15 (1943)	609
	-	-	Ratio rule	Noether	JCP	11 (1943)	97
	-	-	Assign	Wilson	JCP	11 (1943)	361
	-	-	Force const	Linnett	TFS	41 (1945)	223
	3-20 μ	L	Spec	Torkington	TFS	41 (1945)	184

-	-	Quant mech	Penney	TFS	31	(1935)	154
-	-	Force const	Sutherland	PRS	148	(1935)	250
-	-	Quant mech	Wilson	JCP	3	(1935)	276
-	-	Quant mech	Wilson	JCP	3	(1935)	818
-	-	Thermo	Beek	JCP	4	(1936)	680
1-1.2 μ	G	Freq	Childs	PRS	153	(1936)	555
-	G	Press broadening	Herzberg	PR	50	(1936)	1186
-	-	Thermo	Kassel	JCP	4	(1936)	276
-	-	Thermo	Kassel	JCP	4	(1936)	435
-	-	Freq, Assign	MacWood	JCP	4	(1936)	402
-	-	Force const	Rosenthal	PR	49	(1936)	535
-	-	Freq	Stitt	JCP	4	(1936)	822
-	-	Freq, Assign	Voge	JCP	4	(1936)	137
-	-	Theo valence	Voge	JCP	4	(1936)	581
-	-	Thermo	Wilson	JCP	4	(1936)	526
900-3200	-	Freq, Assign	Benedeet	JCP	5	(1937)	1
-	-	Quant mech	Glockler	JCP	5	(1937)	813
1306-9047	G	IR	Watson	JPC	41	(1937)	61
-	G	Spec	Childs	PRS	169	(1938)	451
-	-	Quant mech	Jahn	PRS	168	(1938)	469
-	-	Pert theo	Jahn	PRS	171	(1939)	450
-	-	Freq	Dennison	RMP	12	(1940)	175
-	-	Quant mech	Murphy	JCP	8	(1940)	71
-	G	Thermo	Pitzer	CR	27	(1940)	39
1-15 μ	G	Index of ref	Rollefson	PR	57	(1940)	710
-	-	Vib anal	Glockler	JCP	9	(1941)	224
-	-	Freq thermo	Thompson	TFS	37	(1941)	344
-	-	Quant mech	Wilson	JCP	9	(1941)	76
-	-	Quant mech	Wu	JCP	9	(1941)	1952
0.6-1 μ	-	Band freq	Fugassi	JPC	46	(1942)	630
-	G	Spec	Gaydon	PRS	181	(1942)	197
-	-	Freq, Assign	Wu	JCP	10	(1942)	116
-	-	Freq	Barnes	IEC	15	(1943)	659
-	G	Spec	Bobrovnikoff	RMP	16	(1944)	271
-	G	Abs laws	Nielsen	RMP	16	(1944)	307
1-15 μ	G	Spec	Nielsen	JOSA	34	(1944)	521
-	-	Vib theor	Shaffer	RMP	16	(1944)	245
3.3 μ	G	Spec	Barnes	JAP	16	(1945)	77
-	-	Product rule	Edgell	JCP	13	(1945)	377
-	-	Ratio rule	Edgell	JCP	13	(1945)	539
-	-	Force const	Linnett	TFS	41	(1945)	223
-	G	Quant anal	Coggeshall	JAP	17	(1946)	450
-	-	Force const	Gordy	JCP	14	(1946)	305
-	-	Ext coeff	Lee	IEC	18	(1946)	659

0.8-2.5 μ	G	Plan atm	Adel	PR	72 (1947)	538
-	-	Press broad	Coggeshall	BAPS	22 (1947)	21
-	-	Dipole mom from I	Thorndike	JCP	15 (1947)	65
-	-	Force const	Walsh	JCP	15 (1947)	868
-	-	I	Wilson	TFS	43 (1947)	60
-	-	Quant mech	Decius	PR	71 (1947)	479
-	-	Freq	Heath	JCP	16 (1948)	214
-	-	Quant mech	Kilpatrick	TFS	44 (1948)	561
-	-	Temp in atm	McMath	JCP	16 (1948)	749
1.7 μ	G	Spec	McMath	PR	74 (1948)	1203
1-2.5 μ	G	Spec	McMath	PR	73 (1948)	623
7.2-8.2 μ	G	Spec	Migeotte	PR	73 (1948)	519
3.3-7.7 μ	G	in earth's atm	Migeotte	PR	74 (1948)	112
2-13 μ	G	in earth's atm	Migeotte	JOSA	38 (1948)	1094
1.5-1.7 μ	G	Assign, Spec	Nelson	JRNB	41 (1948)	615
-	-	Assign	Rasmussen	JCP	16 (1948)	712
2-14 μ	G	Atm absorb	Adel	PR	75 (1949)	322
1533-1306	G	ν_2, ν_4 bands	Burgess	PR	76 (1949)	3022
2-15 μ	L,S	Freq, Assign	Holden	JCP	17 (1949)	1949
-	-	Force fields	Linnett	TFS	45 (1949)	33
-	-	Freq	Linnett	TFS	45 (1949)	39
1-3.6 μ	G	Spec	McMath	PR	76 (1949)	1533
-	-	Freq by quant mech	Simanouti	JCP	17 (1949)	245
-	-	Quant mech	Simanouti	JCP	17 (1949)	734
-	-	Force const	Simanouti	JCP	17 (1949)	848
-	-	Force const	Simpson	PRS	199 (1949)	169
-	-	Quant mech	Sun	JCP	17 (1949)	8402
-	-	Force const	Heath	TFS	46 (1950)	137
6.5 μ	G	Coriolis perturbation	Jones	PR	79 (1950)	417
-	-	Force const	Bee	JCP	18 (1950)	881
2943	G	CH ₄ in solar spec	Benesh	PR	81 (1951)	145
3.3 μ	G	Foreign gas press. influence	Welsh	JCP	19 (1951)	340
3-4 μ	G	Spec	Boyd	PRS	213 (1952)	42
1.666 μ	G	Absolute values	Goldberg	JOSA	42 (1952)	1
3.3 μ	G	Spec	Goulden	JST	29 (1952)	215
-	-	Force const	Hansen	JCP	20 (1952)	313
-	-	Force const	Moller	JCP	20 (1952)	203
2-16 μ	G	Spec	Patterson	APS	6 (1952)	17
1.7-2.2 μ	G	Spec	Plyler	JRNB	48 (1952)	221
-	G	Struct, IR	Stoicheff	JCP	20 (1952)	498
-	G	Emission	Talley	JOSA	42 (1952)	982

2-16 μ	G	Spec	Thompson	JFC	20	(1952)	442
7.4 μ	G	Absorp coeff	Welsh	JCP	20	(1952)	1646
3.25 μ	G	Press broad	Benesch	PR	91	(1953)	308
-	-	Sum rule	Bernstein	JCP	21	(1953)	88
-	-	Mol consts	Boyd	TFS	49	(1953)	1281
3000	Sol	Molecular rotation	Breneman	PR	91	(1953)	465
1400-1720	G	Spec	Burgess	JOSA	43	(1953)	1058
-	G	Cal. data for prism	Downie	JOSA	43	(1953)	941
1.66 μ	G	Spec	Goldberg	JOSA	43	(1953)	1033
-	-	Bond dist	Huggins	JACS	75	(1953)	4126
-	-	Freq, Product rule	Pitzer	JCP	21	(1953)	855
5927-6115	G	Table	Rank	JOSA	43	(1953)	213
-	G	PQR	Rank	JOSA	43	(1953)	214
-	G	Fine struct	Rank	JOSA	43	(1953)	707
-	G	High resolution	Wiggins	JOSA	43	(1953)	330
-	G	I	Vincent	CPR	239	(1954)	251
-	S	Study of unstable species	Whittle	JCP	22	(1954)	1943
-	-	Vib relay time theory	Cottrell	TFS	51	(1955)	1453
2-11.5 μ	G	Spec	Donovan	JCP	23	(1955)	1592
3-5 μ	-	Random Errors	Lord	AC	27	(1955)	327
-	G	Energy transfer	Sette	JCP	23	(1955)	787
2-9 μ	G	IR analyzer sensitization	Baker	AC	28	(1956)	1391
-	-	Mean polarizability	Buckingham	TFS	52	(1956)	1035
2-15 μ	G	Spec	Lacher	JCP	60	(1956)	492
-	-	Mol interaction	Meal	JCP	24	(1956)	1126
-	G	Spec	Neu	JCP	60	(1956)	320
2-15 μ	G	Spec	Pierson	AC	28	(1956)	1218
-	-	Force const	Woodward	TFS	52	(1956)	1958
-	-	ν_3 , PQR band	Allen	JCP	26	(1957)	972
-	-	Force const	Baughan	TFS	53	(1957)	1046
-	-	Partition fn	Dainton	TFS	53	(1957)	1204
-	-	Force const	Pistorius	JCP	27	(1957)	965
3.3 μ	G	Spec	Plyler	JRNB	59	(1957)	317
900-3200	G	Spec, Freq	Wilmshurst	CJC	35	(1957)	226
-	-	Press effect	Cameo	JPR	19	(1958)	688
-	-	Pressure modulation	Gilfert	JOSA	48	(1958)	765
-	G	IR	Person	JCP	28	(1958)	319
-	Sol	Spec	Jacob	CPR	249	(1959)	523
-	-	Struct	Lascombe	BSCF	-	(1959)	1175
1600-3500	G	Grating spect	Plyler	JRNB	62	(1959)	7
-	-	Effect of nonabsorbing gases	Singleton	DA	19	(1959)	2372
2850-3150	G	I	Armstrong	SA	16	(1960)	840

$C^{13}H_4$	Methane (isotopic)	700-3500 2470-3200	L G	Spec, Freq Spec	Comeford Plyler	JMS JRN B	5 (1960) 64 (1960)	474 201
		-	G	Spec	Boyd	PRS	213 (1952)	42
CH_4Cl_2Si	Dichloromethylsilane	2050-2250	-	Struct	Smith	SA	15 (1959)	412
CH_4F_2Si	Di fluoromethylsilane	- 2050-2250	G -	Microwave spec Struct	Swalen Smith	JCP SA	28 (1958) 15 (1959)	671 412
CH_4F_3OB	Boron trifluoride methanol complex	2200-7600	-	Struct	Babushkin	OS	5 (1956)	256
CH_4N_2O	Urea	- 2.8-3.2 μ - 1200 -1750 - 1600 - - 2.5-7.5 μ 2.9 μ 1665 - 1680 - - 3 μ 559-3444 2-40 μ - - - - 400-2000 700-3800 2.5-15 μ 2-9 μ	- S - - - S - - S - S - S - - - - S - S - S - S - S - Sol	Band freq Spec Force const Spec Force const Force const Freq Vib anal Spec Aging and heat treatment Planarity Bond length Spec Freq IR reflection spec H bond FC, Bond study Spec Force const, H bond Assign NCA Spec Assign Assign, Struct Assign, Struct Spec, Freq	Ruswell Kellner Kellner Barnes Linnett Walsh Flett Keller Rappaport Shea Waldron Margoshes Robinson Krimm Robinson Pimentel Anno Badger Davies Stewart Yamaguchi Yamaguchi Yamaguchi Spinner Carrington Jencks	JPC PRS PRS IEC TFS TFS JCS JCP PR PR JCP JCP CEN JCP AC JCP BCSJ JCP TFS JCP NKZ NKZ SA SA SA ABB	44 (1940) 177 (1940) 177 (1940) 15 (1943) 41 (1945) 43 (1947) - (1948) 16 (1948) 74 (1948) 79 (1950) 18 (1950) 22 (1954) 32 (1954) 23 (1955) 27 (1955) 24 (1956) 30 (1957) 26 (1957) 53 (1957) 26 (1957) 78 (1957) 78 (1957) 110 (1958) 15 (1959) 16 (1960) 88 (1960)	1126 447 456 659 223 158 1441 1003 115 234 566 381 4763 1371 162 639 638 255 1563 248 1319 1467 170 95 1279 193
$CH_4N_2O.FCl$	Urea hydrochloride	700-3800	Sol	Assign, Struct	Spinner	SA	15 (1959)	95
$CH_4N_2O.HNO$	Urea nitrate	3 μ	S	Assign	Davies	TFS	53 (1957)	1563

$\text{CH}_4\text{N}_2\text{O}_2$	O-Carbonylhydroxylamine	2-9 μ	Sol	Spec, Freq.	Jencks	ABB	88 (1960)	193
$\text{CH}_4\text{N}_2\text{O}_2$	Hydroxyurea (U_{72} m.p.)	4000-450	Sol, L	Spec, Freq, Mol struct	Davies	SA	15 (1959)	487
$\text{CH}_4\text{N}_2\text{O}_2$	Hydroxyurea (U_{140} m.p.)	4000-450	L	Spec, Freq, Mol struct	Davies	SA	15 (1959)	487
$\text{CH}_4\text{N}_2\text{O}_2$	Hydroxyurea	600-3600	S	Struct, Iso.	Kofod	ACS	11 (1957)	1276
$\text{CH}_4\text{N}_2\text{S}$	Thiourea	-	-	Band freq	Ruswell	JPC	44 (1940)	1126
		-	S	Reaction ratio	Stewart	AC	27 (1955)	318
		3 μ	-	Spec	Badger	JCP	26 (1957)	255
		-	-	Spec, Struct	Epp	AC	29 (1957)	1283
		600-1900	-	Spec	Jones	JCS	- (1957)	614
		2-40 μ	S	Vib assign	Stewart	JCP	26 (1957)	248
		2-15 μ	S	Spec, Assign, NCA	Yamaguchi	JACS	80 (1958)	527
		700-3800	-	Assign, Struct	Spinner	SA	15 (1959)	95
$\text{CH}_4\text{N}_4\text{O}$	Nitrosoguanidine	2-15 μ 1-15 μ	S S	Spec, Freq Table, Assign, Spec	Lieber Kumler	AC JACS	23 (1951) 76 (1954)	1594 814
$\text{CH}_4\text{N}_4\text{O}_2$	Nitroguanidine	2-15 μ - 1-15 μ	S - S	Spec, Freq Struct Table, Assign, Spec	Lieber McKay Kumler	AC CR JACS	23 (1951) 51 (1952) 76 (1954)	1594 301 814
$\text{CH}_4\text{N}_4\text{O}_4$	Methylenedinitramine	698-3400	S	Table, I	Tobin	JACS	76 (1954)	3249
CH_4N_6	Tetrazolyldihydrazine	2-15 μ	S	Spec, Freq	Lieber	AC	23 (1951)	1594
CH_4O	Methanol	52 μ 0.8-2.0 μ - - 0.8-2.5 μ 1 μ - - 1-8 μ - - 3-5.4 μ 6900-7300 - -	L L L - L L - - L G - L Sol G G	Total abs Mag rot Ref index Freq, Abs coeff Spec Press effect Vib Vib theory, Heat cap Spec, Assign Assign Freq Spec Spec Spec, Assign Spec Spec Spec, Assign Spec	Hollangel Ingersoll Tear Bonino Sappenfield Collins Kettering Lewis Plyler Adel Mecke Plyler Wulf Badger Badger	PR JOSA PR TFS PR PR PR PR PR PR PR PR PR JCP TFS JCP JACS JCP JCP	11 (1918) 6 (1922) 21 (1923) 25 (1929) 33 (1929) 36 (1930) 36 (1930) 36 (1930) 35 (1930) 2 (1934) 30 (1934) 200 2 (1934) 2 (1934) 57 (1935) 4 (1936) 4 (1936)	505 663 611 876 37 305 531 568 605 627 200 565 1464 469 711

52-152 μ	L, Sol	Trans, Dispers	Cartwright	PRS	154	(1936)	138
-	-	H bond	Gordy	JCP	4	(1936)	749
2.5-8.5 μ	L	H bond	Gordy	PR	50	(1936)	1151
0.949 μ	G	Spec	Herzberg	PR	50	(1936)	390
-	-	Thermo	Kassel	JCP	4	(1936)	493
1-2.5 μ	G, L	Solvent effect	Kinsey	PR	49	(1936)	105
-	-	Spec	Badger	JCP	5	(1937)	369
-	L, Sol	Spec, H bond	Badger	JCP	5	(1937)	839
4-8 μ	-	Spec	Barr	PR	51	(1937)	685
-	-	FC, IR	Bonner	JCP	5	(1937)	293
2800-3800	L, Sol	Spec, H bond	Buwell	JCP	5	(1937)	501
-	-	Freq, Assign	Edsall	JCP	5	(1937)	225
-	-	Ext coeff	Errera	TFS	33	(1937)	120
2.55-3.15 μ	-	Solvent effect	Gordy	PR	51	(1937)	564
-	-	Freq, Assign	Halford	JCP	5	(1937)	927
0.9-4 μ	G, L, Sol	Spec, H bond	Kursey	JCP	5	(1937)	399
2.5-6 μ	L	Spec, H bond	Williams	JACS	59	(1937)	817
2.8-6.2 μ	L, Sol	Spec	Williams	JPC	41	(1937)	645
2.5-26 μ	G	Spec, Assign, Quant mech	Borden	JCP	6	(1938)	553
2.5-3.7 μ	L, Sol	Spec, H bond	Gordy	JACS	60	(1938)	605
-	-	Thermo	Halford	JCP	6	(1938)	571
7000	-	Abs band	Wulf	JCP	6	(1938)	702
-	-	H bond, Freq shift	Badger	JCP	8	(1940)	288
-	-	Thermo	Crawford	JCP	8	(1940)	744
-	-	Hindered rot. theo.	Koehler	PR	57	(1940)	1006
6-16 μ	L	Freq	McMillan	PR	57	(1940)	941
-	-	Freq	Noether	JCP	10	(1942)	693
2-5 μ	L	Spec	Williams	JACS	64	(1942)	2684
1050-1800	-	Freq, Spec	Barnes	IEC	15	(1943)	659
-	-	Ratio rule	Noether	JCP	11	(1943)	97
-	-	Int rot	Aston	JCP	12	(1944)	336
-	G	Spec	Barnes	JAP	16	(1945)	77
-	-	FC	Linnett	TFS	41	(1945)	223
3-20 μ	L	Spec	Torkington	TFS	41	(1945)	184
-	-	Pot barrier	French	JCP	14	(1946)	389
-	-	FC	Gordy	JCP	14	(1946)	305
3-15 μ	L, G	Assign	Courtney	ASS	61	(1947)	139
-	-	Quant mech, Thermo	Halford	JCP	15	(1947)	364
-	-	Thermo	Halford	JCP	15	(1947)	645
-	-	Use of deuterium	Halverson	RWP	19	(1947)	87
1.25 μ	-	Microwave	Hershberger	PR	71	(1947)	554
-	-	FC	Ramsay	PRS	190	(1947)	562

-	-	-	Anal of oxygenated compds.	Anderson	AC	20	(1948)	998
3-15 μ	Sol	-	Association	Davies	JCP	16	(1948)	267
-	-	-	FC	Richards	TFS	44	(1948)	40
-	-	-	Anal	Sofer	AC	20	(1948)	812
3 μ	Sol	-	OH bands	Baker	JCS	-	(1949)	24
-	-	-	Elec theory	Lassettre	JCP	17	(1949)	317
-	-	-	Thermo	Blade	JCP	18	(1950)	630
-	-	-	H bond	Coggeshall	JCP	18	(1950)	978
-	-	-	Hindered rot	Halford	JCP	18	(1950)	361
3-15 μ	G,S	-	Low temp	Walsh	JCP	18	(1950)	552
720-750	L	-	Freq	Wiberly	AC	22	(1950)	841
-	S,L	-	Assign	Browne	AC	23	(1951)	1045
-	-	-	Rot level theory	Burkhard	PR	84	(1951)	408
-	Sol	-	Spec, H bond	Jones	JACS	73	(1951)	3132
2800-3000	Sol	-	Spec	Poyefsky	AC	23	(1951)	1611
-	Sol	-	Thermo	Prigogine	TFS	47	(1951)	1137
2-15 μ	L,Sol	-	Spec	Smith	JRNB	46	(1951)	145
-	-	-	Thermo, H bond	Weitner	JACS	73	(1951)	2606
3 μ	Sol	-	Freq, H bond	Kuhn	JACS	74	(1952)	2492
7000-7300	-	-	Spec	Lauer	APS	6	(1952)	29
15-25 μ	L	-	Wavelength calibration,	Marrison	JSI	29	(1952)	233
			Solvent					
2-15 μ	G,L	-	Spec, Assign	Plyler	JRNB	48	(1952)	281
980-1090	G,L	-	Spec	Ramsay	JACS	74	(1952)	72
350-800	Sol	-	H bond	Stuart	JCP	20	(1952)	1977
-	Sol	-	Spec, Assign	Tsabo	BCSJ	25	(1952)	60
2-16 μ	L	-	Spec	Anderson	JOSA	43	(1953)	221
-	-	-	Solvent chart	Baker	AC	25	(1953)	1457
-	-	-	Microwave	Ivash	JCP	21	(1953)	1804
121-190	G	-	Freq	O'Loane	JCP	21	(1953)	669
665-5000	L	-	Freq, Spec	Zeiss	JACS	75	(1953)	897
20-43 μ	G	-	Spec	Hadni	CPR	238	(1954)	573
10537	Sol	-	Freq shift	Joslen	JCP	22	(1954)	1169
-	-	-	IR	Kaye	AC	26	(1954)	428
0.9-2.9 μ	L,Sol	-	Spec, Assign	Kaye	SA	6	(1954)	257
-	G,Sol	-	Mechanism of exchange	Kwart	JACS	76	(1954)	5998
			reaction rate					
-	-	-	Ident	Crocelui =	CEN	33	(1955)	4046
2- 11.5 μ	G	-	Spec	Donovan	JCP	23	(1955)	1592
-	G	-	Assign, Thermo	Ivash	JCP	23	(1955)	1814
-	-	-	Freq	Sheppard	JCP	23	(1955)	582
-	-	-	Freq	Sheppard	TFS	51	(1955)	1465
-	-	-	J=0 \rightarrow 1 transition study	Swan	PR	99	(1955)	667

	500-3000	-	Relation between fundamental freqs.	Bellamy	JCS	-	(1956)	2753
	-	-	Freq	Finch	JCP	24	(1956)	908
	.9-3 μ	Sol	Spec	Holman	AC	28	(1956)	1533
	1034	-	Freq	Kimura	JCP	24	(1956)	622
	-	-	Thermo	Li	JCP	60	(1956)	466
	3630	Sol	I	Liddle	JCP	25	(1956)	173
	-	G	Spec	Neu	JCP	60	(1956)	320
	2-15 μ	G	Spec	Pierson	AC	28	(1956)	1218
	350-4000	L, Sol	Spec	Stuart	JCP	24	(1956)	559
	3 μ	Sol	Freq, I	Tsubomura	JCP	24	(1956)	927
	-	-	FC	Baughan	TFS	53	(1957)	1046
	1400-1600	Sol	Mol asso	Ens	CJC	35	(1957)	170
	2-15 μ	G	Spec	Friedel	AC	29	(1957)	1362
	1000-1500	G, L	Assign, NCA	Tanaka	SA	9	(1957)	265
	2700-3700	-	Struct	Thiel	JCP	27	(1957)	95
	-	-	H bond	Drinkard	JCP	62	(1958)	1494
	3 μ	Sol	H bond	Flett	SA	10	(1958)	21
	3200-3800	G	Mol asso	Inskip	JCP	28	(1958)	1033
	3 μ	Sol, L	H bond	Liddel	SA	10	(1958)	70
	3 μ	Sol	I	Moccia	PRS	243	(1958)	154
	6000-8000	Sol	Solvent effect	Sato	NKZ	79	(1958)	358
	-	Sol	H bond	Bell	JCP	31	(1959)	300
	50-860	G	Spec	Burkhard	JMS	3	(1959)	299
	9.0-10.4 μ	-	Analysis	Cirillo	AC	31	(1959)	959
	3570-3700	Sol	I, Freq	Flynn	AJC	12	(1959)	575
	-	-	Assign	Michinori	BCSJ	32	(1959)	950
	700-4000	Sol	Freq	DeMaine	CJC	38	(1960)	1921
$C^{12}H_4O$								
Methanol (isotopic)	-	G	IR	Bernstein	JCP	21	(1953)	1903
	-	G	Microwave	Swalen	JCP	23	(1955)	1739
	-	-	Microwave	Venkateswarlu	JCP	23	(1955)	1195
	-	-	Microwave	Venkateswarlu	JCP	23	(1955)	1200
$C^{12}H_4O^{18}$								
Methanol (isotopic)	-	-	Microwave	Ivash	JCP	21	(1953)	1804
$C^{13}H_4O$								
Methanol (isotopic)	-	G	IR	Bernstein	JCP	21	(1953)	1903
	-	G	Microwave	Swalen	JCP	23	(1955)	1739
$C^{13}H_4O^{16}$								
Methanol (isotopic)	-	-	Microwave	Ivash	JCP	21	(1953)	1804
	-	-	Microwave	Venkateswarlu	JCP	23	(1955)	1195
	-	-	Microwave	Venkateswarlu	JCP	23	(1955)	1200

$C^{14}H_4O$	Methanol (isotopic)	-	G	Decomp. study	Skraba	JCP	21 (1953)	1296
CH_4O_2	Methylhydroperoxide	-	L	gr freq	Gray	JCS	- (1952)	3150
		5-15 μ	Sol	Spec	Minkoff	PRS	224 (1954)	176
CH_4O_2Se	Methylseleninic acid	-	S, Sol	Spec, H bond	Paetzold	ZAUA	305 (1960)	88
$CH_4O_2Se.HCl$	Methylseleninic acid hydrochloride	-	S, G, Sol	Spec, Assign	Paetzold	ZAUA	305 (1960)	98
CH_4O_3	Hydroxymethyl hydrogen peroxide	9.0-9.7 μ	-	Ident	Everett	TFS	52 (1956)	986
CH_4O_3S	Methanesulfonic acid	-	-	gr freq	Haszeldine	JCS	- (1954)	4228
		7-10 μ	-	Liq	Haszeldine	JCS	- (1955)	2910
		-	L	Spec, FC	Garding	RTC	77 (1958)	374
CH_4O_3Se	Methylselenous acid	-	S	Spec, Freq	Simon	ZAUA	303 (1960)	72
CH_4S	Methylmercaptan	7000-12000	G	Assign	Adel	JCP	2 (1934)	627
		1-16 μ	G	Spec, Freq, Assign	Thompson	JCP	7 (1939)	441
		-	G	Spec, Assign	Thompson	TFS	36 (1940)	812
		-	-	Freq	Noether	JCP	10 (1942)	693
		-	G	Thermo	Russel	JACS	64 (1942)	165
		-	-	Freq	Barnes	IEC	15 (1943)	659
		-	-	Calc of barriers	Aston	JCP	12 (1944)	336
		-	-	FC	Linnett	TFS	41 (1945)	223
		-	-	Pot barrier	French	JCP	14 (1946)	389
500-1700			G	Assign, Spec	Trotter	JCS	- (1946)	481
900-1200			G	Struct	Trotter	JCS	- (1946)	481
-			-	Thermo	Binder	JCP	17 (1949)	499
-			-	IR, Freq, FC	Sheppard	TFS	46 (1950)	429
3-11 μ			G	Spec	Thompson	TFS	46 (1950)	22
-			-	Freq, Thermo	Scott	JACS	73 (1951)	1707
-			-	Microwave, I	Kilb	JCP	23 (1955)	1736
1325			-	Freq	Sheppard	TFS	51 (1955)	1465
-			G	Microwave, I	Solimene	JCP	23 (1955)	124
500-3000			-	Theor. discussion	Bellamy	JCS	- (1956)	2753
2-15 μ			G	Spec	Pierson	AC	28 (1956)	1218
200-1500			-	Freq, Assign, Struct	Scott	JACS	80 (1958)	3554
-			G	Microwave spec	Kojima	JPSJ	15 (1960)	1284
CH_4S_2	Methanedithiol	2.5-15 μ	L	Spec	Cairns	JACS	74 (1952)	3982

CH ₄ Se	Methyl hydroselenide	-	-	Pot barrier	French	JCP	14 (1946)	389
CH ₅ D ₃ B ₂	Methyldiborane-d ₃	2-15 μ	G	Spec, Assign, Freq	Lehmann	JCP	32 (1960)	1088
CH ₅ BrSi	Methylsilyl bromide	400-4000	G	Spec, Assign	Ebsworth	JCS	- (1958)	1453
CH ₅ ClSi	Methylsilyl chloride	400-4000	G	Spec, Assign	Ebsworth	JCS	- (1958)	1453
CH ₅ FSi	Methylsilyl fluoride	-	G	Spec, Struct, Mol const	Pierce	JCP	29 (1958)	383
		400-4000	G	Spec, Assign	Ebsworth	JCS	- (1958)	1453
CH ₅ ISI	Methylsilyl iodide	400-4000	G	Spec, Assign	Ebsworth	JCS	- (1958)	1453
CH ₅ N	Methylamine	6400-6640	Sol	H bond	Liddel	JACS	55 (1933)	3574
		-	-	Freq	Mecke	TFS	30 (1934)	200
		-	L	Thermo	Aston	JACS	59 (1937)	1743
		-	-	Freq, Assign	Edsall	JCP	5 (1937)	225
		10000-10100	G	Spec, Quant mech	Thompson	JCP	6 (1938)	775
		1-26.5 μ	G	Spec, Assign, Thermo	Bailey	PRS	173 (1939)	339
		-	G	Moment of inertia	Bonner	PR	55 (1939)	1113
		2-18 μ	G	Spec, Freq, Assign	Cleaves	JCP	7 (1939)	563
		-	G	Spec, Freq, Assign	Thompson	JCP	7 (1939)	448
		-	G	Freq, Assign, Thermo	Aston	JCP	8 (1940)	743
		-	G	Freq, Assign, Spec	Cleaves	JCP	8 (1940)	784
		-	G	Spec, Freq, Assign	Owens	JCP	8 (1940)	229
		-	-	Freq	Barnes	IEC	15 (1943)	659
		-	-	Inter rot	Aston	JCP	12 (1944)	336
		-	-	FC	Linnett	TFS	41 (1945)	223
		-	-	Pot barrier	French	JCP	14 (1946)	389
		-	-	FC, Bond dist	Gordy	JCP	14 (1946)	305
		-	-	Microwave	Hershberger	PR	71 (1947)	554
		-	-	FC	Richards	TFS	44 (1948)	40
		-	-	Theory	Lassettre	JCP	17 (1949)	317
		-	G	Microwave	Lide	JCP	20 (1952)	1812
		-	-	Bond dist	Huggins	JACS	75 (1953)	4126
		-	G	Spec	Lide	JCP	22 (1954)	1613
		-	-	Microwave	Shimoda	JCP	22 (1954)	1456
		-	-	Thermo	Aston	JACS	77 (1955)	375
		-	-	Rot barrier	Aston	JCP	23 (1955)	211
		-	-	Microwave	Kivelson	PR	99 (1955)	667
		-	G	Microwave	Nishikawa	JCP	23 (1955)	1735
		-	-	Freq. corr.	Sheppard	JCP	23 (1955)	582
		-	-	Freq	Sheppard	TFS	51 (1955)	1465

$\text{CH}_6\text{F}_4\text{NB}$	Methylammonium tetrafluoroborate	600-3500	L	Spec H bond, Freq	Kynaston Nuttall	JCS JCS	- (1960) - (1960)	1772 4965
CH_6N	Methylammonium ion	-	-	Freq, Assign	Edsall	JCP	5 (1937)	225
CH_6N_2	Methylhydrazine	-	-	Thermo Freq, Assign, Thermo	Janz Aston	JCP JACS	17 (1949) 73 (1951)	1352 1939
		650-3000	L, G	IR, Freq, Assign	Axford	JCP	19 (1951)	704
		2-15 μ	G	Spec	Pierson	AC	28 (1956)	1218
		1.9 μ	Sol	Spec	Cordes	AC	29 (1957)	485
$\text{CH}_6\text{N}_2\text{O}_3$	Urea, hydrogen peroxide	-	S	Spec, Struct	Ferroni	GCI	89 (1959)	979
CH_6N_3	Guanidinium ion	-	-	NCA, FC	Kellner	PRS	177 (1941)	456
		-	-	FC	Linnett	TFS	41 (1945)	223
		-	-	FC	Gordy	JCP	14 (1946)	305
		-	-	Vib anal	Halverson	RMP	19 (1947)	87
$\text{CH}_6\text{N}_4\text{HNO}_3$	Aminoguanidine nitrate	2-15 μ	S	Spec	Lieber	AC	23 (1951)	1594
CH_6Si	Methylsilane	2-16 μ	G	Spec	Kaye	JOC	18 (1953)	1750
		-	-	gr. freq	Tannenbaum	JACS	75 (1953)	3753
		-	-	Struct	Kivelson	JCP	22 (1954)	1733
		2-16 μ	G	Ident	White	JACS	76 (1954)	3897
		-	-	Int. rot. theory	Kivelson	JCP	23 (1955)	2230
		-	-	Pot. barrier	Bak	JCP	24 (1956)	918
		-	G	Spec, Config, Mol const	Kilb	JCP	27 (1957)	108
$\text{CH}_7\text{NO}_3\text{S}$	Ammonium methanesulphonate	250-4000	-	Spec, Struct, H bonding	Waddington	JCS	- (1958)	4340
$\text{CH}_7\text{N}_3\text{O}_2$	Ammonium methylnitramide	670-4000	S	Assign, Struct	Jonathan	JMS	5 (1960)	101
$\text{CH}_7\text{N}_5\text{HNO}_3$	Diaminoguanidine nitrate	2-15 μ	S	Spec, Freq	Lieber	AC	23 (1951)	1594
$\text{CH}_8\text{N}_6\text{HNO}_3$	Triaminoguanidine	2-15 μ	S	Spec	Lieber	AC	23 (1951)	1594
CH_8P_2	Monomethyl di borane	2-15 μ 1500-2800	G -	Spec, Assign, Freq Spec, B-H freq	Shapiro Lehmann	JCP JCP	29 (1958) 32 (1960)	237 1088
CH_{11}B_5	Methylpentaborane	400-3000	Sol	Spec, Struct	Figgis	SA	15 (1959)	331
CDBrCl_2	Bromodichloromethane-d ₁	700-4000	L -	IR Anal	Polo Sherman	PR JACS	81 (1951) 73 (1951)	300 1376

		400-4000	L, G	Spec, Assign, FC, Thermo	Polo	JCP	23 (1955)	833
CDBrF ₂	Bromodifluoromethane-d ₁	-	-	Freq, Thermo	Palm	JCP	23 (1955)	726
CDBr ₂ Cl	Chlorodibromomethane-d ₁	-	-	Anal IR, Assign, Thermo	Sherman Pontarelli	JACS JCP	73 (1951) 20 (1952)	1376 1949
CDBr ₃	Bromoform-d ₁	-	-	Anal Quant mech Spec, Assign Assign Pot consts, Depol fact	Halverson Decius Fergle Meister Krupp	RMP JCP JCP JCP JCP	19 (1947) 16 (1948) 18 (1950) 18 (1950) 24 (1956)	87 214 1073 346 355
CDCl ₃	Chloroform-d ₁	-	-	Assign Ratio rule Mol anal Quant mech Quant mech Mol anal, Quant mech IR, Assign Spec, Anal IR, Freq, Assign	Voge Edgell Halverson Decius Simanouti Simanouti Madigan Earing Bernstein	JCP JCP RMP JCP JCP JCP JACS JCP	4 (1936) 13 (1945) 19 (1947) 16 (1948) 17 (1949) 17 (1949) 18 (1950) 73 (1951) 20 (1952)	137 539 87 214 245 734 1081 769 1979
		400-10000 3-14.5 μ	G, L G, L G, L, Sol	Band freq Freq H bond Solvent Spec NCA	Barrow Bernstein Huggins Lord Lord Weber	JACS JCP JCP AC JACS JCP	76 (1954) 23 (1955) 23 (1955) 27 (1955) 77 (1955) 23 (1956)	5247 2201 896 321 1365 2207
c ¹² DCI ₃ ³⁵	Chloroform-d ₁ (isotopic)	-	G	Microwave	Ghosh	JCP	20 (1952)	605
CDFO	Formyl fluoride-d ₁	500-5000	G	Mol consts, Assign	Stratton	JMS	4 (1960)	373
CDF ₃	Fluoroform-d ₁	-	-	FC, Thermo Freq, Assign Spec, Freq, Thermo Freq NCA	Decker McGee Polo Edgell Barge	JCP JCP JCP JCP ARS	19 (1951) 21 (1953) 21 (1953) 22 (1954) 53 (1957)	784 242 1129 1808 235
c ¹² DF ₃	Fluoroform-d ₁ (isotopic)	-	G	Microwave	Ghosh	JCP	20 (1952)	605
CD ₂ Br ₂	Di bromomethane-d ₂	-	-	Mol anal Quant mech FC, Thermo	Halverson Decius Dowling	RMP JCP JCP	19 (1947) 16 (1948) 22 (1954)	87 214 1042

CD ₂ Cl ₂	Dichloromethane-d ₂	-	-	Quant mech	Decius	JCP	16 (1948)	214
		-	-	Quant mech	Simanouti	JCP	17 (1949)	245
CD ₂ Cl ₂ ³⁵	Dichloromethane-d ₂ (isotopic)	-	-	Microwave	Myers	JCP	20 (1952)	1420
CD ₂ Cl ₂ ³⁵ Cl ³⁷	Dichloromethane-d ₂ (isotopic)	-	-	Microwave	Myers	JCP	20 (1952)	1420
CD ₂ F ₂	Difluoromethane-d ₂	-	-	FC	Meister	PR	100 (1955)	1267A
CD ₂ N ₂	Diazomethane-d ₂	400-4500 19000-90000 Mc/sec	G G	Spec, Assign Microwave, Mol consts	Crawford Cox	JCP N	19 (1951) 181 (1958)	406 1000
CD ₂ O	Formaldehyde-d ₂	2-13/ μ 10/ μ	G -	Spec, Anal Interact theory	Ebers	JCP	6 (1938)	311
		-	-	Vib, Product rule	Nielsen	PR	55 (1939)	289
		-	-	Freq, Thermo	Redlich	JCP	7 (1939)	856
		-	-	Mol anal	Thompson	TFS	37 (1941)	251
		-	-	Mol anal	Halverson	RMP	19 (1947)	87
		-	-		Linnett	TFS	45 (1949)	832
CD ₂ O ₂	Formic acid-d ₂	-	-	H bond	Bonner	JCP	6 (1938)	531
		1-15/ μ	G	Spec	Herman	JCP	8 (1940)	447
		-	-	Struct	Smith	PR	58 (1940)	208A
		800-4000	G	Spec, Assign	Williams	JCP	15 (1947)	232
		800-4000	G	Spec, Assign	Williams	JCP	15 (1947)	243
		500-2000	G	Spec, Freq, Assign	Millikan	JCP	27 (1957)	1305
		635-3800	S	Spec, Assign, Band shift	Millikan	JACS	80 (1958)	3515
		400-800	G, S	NCA, Spec	Miyazawa	JCP	30 (1959)	1076
		120000-160000 Mc/sec	-	Mol const	Mirri	NC	18 (1960)	849
CD ₃ Br	Methyl bromide-d ₃	2.8-18/ μ	G	Spec, Assign	Noether	JCP	10 (1942)	664
		-	-	Ratio rule	Noether	JCP	11 (1943)	97
		-	-	Ratio rule	Edgell	JCP	13 (1945)	306
		-	-	Freq, FC	DeHemptinne	TFS	42 (1946)	5
		-	-	Mol anal	Halverson	RMF	19 (1947)	87
		-	-	Quant mech	Decius	JCP	16 (1948)	214
		577-2294	-	Freq	Barrow	PRS	213 (1952)	27
		-	-	Sum rule	Bernstein	JCP	21 (1953)	2188
		-	G	Spec, Anal	Wiggins	JCP	21 (1953)	1368

CD_3Br^{79}	Methyl bromide- d_3 (isotopic)	400-4000 500-2300 550-1070	G G S	Spec, Anal, Assign, FC Freq, Assign, I Assign, Freq	Weissman Dickson Dows	JCP JCP JCP	23 (1955) 27 (1957) 33 (1960)	544 445 1743
CD_3Br^{81}	Methyl bromide- d_3 (isotopic)	-	G	Microwave	Simmons	JCP	20 (1952)	122
CD_3Cl	Methyl chloride- d_3	-	G	Microwave	Simmons	JCP	20 (1952)	122
	Methyl chloride- d_3	2.8-18 μ	-	Freq, Assign Spec, Assign Ratio rule	Voge Noether Noether	JCP JCP JCP	4 (1936) 10 (1942) 11 (1943)	137 664 97
		4.2-15 μ	G	Spec, FC	Nielsen	RMP	16 (1944)	241
		-	-	Ratio rule	Edgell	JCP	13 (1945)	306
		-	-	Ratio rule	Edgell	JCP	13 (1945)	539
		-	G	Rot spacing	Nielsen	PR	68 (1945)	99
		-	-	Freq, FC	DeHemptinne	TFS	42 (1946)	5
		-	-	Mol anal	Halverson	RMP	19 (1947)	87
		-	-	Quant mech	Decius	JCP	16 (1948)	214
		-	-	Freq, Quant mech	Simanouti	JCP	17 (1949)	245
		-	-	Mol anal, Quant mech	Simanouti	JCP	17 (1949)	734
		695-2286	-	Freq	Barrow	PRS	213 (1952)	27
		-	-	Distortion	Chang	JCP	21 (1953)	1293
		-	-	Mol interact	Meal	JCP	24 (1956)	1126
		700-2200	G	Freq, Assign, I	Dickson	JCP	27 (1957)	445
		-	L	Spec	Asahina	NKZ	81 (1960)	1374
		650-1600	S	Assign, Freq	Dows	JCP	33 (1960)	1743
$C^{12}D_3Cl^{35}$	Methyl chloride- d_3 (isotopic)	-	G	Microwave	Simmons	JCP	20 (1952)	122
$C^{12}D_3Cl^{37}$	Methyl chloride- d_3 (isotopic)	-	G	Microwave	Simmons	JCP	20 (1952)	122
CD_3F	Methyl fluoride- d_3	-	-	Ratio rule	Noether	JCP	11 (1943)	97
		-	G	Microwave	Simmons	JCP	20 (1952)	122
		-	G	IR, Microwave, Mol anal	Andersen	JCP	24 (1956)	989
		100-600	G	Spec, Mol const	Palik	JCP	26 (1957)	1401
CD_3I	Methyl iodide- d_3	-	-	Ratio rule	Noether	JCP	11 (1943)	97
		-	-	Freq, FC	DeHemptinne	TFS	42 (1946)	5
		-	L, G	IR, Assign, Thermo	Fenlon	JCP	19 (1951)	1561
		523-3075	-	Freq	Barrow	PRS	213 (1952)	27

$C^{12}D_3I^{127}$	-	-	-	Sum rule	Bernstein	JCP	21 (1953)	2188
	500-2300	G	-	Freq, Assign, I	Dickson	JCP	27 (1957)	445
	-	G	-	Microwave	Simmons	JCP	20 (1952)	122
CD_3NO	300-3600	L	-	Spec, Assign, NCA	Suzuki	BCSJ	33 (1960)	1359
	-	-	-	Ratio rule	Noether	JCP	11 (1943)	97
	3-25 μ	G	-	Spec, Assign	Wilson	JCP	11 (1943)	361
CD_3NO_2	-	-	-	Mol anal	Halverson	RMP	19 (1947)	87
	-	-	-	Freq, Assign	Jones	JCP	22 (1954)	1796
	600-3000	G	-	Microwave	Tannenbaum	JCP	25 (1956)	42
CD_3NSI	-	G	-	IR	Brown	JCP	29 (1958)	883
	300-3500	G	-	Spec, Assign, Freq, Mol anal	Linton	SA	10 (1958)	299
	-	G	-	Spec, Struct	Muller	JCP	32 (1960)	1577
CD_4	-	-	-	Freq, Mol interact	Johnston	PR	48 (1935)	868
	-	-	-	Quant mech	Wilson	JCP	3 (1935)	276
	-	-	-	Freq, Assign	Macwood	JCP	4 (1936)	402
$900-3200$	900-3200	G	-	Assign, Anal	Benedict	JCP	5 (1937)	1
	3.3-10 μ	G	-	Spec, Mol anal	Nielsen	PR	54 (1938)	118
	-	-	-	Vib, Product rule	Redlich	JCP	7 (1939)	856
$3.3-10 \mu$	-	-	-	Ratio rule	Edgell	JCP	13 (1945)	539
	-	-	-	Mol anal	Halverson	RMP	19 (1947)	87
	-	-	-	Quant mech	Decius	JCP	16 (1948)	214
$2-16 \mu$	-	-	-	Force field	Heath	TFS	44 (1948)	561
	-	-	-	Force field, Freq	Linnett	TFS	45 (1949)	39
	-	-	-	Freq	Simanouti	JCP	17 (1949)	245
$900-8500$	-	-	-	Mol anal, Quant mech	Simanouti	JCP	17 (1949)	734
	-	-	-	Force const	Simpson	PRS	199 (1949)	169
	2-16 μ	G	-	Spec	Thompson	JPC	56 (1952)	243
$900-8500$	-	-	-	Sum rule	Bernstein	JCP	21 (1953)	2188
	-	-	-	Freq	Burgers	JOSA	43 (1953)	1058
	900-8500	G	-	Spec, FC, Mol anal	Kaylor	JCP	23 (1955)	2139
$900-3400$	-	-	-	Mol interact	Meal	JCP	24 (1956)	1126
	-	-	-	Partition fn	Dainton	TFS	53 (1957)	1204
	-	-	-	FC	Pistorius	JCP	27 (1957)	965
CD_4N_2O	900-3400	G	-	Spec, Assign	Wilmsmurst	CJC	35 (1957)	226
$Urea-d_4$	-	-	-	NCA, FC	Kellener	PRS	177 (1940)	456

$CD_4^N S$	Thiourea-d ₄	-	-	S	NCA	Yamaguchi	NKZ	78 (1957)	1319
		-	-	S	Spec	Yamaguchi	NKZ	78 (1957)	1467
		400-2000		S	Assign	Yamaguchi	SA	10 (1958)	170
CD_4^O	Methanol-d ₄	2-15 μ		S	Spec, Assign, NCA	Yamaguchi	JACS	80 (1958)	527
		2.5-18 μ		G	Spec, Assign	Noether	JCP	10 (1942)	693
		-		-	Ratio rule	Noether	JCP	11 (1943)	97
		-		-	Freq, FC	DeHemptinne	TFS	42 (1946)	5
		3-15 μ		G,L	Freq, Assign	Courtroy	ASS	61 (1947)	139
		-		-	Freq, FC, Vib anal	Halverson	RMP	19 (1947)	87
$C^{12}D_4^{O16}$	Methanol-d ₄ (isotopic)	-		G	Microwave	Swalen	JCP	23 (1955)	1739
		-		-	Microwave	Venkateswarlu	JCP	23 (1955)	1195
		-		-	Microwave	Venkateswarlu	JCP	23 (1955)	1200
		400-3500		-	Assign, Spec, Mol consts	Gray	JCP	26 (1957)	690
CD_5^N	Methylamine-d ₅	24000-36000 Mc/sec		G	Microwave, Spec, Struct	Lide	JCP	27 (1957)	343
CD_5^N	Guanidine-d ₅	400-4000		S	Freq, Assign, FC	Jones	TFS	55 (1959)	524
CD_6^N	Guanidinium ion-d ₆	-		-	NCA, FC	Kellner	PRS	177 (1941)	456
		-		-	Vib anal	Halverson	RMP	19 (1947)	87
CD_8^{B2}	Monomethylidiborane-d ₈	2-15 μ		G	Spec, Freq, Assign	Lehmann	JCP	32 (1960)	1088
CT_4	Methane-T ₄	800-4000		G	Mol consts, Freq FC	Jones	JMS	2 (1958)	103
$CBrClF_2$	Bromochlorodifluoromethane	2-36 μ		G	Spec, Vib anal, Assign	Plyler	JRNB	48 (1952)	92
		-		-	Sum rule	Bernstein	JCP	21 (1953)	2188
		-		-	Vib excit	Amme	JCP	23 (1955)	1960
		-		-	Collision excit	Rossing	JCP	23 (1955)	1118
$CBrCl_2^F$	Bromodichlorofluoromethane	-		-	Sum rule	Bernstein	JCP	21 (1953)	2188
$CBrCl_3$	Bromotrichloromethane	-		-	Vib anal	Volkringer	JCP	8 (1940)	126
		-		-	Freq, Assign	Wu	JCP	10 (1942)	116
		22-39 μ		L	Freq	Plyler	JCP	17 (1949)	218
		-		-	Quant mech	Simanouti	JCP	17 (1949)	245
		-		-	Quant mech	Simanouti	JCP	17 (1949)	734
		-		L	FC	Zietlow	PR	75 (1949)	333
		400-10000		L	Spec, Thermo	Medigan	JCP	19 (1951)	119

	2-38 μ	G,L	Assign, Spec FC	Plyler	JRNB	47	(1951)	202
	-	-	FC	Pontrelli	JCP	20	(1952)	1949
	200-270	L	Spec	Acquista	JOSA	43	(1953)	977
	-	-	Sum rule	Bernstein	JCP	21	(1953)	2188
	-	-	FC	Meister	JCP	21	(1953)	158
	-	-	Freq, Product rule	Pitzer	JCP	21	(1953)	855
	-	-	NCA	Weber	JCP	23	(1955)	2207
CBrF ₃	Bromotrifluoromethane	G	IR, Freq, Assign	Edgell	JCP	20	(1952)	1822
			Spec	Hauptschein	JACS	74	(1952)	1347
			2-16 μ	Plyler	JRNB	48	(1952)	92
			2-36 μ	Polo	JCP	20	(1952)	1183
			-	Bernstein	JCP	21	(1953)	2188
			2-25 μ	Thermo McGee	JCP	21	(1953)	242
			-	Pitzer	JCP	21	(1953)	855
			2-25 μ	Edgell	JCP	22	(1954)	1808
			-	Husted	JACS	76	(1954)	3141
			-	Taylor	JCP	22	(1954)	714
			-	Amme	JCP	23	(1955)	1960
			-	Rossing	JCP	23	(1955)	1118
			-	Sheridan	JCP	20	(1952)	591
			-	Dowling	JMS	1	(1957)	265
C ¹² Br ⁷⁹ F ₃ C ¹² Br ⁸¹ F ₃	Bromotrifluoromethane (isotopic)	G	Microwave	Sheridan	JCP	20	(1952)	591
			Mol consts	Dowling	JMS	1	(1957)	265
			Microwave	Sheridan	JCP	20	(1952)	591
			Microwave	Sharbaugh	PR	77	(1950)	302
			Microwave	Sheridan	PR	77	(1950)	292
			Microwave	Sharbaugh	PR	77	(1950)	302
			Microwave	Sheridan	PR	77	(1950)	292
			Sum rule	Bernstein	JCP	21	(1953)	2188
			Vib anal	Volklinger	JCP	8	(1940)	126
			Freq, Assign	Wu	JCP	10	(1942)	1116
CBr ₂ ClF CBr ₂ Cl ₂	Chlorodibromofluoromethane Dibromodichloromethane	L	Freq	Plyler	JCP	17	(1949)	218
			Freq, Quant mech	Simanouti	JCP	17	(1949)	245
			Quant mech	Simanouti	JCP	17	(1949)	734
			Assign, Spec	Plyler	JRNB	47	(1951)	202
			IR, Assign, Thermo	Davies	JCP	20	(1952)	454
			FC	Pontarelli	JCP	20	(1952)	1949
			22-39 μ					
			-					
			2-38 μ					
			1-25 μ					

CBr ₂ F ₂	Di bromodifluoromethane	-	-	Sum rule	Bernstein	JCP	21 (1953)	2188
		-	-	FC	Meister	JCP	21 (1953)	158
		-	-	Freq, Product rule	Pitzer	JCP	21 (1953)	855
		40-50 μ	L	Spec	Plyler	JOSA	43 (1953)	212
		-	-	Thermo	Glockler	JCP	9 (1941)	527
CBr ₃ Cl	Chlorotribromomethane	2-36 μ	G, L	Spec, Assign	Plyler	JRNB	48 (1952)	92
		-	-	Sum rule	Bernstein	JCP	21 (1953)	2188
		450-4000	G	IR, Spec, FC, Thermo	Decker	JCP	21 (1953)	1781
		-	-	Freq, Product rule	Pitzer	JCP	21 (1953)	855
		-	-	Vib excit	Anne	JCP	23 (1955)	1960
		-	-	FC	Palm	JCP	23 (1955)	726
		-	-	Collision excit	Rossing	JCP	23 (1955)	1118
		9400 Mc/sec	G	Absorption	Boggs	JPC	63 (1959)	1127
		-	-	Vib anal	Volkringer	JCP	8 (1940)	126
		-	-	Freq, Assign	Wu	JCP	10 (1942)	116
CBr ₃ F	Fluorotribromomethane	-	-	Quant mech	Simanouti	JCP	17 (1949)	245
		-	-	Quant mech	Simanouti	JCP	17 (1949)	734
		700-5000	Sol	IR, Assign	Meister	JCP	18 (1950)	346
		36 μ	L	Assign, Spec	Plyler	JRNB	44 (1950)	503
		-	-	Sum rule	Bernstein	JCP	21 (1953)	2188
		-	-	FC	Meister	JCP	21 (1953)	158
		-	-	Freq, Product rule	Pitzer	JCP	21 (1953)	855
		-	-	Mol consts	Krupp	JCP	24 (1956)	355
		150-1070	L	Assign	Meister	JCP	18 (1950)	346
		-	-	Sum rule	Bernstein	JCP	21 (1953)	2188
CBr ₃ NO ₂	Bromopiorin	-	-	Freq, Product rule	Pitzer	JCP	21 (1953)	855
		-	-	Mol consts	Krupp	JCP	24 (1956)	355
		-	L	Band freq	Haszeldine	JCS	- (1953)	2525
		-	-	gr freq	Jauder	JCS	- (1954)	919
CBr ₄	Carbon tetrabromide	1800-450	L, G	Assign	Mason	JCS	- (1956)	759
		2-15 μ	L, G	Freq, Assign	Mason	JCS	- (1959)	2014
		-	-	Vib theory	Urey	PR	38 (1931)	1969
		-	-	Freq, Review	Villars	CR	11 (1932)	369
CBr ₃ Cl	Chlorotribromomethane	-	-	Vib theory	Rosenthal	PR	46 (1934)	730
		-	-	Quant mech	Wilson	JCP	2 (1934)	432
		-	-	Thermo	Stevenson	JCP	6 (1938)	25
		-	-	Bond dist	Sutherland	TFS	34 (1938)	325
		-	-	Mol anal	Volkringer	JCP	8 (1940)	126
		-	-	Freq, Assign	Wu	JCP	10 (1942)	116
		-	-	Quant mech	Decius	JCP	16 (1948)	214
		-	-					
		-	-					
		-	-					

-	-	Force field	Heath	TFS	44 (1948)	561
-	-	Force field	Heath	TFS	44 (1948)	878
-	-	Freq, Quant mech	Simanouti	JCP	17 (1949)	245
-	-	Freq, FC	Simanouti	JCP	17 (1949)	734
-	-	Mol anal, Quant mech	Simanouti	JCP	17 (1949)	848
700-500	Sol	IR, Assign	Meister	JCP	18 (1950)	346
2-36 μ	L	Spec, Assign	Plyler	JRNB	44 (1950)	503
12-15 μ	G	Assign, Spec	Plyler	JRNB	47 (1951)	202
-	-	Freq	Edgell	JPC	56 (1952)	326
-	-	Force field study	Linnett	TFS	48 (1952)	592
-	-	Sum rule	Bernstein	JCP	21 (1953)	2188
-	-	Freq, Product rule	Pitzer	JCP	21 (1953)	855
-	-	FC	Gaunt	TFS	50 (1954)	546
-	-	NCA	Long	PRS	223 (1954)	130
7-23 μ	Sol	Spec	Yoshino	BCSJ	27 (1954)	592
267	-	Freq	Hahn	JCP	24 (1956)	921
-	-	Thermo	Marshall	TFS	52 (1956)	19
-	L, S	I	Lisitsa	OS	7 (1959)	638

Chlorotrifluoromethane

-	-	Freq, Assign	Wu	JCP	10 (1942)	116
500-1700	G	Thermo, Spec	Thompson	JCS	- (1948)	1422
-	-	FC, Thermo	Decker	JCP	19 (1951)	784
-	-	Microwave	Mizushima	PR	83 (1951)	94
2-30 μ	G	Assign, Spec	Plyler	JRNB	47 (1951)	202
-	-	Sum rule	Bernstein	JCP	21 (1953)	2188
-	-	Ident	Haszeldine	JCS	- (1953)	2075
-	-	Freq, Assign	McGee	JCP	21 (1953)	242
-	-	Product rule	Pitzer	JCP	21 (1953)	855
-	G	Assign	Claassen	JCP	22 (1954)	50
300-3000	-	Freq	Edgell	JCP	22 (1954)	1808
-	L	Assign	Rolfe	TFS	50 (1954)	1030
-	G	Spec, FC	Taylor	JCP	22 (1954)	714
-	-	Vib excit	Anne	JCP	23 (1955)	1960
-	-	Collision excit	Rossing	JCP	23 (1955)	1118
-	G	Barrier establishment	Vanderkovi	JPC	60 (1956)	636
1200-24000	G	Spec	Birnbaum	JCP	27 (1957)	360
Mc/sec						
74000	-	I, Freq	Herranz	ARS	50 (1959)	69
-	-	NCA, I	Morcillo	ARS	50 (1959)	77
1190 Mc/sec	G	Freq, Temp effect	Maryott	JCP	32 (1960)	1501
400-4000	G	Dielectric consts	Maryott	JPC	64 (1960)	1778
-	S	Struct, Assign	Waddington	JCS	- (1960)	2339

$\text{CCl}_3\text{F}_2\text{O}_2\text{S}$	Trifluoromethanesulfonyl chloride	6-9 μ	G	Assign	Haszeldine	JCS	-	(1955)	2901
$\text{CCl}_3\text{F}_3\text{S}$	Trifluoromethanesulphenyl chloride	- 400-4000	- G	Freq Freq, Assign	Haszeldine Nabl	JCS JCS	-	(1953) (1959)	3219 3439
CCl_2F_2	Dichlorodifluoromethane	- - 500-1700 2-30 μ - - - - - - - 9400 Mc/sec -	- - G G G - - - - - G -	Quant mech Freq, Assign Thermo, Spec Assign, Spec Thermo Sum rule Ident Freq, Product rule Assign FC Vib excit Collision excit I Absorp I	Wilson Wu Thompson Plyler Masi Bernstein Haszeldine Pitzer Claassen Dowling Amme Rossing True Boggs Morcillo	JCP JCP JCS JRN B JACS JCP JCS JCP JCP JCP JCP JCP PR JPC ARS	2 10 - 47 74 21 - 21 22 22 23 23 99 63 56	(1934) (1942) (1948) (1951) (1952) (1953) (1953) (1953) (1954) (1954) (1955) (1955) (1955) (1955) (1959) (1960)	432 116 1422 202 4738 2188 2075 855 50 1789 1960 1118 1624 1127 65
$\text{CCl}_2\text{F}_2\text{P}$	Dichlorotrifluoromethylphosphine	4.39-13.34 μ -	G -	Table Ident, CF_3 deformation	Bennett Bennett	JCS JCS	-	(1953) (1954)	1565 3896
$\text{CCl}_2\text{F}_2\text{As}$	Trifluoromethyl-dichloroarsine	-	G, S	Freq	Emeleus	JCS	-	(1953)	1552
CCl_3F	Fluorotrichloromethane	- - - 500-1700 2-30 μ 400-3200 - - - - - 74000 - -	- - - L, G - G - G - - - - - G	Freq, Assign Thermo Freq, Assign Thermo, Spec Spec, Mol anal Sum rule Spec, Assign, Thermo Freq, Product rule Assign Vib excit Collision excit NCA Spec, Vap-liq shift I, Freq NCA Microwave spec	Glockler Glockler Wu Thompson Plyler Bernstein Bernstein Pitzer Claassen Amme Rossing Weber Benson Herranz Morcillo Long	JCP JCP JCP JCS JRN B JCP JCP JCP JCP JCP JCP JCP JCP ARS ARS JCP	8 9 10 - 47 21 21 21 21 22 23 23 27 50 50 33	(1940) (1941) (1942) (1948) (1951) (1953) (1953) (1953) (1954) (1955) (1955) (1955) (1957) (1959) (1959) (1960)	699 527 116 1422 202 2188 1778 855 50 1960 1118 2207 1164 69 77 508

CCl_3NO_2	Chloropicrin	1800-450 2-15 μ	L,G L,G	Assign Spec, Freq, Assign	Mason Mason	JCS JCS	- -	(1956) (1959)	759 2014
CCl_3NSSI	Trichlorosilyl isothiocyanate	280-3000	-	Spec, Assign, Struct	Goubean	ZAUA	294	(1958)	96
CCl_4	Carbon tetrachloride	1.5-16 μ 52 μ 0.8-2.0 μ 6-7 μ 6-15 μ - - - -	L,Sol L L L - - - - -	Spec, Dispersion Transparency Magnetic rotation Spec Spec Spec Freq, Thermo Assign Mech models of normal vibrations	Marvin Hollangel Ingersoll Daniels Coblentz Langer Lecomte Marvin Kettering	PR PR JOSA JACS PR PR TFS PR PR	3-4 11 6 47 33 33 25 33 36	(1912) (1918) (1922) (1925) (1929) (1929) (1929) (1929) (1930)	161 505 663 2856 1092 1097 864 952 531
		20-125 μ 6.7-33 μ - - - - - -	L G - - - - - -	Transmission Transmission Mol theory Freq Quant mech Vibration theory Quant mech Transmission, Dispersion Freq, Assign Ref index, Scattering FC	Strong Strong Urey Villars Van Vleck Rosenthal Wilson Cartwright Lord Pfund Rosenthal	PR PR PR CR JCP JCP JCP PRS JCP JOSA PR	38 37 38 11 1 46 2 154 4 26 49	(1931) (1931) (1931) (1932) (1933) (1934) (1934) (1936) (1936) (1936) (1936)	1818 1565 1969 369 219 730 432 138 707 230 535
		52-152 μ - 0.6-9.0 μ - - - -	L - L - - - -	Freq, Assign Freq, Assign Spec Spec, H bond Kerr effect Spec Thermo Interatomic distance Spec Spec	Voge Yost Gordy Gordy Ingersoll Davies Stevenson Sutherland Wu	JCP JCP JCP JACS JOSA JCP JCP TFS JCP	4 4 5 59 27 6 6 34 6	(1936) (1936) (1937) (1937) (1937) (1938) (1938) (1938) (1938)	137 325 284 464 411 755 25 325 114
		2.5-7.5 μ - - -	Sol - - -	Mol anal Freq, Assign Spec Analysis Spec Quant mech	Fox Volklinger Wu Barnes Fuoss Torkington Decius	PRS JCP JCP IEC RSI TFS JCP	174 8 10 15 16 41 16	(1940) (1940) (1942) (1943) (1945) (1945) (1948)	234 126 116 659 53 184 214
		1050-1800 - 3-20 μ -	L L - -						

-	Force field	Heath	TFS	44	(1948)	561
-	Force field	Heath	TFS	44	(1948)	878
-	Freq	Plyler	JCP	16	(1948)	1008
G	Spec, Assign, IR	Gates	JCP	17	(1949)	393
-	Freq by quant mech	Simanouti	JCP	17	(1949)	245
-	Mol anal	Simanouti	JCP	17	(1949)	734
-	Freq, FC	Simanouti	JCP	17	(1949)	848
L	Spec	Beamer	AC	22	(1950)	303
-	Spec	Patinkin	JACS	72	(1950)	2778
L, G	IR, Freq, Assign, Thermo	Madigan	JCP	19	(1951)	119
L	Assign, Spec	Plyler	JRNB	47	(1951)	202
Sol	H bond	Searles	JACS	73	(1951)	3704
L	Spec	Simon	JOSA	41	(1951)	336
-	Force field	Linnett	TFS	48	(1952)	592
L	Transparent solvent	Marrison	JSI	29	(1952)	233
L	Spec	Pri stera	APS	6	(1952)	29
Sol	OD bond, Spec	Tamres	JACS	48	(1952)	3375
Sol	Band freq	Urone	AC	24	(1952)	626
L	Spec	Anderson	JOSA	43	(1953)	221
L	Mixture with benzene	Bellamy	JAPC	3	(1953)	421
-	Sum rule	Bernstein	JCP	21	(1953)	2188
-	FC	Bowers	JCP	21	(1953)	1117
-	Purity testing	Greinacher	ANC	65	(1953)	291
-	Vib amplitude theory	Marino	JCP	21	(1953)	1927
-	Spec, Assign	Claassen	JCP	22	(1954)	50
-	FC	Gaunt	TFS	50	(1954)	546
-	I, NCA	Long	PRS	223	(1954)	130
L	Spec	Blount	JSI	32	(1955)	471
-	Vib amplitude theory	Morino	JCP	23	(1955)	737
G	Energy transfer by collision	Sette	JCP	23	(1955)	787
-	Temp effect on I	Slowinski	JOSA	45	(1955)	396
L, G, Sol	Spec, Isotope effect	Tuonikoski	JCP	23	(1955)	2083
L	Spec, Freq, Assign	Yoshinaga	JCP	23	(1955)	2206
-	Freq	Hahn	JCP	24	(1956)	921
L	Spec	Holman	AC	28	(1956)	1533
-	Application of theory of depolarizing light	Buckingham	TFS	53	(1957)	884
L	Dispersion	Jaffe	JOSA	47	(1957)	782
-	Effect as solvent	Pinchas	AC	29	(1957)	334
G, L	Temp effect	Litsa	IANS	22	(1958)	1117
-	Resonance	Litsa	UFZ	3	(1958)	482
G	Temp effect	Litsa	UFZ	3	(1958)	773
L	Absorption coeff	Kagarise	JCP	31	(1959)	1258

$\text{CCl}_4^{16}\text{S}$	Trichloromethane-sulfonyl chloride	- 8-12 μ - -	Sol - - G, L	Resonance doublet Relative absorbance FC, Freq Freq	Lisitsa Spell Verlan Lisitsa	OS AC UFZ UFZ	7 (1959) 31 (1959) 4 (1959) 5 (1960)	632 621 606 34
$\text{CCl}_4^{17}\text{S}$		6-9 μ	G, S, Sol	Freq, Assign, Correlation	Haszeldine	JCS	- (1955)	2901
$\text{CCl}_4^{18}\text{S}$	Perchloromethanethiol	1500-2100	Sol	Transitions, Spec	Ketelaar	JCP	23 (1955)	1549
CF_3I	Iodotrifluoromethane	- 540-1185 2-16 μ 2-36 μ - - 2-25 μ 2-25 μ - -	- G G G - - G G L -	Microwave IR, Assign Spec Spec, Anal, Assign Freq, Assign Ident Spec, Assign, NCA, Thermo IR, Assign FC Rot distortion	Sheridan Edgell Hamptschtein Plyler Polo Haszeldine McGee Edgell Taylor Dowling	PR JCP JACS JRNBS JCP JCS JCP JCP JCP JMS	77 (1950) 20 (1952) 74 (1952) 48 (1952) 20 (1952) - (1953) 21 (1953) 22 (1954) 22 (1954) 1 (1957)	292 1822 1347 92 1183 3559 243 1808 714 265
$\text{CF}_3\text{I}^{127}$	Iodotrifluoromethane (isotopic)	-	G	Microwave	Sheridan	JCP	20 (1952)	591
$\text{CF}_3\text{I}_2\text{P}$	Diiodotrifluoromethyl-phosphine	7.86-13.55 μ -	L -	Table Freq, Ident	Bennett Bennett	JCS JCS	- (1953) - (1954)	1565 3896
$\text{CF}_3\text{I}_2\text{AS}$	Diiodotrifluoromethyl-arsine	-	G, S	Freq	Eneleus	JCS	- (1953)	1552
CF_3NO	Trifluoronitrosomethane	- - - 3800-420	- - - G	Freq Table, Freq Freq Assign	Haszeldine Jander Jander Mason	JCS JCS JCS JCS	- (1953) - (1954) - (1954) - (1956)	4172 912 919 754
CF_3NO_2	Trifluoronitromethane	- 3.39-13.44 μ -	- - -	gr freq Table, gr freq, Ident gr freq	Haszeldine Jander Jander	JCS JCS JCS	- (1953) - (1954) - (1954)	4172 912 919
$\text{CF}_3\text{O}_2\text{AS}$	Trifluoromethylarsonic anhydride	-	-	gr freq	Eneleus	JCS	- (1954)	881

CF ₄	Carbon tetrafluoride	-	-	Freq assign	Yost	JCP 4 (1936)	325
		-	-	Freq assign	Baclen	JCP 5 (1937)	294
		-	-	Freq assign	Hatcher	JCP 5 (1937)	992
	2-18 μ	G	-	Spec, Freq, FC	Bailey	PRS 167 (1938)	555
		-	-	Bond dist	Sutherland	TFS 34 (1938)	325
		-	-	Anal	Glockler	JCP 9 (1941)	224
		-	-	Freq, Assign	Wu	JCP 10 (1942)	116
		-	-	Bond dist	Bernstein	JCP 16 (1948)	30
		-	-	Force field	Heath	TFS 44 (1948)	561
		-	-	Freq, FC	Pace	JCP 16 (1948)	74
		-	-	Freq, FC	Simanouti	JCP 17 (1949)	848
		-	-	Intramolecular forces	Heath	JCP 18 (1950)	147
		-	-	FC	Pace	JCP 18 (1950)	881
		-	-	Freq	Cote	PRS 210 (1951)	217
		-	-	FC, Thermo	Decker	JCP 19 (1951)	784
		-	-	Force field	Linnett	JCP 19 (1951)	801
	2-30 μ	G	-	Spec, Assign	Plyler	JRNB 47 (1951)	202
		-	-	Freq	Caunt	TFS 48 (1952)	873
		-	-	Freq	Edgell	JPC 56 (1952)	326
		-	-	Force field	Linnett	TFS 48 (1952)	592
	2-33 μ	G	-	Spec, Freq, Assign	Woltz	JCP 20 (1952)	307
		-	-	Sum rule	Bernstein	JCP 21 (1953)	2188
		-	-	Freq, Assign	McGee	JCP 21 (1953)	242
		-	-	Freq, Product rule	Pitzer	JCP 21 (1953)	855
		G	-	Bond moment, I	Schatz	JCP 21 (1953)	1516
		G	-	Assign	Claassen	JCP 22 (1954)	50
		-	-	FC, Quant mech	Aihara	JCP 23 (1955)	1563
		-	-	Vib excit	Amme	JCP 23 (1955)	1960
		-	-	Collision excit	Rossing	JCP 23 (1955)	1118
		-	-	Freq	Sheppard	JCP 23 (1955)	582
		-	-	Freq	Hahn	JCP 24 (1956)	921
		-	-	Trans moments	McKean	JCP 24 (1956)	1002
		-	-	IR, Bond moments	Wilmshurst	JPC 62 (1958)	631
	1-20 μ	G	-	Mol vib, I	Schurin	JCP 30 (1959)	1
CF ₄ O	Fluoroxymethforane	2-25 μ	G	IR, Spec, Assign	Lagemann	JCP 20 (1952)	1768
CF ₈ S	Trifluoromethylsulfur pentafluoride	3.36-14.50 μ	-	I, Table	Clifford	JCS - (1953)	2372
CF ₁₂ S ₂	Difluoromethylenebis- sulfur pentafluoride	4.17-14.5 μ	-	I, Table	Clifford	JCS - (1953)	2372
CI ₄	Carbon tetraiodide	-	-	Bond dist	Sutherland	TFS 34 (1938)	325

CN ₄ O ₈	Tetranitromethane	-	L	Spec, Solvent	Priester	6 (1952)	29
		-	L	Freq, I	Lindenmeyer	JCP	408
		2-18 μ	S,L,G	IR, Assign	Haszeldine	JCS	2525
		-	-	Band freq	Jauder	JCS	912
C ₂ HD	Acetylene-d ₁	-	G	Freq, Mol anal	McKellar	PR	46 (1934)
		-	-	Freq	Randall	PR	45 (1934)
		-	-	Freq, Cal	Colby	PR	47 (1935)
		2-10 μ	G	Freq	Nielson	PR	57 (1940)
		450-4000	G	Spec, Assign	Stitt	JCP	346
		-	-	Mol anal	Halverson	HMP	56
		-	-	I	Decius	JCP	19 (1947)
		-	-	Freq	El-Sabban	JCP	20 (1952)
		-	G	Spec, Struc, Mol const	Herzberg	JCP	20 (1952)
		-	-	Mol consts	N	169	997
		-	-	Sum rule	Saksena	JCP	20 (1952)
		-	-	I, Bond moments	Bernstein	JCP	21 (1953)
		-	G	Mol spec	Eggers	JPC	59 (1955)
		-	G	Mol spec	Overend	PRS	234 (1956)
		3-16 μ	G	Mol spec, Mol const	Christensen	PRS	238 (1957)
C ₂ HDBr ₂	1,1-Dibromoethylene-d ₁	-	-	Freq, FC	DeHemptinne	TFS	42 (1946)
C ₂ HDCIO ₂	Chloroacetate ion-d ₁	-	-	Assign	Nakamura	NKZ	79 (1958)
C ₂ HDCI ₂ O ₂	Dichloroacetic acid-d ₁	1500-1700	G	Spec, Freq assign	Hadzi	SA	12 (1958)
		-	-	Assign	Olero	ARS	55B (1959)
C ₂ HDF ₂	1,1-Difluoroethylene-d ₁	2-40 μ	G	IR, Spect, Assign	Edgell	JCP	22 (1954)
		-	-	Struc	Edgell	JACS	79 (1957)
		-	G	Struc, Microwave	Kinsey	DA	17 (1957)
C ₂ HDO	Ketene-d ₁	-	G	Freq, Assign	Fletcher	JCP	19 (1951)
		450-3600	-	Spec, Assign, NCA	Arendale	JCP	26 (1957)
¹² C ₂ HDO ¹⁶	Ketene-d ₁ -(i isotopic)	-	G	Microwave	Johnson	JCP	20 (1952)
C ₂ HD ₂ Br	1-Bromo-1, 2-dideutero-ethylene	-	-	Freq, FC	DeHemptinne	TFS	42 (1946)
		-	-	FC	Torkington	PRS	206 (1951)

$C_2HD_2Br_3O_2$	Bromal hydrate-d ₂	400-3800	S	Spec, Freq, I	Novak	SA	16 (1960)	521
$C_2HD_2ClO_2$	Chloroacetic acid-d ₂	-	-	Assign, Struct	Nakamura	NKZ	80 (1959)	225
$C_2HD_2Cl_3O_2$	Chloral hydrate-d ₂	600-3000 400-3800	- S	Freq, Spec Spec, Freq, I	Anderson Novak	SA SA	12 (1958) 16 (1960)	233 521
C_2HD_2F	Vinyl fluoride-1, 2-d ₂	400-3500	G	Assign	Bak	SA	12 (1958)	355
C_2HD_2FO	Acetyl fluoride-d ₂	-	G	Spec	Pierce	JCP	31 (1959)	875
$C_2HD_2F_3$	1,1,1-Trifluoroethane-2, 2-d ₂	-	-	Struct	Edgell	JACS	79 (1957)	2391
C_2HD_3	Ethylene-d ₃	-	-	Spec	DeHemptinne	JCP	6 (1938)	319
		-	-	Spec	Halverson	HMP	19 (1947)	87
		580-3300	G	Spec, Assign	Arnett	JCP	18 (1950)	118
		-	G	Mol spec	Herzberg	N	169 (1952)	997
		-	-	Sum rule	Bernstein	JCP	21 (1953)	2188
		-	-	Freq	Crawford	JCP	21 (1953)	678
$C_2HD_3Br_2$	1, 2-Dibromoethane-d ₃	-	-	Cis-trans isomers	Neu	JCP	18 (1950)	1642
$C_2HD_3O_2$	Acetic acid-c-d ₃	1-14 μ	-	Spect	Herman	JCP	7 (1939)	460
		-	-	H bond	Davies	JCP	16 (1948)	267
		790-3640	G	Assign, Thermo	Wettner	JCP	77 (1955)	3941
		-	-	Spec, Struct	Taber	JCP	27 (1957)	974
C_2HD_5	Ethane-d ₅	2-22 μ	G	Spec	Stitt	JCP	7 (1939)	297
$C_2HBrClF_3$	1-Bromo-1-chloro-2, 2, 2-Trifluoroethane	- 300-6000	G G	Spec, Assign, Thermo Spec, Assign, Thermo	Nielsen Theimer	BAPS JCP	2 (1957) 27 (1957)	99 887
$C_2HBrClF_3$	1-Bromo-2-chloro-1, 1, 2-Trifluoroethane	2-15 μ	G	Spec	Lacher	JACS	72 (1950)	3231
		-	-	Ident	Haszeldine	JCS	- (1954)	3747
$C_2HBrClF_3$	2-Bromo-2-chloro-1, 1, 1-Trifluoroethane	300-6000	G	Spec, Thermo	Theimer	JCP	27 (1957)	887
$C_2HBrCl_2F_2$	1-Bromo-2, 2-dichloro-1, 1-difluoroethane	2-15 μ	G	Spec	Lacher	JACS	72 (1950)	3231
C_2HBrCl_2O	Dichloroacetyl bromide	-	-	C=O freq	Kagarise	JACS	77 (1955)	1377
C_2HBrF_2	2-Bromo 1, 1-Difluoro-ethylene	700-5000	G	Spec	Theimer	JCP	27 (1957)	264

C_2HBrF_3NO	α -Trifluoro-N-bromo- acetamide	1-15 μ -	S, Sol -	Spec, Assign Bromination studies	Lacher Park	JACS 74 (1952) 5578 JACS 76 (1954) 1388
C_2HBrF_4	1-Bromo-1,1,2,2- Tetrafluoroethane	2-15 μ 3.36-15.17	G G	Spec I	Lacher Haszeldine	JACS 72 (1950) 3231 JCS - (1954) 3747
C_2HBrF_2	1,1-Dibromo-2,2,2- trifluoroethane	-	G	Spec, Assign, Thermo	Nielsen	BAPS 2 (1957) 99
C_2HBrF_2	1,2-Dibromo-1,2,2- trifluoroethane	2-15 μ	G, L	Spec	Park	JACS 73 (1951) 711
C_2HBr_3	Tribromoethane	-	-	Vib, Sum rule	Bernstein	JCP 24 (1956) 910
$C_2HBr_2O_2$	Tribromoacetic acid	5.5-6.5 μ 1580-1900	Sol Sol	Ident Freq, I	Sawicki Bellanato	AC 31 (1959) 523 SA 16 (1960) 1333
C_2HCl	Chloroacetylene	- 2-30 μ	- G	Microwave Spec, FC	Westenberg Richardson	JCP 17 (1949) 1319 JCP 18 (1950) 1314
C_2HCl^{37}	Chloroacetylene-Cl ³⁷ (isotopic)	-	-	Hybridization, Reso C-H bending freq	Duchense Ferigle	JCP 19 (1951) 246 JCP 20 (1952) 1928
C_2HClF_2	1-Chloro-2,2-difluoro- ethylene	2-38 μ	G, L	IR, Spec, Assign, Thermo	Nielsen	JCP 20 (1952) 1090
C_2HClF_2	1,1-Difluorovinyl chloride	1900-2500	G	Microwave, Struct	Jenkins	TFS 55 (1959) 1473
C_2HClO_2S	Ethynesulfonyl chloride	-	L, Sol	Ident	Rondestvedt	JACS 76 (1954) 1926
C_2HClF_2	1,2-Dichloro-1,1,2- Trifluoroethane	2-15 μ 2-38 μ - 150-4500	G G, L - G	Spec IR, Spec, Assign, Thermo Assign, Thermo Spec	Park Nielsen Luft Catalano	JACS 73 (1951) 711 JCP 21 (1953) 1060 JCP 22 (1954) 155 JPC 62 (1958) 838
C_2HCl_2N	Dichloromethyl nitrile	2200-2300	G	Struc	Jesson	SA 13 (1958) 217
C_2HCl_3	Trichloroethylene	1-2.5 μ -	L -	Spec Freq	Smith Bonino	JACS 48 (1926) 1512 TFS 25 (1929) 876

C_2HCl_3O	Chloral	-	-	-	2-25 μ 24-40 μ 2.5-25 μ - 8-14.5 μ - - - 3000 172-3924	G - - - Sol - - - L Sol L,Sol -	Spec, IR, Assign Freq Assign IR, Chem binding Table Sum rule Freq Decomp of chloroform Freq Vib assign, Table Vib sum rule	Wu Plyler Bernstein Mecke Urone Bernstein Daach Semeluk Bernstein Houser Bernstein	PR JCP CJR JCP AC JCP JCP JACS JCP JACS JCP	46 (1934) 16 (1948) 28B (1950) 20 (1952) 24 (1952) 21 (1953) 22 (1954) 76 (1954) 23 (1955) 77 (1955) 24 (1956)	465 1008 132 1935 626 2188 1293 3793 2201 6201 910
C_2HCl_3O	Dichloroacetyl chloride	-	-	-	1700-1800	G	FC Extinction coeff Freq	Linnett Pinchas Bellamy	TFS AC JCS	41 (1945) 27 (1955) -	223 226 3468
C_2HCl_3O	Dichloromethyl chloroformate	-	-	-	1700-1800 600-3000	L G S,L,G	Impurity in $TiCl_4$ C=O freq Freq Freq assign, Struc	Johannesen Kagrise Bellamy Miyake	JRNB JACS JCS SA	53 (1954) 77 (1955) - (1958) 13 (1958)	197 1377 3468 161
$C_2HCl_3O_2$	Trichloroacetic acid	-	-	-	13.58 μ	-	Photo chlorination	Brandy	JCP	21 (1953)	1049
$C_2HCl_3O_2$	Trichloroacetic acid	-	-	-	2-8 μ 1300-2000 2.8-6.5 μ 9000-11000 - 10000-10275 2100-3800 2.6-7.4 μ - 11.5-15 μ 2.6-4.6 μ - 3500-2600 3300 1146-1784 2259-3497 650-1500 - 2503-3526 - -	Sol Sol Sol Sol - G Sol - - Sol L,Sol - L Sol Sol S,Sol Sol L,S,Sol Sol	Spec, Assign Spec, Substi, Assoc Dissociation Spec, H bond Spec Spec, H bond Spec, H bond Spec, H bond Spec Spec FC H bond FC, H bond Freq Struct IR, Assign Dissociat const Bond freq, React rate Bond Freq Freq	Bennett Gillette Plyler Badger Badger Bauer Bushwell Davies Rodebush Davies Davies Richards Chulanovskii Davies Fuson Fuson Hadzi Goulden Harris Bratoz Bavin	JACS JACS PR JCP JCP JCP JACS JCP JPC TFS TFS TFS DANS JCP JCP JOSA PRS SA JACS SA CJC	49 (1927) 58 (1936) 49 (1936) 5 (1937) 5 (1937) 5 (1937) 60 (1938) 6 (1938) 43 (1939) 36 (1940) 36 (1940) 44 (1948) 68 (1949) 20 (1952) 20 (1952) 43 (1953) 216 (1953) 6 (1954) 76 (1954) 8 (1956) 35 (1957)	50 1143 868 369 837 852 2239 755 219 333 1114 40 1033 342 1627 1102 247 129 1419 249 1555

C_2HCl_5	Pentachloroethane	400-4000	L, Sol	Spec, Assign	Jorge	ARS	53B (1957)	339
		1500-700	G	Freq, Spec, Assign	Hadzi	SA	12 (1958)	162
		1580-1900	Sol	Freq, I	Bellonato	SA	16 (1960)	1333
		.8-3 μ	L	Spec, Freq	Spence	PR	34 (1929)	730
		-	L	I	Shearin	PR	35 (1930)	973
		1-14 μ	L	Spec	Stair	JRNB	15 (1935)	295
		-	-	FC	Linnett	TFS	41 (1945)	223
		500-1500	L	Spec	Thompson	PRS	184 (1945)	21
		-	-	Thermo	Mizushima	JCP	17 (1949)	591
		8-14.5 μ	Sol	Table, Band freq	Urone	AC	24 (1952)	626
C_2HF	Fluoroacetylene	650-1300	Sol	Anal	Bernstein	AC	25 (1953)	139
		2-40 μ	L	Spec, Assign, Thermo	Nielsen	JOSA	43 (1953)	1071
		-	L	Anal	Semeluk	JACS	76 (1954)	3793
		3-35 μ	L	IR, Spect, Assign	Allen	CJC	32 (1954)	1124
		3000	Sol	Freq	Bernstein	JCP	23 (1955)	2201
		1160-2998	Sol	H bond, I	Halpern	JACS	77 (1955)	4472
		-	L	Spec	Plyler	JRNB	56 (1956)	149
		-	G	Micro spec, Struct	Tyler	PRCS	- (1960)	119
		-	G	Spec	Park	JACS	73 (1951)	711
		2-15 μ	G	Ident	Haszeldine	JCS	- (1952)	4423
C_2HF_3	Trifluoroethylene	2-50 μ	G	Spec, Assign, Thermo	Mann	JCP	22 (1954)	1586
		-	-	Vib, Sum rule	Bernstein	JCP	24 (1956)	910
		2-16 μ	Sol	Spec	Shechter	JACS	72 (1950)	3371
		2-15 μ	G	Spec	Husted	JACS	74 (1952)	5422
		-	Sol	Ident	Pinchas	AC	27 (1955)	2
		-	G	Freq	Bellamy	JCS	- (1957)	4294
		5000-400	G	Spec, Freq assign	Dodd	JCS	- (1957)	2783
		-	-	FC	Walsh	TFS	43 (1947)	60
		2-15 μ	L, G, Sol	IR, Spec, Assign	Fuson	JCP	20 (1952)	1627
		-	G, Sol	Freq	Josien	PR	87 (1952)	170
$C_2HF_3O_2$	Trifluoroacetic acid	-	Sol	C=O freq	Beuder	JACS	75 (1953)	5986
		-	-	Anal	Emmons	JACS	75 (1953)	6047
		2598-3587	G	Struct	Fuson	JOSA	43 (1953)	1102
		-	-	Struct	Fuson	PR	91 (1953)	234
		-	Sol	Dissociation const	Goulden	SA	6 (1954)	129
		-	-	Ident	Haszeldine	JCS	- (1954)	4026
		-	Sol	H bond	Lawson	PR	95 (1954)	300
		2-24 μ	G	Spec, Assign	Kagarise	JCP	27 (1957)	519

C_2HF_5	Pentafluoroethane	5.5-6.5 μ	Sol	Ident	Sowicki	52
		1580-1900	Sol	Freq, I	Bellanato	1333
C_2HF_6N	Bis-trifluoromethylamine	-	-	Anal	Husted	5141
		2-38 μ	L, G	IR, Assign	Nielsen	329
$C_2HF_6O_2P$	Bis-trifluoromethyl-phosphinic acid	-	G	Ident	Barr	2532
		-	G	Assign	Barr	4169
$C_2HF_6O_2As$	Bis-trifluoromethyl-phosphine	-	-	gr. freq	Emeleus	563
		-	G, S	gr. freq	Emeleus	1552
C_2HF_6P	Bis-trifluoromethyl-phosphine	-	-	gr. freq	Emeleus	881
		-	-	Ident	Bennett	3896
$C_2HF_6PS_2$	Bis-trifluoromethyl-thiophosphine	400-4000	G	Freq, Assign	Nabi	3439
C_2HF_6As	Bis-trifluoromethyl-arsine	-	G, S	gr. freq	Emeleus	1552
$C_2HI_3O_2$	Triiodoacetic acid	1580-1900	Sol	Freq. I	Bellanato	1333
C_2H_2	Acetylene	.3-4.9 μ	G	Spec	Stewart	257
		.7-2.5 μ	G	Flame temp	Stewart	306
		.5-4 μ	G	Spec	Coblentz	243
		.5-5 μ	G	Spec	Coblentz	81
		2.9-3.2 μ	G	Ffreq	Mexer	257
		2-15 μ	G	Mol bands	Levin	137
		7.5 μ	G	Spec	Barker	912
		.68-.92 μ	G	Spec	Badger	1433
		-	-	Vib	Kettering	531
		-	-	Rotation	Oldenberg	1550
		20-33 μ	G	Transmission	Strong	1003
		6.7-33 μ	G	Transmission	Strong	1565
		-	G	Thermo	Badger	3523
		-	-	NCA	Olson	136
		20.7-152 μ	G	Absorption	Strong	267
		-	-	Spec, Assign, Review	Villars	369
		-	G	Spec	Weber	835
-	G	Thermo	Kassel	1351		

-	Thermo	Mayer	JACS	55 (1933)	37
-	Assign	Sutherland	PR	43 (1933)	883
-	Freq	Mecke	TFS	30 (1934)	200
-	Freq	Randall	PR	45 (1934)	124
-	Freq, Anal	Bradley	PR	47 (1935)	914
-	NCA	Colby	PR	47 (1935)	388
-	Vib	Duncan	JCP	3 (1935)	384
-	Thermo	Gordon	JCP	3 (1935)	259
-	Quant mech	Wilson	JCP	3 (1935)	276
-	Press broadening	Herzberg	PR	50 (1936)	1186
-	Normal modes	Childs	JSI	14 (1937)	141
-	Quant mech	Glockler	JCP	5 (1937)	813
-	FC	Thompson	JCS	- (1937)	1384
-	CH ext coeff	Williams	JAP	8 (1937)	497
-	Thermo	Gordon	JCP	6 (1938)	219
-	Quant mech	Wu	JCP	7 (1939)	178
-	Spec	Henkin	JCP	8 (1940)	297
-	Thermo	Pitzer	CR	27 (1940)	39
-	Quant mech	Stitt	JCP	8 (1940)	56
-	Spec, Assign	Wu	JCP	8 (1940)	489
-	FC	Cleveland	JCP	9 (1941)	390
-	FC	Crawford	JCP	9 (1941)	69
-	FC	Linnett	TFS	37 (1941)	469
-	Freq	Nielsen	PR	59 (1941)	911
-	Quant mech	Redlich	JCP	9 (1941)	298
-	l-type doubling	Herzberg	RMP	14 (1942)	219
-	Freq	Barnes	IEC	15 (1943)	659
-	Quant mech	Nielsen	JCP	11 (1943)	140
-	Absorp laws	Nielsen	RMP	16 (1944)	307
-	FC	Linnett	TFS	41 (1945)	223
-	Thermo	Wagman	JRNB	35 (1945)	467
-	Freq	Ahonen	JCP	14 (1946)	625
-	FC, Bond dist	Gordy	JCP	14 (1946)	305
-	FC	Walsh	TFS	42 (1946)	779
-	Anal	Halverson	RMP	19 (1947)	87
-	Press broadening	Seyfried	IEC	19 (1947)	298
-	Bond strength	Walsh	DFS	2 (1947)	18
-	FC	Walsh	TFS	43 (1947)	60
-	Force field, Interaction	Linnett	TFS	45 (1949)	844
-	Spectrum	Plyler	JRNB	42 (1949)	567
-	Thermo	Stamm	JCP	17 (1949)	104
-	Spec, Assign	Bell	JCP	18 (1950)	1382

3.3 μ

450-4000

3-7.5 μ 1-5 μ 2.5-16 μ

C_2H_2DF	Vinyl fluoride-2-d ₁	400-3500	G	Assign	Bak	SA	12 (1958)	355
C_2H_2DFO	Acetyl fluoride-d ₁	-	G	Micro spec	Pierce	JCP	31 (1959)	875
$C_2H_2DF_3$	1,1,1-Trifluoroethane-d ₁	-	-	Micro spec, Struct, I	Edgell	JACS	79 (1957)	2391
$C_2H_2D_2$	1,1-Ethylene-d ₂	-	-	Vib	Manneback	JCP	5 (1937)	989
		-	-	Freq, Assign	Wu	JCP	5 (1937)	392
		-	-	Mol anal	DeHemptinne	JCP	6 (1938)	319
		-	-	Mol anal	Halverson	RMP	19 (1947)	87
	580-3300		G	Spec, Assign	Arnett	JCP	18 (1950)	118
	700-4500		-	Freq, Assign	Lancaster	JCP	19 (1951)	661
	-		-	Sum rule	Bernstein	JCP	21 (1953)	2188
	676-6070		G	Spec, Assign, FC	Crawford	JCP	21 (1953)	678
	600-1400		-	Photo react product	Callear	JCP	24 (1956)	873
$C_2H_2D_2$	cis-1,2-Ethylene-d ₂	-	-	Vib	Manneback	JCP	5 (1937)	989
		-	-	Freq assign	Wu	JCP	5 (1937)	392
		-	-	Mol anal	DeHemptinne	JCP	6 (1938)	319
		-	-	Product rule	Halverson	JCP	13 (1945)	533
		-	-	Mol anal	Halverson	RMP	19 (1947)	87
	580-3300		G	Spec, Assign	Arnett	JCP	18 (1950)	118
	-		-	Iomerization	Rabinovitch	JCP	20 (1952)	1807
	843-3056		G	Spec, Assign, FC	Bernstein	JCP	21 (1953)	2188
	-		-	Sum rule	Crawford	JCP	21 (1953)	678
	-		-	Anal	Douglas	JCP	23 (1955)	315
	600-1400		-	Photo chem react, Anal	Callear	JCP	24 (1956)	873
	-		G	Anal, Iomerization	Flanagan	JPC	60 (1956)	724
$C_2H_2D_2$	trans-1,2-Ethylene-d ₂	-	-	Vib	Manneback	JCP	5 (1937)	989
		-	-	Freq assign	Wu	JCP	5 (1937)	392
		-	-	Mol anal	DeHemptinne	JCP	6 (1938)	319
		-	-	Product rule	Halverson	JCP	13 (1945)	533
		-	-	Mol anal	Halverson	RMP	19 (1947)	87
	580-3300		G	Spec, Assign	Arnett	JCP	18 (1950)	118
	-		-	Spec	Douglas	JACS	74 (1952)	2486
	-		-	Iomerization	Rabinovitch	JCP	20 (1952)	1807
	-		-	Sum rule	Bernstein	JCP	21 (1953)	2188
	630-5791		G	Spec, Assign, FC	Crawford	JCP	21 (1953)	678
	987		-	Kinetic study, Anal	Douglas	JCP	23 (1955)	315
	600-1400		-	Photo react prod	Callear	JCP	24 (1956)	873
	-		-	Iomerization	Flanagan	JPC	60 (1956)	730

Chemical compound	Isomerization, Anal	JPG	60 (1956)	124
$C_2H_2D_2Br_2$	1,2-Dibromoethane- d_2	-	-	-
$C_2H_2D_2Br_2$	sym-Dibromoethane- d_2	400-3200	-	-
$C_2H_2D_2Cl_2O_2$	α -, α -Dichloroacetaldehyde hydrate- d_2	600-3000	-	-
$C_2H_2D_2N_2O_2$	Diformylhydrazine- d_2	400-3600	-	-
$C_2H_2D_2N_2O_2$	Glyoxime- d_2	400-3500	-	-
$C_2H_2D_2O_4$	Formic acid (dimeric)- d_2	625-3800	-	-
$C_2H_2D_3Br$	Ethyl bromide- d_3	400-4000	-	-
$C_2H_2D_3F$	Ethyl fluoride- d_3	400-4000	-	-
$C_2H_2D_3NO_2$	Glycine-N-O- d_3	-	-	-
$C_2H_2D_3NO_2$	α -Glycine- d_3	400-1800	-	-
$C_2H_2D_3NO_2$	γ -Glycine- d_3	400-1800	-	-
$C_2H_2D_3NO_2, HCl$	Glycine hydrochloride- d_3	400-1800	-	-
$C_2H_2BrClF_2$	1-Bromo-2-chloro-1,1-difluoroethane	-	-	-
C_2H_2BrClO	Bromoacetyl chloride	-	-	-
$C_2H_2BrClNO$	α -Dichloro-N-bromoacetamide	1-15 μ	-	-
$C_2H_2BrF_2I$	1-Bromo-1,1-difluoro-2-iodoethane	-	-	-
$C_2H_2BrF_2NO$	α -Difluoro-N-bromoacetamide	1-15 μ	-	-

$C_2H_2BrF_3$	1-Bromo-2,2,2-trifluoroethane	3.33-13.93/ μ - 300-7000 G	Ident Spec, Assign, Thermo	Krogh Nielson	JOC JCP	19 (1954) 27 (1957)	1124 891
$C_2H_2Br_2$	1,1-Dibromoethylene	5-20/ μ - - - - - 184-3108 - Sol	Spec, Assign Freq, FC Freq, FC Quant mech, Assign FC NCA Freq, Assign Freq	Thompson DeHemptinne Sheppard Torkington Torkington Dowling Mann Potts	PRS TFS PRS JCP PRS PR JCP SA	184 (1945) 42 (1946) 196 (1949) 17 (1949) 206 (1951) 100 (1955) 23 (1955) 15 (1959)	21 5 195 1279 17 1267 2122 679
$C_2H_2Br_2$	cis-1,2-Dibromoethylene	- -	Quant mech, Assign Freq, FC	Sheppard Torkington	PRS JCP	196 (1949) 17 (1949)	195 1279
$C_2H_2Br_2$	trans-1,2-Dibromoethylene	-	Freq	Potts	SA	15 (1959)	679
$C_2H_2Br_2$	(cis & trans)-1,2-Dibromoethylene	400-3400 L, G	Spec, Assign, NCA, Thermo	Dowling	JCP	26 (1957)	233
$C_2H_2Br_2F_2$	1,2-Dibromo-1,1-difluoroethane	-	IR, Freq, Rot isomers	Kagarise	JCP	24 (1956)	1264
$C_2H_2Br_2N_2O_2$	Dibromoglyoxime	400-3500 -	Spec, Freq, Struct	Borello	GCI	87 (1957)	615
$C_2H_2Br_2O$	Bromoacetyl bromide	- 550-3000 L, G -	Freq IR, Freq, FC, Isomerism Sum rule	Hartwell Nakagawa Mizushima	JCS JCP JCP	- (1948) 20 (1952) 21 (1953)	1436 1720 215
$C_2H_2Br_2O_2$	Dibromoacetic acid	5.5-6.5/ μ 1580-1900 Sol	Ident Freq, I	Sawicki Bellanato	AC SA	31 (1959) 16 (1960)	523 1333
$C_2H_2Br_4$	Tetrabromoethane	.8-3/ μ - - 24-40/ μ - - 300-3000 L 2-15/ μ L, S 450-3000 L, S 2-38/ μ L, S	Spec, Freq I FC Freq I, Isotopic effects IR, Freq, Rot isomers Rot isomers, Spec, I Spec, Mol anal Freq, Rot isomers Spec, Assign, Rot isomers	Spence Shearin Linnett Plyler Kagarise Kagarise Malherbe Kagarise Hashimoto Kagarise	PR PR TFS JCP AC TFS JACS JCP JCP JCP	34 (1929) 35 (1930) 41 (1945) 16 (1948) 23 (1951) 48 (1952) 74 (1952) 23 (1955) 24 (1956) 24 (1956)	730 973 223 1008 1048 394 1859 207 172 300
C_2H_2ClF	1-Chloro-1-fluoroethylene	3-20/ μ -	Spec, Assign FC	Torkington Torkington	TFS PRS	41 (1945) 206 (1951)	236 17

	1.6-52 μ	G	Spec, Assign, Thermo	Mann	JCP	23 (1955)	2122
$C_2H_2ClF_3$	1-Chloro-2,2,2-trifluoroethane	G,L G	IR, Spect, Assign, Thermo Spec	Nielsen Catalano	JCP JPC	21 (1953) 62 (1958)	1060 838
C_2H_2ClN	Chloroacetoneitrile	L G,Sol G	Freq assign Freq, Struct Micro spec, Mol consts	Barr Jesson Graybeal	JCS SA JCP	- (1956) 13 (1958) 32 (1960)	3428 217 1258
$C_2H_2ClO_2$	Chloroacetate ion	-	Assign	Nakamura	NKZ	79 (1958)	1420
$C_2H_2Cl_2$	1,1-Dichloroethylene	- - G,L - - - - - - G G Sol	Freq Review, Spec Spec, Assign Freq, FC Quant mech Quant mech, Assign FC IR, Assign Sum rule Freq, Assign FC, Freq Assign Freq, Spec	Bonino Thompson Thompson Sheppard Torkington Torkington Torkington Joyner Bernstein Mann Enomoto Evans Potts	TFS JCS PRS PRS JCP JCP PRS JCP JCP JCP NKZ JCP SA	25 (1929) - (1944) 184 (1945) 196 (1949) 17 (1949) 17 (1949) 17 (1949) 206 (1951) 20 (1952) 21 (1953) 23 (1955) 79 (1958) 30 (1959) 15 (1959)	876 183 21 195 1026 1279 17 302 2188 2122 1343 934 679
$C_2H_2Cl_2$	cis-1,2-Dichloroethylene	L L G - - - - L G,L - - L - - - G - - - -	Spec Spec Spec, IR, Assign Freq assign Thermo FC FC Freq Freq assign Freq, FC Quant mech, Assign FC Solvent Sum rule Sum & product rule Freq Interact theory Assign, Thermo NCA	Smith Spence Wu Wu Wood Linnett Pitzer Hyde Bernstein Sheppard Torkington Torkington Marrison Bernstein Mizushima O'Loane Torkington Pitzer Dowling	JACS PR PR JCP JACS TFS JCP JCP JCP PRS JCP PRS JCI JCP JCP JCP JCS JCP JCP JCP JACS PR	48 (1926) 34 (1929) 46 (1934) 5 (1937) 63 (1941) 41 (1945) 14 (1946) 16 (1948) 17 (1949) 196 (1949) 17 (1949) 206 (1951) 29 (1952) 21 (1953) 21 (1953) 21 (1953) 21 (1953) 21 (1953) 76 (1954) 100 (1955)	1512 730 465 392 1650 223 586 744 556 195 1279 17 233 2188 215 669 83 1493 1267

$C_2H_2Cl_2$	trans-1,2-Dichloroethylene	-	-	Vib amp theory	Morino	JCP	23 (1955)	737
		-	-	Vib, Vap liq shift	Benson	JCP	27 (1957)	1164
		-	G	Micro spec	Shimizu	JPSJ	15 (1960)	646
		1-2.5 μ	L	Spec	Smith	JACS	48 (1926)	1512
		.8-3 μ	L	Spec	Spence	PR	34 (1929)	730
		2-25 μ	G	Spec, IR, Assign	Wu	PR	46 (1934)	465
		-	-	Freq assign	Wu	JCP	5 (1937)	392
		-	-	Hindered rotat	Langseth	JCP	8 (1940)	415
		-	-	Thermo	Wood	JACS	63 (1941)	1650
		-	-	FC	Linnett	TFS	41 (1945)	223
$C_2H_2Cl_2N_2O_2$	Dichloroglyoxime	-	-	FC	Pitzer	JCP	14 (1946)	586
		-	-	Mol anal	Halverson	RMP	19 (1947)	87
		3500-400	G,L	Freq, Assign	Bernstein	JCP	17 (1949)	556
		-	L	IR	Kreusch	PR	75 (1949)	334
		-	-	Freq, FC	Sheppard	PRS	196 (1949)	195
		-	-	Quant mech, Assign	Torkington	JCP	17 (1949)	1279
		-	-	FC	Torkington	PRS	206 (1951)	17
		15-25 μ	L	Solvent	Marrison	JSI	29 (1952)	233
		960-850	G,L	Spec	Ramsay	JACS	74 (1952)	72
		-	-	Sum rule	Bernstein	JCP	21 (1953)	2188
		-	-	Sum & product rule	Mizushima	JCP	21 (1953)	215
		-	G	Freq	O'Loane	JCP	21 (1953)	669
		-	-	Interact theory	Torkington	JCP	21 (1953)	83
		140-410	L,G	Spec, Assign, I, Thermo	Pitzer	JACS	76 (1954)	1493
		-	-	NCA	Dowling	PR	100 (1955)	1267
		-	-	Thermo	Luft	JCP	59 (1955)	572
		-	-	Vib	Morino	JCP	23 (1955)	737
		-	-	Vib, Vap liq shift	Benson	JCP	27 (1957)	1164
		-	Sol	Freq, Spec	Potts	SA	15 (1959)	679
		400-3500	--	Spec, Struct, Freq	Borello	GCI	87 (1957)	615
$C_2H_2Cl_2O$	Chloroacetyl chloride	-	-	FC	Linnett	TFS	41 (1945)	223
		-	G	Freq	Hartwell	JCS	- (1948)	1436
		-	G,L,S, Sol	Struct	Mizushima	JPC	56 (1952)	324
		550-3000	L,G	IR, Freq, FC, Isomerism	Nakagawa	JCP	20 (1952)	1720
		-	-	Sum & product rule	Mizushima	JCP	21 (1953)	215
		-	-	Freq	Johannsen	JRNB	53 (1954)	197
		-	-	Freq	Kagarise	JACS	77 (1955)	1377
		1700-1800	L	Freq	Bellamy	JCS	- (1958)	3465
		-	G,Sol	Freq, Substitution				
$C_2H_2Cl_2N_2O_2$	Dichloroglyoxime	400-3500	--	Spec, Struct, Freq	Borello	GCI	87 (1957)	615
		-	-	FC	Linnett	TFS	41 (1945)	223
		-	G	Freq	Hartwell	JCS	- (1948)	1436
$C_2H_2Cl_2O$	Chloroacetyl chloride	-	G,L,S, Sol	Struct	Mizushima	JPC	56 (1952)	324
		550-3000	L,G	IR, Freq, FC, Isomerism	Nakagawa	JCP	20 (1952)	1720
		-	-	Sum & product rule	Mizushima	JCP	21 (1953)	215
$C_2H_2Cl_2O$	Chloroacetyl chloride	-	-	Freq	Johannsen	JRNB	53 (1954)	197
		-	-	Freq	Kagarise	JACS	77 (1955)	1377
		1700-1800	L	Freq	Bellamy	JCS	- (1958)	3465

$C_2H_2Cl_2O_2$	Chloromethyl chloro- formate	7-34 μ	-	Photo chlorination	Brandy	JCP	21 (1953)	1049
$C_2H_2Cl_2O_2$	Dichloroacetic acid	2-8 μ 1300-2000 - 2498-3529 - - 400-4000 1500-700 1580-1900	Sol Sol Sol Sol Sol, L Sol Sol, L G Sol	Spec, Freq, Assign Spec, Assoc Freq & dissociation const Freq, Assoc Freq Freq & dissociation const Spec, Assign Spec, Freq, Assign Freq, I	Bennett Gillette Goulden Harris Bratoz Bavin Jorge Hadzi Bellanato	JACS JACS SA JACS SA CJC ARS SA SA	49 (1927) 58 (1936) 6 (1954) 76 (1954) 8 (1956) 35 (1957) 53B (1957) 12 (1958) 16 (1960)	50 1143 129 1419 249 1555 339 162 1333
$C_2H_2Cl_3NO$	Trichloroacetamide	2.7-3.7 μ 700-3500 3000-3500 - -	S S Sol Sol	H bond IR, Struct, Vib Spec Freq, I	Bushwell Kuratani Davies Brown	JACS BCSJ JCS JPC	62 (1940) 25 (1952) - (1954) 63 (1959)	2759 258 2374 1324
$C_2H_2Cl_3Si$	Vinyltrichlorosilane	2-35 μ	L, G	Spec, Assign	Shull	JCP	24 (1956)	147
$C_2H_2Cl_4$	1,1,1,2-Tetrachloroethane	- 2-38 μ 3-35 μ 50-125 μ -	- G, L L L -	Thermo Spec, Assign, Thermo, I Spec, Assign Spec Freq	Mizushima Nielsen Allen Plyler Wilmshurst	JCP JOSA CJC JRNBS CJC	17 (1949) 43 (1953) 32 (1954) 56 (1956) 35 (1957)	591 1071 1124 149 937
$C_2H_2Cl_4$	1,1,2,2-Tetrachloro- ethane	2-6.5 μ 1-2.5 μ - .8-3 μ - - - 500-1500 - 22-39 μ - - - 8-14.5 μ 650-1300 -	L L - L L - - L - L - - L Sol Sol L	Spec Spec Freq, Absorp coeff Spec, Freq I Hindered rot Hindered rot FC Spec Freq Freq Rot isomerism I, Isotopic effect Rot isomerism, Thermo IR, Rot isomerism Table, Freq Anal Anal	Daniels Smith Bonino Spence Shearin Langseth Langseth Linnett Thompson Chulanovskii Plyler Sheppard Kagarise Powling Kagarise Urone Bernstein Semeluk	JACS JACS TFS PR PR JCP JCP TFS PRS IANS JCP JCP AC JACS TFS AC AC JACS	47 (1925) 48 (1926) 25 (1929) 34 (1929) 35 (1930) 8 (1940) 8 (1940) 41 (1945) 184 (1945) 12 (1948) 17 (1949) 18 (1950) 23 (1951) 73 (1951) 48 (1952) 24 (1952) 25 (1953) 76 (1954)	2856 1512 876 730 973 410 415 223 628 218 145 1048 1815 394 626 139 3793

$C_2H_2F_2$	1,1,-Difluoroethene	1160-2998 545-2990 450-3000 2-38 μ 2-25 μ	Sol G,L,Sol L,S S,L L	H bond, I, Shift IR, Assign, FC Freq, Rot isomerism Spec, Assign, Rot isomerism IR, Assign, FC	Halpern Naïto Hashimoto Kagarise Zietlow	JACS JCP JCP JCP JCP	77 (1955) 23 (1955) 24 (1956) 24 (1956) 24 (1956)	4472 1907 172 300 142
$C_2H_2F_2$	1,1,-Difluoroethene	3-20 μ 760-970	G G L	Spec, Assign Spec, Mol const Freq	Torkington Cole Edgell	TFS PRS JCP	41 (1945) 200 (1949) 17 (1949)	236 10 740
		-	-	Freq, FC	Sheppard	PRS	196 (1949)	195
		-	-	Quant mech, Assign	Torkington	JCP	17 (1949)	1279
		-	L	NCA	Edgell	JCP	18 (1950)	892
		2-38 μ	G	IR, Assign	Smith	JCP	18 (1950)	326
		-	-	FC	Torkington	PRS	206 (1951)	17
		-	-	Freq	El-Sabban	JCP	20 (1952)	1810
		-	-	FC, Vib	Morino	JCP	20 (1952)	726
		-	-	Vib amplitude theory	Morino	JCP	21 (1953)	1927
		-	-	Ind of purity	Haszeldine	JCS	- (1954)	923
		18000-38000 Mc/sec	G	Microwave	Solimene	JCP	22 (1954)	2042
		438-3100	G	Freq, Assign	Mann	JCP	23 (1955)	2122
		-	-	Micro spec, Mol parameters	Edgell	JACS	79 (1957)	2691
		-	Sol	Freq, Spec	Potts	SA	15 (1959)	679
$C_2H_2F_2O_2$	Difluoroacetic acid	5.5-6.5 μ 1580-1900	Sol Sol	Ident Freq, I	Sawicki Bellanato	AC SA	31 (1959) 16 (1960)	523 1333
$C_2H_2FI_3$	1-Iodo-2,2,2-trifluoroethane	-	L	Freq, Phys prop	Tiers	JACS	75 (1953)	5978
C_2H_2FNO	Trifluoroacetamide	-	Sol Sol	Freq I, Freq	Bender Brown	JACS JPC	75 (1953) 63 (1959)	5986 1324
$C_2H_2FNO_2$	2,2,2-Trifluoroethyl	-	G,L,Sol	Vib, Assign, Rot isomerism	Haszeldine	JCS	- (1955)	4172
$C_2H_2F_4$	1,1,1,2-Tetrafluoroethane	50-420	S	Spec	Danti	JCP	30 (1959)	582
$C_2H_2F_4$	1,1,2,2-Tetrafluoroethane	2-15 μ 350-5000	G G	Spec, Anal Spec, Freq, Rot	Lacher Klaboe	TFS JCP	52 (1956) 32 (1960)	1500 899

$C_2H_2F_6O_5As_2$	Pyrotri fluoromethylarsonic acid	-	-	Freq	Emeleus	JCS	- (1954)	881
$C_2H_2I_2$	1, 1-Diiodoethylene	-	-	FC	Torkington	PRS	206 (1951)	17
$C_2H_2I_2$	cis-1, 2-Diiodoethylene	-	-	Freq, FC IR, Assign	Sheppard Miller	PRS JCP	196 (1949) 23 (1955)	195 44
$C_2H_2I_2$	trans-1, 2-Diiodoethylene	-	-	Freq, FC Spec band IR, Assign	Sheppard Miller Miller	PRS JACS JCP	196 (1949) 73 (1951) 23 (1955)	195 2376 44
$C_2H_2IO_2$	Diiodoacetic acid	1580-1900	Sol	I, Freq	Bellanato	SA	16 (1960)	1333
$C_2H_2N_4$	S-Tetrazine	-	G, S, L, sol	Assign	Spencer	DA	19 (1959)	3152
C_2H_2O	Ketene	-	-	Quant mech Freq	Wilson	JCP	2 (1934)	432
		740-3500	G	Freq, FC	Gershinowitz	JCP	5 (1937)	500
		-	G	FC, Bond dist	Thompson	JCS	- (1937)	1389
		2-15 μ	L	Struct, Spec	Thompson	JCS	- (1937)	1396
		2.5-25 μ	G	Spec, Assign	Whiffen	JCS	- (1946)	1005
		2.5-25 μ	G	Spec, Assign	Halverson	JCP	15 (1947)	552
		-	-	FC	Harp	JCP	15 (1947)	778
		-	-	FC	Walsh	TFS	43 (1947)	60
		2-20 μ	-	Freq assign, Thermo	Walsh	TFS	43 (1947)	158
		-	-	Decomposition	Drayton	JCS	- (1948)	1416
		450-3600	G	Spec, Review	Simard	JCP	16 (1948)	836
		-	-	Spec	Williams	RSI	19 (1948)	135
		500-1200	G	Freq, Assign, Thermo	Fletcher	JCP	19 (1951)	1431
		-	G	Ident	Bak	JCP	22 (1954)	1050
		-	-	Anal	Das	JACS	76 (1954)	6271
		-	-	Freq, Bond dist	Margoshes	JCP	22 (1954)	381
		500-3200	G	Mol struct, Spec	Mueller	JACS	76 (1954)	330
		450-3600	-	Spec, Assign	Arendale	JCP	24 (1956)	581
		3-5.5 μ	-	A_0 & B_0 values	Arendale	JCP	26 (1957)	793
		-	-	Microwave	Bitter	SA	13 (1958)	223
$C_2^{12}H_2O^{16}$	Ketene-(isotopic)	-	G		Johnson	JCP	20 (1952)	687
$C_2H_2O_2$	Oxalaldehyde	1-15 μ	G	Spec, Assign	Thompson	TFS	36 (1940)	988
		-	-	Freq, Assign	Gaydon	TFS	43 (1947)	36
		-	-	FC	Walsh	TFS	43 (1947)	60
		-	-	Freq, FC	Walsh	TFS	43 (1947)	158

$C_2H_2O_4$	Oxalic acid	700-3600 - - 127-2836 -	G G - G -	Spec, Mol const, Config Anal Mol anal Assign Bond dist, Freq	Cole Badin Brand Brand Margoshes	PRS JACS TFS JCS JCP	200 (1949) 72 (1950) 50 (1954) - (1954) 22 (1954)	10 1550 431 2970 381
		- 680-1500 - -	- S S -	H bond, Dichroism Spec, Assign Spec H bond	Glatt Hadzi Kalkwarf Lippincott	JCP PRS AC JCP	15 (1947) 216 (1953) 26 (1954) 23 (1955)	880 247 191 1099
$C_2H_2O_4 \cdot 2H_2O$	Oxalic acid dihydrate	700-4000 - -	S - S	Table freq H bond, Distance vs freq H bond	Flett Rundle Pimental	JCS JCP JCP	- (1951) 20 (1952) 24 (1956)	962 1487 639
C_2H_3D	Ethylene- d_1	- - - 580-3300 765-1121 - 809-3063	- - - G - - G	Modes of vib Mol anal Mol anal Spec, Assign Absorption freq Sum rule Freq, Assign, FC	Manneback DeHemptinne Halverson Arnett Courtroy Bernstein Crawford	JCP JCP RMP JCP JCP JCP JCP	5 (1937) 6 (1938) 19 (1947) 18 (1950) 19 (1951) 21 (1953) 21 (1953)	989 319 87 118 137 2188 678
$C_2H_3DBr_2$	1,2-Dibromoethane- d_1	-	-	Isomer	Neu	JCP	18 (1950)	1642
$C_2H_3DClNO_2$	Chloroacetoxyhydroxamic acid-O- d_1	700-4000	S, Sol	Spec, Assign	Hadzi	SA	10 (1958)	38
C_2H_3DO	Acetaldehyde- d_1	- 3-5 μ	G S	Microwave Freq, Assign	Lin Schneider	JCP TFS	24 (1956) 52 (1956)	631 13
$C_2H_3DO_2$	Acetic acid- d_1	1-16 μ 700-1900 2.8-5.0 μ - - 2070-2635 500-1500 3-5 μ 2-25 μ - 2-25 μ 1500-700	G G Sol G - Sol L, Sol L G L G G G	Spec, H bond Freq Spec, H bond H bond Struct Spec, Struct IR, Spec Spec Spec, Assign Freq Spec, Assign Spec, Freq, Assign	Herman Herman Wall Sutherland Fuson Fuson Hadzi Potter Weltner Bratoz Wilmsmurst Hadzi	JCP JCP JACS TFS PR JOSA PRS JPC JACS SA JCP SA	6 (1938) 7 (1939) 61 (1939) 36 (1940) 91 (1953) 43 (1953) 216 (1953) 58 (1954) 77 (1955) 8 (1956) 25 (1956) 12 (1958)	534 460 2812 889 234 1102 247 1040 3941 249 1171 162

$C_2H_3D_2Br$	Ethyl bromide-d ₂	400-4000	G	Spec, Rot iso	Bak	ACS	12 (1958)	2021
$C_2H_3D_2F$	Ethyl fluoride-d ₂	400-4000	G	Spec, Rot iso	Bak	ACS	12 (1958)	2021
$C_2H_3D_2NO_2$	Glycine-c-d ₂	-	-	Ident	Nakamura	NKZ	80 (1959)	118
C_2H_3Br	Bromoethylene	-	-	FC	Linnett	TFS	41 (1945)	223
		5-20 μ	G	Spec, Assign	Thompson	PRS	184 (1945)	21
		-	-	FC, Freq	DeHemptinne	TFS	42 (1946)	5
		-	-	Freq, FC	Pitzer	JCP	14 (1946)	586
		-	G	Thermo	Richards	JCS	- (1948)	1931
		-	-	Freq, FC	Sheppard	PRS	196 (1949)	195
		-	-	Quant mech, Assign	Torkington	JCP	17 (1949)	1279
		-	-	FC	Torkington	PRS	206 (1951)	17
		-	L	Group freq	Jacobs	JACS	75 (1953)	1314
		-	-	Sum rule	Bernstein	JCP	24 (1956)	910
		-	-	Sum rule	Bernstein	CJC	34 (1956)	617
		-	G	Spec, Thermo	Gullikson	JMS	1 (1957)	158
		-	Sol	Spec, Group freq	Potts	SA	15 (1959)	679
		-	-	NCA	Scherer	JCP	30 (1959)	1527
$C_2H_3BrClNO$	α -Chloro-N-bromo-acetamide	1-15 μ	S, Sol	Spec, Assign	Lacher	JACS	74 (1952)	5578
C_2H_3BrO	Acetyl bromide	-	-	FC	Linnett	TFS	41 (1945)	223
		-	G, Sol	Freq	O'Sullivan	JCS	- (1957)	4144
		-	G	Microwave spec	Krisher	JCP	33 (1960)	1237
$C_2H_3BrO_2$	α -Bromoacetic acid	1300-2000	Sol	Spec	Gillette	JACS	58 (1936)	1143
		-	Sol	Freq	Goulden	SA	6 (1954)	129
		5.5-6.5 μ	Sol	Ident	Sawicki	AC	31 (1959)	523
		1580-1900	Sol	Freq	Bellano	SA	16 (1960)	1333
$C_2H_3Br_3$	1,1,2-Tribromoethane	300-3020	L, S	Spec, I, Iso	Malherbe	JACS	74 (1952)	1859
		-	L	Spec	Plyler	JRNB	56 (1956)	149
$C_2H_3Br_3O_2$	Bromal hydrate	2.6-3 μ	Sol	Spec	Davies	TFS	36 (1940)	333
		400-3800	S, Sol	Spec	Novak	SA	16 (1960)	521
C_2H_3Cl	Vinyl chloride	-	L	Freq, Assign	West	TFS	27 (1931)	145
		2-25 μ	G	Freq	Wu	PR	46 (1934)	465
		800-1000	-	Spec	Thompson	JCS	- (1944)	183
		-	-	FC	Linnett	TFS	41 (1945)	223
		3-20 μ	G	Spec, Assign	Thompson	PRS	184 (1945)	21
		-	-	Freq, FC	Pitzer	JCP	14 (1946)	586
		-	G	Thermo	Richards	JCS	- (1948)	1931

$C_2H_3ClF_2$	1-Chloro-1,1-difluoro-ethane	8-15 μ	G	Spec, Assign, Mol consts Freq, FC	Cole Sheppard	PRS PRS	200 (1949) 196 (1949)	10 195
		-	-	Assign, Quant mech FC	Torkington Torkington	JCP PRS	17 (1949) 206 (1951)	1279 17
		-	-	Sum rule	Bernstein	JCP	21 (1953)	2188
		-	-	Ident	Semeluk	JACS	76 (1954)	3793
		-	-	Vib sum rule	Bernstein	JCP	24 (1956)	910
		2-15 μ	G	Spec	Lacher	JPC	60 (1956)	492
		2-15 μ	G	Spec	Pierson	AC	28 (1956)	1218
		2-34 μ	G	Spec, Assign, Thermo	Gullikson	JMS	1 (1957)	158
		-	-	Group freq	Bellamy	JCS	- (1958)	2463
		400-4000	G	Freq, Assign, NCA, FC	Narita	JCP	31 (1959)	1151
		-	Sol	Freq, Spec	Potts	SA	15 (1959)	679
		-	G	Microwave spec, Mol const	Kivelson	JCP	32 (1960)	205
C_2H_3ClO	Acetyl chloride	52 μ	L	Total absorption FC	Hollangel	PR	11 (1918)	505
		-	-	FC	Linnett	TFS	41 (1945)	223
		-	-	Absorption	Walsh	TFS	43 (1947)	158
		2-15 μ	-	Freq, Struct anal	Hartwell	JCS	- (1948)	1436
		1700	Sol	Vibration, I	Rasmussen	JACS	71 (1949)	1073
		-	L	Spec, Assign	Richards	TFS	45 (1949)	874
		1805	-	Freq, I	Sheppard	TFS	45 (1949)	693
		-	Sol	I	Barrow	JCP	21 (1953)	2008
		-	-	Rotational barrier theory	Hirota	BCSJ	27 (1954)	295
		-	-	Freq	Luft	JCP	22 (1954)	1814
		-	G	Microwave spec	Kagarise	JACS	77 (1955)	1377
		1700-1800	G, Sol	Freq	Sinnott	BAPS	2 (1956)	198
		1650-1850	G, L, Sol	Comparison	O'Sullivan	JCS	- (1957)	4144
		-	-	Solvent effect	Bellamy	JCS	- (1958)	3465
		-	-	Freq	Bellamy	TFS	55 (1959)	14
		-	Sol	Band freq	Horak	TEL	3 (1959)	19
		-	-	Band freq	Baker	JACS	82 (1960)	1923
C_2H_3ClO	Chloroacetaldehyde	1700-1800	G	Comparison, Freq	Bellamy	JCS	- (1958)	3468
C_2H_3ClOS	Methylmercaptocarbonyl chloride	-	Sol	Band freq	Baker	JACS	82 (1960)	1923
$C_2H_3ClO_2$	Chloroacetic acid	2-8 μ	Sol	Spec, Assign	Bennett	JACS	49 (1927)	50

		-	-	Ident	Roal	JCS	- (1950)	1596
		-	-	FC	Torkington	PRS	206 (1951)	17
		-	-	Vib sum rule	Bernstein	JCP	24 (1956)	910
		400-3500	G	Assign	Bak	SA	12 (1958)	355
		-	-	Struct, Mol consts	Bak	SA	13 (1958)	120
		-	Sol	Group freq, Spec	Potts	SA	15 (1959)	679
		-	-	Assign, NCA	Scherer	JCP	31 (1959)	1691
$C^{12}_2H_3F$	Vinyl fluoride (i isotopic)	-	-	Parameters calc	Morgan	JCP	30 (1959)	1025
$C^{13}_2H_3F$	Vinyl fluoride (i isotopic)	-	-	Parameters calc	Morgan	JCP	30 (1959)	1025
$C^{12}_2H_3F$	Vinyl fluoride (i isotopic)	-	-	Parameters calc	Morgan	JCP	30 (1959)	1025
C_2H_3FO	Acetyl fluoride	-	-	Rot barrier theory	Luft	JCP	22 (1954)	1814
		-	-	Freq	Kagarise	JACS	77 (1956)	1377
		-	G	Microwave spec	Pierce	BAPS	2 (1956)	198
		-	G, Sol	C=O band study	O'sullivan	JCS	- (1957)	4144
		-	G	Microwave spec, Mol consts, Struct	Pierce	JCP	31 (1959)	875
$C_2H_3FO_2$	Fluoroacetic acid	1580-1900	Sol	Freq, I	Ballenato	SA	16 (1960)	1333
$C_2H_3F_3$	1,1,1-Trifluoroethane	-	-	Bond distance	Bernstein	JCP	16 (1948)	30
		-	-	Moments of inertia	Edgell	JCP	16 (1948)	1002
		500-3200	G	Freq, Assign, Spec	Thompson	JCS	- (1948)	1428
		-	-	Microwave	Dalley	PR	75 (1949)	1319
		-	-	Thermo	Blade	JCP	18 (1950)	630
		0.7-19 μ	G	Spec, Assign	Cowan	JCP	18 (1950)	1538
		300	G	Internal rotational barrier	Gutowsky	JCP	18 (1950)	1297
		2-23 μ	G	IR, Spec, Assign	Nielsen	JCP	18 (1950)	1471
		-	-	Microwave	Minden	PR	82 (1951)	338
		-	-	Freq	El-Sabban	JCP	20 (1952)	1810
		-	-	Symmetry	Minden	JCP	20 (1952)	1964
		20-38 μ	G	Freq, Assign, Thermo	Smith	JCP	20 (1952)	473
		200-3000	-	Assign	Smith	JCP	20 (1952)	847
		-	-	IR, Freq, Assign	Nielsen	JCP	21 (1953)	1060
		-	-	Assign, FC	Pan	JCP	21 (1953)	1426
		-	-	Freq	Sheppard	JCP	23 (1955)	582
		-	-	Potential barrier	Bak	JCP	24 (1956)	918
		500-3000	-	Freq	Bellamy	JCS	- (1956)	2753
		-	-	Thermo	Li	JPC	60 (1956)	466
		-	-	Spec	Vanderkooi	JPC	60 (1956)	636

$C_2H_3F_3O$	2, 2, 2-Trifluoroethanol	- - 150-450	- G G	Mol struct Microwave Spec, Assign	Edgell Thomas Catalano	JACS ZE JPC	79 (1957) 61 (1957) 62 (1958)	2391 935 838
$C_2H_3F_3O$	2, 2, 2-Trifluoroethanol	- 3200-3800 3400-3800	L, Sol Sol Sol	Freq, H bond Spec, H bond H bond	Haszeldine Mukherjee West	JCS JPC JACS	- (1953) 62 (1958) 81 (1959)	1757 1311 1614
$C_2H_3F_3O_2$	Fluoral hydrate	400-3800	G, Sol, L	Spec, Freq	Novak	SA	16 (1960)	521
$C_2H_3F_3O_2$	Perfluoroacetaldehyde	2-14.7 μ	S	Spec, Group freq	Husted	JACS	74 (1952)	5422
C_2H_3I	Vinyl iodide	500-3200	G	Assign, Spec FC	Torkington Linnett	JCS TFS	- (1944) 41 (1945)	303 223
		-	-	FC, Freq	Pitzer	JCP	14 (1946)	586
		-	G	Thermo	Richards	JCS	- (1948)	1931
		-	-	Assign, Quant mech	Torkington	JCP	17 (1949)	1279
		-	-	FC	Torkington	PRS	206 (1951)	17
		-	-	Microwave	Cornwell	JCP	22 (1954)	1257
		-	-	Microwave	Morgan	JCP	22 (1954)	1427
		-	Sol	Group freq, Spec	Potts	SA	15 (1959)	679
$C_2H_3IO_2$	Iodoacetic acid	1300-2000	Sol	Spec	Gillette	JACS	58 (1936)	1143
		-	Sol	Freq correlated with dissociation constant	Goulden	SA	6 (1954)	129
		5.5-6.5 μ	Sol	Ident	Sawicki	AC	31 (1959)	523
		1580-1900	Sol	Freq, I	Bellanato	SA	16 (1960)	1333
C_2H_3N	Methyl cyanide	- 1-12 μ 2.8-5.0 μ 1.0-6.5 μ	- L L L	Quant mech Spec Spec Spec	Wilson Bell, Gordy Gordy	JCP JACS JCP JCP	2 (1934) 57 (1935) 3 (1935) 4 (1936)	432 1023 664 85
		-	-	Discussion of bands	Badger	JCP	5 (1937)	178
		7800-11500	G, L	Spec, Vib anal	Badger	JACS	59 (1937)	303
		2.5-3.1 μ	L	Spec, H bond	Gordy	JACS	59 (1937)	464
		2.5-3.5 μ	L, Sol	Spec, H bond	Gordy	JACS	60 (1938)	605
		-	-	Solvent effect	Gordy	JCP	7 (1939)	93
		-	-	Thermo	Ewell	JCP	8 (1940)	635
		-	-	FC	Linnett	JCP	8 (1940)	91
		-	-	FC	Crawford	JCP	9 (1941)	69
		-	-	FC	Linnett	TFS	37 (1941)	469
		-	-	Freq, Thermo	Thompson	TFS	37 (1941)	344
		1300-1600	-	Spec	Barnes	IEC	15 (1943)	659

-	FC	Linnett	TFS	41 (1945)	223
3-20 μ	Spec, Use as solvent	Torkington	TFS	41 (1945)	184
-	FC, Bond distance	Gordy	JCP	14 (1946)	305
-	Microwave	Ring	PR	72 (1947)	1262
-	FC	Walsh	TFS	43 (1947)	60
-	Microwave spec	Dalley	AC	21 (1949)	540
-	Microwave	Kessler	PR	79 (1950)	54
-	Microwave	Nielsen	PR	77 (1950)	130
-	C = N band	Griffith	AC	23 (1951)	678
1.6-20 μ	Spec, Assign	Venkateswarlu	JCP	19 (1951)	293
-	C = N freq, I	Kitson	AC	24 (1952)	334
15-25 μ	Transparent solvent	Marrison	JSI	29 (1952)	233
2-15 μ	Spec, Solvent	Priestera	APS	6 (1952)	29
-	FC, Freq	Thomas	JCS	- (1952)	2383
-	Spec, Rot anal	Thompson	TFS	48 (1952)	502
250-460	Observation	Venkateswarlu	JCP	20 (1952)	923
2-16 μ	Spec	Anderson	JOSA	43 (1953)	221
-	Band freq	Enimons	JACS	75 (1953)	6047
1.5-16 μ	Spec	Parker	PR	91 (1953)	235
-	FC	Krishnamachari	IJP	28 (1954)	468
2-16 μ	Spec	Bard	AC	27 (1955)	12
-	Solvent effect	Bayliss	AJC	8 (1955)	26
-	Mol struct	Felton	JCS	- (1955)	2170
-	C = N freq, I	Skinner	JCS	- (1955)	487
500-3000	Six fund interrelated	Bellamy	JCS	- (1956)	2753
-	Rot vib interaction	Meal	JCP	24 (1956)	1126
1200-2400	Spec	Birnbaum	JCP	27 (1957)	360
1.6-20 μ	Mol consts, Spec, Assign	Parker	JMS	1 (1957)	107
25-35 μ	Resolution of struct	Rao	JMS	1 (1957)	24
2200-2300	Freq, Struct	Jesson	SA	13 (1958)	217
3000	Assign	Josien	CPR	246 (1958)	1992
-	Pressure effect	Wiederkehr	JCP	28 (1958)	311
-	Intermolecular reactions	Zhukova	OS	5 (1958)	270
-	Solvent effect	Bayliss	SA	15 (1959)	12
2900	Assign	Deschamps	BSCF	- (1959)	88
-	Freq, I	Foffain	NC	13 (1959)	213
4270-4510	Microwave, Assign	Jaseja	PIAS	50A (1959)	108
-	Spec, Assign	Dick	JMS	5 (1960)	170
400-7000	NCA, Thermo	Krishnapillai	JMS	5 (1960)	212
30-50 μ	Spec, Freq	Rao	ZAUA	304 (1960)	351
-	Spec, Mol consts	Robinson	JCP	32 (1960)	556
1.0-6.5 μ	Spec	Gordy	JCP	4 (1936)	85
7800-11500	Spec, Vib anal	Badger	JACS	59 (1937)	303

C₂H₃N

Methyl isocyanide

$C_2H_3N^{14}$	-	-	Thermo	Ewell	JCP	8 (1940)	635
	-	-	Freq assign	Eyster	JCP	8 (1940)	369
	-	-	FC	Linnett	JCP	8 (1940)	91
	-	-	FC	Linnett	TFS	41 (1945)	223
	-	-	FC, Bond distance	Gordy	JCP	14 (1946)	305
	-	-	Microwave	Ring	PR	72 (1947)	1262
	-	-	Microwave spec	Dalley	AC	21 (1949)	540
	-	-	Microwave	Kessler	PR	79 (1950)	54
	-	-	Microwave	Nielsen	PR	77 (1950)	130
	-	-	Spec	Thompson	TFS	48 (1952)	502
	-	-	FC	Krishnamachari	IJP	28 (1954)	463
	-	G	Freq assign	Jaseja	PIAS	50A (1959)	108
	-	-	NCA, Thermo	Krishnapillai	JMS	5 (1960)	212
	-	-	Microwave	Kessler	PR	79 (1950)	54
Methyl isocyanide (isotopic)	-	-	Microwave	Kessler	PR	79 (1950)	54
$C^{12}C^{13}H_3N^{14}$	-	-	Microwave	Kessler	PR	79 (1950)	54
C_2H_3NO	-	-	Quant mech	Wilson	JCP	2 (1934)	432
	3-20 μ	G	Spec, Freq assign	Eyster	JCP	8 (1940)	369
	-	Sol	Band freq	Davison	JCS	- (1953)	3712
	4-7.5 μ	G	Freq, Assign	Barr	JCS	- (1956)	3428
	500-3000	-	Freq	Bellamy	JCS	- (1956)	2753
	-	G, Sol	Freq	O'Sullivan	JCS	- (1957)	4144
Acetyl nitrite	-	-	Freq	Freeman	JACS	80 (1958)	5954
Acetyl nitrate	-	-	Freq	Gordy	JCP	3 (1935)	664
	2.8-5.0 μ	L	Spec	Gordy	JCP	4 (1936)	85
	1.0-6.5 μ	L	FC	Linnett	TFS	41 (1945)	223
	-	-	Assign from microwave	Beard	JACS	71 (1949)	929
	2-15 μ	L	Spec, Solvent	Priester	APS	6 (1952)	29
	600-2200	-	Freq	Lieber	SA	13 (1959)	296
	400-4000	L	Spec, Assign, Freq	Ham	SA	16 (1960)	279
	170-3100	L, G	Spec, Assign	Miller	ZE	64 (1960)	701
	1.6-6.5 μ	L	Spec	Gordy	JCP	4 (1936)	85
	2-20 μ	G	Freq, Assign, Thermo	Eyster	JCP	8 (1940)	369
	-	-	Assign from microwave	Beard	JACS	71 (1949)	929
	200-2300	-	Freq	Caldow	SA	13 (1958)	212
C_2H_3NS	-	-	Spec	Gordy	JCP	4 (1936)	85
	1.6-6.5 μ	L	Freq, Assign, Thermo	Eyster	JCP	8 (1940)	369
	2-20 μ	G	Assign from microwave	Beard	JACS	71 (1949)	929
	200-2300	-	Freq	Caldow	SA	13 (1958)	212

$C_2H_3N_3$	250-10000	G, S	Spec, Assign, Thermo	Costoulas	AJC	12 (1959)	601
C_2H_3DO	600-2200	-	Freq	Lieber	SA	13 (1959)	296
$C_2H_3O_2^-$	400-4000	L, G	Spec, Freq, Assign	Ham	SA	16 (1960)	279
	170-3100	L, G	Spec, Assign	Miller	ZE	64 (1960)	701
1,2,3-Triazole	2-16 μ	-	Spec, Group freq	Hartzel	JACS	76 (1954)	667
Acetaldehyde-d ₁	300-3600	G, S	Spec, Assign	Evans	CJC	34 (1956)	1983
Acetate ion	-	-	FC	Linnett	TFS	41 (1945)	223
	-	-	Freq, Assign	Nakamura	NKZ	79 (1958)	1411
Ethylene	3.3 μ	L	Freq	Meyer	PR	21 (1923)	712
	2900-3200	G	Freq	Meyer	JOSA	15 (1927)	257
	2-13 μ	G	Molecular bands	Levin	JOSA	16 (1928)	137
	3.3 μ	G	Spec	Baker	TFS	25 (1929)	912
	10.2-11.2 μ	G	Spec	Bennett	JACS	51 (1929)	377
	-	-	Freq	Bonino	TFS	25 (1929)	876
	-	G	IR	Dickinson	PR	34 (1929)	582
	0.68-0.92 μ	G	Spec	Badger	PR	35 (1930)	1433
	-	-	Vibrations	Kettering	PR	36 (1930)	531
	20.7-152 μ	G	Spec	Badger	PR	38 (1931)	1442
	-	-	Spec	Strong	PR	42 (1932)	267
	-	-	Assign, Spec	Villars	CR	11 (1932)	369
	-	-	Thermo	Kassel	JACS	55 (1933)	1351
	-	-	Theory of formation	Mulliken	PR	43 (1933)	279
	-	-	Interatomic distances	Badger	PR	45 (1934)	648
	-	-	Freq	Mecke	TFS	30 (1934)	200
	-	G	Vibrations	Dunlan	JCP	3 (1935)	384
	-	-	FC	Sutherland	PRS	148 (1935)	250
	-	G	Thermo	Teller	JCS	- (1935)	876
	-	G	Freq	Teller	JCS	- (1935)	885
	.6-1.2 μ	G	FC, Freq assign	Bonner	JACS	58 (1936)	34
	-	-	Thermo	Kassel	JCP	4 (1936)	144
	-	-	Thermo	Kassel	JCP	4 (1936)	435
	-	G	FC	Linnett	JCS	- (1937)	1393
	-	-	Vibration	Menneback	JCP	5 (1937)	989
	-	G	Freq	Thompson	JCS	- (1937)	1376
	-	G	FC	Thompson	JCS	- (1937)	1384
	33 μ	G	C-H ext coefficient	Williams	JAP	8 (1937)	497
	-	-	Freq, Assign	Wu	JCP	5 (1937)	600
	-	-	Quant mech	Badger	JCP	6 (1938)	711
	-	-	Bond distances	Eyster	JCP	6 (1938)	580
	-	-	Freq, FC	Fox	PRS	167 (1938)	257

-	-	Freq, Assign	Conn	PRS	172 (1939)	172
-	-	Coriolis coupling theory	Jahn	PR	56 (1939)	680
-	-	Vibration analysis	Stitt	JCP	7 (1939)	297
-	G	Struct, Mol consts	Thompson	TFS	35 (1939)	697
2.6-3.8 μ	Sol	Spec, Assign	Fox	PRS	175 (1940)	208
3.1-3.4 μ	G, Sol	Spec	Fox	PRS	174 (1940)	234
-	-	Freq, Entropy	Linnett	TFS	36 (1940)	527
-	-	Thermo	Pitzer	JCP	8 (1940)	711
-	G	Thermo	Pitzer	CR	27 (1940)	39
3.35 μ	G	Struct	Smith	JCP	8 (1940)	798
-	-	Freq assign, Thermo	Burck	JCP	9 (1941)	118
-	-	Equilibrium	Gaggenheim	TFS	37 (1941)	97
-	-	FC, Bond length	Linnett	TFS	37 (1941)	469
-	-	Freq, Thermo	Thompson	TFS	37 (1941)	344
950-3050	-	Band I	Wells	JCP	9 (1941)	659
2-14 μ	-	Assign, Spec	Galloway	JCP	10 (1942)	88
12.5-14.5 μ	G	Assign	Rasmussen	PR	62 (1942)	301
-	-	Freq	Barnes	IEC	15 (1943)	659
-	G	Absorption laws	Nielsen	RMP	16 (1944)	307
13 μ	G	Spec	Thompson	TFS	40 (1944)	295
-	-	FC	Linnett	TFS	41 (1945)	223
-	-	FC, Bond distances	Gordy	JCP	14 (1946)	305
-	G	Thermo	Kilpatrick	JRNB	37 (1946)	163
-	-	FC	Pitzer	JCP	14 (1946)	586
-	-	FC, Bond order	Walsh	TFS	42 (1946)	779
-	-	Spec	Coggeshall	JCP	15 (1947)	65
-	-	Vibrational analysis	Halverson	JCP	19 (1947)	87
-	G	NCA	Kilpatrick	JRNB	38 (1947)	191
-	-	Freq	Mulliken	CR	41 (1947)	219
-	-	Assign, Struct	Price	JCP	15 (1947)	614
2-15 μ	G	Spec, Assign	Rasmussen	JCP	15 (1947)	120
-	-	Pressure broadening	Seyfried	IEC	19 (1947)	298
-	G	Assign, I	Thorndike	JCP	15 (1947)	157
-	-	FC	Walsh	TFS	43 (1947)	60
-	-	Bond strengths	Walsh	DFS	2 (1947)	18
-	G	I	Wilson	PR	71 (1947)	479
-	-	Thermo	Crawford	JCP	16 (1948)	733
1-16 μ	G	Dispersion	Hammer	PR	74 (1948)	1262
-	-	Quant mech	Parr	JCP	16 (1948)	526
-	-	Analysis	Partington	JCS	- (1948)	2226
-	-	Vib analysis	Linnett	TFS	45 (1949)	832
-	-	Freq, FC	Sheppard	PRS	196 (1949)	195
-	-	Quant mech	Torkington	JCP	17 (1949)	1026

582-3300	G	Assign of freq	Arnett	JCP	18	(1950)	118
-	G	Analys	O'Neal	AC	22	(1950)	991
1.6-2.5 μ	G	Combination bands	Plyler	JCP	19	(1951)	658
-	G	Absence of C ₂ H ₄ in atmosphere	Shaw	PR	81	(1951)	462
-	-	FC	Torkington	PRS	206	(1951)	17
2-16 μ	G	Spec	Williamson	AMS	39	(1951)	672
-	-	Freq	El-Sabban	JCP	20	(1952)	1810
-	-	Group freq	Haseldine	JCS	-	(1952)	4423
-	-	FC, Bond lengths	Longuet	TFS	48	(1952)	1077
2-16 μ	G	Spec	Patterson	APS	6	(1952)	17
-	-	Sum rule	Bernstein	JCP	21	(1953)	2188
-	-	FC	Crawford	JCP	21	(1953)	678
-	-	Freq	Higgs	JCP	21	(1953)	1131
-	-	Quant mech, Freq	Moffitt	PRS	218	(1953)	464
-	-	Vibration interaction theory	Torkington	JCP	21	(1953)	83
-	G	Ident	Moore	JACS	76	(1954)	5253
-	-	Freq	Brown	TFS	51	(1955)	1611
-	-	Freq	Coulson	JCS	-	(1955)	1813
2-11.5 μ	G	Spec	Donovan	JCP	23	(1955)	1592
-	-	NCA	Dowling	PR	100	(1955)	1267
-	-	I	Eggers	JCP	23	(1955)	221
-	-	Vibration amplitude theory	Morino	JCP	23	(1955)	737
-	-	Freq	Parr	JCP	23	(1955)	711
-	-	Assign	Wilkinson	JCP	23	(1955)	1895
-	-	Vib sum rule	Bernstein	JCP	24	(1956)	910
-	-	Quant mech	Flanagan	JPC	60	(1956)	730
1-25 μ	G	NCA, Bond moments	Golike	JCP	25	(1956)	1266
2-15 μ	G	Spec	Pierson	AC	28	(1956)	1218
3.1-3.8 μ	-	Spec, Struct	Pliskin	JCP	24	(1956)	482
-	-	Intensity calculations	Liehr	TFS	53	(1957)	1533
860-1100	G	Spec	Lord	JOSA	47	(1957)	689
-	-	Freq	Bellamy	JCS	-	(1958)	2463
-	-	Theory of I	Sverdlov	OS	4	(1958)	697
1000-2300	G	Spec	Ozawa	RPCJ	29	(1959)	1
650-3600	S	Struct	Brecher	DA	20	(1959)	516
-	Sol	Spec	Jacob	CPR	249	(1959)	523
2800-4000	S	Spec, Assign	Little	JPC	63	(1959)	1616
700-3500	L	Freq, Spec	Comeford	JMS	5	(1960)	474
900-1700	Sol	IR	Katritzky	JCS	-	(1960)	1519
400-4000	G	Spec, Iso	Bak	ACS	12	(1958)	2021

C₂H₄DBr Bromoethane- α -d₁

C_2H_4DBr	Bromoethane- β - d_1	- 400-4000	- G	Hindered rotation Spec, Iso	Langseth Bak	JCP ACS	8 (1940) 12 (1958)	430 2021
$C_2H_4DCl^{35}$	trans-chloroethane- d_1	19000-30000 Mc/sec	G	Spec, Struct, Consts	Wagner	JCP	26 (1957)	1588
C_2H_4DF	Fluoroethane- α - d_1	400-4000	G	Spec, Rot iso	Bak	ACS	12 (1958)	2021
C_2H_4DF	Fluoroethane- β - d_1	400-4000	G	Spec, Rot iso	Bak	ACS	12 (1958)	2021
C_2H_4DN	Ethylenimine- α - d_1	-	-	Microwave, Struct	Turner	JCP	23 (1955)	1966
C_2H_4DNO	N-methylformamide- d_1	400-3600	G,L	Spec, Assign	Miyazawa	JCP	24 (1956)	408
$C_2H_4DNO_2$	Acetohydroxamic acid- d_1	700-4000	S,Sol	Spec, H bond	Hadzi	SA	10 (1958)	38
$C_2H_4D_2$	Sym-Ethane- d_2	-	-	Thermo	Pitzer	JCP	14 (1946)	239
C_2H_4DO	Ethanol- α - d_2	700-1500	G,Sol	Assign	Hadzi	SA	9 (1957)	263
$C_2H_4DN_2$	Ethylenediamine- d_4	2-25 μ	S,G,L	Freq, Assign	Sabatini	SA	16 (1960)	677
C_2H_4BrCl	1-Bromo-2-chloroethane	0.8-3 μ	L	Spec, Freq Assign	Spence Wu	PR JCP	34 (1929) 7 (1939)	730 965
		-	-	Product rule	Mizushima	JCP	17 (1949)	663
		-	G	Iso, Thermo, Band freq	Powling	JACS	73 (1951)	1815
		500-1500	L,S	Spec, Assign, Iso	Brown	TFS	48 (1952)	128
		-	G,L,S, Sol	Internal rot config	Mizushima	JPC	56 (1952)	324
		-	G,L	Iso	Muratani	JCP	21 (1953)	1411
		-	-	Sum rule	Mizushima	JCP	21 (1953)	215
C_2H_4BrF	1-Bromo-2-fluoroethane	2-40 μ	L,Sol	Spec, I, Assign	Simpson	JRNB	50 (1953)	223
C_2H_4BrNO	N-Bromoacetamide	1-15 μ	S,Sol	Spec, Assign, H bond	Lacher	JACS	74 (1952)	5578
$C_2H_4Br_2$	1,1-Dibromoethane	0.8-3 μ	L	Spec, Freq Band freq	Spence Fugassi	PR JPC	34 (1929) 46 (1942)	730 630
		500-3200	L	Spec, Assign	Thompson	TFS	42 (1946)	432
$C_2H_4Br_2$	1,2-Dibromoethane	2.5 μ	L	Spec Freq, Absorption	Ellis Bonino	PR TFS	23 (1924) 25 (1929)	48 876

$C_2H_4ClO_2B$	Ethylenechloroboronate	6-14 μ 2-14 μ	L, S L, S	Assign, Struct Struct, Group freq	Blau Blau	JCS JCS	- (1960) - (1960)	380 380
$C_2H_4Cl_2$	1,1-Dichloroethane	0.8-3 μ 2.5-15 μ 500-1500 3-20 μ 500-3200 17-25 μ 3-35 μ 2-38 μ 2-15 μ 9.5 μ	L - L L L L L, G G -	Spec, Freq Detection in $CHCl_3$ Spec Spec Spec, Assign Solvent IR, Spec, Assign, Thermo IR, Spec, Assign, Thermo Spec Absorption	Spence Wright Thompson Torkington Marrison Urone Allen Daasch Pierson Spell	PR IEC PRS TFS JSI AC CJC JCP AC AC	34 (1929) 13 (1941) 184 (1945) 41 (1945) 29 (1952) 24 (1952) 32 (1954) 22 (1954) 28 (1956) 31 (1959)	730 1 21 184 233 626 1124 1293 1218 621
$C_2H_4Cl_2$	1,2-Dichloroethane	2.5 μ 2-7.0 μ 1-25 μ 0.8-3 μ 1-13 μ - - 1200-1500 - - 500-1500 3-20 μ 500-3200 - - - 1190-1350 - 700-1500 22-39 μ - - - - 1230-1456 - -	L L L L L - - - L - L L - - G - - G, L L - - S G	Spec Spec Spec Spec, Freq Spec NCA Freq assign Spec Analysis by total absorption FC Spec Spec Spec Spec, Assign Internal rotation Product rule, Iso Energy difference Spec Rotational energy Product rule Freq Freq Rotational energy Iso Assign Moment of inertia Trans-Cauché bands Iso, Thermo, Freq	Ellis Dainels Smith Spence Stair Morino Wu Barnes Fuoss Linnett Thompson Torkington Thompson Gwinn Bernstein Bernstein Bernstein Mizushima Mizushima Mizushima Plyler Rank Mizushima Neu Torkington Malherbe Powling	PR JACS JACS PR JRN B BCSJ JCP IEC RSI	23 (1924) 47 (1925) 48 (1926) 34 (1929) 15 (1935) 13 (1938) 7 (1939) 15 (1943) 16 (1945)	48 2856 1512 730 295 189 965 659 53
$C_2H_4Cl_2$	1,2-Dichloroethane	2.5 μ 2-7.0 μ 1-25 μ 0.8-3 μ 1-13 μ - - 1200-1500 - - 500-1500 3-20 μ 500-3200 - - - 1190-1350 - 700-1500 22-39 μ - - - - 1230-1456 - -	L L L L L - - - L - L L - - G - - G, L L - - S G	Spec Spec Spec Spec, Freq Spec NCA Freq assign Spec Analysis by total absorption FC Spec Spec Spec Spec, Assign Internal rotation Product rule, Iso Energy difference Spec Rotational energy Product rule Freq Freq Rotational energy Iso Assign Moment of inertia Trans-Cauché bands Iso, Thermo, Freq	Ellis Dainels Smith Spence Stair Morino Wu Barnes Fuoss Linnett Thompson Torkington Thompson Gwinn Bernstein Bernstein Bernstein Mizushima Mizushima Mizushima Plyler Rank Mizushima Neu Torkington Malherbe Powling	PR JACS JACS PR JRN B BCSJ JCP IEC RSI	23 (1924) 47 (1925) 48 (1926) 34 (1929) 15 (1935) 13 (1938) 7 (1939) 15 (1943) 16 (1945)	48 2856 1512 730 295 189 965 659 53

500-1500 15-25 μ	L, S L	Spec, Assign, Iso Solvent	Brown	TFS	48 (1952)	128
-	-	Internal rotation	Marrison	JSI	29 (1952)	233
2-15 μ	L	Spec, Solvent	Mizushima	JPC	56 (1952)	324
8-14.5 μ	Sol	Band freq	Priestera	APS	6 (1952)	29
140-450 μ	G	Spec	Urone	AC	24 (1952)	626
-	G, L	Iso	Bohn	JCP	21 (1953)	719
-	-	Config, Freq	Kuratani	JCP	21 (1953)	1411
500-1500	L	Spec	Mizushima	JCP	21 (1953)	215
-	-	Evidence for Gauche form	O'Loane	JCP	21 (1953)	669
-	-	Solvent effect	Mizushima	JCP	22 (1954)	1614
654-754	Sol	Energy difference	Wada	JCP	22 (1954)	198
1430-1450	L	Trans-Gauche eqm.	Wada	JCP	22 (1954)	1276
2-15 μ	G	Spec	Yoshino	JCP	23 (1955)	1564
740-810	G	Mol struct, Mol consts	Pierson	AC	28 (1956)	1218
700-1600	L	Config	Di xon	SA	9 (1957)	59
-	-	Freq	Kuroda	JPC	26 (1957)	323
-	-	Freq	Nakamura	JCP	26 (1957)	970
118-412	L, G	Spec	Wilmshurst	CJC	35 (1957)	937
1100-1500	L, Sol	Spec, I, Temp effect	Ichishima	JCP	29 (1958)	1190
14 μ	-	Absorption	Mazumdar	IJP	32 (1958)	451
			Spell	AC	31 (1959)	621
Azo-bis-(chloroformamide)	S	Group freq	Kumler	JACS	76 (1954)	814
Dichloroethanol	Sol	Association, H bond	Josien	QPR	250 (1960)	2559
α , α -Dichloroacetaldehyde hydrate	-	Bands study	Anderson	SA	12 (1958)	233
Bi s(chloromethyl)selenide	-	Assign	Bergson	ARK	13 (1958)	11
2, 2, 2-Trichloro-1-hydroxy-ethylphosphonic acid	-	Association	Barthel	JACS	77 (1955)	2424
Ethylene trichloroacetyl-borate	S, L	Assign, Struct	Blau	JCS	- (1960)	380
1, 1-Difluoroethane	G, L	IR, Spec, Assign	Smith	JCP	20 (1952)	847
-	-	Freq correlation	Sheppard	JCP	23 (1955)	582
300-6000	G, L, S	Assign, Thermo	Klaboe	JCS	33 (1960)	1764
-	Sol	Freq, H bond	Haszeldine	JCS	- (1953)	1757
2, 2-Difluoroethanol	-	Spec	Nakanishi	BCSJ	30 (1957)	403
β -Trifluoroethylamine. Hydrochloride	-					

$C_2H_4I_2$	1,2-Diodoethane	-	-	Freq assign Band freq	Wu Fugassi	JCP JPC	7 (1939) 46 (1942)	965 630
$C_2H_4N_2O_2$	Oxamide	3400-3600 400-4000	S L	Assign, Spec Spec, Freq assign, Struct	Richards Scott	JCS JCP	- (1947) 30 (1959)	1248 465
$C_2H_4N_2O_2$	Glyoxime	400-3500	-	Spec, Struct, Freq	Borello	GCI	87 (1957)	615
$C_2H_4N_2O_2$	Diformylhydrazine	400-3600 900-1700	S S	Spec, Assign Freq, Struct	Miyazawa Parsons	JCP JMS	24 (1956) 2 (1958)	408 566
$C_2H_4N_2O_3$	Ethanenitric acid	-	Sol	Ext coeff	Grabiel	JACS	77 (1955)	1293
$C_2H_4N_2O_4$	1,1-Dinitroethane	-	-	Spec	Novikov	IANS	- (1959)	1855
$C_2H_4N_2S_2$	Dithiooxamide	600-1900 400-4000	- L	Freq, Spec Spec, Freq, Assign, Struct	Jones Scott	JCS JCP	- (1957) 30 (1959)	614 465
$C_2H_4N_2S_2$	Rubeanic acid	400-4000	Sol	Struct	Barcelo	SA	10 (1958)	245
$C_2H_4N_4$	1-Cyanoguanidine	1250-1800 900-1300	- -	Spec Christiansen effect	Barnes Price	IEC JCP	15 (1943) 16 (1948)	659 2157
$C_2H_4N_4S$	5-Methylamino-1,2,3,4-triazole	700-1700	-	Spec, Struct, Config assign	Lieber	CJC	36 (1958)	801
$C_2H_4N_6$	3,6-Diamino-1,2,4,5-tetrazine	-	-	Band freq, Ident	Lin	JACS	76 (1954)	427
$C_2H_4N_6$	Diazoguanidine cyanide	2-15 μ	S	Spec, Freq	Lieber	AC	23 (1951)	1594
$C_2H_4N_8O_4$	Azo-bis-nitroformamide	1-15 μ	S	Group freq	Kumler	JACS	76 (1954)	814
C_2H_4O	Acetaldehyde	0.7-2.5 μ 20.7-152 μ - 1-20 μ 3-25 μ - -	L G - G G - - -	Carbonyl study Spec Struct Spec, Assign, Thermo Spec, Assign FC FC FC	Ellis Strong Mullikan Thompson Morris Linnett Walsh Walsh	JACS PR JCP TFS JCP TFS TFS TFS	51 (1929) 42 (1932) 3 (1935) 38 (1942) 11 (1943) 41 (1945) 43 (1947) 43 (1947)	1384 267 564 37 230 223 60 158

89

$C^{12}C^{13}H_4O$	Ethylene oxide (isotopic)	-	-	Struct from spec	Turner	JCP	24 (1956)	924
C_2H_4OS	Thioacetic acid							
		3.1-4.5 μ	L	H bond	Gordy	JACS	62 (1940)	497
		700-3500	G	IR, Assign Bands	Sheppard	TFS	45 (1949)	693
		-	-		Crouch	JACS	74 (1952)	2926
$C_2H_4O_2$		2200-2700	L, Sol	Spec	Allen	JCS	- (1957)	3912
		2.5-16 μ	-	Effect of struct	Nyquist	SA	15 (1959)	514
	Acetic acid							
		52 μ	L	Total absorption	Hollnagel	PR	11 (1918)	505
		2-8 μ	Sol	Spec, Assign	Bennett	JACS	49 (1927)	50
		-	-	H bond	Lecomte	TFS	25 (1929)	864
		1100-2200	G	Spec	Gillette	JACS	58 (1936)	1139
		1300-2000	Sol	Spec	Gillette	JACS	58 (1936)	1143
		2.8-6.5 μ	L	Dissociation	Plyler	PR	49 (1936)	868
		-	-	Spec	Badger	JCP	5 (1937)	369
$C_2H_4O_2$		9500-9800	G	Spec, H bond	Badger	JCP	5 (1937)	605
		9800-11000	Sol	Spec, H bond	Badger	JCP	5 (1937)	839
		10000-10275	G	Spec, H bond	Baner	JCP	5 (1937)	852
		5.6-6.0 μ	Sol	H bond	Gordy	JCP	5 (1937)	284
		0.9-4 μ	L, Sol	Spec, H bond	Kinsey	JCP	5 (1937)	399
		5.4-5.75 μ	L	Strong and weak acid study	Plyler	PR	51 (1937)	685
		-	-	H bond	Buswell	JCP	6 (1938)	296
		2100-3800	G, Sol	Spec, H bond	Buswell	JACS	60 (1938)	2239
		2.8-6.0 μ	-	Spec, H bond	Davies	JCP	6 (1938)	755
		1-16 μ	G	Spec, H bond	Herman	JCP	6 (1938)	534
		700-1900	G	Freq	Herman	JCP	7 (1939)	460
		2.8-5.0 μ	Sol	Spec, H bond	Wall	JACS	61 (1939)	2812
		-	-	Freq	Davies	TFS	36 (1940)	333
$C_2H_4O_2$		-	-	H bond	Sutherland	TFS	36 (1940)	889
		-	-	FC	Linnett	TFS	41 (1945)	223
		-	-	FC	Halford	JCP	14 (1946)	395
		-	-	FC	Walsh	TFS	43 (1947)	60
		1735-1790	G	Freq	Hartwell	JCS	- (1948)	1436
		-	-	FC	Richards	TFS	44 (1948)	40
		2600-3500	Sol	H bond	Chulanovskii	DANS	68 (1949)	1033
		2-15 μ	Sol	Spec	Ard	AC	23 (1951)	133
		700-4000	S, L	Freq	Flett	JCS	- (1951)	962
		5.84 μ	Sol	Analysis	Meeks	AC	23 (1951)	792
		2700-3000	Sol	Freq	Pozefsky	AC	23 (1951)	1611
		-	Sol	Freq	Fuson	JCP	20 (1952)	1627
		1200-2000	Sol	Freq	Bender	JACS	75 (1953)	5986
		-	L	Band freq, I	Fowler	JOSA	43 (1953)	1054

2160-3540	Sol	Spec, Struct, Table	Fuson	JOSA	43	(1953)	1102
500-1500	L, Sol	IR, Assign, Spec	Hedzi	PRS	216	(1953)	247
-	Sol	Equilibrium consts	Barrow	JACS	76	(1954)	5248
-	Sol	Freq	Goulden	SA	6	(1954)	129
2570-3548	Sol	Band freq	Harris	JACS	76	(1954)	1419
-	-	Rotational barrier theory	Luft	JCP	22	(1954)	1814
2-25 μ	G	Spec, Assign, I	Welther	JACS	77	(1955)	3941
500-3000	-	Six fundamentals related	Bellamy	JCS	-	(1956)	2753
-	-	Freq	Bratoz	SA	8	(1956)	249
-	L, Sol	Freq, H bond	Cannon	JCP	24	(1956)	491
0.9-3 μ	Sol	Spec	Holman	AC	28	(1956)	1533
650-5000	G	Spec	Neu	JPC	60	(1956)	320
2-15 μ	G	Spec	Pierson	AC	28	(1956)	1218
2-15 μ	Sol	Spec	Sternglanz	APS	10	(1956)	77
-	Sol	Freq correlation	Bavin	CJC	35	(1957)	1555
670-3500	L, S	Spec	Corish	JCS	-	(1957)	1746
-	G, Sol	Freq	O'Sullivan	JCS	-	(1957)	4144
-	G	Spec, Mol consts	Tabor	JCP	27	(1957)	974
3-6 μ	Sol	I, Equilibrium consts	Wengrad	JACS	79	(1957)	5844
1500-700	G	Spec, Freq, Assign	Hadzi	SA	12	(1958)	162
-	Sol	Freq	Horak	TEL	3	(1959)	19
-	-	Freq	Lorenzelli	CPR	249	(1959)	669
5.5-6.5 μ	Sol	Ident	Sawicki	AC	31	(1959)	523
2-9 μ	Sol	Spec, Freq	Jencks	ABB	88	(1960)	193
65-300	G	Spec	Nakai	NKZ	81	(1960)	881
-	G	H bond	Pross	SA	16	(1960)	563
Methyl formate							
7-12 μ	-	Spec	Thompson	JCP	7	(1939)	441
-	-	FC	Linnett	TFS	41	(1945)	223
500-1750	L	Assign	Thompson	JCS	-	(1945)	640
3-20 μ	L	Spec	Torkington	TFS	41	(1945)	184
1757	G	Freq	Hartwell	JCS	-	(1948)	1436
2800-3150	Sol	Freq, Spec	Pozefsky	AC	23	(1951)	1611
2-15 μ	L	Spec	Priester	APS	6	(1952)	29
2-16 μ	L	Spec	Anderson	JOSA	43	(1953)	221
6.94-13.0 μ	L	Group freq	Fowler	JOSA	43	(1953)	1054
-	-	Band freq, Iso	Karpovich	JCP	22	(1954)	1767
-	G, L, Sol	Band intensity	Russell	JCS	-	(1955)	479
3-34 μ	Sol	Spec, Assign, Config	Wilmshurst	JMS	1	(1957)	201
-	Sol	I, Freq	Thompson	SA	13	(1958)	236
-	-	Mol consts, Struct	Curl	JCP	30	(1959)	1529
14-50 μ	G	Freq	Lorenzelli	CPR	249	(1959)	520
800-1500	Sol	Assign	Katritzky	SA	16	(1960)	954
-	-	Assign	Katritzky	SA	16	(1960)	964

$C_2H_4O_2S$	Merceptoacetic acid	700-4000	S, L	Freq	Flett	JCS	- (1951)	962
$C_2H_4O_3$	Acetyl hydroperoxide	5-15 μ	Sol	Spec	Minkoff	FRS	224 (1954)	176
$C_2H_4O_3$	Ethylene ozonide	2-15 μ	G	Spec	Garvin	JPC	60 (1956)	807
$C_2H_4O_3$	Hydroxyacetic acid	700-4000	S, L	Freq	Flett	JCS	- (1951)	962
$C_2H_4O_4$	Formic acid (dimer)	150-3800	G	Spec, Assign NCA	Millikan Miyazawa	JACS JACS	80 (1958) 81 (1959)	3515 74
C_2H_4S	Ethylene sulphide	- 1-17 μ 700-3400 2-16 μ	- G G L	Spec IR, Assign IR, Spec, Assign Spec, Assign, Thermo	Eyster Thompson Thompson Guthrie	JCP TFS TFS JACS	6 (1938) 36 (1940) 47 (1951) 74 (1952)	576 805 951 2795
C_2H_5D	Ethane-d ₁	- 804-1450	- -	Reaction kinetics Comparison Spec, Assign	Morikawa Posey Posey	JACS PR JCP	58 (1936) 61 (1942) 17 (1949)	1795 546 182
C_2H_5DO	Ethanol-d ₁	700-4000	L, G	Spec, Assign, Thermo	Barrow	JCP	20 (1952)	1739
		-	L	Freq, I	Cristol	JACS	75 (1953)	2647
		940	L	Deformation band	Quinan	JCP	21 (1953)	1896
		-	-	Ident	Glockling	JCS	- (1955)	716
		-	-	Ident	Vaughan	JOC	20 (1955)	819
		350-4000	L, Sol	OD bands	Stuart	JCP	24 (1956)	559
		6000-10000	Sol	H bond	Bell	JCP	31 (1959)	300
C_2H_5DO	Ethanol-o-d ₁	-	G	Freq	Tarte	JCP	26 (1957)	962
$C_2H_5D_3Si$	Dimethylsilane-d ₃	-	G	Microwave spec	Pierce	JCP	31 (1959)	547
$C_2H_5D_5B_2$	Ethylidi borane-d ₅	2-15 μ	G	Spec, Assign	Lehmann	JCP	32 (1960)	1786
C_2H_5Br	Bromoethane	2.5 μ 0.8-3 μ 1.5-15 μ - - 1-13 μ - - 14-19 μ	L L - - - L - - L	Spec Spec, Freq Assign Theoretical Spec Spec, Struct Hindered rotation Band freq Spec	Ellis Spence Cross Cross Cross Plum Langsetha Fugassi Mortemer	PR PR JCP JCP JCP JCP JCP JCP JCP JACS	23 (1924) 34 (1929) 1 (1933) 1 (1933) 2 (1934) 5 (1937) 8 (1940) 46 (1942) 69 (1947)	48 730 48 350 6 172 430 630 822

	-	-	Freq	Chulanovsky	IANS	12 (1948)	628
	-	-	Assign	Sheppard	JCP	17 (1949)	79
	6000-9500	L	Spec	Lauer	APS	6 (1952)	29
	-	-	Freq	Mizushima	JCP	21 (1953)	215
	500-600	S,L	Spec, Iso	Brown	TFS	50 (1954)	535
	-	-	IR	Friedman	JCP	23 (1955)	109
	730-810	G	Mol struct	Dixon	SA	9 (1957)	59
	21000-29000	G	Spec, Mol consts, Struct	Wagner	JCP	26 (1957)	1593
	Mc/sec						
	400-4000	G	Spec, Iso	Bak	ACS	12 (1958)	2021
	-	G	Microwave	Wagner	JCP	23 (1955)	599
	-	G	Microwave	Wagner	JCP	23 (1955)	599
	21000-29000	G	Spec, Struct	Wagner	JCP	26 (1957)	1593
	Mc/sec						
	-	-	Freq	Zumwalt	JCP	7 (1939)	87
	10200-10700	G	3d harmonic O-H	Zumwalt	JACS	62 (1940)	305
	-	-	Rotational iso	Kuhn	ZAC	170 (1959)	106
	2.5- μ	L	Spec	Ellis	PR	23 (1924)	48
	-	L	Freq, Assign	West	TFS	27 (1931)	145
	1.5-15 μ	-	Assign	Cross	JCP	1 (1933)	48
	-	-	Theoretical	Cross	JCP	1 (1933)	350
	-	-	Assign, Thermo	Linnett	TFS	36 (1940)	527
	-	-	Assign	Sheppard	JCP	17 (1949)	79
	-	-	Freq	Sheppard	TFS	46 (1950)	429
	-	-	Freq	Mizushima	JCP	21 (1953)	215
	2-38 μ	G,L	IR, Spec, Assign, Thermo	Daasch	JCP	22 (1954)	1293
	-	-	Iso, Freq	Brown	TFS	50 (1954)	1164
	-	G	Ident	Moore	JACS	76 (1954)	5253
	2-15 μ	G	Spec	Lacher	JPC	60 (1956)	492
	2-15 μ	G	Spec	Pierson	AC	28 (1956)	1218
	750-3010	G	Struct	Dixon	SA	9 (1957)	59
	8780	G	Temp effect	Krishnaji	PPSL	70B (1957)	621
	Mc/sec						
	8780	G	Spec, Freq	Krishnaji	PR	106 (1957)	1186
	Mc/sec						
	-	-	Freq	Nakamura	JCP	26 (1957)	970
	7.82 μ	L	Relative absorbance	Curry	AC	31 (1959)	960
	-	G	Microwave spec	Srivastava	PPSL	74 (1959)	401
	-	G	Microwave	Wagner	JCP	22 (1954)	1459

	20000-32000 Mc	G	Spec, Mol consts, Struct	Wagner	JCP	26 (1957)	1588
$C_2H_5Cl^{37}$							
Chloroethane (isotopic)	-	G	Microwave	Wagner	JCP	22 (1954)	1459
	19000-21000 Mc	G	Spec, Mol consts, Struct	Wagner	JCP	26 (1957)	1588
C_2H_5ClO							
Ethylene chlorohydrin	-	-	Freq	Zumwalt	JCP	7 (1939)	87
	-	-	H bond, Freq	Badger	JCP	8 (1940)	288
	10200-10700	G	3d harmonic O-H	Zumwalt	JACS	62 (1940)	305
	-	L, G	Freq, FC, Iso	Mizushima	JCP	19 (1951)	1477
	3	Sol	Freq	Kuhn	JACS	74 (1952)	2492
	-	-	Iso	Mizushima	JACS	74 (1952)	1378
	-	S, L, G, Sol	Config	Mizushima	JPC	56 (1952)	324
	-	-	Product rule	Mizushima	JCP	21 (1953)	215
	3.18 μ	Sol, L	Microwave, H bond	Bhattacharya	IJP	33 (1959)	498
	-	L, G, S	Spec, NCA, Config	Hayashi	NKZ	80 (1959)	1073
	-	G	Spec, Config	Hayashi	NKZ	80 (1959)	1079
	-	-	Iso	Kuhn	ZAC	170 (1959)	106
$C_2H_5ClO_2S$							
Ethanesulphonyl chloride	-	-	Spec, Assign	Geiseler	ZE	63 (1959)	1140
C_2H_5ClS							
Monochloromethyl methyl sulphide	-	S, L, G	Spec, NCA, Config	Hayashi	NKZ	80 (1959)	1073
	-	G	Spec, Config	Hayashi	NKZ	80 (1959)	1079
$C_2H_5Cl_2OP$							
Ethylidichlorophosphinite	-	-	Freq	Bellamy	JCS	- (1952)	1701
$C_2H_5Cl_2OP$							
Phosphorylethyl chloride	-	-	Freq, Spec	Popov	ZOK	29 (1959)	1998
$C_2H_5Cl_2OPS$							
Ethyl phosphorodichloridodithionate	740-1500	L	Assign	McIvor	CJC	37 (1959)	869
$C_2H_5Cl_2OPS$							
Phosphorylthioethoxy	-	-	Freq, Spec	Popov	ZOK	29 (1959)	1998
$C_2H_5Cl_2OPS$							
Thiophosphorylethoxy chloride	-	-	Freq, Spec	Popov	ZOK	29 (1959)	1998
$C_2H_5Cl_2O_2P$							
Ethyl dichlorophosphinate	700-1330	Sol	Spec, Freq	Bellamy	JCS	- (1952)	475
$C_2H_5Cl_2O_2B$							
Ethylene dichloroacetyl-	6-14 μ	L	Assign, Struct	Blau	JCS	- (1960)	380

Chemical Formula	Compound Name	Wavenumber (cm⁻¹)	Phase	Measurement	Author	Year	Page
C ₂ H ₅ Cl ₂ P	Ethylidichlorophosphine	2-21/μ	L	Spec	Daasch	1951	53
C ₂ H ₅ Cl ₂ PS	Ethyl phosphonothionyl dichloride	740-1500	L	IR Assign	Hooge McIlvor	1958 1959	911 869
C ₂ H ₅ Cl ₃ OSi	Trichlorosilylmethyl methyl ether	-	-	Induction effect	Josien	1959	826
C ₂ H ₅ Cl ₃ Si	Ethyltrichlorosilane	2-16/μ	Sol	Freq, Spec, Struct	Smith	1960	87
C ₂ H ₅ F	Fluoroethane	2-23/μ	G, L	IR, Spec, Assign Microwave Freq	Smith Kraitchman Sheppard	1952 1955 1955	847 184 582
		400-4000	G	Spec, Iso	Bak	1958	2021
		200-300	G	Spec, Assign	Catalano	1958	873
		0-80 Mc	G	IR	Verdier	1958	340
		-	G	Microwave spec, Struct	Bak	1960	376
C ₂ H ₅ FO	1-Hydroxy-2-fluoroethane	-	-	Iso	Kuhn	1959	106
C ₂ H ₅ I	Ethyl iodide	0.8-2/μ 2.5/μ 0.8-3/μ 1.5-15/μ - 1-13/μ - - 6000-9500 2-26/μ - - -	L L L - - L - - L Sol G G G	Magnetic rotation Spec Spec, Freq Assign Theoretical Spec, Struct Band freq Assign Spec, Freq Spec Microwave spec Microwave spec Microwave spec	Ingersoll Ellis Spence Cross Cross Plum Fugassi Sheppard Lauer Schular Kasuya Kasuya Kasuya	1922 1924 1929 1933 1933 1937 1942 1949 1952 1954 1959 1960 1960	663 48 730 48 350 172 630 79 29 947 980 296 1273
C ₂ H ₅ IO	1-Hydroxy-2-iodoethane	-	-	Iso	Kuhn	1959	106
C ₂ H ₅ N	Ethylenimine	2.9-3.5/μ 4000-650 600-3300 - - -	Sol - G, L G, L - G G	Spec, Struct Spec FC Spec, Assign IR, Spec, Assign Comparison Microwave Microwave	Eyster Thompson Richards Hoffman Thompson Stolberg Turner Wilcox	1938 1944 1948 1951 1951 1953 1953 1953	576 301 40 3028 951 5045 564 563

C_2H_5NO	Acetaldehyde oxime	-	-	-	Ident Microwave, Struct	Brown Turner	JACS JCP	76 (1954) 23 (1955)	2537 1966
C_2H_5NO	Acetamide	2.7-3.7 μ	S	-	H bond FC	Buswell Linnett	JACS TFS	62 (1940) 41 (1945)	2759 223
		-	-	-	FC	Richards	TFS	44 (1948)	40
		625-4000	Sol	-	Spec	Davies	TFS	47 (1951)	1170
		3300	L	-	Freq, H bond	Davies	JCP	20 (1952)	342
		-	Sol	-	Spectrum	Badger	PNAS	40 (1954)	12
		-	S	-	H bond	Pimental	JCP	24 (1956)	639
		400-2000	-	-	H bond	Albert	JCP	29 (1958)	1193
		-	Sol	-	Freq, I	Brown	JPC	63 (1959)	1324
		700-3800	-	-	Assign, Struct	Spinner	SA	15 (1959)	95
		2-9 μ	Sol	-	Spec, Freq	Jeneks	ABB	88 (1960)	193
$C_2H_5NO \cdot HCl$	Acetamide hydrochloride	700-3800	Sol	-	Assign	Spinner	SA	15 (1959)	95
C_2H_5NO	N-methylformamide	3200-3500	Sol	-	Spec I	Badger Robson	PNAS JACS	40 (1954) 77 (1955)	12 498
		1200-8000	Sol	-	Assign, Freq	Hecht	PRS	235 (1956)	174
		400-3600	S, L, G	-	Spec, Assign	Miyazawa	JCP	24 (1956)	408
		3 μ	Sol	-	cis-trans bands	Russell	SA	8 (1956)	138
		450-3500	L, G, Sol	-	Config, Assign, Spec	Jones	JMS	2 (1958)	581
		900-1800	G, L, Sol	-	Freq, Struct	Parsons	JMS	2 (1958)	566
		2900-3500	S, L	-	Freq, I	Miyazawa	JMS	4 (1960)	168
$C_2H_5NO_2$	Acetohydroxamic acid	700-4000	S, Sol	-	Spec, H bond	Hadzi	SA	10 (1958)	38
$C_2H_5NO_2$	Ethyl nitrite	2-23 μ	G	-	Band freq	Fugassi	JPC	46 (1942)	630
		2-25 μ	G	-	Iso	D'or	JCP	19 (1951)	1064
		5.5-14.5 μ	G	-	Iso	Tarte	JCP	20 (1952)	1570
		-	G	-	Spec	Levy	JACS	75 (1953)	1801
		-	G	-	Analysis	Levy	JACS	76 (1954)	3254
		-	G, Sol	-	Assign, Iso	Haszeldine	JCS	- (1955)	4172
		-	G, Sol	-	Freq	O'Sullivan	JCS	- (1957)	4144
$C_2H_5NO_2$	Glycine	-	-	-	Solubility theory	Kirkwood	JCP	2 (1934)	351
		-	-	-	H bond	Freyman	JCP	6 (1938)	497
		2.7-3.7 μ	S	-	H bond	Buswell	JACS	62 (1940)	2759
		2.8-3.6 μ	S	-	Spec, Assign, FC	Kellner	PRS	177 (1940)	447
		600-4000	Sol	-	Spectrum				

	5-15 μ	S	low temperature effect	Walsen	JACS	10	(1950)	772
	650-4000	S	Spec, Struct	Blout	JACS	74	(1952)	1946
	3060-3290	S	IR	Abbott	PRS	219	(1953)	17
	2-15.3 μ	S	Spec	Haskaylo	AC	26	(1954)	1410
	1605	-	Freq, Bond length	Margoshes	JCP	22	(1954)	381
	-	S	Reflection spectrum	Robinson	AC	27	(1955)	162
	600-400	S	Ident	Epp	AC	29	(1957)	1283
	667-5000	-	Spec, Freq, Struct	Leifer	JACS	79	(1957)	5098
	400-1800	S	Assign	Tsuboi	SA	12	(1958)	253
	-	-	Ident	Nakamura	NKZ	80	(1959)	118
	2-10 μ	Sol	Spec	Ellenbogen	BBA	39	(1960)	174
	6-11 μ	Sol	Spec	Parker	N	187	(1960)	386
	909-1538	Sol	Spec	Parker	SA	16	(1960)	910
	1350-1550	-	Spec, Ident	Watson	SA	16	(1960)	1322
$C_2H_5NO_2 \cdot HCl$	5-10 μ	Sol	Spec, Assign	Klotz	JPC	52	(1948)	961
	400-1800	S	Assign	Tsuboi	SA	12	(1958)	253
Methylurethane	-	-	FC, H bond	Davies	JCP	20	(1952)	1342
Nitroethane	800-1950	-	Spec	Barnes	IEC	15	(1943)	659
	2-15 μ	-	Spec	Nielsen	IEC	15	(1943)	609
	2-22 μ	C, L	IR, Assign	Smith	JCP	18	(1950)	706
	2-15 μ	L	Spec, Solvent	Priester	APS	6	(1952)	29
	-	L	I, Freq	Haszeldine	JCS	-	(1953)	2525
	1600-1800	G	$NO_2-C_2H_5OH$ reaction	Nightingale	JCP	21	(1953)	1398
	-	-	Freq	Levy	JACS	77	(1955)	2015
	2-15 μ	G	Spec	Pierson	AC	28	(1956)	1218
$C_2H_5NO_2$	450-4000	S, L, G, Sol	Struct	Parsons	JMS	2	(1958)	566
O-Methylformhydroxamic acid								
Ethyl nitrate	1-7.5 μ	L	Spec, Assign	Plyler	PR	34	(1929)	599
	3.35-14.23 μ	-	I	Jander	JCS	-	(1954)	919
	-	G	Analysis	Levy	JACS	76	(1954)	3254
	-	G	Freq	Boschan	CR	55	(1955)	485
	2-15 μ	-	Spec	Needham	PRS	232	(1955)	337
	2-15 μ	G	Spec	Pierson	AC	28	(1956)	1218
β -Nitroethanol	850-1600	-	Spec	Barnes	IEC	15	(1943)	659
	3 μ	Sol	Freq, H bond	Flett	SA	10	(1958)	21
$C_2H_5NO_3$								
Thioacetamide	700-3800	-	Assign, Struct	Spinner	SA	15	(1959)	95
	650-3100	S	Freq	Rosenthal	JACS	82	(1960)	4169

-	-	3-15 μ	G	Freq assign	Edsall	JCP	5 (1937)	225
-	-	-	-	Quant mech	Glockler	JCP	5 (1937)	813
-	-	-	-	Freq assign, Quant mech	Howard	JCP	5 (1937)	442
-	-	-	-	Quant mech	Howard	JCP	5 (1937)	451
-	-	-	G	Spec, Assign	Crawford	JCP	6 (1938)	682
-	-	-	-	Freq assign	Wall	JACS	60 (1938)	71
-	-	-	-	Quant mech	Wilson	JCP	6 (1938)	740
-	-	-	-	Assign	Barker	JCP	7 (1939)	277
-	-	-	-	Quant mech	Gorin	JCP	7 (1939)	633
-	-	-	-	Vibrational analysis	Stitt	JCP	7 (1939)	297
-	-	-	-	Hindered rotation	Langseth	JCP	8 (1940)	415
-	-	-	-	FC	Linnett	JCP	8 (1940)	91
-	-	-	-	Freq, Thermo	Pitzer	JCP	8 (1940)	711
-	-	-	G	Thermo	Pitzer	CR	27 (1940)	39
-	-	-	-	FC	Crawford	JCP	9 (1941)	69
-	-	-	-	Vibrational analysis	Crawford	JCP	9 (1941)	323
-	-	-	-	Assign	Guggenheim	TFS	37 (1941)	97
-	-	-	-	FC	Linnett	TFS	37 (1941)	469
-	-	-	-	Freq, Thermo	Thompson	TFS	37 (1941)	344
-	-	-	G	Spec, Assign	Avery	JCP	10 (1942)	10
-	-	2-14 μ	-	Spec	Owens	JCP	10 (1942)	146
-	-	12 μ	-	Thermo	Pitzer	JCP	10 (1942)	605
-	-	-	G	Struct	Smith	PR	61 (1942)	386
-	-	-	-	Freq	Barnes	IEC	15 (1943)	659
-	-	-	-	Ratio rule	Noether	JCP	11 (1943)	97
-	-	-	-	Internal rotation	Aston	JCP	12 (1944)	336
-	-	-	-	FC	Linnett	TFS	41 (1945)	223
-	-	-	-	Assign, FC	Ahonen	JCP	14 (1946)	623
-	-	-	-	Potential barrier	French	JCP	14 (1946)	389
-	-	-	-	FC, Bond distances	Gordy	JCP	14 (1946)	305
-	-	-	-	Analysis	Lee	IEC	18 (1946)	659
-	-	-	-	FC	Walsh	TFS	42 (1946)	779
-	-	-	-	Spec	Coggeshall	JCP	15 (1947)	65
-	-	-	-	Thermo, Quant mech	Halford	JCP	15 (1947)	364
-	-	-	-	Product rule	Pace	JCP	15 (1947)	528
-	-	-	-	FC	Ramsay	PRS	190 (1947)	562
-	-	-	G	Pressure broadening	Seyfried	IEC	19 (1947)	298
-	-	-	-	FC	Walsh	TFS	43 (1947)	60
-	-	-	-	I	Thorndike	JCP	15 (1947)	868
-	-	-	-	Quant mech	Decius	JCP	16 (1948)	1025
-	-	-	-	Internal rotation	Lassettre	JCP	16 (1948)	151
-	-	-	-	Assign	Ramussen	JCP	16 (1948)	712
-	-	-	-	FC	Gates	JCP	17 (1949)	393
-	-	-	G	IR	Ginsberg	PR	75 (1949)	1317
-	-	-	-	Hindered rotation	Lassettre	JCP	17 (1949)	317

	-	-	Spec, Assign	Posey	JCP	17	(1949)	182
	-	-	Quant mech	Simanouti	JCP	17	(1949)	734
	1.6-13 μ	G	Spec, Assign	Smith	JCP	17	(1949)	139
	-	-	Shape of bands	Walsh	JCP	17	(1949)	8382
	-	-	Thermo	Blade	JCP	18	(1950)	630
	-	-	Normal vibration models	Krishnamurty	JCP	18	(1950)	1411
	-	-	Freq	El-Sabban	JCP	20	(1952)	1810
	1500	G	FC	Hansen	JCP	20	(1952)	313
	-	-	Bond length, FC	Jones	PRS	211	(1952)	285
	2-16 μ	G	Spec	Patterson	APS	6	(1952)	17
	200-3000	-	Assign	Smith	JCP	20	(1952)	847
	-	G	Emission	Talley	JOSA	42	(1952)	982
	2-16 μ	G	Spec	Thompson	JPC	56	(1952)	243
	-	-	Bond distances	Huggins	JACS	75	(1953)	4126
	-	-	Freq	Daasch	JCP	22	(1954)	1293
	-	-	$\delta(\text{CH}_2)$ compared	Corish	JCS	-	(1955)	2431
	-	-	Freq correlation	Sheppard	JCP	23	(1955)	582
	1379	-	Freq	Sheppard	TFS	51	(1955)	1465
	-	-	Pot barrier	Bak	JCP	24	(1956)	918
	2-15 μ	G	Spec	Lacher	JPC	60	(1956)	492
	-	-	Vibrational interactions	Meal	JCP	24	(1956)	1126
	2-15 μ	G	Spec	Pierson	AC	28	(1956)	1218
	-	-	I, NCA	Nyquist	JCP	26	(1957)	552
	2900-3120	G	Struct, Mol consts	Allen	JACS	80	(1958)	2673
	2730-2770	G	Spec	Allen	JCP	31	(1959)	1062
	-	-	Absorption	Singleton	DA	19	(1959)	2372
	700-3500	L	Freq, Spec	Comeford	JMS	5	(1960)	474
$\text{C}_2\text{H}_6\text{DO}_2\text{B}$	2-15 μ	G	Spec, Freq, Assign	Lehmann	JCP	30	(1959)	1215
$\text{C}_2\text{H}_6\text{D}_2\text{IN}$	400-4000	S	Assign	Ebsworth	SA	13	(1959)	261
$\text{C}_2\text{H}_6\text{D}_2\text{Si}$	400-3500	G	Assign	Ball	SA	16	(1960)	1358
$\text{C}_2\text{H}_6\text{D}_4\text{B}_2$	2-15 μ	G	Spec, Assign	Lehmann	JCP	33	(1960)	590
$\text{C}_2\text{H}_6\text{D}_5\text{NB}_2$	2-20 μ	G	IR, Spec, Assign	Mann	JCP	22	(1954)	70
	-	-	NCA	Breene	JCP	23	(1955)	97
$\text{C}_2\text{H}_6\text{BrB}$	600-4000	G	Spec, Assign	Schabacher	ZAUA	294	(1958)	183
$\text{C}_2\text{H}_6\text{Br}_2\text{Si}$	-	-	Assign	Shimanouchi	JCP	18	(1950)	1306

C_2H_6ClOPS	Thiophosphorylmethoxymethyl chloride	-	-	Assign, Freq Assign, FC	Tobin Kriegsmann	JACS ZE	75 (1953) 62 (1958)	1788 1033
$C_2H_6ClO_2PS$	Thiophosphoryldimethoxy chloride	-	-	Spec, Freq	Popov	ZOK	29 (1959)	1998
$C_2H_6ClO_2B$	Thiophosphoryldimethoxy chloride	-	-	Spec, Freq	Popov	ZOK	29 (1959)	1998
$C_2H_6ClO_2B$	Chlorodimethoxyborane	2-15 μ	G	Spec, Freq assign	Lehmann	JCP	30 (1959)	1219
$C_2H_6ClO_3P$	Dimethyl chlorophosphonate	900-1060	Sol	Band freq	Halmann	JCS	- (1953)	626
$C_2H_6ClO_4B$	Ethylenechloroacetylborate	6-14 μ	L	Assign, Struct	Blau	JCS	- (1960)	380
$C_2H_6Cl_2NOP$	Dimethylaminophosphonyl-dichloride	-	-	Phosphoryl absorption	Bell	JACS	76 (1954)	5185
$C_2H_6Cl_2NOP$	Phosphonyldimethylamino chloride	-	-	Spec, Freq	Popov	ZOK	29 (1959)	1998
$C_2H_6Cl_2NPS$	Thiophosphonyldimethyl-amino chloride	-	-	Spec, Freq	Popov	ZOK	29 (1959)	1998
$C_2H_6Cl_2O_2Si$	Dimethoxydichlorosilane	2-25 μ	-	Assign	Forneris	ZE	62 (1958)	1130
$C_2H_6Cl_2Si$	Dichlorodimethylsilane	-	-	Assign	Shimanouti	JCP	18 (1950)	1306
		2-25 μ	G	Spec, Assign	Smith	JCP	21 (1953)	1997
		-	-	Assign	Tobin	JACS	75 (1953)	1788
		-	-	Assign, FC	Kriegsmann	ZE	62 (1958)	1033
		400-5000	Sol	Ident	Smith	AC	31 (1959)	1174
		-	L	NCA, Freq, Assign, Thermo	Shimizu	JMS	4 (1960)	214
		2-16 μ	Sol	Spec, Struct, Freq	Smith	SA	16 (1960)	87
$C_2H_6Cl_2Si$	Ethylchlorosilane	-	G	Band freq	Richards	JCS	- (1949)	124
		2050-2250	Sol	Struct	Smith	SA	15 (1959)	412
$C_2H_6FO_2B$	Fluorodimethylborine	250-4000	-	Spec, Assign	Goubeau	ZPC	20 (1959)	15
$C_2H_6FO_3P$	Dimethyl fluorophosphonate	2-21 μ	L	Spec	Daasch	AC	23 (1951)	853
		-	-	Phosphoryl absorption	Bell	JACS	76 (1954)	5185
$C_2H_6F_2Si$	Difluorodimethylsilane	-	-	Spec, Assign, FC	Kriegsmann	ZE	62 (1958)	1033

$C_2H_6F_3OB$	Boron trifluoride ethanol complex	2200-7600	-	Struct	Babushkin	OS	5 (1958)	256
$C_2H_6F_4O_2B_2$	Difluoromethylborine (dimer)	250-4000	-	Spec, Assign	Goubeau	ZPC	20 (1959)	15
$C_2H_6I_2O$	Acetone-iodine complex	1680-1740	Sol	Freq, I	Yamada	JACS	82 (1960)	1543
$C_2H_6N_2$	Acetamidine	450-4000	L	Spec, Struct	Davies	ZPC	20 (1959)	34
$C_2H_6N_2 \cdot HCl$	Acetamidine hydrochloride	450-4000	L	Spec, Struct	Davies	ZPC	20 (1959)	34
$C_2H_6N_2$	Azomethane	1-15 μ -	G -	Spec Band freq	West Fugassi	JCP JPC	6 (1938) 46 (1942)	1 630
$C_2H_6N_2O$	Acetamide oxime	2-15 μ 900-3500	G -	Spec Freq	Pierson Hollander	AC JOC	28 (1956) 23 (1958)	1218 1112
$C_2H_6N_2O$	Azoxymethane	- -	L -	Group freq Group freq	Langley Jander	JCS JCS	- (1952) - (1954)	4191 919
$C_2H_6N_2O$	Dimethylnitrosamine	2-15 μ 5.75-9.95 μ 3-15 μ -	L L, Sol G, L, Sol G, L, Sol	Spec Group freq, I Spec, Association Assign	Earl Haszeldine Haszeldine Haszeldine Tarte	JCS JCS JCP JCS JCP	- (1951) - (1954) 23 (1955) - (1955) 23 (1955)	2207 691 979 4172 979
$C_2H_6N_2O_2$	O,N-Dimethylnitramide	670-4000	L	Assign	Janathan	JMS	5 (1960)	101
$C_2H_6N_2O_2$	Nitrosomethane dimer	1450-1000 -	- -	Spec, Assign, Struct Freq	Gowenlock Luttke	JCS ZE	- (1957) 61 (1957)	3927 976
$C_2H_6N_4O$	Guanylurea	-	S, Sol	Struct	Sukhorikov	OS	9 (1960)	330
$C_2H_6N_4S$	Guanidine thiocyanate	-	S	Freq	Pickard	JACS	76 (1954)	5169
$C_2H_6N_6O_3$	1-Methyl-5-nitramino-tetrazole	2-15 μ	-	Spec	Garrison	JOC	22 (1957)	278
$C_2H_6N_{10} \cdot H_2O$	Tetracene	-	S	Band freq, Ident	Patinkin	JACS	77 (1955)	562
C_2H_6O	Acetone	-	G, L, Sol	Solvent effect	Bayliss	AJC	8 (1955)	26

-	-	Freq	Bonino	TFS	25 (1929)	876
0.8-2.5 μ	L	Spec	Sappenfield	PR	33 (1929)	37
-	-	Mech models of vibrations	Kettering	PR	36 (1930)	531
-	-	Vibration theory, Heat capacity	Lewis	PR	36 (1930)	568
-	-	Spec, Assign	Plyler	PR	35 (1930)	605
-	-	Vibration theory	Yates	PR	36 (1930)	555
-	-	Theoretical on directed valence	Cross	JCP	1 (1933)	350
3-5.4 μ	L	Spec	Plyler	JCP	2 (1934)	565
6900-7300	Sol	Spec	Wulf	JACS	57 (1935)	1464
-	G	Spec	Badger	JCP	4 (1936)	711
52-152 μ	L, Sol	Dispersion	Cartwright	PRS	154 (1936)	138
2.4-5.0 μ	L	Association bands	Williams	JOSA	26 (1936)	149
4-5.2 μ	-	Spec	Williams	JCP	4 (1936)	251
9000-11000	Sol	Spec, H bond	Badger	JCP	5 (1937)	369
9000-11000	L	Spec, H bond	Badger	JCP	5 (1937)	839
4-8 μ	L	No exchange reaction evidence	Barr	PR	51 (1937)	685
-	-	FC	Bonner	JCP	5 (1937)	293
2800-3700	L, Sol	Spec, H bond	Buswell	JCP	5 (1937)	501
2800-3700	Sol	H bond, Spec	Errera	TFS	33 (1937)	120
-	G, Sol	Ext coeff	Fox	PRS	162 (1937)	419
2.55-3.15 μ	L	Solvent effect	Gordy	PR	51 (1937)	564
0.9-4.0 μ	G, L, Sol	Spec, H bond	Kinsey	JCP	5 (1937)	399
-	-	Freq	Ellis	JCP	6 (1938)	497
3100-7500	Sol	Spec, H bond	Errera	TFS	34 (1938)	728
-	-	H bond	Freyman	JCP	6 (1938)	497
-	-	Thermo	Schumann	JCP	6 (1938)	480
6.9-11.2 μ	L	Calibration wavelengths	Shearin	JOSA	28 (1938)	61
2-12 μ	L	Association	White	PR	53 (1938)	932
4.75 μ	Sol	Effect on H ₂ O absorption	Barr	JCP	7 (1939)	8
8800-10500	L	Photographic H bond	Thompson	JACS	61 (1939)	1396
-	-	Freq, Association	Davies	TFS	36 (1940)	333
3 μ	Sol	Spec, H bond	Errera	JCP	8 (1940)	63
-	-	Thermo	Aston	JCP	11 (1943)	532
1050-1800	-	Spec	Barnes	IEC	15 (1943)	659
-	-	Hindered rotation	Aston	JCP	12 (1944)	336
-	-	Vibration analysis	Carter	JCP	14 (1946)	32
-	-	Vibration analysis	Kron	JCP	14 (1946)	19
2.6-3.5 μ	Sol	Association bands	Coggeshall	JACS	69 (1947)	1620
3 μ	Sol	Comparison	McKinley	JACS	69 (1947)	1624
-	-	FC	Ramsay	PRS	190 (1947)	562

-	-	Beer's law	Anderson	AC	20	(1948)	998
2-40 μ	G	Spec	Plyler	PR	74	(1948)	1247
-	-	FC	Richards	TFS	44	(1948)	40
3-4.7 μ	Sol	Optical density	Saier	AC	20	(1948)	812
-	Sol	H bond	Baker	JCS	-	(1949)	24
-	-	Thermo	Halford	JCP	17	(1949)	111
2.6-3.8 μ	Sol	Spec, H bond	Coggeshall	AC	22	(1950)	381
-	-	Hindered rotation	Halford	JCP	18	(1950)	361
720-750	L	Band freq	Wiberly	AC	22	(1950)	841
2.7-3.2 μ	Sol	H bond, Spec	Coggeshall	JACS	73	(1951)	5414
2.7 μ	Sol	Rate of loss from d11	Meeks	AC	23	(1951)	792
-	-	CCl ₄ sol					
2800-3000	Sol	Freq, Spec	Pozefsky	AC	23	(1951)	1611
700-4000	G	Spec, Assign, Thermo	Barrow	JCP	20	(1952)	1739
2-16 μ	-	Spec, Ident	Bergstrom	JACS	74	(1952)	145
15-25 μ	L	Opaque	Morrison	JSI	29	(1952)	233
2-38 μ	G, L, Sol	Spec, Assign	Plyler	JRNB	48	(1952)	281
-	-	Ident	Calrns	JOC	18	(1953)	748
-	L	Analysis	Cristol	JACS	75	(1953)	2647
-	Sol	Spec, Freq, H bond	Haszeldine	JCS	-	(1953)	1757
-	-	Freq	Mizushima	JCP	21	(1953)	215
1600-1800	G	NO ₂ -C ₂ H ₅ -OH reaction	Nightingale	JCP	21	(1953)	1398
665-5000	L	Freq	Zeiss	JACS	75	(1953)	897
10536	Sol	Freq	Josien	JCP	22	(1954)	1169
2-15.5 μ	L, G	Spec, H bond	Laubengayer	JACS	76	(1954)	5985
3000-3800	Sol	Spec, H bond	Brealey	JACS	77	(1955)	4462
2.6-3.4 μ	-	I, H bond	Mizushima	SA	7	(1955)	100
2-15 μ	G	Spec	Priester	AC	27	(1955)	457
-	-	Freq	Sheppard	JCP	23	(1955)	582
-	-	Freq	Finch	JCP	24	(1956)	908
2-15 μ	G	Spec	Pierson	AC	28	(1956)	1218
2.5-11 μ	Sol	Spec	Potts	AC	28	(1956)	1255
350-4000	G, L, Sol	Spec	Stuart	JCP	24	(1956)	559
1400-1600	Sol	Mol association	Ens	CJC	35	(1957)	170
2-15 μ	G	Spec	Friedel	AC	29	(1957)	1362
-	Sol	H bond, Mol association	Coburn	JACS	80	(1958)	1318
3 μ	Sol	Freq, H bond	Flett	SA	10	(1958)	21
3 μ	Sol	H bond	Liddle	SA	10	(1958)	70
3100-3550	Sol	H bond	Lund	ACS	12	(1958)	298
3200-3800	Sol	Spec, H bond	Mukherjee	JPC	62	(1958)	1311
6000-10000	Sol	H bond	Bell	JCP	31	(1959)	300
3570-3700	Sol	Freq, I, H bond	Flynn	AJC	12	(1959)	575
2800-3600	Sol	Effect of NaI on spec	Price	PRS	255	(1960)	5

C_2H_6OS	Dimethyl sulfoxide	650-4000	G, Sol	Assign, Spec	Cotton	JPC	64 (1960)	1534
C_2H_6OS	2-Mercaptoethanol	8800-10100	L, Sol	H bond	Thompson	JACS	61 (1939)	1396
		-	-	Iso	Kuhn	ZAC	170 (1959)	106
$C_2H_6O_2$	Ethylene glycol	-	-	Freq, Ext coefficient	Bonino	TFS	25 (1929)	876
		-	G	Spec	Badger	JCP	4 (1936)	711
		-	-	Spec, H bond	Barnes	JCP	4 (1936)	722
		2.6-3.2 μ	Sol	H bond	Wall	JACS	61 (1939)	2679
		1050-1750	-	Spec	Barnes	IEC	15 (1943)	659
		-	-	FC	Linnett	TFS	41 (1945)	223
		-	-	Relative bond strength	Gordon	JACS	71 (1949)	1245
		2800-3000	Sol	Freq, Spec	Pozefsky	AC	23 (1951)	1611
		3 μ	Sol	Freq	Kuhn	JACS	74 (1952)	2492
		700-1500	L	Ident, Spec	Shay	AC	26 (1954)	652
		2.5-10.5 μ	Sol	Spec	Potts	AC	28 (1956)	1255
		700-1600	L	Config	Kuroda	JPS	26 (1957)	323
		25000 Mc	G	Spec	Boulet	CPR	246 (1958)	2364
		3000-7100	S, L, Sol	H bond, Freq, Config	Malyshev	IANS	22 (1958)	1107
		2.5-3.5 μ	-	No of OH groups in steroid molecule	Kabasakalian	AC	31 (1959)	375
		-	-	Rot, Iso	Kuhn	ZAC	170 (1959)	106
		2-15 μ	L	Spec	Miyake	BCSJ	32 (1959)	1381
		3000	-	Freq, Assign	Nakada	NKZ	80 (1959)	976
		837-1131	Sol	Analysis	Pinchas	AC	31 (1959)	1742
		10-16 μ	L, S	Assign, Struct	White	JPS	41 (1959)	369
		7-14 μ	L	Freq	Miyake	JACS	82 (1960)	3040
$C_2H_6O_2$	Ethyl hydroperoxide	-	L	Ident, Group freq	Gray	JCS	- (1952)	3150
		5-15 μ	Sol	Spec, Peroxide bands	Minkoff	PRS	224 (1954)	176
$C_2H_6O_2$	Methyl peroxide	8.19-10.7 μ	-	Ident	Everett	TFS	52 (1956)	986
$C_2H_6O_2PK.XH_2O$	Potassium dimethyl-phosphinate hydrate	687-3200	S	Table I, Group freq	Corbridge	JCS	- (1954)	4555
$C_2H_6O_2S$	Dimethyl sulfone	1150	Sol	Freq	Rogers	JACS	78 (1956)	1790
		500-4000	S	Spec, NCA, Assign	Fujimori	BCSJ	32 (1959)	1374
$C_2H_6O_2Se$	Ethylseleninic acid	-	S	Spec, Assign	Paetzold	ZAU A	305 (1960)	78
		-	S, Sol	Spec, H bond	Paetzold	ZAU A	305 (1960)	88
$C_2H_6O_2Se.HCl$	Ethylseleninic acid hydrochloride	-	S, Sol	Spec, Assign	Paetzold	ZAU A	305 (1960)	98

$C_2H_6O_3$	1-Hydroxy-1-hydroperoxyethane	5-15 μ	Sol	Spec, Peroxide bands	Minkoff	PRS	224 (1954)	176
$C_2H_6O_3$	Hydroxymethyl peroxide	5-15 μ 9.0-9.7 μ	Sol	Spec, Peroxide bands Ident	Minkoff Everett	PRS TFS	224 (1954) 52 (1956)	176 986
$C_2H_6O_3S$	Ethanesulphonic acid	1000-1500	Sol	Spec	Schreiber	AC	21 (1949)	1168
$C_2H_6O_3S$	Methyl sulphite	7-10 μ	L	Assign, Correlation	Haszeldine	JCS	- (1955)	2901
$C_2H_6O_3Se$	Ethylselenous acid	-	S	Spec, Freq	Simon	ZAUA	303 (1960)	72
$C_2H_6O_4$	Dihydroxymethyl peroxide	5-15 μ	Sol	Spec, Peroxide bands	Minkoff	PRS	224 (1954)	176
$C_2H_6O_4S$	Dimethyl sulfate	1-8 μ 52-152 μ 100-1500	L L Sol	Spec, Assign, Wave lengths Trans di pers Spec	Plyler Cartwright Schreiber	PR PRS AC	35 (1930) 154 (1936) 21 (1949)	305 138 1168
C_2H_6S	Dimethyl sulfide	1.6-26 μ - 600-6000 - - - - - 500-1700 - - - 2800-3000 - 1325 - 200-1500 - -	G - G - - - - - G - - - Sol - - - - -	Spec, Freq, Assign Thermo Spec, Assign, Thermo Thermo Internal rotations FC CH ₃ pot barrier, Thermo FC, Bond distance Assign, Spec Thermo FC Freq Freq, Spec Group freq Freq IR, Mass spec Freq, Struct, Assign Freq, Assign Mol consts	Fonteyne Osborne Thompson Osborne Aston Linnett French Gordy Trotter Binder Sheline Sheppard Pozefsky Brandt Sheppard Haines Scott Mirone Rudolf	JCP JCP TFS JACS JCP TFS JCP JCP JCS JCP JCP TFS AC JCS TFS JPC JACS ANCR ZN	8 (1940) 8 (1940) 37 (1941) 64 (1942) 12 (1944) 41 (1945) 14 (1946) 14 (1946) - (1946) 17 (1949) 18 (1950) 46 (1950) 23 (1951) - (1952) 51 (1955) 60 (1956) 80 (1958) 50 (1960) 15a (1960)	60 506 38 169 336 223 389 305 481 499 602 429 1611 2549 1465 549 3554 1095 742
C_2H_6S	Ethyl mercaptan	.6-2.8 μ 500-1700 700-1500 - 2800-3000 - -	L G G - Sol - -	S-H study Assign, Spec Spec, Assign IR, Freq, FC Freq, Spec Freq, Thermo Vib assign, Thermo	Ellis Trotter Sheppard Sheppard Pozefsky Scott McGullough	JACS JCS JCP TFS AC JACS JACS	50 (1928) - (1946) 17 (1949) 46 (1950) 23 (1951) 73 (1951) 74 (1952)	2113 481 79 429 1611 261 2801

$C_2H_6S_2$	Dimethyl disulphide	2-25 μ	L	Spec	Haines	JPC	58	(1954)	270
		2-15 μ	G	Spec, Threshold values	Pierson	AC	28	(1956)	1218
		2-8 μ	Sol	Quant analysis	Matsuyama	AC	29	(1957)	196
		200-1500	-	Freq, Mol struct, Assign	Scott	JACS	80	(1958)	3554
		2310-2810	Sol	I	Spurr	JPC	62	(1958)	425
		2300-2700	L, Sol	Struct	Balanin	OS	6	(1959)	754
		400-1700	L	Spec, Assign	Trotter	JCS	-	(1946)	481
		-	-	Freq	Sheppard	TFS	46	(1950)	429
		2800-3000	Sol	Spec, Freq	Pozefsky	AC	23	(1951)	1611
		-	-	Group freq	Brandt	JCS	-	(1952)	2549
$C_2H_6S_3$	Methyl trisulfide	-	-	Ident of preps	Cairns	JOC	18	(1953)	748
		2-25 μ	L	Spec	Haines	JPC	58	(1954)	270
		-	-	Freq, Assign	Hooze	RTC	77	(1958)	902
		200-1500	-	Freq assign, Mol struct	Scott	JACS	80	(1958)	3554
		-	-	Ident	Cairns	JOC	18	(1953)	748
		-	-	Ident	Cairns	JOC	18	(1953)	748
		-	-	FC, Bond distances	Gordy	JCP	14	(1946)	305
		-	-	Theory FC	Sheline	JCP	18	(1950)	602
		1282	-	Freq	Sheppard	TFS	51	(1955)	1465
		2-40 μ	-	Assign	Bergson	ARK	13	(1958)	11
C_2H_6Si	Vinylsilane	2-16 μ	G	Spec, Group freq	Kaye	JOC	18	(1953)	1750
		-	-	Group freq, Thermo	Tannenbaum	JACS	75	(1953)	3753
		-	-	No band	Harvey	JACS	76	(1954)	4555
		2-16 μ	G	Not shown	White	JACS	76	(1954)	3897
		400-4000	G	Struct, Assign	Lord	SA	12	(1958)	147
		2050-2250	Sol	Freq	Smith	SA	15	(1959)	412
		2-16 μ	Sol	Freq, Spec, Struct	Smith	SA	16	(1960)	87
		6400-6800	Sol	NH band	Liddel	JACS	55	(1933)	3574
		-	-	Freq	Mecke	TFS	30	(1934)	200
		-	-	Freq, Assign	Edsoll	JCF	5	(1937)	225
C_2H_7ClSi	Dimethylamine	-	G	Assign, Spec	Cleaves	JCP	8	(1940)	784
		-	-	NH-FC	Linnett	TFS	41	(1945)	223
		-	-	Potential barrier	French	JCP	14	(1946)	389
		-	-	FC	Richards	TFS	44	(1948)	40
		2.8-4.7 μ	Sol	Spec	Sternberg	JACS	75	(1953)	3148
$C_2H_6Si_2$	Disilylacetylene	400-4000	G	Struct, Assign	Lord	SA	12	(1958)	147
		2050-2250	Sol	Freq	Smith	SA	15	(1959)	412
		2-16 μ	Sol	Freq, Spec, Struct	Smith	SA	16	(1960)	87
		6400-6800	Sol	NH band	Liddel	JACS	55	(1933)	3574
		-	-	Freq	Mecke	TFS	30	(1934)	200
		-	-	Freq, Assign	Edsoll	JCF	5	(1937)	225
		-	G	Assign, Spec	Cleaves	JCP	8	(1940)	784
		-	-	NH-FC	Linnett	TFS	41	(1945)	223
		-	-	Potential barrier	French	JCP	14	(1946)	389
		-	-	FC	Richards	TFS	44	(1948)	40
$C_2H_6Si_3$	Dimethylamine	2.8-4.7 μ	Sol	Spec	Sternberg	JACS	75	(1953)	3148

$C_2H_7NO_2S$	N-Methylmethane-sulphonamide	-	S, Sol	Group freq	Baxter	JCS	- (1955)	669
$C_2H_7NO_3S$	Taurine	909-1538	Sol	Spec	Parker	SA	16 (1960)	910
$C_2H_7N_3$	N-Methylguanidine	800-3500	S	Spec	Goto	BCSJ	30 (1957)	723
$C_2H_7N_3 \cdot HCl$	N-Methylguanidine hydrochloride	- 800-3500	S S	C-N freq Spec	Pickard Goto	JACS BCSJ	76 (1954) 30 (1957)	5169 723
$C_2H_7N_3S$	H-Methylthiosemicarbazide	700-1700	S	Spec, Struct, Assign, Taut.	Lieber	CJC	36 (1958)	801
C_2H_7OB	Dimethylboric acid	250-4000	-	Spec, Assign, Freq	Coubeau	ZPC	20 (1959)	15
$C_2H_7O_2P$	Dimethylphosphinic acid	-	-	Freq, Assign	Ketelaar	RTC	78 (1959)	190
$C_2H_7O_2PS_2$	O, O-Dimethylphosphorodithioic acid	450-550	L	Assign	McIvor	CJC	37 (1959)	869
$C_2H_7O_2B$	Dimethoxyborane	2-15 μ	G	Spec, Freq, Assign	Lehmann	JCP	30 (1959)	1215
$C_2H_7O_3P$	Dimethyl hydrogenphosphite	2-25 μ - -	L - -	Spec, Struct p=O, 7.9 μ shift Band freq	Meyrick Bell Bennett	JCS JACS JCS	- (1950) 76 (1954) - (1954)	225 5185 3598
$C_2H_7O_3PS$	Dimethylphosphorothioic acid	740-830	L	Assign, Discussion	McIvor	CJC	37 (1959)	869
$C_2H_7O_4B$	Etheleneacetylborate	6-14 μ	S, L	Assign, Struct	Blau	JCS	- (1960)	380
C_2H_7P	Dimethylphosphine	625-5000	G	Spec	Beachell	JCP	27 (1957)	182
$C_2H_7PS_4$	Dimethylphosphorotetra-thioic acid	1950-2650	L, Sol	H bond	Alford	CIL	- (1959)	514
C_2H_7ClNB	Dimethylammonium-tetrachloroborate	600-3500	S	Spec	Kynaston	JCS	- (1960)	1772
$C_2H_7Cl_4N_5P_3$	Methylamino derivative of phosphorinitrilic chloride	1150-1350	-	Freq, Struct	Shaw	CIL	- (1959)	54

$C_2H_8F_3O_3B$	Boron trifluoride dimethanol complex	2200-7500	-	Struct	Babushkin	OS	5 (1958)	256
$C_2H_8F_4NB$	Dimethylammonium tetrafluoroborate	-	S	H bond, Band freq	Nuttall	JCS	- (1960)	4965
$C_2H_8FN_2B_2$	Ethylenediamine-2 boron trifluoride complex	2-16 μ	S	Spec	Brown	JACS	76 (1954)	2537
C_2H_8IN	Dimethylammonium iodide	400-4000	S	Assign	Ebsworth	SA	13 (1959)	261
C_2H_8N	Dimethylammonium ion	-	-	Freq assign	Edsall	JCP	5 (1937)	225
C_2H_8N	Ethylammonium ion	-	-	Freq assign	Edsall	JCP	5 (1937)	225
C_2H_8NB	N,N-Dimethylaminoborane	-	-	Freq	Price	JCP	17 (1949)	1044
$C_2H_8N_2$	unsym-Dimethylhydrazine	-	-	Group freq, Assign, Thermo	Aston	JACS	75 (1953)	6202
$C_2H_8N_2$	N,N'-Dimethylhydrazine	700-3500 2-15 μ 1.9 μ	G,L G Sol	IR, Freq, Assign Spec, Threshold values Determination of H_2O	Shull Pierson Cordes	JCP AC AC	22 (1954) 28 (1956) 29 (1957)	1191 1218 485
$C_2H_8N_2$	Ethylenediamine	- - 650-3000 2-15 μ	- - L,G G	Vib analysis Assign, Thermo IR, Assign Spec, Threshold values	Uest Aston Axford Pierson	JCP JACS JCP AC	6 (1938) 73 (1951) 19 (1951) 28 (1956)	1 1943 704 1218
$C_2H_8N_2$	Ethylenediamine hydrochloride	- - 2-15 μ 2-25 μ	- S L S,G,L	FC Spec Freq (ν, δ), Assign Freq, Assign	Linnett Nakanishi Stewart Sabatini	TFS BCSJ JCP SA	41 (1945) 30 (1957) 30 (1959) 16 (1960)	223 403 1259 677
$C_2H_8N_2 \cdot HCl$	Ethylenediamine hydrochloride	2-8 μ 2-15 μ	S S	Spec Assign, Freq	Nakanishi Bellanato	BCSJ SA	30 (1957) 16 (1960)	403 1344
$C_2H_8N_2 \cdot 2HCl$	Ethylenediamine dihydrochloride	750-2250	S	Assign, Struct	Powell	SA	16 (1960)	241
$C_2H_8N_4O_3$	Aminoguanidine bicarbonate	-	S	C=N freq	Pickard	JACS	76 (1954)	5169
$C_2H_8N_8O_6$	Azodicarbamidine dinitrate	2-15 μ	S	Spec, Freq	Lieber	AC	23 (1951)	1594

$C_2H_8N_{10}O$	1-Guanyl-4-nitrosoamino- guanyl-1 isotetrazene	2-15 μ	S	Spec, Freq	Lieber	AC	23 (1951)	1594
$C_2H_8O_2$	Methanol (dimer)	2700-3700	-	H bond	Thiel	JCP	27 (1957)	95
$C_2H_8O_2Si$	Dimethylsilanediol	-	S	Ident	Hyde	JACS	75 (1953)	2166
		-	S	O-H, Si-CH ₃ , Si-O freq	Kantor	JACS	75 (1953)	2712
C_2H_8Si	Dimethylsilane	2-16 μ	G	Spec, Group freq	Kaye	JOC	18 (1953)	1750
		-	-	Group freq, Thermo	Tannenbaum	JACS	75 (1953)	3753
		2-16 μ	G	Not shown	White	JACS	76 (1954)	3897
		400-4000	S, G	Spec, Assign	Ebsworth	JCS	- (1958)	1453
		-	-	Assign, FC	Kriegsmann	ZE	62 (1958)	4033
		-	G	Microwave spec	Pierce	JCP	31 (1959)	547
		2050-2250	Sol	Freq, Struct	Smith	SA	15 (1959)	412
		400-3500	G	Assign	Ball	SA	16 (1960)	1398
C_2H_8Si	Ethylsilane	2-16 μ	G	Spec, Group freq	Kaye	JOC	18 (1953)	1750
		-	-	Group freq	Tannenbaum	JACS	75 (1953)	3753
		2-16 μ	G	Ident	White	JACS	76 (1954)	3897
$C_2H_{10}OSi_2$	Methylsilyl oxide	400-4000	G	Spec, Assign	Ebsworth	JCS	- (1958)	1453
$C_2H_{10}SSi_2$	Methylsilyl sulphide	400-4000	Sol	Spec, Assign	Ebsworth	JCS	- (1958)	1453
$C_2H_{10}B_2$	1,1-Dimethyldiborane	1500-2850	-	Freq	Shapiro	JCP	29 (1958)	237
$C_2H_{10}B_{22}$	1,2-Dimethylborane	1500-2850	-	Freq	Shapiro	JCP	29 (1958)	237
		2-15 μ	G	Spec, Assign	Lehmann	JCP	33 (1960)	590
$C_2H_{10}B_2$	Ethyldiborane	1500-2850	-	Freq	Shapiro	JCP	29 (1958)	237
		2-15 μ	G	Spec, Assign	Lehmann	JCP	32 (1960)	1786
$C_2H_{10}Si_2$	Disilylethane	2-16 μ	L, G	Not shown	White	JACS	76 (1954)	3897
$C_2H_{11}NB_2$	Dimethylaminodiborane	2-20 μ	G	Spec, Assign	Mann	JCP	22 (1954)	70
		400-600	G	Assign, Thermo	Mann	JCP	22 (1954)	762
		-	-	NCA	Breene	JCP	23 (1955)	97
		15-40 μ	G	Spec, Assign	Stewart	JCP	23 (1955)	2204
$C_2H_{15}B_5$	Ethylpentaborane	400-3000	Sol	Spec, Struct	Figgis	SA	15 (1959)	331
C_2DBr_3	Tribromoethylene-d ₁	385-3237	L	Spec, Assign	Scherer	JCP	33 (1960)	314

C ₂ DCl	Chloroacetylene-d ₁	-	-	Microwave Spec, FC	Westenberg Richardson	JCP 17 (1949) 1319 JCP 18 (1950) 1314
C ₂ DCl ³⁷	Chloroacetylene-d ₁ (Isotopic)	-	-	Microwave	Westenberg	JCP 17 (1949) 1319
C ₂ DCl ₃	Trichloroethylene-d ₁	2-25 μ	-	Assign Spec, Assign	Bernstein Houser	CJR 28 (1950) 132 JACS 77 (1955) 6201
C ₂ DCl ₃ O ₂	Trichloroacetic acid-d ₁	650-1500 2092-2591	S, Sol Sol	Spec, NCA, Assign Struct Freq	Hadzi Fuson Bratoz Oloro Hadzi	PRS 216 (1953) 247 JOSA 43 (1953) 1102 SA 8 (1956) 249 ARS 55B (1959) 205 SA 12 (1958) 162
C ₂ DCl ₅	Pentachloroethane-d ₁	2250	Sol	Freq	Bernstein	JCP 23 (1955) 2201
C ₂ DF ₃	Trifluoroethylene-d ₁	2-50 μ	G	Spec, Assign, Thermo	Mann	JCP 22 (1954) 1586
C ₂ DF ₃ O ₂	Trifluoroacetic acid-d ₁	2-15 μ - 2077-2648	G, L, Sol - G	IR, Spec, Assign Struct	Fuson Fuson Fuson	JCP 20 (1952) 1627 PR 91 (1953) 234 JOSA 43 (1953) 1102
C ₂ D ₂	Acetylene-d ₂	- - - - 2-10 μ 450-4000 - 4130-5140	- G - - G - - G	Freq No absorption Freq Product rule Freq Spec, Assign Vib analysis FC, Bond interactions Spec, Assign FC FC Intensity rule C=C freq Spec, Freq, Mol consts Sum rule Spec, Assign Spec I, Bond moments Mol consts Spec, Mol consts	Randall Bradley Colby Redlich Nielsen Stitt Halverson Linnett Plyler Torkington Decius Decius El-Sabban Saksena Bernstein Talley Overend Wingfield Allen Christensen	PR 45 (1934) 124 PR 47 (1935) 914 PR 47 (1935) 388 JCP 7 (1939) 856 PR 57 (1940) 346 JCP 8 (1940) 56 RMP 19 (1947) 87 TFS 45 (1949) 844 JRN 74 (1951) 248 PRS 206 (1951) 17 JCP 20 (1952) 511 JCP 20 (1952) 1039 JCP 20 (1952) 1810 JCP 20 (1952) 95 JCP 21 (1953) 2188 JCP 22 (1954) 2030 PRS 232 (1955) 291 JCP 23 (1955) 731 JRN 56 (1956) 279 PRS 238 (1957) 15
C ₂ D ₂ Br ₂	1,1-Dibromoethylene-d ₂	-	-	Freq, FC	DeHemptinne	TFS 42 (1946) 5

$C_2D_2Br_2$	1,2-Dibromoethylene- d_2	-	-	Assign, Quant mech NCA	Torkington Dowling	JCP PR	17 (1949) 100 (1955)	1279 1267
$C_2D_2ClO_2$	Chloroacetate ion- d_2	-	-	Spec, Assign, NCA, Thermo	Dowling	JCP	26 (1957)	233
$C_2D_2Cl_2$	cis-Dichloroethylene- d_2	-	-	Assign	Nakamura	NKZ	79 (1958)	1420
		-	-	Product rule	Redlich	JCP	7 (1939)	856
		-	-	Assign, Spec, Isomerism	Bernstein	JCP	17 (1940)	556
		-	-	Sum rule	Mizushima	JCP	21 (1953)	215
		-	-	NCA	Dowling	PR	100 (1955)	1267
$C_2D_2Cl_2$	trans-Dichloroethylene- d_2	-	-	Product rule	Redlich	JCP	7 (1939)	856
		-	-	Vib anal	Halverson	RMP	19 (1947)	87
		-	-	Assign, Spec, Isomerism	Bernstein	JCP	17 (1949)	556
		-	-	Sum rule	Mizushima	JCP	21 (1953)	215
		-	-	NCA	Dowling	PR	100 (1955)	1267
$C_2D_2Cl_2$	Vinylidene chloride- d_2	-	-	Assign, FC, Freq	Enamoto	NKZ	79 (1958)	1343
$C_2D_2Cl_4$	1,1,1,2-Tetrachloroethane- 2,2- d_2	2.5-25/ μ	-	Assign	Bernstein	CJR	28B (1950)	132
$C_2D_2Cl_4$	1,1,2,2-Tetrachloroethane	-	-	Freq assign FC	Langseth Zietlow	JCP JCP	8 (1940) 24 (1956)	410 142
$C_2D_2F_2$	1,1-Difluoroethylene- 2,2- d_2	2-40/ μ	G	IR, Spec, Assign NCA	Edgell	JCP	22 (1954)	1983
		-	-	Struct	Dowling	PR	100 (1955)	1267
		-	-	Struct, Microwave	Edgell	JACS	79 (1957)	2691
		-	G		Kinsey	DA	17 (1957)	1910
C_2D_2O	Ketene- d_2	-	G	Assign, Freq	Fletcher	JCP	19 (1951)	1431
		500-3200	G	Struct, Spec	Arendale	JCP	24 (1956)	581
		450-3000	-	Spec, Assign	Arendale	JCP	26 (1957)	793
$C_2^{12}D_2^{16}O$	Ketene- d_2 (Isotopic)	-	G	Microwave	Johnson	JCP	20 (1952)	687
$C_2D_2O_2$	Ethanedial- d_2	117-2141	-	Vib anal, Spec	Brand	TFS	50 (1954)	431
		-	G	Vib assign	Brand	JCS	- (1954)	2970
$C_2D_2O_4$	Oxalic acid- d_2	680-1500	S	Spec, NCA, Assign	Hadzi	PRS	216 (1953)	247

C_2D_3Br	1-Bromo-1,2,2-ethylene-d ₃	-	-	Freq, FC	DeHemptinne Torkington	TFS PRS	42 (1946) 206 (1951)	5 17
C_2D_3Cl	Vinyl chloride-d ₃	400-4000	G	NCA, FC, Freq, Assign	Narita	JCP	31 (1959)	1151
C_2D_3F	Vinyl fluoride-d ₃	400-3500	G	Assign	Bak	SA	12 (1958)	355
		-	G	Microwave spec, Mol consts, Struct	Pierce	JCP	31 (1959)	875
$C_2D_3F_3$	1,1,1-Trifluoroethane-d ₃	-	-	Microwave spec, Mol struct	Edgell	JACS	79 (1957)	2391
$C_2^{12}D_3N^{14}$	Methyl cyanide-d ₃ (Isotopic)	-	-	Microwave	Kessler	PR	79 (1950)	54
$C^{12}C^{13}D_3N^{14}$	Methyl cyanide-d ₃ (Isotopic)	-	-	Microwave	Kessler	PR	79 (1950)	54
$C_2^{12}D_3N^{14}$	Methyl isocyanide-d ₃ (Isotopic)	-	-	Microwave	Kessler	PR	79 (1950)	54
$C^{12}C^{13}D_3N^{14}$	Methyl isocyanide-d ₃ (Isotopic)	-	-	Microwave	Kessler	PR	79 (1950)	54
$C_2D_3O_2$	Acetate-d ₃ ion	-	-	Freq, Assign	Nakamura	NKZ	79 (1958)	1411
C_2D_4	Ethylene-d ₄	-	-	Modes of vibrations	Manneback	JCP	5 (1937)	989
		-	-	Freq assign	Wu	JCP	5 (1937)	392
		-	-	Vib analysis	DeHemptinne	JCP	6 (1938)	319
		-	G	No exchange reaction	Conn	PRS	171 (1939)	70
	1-19 μ	-	G	Spec, Freq, Assign	Conn	PRS	172 (1939)	172
	-	-	-	Product rule	Redlich	JCP	7 (1939)	856
	2-14 μ	-	-	Assign, Spec	Galloway	JCP	10 (1942)	88
	-	-	-	Ratio rule	Edgell	JCP	13 (1945)	539
	-	-	-	Vib anal	Halverson	RMP	19 (1947)	87
	-	-	-	Vib anal, FC	Linnett	TFS	45 (1949)	832
	580-3300	-	G	Spec, Assign	Arnett	JCP	18 (1950)	118
	-	-	-	FC	Torkington	PRS	206 (1951)	17
	-	-	-	C=C freq	El-Sabbah	JCP	20 (1952)	1810
	2-16 μ	-	G	Spec	Thompson	JPC	56 (1952)	243
	-	-	-	Sum mle	Bernstein	JCP	21 (1953)	2188
	-	-	-	Freq, Assign	Crawford	JCP	21 (1953)	678
	-	-	-	NCA	Dowling	PR	100 (1955)	1267
	-	-	-	Assign	Wilkinson	JCP	23 (1955)	1895

$C_2D_4Br_2$	1, 2-Dibromoethane- d_4	- - - 400-3200	- - - L, S -	Study of $CH_2 = CH_2$ I Product rule Spec, Assign Sum rule for isomers	Flanagan Sverdlov Redlich Neu Mizushima	JPC OS JCP JCP JCP	60 (1956) 4 (1958) 7 (1939) 18 (1950) 21 (1953)	730 697 856 1642 215
$C_2D_4N_2O_2$	Oxamide- d_4 analogue	400-4000	L	Spec, Freq assign, Struct	Scott	JCP	30 (1959)	465
$C_2D_4N_2S_2$	Dithiooxamide- d_4 analogue	400-4000	L	Spec, Freq assign, Struct	Scott	JCP	30 (1959)	465
C_2D_4O	Acetaldehyde- d_4	3-25 μ -	G -	Spec, Assign Assign, Thermo	Morris Pitzer	JCP JACS	11 (1943) 71 (1949)	230 2842
C_2D_4O	Ethylene- d_4 oxide	- 3-20 μ 375-3800 -	- - G -	Moment of inertia Freq, FC IR, Assign Struct, Spec	Cunningham Arnold Lord Turner	JCP PR JCP JCP	17 (1949) 94 (1954) 24 (1956) 24 (1956)	211 804 656 924
$C_2D_4O_2$	Acetic acid-C- d_3 -o- d_1	1-15 μ - 785-2326	- - G	Spec, H bond Association Assign	Herman Davies Wettner	JCP JCP JACS	7 (1939) 16 (1948) 77 (1955)	460 267 3941
$C_2D_4O_4$	Formic acid (Dimeric)- d_4	625-3800	G	Spec, Assign	Millikan	JACS	80 (1958)	3515
$C_2D_5NO_2$	Glycine-c- d_2 -N- d_3	-	-	Assign	Nakamura	NKZ	80 (1959)	118
C_2D_6	Ethane- d_6	900-3200 - 2-22 μ 595-1078 - - - 600-2100	G - G - - - G	Assign, Analysis of isotopic mixture C-D vibration, Product rule Vib anal, Spec Comparison with C_2H_2 and C_2H_5D Ratio rule Ratio rule, Isotope effect Vib analysis Product rule Vib analysis, Quant mech C-C freq Spec, FC	Benedict Redlich Stitt Posey Noether Edgell Halverson Pace Simanouti El-Sabban Hansen	JCP JCP PR JCP JCP RMP JCP JCP JCP JCP	5 (1937) 7 (1939) 61 (1942) 11 (1943) 13 (1945) 19 (1947) 15 (1947) 17 (1949) 20 (1952) 20 (1952)	1 856 297 546 97 539 87 528 734 1810 313

C_2D_6OS	Dimethyl sulfoxide- d_6	2-16/ μ - -	G - -	Spec Vibrational rotational interaction I, NCA	Thompson Meal Nyquist	JPC JCP JCP	56 (1952) 24 (1956) 26 (1957)	243 1126 552
$C_2D_{10}B_2$	Ethylidiborane- d_{10}	650-4000 2100-2300 2730-2770	G, Sol G G	Assign, Spec Struct, Mol const Spec, Anal	Cotton Allen Allen	JPC JACS JCP	64 (1960) 80 (1958) 31 (1959)	1534 2673 1062
C_2BrClF_2	1-Bromo-1-Chloro- 2,2-difluoroethylene	2-15/ μ - -	G - -	Spec, Assign FC, NCA FC, NCA	Lehmann Mann Mann	JCP JCP JCP	32 (1960) 27 (1957) 27 (1957)	1786 51 51
C_2BrClF_2	1-Bromo-2-chloro- 1,2-difluoroethylene	2-38/ μ -	G L, S	Spec, Assign, Thermo, Freq Rot isomerism	Theimer Kagarise	JCP JCP	30 (1959) 26 (1957)	98 380
C_2BrCl_2F	1-Bromo-1,1-dichloro- 1-fluoroethylene	- -	- -	FC, NCA FC, NCA	Mann Mann	JCP JCP	27 (1957) 27 (1957)	51 51
C_2BrCl_2F	1-Bromo-1,2-dichloro-2- fluoroethylene	- -	- -	FC, NCA FC, NCA	Mann Mann	JCP JCP	27 (1957) 27 (1957)	51 51
C_2BrCl_3	1-Bromo-1,2,2-trichloro- ethylene	- -	- -	FC, NCA FC, NCA	Mann Mann	JCP JCS	27 (1957) -	51 4294
C_2BrF_3	Bromotrifluoroethylene	2-52/ μ - - -	G - L -	Spec, Assign, Thermo Vib sum rule Spectrometer for IR FC, NCA	Mann Bernstein Plyler Mann	JCP JCP JRN B JCP	22 (1954) 24 (1956) 56 (1956) 27 (1957)	1199 910 149 51
C_2BrF_3O	Trifluoroacetyl bromide	- -	G G	Carbonyl freq Spec	Bellamy Hauptschein	JCS JACS	- (1957) 74 (1952)	4294 1347
C_2BrF_5	Bromopentafluoroethane	2-16/ μ - 1.5-36/ μ 650-3000	G - G G	Purity Spec, Assign Spec, Assign	Husted Klaboe Risgin	JACS JCP SA	76 (1954) 30 (1959) 15 (1959)	5141 1375 1036

C_2Br_2ClF	1-Chloro-1,2-dibromo-2-fluoroethylene	-	FC, NCA	Mann	JCP	27 (1957)	51
C_2Br_2ClF	2-Chloro-1,1-dibromo-2-fluoroethylene	-	FC, NCA	Mann	JCP	27 (1957)	51
C_2Br_2ClF	2-Chloro-1,2-dibromo-1-fluoroethylene	-	FC, NCA	Mann	JCP	27 (1957)	51
$C_2Br_2Cl_2$	1,1-Dibromo-2,2-dichloroethylene	-	NCA, FC	Mann	JCP	27 (1957)	51
$C_2Br_2Cl_2$	cis-1,2-Dibromo-1,2-dichloroethylene	-	FC, NCA	Mann	JCP	27 (1957)	51
$C_2Br_2Cl_2$	trans-1,2-Dibromo-1,2-dichloroethylene	-	FC, NCA	Mann	JCP	27 (1957)	51
$C_2Br_2F_2$	1,1-Dibromo-2,2-difluoroethylene	-	FC, NCA Spec, Assign	Mann Theimer	JCP JCP	27 (1957) 26 (1957)	51 1374
$C_2Br_2F_2$	cis-1,2-Dibromo-1,2-difluoroethylene	-	FC, NCA	Mann	JCP	27 (1957)	51
$C_2Br_2F_2$	trans-1,2-Dibromo-1,2-difluoroethylene	-	FC, NCA	Mann	JCP	27 (1957)	51
$C_2Br_2F_4$	1,2-Dibromotetrafluoroethane	-	Ident IR, Rot iso, Spec	Haszeldine Kagarise	JCS JCP	- (1952) 23 (1955)	4259 130
C_2Br_3Cl	Chlorotribromoethylene	-	FC, NCA	Mann	JCP	27 (1957)	51
C_2Br_3F	Fluorotribromoethylene	-	Vib sum rule FC, NCA	Bernstein Mann	JCP JCP	24 (1956) 27 (1957)	910 51
C_2Br_4	Tetrabromoethylene	3-100 μ	Vib assign, FC Vib sum rule	Mann Bernstein	PR JCP	99 (1955) 24 (1956)	667 910
		3-100 μ	Spec, Assign, Thermc Prism spectrometer	Mann Plyler	JCP JRN	24 (1956) 56 (1956)	1018 149
		-	FC, NCA	Mann	JCP	27 (1957)	51
C_2Br_6	Hexabromoethane	-	IR, Assign	Hamilton	JCP	12 (1944)	249

C_2ClF_2N	Chlorodifluoroaceto-nitrile	- 400-5000 -	- L -	Freq, FC IR C-C freq	Simanouti Carney El-sabban	JCP PR JCP	17 (1949) 77 (1950) 20 (1952)	848 740 1810
C_2ClF_2N	Chlorodifluoroaceto-nitrile	450-4600	-	Spec, Assign	Wait	JCP	26 (1957)	1554
C_2ClF_3	Chlorotrifluoroethylene	8-15 μ - 190-4000 - - - - - - 5.6-5.65 μ - - -	G - G - - - - - - - - - -	Spec C=C freq Spec, Assign, Thermo Purity Assign IR, Assign Freq, Assign Vib sum rule IR NCA Freq	Lacher Haszeldine Mann Haszeldine Mann Rofe Mann Bernstein Lacher Mann Bellamy	JACS JCS JCP JCS JCP TFS JCP JCS	71 (1949) - (1952) 21 (1953) - (1954) 22 (1954) 50 (1954) 23 (1955) 24 (1956) 52 (1956) 27 (1957) - (1958)	1334 4423 1949 3747 1199 1030 1989 910 1500 51 2463
C_2ClF_3O	Trifluoroacetyl chloride	2-15 μ -	- G	Spec Carbonyl freq	Lovell Bellamy	PR JCS	91 (1953) - (1957)	235 4294
$C_2ClF_4NO_2$	1-Chlorotetrafluoro-2-nitroethane	- - -	G - -	Band freq, I Band freq, Comparison Group freq	Haszeldine Haszeldine Jauder	JCS JCS JCS	- (1953) - (1953) - (1954)	2525 4472 919
C_2ClF_5	Chloropentafluoroethane	2-40 μ 2-16 μ 2-38 μ - 650-3000	G G L,G - G	Spec Spec IR, Spec, Assign Torsion assign Spec, Assign	Barcelo Hamptschtein Nielsen Luft Risgin	JRNB JACS JCP JCP SA	44 (1950) 74 (1952) 21 (1953) 22 (1954) 15 (1959)	521 1347 383 155 1036
C_2ClF_6P	Chlorobis(trifluoromethyl)-phosphine	4.32-13.95 μ -	G -	Table CF ₃ deformation, Ident	Bennett Bennett	JCS JCS	- (1953) - (1954)	1565 3696
C_2ClF_6As	Bis(trifluoromethyl)-chloroarsine	-	G,S.	Group freq	Emeleus	JCS	- (1953)	1552
$C_2Cl_2F_2$	trans-1,2-Dichloro-1,2-difluoroethylene	-	-	FC, NCA	Mann	JCP	27 (1957)	51
C_2Cl_2FN	Dichlorodifluoro-acetonitrile	400-3300	-	Spec, Assign	Wait	JCP	26 (1957)	1554

$C_2Cl_2F_2$	1,1-Dichloro-2,2-difluoroethylene	3-20 μ 8-15 μ - 2-22.6 μ - - - - -	G G - G - - - - -	Spec, Assign Spec Quant mech, Assign IR, Assign C=C freq Freq, Assign NCA, FC Freq	Torkington Lacher Torkington Nielsen El-Sabban Mann Mann Bellamy	TFS JACS JCP JCP JCP JCP JCP JCS	41 (1945) 71 (1949) 17 (1949) 18 (1950) 20 (1952) 23 (1955) 27 (1957) - (1958)	236 1334 1279 485 1810 1989 51 2463
$C_2Cl_2F_2$	1,2-Dichloro-1,2-difluoroethylene	- 200-5000	- G	FC, NCA Spec, Assign, Thermo	Mann Mann	JCP JCP	27 (1957) 26 (1957)	51 773
$C_2Cl_2F_4$	1,1-Dichlorotetrafluoroethane	2-38 μ	L, G	IR, Spec, Assign	Nielsen	JCP	21 (1953)	383
$C_2Cl_2F_4$	1,2-Dichlorotetrafluoroethane	8-15 μ - 2-40 μ 2-36 μ 2-18 μ	G - G S, L, G S, L	Spec Ident Spec, I, Assign IR, Spec, Rot iso Rot iso	Lacher Haszeldine Simpson Kagarise Kagarise	JACS JCS JRNE JCP JCP	71 (1949) - (1952) 50 (1953) 23 (1955) 26 (1957)	1330 4423 223 113 380
$C_2Cl_2OS_2$	Carbonsulfoxy chloride	600-1900	S, Sol	Struct, Freq, Assign	Jones	JCS	- (1957)	614
$C_2Cl_2O_2$	Oxalyl chloride	400-10000 700-2900 - - 4-22 μ 700-2900	L G, L - - G, L, Sol, S L, S L, G	Assign IR, Rot iso Complex formation, Absorption Config, Internal rotation Spec, Iso IR, Rot iso	Ziomek Saksena Saksena Mimshima Kagarise Ziomek	JCP JCP JCP JPC JCP JCP	17 (1949) 19 (1951) 19 (1951) 56 (1952) 21 (1953) 21 (1953)	669 987 994 324 1615 90
$C_2Cl_3F_3$	Fluorotrichloroethylene	3-50 μ 3-50 μ 2-22 μ - -	G G G - -	IR, Spec, Freq IR, Spec, Assign, Thermo IR, Spec, Assign Vib sum rule FC, NCA	Mann Mann Nielsen Bernstein Mann	PR JCP JCP JCP JCP	95 (1954) 23 (1955) 23 (1955) 24 (1956) 27 (1957)	622 1989 1994 910 51
$C_2Cl_3F_3$	1,1,1-Trichloro-2,2,2-trifluoroethane	8-15 μ 2-38 μ - - 150-450	G L, G - - G	Spec IR, Spec, Assign IR, Freq, Assign Assign, Thermo Spec	Lacher Nielsen Nielsen Luft Catalano	JACS JCP JCP JCP JCP	71 (1949) 21 (1953) 21 (1953) 22 (1954) 62 (1958)	1334 383 1060 155 838

$C_2Cl_3F_3$	1,1,2-Trichloro-1,2,2-trifluoroethane	8-15 μ	G	Spec	Lacher	JACS	71 (1949)	1334
C_2Cl_3N	Trichloroacetoneitrile	- 4-4.5 μ - 3-21 μ 450-4600 - 2200-2300	L L L G, L G G, Sol	Spec, Assign, Thermo Freq, Assign Microwave, Struct Spec, Assign, NCA Spec, Assign, FC, NCA Microwave Freq, Struct	Davies Barr Baker Edgell Walt Weil Jesson	JCS JCS TFS JCP JCP ZE SA	- - 53 27 26 61 13	(1954) 2374 (1956) 3428 (1957) 1397 (1957) 543 (1957) 1554 (1957) 938 (1958) 217
$C_2Cl_3^{35}N$	Trichloroacetoneitrile (Isotopic)	16000-27000 Mc/sec	-	Microwave, Freq, Mol consts, I, Struct	Baker	TFS	53	(1957) 1397
$C_2Cl_2^{35}Cl^{37}N$	Trichloroacetoneitrile (Isotopic)	-	-	Microwave, Freq, I, Struct	Baker	TFS	53	(1957) 1397
C_2Cl_4	Tetrachloroethylene	2-15 μ 0.8-3 μ 2-25 μ - - 24-40 μ - - 2.5-25 μ - - - 15-25 μ 2-15 μ 8-14.5 μ - - 650-1300 270-190 - 2-50 μ - - - -	- L G - - - - - L, G - - - L L Sol L - - Sol L - L, Sol L - - - -	Freq Spec, Freq Spec, IR, Assign C=O, C=C, FC FC Abs, Freq FC Assign, FC Spec, Assign Cubic secular eqn Assign, Thermo Use as solvent, IR Freq Transparent solvent Spec Table, Band freq IR Sum rule Analysis Spec Vib interaction theory Spec, I Analysis Obs, Freq, Assign Temp effect on I Vib sum rule	Marvin Spence Wu Linnett Linnett Walsh Plyler Duchesne Torkington Bernstein Torkington Torkington Ard El-Sabban Marrison Pristera Urone Ard Bernstein Bernstein Mann Torkington Mann Semeluk Mann Slowski Bernstein	PR PR PR JCS TFS TFS JCP TFS TFS JCP JCP JCP TFS AC JCP JCI APS AC AC JCP AC PR JCP JRN JACS JCP JOSA JCP	34 34 46 - 41 42 16 45 45 18 18 46 23 20 29 6 24 25 21 25 91 21 52 76 23 45 24	(1912) 161 (1929) 730 (1934) 465 (1937) 1393 (1945) 223 (1946) 779 (1948) 1008 (1949) 795 (1949) 445 (1950) 478 (1950) 773 (1950) 894 (1951) 680 (1952) 1810 (1952) 233 (1952) 29 (1952) 626 (1953) 1743 (1953) 2188 (1953) 139 (1953) 464 (1953) 83 (1954) 67 (1954) 3793 (1955) 1989 (1955) 396 (1956) 910

$C_2Cl_4F_2$	1,1-Difluorotetrachloroethane	- - 1-14 μ -	- L L -	Freq, Assign, Thermo Prism spectrometer Table, Refraction index FC, NCA	Mann Plyler Jaffe Mann	JCP 24 (1956) JRN 56 (1956) JOSA 47 (1957) JCP 27 (1957)	1018 149 782 51
C_2Cl_4O	Trichloroacetyl chloride	8-16 μ 2-38 μ -	G L -	Spec IR, Spec, Assign, Thermo	Lacher Nielsen	JACS 71 (1949) JCP 21 (1953)	1334 1070
C_2Cl_4O	Trichloroacetyl chloride	1700-1800 -	- G, Sol Sol	Band freq C=O freq Carbonyl freq Freq, I	Johannessen Kagarise Bellamy Thompson	JRN 53 (1954) JACS 77 (1955) JCS - (1958) SA 13 (1958)	197 1377 3468 236
$C_2Cl_4O_2$	Trichloromethyl chloroformate	-	-	Band freq	Fuggassi	JPC 46 (1942)	630
$C_2Cl_4S_2$	Thiocarbonyl chloride (Dimeric)	10.82 μ -	- -	Photochlorination study Freq, Struct, Dissociation	Brandy Hales	JCP 21 (1953) JCS - (1957)	1049 618
C_2Cl_5F	2-Fluoropentachloroethane	600-1900 2-38 μ 2-40 μ	S, Sol Sol	Struct, Freq. Assign	Jones	JCS - (1957)	614
C_2Cl_6	Hexachloroethane	0.8-3 μ - - 8-16 μ - 400-5000 - 650-1300 - -	L - - S, Sol - L - - Sol - -	IR, Assign, Thermo, Spec Spec, I, Assign Spec, Freq IR, Assign Product rule Freq, Assign Freq, FC IR Freq Config, Internal rot Analysis Analysis NCA	Nielsen Simpson Spence Hamilton Pace Mizushima Simanouti Carney El-Sabban Mizushima Bernstein Semeluk Hirota	JCP 21 (1953) JRN 50 (1953) PR 34 (1929) JCP 12 (1944) JCP 15 (1947) JCP 17 (1949) JCP 17 (1949) PR 77 (1950) JCP 20 (1952) JPC 56 (1952) AC 25 (1953) JACS 76 (1954) BCSJ 31 (1958)	1070 223 730 249 528 838 848 740 1810 324 139 3793 296
C_2F_{10}	Trifluoroacetyl iodide	-	G	Carbonyl freq	Bellamy	JCS - (1957)	4294
C_2F_8N	Trifluoromethyl cyanide	-	-	Microspec	Sheridan	PR 77 (1950)	292
C_2F_8N	Trifluoromethyl cyanide	-	G	Micro spec, Iso	Sheridan	JCP 20 (1952)	591

$C_2F_3N^{15}$	Trifluoromethyl cyanide (Isotopic)	300-3000 4-4.5 μ 2-38 μ 1-4 mm - 450-3500	- G G G G -	Freq Freq assign IR, Assign, FC Rot transition, Mol Struct, Microwave Spec, Assign Microwave	Edgell Barr Edgell Barrus Thomas Wait Sheridan	JCP JCS JCP JCP ZE JCP JCP	22 (1954) - (1956) 26 (1956) 26 (1957) 61 (1957) 26 (1957)	1808 3428 80 391 935 1554
C_2F_3NO	Trifluoromethyl isocyanate	4-7.5 μ	G	Freq assign	Barr	JCS	- (1956)	3428
C_2F_4	Tetrafluoroethane	3-20 μ 8-15 μ 2-37 μ - - - - - - -	G G G - - - - - - -	Spec, Assign Spec IR, Assign Polymerization react Maxima & bond study C=C freq Ident FC, vib NCA Band freq, Pyrolysis study	Torkington Lacher Nilsen Reall Halls El-Sabban Haszeldine Morino Morino Lazerte	TFS JACS JCP JCS JACS JCP JCS JCP JCP JACS	41 (1945) 71 (1949) 18 (1950) - (1950) 73 (1951) 20 (1952) - (1952) 20 (1952) 20 (1952) 75 (1953)	236 1330 812 1596 4054 1810 4423 726 1809 4525
C_2F_4O	Trifluoroacetyl fluoride	270-190 - - 22-52 μ - - - -	G - - G - - - -	Spec Vib amplitude theory Purity study Spec, Assign, I Freq calc, Assign Vib sum rule Freq, Assign FC, NCA Group freq shift	Mann Morino Haszeldine Mann Mann Bernstein Mann Mann Bellamy	PR JCP JCS JRN B JCP JCP JCP JCP JCS	91 (1953) 21 (1953) - (1954) 52 (1954) 23 (1955) 24 (1956) 24 (1956) 27 (1957) - (1958)	464 1927 3747 67 1989 910 1018 51 2463
C_2F_5I	Iodopentafluoroethane	2-16 μ 650-3000	G G	Spec Spec, Assign	Hauptschein Rising	JACS SA	73 (1951) 15 (1959)	2461 1036
C_2F_5N	Perfluoromethylene-methylamine	-	-	C \equiv N freq	Barr	JCS	- (1955)	1881
C_2F_5NO	Pentafluoronitrosoethane	-	G	Stretching vib assign	Haszeldine	JCS	- (1955)	4172

C ₂ F ₆	Hexafluoroethane	-	Product rule	Pace	JCP	15 (1947)	528		
		2-15 μ	Spec, Assign	Nielsen	JCP	16 (1948)	67		
		-	Assign, Thermo	Pace	JACS	70 (1948)	566		
		-	Freq, FC	Pace	JCP	16 (1948)	74		
		-	Freq, FC	Simanouti	JCP	17 (1949)	848		
		2-40 μ	Spec, Theoretical	Barcelo	JRNB	44 (1950)	521		
		-	FC	Pace	JCP	18 (1950)	881		
		-	C-C freq	El-Sabban	JCP	20 (1952)	1810		
		-	Freq, Internal rotation	Mann	JCP	21 (1953)	1116		
		-	Freq, Assign	Nielsen	JCP	21 (1953)	383		
		-	Freq correction	Sheppard	JCP	23 (1955)	582		
		-	Internal motion from electron difference	Swick	JCP	23 (1955)	1499		
		-	I	Williams	JCP	23 (1955)	179		
		-	IR, Quant mech	Ayscough	JCP	24 (1956)	944		
		-	Trans moment	McKean	JCP	24 (1956)	1002		
		-	Dipole moment, IR, I	Wilmshurst	JPC	62 (1958)	631		
		C ₂ F ₆ IP	Iodo-bis-trifluoromethyl-phosphine	4.44-14 μ	Table	Bennett	JCS	- (1953)	1565
				-	CF ₃ deformation freq	Bennett	JCS	- (1954)	3896
C ₂ F ₆ IAS	Iodo-bis-trifluoromethyl-arsine	-	Group freq	Emeleus	JCS	- (1953)	1552		
		-	Group freq, Struct	Jauder	JCS	- (1954)	919		
C ₂ F ₆ N ₂ O	N-Nitroso-ON-bis-trifluoromethylhydroxyl-amine	5.47-13.98 μ	Table, Group freq, I	Jauder	JCS	- (1954)	696		
		-	Group freq	Jauder	JCS	- (1954)	919		
C ₂ F ₆ O ₂ S ₂	Di-trifluoromethylthio-sulfonate	7-9 μ	Freq assign, Correlation	Haszeldine	JCS	- (1955)	2901		
		-	Spec, Group freq	Brandt	JCS	- (1952)	2549		
C ₂ F ₆ S	Bis-trifluoromethylsulfide	1-15 μ	Band & group freq	Haszeldine	JCS	- (1953)	3219		
		-	Spec	Brandt	JCS	- (1952)	2198		
C ₂ F ₆ S ₂	Bis-trifluoromethyl disulfide	1-23 μ	Spec, Group freq	Brandt	JCS	- (1952)	2549		
		400-4000	Band & group freq	Haszeldine	JCS	- (1953)	3219		
C ₂ F ₆ S ₃	Bis-trifluoromethyl	-	Freq, Assign	Nabi	JCS	- (1959)	3439		
		-	Group freq	Haszeldine	JCS	- (1953)	3219		

$C_2F_6S_4$	Bis-trifluoromethyl tetrasulfide	-	-	Group freq	Haszeldine	JCS	- (1953)	3219
C_2F_7AS	Bis-trifluoromethyl fluoroarsine	-	G, S	Group freq	Emeleus	JCS	- (1953)	1552
$C_2F_{10}S$	Bis-trifluoromethyl sulfur tetrafluoride	4.16-14.57 μ	-	Table, I	Clifford	JCS	- (1953)	2372
C_2I_2	Diodoacetylene	-	-	Force field, Bond dist	Linnett	TFS	45 (1949)	844
		-	-	Absorption freq, Assign	Meister	JCP	17 (1949)	212
		-	G	Thermo, Assign	Ziomek	JCP	17 (1949)	578
		-	G	Thermo	Ziomek	PR	75 (1949)	334
		-	-	$C \equiv C$ freq	El-Sabban	JCP	20 (1952)	1810
<u>C_3 COMPOUNDS</u>								
C_3HDO	Propynal- d_1	3600-200	G	Assign, Freq, Mol anal, Thermo	Brand	TFS	56 (1960)	1582
C_3HD_3	Methylacetylene- d_3	7852-10000 .7-1.2 μ 300-3500	G G G	Mol anal Spec, Bond dist Spec freq assign NCA, Assign	Herzberg Jones Christensen Sverdlov	JCP JCP TFS OS	19 (1951) 20 (1952) 52 (1956) 9 (1960)	136 860 1439 432
C_3HD_6Br	β -Isopropyl bromide- d_6	-	Sol	Rate study	Shiner	JACS	74 (1952)	5285
C_3HBrF_5NO	2,2,3,3,3-Pentafluoro-N-bromopropionamide	-	-	Abs coeff	Park	JACS	76 (1954)	1388
C_3HBrF_6	1-Bromo-1,1,2,3,3,3-hexafluoropropane	3.34-14.6 μ	-	I, Ident	Haszeldine	JCS	- (1953)	3559
C_3HClF_6	1-Chloro-1,1,2,3,3,3-hexafluoropropane	-	-	Ident	Haszeldine	JCS	- (1953)	1592
C_3HClO_3	Trichloroacrylic acid	1600-700	-	Spec	Duval	RTC	69 (1950)	391
C_3HClO_5	1,1,1,2-Tetrachloroethyl chloroformate	-	Sol	Substitution, Freq	Hales	JCS	- (1957)	618

$C_3HCl_2O_2$	1,2,2,2-Tetrachloro-ethyl chloroformate	-	Sol	Struct, Dissociation, Freq	Hales	JCS	- (1957)	618
C_3HF_3	Trifluoropropyne	2-15.5 μ 2-16 μ	G G	Spec Spec	Haszeldine Henne	JCS	- (1951)	2495
		-	G	Freq	Haszeldine	JCS	73 (1951)	1042
		-	-	Freq	Haszeldine	JCS	- (1952)	3483
		-	G	Assign, L type doubling	Haszeldine	JCS	- (1954)	1261
		-	-		Jaseja	PIAS	50 (1959)	108
C_3HF_5	1,1,3,3,3-Pentafluoro propene	-	-	Ident	Haszeldine	JCS	- (1954)	923
		-	-	Ident	Tarrant	JACS	77 (1955)	2783
C_3HF_5	1,2,3,3,3-Pentafluoro-propene	-	-	Ident	Haszeldine	JCS	- (1953)	1592
C_3HF_5O	Pentafluoropropionaldehyde	2-15 μ	G	Spec Freq	Husted Haszeldine	JACS JCS	74 (1952) - (1953)	5422 1548
$C_3HF_5O_2$	Pentafluoropropionic acid	-	Sol	Freq	Bender	JACS	75 (1953)	5986
		-	-	Freq	Haszeldine	JCS	- (1953)	1548
		2-15 μ	L	Spec	Husted	JACS	75 (1953)	1605
		-	Sol	Freq	Haszeldine	JCS	- (1954)	4026
		-	-	H bond	Lawson	PR	95 (1954)	300A
		5.5-6.5 μ	Sol	C=O band, Ident	Sawicki	AC	31 (1959)	523
C_3HF_7	1,1,1,2,2,3,3-Heptafluoropropane	-	-	Pyrolysis study Ident	Laferte Husted	JACS JACS	75 (1953) 76 (1954)	4525 5141
C_3HF_7	1,1,1,2,3,3,3-Heptafluoropropane	-	-	Ident	Haszeldine	JCS	- (1953)	3559
C_3HN	Cyanoacetylene	-	-	Mom inert, Rot const Spec, Assign, FC H bond	Westenberg Turrell Murhashi	JACS JCP BCSJ	72 (1950) 26 (1957) 32 (1959)	199 1544 1001
C_3HN^{15}	Cyanoacetylene (isotopic)	-	-	Mol const, Mom inert	Westenberg	JACS	72 (1950)	199
$C_3^{13}C_2HN$	Cyanoacetylene	-	-	Mol const, Mom inert	Westenberg	JACS	72 (1950)	199

$C_2C^{13}HN$	-	-	Mol const, Mom inert	Westenberg	JACS 72 (1950)	199
Cyanoacetylene (isotopic)						
$C_2C^{13}HN$	-	-	Mol const, Mom inert	Westenberg	JACS 72 (1950)	199
C_3H_2DN	-	-	Struct, Mol const	Costain	JCP 30 (1959)	777
$C_3H_2D_2$	2-35 μ	G	Spec	Fletcher	PR 95 (1954)	300A
	2-35 μ	G	Spec, Assign	Evans	CJC 34 (1956)	1139
	1.6-38 μ	G	Spec, Assign, NCA, Mol const	Shuler	JMS 1 (1957)	95
	3-20 μ	G	Assign, Geom parameters	Eaton	PRS 250 (1959)	39
	-	-	NCA, Assign	Sverdlov	OS 9 (1960)	432
$C_3H_2D_2$	-	-	NCA, Assign	Sverdlov	OS 9 (1960)	432
$C_3H_2D_2$	-	-	Mol const, Struct, Dipole	Kasal	JCP 30 (1959)	512
$C_3H_2D_2O_4$	500-1500	S	Spec, Assign	Hadzi	PRS 216 (1953)	247
$C_3H_2D_6$	2-15 μ	G	Spec, Assign	McMurry	JCP 19 (1951)	1014
$C_3H_2D_6O$	-	Sol	Rate study	Shiner	JACS 74 (1952)	5285
C_3H_2BrCl	3.19-14.29 μ	L	Band freq	Hatch	JACS 76 (1954)	289
$C_3H_2BrCl_2F$	2-15 μ	L	Spec	Hatch	JACS 74 (1952)	3328
$C_3H_2BrF_3$	-	Sol	Freq, Spec	Potts	SA 15 (1959)	679
$C_3H_2BrF_3$	-	-	Freq	Haszeldine	JCS - (1952)	2504
C_3H_2BrI	-	-	Freq	Hatch	JACS 77 (1955)	176
$C_3H_2Br_2$	3.26-15.12 μ	L	Table, Band freq	Hatch	JACS 76 (1954)	289
$C_3H_2Br_2O_3$	-	-	Freq	Newman	JACS 77 (1955)	3787

$C_3H_2ClF_3$	3-Chloro-1,1,1-trifluoro-trans-2-propene	-	-	Freq Freq	Haszeldine Haszeldine	JCS JCS	- (1952) - (1953)	2504 1199
C_3H_2ClI	3-Chloro-1-iodo-1-propyne	-	-	Freq	Hatch	JACS	77 (1955)	176
C_3H_2ClN	1-Chloro-1-cyanoethylene	-	Sol	Freq, Spec	Potts	SA	15 (1959)	679
C_3H_2ClN	2-Chloro-1-cyanoethylene	-	Sol	Freq, Spec	Potts	SA	15 (1959)	679
C_3H_2ClNS	1-Chloro-1-isothiocyanatoethylene	-	Sol	Freq, Spec	Potts	SA	15 (1959)	679
$C_3H_2ClN_4$	2-Amino-4,6-dichloro-1,3,5-triazole	2-16 μ	S	Spec, Struct	Padgett	JACS	80 (1958)	803
$C_3H_2Cl_2O_3$	1,2-Dichloroethylene carbonate	-	-	Strained ring at 5.40 Struct, Dissociation	Newman Hales	JACS JCS	75 (1953) - (1957)	1263 618
$C_3H_2Cl_3F$	2-Fluoro-1,1,3-trichloro-1-propene	2-15 μ	L	Spec	Hatch	JACS	74 (1952)	3328
$C_3H_2Cl_4$	1,1,2,3-Tetrachloro-1-propene	2-15 μ	L	Spec	Hatch	JACS	74 (1952)	3328
$C_3H_2Cl_4O$	1,1,3,3-Tetrachloro-acetone	-	L, G, S, Sol	Freq, Dipolar effect	Bellamy	JCS	- (1957)	4294
$C_3H_2Cl_6O$	1,1,1,3,3,3-Hexachloro-2-propanol	-	S, Sol	H bond	Haszeldine	JCS	- (1953)	1757
$C_3H_2Cl_6O_2$	$\alpha, \alpha, \alpha', \alpha', \alpha', \alpha'$ -Hexachloro-acetone hydrate	600-3000	S	Freq, Spec	Anderson	SA	12 (1958)	233
C_3H_2FNO	Fluoropyruvonitrile	-	Sol	Freq	Blank	JCS	- (1955)	2190
$C_3H_2F_3I$	3-Iodo-1,1,1-trifluoro-trans-2-propene	-	-	Freq	Haszeldine	JCS	- (1952)	2504
$C_3H_2F_4$	1,3,3,3-Tetrafluoropropene	-	-	gr. freq	Haszeldine	JCS	- (1953)	1199
$C_3H_2F_5I$	3-Iodo-1,1,1,3,3-pentafluoropropane	-	-	Ident, Freq	Haszeldine	JCS	- (1954)	923

$C_3H_2F_2O$	$2-16\mu$	S	Spec	Husted	JACS	(1953)	1605
2, 2, 3, 3-Tetrafluoropropanol	-	Sol	H bond, Bond freq	Haszeldine	JCS	- (1953)	1757
Malononitrile	4000-650	G, L	Spec, Assign, FC Freq	Halverson	JCP	17 (1949)	694
	-	-	Shifts & mol struct	Kitson	AC	24 (1952)	334
	-	Sol	Freq	Felton	JCS	- (1955)	2170
	-	-	Freq	Wilmschurst	CJC	35 (1957)	A 937
2200-2300	2200-2300	Sol	Freq, Struct	Jesson	SA	13 (1958)	217
-	-	G	Micro spec, Struct	Hirota	BCSJ	33 (1960)	158
Parabanic acid	-	S	H bond	Badger	PNAS	40 (1954)	12
Propiolic aldehyde	18.37 KM/sec	G	Microwave	Howe	JCP	23 (1955)	1223
	-	G	Microwave, Mol consts, Struct	Costain	JCP	31 (1959)	389
3600-200	3600-200	G	Assign, Freq, Mol anal, Thermo	Brand	TFS	56 (1960)	1582
Acetylene carbonate	-	Sol, L	Freq, Struct, Dissociation	Hales	JCS	- (1957)	618
Vinylene carbonate	-	-	Freq	Newmann	JACS	75 (1953)	1263
	-	G	Microwave, Struct	Slayton	JCP	22 (1954)	1678
	-	-	Freq	Newman	JACS	77 (1955)	3789
Malonic acid ion	-	-	FC	Linnett	TFS	41 (1945)	223
1, 2-Dithiacyclopent-4-ene-3-thione	-	Sol	Struct, Spec	Challengers	JCS	- (1953)	292
1, 3-Dithiacyclopent-4-ene-2-thione	-	Sol	Struct, Spec	Challengers	JCS	- (1953)	292
Allene-d ₁	-	-	NCA, Assign	Sverdlov	OS	9 (1960)	432
Cyclopropene-d ₁	-	-	Mol const, Struct, Dipole	Kasai	JCP	30 (1959)	512
Propyne-d ₁	-	-	Assign, FC	Meister	JCP	16 (1948)	950
	-	-	Thermo, Moment of inertia	Ziomek	JCP	17 (1949)	578
	-	G	Thermo	Ziomek	PR	75 (1949)	334
3-40μ	3-40μ	G	Spec, Assign, Mol consts	Grisenthwaite	TFS	50 (1954)	212

$C_3H_5DO_4$	-	G	Mol anal	Christensen	TFS	52 (1956)	1439
Malonic acid-d ₁	-	-	Freq	Bratoz	SA	8 (1956)	249
$C_3H_3D_3O_2$	700-4000	Sol	Spec	Nolin	CJC	34 (1956)	1382
Methyl acetate-d ₃	-	L	Freq	Jacobs	JACS	75 (1953)	1314
Bromopropadiene	-	-	Freq	Sammul	JACS	75 (1953)	4856
1-Bromopropyne	-	-	Assign, FC	Meister	JCP	16 (1948)	950
-	-	-	Assign, Thermo	Ziomek	JCP	17 (1949)	578
-	-	G	Thermo	Ziomek	PR	75 (1949)	334
2-16 μ	-	L	Spec, Table	Wotiz	JACS	72 (1950)	5055
-	-	-	Freq	El-Sabban	JCP	20 (1952)	1810
3-9.75 μ	L	-	Table, Freq	Hatch	JACS	76 (1954)	289
300-3800	Sol, S	-	Freq, Deformation	Nyquist	SA	16 (1960)	417
3-Bromopropyne	-	L	Freq	Jacobs	JACS	75 (1953)	1314
-	2-15 μ	L, Sol	Freq	Kitson	AC	25 (1953)	1470
-	-	-	Band study	Sammul	JACS	75 (1953)	4856
-	-	-	Band study	Hatch	JACS	76 (1954)	289
-	-	-	Band study	Hatch	JACS	77 (1955)	176
Methylbromoacetylene (isotopic)	-	G	Microwave	Sheridan	JCP	20 (1952)	735
Methylbromoacetylene (isotopic)	-	G	Microwave	Sheridan	JCP	20 (1952)	735
Bromomalonic acid	-	-	Isotope effect	Pitzer	JCP	17 (1949)	341
Tribromomethyl acetate	3000	-	Assign	Josien	CPR	246 (1958)	1992
-	2900	G, Sol	Assign, Resonance	Deschamps	BSCF	88 (1959)	88
Chloropropadiene	-	L	Freq	Jacobs	JACS	75 (1953)	1314
1-Chloropropyne	-	-	Assign, FC	Meister	JCP	16 (1948)	950
-	-	-	Assign, Thermo	Ziomek	JCP	17 (1949)	578
-	-	G	Thermo	Ziomek	PR	75 (1949)	334
-	-	-	Freq	El-Sabban	JCP	20 (1952)	1810
3-Chloropropyne	-	L	Freq	Jacobs	JACS	75 (1953)	1314
-	-	-	Band	Hatch	JACS	76 (1954)	289

	-	L	Freq, Struct, Dissocia- tion	Hales	JCS	-(1957)	618
$C_3H_3Cl_2F$	1, 1-Dichloro-2-fluoro-1-propene	2-15 μ	L	Spec	Hatch	JACS	74 (1952) 3328
$C_3H_3Cl_2F$	1, 3-Dichloro-2-fluoro-2-propene	2-16 μ	L	Spec	Hatch	JACS	74 (1952) 2911
$C_3H_3Cl_2FO$	3, 3-Dichloro-2-fluoro-2-propene-1-ol	2-15 μ	L	Spec	Hatch	JACS	74 (1952) 3328
$C_3H_3Cl_2F_3$	1, 1-Dichloro-3, 3, 3-trifluoropropane	-	-	Group freq, Struct	Haszeldine	JCS	-(1953) 1199
$C_3H_3Cl_2F_3$	1, 2-Dichloro-3, 3, 3-trifluoropropane	-	-	Group & band freq	Haszeldine	JCS	-(1953) 1199
$C_3H_3Cl_2F_3O$	Chloromethyl β -chloro-trifluoroethyl ether	-	-	Spec	Park	JACS	74 (1952) 2292
$C_3H_3Cl_3$	1, 1, 2-Trichloro-1-propene	2-15 μ	L	Spec	Hatch	JACS	74 (1952) 3328
$C_3H_3Cl_3$	1, 1, 3-Trichloro-1-propene	2-15 μ	L, Sol	Group freq	Kitson	AC	25 (1953) 1470
$C_3H_3Cl_3$	1, 2, 3-Trichloro-1-propene	2-16 μ	L	Spec	Hatch	JACS	74 (1952) 123
$C_3H_3Cl_3$	3, 3, 3-Trichloro-1-propene	500-3000	L, G	Spec, Assign	Shull	JCP	27 (1957) 399
$C_3H_3Cl_3F_2O$	Chloromethyl β , β -dichloro- α , α -difluoroethyl ether	-	-	Spec	Park	JACS	74 (1952) 2292
$C_3H_3Cl_3NB$	Vinylcyanide boron trichloride complex	-	Sol	Freq	Gerrard	JCS	-(1960) 2182
$C_3H_3Cl_3O$	2, 3, 3-Trichloro-2-propen-1-ol	2-15 μ	L	Spec	Hatch	JACS	74 (1952) 3328
$C_3H_3Cl_3O_2$	Methyl trichloroacetate	- 3000 2900	L - G, Sol	Band freq, Group freq Assign Assign, Resonance	Flett Josien Deschamps	JCS CPR BSCF	-(1952) 3355 246 (1958) 246 -(1959) 88
$C_3H_3Cl_3O_5$	1, 1, 2, 2, 3-Pentachloro	2-15 μ	L	Spec	Hatch	JACS	74 (1952) 3328

C_3H_3F	Fluoromethylacetylene	300-3600	S, Sol	Freq	Nyquist	SA	16 (1960)	417
$C_3H_3FO_3$	Fluoropyruvic acid	- 2-15 μ	Sol	Freq Spec	Blank Thomas	JCS N	- 175 (1955)	2190 424
$C_3H_3F_3$	3,3,3-Trifluoro-1-propene	-	Sol	Freq, Spec	Potts	SA	15 (1959)	679
$C_3H_3FO_3$	1,1,1-Trifluoroacetone	2-15.5 μ	G	Spec, Group freq	Haszeldine	JCS	- (1952)	3483
		-	-	Freq	Haszeldine	JCS	- (1954)	1261
		-	G	Freq	Bellamy	JCS	- (1957)	4294
		-	Sol	Freq	Rao	JPC	63 (1959)	1311
$C_3H_3F_3O_2$	Methyl trifluoroacetate	3000 2900	- Sol	Assign Assign, Resonance	Josien Deschamps	CPR BSCF	246 (1958) - (1959)	1992 88
$C_3H_3F_4I$	1-Iodo-1,3,3,3-tetrafluoropropane	-	-	Struct	Haszeldine	JCS	- (1953)	1199
$C_3H_3FO_5$	2,2,3,3,3-Pentafluoropropanol	- 2-15 μ	L, Sol L	H bond Spec	Haszeldine Husted	JCS JACS	- (1953) 75 (1953)	1757 1605
$C_3H_3FO_5_2$	1,1-Dihydroxy-2,2,3,3,3-pentafluoropropane	2-14.7 μ	S	Spec, Group freq	Husted	JACS	74 (1952)	5422
$C_3H_3F_6AS$	Bis-trifluoromethylarsine	-	G, S	Group freq	Emeleus	JCS	- (1953)	1552
C_3H_3I	1-Iodo-1-propyne	-	-	Assign, FC Thermo	Meister	JCP	16 (1948)	950
		-	-	Assign, Thermo	Ziomek	JCP	17 (1949)	578
		-	-	Assign, Thermo	Ziomek	PR	75 (1949)	334
		-	G	Microwave	El-Sabbah	JCP	20 (1952)	1810
		-	-	Freq	Sheridan	JCP	20 (1952)	735
		300-3600	Sol, S	Freq	Nyquist	SA	16 (1960)	417
C_3H_3I	3-Iodo-1-propyne	-	-	Band freq	Hatch	JACS	77 (1955)	176
C_3H_3N	Acrylonitrile	900-1800 500-2400 2.5-25 μ	- G, L G, L	Spec, Anal Assign, Spec Spec, I, Assign Thermo FC Freq, I Group freq Anal, Struct Microwave	Barnes Thompson Halverson Stamm Torkington Kitson Davison Foster Wilcox	IEC JCS JCP JCP PRS AC JCS JACS JCP	15 (1943) - (1944) 16 (1948) 17 (1949) 206 (1951) 24 (1952) - (1953) 75 (1953) 22 (1954)	83 597 808 104 17 334 2607 2910 516

	8-11 μ	Sol	Spec, Ident	Dupre	AC	27	(1955)	1878
	-	Sol	Freq, I	Felton	JCS	-	(1955)	2170
	-	-	Ident	Patterson	AC	27	(1955)	574
	-	Sol	Freq, I, Ext coeff	Skinner	JCS	-	(1955)	487
	-	Sol	Ext coeff	Goddu	AC	29	(1957)	1790
	-	Sol	Quant anal	Kiley	AC	29	(1957)	1553
	2200-2300	Sol, G	Freq, Struct	Jesson	SA	13	(1958)	217
	4.48 μ	Sol	Absorption	Adams	AC	31	(1959)	960
	-	-	Mol const, Struct	Costain	JCP	30	(1959)	777
	-	L, Sol	Freq, I	Foffani	NC	13	(1959)	213
	-	Sol	Freq, Spec	Potts	SA	15	(1959)	679
	2920-2200	L	Anal	Small	AC	31	(1959)	1742
	-	G	Spec, Anal, Mol consts, Stark effect	Wilcox	DA	19	(1959)	2498
	-	Sol	Freq	Gerrard	JCS	-	(1960)	2182
C_3H_3N		-	Struct, Mol const	Costain	JCP	30	(1959)	777
Vinylcyanide (isotopic)		-	Struct, Mol const	Costain	JCP	30	(1959)	777
C_3H_3N		-	Struct, Mol const	Costain	JCP	30	(1959)	777
Vinylcyanide (αC^{13}) (isotopic)		-	Struct, Mol const	Costain	JCP	30	(1959)	777
C_3H_3N		-	Struct, Mol const	Costain	JCP	30	(1959)	777
Vinylcyanide (βC^{13}) (isotopic)		-	Struct, Mol const	Costain	JCP	30	(1959)	777
$C_3H_3N^{15}$		-	Struct, Mol const	Costain	JCP	30	(1959)	777
Vinylcyanide (isotopic)		-	Struct, Mol const	Costain	JCP	30	(1959)	777
Acetyl cyanide	4000-700	L	Spec, Struct anal	Marvel	JACS	71	(1949)	34
	-	Sol, L	Freq, I	Foffan	NC	13	(1959)	213
	8-34K Mc/sec	G	Micro spec, Mol consts	Krisher	JCP	31	(1959)	882
	-	G	Microwave	Krisher	JCP	33	(1960)	340
Isoxazole	576-3145	G	Spec, Assign	Borello	GCI	89	(1959)	1437
	300-3600	G, L	Spec, Assign	Califano	SA	15	(1959)	86
α -Cyanosacetic acid	700-4000	S, L	Table, Freq	Flett	JCS	-	(1951)	962
	-	Sol	Di ssociation const	Goulden	SA	6	(1954)	129
	-	Sol	Di ssociation const	Bavin	CJC	35	(1957)	1555
Ethylene thiocyanate	-	Sol	Freq, Spec	Potts	SA	15	(1959)	679
Ethylene isothiocyanate	-	Sol	Freq, Spec	Potts	SA	15	(1959)	679

Thiazole	600-3600	L	Spec, Freq	Ettinger	JACS	72 (1950)	4699
C_3H_3NS							
$C_3H_3NS_2$							
$C_3H_3N_3$							
Thiazole	600-3600	L	Spec, Freq	Ettinger	JACS	72 (1950)	4699
2-Thiothiazolone	2-12 μ	Sol	Spec	Goubeau	JPC	58 (1954)	1078
1,3,5-Triazine	2-15 μ	Sol	Spec, Vib assign	Grundmann	JACS	76 (1954)	5646
	2-15 μ	Sol	Spec	Lancaster	JCP	22 (1954)	1149
	2-25 μ	G,L,S	Freq, Assign	Padgett	JACS	80 (1958)	803
	2-16 μ	S	Spec, Struct				
Cyanuric acid	800-1300	-	Christiansen effect	Price	JCP	16 (1948)	1157
	500-3600	S	Spec, Assign	Newman	JACS	74 (1952)	3545
	-	-	Ident	Kaiser	JOC	18 (1953)	1610
	-	S	H bond, Spec	Padgett	AC	29 (1957)	166a
	2-15 μ	-	Spec	Finkel'shtein	OS	5 (1958)	264
	2-16 μ	Sol	Spec, Struct	Padgett	JACS	80 (1958)	803
Allene	1-15.5 μ	G	Freq, FC	Bonner	PR	52 (1937)	249A
	-	-	FC	Thompson	JCS	- (1937)	1364
	-	-	Spec, Bond dist & angle	Eyster	JCP	6 (1938)	580
	500-4500	G	Spec, Assign	Linnett	JCP	6 (1938)	686
	-	-	Thermo	Kistiakowsky	JCP	8 (1940)	610
	730-1230	G	Coriolis interaction	Nielsen	JOSA	34 (1944)	521
	3-20 μ	G	Spec, Freq	Thompson	TFS	40 (1944)	295
	-	-	FC	Walsh	TFS	42 (1946)	779
	-	G	Press broadening	Seyfried	IEC	19 (1947)	298
	-	-	Mol anal, Assign	Herman	JCP	17 (1949)	30
	-	-	Thermo	Kilpatrick	JRNB	42 (1949)	225
	3.1-14 μ	G	Mol spec	Miller	PRS	200 (1949)	1
	-	-	Doubling theory	deHeer	PR	83 (1951)	741
	-	-	LCAO calculation, Freq	Parr	JCP	19 (1951)	497
	-	-	FC	Torkington	PRS	206 (1951)	17
	-	-	Interaction theory	deHeer	JCP	20 (1952)	637
	-	-	FC, Bond length, Orbits	Longuet	TFS	48 (1952)	1077
	250-5000	G	Mol anal, Spec	Lord	AC	24 (1952)	604A
	-	-	Micro absorption	Venkateswarlu	BAPS	27 (1952)	11A
	-	-	Rot theory	Mizushima	JCP	21 (1953)	1223
	2985-3025	G	Spec	Overend	JOSA	43 (1953)	1065
	-	-	Purity test	Haszeldine	JCS	- (1954)	2040
	-	-	Mol spec, Struct	Lord	JOSA	44 (1954)	256
	28 μ	G	Rot band, Spec	Rao	JCP	23 (1955)	2112
	733-3771	G	Mol spec, Mol consts	Overend	TFS	52 (1956)	1295
	2-15 μ	G	Spec	Pierson	AC	28 (1956)	1218
	25-35 μ	G	Struct, Mol consts	Rao	JMS	1 (1957)	24
	-	-	Bond length	Overend	JCP	29 (1958)	1002

C_3H_4	Cyclopropene	700-1700	-	Determination Mol consts, Struct, Dipole	Takeshita Kasai	KKZ JCP	59 (1956) 30 (1959)	648 512
C_3H_4	Propyne	-	-	Assign Spec Quant mech Bond dist Theory, Freq assign Freq assign Spec, Thermo Thermo Isotopic effect FC Pot fn, FC Thermo FC, Bond dist FC, Bond order Press broadening FC FC, Assign Inertia, Bond dist Mol consts, Struct Spec, Assign, Mol consts Bond freq Bending freq Bond freq Spec, Mol anal Freq Theory Mol anal Spec Mol consts, Rot transition Resolution, Struct Freq, Assign, Doubling Freq Spec, Mol consts	Adel Badger Glockler Herzberg Wall Crawford Crawford Kistiakowsky Cleveland Crawford Linnett Wagman Gordy Walsh Seyfried Walsh Meister Ziomek Herzberg Boyd El-Sabban Ferigle Haszeldine Boyd Haszeldine Bellamy Christensen Pierson Burns	JCP JCP JCP JCP JACS JCP JCP JCP JCP JCP TFS JRNH JCP TFS IEC TFS JCP JCP JCP TFS JCP JCS TFS JCS TFS AC JCP	2 (1934) 5 (1937) 5 (1937) 41 (1937) 60 (1938) 7 (1939) 8 (1940) 8 (1940) 9 (1941) 9 (1941) 37 (1941) 35 (1945) 14 (1946) 42 (1946) 19 (1947) 43 (1947) 16 (1948) 17 (1949) 19 (1951) 48 (1952) 20 (1952) 20 (1952) - (1952) 49 (1953) - (1954) - (1956) 52 (1956) 28 (1956) 26 (1957)	627 599 813 123 71 140 526 610 390 69 469 467 305 779 298 60 950 578 136 493 1810 1928 3483 141 1261 2753 1439 1218 391
$C_3H_4D_2$	Methylethylene- d_2	-	-	Freq assign	Farina	GCI	90 (1960)	973
$C_3H_4D_2Br_2$	1,2-Dibromo-2-methyl- ethane- d_2	-	-	Freq assign	Farina	GCI	90 (1960)	973

C_3H_4BrCl	1-Bromo-3-chloro-1-propene	6.35-14.5 μ	L	Table Band freq, Isomerism	Hatch Harwell	JACS 75 (1953) 77 (1955)	6002 1682
$C_3H_4BrF_3$	3-Bromo-1,1,1-trifluoro propane	2-15.5 μ	L	Spec	Haszeldine	JCS -	(1952) 2504
C_3H_4BrN	β -Bromopropionitrile	- 2200-2300	- Sol	Band freq Freq, Struct	Kitson Jesson	AC SA	24 (1952) 334 13 (1958) 217
$C_3H_4Br_2$	1,3-Dibromopropene	3.22-14.7 μ	L	Table Band freq Freq, Spec	Hatch Harwell Potts	JACS JACS SA	75 (1953) 6002 77 (1955) 1682 15 (1959) 679
$C_3H_4Br_2$	2,3-Dibromopropene	-	Sol	Freq, Spec	Potts	SA	15 (1959) 679
C_3H_4ClF	1-Chloro-2-fluoro-1-propene	2-16 μ	L	Spec	Hatch	JACS	74 (1952) 2911
C_3H_4ClFO	3-Chloro-2-fluoro-2-propen-1-ol	2-16 μ	L	Spec	Hatch	JACS	74 (1952) 2911
$C_3H_4ClF_3$	2-Chloro-1,1,1-trifluoro-propane	-	-	Isomers	Haszeldine	JCS -	(1953) 1199
$C_3H_4ClF_3O$	Chloromethyl α, α, β -trifluoroethyl ether	-	-	Spec	Park	JACS	74 (1952) 2292
C_3H_4ClN	3-Chloropropanenitrile	2200-2300	Sol	Bond freq, I Freq, Struct	Kitson Jesson	AC SA	24 (1952) 334 13 (1958) 217
$C_3H_4ClN_5$	2,4-Diamino-6-chloro-1,3,5-triazine	2-16 μ	S	Spec, Struct	Padgett	JACS	80 (1958) 803
$C_3H_4Cl_2$	1,1-Dichlorocyclopropane	2-16 μ	L, Sol L, Sol	Spec, Anal Band freq	Slabey Slabey	JACS JACS	74 (1952) 4928 76 (1954) 3604
$C_3H_4Cl_2$	1,2-Dichlorocyclopropane	2-16 μ	L, Sol L, Sol	Spec, Anal Band freq	Slabey Slabey	JACS JACS	74 (1952) 4928 76 (1954) 3604
$C_3H_4Cl_2$	1,1-Dichloro-1-propene	2-25 μ	L	Spec, Bond freq	Pennino	JOC	20 (1955) 530
$C_3H_4Cl_2$	1,2-Dichloro-1-propene	400-1200	G, L	Spec	Bernstein	JACS	73 (1951) 1843
$C_3H_4Cl_2$	1,3-Dichloro-1-propene	-	-	Bond freq	Haszeldine	JCS -	(1952) 2504

$C_3H_4Cl_2$	2, 3-Dichloro-1-propene	2.5-15 μ -	L Sol	Spec Freq, Spec	Wolfe Potts	JACS SA	76 (1954) 15 (1959)	627 679
$C_3H_4Cl_2$	3, 3-Dichloro-1-propene	-	Sol	Freq, Spec	Potts	SA	15 (1959)	679
$C_3H_4Cl_2$	Chloromethyl β -chloro- α , α -difluoromethyl ether	-	-	Spec	Parks	JACS	74 (1952)	2292
$C_3H_4Cl_2F_2O$	1, 1-Difluoro-2, 2-dichloro-ethyl methyl ether	3-15 μ	G, L	Spec	Parks	JACS	73 (1951)	861
$C_3H_4Cl_2O$	1, 1-Dichloropropanone	-	G, L, Sol	Freq	Bellamy	JCS	- (1957)	4294
$C_3H_4Cl_2O$	1, 3-Dichloropropanone	270-5000 -	L, G G, L, Sol	Spec, Rot isomers Freq	Daesch Bellamy	JACS JCS	77 (1955) - (1957)	6156 4294
$C_3H_4Cl_2O$	2, 3-Dichloro-2-propen-1-ol	2-16 μ	L	Spec	Hatch	JACS	74 (1952)	123
$C_3H_4Cl_2O_2$	2-Chloroethyl chloroformate	-	Sol	Freq, Struct, Dissociation	Hales	JCS	- (1957)	618
$C_3H_4Cl_4O \cdot 3H_2O$	Tetrachloroacetone trihydrate	600-3000	S	Spec	Anderson	SA	12 (1958)	233
$C_3H_4F_3NO_2$	1, 1, 1-Trifluoro-3-nitropropene	2-16 μ	G	Spec	Shechter	JACS	72 (1950)	3371
$C_3H_4F_4O$	1, 1, 2, 2-Tetrafluoroethyl methyl ether	2-15 μ	G, L	Spec	Park	JACS	73 (1951)	1329
$C_3H_4F_5N$	1, 1-Dihydroperfluoro-propylamine	2-15 μ	G, L	Spec	Husted	JACS	75 (1953)	1605
$C_3H_4N_2$	Imidazole	625-4000	S	Spec, Assign	Garfinkel	JACS	80 (1958)	3807
$C_3H_4N_2OS$	Cyanomethylthiol carbamate	-	S	Band freq	Davies	JCS	- (1951)	2595
$C_3H_4N_2OS$	Thiocyanatoacetamide	-	S	Bond freq	Davies	JCS	- (1951)	2595

$C_3H_4N_2OS$	2-Thiohydrantoin	2500-800	S	Bond assign	Elmore	JCS	- (1958)	3489
$C_3H_4N_2O_2$	Hydantoin	-	S	Ident	Smith	JACS	76 (1954)	6080
$C_3H_4N_2O_2S$	2-Thiobarbituric acid	2-12 μ	Sol	Spec, Assign, Group freq	Lacher	JPC	59 (1955)	615
$C_3H_4N_2O_3$	3-Nitroacrylamide	-	S	Struct, Bond freq	Shechter	JACS	74 (1952)	3052
$C_2H_4N_2S$	2-Aminothiazole	3-6 μ	Sol	Spec, Struct Spec	Angyal Sheinker	JCS DANS	- (1952) 131 (1960)	2911 1366
$C_3H_4N_4$	3-Amino-1,2,4-triazine	3 μ	Sol	Freq, FC, Dipole	Mason	JCS	- (1958)	3619
$C_3H_4N_4$	β -Azidopropionitrile	2-16 μ	Sol	Spec	Boyer	JACS	73 (1951)	5248
$C_3H_4N_4O$	Amelide	2-16 μ	S	Spec, Struct	Padgett	JACS	80 (1958)	803
C_3H_4O	Acrolein	-	-	FC	Walsh	TFS	43 (1947)	158
		-	G	Anal	Badin	JACS	72 (1950)	1550
		-	Sol	Bond freq, I	Barrow	JCP	21 (1953)	2008
		-	Sol	Bond freq	Davison	JCS	- (1953)	2607
		-	G	Microwave, Isomerism	Fine	JCP	23 (1955)	601
		2-15 μ	G	Spec	Pierson	AC	28 (1956)	1218
		1.6-2.1 μ	Sol	Ext coeff	Goddu	AC	29 (1957)	1790
		-	Sol	Freq, Spec	Potts	SA	15 (1959)	679
C_3H_4O	2-Propyn-1-ol	2-16 μ	L	Spec	Wotiz	JACS	72 (1950)	5055
		-	Sol	Sol effect on IR	Brown	SA	10 (1958)	149
		300-3800	Sol, S	Freq	Nyquist	SA	16 (1960)	417
$C_3H_4O_2$	Acrylic acid	700-4000	L, S	Bond freq	Flett	JCS	- (1951)	962
		-	Sol	Bond freq	Davison	JCS	- (1953)	2607
		-	Sol	Ext coeff	Goddu	AC	29 (1957)	1790
		-	Sol	Freq, Spec	Potts	SA	15 (1959)	679
$C_3H_4O_2$	1,3-Dioxopropene	600-2000	-	Spec, Freq	Tate	BSCF	- (1960)	365
$C_3H_4O_2$	Propiolactone	1600-1800	S	Freq	Hall	JACS	80 (1958)	6728
$C_3H_4O_2$	β -Propiolactone	2-16 μ	Sol	Spec, Band freq	Bartlett	JACS	73 (1951)	4275
		5.2-6.0 μ	Sol	Spec, H bond	Searles	JACS	75 (1953)	71
		-	-	Microwave	Kwak	JCP	23 (1955)	2450
		-	-	Struct	Murr	JACS	77 (1955)	4430

$C_3H_4O_2$	Pyruvaldehyde	660-4000	-	Spec, Taut	Josien	BSCF	- (1957)	1148
$C_3H_4O_3$	Ethylene carbonate	-	-	Band freq, Ident	Newman	JACS	76 (1954)	1840
		-	Sol, L, S	Struct, Dissociation	Hales	JCS	- (1957)	618
		1600-1800	L, S	Freq	Hall	JACS	80 (1958)	6428
		1600-1850	Sol, L, G	Freq	Bellamy	TFS	55 (1959)	14
$C_3H_4O_3$	2-Ketopropanoic acid	-	-	FC	Linnett	TFS	41 (1945)	223
		-	-	Band freq	King	JACS	77 (1955)	2217
		2-15 μ	L	Spec	Thomas	N	175 (1955)	424
		-	L	H bond, Band freq	Bergmann	JCS	- (1956)	1519
		660-4000	-	Spec, Taut	Hosien	BSCF	- (1957)	1148
		2-9 μ	Sol	Spec, Freq	Jencks	ABB	88 (1960)	193
		-	Sol	H bond	Oki	BCSJ	33 (1960)	119
$C_3H_4O_4$	Malonic acid	-	-	FC	Linnett	TFS	41 (1945)	223
		-	-	Isotopic effect	Pitzer	JCP	17 (1949)	1341
		700-4000	S, L	Bond freq, Association	Flett	JCS	- (1951)	962
		500-1500	S	Spec, Assign	Hadzi	PRS	216 (1953)	247
		-	Sol	Bond freq	Fraenkel	JACS	76 (1954)	15
		-	-	Freq	Bratoz	SA	8 (1956)	249
		680-2500	-	Spec	Hadzi	JC	11 (1959)	715
		2-15 μ	S	Freq assign, Spec	Schmelz	JACS	81 (1959)	287
$C_3H_4O_4$	Methyl oxalate	-	-	Spec	Walton	JACS	79 (1957)	3985
		-	Sol	H bond	Oki	BCSJ	33 (1960)	119
$C_3H_4S_3$	Ethylene trithiocarbonate	600-1900	Sol	Spec, Freq	Jones	JCS	- (1957)	614
C_3H_5D	Cyclopropane-d ₁	-	-	Mol const, Struct, Dipole	Kasai	JCP	30 (1959)	512
C_3H_5D	Propene-1-d ₁	2-25 μ	-	Band freq	Rabinovitch	JACS	75 (1953)	2652
C_3H_5D	Propene-2-d ₁	-	-	Freq assign	Farina	GCI	90 (1960)	973
$C_3H_5DO_2$	Propionic acid-d ₁	1-14 μ	G	Spec, H bond	Herman	JCP	7 (1939)	460
		2.8-5.0 μ	Sol	Spec, H bond	Wall	JACS	61 (1939)	2812
		-	-	Association	Davies	JCP	16 (1948)	267
		750-1500	L, Sol	IR, Spec, Assign	Hadzi	PRS	216 (1953)	247
$C_3H_5_2BrO$	1-Bromo-2-hydroxy-1-methylethane-d ₂	-	-	Freq assign	Farina	GCI	90 (1960)	973

$C_3H_5^m$	Cyclopropane- t_1	-	G	Quant mech	Lindquist	JCP	24 (1956)	725
C_3H_5Br	Bromocyclopropane	2-16 μ	-	Spec, Band freq	Roberts	JACS	73 (1951)	5030
C_3H_5Br	1-Bromo-1-propene	-	L	Group freq	Jacobs	JACS	75 (1953)	1314
C_2H_5Br	ci s-1-Bromo-1-propene	3.1-3.4 μ 3-6 μ	L L	Table Spec, Freq	Hatch Harwell	JACS JACS	75 (1953) 77 (1955)	6002 1682
C_3H_5Br	trans-1-Bromo-1-propene	-	-	Bond freq	Haszeldine	JCS	- (1952)	C 2504
		-	-	Freq, Assign	Farina	GCI	90 (1960)	973
C_3H_5Br	2-Bromo-1-propene	-	L	Anal	Harwell	JACS	77 (1955)	1682
		-	-	Freq, Assign	Farina	GCI	90 (1960)	973
C_3H_5Br	3-Bromo-1-propene	3-20 μ	L	Spec, Assign	Thompson	TFS	42 (1946)	432
		-	-	Ext coeff	Bateman	JCS	- (1950)	936
		-	L	Group freq	Jacobs	JACS	75 (1953)	1314
		2-15 μ	L, Sol	Group freq	Kitson	AC	25 (1953)	1470
		-	Sol	Group freq, Spec	Potts	SA	15 (1959)	679
C_3H_5BrO	ci s-3-Bromo-2-propene-1-ol	3-13.8 μ	L	Table	Hatch	JACS	75 (1953)	6002
		-	L	Band freq, Anal	Harwell	JACS	77 (1955)	1682
C_3H_5BrO	trans-3-Bromo-2-propene-1-ol	3-13.9 μ	L	Table	Hatch	JACS	75 (1953)	6002
		-	L	Band freq, Anal	Harwell	JACS	77 (1955)	1682
C_3H_5BrO	Epibromohydrin	1-3.1 μ	Sol	Terminal expdies	Goddu	AC	30 (1958)	2013
$C_3H_5BrO_2$	β -Bromopropionic acid	-	Sol	Freq & dissoc const	Goulden	SA	6 (1954)	129
C_3H_5Cl	1-Chloro-1-propene	-	L	Freq, Assign	West	TFS	27 (1931)	145
		2-15 μ	L, Sol	Group freq	Kitson	AC	25 (1953)	1470
		-	Sol	Group freq, Spec	Potts	SA	15 (1959)	679
C_3H_5Cl	ci s-1-Chloro-1-propene	-	L	Band freq, Anal	Harwell	JACS	77 (1955)	1682
C_3H_5Cl	trans-1-Chloro-1-propene	-	L	Band freq, Anal	Harwell	JACS	77 (1955)	1682
C_3H_5Cl	2-Chloro-1-propene	-	-	Freq, Assign	West	TFS	27 (1931)	145
		-	Sol	Group freq, Spec	Potts	SA	15 (1959)	679
C_3H_5Cl	3-Chloro-1-propene	-	-	Freq, Assign	West	TFS	27 (1931)	145
		3-20 μ	L	Spec, Assign	Thompson	TFS	42 (1946)	432
		-	-	Bond freq	Sheppard	TFS	46 (1950)	429

C_3H_5Cl	Cyclopropyl chloride	- - 2-15 μ 10-15 μ -	- L L, Sol L Sol	Moment of inertia Group freq Group freq Spec, Ref index Group freq, Spec	Torkington Jacobs Kitson Patterson Potts	JCP JACS AC AC SA	18 (1950) 75 (1953) 25 (1953) 26 (1954) 15 (1959)	407 1314 1470 823 679
$C_3H_5Cl^{35}$	Chlorocyclopropane (isotopic)	2-16 μ	-	Spec, Ext coeff, Band freq	Roberts	JACS	73 (1951)	5030
$C_3H_5Cl^{37}$	Chlorocyclopropane (isotopic)	2-16 μ - -	L, Sol L, Sol -	Spec, Anal Band freq Micro spec, Mol const	Slabey Slabey Friend	JACS JACS JCP	74 (1952) 76 (1954) 29 (1958)	4928 3604 577
C_3H_5ClO	Chloroacetone	-	G	Microwave	Friend	JCP	23 (1955)	1557
C_3H_5ClO	Epichlorohydrin	-	G	Microwave	Friend	JCP	23 (1955)	1557
C_3H_5ClO	2-Chloro-2-propen-1-ol	500-3200	G, L, S, Sol	Spec, IR, Rot isomerism	Mizushima	JCP	21 (1953)	815
C_3H_5ClO	3-Chloro-2-propen-1-ol	-	G, L, Sol	Struct, Dipole effect	Bellamy	JCS	- (1957)	4294
$C_3H_5ClO_2$	Ethyl chloroformate	800-1500 2600-2680 2-15 μ - 1-3.1 μ	- Sol L, Sol - Sol	Spec H bond Spec, Group freq I Terminal epoxides	Barnes Searles Patterson Noland Goddu	IEC JACS AC JACS AC	15 (1943) 73 (1951) 26 (1954) 77 (1955) 30 (1958)	659 3704 823 3395 2013
$C_3H_5ClO_2$	α -Chloropropionic acid	1050-1800	-	I, Struct	Noland	JACS	77 (1955)	3395
$C_3H_5ClO_2$	β -Chloropropionic acid	-	-	Ident	Noland	JACS	77 (1955)	3395
$C_3H_5ClO_2$	γ -Chloropropionic acid	-	-	Spec Struct, Freq, Dissocia- tion	Barnes Hales	IEC JCS	15 (1943) - (1957)	659 618
$C_3H_5ClO_2$	δ -Chloropropionic acid	-	Sol	Freq, I	Thompson	SA	13 (1958)	236
$C_3H_5ClO_2$	ϵ -Chloropropionic acid	-	Sol	I	Gutjahr	SA	16 (1960)	1209
$C_3H_5ClO_2$	ζ -Chloropropionic acid	800-1500	Sol	Band charact, Assign	Katritzky	SA	16 (1960)	954
$C_3H_5ClO_2$	η -Chloropropionic acid	-	-	Band charact, Assign	Katritzky	SA	16 (1960)	964
$C_3H_5ClO_2$	θ -Chloropropionic acid	700-4000	S, L, Sol	Table, Bond freq	Flett	JCS	- (1951)	962
$C_3H_5ClO_2$	ι -Chloropropionic acid	700-4000	S, L, Sol	Table, Bond freq	Flett	JCS	- (1951)	962

$C_3H_5ClO_2S$	1-Propene-1-sulphonyl chloride	-	L	Freq, Assign	Freeman	AJC	10 (1957)	227
$C_3H_5ClO_2S$	2-Propene-1-sulphonyl chloride	-	L	Freq	Freeman	AJC	10 (1957)	227
$C_3H_5ClO_3$	Ethyl chloro carbonate	-	S	Band freq	Ory	SA	16 (1960)	1488
$C_3H_5Cl_3$	1,2,3-Trichloropropane	500-1500	L	Spec	Thompson	PRS	184 (1945)	21
$C_3H_5Cl_3NB$	Ethylcyanide boron trichloride complex	-	Sol	Freq	Gerrard	JCS	- (1960)	2182
$C_3H_5Cl_3N_2$	N-Methyltrichloroacetamide	1000-3500	L	Assign, Struct, H bond	Griivas	CJC	37 (1959)	795
$C_3H_5Cl_3N_2.HCl$	N-Methyltrichloroacetamidiline hydrochloride	1350-4000	S	Struct, Abs	Griivas	CJC	37 (1959)	1260
$C_3H_5Cl_3Si$	Allyltrichlorosilane	8-15 μ	Sol	Spec	Scott	JACS	73 (1951)	2599
C_3H_5F	2-Fluoropropene	-	-	Bond freq, Ident	Austin	JACS	75 (1953)	4834
		-	G	Spec, Dipole moment	Pierce	JMS	3 (1959)	536
C_3H_5F	trans-1-Fluoropropene	8-37K Mc/sec	-	Micro spec, Mol const, Struct	Siegal	JCP	27 (1957)	989
$C_3H_5F_3.N.HCl$	N-Methyltrifluoroacetamidiline hydrochloride	1350-4000	S	Struct, Abs	Griivas	CJC	37 (1959)	1260
$C_3H_5F_3O$	1,2,2-Trifluoro-2-methoxyethane	2-15 μ	G	Spec	Park	JACS	73 (1951)	711
$C_3H_5F_3O$	1,1,1-Trifluoro-2-propanol	-	Sol	H bond, Bond freq	Haszeldine	JCS	- (1953)	1757
$C_3H_5F_3O$	3,3,3-Trifluoropropanol	-	Sol	H bond, Bond freq	Haszeldine	JCS	- (1953)	1757
$C_3H_5F_3S_2$	Ethyl trifluoromethyl disulphide	400-4000	G	Freq, Assign	Nabi	JCS	- (1959)	3439
C_3H_5I	3-Iodo-1-propene	3-20 μ	L	Spec, Assign	Thompson	TFS	42 (1946)	432

C_3H_5N	Ethyl cyanide	2-15 μ -	L, Sol Sol	Group freq Group freq, Spec	Kitson Potts	AC SA	25 (1953) 15 (1959)	1470 679
		1.0-6.5 μ	L	Spec	Gordy	JCP	4 (1936)	85
		-	-	Band discussion	Badger	JCP	5 (1937)	178
		4-14 μ	Sol	Spec, Bond freq	Anderson	JCS	- (1947)	445
		-	L	Bond freq	Kitson	AC	24 (1952)	334
		-	L	Ident	Janz	JACS	75 (1953)	5389
		400-3500	G, L	Spec, NCA	Duncan	JCP	23 (1955)	434
		-	Sol	I, Bond freq	Skinner	JCS	- (1955)	487
		-	-	I	Thompson	TFS	52 (1956)	1451
		17-18K Mc/sec	-	Struct parameters, Mol const	Lerner	JCP	26 (1957) A	678
		2200-2300	G, Sol	Freq, Struct	Jesson	SA	13 (1958)	217
		-	Sol	Solvent effect	Bayliss	SA	15 (1959)	12
		-	G	Micro spec	Laurie	JCP	31 (1959)	1500
		-	Sol	Freq	Gerrard	JCS	- (1960)	2182
		400-3000	-	Spec, Freq	Rao	ZAUA	304 (1960)	351
C_3H_5N	Ethyl isocyanide	1-6.5 μ	L	Spec	Gordy	JCP	4 (1936) A	85
C_3H_5NO	Acrylamide	-	-	Spec	Walton	JACS	79 (1957)	3985
		-	Sol	Group freq, Spec	Potts	SA	15 (1959)	679
C_3H_5NO	2-Hydroxypropane nitrile	3 μ 2200-2300	Sol Sol	H bond, Bond freq Bond freq, Struct	Flett Jesson	SA SA	10 (1958) 13 (1958)	21 217
C_3H_5NO	3-hydroxypropane nitrile	8800-10000 - 8-11 μ 3 μ 2200-2300	L - Sol Sol Sol	H bond Bond freq Spec, Ident H bond, Bond freq Bond freq, Struct	Thompson Kitson Dupre Flett Jesson	JACS AC AC SA SA	61 (1939) 24 (1952) 27 (1955) 10 (1958) 13 (1958)	1396 334 1878 21 217
C_3H_5NOS	2-Thiooxazolidone	2-12 μ	Sol	Spec	Ettlinger	JACS	72 (1950)	4699
$C_3H_5NO_2$	Allyl nitrite	2-25 μ	G	Rot isomerism	Tarte	JCP	20 (1952)	1570
$C_3H_5NO_2$	2-Nitropropene	-	-	Conjugated nitro band	Emmons	JACS	75 (1953)	1993
$C_3H_5NO_2$	Oxazolidone	1600-1800	S	Freq	Hall	JACS	80 (1958)	6428
C_3H_5NS	Ethyl thiocyanate	1-6.5 μ	L	Spec	Gordy	JCP	4 (1936)	85

C_3H_5NS	Ethyl isothiocyanate	600-2200 1-6.5 μ 2200-2300 600-2200	- L Sol -	Spec Spec, Freq Freq	Lieber Gordy Caldow Lieber	SA JCP SA SA	13 4 (1936) 13 (1958) 13 (1959)	296 85 212 296
C_3H_5NS	2-Thiazoline	-	-	Spec, Freq	Roggers	CPR	249 (1959)	2529
$C_3H_5NS_2$	2-Mercaptothiazoline	- 2800-3500	- S, Sol	Group freq, Struct Spec, Group freq	Clapp Flett	JACS JCS	75 (1953) - (1953)	1490 347
$C_3H_5N_3O$	β -Azidopropionaldehyde	2-16 μ	Sol	Spec, Band freq	Boyer	JACS	73 (1951)	5248
$C_3H_5N_3O$	5-Methyl-1,2,4- Δ^4 - triazolone	2-7 μ	S	Spec, Struct	Mauthner	JACS	77 (1955)	4076
$C_3H_5N_3O$	5-Methyl-1,2,4- Δ^5 - triazolone	2-7 μ	S	Spec, Struct	Mauthner	JACS	77 (1955)	4076
$C_3H_5N_3O$	Triazoacetone	2-16 μ	Sol	Spec, Band freq	Boyer	JACS	73 (1951)	5248
$C_3H_5N_3O_2$	β -Azidopropionic acid	2-16 μ	Sol	Spec	Boyer	JACS	73 (1951)	5248
$C_3H_5N_3O_2$	Nitroglycerine	1200-1300 2-15 μ	Sol Sol	Spec, Anal Spec, Anal	Pinchas Priester	AC AC	23 (1951) 25 (1953)	201 844
$C_3H_5N_5O_2$	3-Methyl-5-nitroamino 1,2,4-triazole	2-15 μ	S	Spec, Freq	Lieber	AC	23 (1951)	1594
$C_3H_5N_5O_4$	1-Nitro-2-nitrimino- imidazolidine	1-15 μ	S	Group freq	Kumler	JACS	76 (1954)	814
$C_3H_5N_6O$	Ammeline	2-16 μ	S	Spec, Struct	Padgett	JACS	80 (1958)	803
$C_3H_5O_3$	Lactate ion	-	-	Spec	Goulden	CIL	- (1960)	721
C_3H_6	Cyclopropane	- - - 1-15.5 μ - 1.5-25 μ - 3.3-9.6 μ -	- L, G - G - G - G -	Quant mech FC, IR FC, IR Spec Spec, Struct anal Spec, Assign Thermo High resolution Act energy, Bond freq	Wilson King Bonner Bonner Eyster Linnett Kistiakowsky Smith Fugassi	JCP JACS JCP JCP JCP JCP JCP PR JPC	3 (1935) 58 (1936) 5 (1937) 5 (1937) 6 (1938) 6 (1938) 8 (1940) 59 (1941) 46 (1942)	276 1580 293 704 576 692 610 924A 630

C_3H_6DBr	2-Bromopropane-2-d ₁	-	G	Anal FC	O'Neal	AC	22 (1950)	991
C_3H_6DCl	2-Chloropropane-2-d ₁	-	-	Ident	Torkington	PRS	206 (1951)	17
C_3H_6DNO	N-Methylacetamide-d ₁	-	G	Anal	Blodes	JACS	74 (1952)	6219
$C_3H_6DNO_2$	Alanine-d ₁	-	-	Emission, Glow discharge	Knox	JCS	- (1952)	1477
$C_3H_6D_2$	2,2-Propane-d ₂	-	G	Anal	Talley	JOSA	42 (1952)	982
$C_3H_6D_2N_2O$	N,N'-Dimethylurea-d ₂	-	G	Spec, Assign	Lord	JOSA	43 (1953)	575
C_3H_6BrCl	3-Bromo-1-chloropropane	450-1500	S, L	Spec, Assign	O'Loane	JCP	21 (1953)	669
$C_3H_6Br_2$	1,2-Dibromopropane	2.5-15 μ 7-13.5 μ	-	Rot barrier theory	Luft	JCP	22 (1954)	1814
$C_3H_6Br_2$	1,3-Dibromopropane	2.5-15 μ	-	Spec	Patterson	AC	26 (1954)	823
				Bond freq	Tarrant	JACS	76 (1954)	5423
				Freq	Brown	TFS	51 (1955)	1611
				Bond freq	Pinchas	AC	27 (1955)	2
				Quant mech	Lindquist	JCP	24 (1956)	725
				Spec	Pierson	AC	28 (1956)	1218
				Spec, Struct	Pierson	JCP	24 (1956)	482
				Micro spec, Struct	Lide	JCP	27 (1957)	868
				Group freq	Bellamy	JCS	- (1958)	2463
				Spec, Struct	Hersch	JCP	28 (1958)	728
				Freq, Spec	Potts	SA	15 (1959)	679
				Spec, Freq	Comeford	JMS	5 (1960)	474
				Band assign	Harrah	JCP	33 (1960)	298
				Table, Rate study	Shiner	JACS	74 (1952)	5285
				Mass spec	Condon	JCP	19 (1951)	1010
				G, L, Sol Spec, Assign	Miyazawa	JCP	24 (1956)	408
				Freq	Fukushima	SA	15 (1959)	236
				Spec, Assign	McMurry	JCP	18 (1950)	1515
				Spec, Assign	McMurry	JCP	19 (1951)	1014
				Vib	Becher	NWSS	43 (1956)	467
				Spec, Assign, Isomerism	Brown	PRS	231 (1955)	555
				L, S, Sol Spec, Struct	Fukushima	NKZ	80 (1959)	1218
				Anal, Spec	Wright	IEC	13 (1941)	1
				Spec, Ident	Eckstein	JCP	22 (1954)	28
				Anal, Spec	Wright	IEC	13 (1941)	1

$C_3H_6Br_2$	2, 2-Dibromopropane	-	14.5-19 μ	L	Spec	Mortimer	JACS	69 (1947)	822
$C_3H_6Br_2O$	1, 3-Dibromopropanol	3 μ	2-15 μ	L	Spec, Solvent	Priester	APS	6 (1952)	29
$C_3H_6Br_2O$	2, 3-Dibromopropanol	-	450-1500	L, S	Spec, Assign, Isomerism	Brown	PRS A231	(1955)	555
				G, L, Sol	Spec, Assign, Struct	Fukushima	NKZ	80 (1959)	1221
C_3H_6ClNO	2-Chloro-2-nitrosopropane	-	-	-	Assign, NCA	Tobin	JACS	75 (1953)	1788
C_3H_6ClNO	1, 3-Dichloropropane	-	500-1500	L	Spec	Thompson	PRS	184 (1945)	21
$C_3H_6Cl_2$	2, 2-Dichloropropane	-	450-1500	L, S	Band freq, Anal	Mayo	JACS	76 (1954)	5392
$C_3H_6Cl_2$	2, 2-Dichloropropane	-	1.22-30 μ	L, Sol	Spec, Assign, Isomerism	Brown	PRS	231 (1955)	555
$C_3H_6Cl_2$	1, 3-Dichloropropane	-	10200-10700	G	Assign, NCA	Tobin	JACS	75 (1953)	1788
$C_3H_6Cl_2$	1, 3-Dichloro-2-propanol	-	-	-	Viscosity, Freq	Holland	JACS	78 (1956)	20
$C_3H_6Cl_2O$	1, 3-Dichloro-2-propanol	-	-	-	Freq	Zumwalt	JCP	7 (1939)	87
					Freq	Zumwalt	JACS	62 (1940)	305
C_3H_6ClNO	2-Chloro-2-nitrosopropane	1-15 μ	1050-1800	G	Freq	Luttk	JPR	15 (1954)	633
C_3H_6ClNO	Dimethylaminocarbonyl chloride	-	-	Sol	Band freq	Baker	JACS	82 (1960)	1923
C_3H_6ClNO	N-Methylchloroacetamide	2-14 μ	-	G, L, S	Struct	Mizushima	JACS	78 (1956)	2038
$C_3H_6ClNO_2$	1-Chloro-1-nitropropane	-	-	L	Band freq, I	Haszeldine	JCS	- (1953)	2525
$C_3H_6ClNO_2$	2-Chloro-2-nitropropane	-	-	L	Band freq, I	Haszeldine	JCS	- (1953)	2525
$C_3H_6Cl_2$	1, 1-Dichloropropane	-	-	-	Spec	Barnes	IEC	15 (1943)	659
$C_3H_6Cl_2$	1, 2-Dichloropropane	2.5-15 μ	-	L, S, G	Struct	Fukushima	NKZ	80 (1959)	828
$C_3H_6Cl_2$	1, 2-Dichloropropane	2.5-15 μ	1050-1750	L	Anal	Wright	IEC	13 (1941)	1
$C_3H_6Cl_2$	1, 2-Dichloropropane	1050-1750	500-1500	-	Spec	Barnes	IEC	15 (1943)	659
$C_3H_6Cl_2$	1, 2-Dichloropropane	500-1500	8-14.5 μ	L	Spec	Thompson	PRS	184 (1945)	21
$C_3H_6Cl_2$	1, 2-Dichloropropane	8-14.5 μ	-	Sol	Band freq	Urone	AC	24 (1952)	626
$C_3H_6Cl_2$	1, 2-Dichloropropane	-	-	-	Isomerism	Mayo	JACS	76 (1954)	5392
$C_3H_6Cl_2$	1, 2-Dichloropropane	-	-	-	Freq	Nakamura	JCP	26 (1957)	970
$C_3H_6Cl_2$	1, 3-Dichloropropane	500-1500	-	L	Spec	Thompson	PRS	184 (1945)	21
$C_3H_6Cl_2$	1, 3-Dichloropropane	-	450-1500	-	Band freq, Anal	Mayo	JACS	76 (1954)	5392
$C_3H_6Cl_2$	1, 3-Dichloropropane	-	1.22-30 μ	L, Sol	Spec, Assign, Isomerism	Brown	PRS	231 (1955)	555
$C_3H_6Cl_2$	1, 3-Dichloropropane	-	10200-10700	G	Assign, NCA	Tobin	JACS	75 (1953)	1788
$C_3H_6Cl_2$	1, 3-Dichloropropane	-	-	-	Viscosity, Freq	Holland	JACS	78 (1956)	20
$C_3H_6Cl_2$	1, 3-Dichloropropane	-	-	-	Freq	Zumwalt	JCP	7 (1939)	87
$C_3H_6Cl_2$	1, 3-Dichloropropane	-	-	-	Freq	Zumwalt	JACS	62 (1940)	305

$C_3H_6Cl_2O$	2,3-Dichloropropanol	3μ	Sol	H bond	Flett	SA	10 (1958)	21
$C_3H_6Cl_2Si$	Allyldichlorosilane	2050-2250	Sol	Struct, Freq	Smith	SA	15 (1959)	412
$C_3H_6F_2$	2,2-Difluoropropane	-	-	Ident	Austin	JACS	75 (1953)	4834
$C_3H_6F_3O_2PS$	Ethyltrifluoromethyl-phosphonothioic acid	140-1500	L	Assign	McIvor	CJC	37 (1959)	869
$C_3H_6I_2$	1,3-Diodopropane	450-1500	L,S	Spec, Assign, Isomerism	Brown	PRS	231 (1955)	555
$C_3H_6I_2$	2,2-Diodopropane	-	-	Assign, NCA	Tobin	JACS	75 (1953)	1788
$C_3H_6I_2O$	Acetone-iodine	-	Sol	Freq	Glusker	JCS	- (1955)	471
$C_3H_6I_2O_2$	Methyl acetate iodine	1200-4000	Sol	Freq, I	Yamada	JACS	82 (1960)	1543
C_3H_6N	Dimethylnitrium ion	400-4000	S	Spec, Freq assign, FC	Turrel	JCP	30 (1959)	895
$C_3H_6N_2$	Dimethyl cyanamide	1050-1800 2200-2300	- G,Sol	Spec Freq	Barnes Jesson	IEC SA	15 (1943) 13 (1958)	659 217
$C_3H_6N_2O$	Imidazolidone	1600-1800	S	Freq	Hall	JACS	80 (1958)	6428
$C_3H_6N_2O_2$	D-4-Amino-3-isoxazolidone	-	-	Group freq, H bond	Kwhl	JACS	77 (1955)	2344
$C_3H_6N_2O_4$	Cycloserine	$3-14\mu$	S	Spec, Group freq	Stommer	JACS	77 (1955)	2346
$C_3H_6N_2O_4$	1,1-Dinitropropane	-	-	Spec, Group freq	Hidy	JACS	77 (1955)	2345
$C_3H_6N_2O_4$	2,2-Dinitropropane	$1.22-30\mu$	-	Ext coeff L,S,Sol Freq	Novikov	IANS	- (1959)	1855
$C_3H_6N_2S$	Ethylene thiocarbamide	$2-15\mu$	S	Spec, Assign	Grabiel Holland	JACS JACS	77 (1955) 78 (1956)	1293 20
$C_3H_6N_3O^{10}P$	Carbonyl phosphate	$2-9\mu$	Sol	Spec, Freq	Lane	JCP	22 (1954)	1855
$C_3H_6N_4O_2$	2-Nitriminoimidazolidine	$1-15\mu$	S	Spec, Group freq	Jencks	ABB	88 (1960)	193
$C_3H_6N_4S$	5-Ethylamino-1,2,3,4-thiazizole	700-1700	S	Group freq	Kumler	JACS	76 (1954)	814
$C_3H_6N_4S$	Melamine	-	-	Spec, Assign, Taut, Struct	Lieber	CJC	36 (1958)	801
$C_3H_6N_6$	Melamine	-	-	FC, Bond study	Anno	BCSJ	30 (1957)	638

$C_5H_6N_2O_3$	Cyclotrimethylene- trinitrosamine	2-15 μ	-	Spec	Finkel'shtein	OS	5 (1958)	264
		2-16 μ	S	Spec, Struct	Padgett	JACS	80 (1958)	803
		450-5000	S	Struct, Freq, Assign	Jones	TFS	55 (1959)	203
		650-3500	S	Table	Fowler	JPC	58 (1954)	382
C_5H_6O	Acetone	.8-2.0 μ	L	Rotation	Ingersoll	JOSA	6 (1922)	663
		0-2.5 μ	L	Spec	Ellis	PR	23 (1924)	48
		.59-2.8 μ	L	IR	Ellis	PR	32 (1928)	906
		.7-2.5 μ	Freq	Freq	Ellis	JACS	51 (1929)	1384
		-	-	Calculated freq	Whitelaw	PR	34 (1929)	376
		-	-	Vib in excited states	Duncan	JCP	3 (1935)	384
		52-152 μ	L, Sol	Dispersion	Cartwright	PRS	154 (1936)	138
		2.5-8.5 μ	L	H bond, Solvent effect	Gordy	PR	50 (1936)	1151
		2.7-6.3 μ	L, Sol	Spec	Williams	JCP	4 (1936)	154
		9000-11000	Sol	Spec, H bond	Badger	JCP	5 (1937)	839
		-	-	Ext coeff	Errera	TFS	33 (1937)	120
		2.5-6 μ	L	Spec, H bond	Gordy	JACS	59 (1937)	464
		2-15 μ	L	Spec, Solvent chart	Errera	TFS	34 (1938)	728
		-	-	H bond	Freyman	JCP	6 (1938)	497
		5.4-6.1 μ	L, Sol	Spec, H bond	Gordy	JACS	60 (1938)	605
		-	-	Thermo	Schumann	JCP	6 (1938)	485
		4.75 μ	Sol	Absorption	Barr	JCP	7 (1939)	8
		-	-	Solvent effect	Gordy	JCP	7 (1939)	93
		-	-	Solvent effect	Gordy	JCP	7 (1939)	163
		-	-	H bond	Errera	JCP	8 (1940)	63
		5.5-6.5 μ	L	Spec, H bond	Gordy	JCP	8 (1940)	516
		3-20 μ	G	Spec	Price	JCP	9 (1941)	725
		1050-1800	-	Spec, Absorption freq	Barnes	IEC	15 (1943)	659
		-	-	Rot	Aston	JCP	12 (1944)	336
		-	-	FC	Linnett	TFS	41 (1945)	223
		500-1750	L	Assign	Thompson	JCS	- (1945)	640
		3-20 μ	L	Spec	Torkington	TFS	41 (1945)	184
		-	-	Pot barrier	French	JCP	14 (1946)	389
		-	-	FC	Walsh	TFS	43 (1947)	158
		2-14.5 μ	L	Instrument performance	Wright	JOSA	37 (1947)	211
		1700	Sol	Bond freq, Chem prop	Flett	TFS	44 (1948)	767
		-	G	Freq	Hartwell	JCS	- (1948)	1436
		-	G	Anal	Badin	JACS	72 (1950)	1550
		1-8 μ	Sol	Spec, Association	Coggeshall	AC	22 (1950)	381
		-	-	Reaction study	Real	JCS	- (1950)	1596
		1800-1650	Sol	Ext coeff	Cross	TFS	47 (1951)	354

1200-2900	L	I	Francis	JCP	19	(1951)	942
5-11 μ	L	Spec	Morton	JACS	73	(1951)	3300
2800-3000	Sol	Bond freq, Spec	Pozefsky	AC	23	(1951)	1611
15-25 μ	L	Solvent	Marrierson	JSI	29	(1952)	233
2-15 μ	L	Spec, Solvent table	Priester	APS	6	(1952)	29
14-4 μ	L	Solvent	Smith	AC	24	(1952)	497
2-16 μ	L	Spec, Solvent	Anderson	JOSA	43	(1953)	221
-	-	Ident	Baker	AC	25	(1953)	1457
1747-1709	G, Sol	Bond freq, I	Barrow	JCP	21	(1953)	2008
-	Sol	Band freq, H bond	Searles	JACS	75	(1953)	71
1600-1800	Sol	Freq	Fuson	JACS	76	(1954)	2526
-	L	Spec	Haseldine	JCS	-	(1954)	4145
-	Sol	Freq & I shift	Hirota	BCSJ	27	(1954)	295
-	-	Rot barrier	Luft	JCP	22	(1954)	1814
-	Sol	Bond shift	Bayliss	AJC	8	(1955)	26
-	-	Anal	Guenther	JACS	77	(1955)	2191
2-15 μ	-	Spec, Solvent	Wright	APS	9	(1955)	105
-	G	Reaction study, Spec	New	JPC	60	(1956)	320
2-15 μ	G	Spec	Pierson	AC	28	(1956)	1218
2.5-11 μ	Sol	Spec, Anal	Potts	AC	28	(1956)	1255
-	G	Freq	Bellamy	JCS	-	(1957)	4294
2-15 μ	G	Spec, Quant anal	Friedel	AC	29	(1957)	1362
-	-	Dielect const, Dipole	Krishna	TFS	53	(1957)	767
1700	Sol	Freq, I	Thompson	SA	9	(1957)	208
1760-1560	S	Solvent dependence of freq	Archibald	SA	12	(1958)	34
2800-3600	L, G	Spec	Cromwell	JACS	80	(1958)	4573
400-4000	L	Spec	Pullin	TFS	54	(1958)	11
-	G, Sol	Solvent effect	Thompson	SA	13	(1958)	236
-	Sol	Freq, I	Thompson	SA	13	(1958)	254
-	G	Microwave absorption	Weatherly	DA	18	(1958)	1469
1650-1850	Sol, G, L	Solvent effect	Bellamy	TFS	55	(1959)	14
-	Sol	Assign, Shift	Flaig	A	626	(1959)	215
-	Sol	Freq	Horak	TEL	3	(1959)	19
-	Sol	Solvent effect	Ito	JCP	32	(1959)	1694
-	Sol	I, Freq	Mirone	ANCR	49	(1959)	52
18-50 μ	G	Spec	Moller	CPR	249	(1959)	2534
-	-	Freq	Rao	JPC	63	(1959)	1311
-	Sol	Band freq	Baker	JACS	82	(1960)	1923
-	Sol	Freq	Brook	JACS	82	(1960)	5102
-	-	Torsional freq	Moller	CPR	251	(1960)	686
-	Sol	Solvent effect	Norrish	N	187	(1960)	142
-	Sol, L, G	Solvent effect	Pullin	SA	16	(1960)	12

C_3H_6O	Allyl alcohol	- 1050-1800 3-20 μ 2800-3100 665-500 - 3 μ 3570-3700 3 μ -	G - L, Sol Sol L G Sol Sol Sol Sol	Spec Spec Spec, Assign Spec, Bond freq Bond freq Bending freq H bond Freq, I Freq Group freq, Spec	Badger Barnes Thompson Pozefsky Zeiss Tarte Flett Flynn OkI Potts	JCP IEC TFS AC JACS JCP JCP AJC BCSJ SA	4 15 42 23 75 26 10 12 32 15	(1936) (1943) (1946) (1951) (1953) (1957) (1958) (1959) (1959) (1959)	711 659 432 1611 897 962 21 575 567 679
C_3H_6O	Cyclopropanol	665-5000	L	Bond freq	Ziess	JACS	75	(1953)	897
C_3H_6O	Dimethyl ether	-	-	Freq, Assign	Mirone	ANCR	50	(1960)	1095
C_3H_6O	Methyl vinyl ether	600-4000 -	G, Sol Sol	Spec, Freq Group freq, Spec	Mikawa Potts	BCSJ SA	29 15	(1956) (1959)	110 679
C_3H_6O	Propene oxide	1250 2590-2690 2-15 μ 10-15 μ 2800-3100 - -	- Sol L Sol Sol G -	Epoxy struct H bond, Bond freq Spec, Struct anal Spec, Group freq Stretching band, Struct Spec, Struct Transitions	Field Searles Shreve Patterson Henbest Swalen Herschbach	JCP JACS AC AC JCS JCP JCP	18 73 23 26 - 27 29	(1950) (1951) (1951) (1954) (1957) (1957) (1958)	1298 3704 277 823 1459 100 761
C_3H_6O	Propionaldehyde	.7-2.5 μ 1.1-2.1 μ 1748-1765 - - 1800-1650 2700-3000 1730-1738 - - 170-470	L L G Sol G - Sol Sol Sol Sol Sol -	Bond study Spec, Assign Bond freq Bond vib, I Anal Reaction study Ext coeff Spec, Stretch freq I, Bond freq I, Solvent effect Group freq, Ext coeff Absorption bands	Ellis Kellner Hartwell Richards Badin Raal Cross Pozefsky Barrow Hirota Pinchas Moller	JACS PRS JCS TFS JACS JCS TFS AC JCP BCSJ AC CPR	51 157 - 45 72 - 47 23 21 27 27 250	(1929) (1936) (1948) (1949) (1950) (1950) (1951) (1951) (1953) (1954) (1955) (1960)	1384 100 1436 874 1550 1396 354 1611 2008 295 2 3977
C_3H_6O	Trimethylene oxide	2569-2689 2-15 μ -	Sol L, Sol G	H bond, Band freq Spec, Assign, Group freq Microwave	Searles Barrow Fernand	JACS JACS JCP	73 75 23	(1951) (1953) (1955)	3704 1175 758

C_3H_6OS	Methyl thiolacetate	-	G	Micro spec, Mol const	Chan	JCP	33 (1960)	1643
		-	G,L	Freq, Spec	Danti	JCP	33 (1960)	294
C_3H_6OS	Methyl vinyl sulfoxide	6.8-8.5 μ 6.2-14.8 μ	-	Band freq Band freq, I	Price Price	JACS	74 (1952) 75 (1953)	2073 4750
C_3H_6OS	Trimethylene sulfoxide	-	Sol	H bond, Band shift	Tomres	JACS	81 (1959)	2100
$C_3H_6OS_2$	Methylthio methyl-thiolformate	-	Sol	Band freq	Baker	JACS	82 (1960)	1923
$C_3H_6O_2$	1,3-Dioxolan	-	-	Ident	Pinder	JCS	- (1954)	113
		400-3000	G,L, Sol	Spec, Assign	Barker	JCS	- (1959)	802
$C_3H_6O_2$	Ethyl formate	2.5-6.0 μ 2.5-6.0 μ 500-1750	L L L	Spec, H bond Spec, H bond Assign	Gordy Williams Thompson	JACS	59 (1937) 59 (1937) - (1945)	464 817 1640
		-	G	Bond freq	Hartwell	JCS	- (1948)	1436
		2800-3150	Sol	Stretch freq, Spec	Pozefsky	AC	23 (1951)	1611
		-	-	Band freq, Isomerism	Karpovich	JCP	22 (1954)	1767
		-	Sol	Freq	Russell	JCS	- (1955)	479
		-	-	Solvent	Matheson	AC	30 (1958)	63
		-	Sol	Freq, I	Thompson	SA	13 (1958)	236
		1.24-3.18 μ	G	Microwave absorption	Murty	JSIR	18B (1959)	455
		-	Sol	Band freq	Baker	JACS	82 (1960)	1923
		-	Sol	I	Gutjahr	SA	16 (1960)	1209
		800-1500	Sol	Assign	Katritzky	SA	16 (1960)	954
		-	-	Assign	Katritzky	SA	16 (1960)	964
$C_3H_6O_2$	Glycidol	900-1750 2-15 μ	S L	Spec Spec, Anal	Barnes Shreve	IEC AC	15 (1943) 23 (1951)	659 277
$C_3H_6O_2$	Methyl acetate	1-21 μ 1-2.5 μ 2-8 μ .7-2.5 μ - .8-2.5 μ 4-8 μ 1050-1800 500-1750	L L Sol L - L - - L	Spec Spec Spec, Assign Band study Freq, Thermo Spec No exchange reaction Absorption freq, Spec Assign	Callow Smith Bennett Ellis Lecomte Sapenfield Barr Barnes Thompson	JCS JACS JACS JACS TFS PR PR IEC JCS	- (1916) 48 (1926) 49 (1927) 51 (1929) 25 (1929) 33 (1929) 51 (1937) 15 (1943) - (1945)	55 1512 50 1384 864 37 685 659 640

$C_3H_6O_3$	Glycol formate	3μ	Sol	Freq, H bond	Flett	SA	10 (1958)	21	JCP	21 (1953)	2008
$C_3H_6O_3$	α -Hydroxypropionic acid	700-4000 2-15 μ 2-15 μ	Sol L -	Table, Group freq Spec Spec, H bond	Flett Barr Mucke	JCS JACS JPRC	- (1951) 74 (1952) 9 (1959)	962 4430 16	JCS BCSJ JCS AC JCS JCS SA SA	- (1954) 27 (1954) - (1955) 29 (1957) - (1957) - (1958) 13 (1958) 16 (1960)	3145 295 479 904 618 3137 236 964
$C_3H_6O_3$	α -Methoxyacetic acid	-	Sol	Freq & dissociation const	Goulden	SA	6 (1954)	129	SA	6 (1954)	129
$C_3H_6O_3$	α -Methoxy methyl formate	800-1500	Sol Sol	Band freq Band freq, Assign	Baker Katritzky	JACS SA	82 (1960) 16 (1960)	1923 954	JACS SA	82 (1960) 16 (1960)	1923 954
$C_3H_6O_3$	Propionyl hydroperoxide	5-15 μ 2-15 μ	Sol G	Spec Spec	Minkoff Stephens	PRS AC	224 (1954) 29 (1957)	176 776	PRS AC	224 (1954) 29 (1957)	176 776
$C_3H_6O_3$	Propylene ozonide	2-15 μ	G	Spec	Garvin	JPC	60 (1956)	807	JPC	60 (1956)	807
$C_3H_6O_3$	1,3,5-Trioxacyclohexane	- 2.5-14 μ 2700-3100	- G,Sol G	Act energy, Band freq Spec, Assign Spec	Fugassi Ramsay Decius	JPC TFS JCP	46 (1942) 44 (1948) 19 (1951)	630 289 806	JPC TFS JCP	46 (1942) 44 (1948) 19 (1951)	630 289 806
$C_3H_6O_3S$	Vinyl methanesulfonate	2-15 μ	L	Spec	Sauer	JACS	77 (1955)	3793	JACS	77 (1955)	3793
C_3H_6S	Allyl mercaptan	-	-	Bond freq	Sheppard	TFS	46 (1950)	429	TFS	46 (1950)	429
C_3H_6S	Methyl vinyl sulfide	1000-1500 5.85-14.8 μ	Sol L	Spec I, Group freq	Schreiber Price	AC JACS	21 (1949) 75 (1953)	1168 4750	AC JACS	21 (1949) 75 (1953)	1168 4750
C_3H_6S	Thiacyclobutane	670-1460 2-25 μ	G,L L	Table, I, Assign, Thermo Spec	Scott Haines	JACS JPC	75 (1953) 58 (1954)	2795 270	JACS JPC	75 (1953) 58 (1954)	2795 270
C_3H_7D	1-Propane-d ₁	2-15 μ	G	Spec, Assign	Friedman	JCP	17 (1949)	1012	JCP	17 (1949)	1012

C_3H_7D	2-Propane- d_1	2-15 μ	G	Spec, Assign	McMurry	JCP	17 (1949)	918
		2-15 μ	G	Spec, Assign	Friedman	JCP	17 (1949)	1012
		2-15 μ	G	Spec, Assign	McMurry	JCP	17 (1949)	918
C_3H_7DO	1-Propanol- d_1	650-4000	G, L	Band freq, I	Quinan	AC	26 (1954)	1762
C_3H_7DO	2-Propanol- d_1	800-4000	L	Spec	Condon	JCP	19 (1951)	1010
		-	Sol	Rate study, Table	Shiner	JACS	74 (1952)	528
C_3H_7DO	n-Propanol-O- d_1	-	G	Bending freq	Tarte	JCP	26 (1957)	962
C_3H_7DO	sec-Propanol-O- d_1	-	G	Bending freq	Tarte	JCP	26 (1957)	962
C_3H_7Br	1-Bromopropane	0-2.5 μ	L	Spec	Ellis	PR	23 (1924)	48
		1-13 μ	L	Spec	Stair	JRNB	15 (1935)	295
		14-19 μ	L	Spec	Mortimer	JACS	69 (1947)	822
		3-15 μ	L, G	Spec, H bond	Lacher	JACS	72 (1950)	331
		720-750	L	Bond freq	Wiberly	AC	22 (1950)	841
		500-1500	L, Sol	Spec, Isomerism	Brown	TFS	50 (1954)	535
		450-1500	L, S	Spec, Assign, Isomerism	Brown	TFS	50 (1954)	1164
		400-3000	L, S	Spec, Freq, Isomerism	Komaki	BCSJ	28 (1955)	330
		-	L	Mole ratio	Yoshino	CJC	35 (1957)	339
C_3H_7Br	2-Bromopropane	2-6 μ	L	Spec	Daniels	JACS	47 (1925)	2856
		14-20 μ	L	Spec	Mortimer	JACS	69 (1947)	822
		3-14 μ	G	Spec, H bond	Lacher	JACS	72 (1950)	331
		450-15000	L	Spec, Assign	Sheppard	TFS	46 (1950)	533
C_3H_7BrO	1-Bromo-2-propanol	-	L	Anal	Stewart	JACS	76 (1954)	1259
C_3H_7BrO	2-Bromo-1-propanol	-	L	Anal	Stewart	JACS	76 (1954)	1259
C_3H_7BrO	3-Bromo-1-propanol	-	G	Bond study	Zamwalt	JACS	62 (1940)	305
C_3H_7Cl	1-Chloropropane	-	L	Freq, Assign	West	TFS	27 (1931)	145
		-	-	Bond freq	Sheppard	TFS	46 (1950)	429
		-	G, L, S, Sol	Rot, Struct	Mizushima	JPC	56 (1952)	324
		450-1500	L, S	Spec, Assign, Isomerism	Brown	TFS	50 (1954)	1164
		-	-	Band freq	Mayo	JACS	76 (1954)	5392
		10-14.5 μ	L	Spec	Patterson	AC	26 (1954)	823

		400-4000	C, L, S	Spec, Freq, Isomerism Bond freq	Komaki Nakamura	BCSJ JCP	28 (1955) 26 (1957)	330 970
C_3H_7Cl	2-Chloropropane	-	L	Freq, Assign Bond freq	West	TFS	27 (1931)	145
		-	-	Bond freq	Sheppard	TFS	46 (1950)	429
		450-1500	L	Spec, Assign	Sheppard	TFS	46 (1950)	533
		800-4000	L	IR & mass spec	Condon	JCP	19 (1951)	1010
		-	-	Bond freq, Isomerism	Brown	TFS	50 (1954)	1164
		-	-	Comparison	Mayo	JACS	76 (1954)	539 2
$C_3H_7ClFO_2PS$	β -Fluoroethyl methyl- phosphonochloridothionate	740-1500	S	Assign	McIvor	CJC	37 (1959)	869
$C_3H_7ClN^O_4^2$	N- β -Chloroethyl-N' - nitroguanidine	-	-	Ident	McKay	JACS	77 (1955)	1057
$C_3H_7ClN^O_4^2$	1-Nitro-2-amino-2- imidazolium chloride	-	-	Ident, Band freq	McKay	JACS	77 (1955)	1057
C_3H_7ClO	β -Chloroethyl methyl ether	-	L, S	Spec, Isomerism	Michiro	NKZ	80 (1959)	1084
C_3H_7ClO	1-Chloro-2-propanol	-	-	Absorption freq Bond study	Zamwalt	JCP	7 (1939)	87
		10100-10700	G	Spec, Anal	Zamwalt	JACS	62 (1940)	305
		-	L		Stewart	JACS	76 (1954)	1259
C_3H_7ClO	2-Chloro-1-propanol	800-1200	L	Spec, Anal	Stewart	JACS	76 (1954)	1259
C_3H_7ClO	3-Chloro-1-propanol	-	-	Absorption freq Bond study	Zamwalt	JCP	7 (1939)	87
		10200-10700	G	Freq, H bond	Zamwalt	JACS	62 (1940)	305
		3μ	Sol		Flett	SA	10 (1958)	21
C_3H_7ClOS	β -Chloroethyl methyl sulfoxide	6.8-8.5 μ	-	Broad band	Price	JACS	74 (1952)	2073
$C_3H_7ClO_2S$	1-Methylethanesulphonyl chloride	-	-	Spec, Freq	Geiseler	ZE	64 (1960)	421
$C_3H_7ClO_2S$	Propanesulfonyl chloride	-	-	Spec, Assign	Geiseler	ZE	63 (1959)	1140
C_3H_7ClS	β -Chloroethyl methyl sulfide	-	L, S	Spec, Isomerism	Michiro	NKZ	80 (1959)	1084

$C_3H_7Cl_2OPS$	Isopropylphosphorodichloridothionate	600-900	L	Band assign	McIvor	CJC	37 (1959)	869
$C_3H_7Cl_2OPS$	n-Propylphosphorodichloridothionate	600-900	L	Band freq	McIvor	CJC	37 (1959)	869
$C_3H_7Cl_2PS$	Thiophosphoryl	-	-	Spec, Freq	Popov	ZOK	29 (1959)	1998
$C_3H_7Cl_3OSi$	Trichlorosilylethyl methyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_3H_7Cl_3OSi$	Trichlorosilylmethyl ethyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_3H_7Cl_3Si$	Propyltrichlorosilane	2-16 μ	Sol	Spec, Freq	Smith	SA	16 (1960)	87
$C_3H_7F_3NOB$	Dimethylformamide-boron trifluoride	-	-	Freq	Muetterties	JACS	75 (1953)	490
C_3H_7I	1-Iodopropane	0-2.5 μ	L	Spec	Ellis	PR	23 (1924)	48
		-	-	Band freq, Act energy	Fugassi	JPC	46 (1942)	630
		450-1500	-	Spec, Assign, Isomerism	Brown	TFS	50 (1954)	1164
C_3H_7I	2-Iodopropane	0-2.5 μ	L	Spec	Ellis	PR	23 (1924)	48
		-	-	Band freq, Act energy	Fugassi	JPC	46 (1942)	630
		450-1500	L	Spec, Assign	Sheppard	TFS	50 (1950)	533
C_3H_7IO	1-Iodo-2-propanol	-	L	Anal	Stewart	JACS	76 (1954)	1259
C_3H_7IO	2-Iodo-1-propanol	-	L	Anal	Stewart	JACS	76 (1954)	1259
C_3H_7N	N-Methylethylenimine	650-4000	G	Spec, Vib assign, I	Hoffman	JACS	73 (1951)	3028
C_3H_7NO	Acetone oxime	-	-	Quant mech	Bernstein	JCP	6 (1938)	719
		2700-3800	Sol	Spec, H bond	Buswel	JACS	60 (1938)	2444
		1800-1650	Sol	Freq, Ext coeff	Cross	TFS	47 (1951)	354
		-	-	Bond freq	Leonard	JACS	76 (1954)	2781
		3 μ	Sol	Freq, H bond	Flett	SA	10 (1958)	21
		3200-3800	Sol	Solvent effect, H bond	Bellamy	TFS	55 (1959)	220
C_3H_7NO	γ -Butyrolactam	1200-8000	Sol	Assign	Hecht	PRS	235A (1956)	174

C_3H_7NO	N,N-Dimethylformamide	2-15 μ 3.85-12 μ 2-15 μ 1200-8000 - - 1650-1850 - 51-59 μ	L L Sol Sol - Sol Sol,G,L Sol Sol	Spec, Solvent Spec Spec Assign Solvent Freq, I Solvent effect Bond freq I	Priester Haszeldine Piper Hecht Baudern Thompson Bellamy Baker Schulbach	APS JCS JACS PRS AC SA TFS JACS JPC	6 (1952) 54 (1954) 76 (1954) 235 (1956) 29 (1957) 13 (1958) 55 (1959) 82 (1960) 64 (1960)	29 4145 4318 174 166 236 14 1923 1956
C_3H_7NO	N-Methylacetamide	2.6-3.6 μ 2.6-3.6 μ 1.3-3.5 μ - - 2-16 μ 400-7000 2.6-3.4 μ 2 μ 1200-8000 3 μ 400-3400 2800-3000 1600-1800 900-1800 1.4-1.7 μ 2900-3500 -	L L G,L,S, Sol L,Sol - L G,L,Sol - S Sol Sol L,Sol Sol Sol Sol L,Sol Sol L,Sol Sol S,L,G Sol	Mol association Struct Assign, Thermo Dipole moment H bond Spec, Group assign Spec, Assign, H bond Shift, I, H bond Freq Freq Band pairs Spec, Assign, Freq Methyl group detection Freq Freq, Struct H bond Freq, I Solvent effect	Tsuboi Tsuboi Mizushima Mizushima Asai Davies Mizushima Fraser Hecht Russell Beer Braunholtz Hall Parsons Klotz Miyazawa Suzuki	BCSJ BCSJ JACS JACS JACS JPC TFS SA JCP PRS SA JCP JCS JACS JMS JACS JMS JCP	22 (1949) 22 (1949) 72 (1950) 74 (1952) 76 (1954) 59 (1955) 51 (1955) 7 (1955) 24 (1956) 235A (1956) 8 (1956) 29 (1958) - (1958) 80 (1958) 2 (1958) 82 (1960) 4 (1960) 32 (1960)	215 255 3490 5550 6003 322 761 100 89 174 138 1097 2780 6428 566 5241 168 1263
C_3H_7NO	Propionamide	2700-3900 - - 3100-3600 -	Sol - - Sol Sol	Spec, H bond FC Ident Spec, I Freq, I	Buswell Richards Naylor Badger Brown	JACS TFS JACS PNAS JPC	60 (1938) 44 (1948) 75 (1953) 40 (1954) 63 (1959)	2444 40 5392 12 1324
$C_3H_7NO_2$	l-Alanine	750-1750 - 6-11 μ 1358-909	- Sol Sol Sol	Spec, Freq assign Solvent effect, Spec Spec Spec	Fukushima Ellenbogen Parker Parker	SA BBA N SA	15 (1959) 39 (1960) 187 (1960) 16 (1960)	236 174 386 910
$C_3H_7NO_2$	dl-Alanine	- 400-3400	- S	Band freq Anal	Buswell Barnes	JPC AC	44 (1940) 19 (1947)	1126 620

$C_3H_7NO_2$	β -Alanine	1-12 μ - - 600-4000 667-5000 - 2-16 μ 667-5000 6-11 μ 1538-909 1350-1550	Sol - S S S - S S Sol Sol S	Spec, Assign, Group freq Bond dist, Bond freq H bond I Spec, Freq, Struct Internal study Spec Spec, Freq, Struct Spec Spec Spec Spec, Ident	Lacher Margoshes Pimentel Epp Leifer Wiberly Toribara Leifer Parker Parker Watson	JPC JCP JCP AC JACS AC	58 (1954) 22 (1954) 24 (1956) 29 (1957) 79 (1957) 29 (1957)	206 381 639 1283 5098 210
$C_3H_7NO_2$	Ethyl carbamate	- 6 μ 2-9 μ 650-4000	L S, Sol Sol Sol	Freq, H bond Freq assign Spec, Freq Spec	Davies Barr Jencks Planka	JCP JCS ABB JCS	20 (1952) - (1956) 88 (1960) - (1960)	342 3428 193 983
$C_3H_7NO_2$	N-Methylglycine	600-4000 1350-1550	S S	Spec Spec, Ident	Heacock Watson	CJC SA	34 (1956) 16 (1960)	1782 1322
$C_3H_7NO_2$	1-Nitropropane	1100-1800 2-15 μ 2-22 μ 2-15 μ - 2-15 μ	- - G, L L L G	Spec Spec, Anal IR, Assign Spec, Solvent Band freq, I Spec	Barnes Nielsen Smith Pristera Haszeldine Pierson	IEC IEC JCP APS JCS AC	15 (1943) 15 (1943) 18 (1950) 6 (1952) - (1953) 28 (1956)	659 609 706 29 2525 1218
$C_3H_7NO_2$	2-Nitropropane	2-15 μ 2-22 μ 2-15 μ 1200-2000 - 2-15 μ	- L, G L Sol L G	Spec, Anal IR, Assign Spec, Solvent Band freq Band freq, I Spec	Nielsen Smith Pristera Bender Haszeldine Pierson	IEC JCP APS JACS JCS AC	15 (1943) 18 (1950) 6 (1952) 75 (1953) - (1953) 28 (1956)	609 706 29 6304 2525 1218
$C_3H_7NO_2$	Propyl nitrile	- 2-23 μ 2-25 μ -	- G G -	Act energy, Band freq Isomerism Isomerism Anal	Fugassi D'or Tarte Levy	JPC JCP JCP JACS	46 (1942) 19 (1951) 20 (1952) 77 (1955)	630 1064 1570 2015
$C_3H_7NO_2$	sec-Propyl nitrile	2-25 μ	G	Isomerism	Tarte	JCP	20 (1952)	1570

$C_3H_7NO_2.HCl$	β -Alanine hydrogen chloride	750-1750 1350-1550	S	Freq Ident, Spec	Fukushima Watson	SA SA	15 (1959) 16 (1960)	236 1322
$C_3H_7NO_2.HCl$	N-Methylglycine hydrogen chloride	600-4000 670-5000 1350-1550	S S S	Spec Spec, Struct, Freq Spec, Ident	Heacock Leifer Watson	CJC JACS SA	34 (1956) 79 (1957) 16 (1960)	1782 5098 1322
$C_3H_7NO_2.S$	Cysteine	-	-	Band freq	Ehrlich	JACS	76 (1954)	5268
$C_3H_7NO_2.S.HCl$	Cysteine hydrochloride	- 1538-909	- Sol	Band freq Spec	Cymerman Parker	JCS SA	- (1951) 16 (1960)	1332 910
$C_3H_7NO_3$	Isopropyl nitrate	2-15 μ	Sol	Spec, Struct	Carrington	SA	16 (1960)	1279
$C_3H_7NO_3$	1-Methoxy-2-nitroethane	-	L	Band freq, I	Haszeldine	JCS	- (1953)	2525
$C_3H_7NO_3$	β -Nitropropanol	850-1600	-	Spec	Barnes	IEC	15 (1943)	659
$C_3H_7NO_3$	n-Propyl nitrate	1-7.5 μ - 2-15 μ	L - Sol	Spec, Assign Anal Spec, Struct	Plyler Levy Carrington	PR JACS SA	34 (1929) 77 (1955) 16 (1960)	599 2015 1279
$C_3H_7NO_3$	d-Serine	-	-	Ident	Hidy	JACS	77 (1955)	2345
$C_3H_7NO_3$	l-Serine	- -	S Sol	Ident Spec, Solvent effect	Fusari Ellenbogen	JACS BBA	76 (1954) 39 (1960)	2881 174
$C_3H_7NO_3$	dl-Serine	- 600-4000 6-11 μ	- S Sol	Ident Ident Spec	Hidy Epp Parker	JACS AC N	77 (1955) 29 (1957) 187 (1960)	2345 1283 386
$C_3H_7NO_5.H_2O$	l-Cysteic acid, Hydrate	1540-900	Sol	Spec	Parker	SA	16 (1960)	910
C_3H_7NS	Thiopropionamide	689-3375	S	Freq, Table	Marvel	JACS	77 (1955)	5997
$C_3H_7N^+O_2^-.HCl$	d-Serineamide hydrochloride	-	-	Ident, Spec	Hidy	JACS	77 (1955)	2345
$C_3H_7N^+O_2^-.HCl$	l-Serineamide hydrochloride	-	-	Ident, Spec	Hidy	JACS	77 (1955)	2345
$C_3H_7N_3$	2-Aminoimidazoline	800-3500	S	Spec	Goto	BCSJ	30 (1957)	723
$C_3H_7N^+O_3^-$	Acetaldehyde semicarbazone	700-3500	S	Assign, Ident	Davison	JCS	- (1955)	3389

$C_3H_7N_5$	1,3-Dimethyl-5-iminotetrazole	-	-	Complex const	Henry	JACS	76 (1954)	2894
$C_3H_7N_5$	1,4-Dimethyl-5-iminotetrazole	2-6.6 μ	S	Band Freq	Murphy	JOC	19 (1954)	1807
$C_3H_7N_5$	1-Methyl-5-methylamino-tetrazole	2-6.6 μ	S	Band freq	Murphy	JOC	19 (1954)	1807
$C_3H_7N_5.HCl$	1,4-Dimethyl-5-imino-tetrazole hydrochloride	2-6.6 μ	S	Bond freq	Murphy	JOC	19 (1954)	1807
$C_3H_7N_5.HNO_3$	1-Ethyl-5-aminotetrazole nitrate	2-15 μ	S	Spec	Garri son	JOC	22 (1957)	278
$C_3H_7N_5O_2$	Nitrogenylhydrazone of acetaldehyde	2-15 μ	S	Spec, Freq	Lieber	AC	23 (1951)	1594
$C_3H_7N_5O_3$	1-Acetamido-3-nitroguanidine	2-15 μ	S	Spec, Freq	Lieber	AC	23 (1951)	1594
$C_3H_7O_3S$	n-Propane-1-sulfonate	500-4000	S	Stretch freq	Fujimori	BCSJ	32 (1959)	850
C_3H_8	Propane	20.7-152 μ	G	Spec	Strong	PR	42 (1932)	267
		-	-	Bond freq	Mecke	TFS	30 (1934)	200
		-	-	Thermo	Beeck	JCP	4 (1936)	680
		-	-	Thermo	Kassel	JCP	4 (1936)	435
		-	-	Thermo	Kassel	JCP	4 (1936)	276
		-	G	Reft index, Density	Keyes	CR	19 (1936)	195
		-	-	FC, IR	Bonner	JCP	5 (1937)	293
		-	-	Freq assign	Edsall	JCP	5 (1937)	225
		-	-	Freq	Kirkwood	JCP	7 (1939)	506
		-	-	Thermo	Kistiakowsky	JCP	8 (1940)	610
		-	G	Thermo, Chem equil review	Pitzer	CR	27 (1940)	39
		-	-	Freq, Thermo	Pitzer	JCP	8 (1940)	711
		1.37-35 μ	G	Spec, Assign	Wh	JCP	9 (1941)	487
		-	-	Thermo	Pitzer	JCP	10 (1942)	605
		-	-	Internal rot	Aston	JCP	12 (1944)	336
		-	-	Thermo	Pitzer	JCP	12 (1944)	310
		-	G	Anal	Jones	IEC	17 (1945)	349
		-	-	Freq	Kellner	TFS	41 (1945)	217
		-	-	FC, Assign	Ahonen	JCP	14 (1946)	625

	-	-	Pot barrier	French	JCP	14	(1946)	389
	-	-	Ext coeff, Anal	Lee	IEC	18	(1946)	659
	-	-	Spec, Press broadening	Coggshall	JCP	15	(1947)	65
	-	-	FC	Ramsay	PRS A190	(1947)	245	
	-	-	Press broadening, Anal	Seyfried	IEC	19	(1947)	298
	-	-	Vib freq	Taylor	JRNB	38	(1947)	1
	-	-	Quant mech, Assign	Decius	JCP	16	(1948)	1025
	20-37 μ	G	Spec	Hyde	JCP	16	(1948)	744
	-	-	Assign	Rasmussen	JCP	16	(1948)	712
	2-15 μ	G	Spec, Assign	Friedman	JCP	17	(1949)	1012
	27 μ	G	Spec, Assign	Gates	JCP	17	(1949)	393
	-	-	Electrostatic theory	Lassette	JCP	17	(1949)	317
	2-15 μ	G	Spec, Assign	McMurry	JCP	17	(1949)	918
	-	G	Anal	Milson	AC	21	(1949)	547
	2-15 μ	G	Spec, Assign	McMurry	JCP	18	(1950)	1515
	-	G	Anal	O'Neal	AC	22	(1950)	991
	-	G	Anal	Stroupe	AC	22	(1950)	1125
	-	-	Freq	Barrow	JCP	19	(1951)	345
	2-15 μ	G	Spec, Assign	McMurry	JCP	19	(1951)	1014
	-	G	Emission glow discharge	Talley	JOSA	42	(1952)	982
	2-16 μ	G	Spec	Thompson	JPC	56	(1952)	243
	-	-	Freq	Mizushima	JCP	21	(1953)	215
	10-15 μ	G	Spec	Patterson	AC	26	(1954)	823
	-	-	Rocking freq	Corish	JCS	-	(1955)	2431
	-	-	Freq correction	Sheppard	JCP	23	(1955)	582
	2-10 μ	G	Anal	Littman	AC	28	(1956)	945
	2-15 μ	G	Spec	Pierson	AC	28	(1956)	1218
	-	-	Press modulation	Gilfert	JOSA	48	(1958)	765
	700-1200	G,L	Rocking freq	Novak	TFS	55	(1959)	1484
	700-3500	L	Spec, Freq	Comeford	JMS	5	(1960)	474
	-	G	Micro spec, Struct, Dipole	Lide	JCP	33	(1960)	1514
	700-1200	G	Freq	Randic	TFS	36	(1960)	1
CC ₂ ¹³ H ₈	-	-	FC, Isotopic effect	Bigeleisen	JCP	17	(1949)	344
C ₃ H ₈ ClOPS	400-830	L	Band assign	McIvor	CJC	37	(1959)	869
C ₃ H ₈ ClOPS	-	-	Spec	Popov	ZOK	29	(1959)	1998
C ₃ H ₈ Cl ₂ Si	2-16 μ	Sol	Freq, Spec, Struct	Smith	SA	16	(1960)	87

$C_3H_8Cl_2Si$	Isopropylchloro- silane	2050-2250	Sol	Freq, Struct	Smith	SA	15 (1959)	412
$C_3H_8N_2$	Methylenedimethyl- hydrazine	2-15 μ 2-15 μ	G G	Spec Spec	Olsen Pierson	JCP AC	24 (1956) 28 (1956)	1106 1218
$C_3H_8N_2O$	N,N-Dimethylurea	3 μ	Sol	Freq	Russell	SA	8 (1956)	138
$C_3H_8N_2O$	N,N'-Dimethylurea	- 3-7 μ 1600-1800	Sol S Sol	Freq, Vib H bond Bond freq	Becher Sekine Hall	NWS KKZ JACS	43 (1956) 60 (1957) 80 (1958)	467 657 6428
$C_3H_8N_2O_6$	Urea oxalate	-	S	H bond	Pimental	JCP	24 (1956)	639
$C_3H_8N_4O$	N-Ethyl-N'-nitroguanidine	2-15 μ	S	Spec, Freq	Lieber	AC	23 (1951)	1594
$C_3H_8N_4O_2$	N-Methylene-bis-(N-methyl- diimide) dioxide	600-1600	L, Sol	Freq	George	CJC	37 (1959)	679
$C_3H_8N_6O_3$	Guanidine carbonate	800-3500	S	Spec	Goto	BCSJ	30 (1957)	723
C_3H_8O	Ethyl methyl ether	-	-	Act energy, Band freq	Fugassi	JPC	46 (1942)	630
C_3H_8O	1-Propanol	.6-1.35 μ - .8-2.5 μ 1-8 μ - .9-4 μ 2.8-6.2 μ - 1050-1800 - 2-40 μ 720-750 2.7-3.2 μ 3100-3700 2800-3000 2-34 μ - 3100-3700	L - L L G L, Sol L, Sol G - G L Sol L Sol G, Sol Sol Sol Sol	Conc variation Bond freq, Absorption Spec Spec, Assign Spec Spec, H bond Spec, Table, Band freq Bond study Anal, Spec Anal Spec Band freq H bond H bond, I Stretch freq, Spec Spec, Assign Bond freq, H bond Solvent effect, Ext coeff Bond freq	Hulburt Bonino Sappenfield Plyler Badger Kinsey Williams Zumwalt Barnes Anderson Plyler Wiberly Coggeshall Francis Pozefsky Plyler Haszeldine Stuart	JPC TFS PR PR JCP JCP JPC JACS IEC AC PR AC JACS JCP AC JRN JCS JCP	21 (1917) 25 (1929) 33 (1929) 35 (1930) 4 (1936) 5 (1937) 41 (1937) 62 (1940) 15 (1943) 20 (1948) 74 (1948) 22 (1950) 73 (1951) 19 (1951) 23 (1951) 48 (1952) - (1953) 21 (1953)	150 876 37 605 711 399 645 305 659 998 1247A 841 5414 505 1611 281 1757 1115
		665-5000	L	Bond freq	Zeiss	JACS	75 (1953)	897

C_3H_8O	2-Propanol	-	Sol	Freq shift	Josien	JCP	22 (1954)	1169
		-	L	Bond comparisons	Mosher	AC	27 (1955)	517
		350-4000	L, G, Sol	Spec, Band	Stuart	JCP	24 (1956)	559
		2-15 μ	G	Spec, Quant anal	Friedel	AC	29 (1957)	1362
		-	G	Bending freq	Tarte	JCP	26 (1957)	962
		3 μ	Sol	Freq, H bond	Flett	SA	10 (1958)	21
		3570-3700	Sol	I, Freq	Flynn	AJC	12 (1959)	575
		-	-	Absorption band assign	Michinori	BCSJ	32 (1959)	950
		700-4000	Sol	Freq, Ext coeff	DeMaine	CJC	38 (1960)	1921
		-	-	Absorption coeff	Bonino	TFS	25 (1929)	876
		.8-2.9 μ	L	Spec	Sappenfield	PR	33 (1929)	37
		1-8 μ	L	Spec, Assign	Plyler	PR	35 (1930)	605
		6900-7200	Sol	Spec, Anal	Wulf	JACS	57 (1935)	1464
		-	G	Spec	Badger	JCP	4 (1936)	711
		-	-	Thermo	Schumann	JCP	6 (1938)	485
		1050-1800	-	Spec	Barnes	IEC	15 (1943)	659
		-	-	Internal rot	Aston	JCP	12 (1944)	336
		-	-	Anal	Anderson	AC	20 (1948)	998
		7-14 μ	-	Formation of hemiacetals	Ashdown	JCS	- (1948)	1454
		800-4000	L	Mass spec	Codon	JCP	19 (1951)	1010
		2800-3000	Sol	Spec, Stretch freq	Pozefsky	AC	23 (1951)	1611
		15-25 μ	L	Opaque	Marrison	JSI	29 (1952)	233
		2-16 μ	L	Spec, Solvent	Anderson	JOSA	43 (1953)	221
		-	Sol	H bond, Bond freq	Haszeldine	JCS	- (1953)	1757
		665-5000	L	Bond freq	Zeiss	JACS	75 (1953)	897
		-	-	Freq correct	Sheppard	JCP	23 (1955)	582
		-	-	Freq, Shift, I	Finch	JCP	24 (1956)	908
		350-4000	L, Sol	Band	Stuart	JCP	24 (1956)	559
		2-15 μ	G	Spec, Quant anal	Friedel	AC	29 (1957)	1362
		-	G	Bending freq	Tarte	JCP	26 (1957)	962
		3 μ	Sol	H bond, Bond freq	Flett	SA	10 (1958)	21
		3100-3550	Sol	H bond	Lund	ACS	12 (1958)	298
		3570-3700	Sol	Freq, I	Flynn	AJC	12 (1959)	575
		-	-	Absorption band assign	Michinori	BCSJ	32 (1959)	950
		700-4000	Sol	Freq, Ext coeff	DeMaine	CJC	38 (1960)	1921
$C_3H_8O_2$	Dimethoxymethane	3-33 μ	G, Sol	Spec, Freq assign	Wilmshurst	CJC	36 (1958)	285
		700-5000	L, Sol	Group freq	Briggs	AC	29 (1957)	904
		-	G, L	Freq	Kenkichi	NKZ	80 (1959)	1112
$C_3H_8O_2$	Isopropyl hydroperoxide	5-15 μ	Sol	Spec, Band	Minkoff	PRS	224 (1954)	176
$C_3H_8O_2$	2-Methoxyethanol	10300-10700	G	Bond study	Zumwalt	JACS	62 (1940)	305
		825-1500	-	Spec	Barnes	IEC	15 (1943)	659

$C_3H_8O_2$	1,2-Propanediol	2400-4000 2.6-3.1 μ 15-25 μ 700-1500 - 863-1131	- Sol Sol - L Sol	Spec, Band freq Group freq H bond, Bond freq Isomerism Rocking freq Spec, H bond H bond Opaque Spec, Ident Spec Anal	Klemperer Briggs Flett Kuhn Miyake Barnes Wall Marrison Shay Boulliet Pinchas	JACS AC SA ZAC JACS	74 (1952) 29 (1957) 10 (1958) 170 (1959) 82 (1960)	3425 904 21 106 3040
$C_3H_8O_2$	1,3-Propanediol	-	-	Bond freq, Absorption coeff	Bonino	TFS	25 (1929)	876
$C_3H_8O_2$	n-Propyl hydroperoxide	3 μ	Sol	Spec, Freq	Kuhn	JACS	74 (1952)	2492
$C_3H_8O_2S$	Methyl ethyl sulfone	-	L	Group freq	Mosher	AC	27 (1955)	517
$C_3H_8O_3$	Glycerol	1000-1500 52 μ	Sol L	Spec Absorption	Schreiber Hollnagel	AC PR	21 (1949) 11 (1918)	1168 505
$C_3H_8O_3$	1-Hydroxy-1-hydroperoxy- propane	4-27mm - 5-7.5 μ 0-8.7 μ 2400-4000 52-152 μ - 6.2 μ 700-1500 - 2.5-3.5 μ	L - L - - L - L, Sol L - S	Ext coeff, Refract index Ext coeff, Bond freq Absorption Dispersion Spec, H bond Dispersion Ext coeff Spec, Table, Band freq Spec, Ident Solvent effect No. of OH groups	Tear Bonino Cartwright Korff Barnes Cartwright Errera Williams Shay Matheson Kabasakalian	PR TFS PR RMP JCP PRS TFS JPC AC AC AC	21 (1923) 25 (1929) 35 (1930) 4 (1932) 4 (1936) 154 (1936) 33 (1937) 41 (1937) 26 (1954) 30 (1958) 31 (1959)	611 876 415 471 722 138 120 645 652 63 375
$C_3H_8O_3$	1-Hydroxy-1-hydroperoxy- propane	5-15 μ	Sol	Spec, Peroxide bands	Minkoff	PRS	224 (1954)	176
$C_3H_8O_3$	1-Hydroxy-1-methylperoxy- ethane	5-15 μ	Sol	Spec, Peroxide bands	Minkoff	PRS	224 (1954)	176
C_3H_8S	Ethyl methyl sulfide	500-1700	L	Spec, Assign	Trotter	JCS	- (1946)	481

C_3H_8S	Isopropyl mercaptan	1000-1500 - 2800-3000 - - 2-25 μ 3-14 μ 653-1456 200-1500	Sol L,S Sol L - L - G,L,S -	Spec No evidence of isomerism Spec, Stretch freq Table, Bond freq, Thermo Group freq, Stretch freq Spec Comparison Freq, Iso Freq, Assign, Struct	Schreiber Rank Pozefsky Scott Brandt Haines Coleman Hayashi Scott	AC JCP AC JACS JCS JPC AC JCP JACS	21 18 23 73 - 58 28 26 80	(1949) (1950) (1951) (1951) (1952) (1954) (1956) (1957) (1958)	1168 392 1611 261 2549 270 1380 608 3554
C_3H_8S	n-Propyl mercaptan	500-1700 - - 2800-3000 262-2950 - 2500-2700 200-1500	G - - Sol G,L - Sol -	Spec, Assign Bond freq Freq, Assign Stretch freq, Spec Spec, I, Assign IR, Mass spec I, Dimerization Freq, Assign, Struct	Trotter Sheppard Sheppard Pozefsky McCullough Haines Spurr Scott	JCS TFS TFS AC JACS JPC JPC JACS	- 46 46 23 76 60 62 80	(1946) (1950) (1950) (1951) (1954) (1956) (1958) (1958)	481 429 533 1611 4796 549 425 3554
C_3H_8S	1,1-Propanedithiol	2.5-15 μ	L	Bond study	Ellis	JACS	50	(1928)	2113
$C_3H_8S_2$	2,2-Propanedithiol	2.75-4.25 μ 500-1700 - 2800-3000 3-14 μ - 2500-2700 2300-2700	L G - Sol - - Sol L,Sol	Bond freq Assign, Spec IR, Freq, FC Stretch freq, Spec Comparison Stretch, Vib, Shift I, Absorption coeff Struct	Williams Trotter Sheppard Pozefsky Coleman Benson Spurr Bulanin	PR JCS TFS AC AC JCP JPC OS	54 - 46 23 28 27 62 6	(1938) (1946) (1950) (1951) (1956) (1957) (1958) (1959)	504 481 429 1611 1380 1164 425 754
$C_3H_9S_2$	Trimethylammonium-fluoroborate-d ₁	2.5-15 μ	L	Spec, Band freq	Cairns	JACS	74	(1952)	3982
C_3H_9	Trimethylammonium iodide-d ₁	400-4000	S	Assign	Ebsworth	SA	13	(1959)	261
C_3H_9DSi	Trimethylsilane-d ₁	400-3500	G	Assign	Ball	SA	16	(1960)	1358
C_3H_9BrSi	Bromotrimethylsilane	-	-	Assign, NCA, Table, Freq	Tobin	JACS	75	(1953)	1788
$C_3H_9Br^{79}Si$	Bromotrimethylsilane (isotopic)	-	G	Microwave	Ollom	JCP	24	(1956)	487

$C_3H_9Br^{81}Si$	Bromotrimethylsilane (isotopic)	-	G	Microwave	Ollom	JCP	24 (1956)	487
$C_3H_9Br_2P$	Trimethylphosphorus dibromide	-	-	Spec, FC	Goubeau	ZE	64 (1960)	598
$C_3H_9Br_3NB$	Tribromotrimethyl- aminoborane	2-16 μ	Sol	Absorption band	Osthoﬀ	JACS	73 (1951)	4045
$C_3H_9ClO_3Si$	Trimethoxychlorosilane	2-25 μ	-	Assign	Forneris	ZE	62 (1958)	1130
$C_3H_9Cl_3Si$	Chlorotrimethylsilane	-	-	Assign, FC	Duchesne	JCP	16 (1948)	1006
		-	-	Assign	Shimanouchi	JCP	18 (1950)	1306
		-	-	Assign, NCA, Table	Smith	JCP	21 (1953)	1997
		2-25 μ	G	Spec, Assign	Tobin	JACS	75 (1953)	1788
		400-5000	Sol	Ident	Smith	AC	31 (1959)	1174
		-	L	NCA	Shimizu	JMS	4 (1960) ^A	201
		2-16 μ	Sol	Spec, Freq, Struct	Smith	SA	16 (1960)	87
$C_3^{12}H_9Cl^{35}Si^{28}$	Chlorotrimethylsilane (isotopic)	-	-	Microwave	Mockler	JCP	21 (1953)	1710
$C_3^{12}H_9Cl^{37}Si^{28}$	Chlorotrimethylsilane (isotopic)	-	-	Microwave	Mockler	JCP	21 (1953)	1710
$C_3H_9Cl_2P$	Trimethylphosphorus dichloride	-	-	Spec, FC	Goubeau	ZE	64 (1960)	598
$C_3H_9Cl_3NB$	Trimethylamine boron trichloride	-	-	Freq assign Spec	Katritzky Katritzky	JCS	- (1959)	2049
		600-3500	S			JCS	- (1960)	1772
$C_3H_9Cl_3N_3B_3$	β -Trichloro-N-trimethyl- borazole	-	S	Assign, NCA, I, Freq	Watanabe	SA	19 (1960)	78
C_3H_9FSi	Fluorotrimethylsilane	27-41 Mc/sec	G	Struct, Microwave	Gounton	JCP	22 (1954)	1942
$C_3H_9F_3NB$	Trimethylamine boron trifluoride	-	-	Freq, FC Freq assign	Kriegsmann Katritzky	ZAWA	294 (1958)	113
		-	-			JCS	- (1954)	2049
C_3H_9IOS	Dimethylsulfoxide methiodide	650-4000	S	Assign, Spec	Cotton	JPC	64 (1960)	1534
C_3H_9ISI	Iodotrimethylsilane	-	G	Microwave	Rexroad	JCP	24 (1956)	625

$C_3H_9I_2P$	Trimethylphosphorus diiodide	-	-	Spec, FC	Goubeau	ZE	64	(1960)	598
C_3H_9N	Isopropylamine	-	-	Freq correction	Sheppard	JCP	23	(1955)	582
	2-8 μ	Sol		Spec	Nakanishi	BCSJ	30	(1957)	403
	3000-4000	Sol		Bond freq, I	Orville	JCS	-	(1958)	1047
	2-15 μ	L, G, Sol		Bond freq, NCA, Assign	Stewart	JCP	30	(1959)	1259
$C_3H_9N.HCl$	Isopropylamine hydrochloride	2-8 μ	Sol	Spec	Nakanishi	BCSJ	30	(1957)	403
C_3H_9N	n-Propylamine	1-12 μ	L	Spec, Bond study	Bell	JACS	49	(1927)	1837
	.6-1.8 μ	L		Bond study	Ellis	JACS	50	(1928)	685
	.8-2.5 μ	L		Spec	Shapenfield	PR	33	(1929)	37
	3000-4000	Sol, G		Bond freq, I	Orville	JCS	-	(1958)	1047
	2-15 μ	L, G, Sol		Bond freq, Assign	Stewart	JCP	30	(1959)	1259
C_3H_9N	Trimethylamine	-	-	Freq assign	Edsall	JCP	5	(1937)	225
	-	-		Thermo, Assign	Aston	JACS	66	(1944)	1171
	-	-		Pot barrier	French	JCP	14	(1946)	389
	-	-		FC, Bond dist	Gordy	JCP	14	(1946)	305
	-	-		FC, Theory	Sheline	JCP	18	(1950)	602
	-	-		Freq	Weston	JACS	76	(1954)	2645
	4520-400	G		Freq assign, FC, Band freq	Barcelo	SA	8	(1956)	27
	2-15 μ	G		Spec, Threshold values	Pierson	AC	28	(1956)	1218
	1.2-24K Mc/sec	G		Spec, Non resonance	Birnbaum	JCP	27	(1957)	360
	2800-3000	G		Methyl group detection	Braunholtz	JCS	-	(1958)	2780
	-	G		Spec, Mol const	Lide	JCP	28	(1958)	572
	2-25 μ	G		Spec	Bauer	JMS	3	(1959)	132
	180-535	G		Assign, Freq, I, Wave no	Lorenzelli	CPR	249	(1959)	239
	7-25K Mc/sec	G		Absorption coeff, Mol const	Illias	CPR	250	(1960)	1833
	30-50 μ	G		Spec, Mol const	Robinson	JCP	32	(1960)	556
$C_3H_9N.HCl$	n-Propylamine hydrochloride	-	-	Ident	Wiesner	JACS	75	(1953)	6348
	2-8 μ	Sol		Spec	Nakanishi	BCSJ	30	(1957)	403
$C_3H_9N.HCl$	Trimethylamine hydrochloride	2-8 μ	Sol	Spec	Nakanishi	BCSJ	30	(1957)	403
	1350-1550	S		Spec, Ident	Watson	SA	16	(1960)	1322
C_3H_9NO	N-Methyl-2-aminoethanol-1	-	Sol	Group freq, H bond, I	Bergmann	JACS	75	(1953)	68
	-	-		Isomerism	Kuhn	ZAC	170	(1959)	106

C_3H_9NO	Trimethylamine oxide	-	-	Binding force	Goubeau	ZAC 258 (1949)	18
C_3H_9NO	Trimethylhydroxylamine	420-4000	G, L, Sol	Assign, Spec	Davies	JCS - (1959)	3971
$C_3H_9N_3$	N,N-Dimethylguanidine	800-3500	S	Spec, Charge distribution	Goto	BCSJ 30 (1957)	723
$C_3H_9N_3$	N,N'-Dimethylguanidine	800-3500	S	Spec, Charge distribution	Goto	BCSJ 30 (1957)	723
$C_3H_9N_3 \cdot HCl$	N,N-Dimethylguanidine hydrochloride	800-3500	S	Spec	Goto	BCSJ 30 (1957)	723
$C_3H_9N_3O_2$	Guanidine acetate	-	S	Band freq	Pickard Goto	JACS 76 (1954)	5167
		800-3500	S	Spec		BCSJ 30 (1957)	723
$C_3H_9N_3S$	4,4-Dimethylthiosemi-carbazide	700-1700	S	Spec, Struct, Assign,	Lieber	CJC 36 (1958)	801
$C_3H_9N_3S$	4-Ethylthiosemicarbazide	700-1700	S	Spec, Struct, Assign,	Lieber	CJC 36 (1958)	801
C_3H_9OP	Trimethylphosphine oxide	2-21 μ 450-5000	S S	Spec Assign	Daasch	AC 23 (1951)	853
		-	-	Freq	Daasch	JCP 19 (1951)	22
		800-1400	S	Freq	Bell	JACS 76 (1954)	5185
		650-4000	S, G	Spec	Cotton	JCS - (1960)	2199
					Gaubeau	ZAU A 304 (1960)	147
C_3H_9OB	Dimethylmonomethoxyborine	250-4000	-	Spec, Assign	Goubeau	ZPC 20 (1959)	15
$C_3H_9O_2PS$	Ethylmethylphosphonothioic acid	740-1500	Sol	Assign	McIvor	CJC 37 (1959)	869
$C_3H_9O_2B$	Monomethyldimethoxyborine	250-4000	-	Spec, Assign	Goubeau	ZPC 20 (1959)	15
$C_3H_9O_3P$	Dimethyl methylphosphonate	2-25 μ	L	Spec, Table, Struct Shift	Meyrick Bell	JCS - (1950)	225
		-	-			JACS 76 (1954)	5185
$C_3H_9O_3P$	Trimethylphosphite	2-25 μ	L	Spec, Table, Struct	Meyrick	JCS - (1950)	225
$C_3H_9O_3PS$	Trimethylthionophosphate	2-21 μ	L	Spec, Struct anal	Daasch	AC 23 (1951)	853
$C_3H_9O_3B$	Trimethoxyborane	400-3000	L, G	Spec, Assign, Normal vib	Servoss	JCP 26 (1957)	1179

$C_3H_9O_3B$	Trimethylborate	670-1800	S	Spec, Freq	Werner	AJC	8 (1955)	355
$C_3H_9O_3B_3$	Trimethylmetaboric acid	250-4000	-	Spec, Assign	Goubeau	ZPC	20 (1959)	15
$C_3H_9O_3P$	Ethoxymethoxyhypophosphorous acid	2-15 μ 2-15 μ	G G	Spec, Freq assign Freq assign	Lehmann Lehmann	JPC	30 (1959) 30 (1959)	1219 1215
$C_3H_9O_4P$	Ethylmethyl phosphate	2-21 μ	L	Spec, Struct anal Bond freq	Daasch Bell	AC JACS	23 (1951) 76 (1954)	853 5185
$C_3H_9O_4P$	Trimethylphosphate	2-21 μ	Sol	Spec, Struct anal	Daasch	AC	23 (1951)	853
		-	Sol	Band & group freq	Bergmann	JCS	- (1952)	847
		-	-	Shift, Bond freq	Bell	JACS	76 (1954)	5185
		450-1600	L, S	Spec, Assign, Freq, Isomerism	Mortimer	SA	9 (1957)	270
C_3H_9P	Trimethylphosphine	3-20 μ	G	Spec	Wagstaffe	TFS	40 (1944)	41
		-	-	Pot barrier	French	JCP	14 (1946)	389
		-	-	FC, Bond dist	Gordy	JCP	14 (1946)	305
		-	-	FC, Theory	Sheline	JCP	18 (1950)	602
		-	-	Freq correction	Daasch	AC	23 (1951)	853
		14.1-15.3 μ	-	Band freq	Daasch	JCP	19 (1951)	22
		-	-	Freq	Weston	JACS	76 (1954)	2645
		-	-	Bond freq	Sheppard	TFS	51 (1955)	1465
		-	-	Assign, Mol const, Struct	Lide	JCP	29 (1958)	914
		650-5000	G	Spec, Assign	Helmann	SA	16 (1960)	407
C_3H_9PS	Trimethylphosphine sulphide	-	-	IR	Hooge	RTC	77 (1958)	911
$C_3H_9PS_4$	Ethylmethylphosphono-tetrathioic acid	1950-2650	L, Sol	H bond	Alford	CIL	- (1959)	514
$C_3H_9PS_4$	Trimethylphosphoro-tetrathioate	2-25 μ	-	Spec, Struct	Menefee	JOC	22 (1957)	792
C_3H_9S	Trimethylsulfonium ion	-	-	Freq	Weston	JACS	76 (1954)	2645
C_3H_9AS	Trimethylarsine	-	-	FC, Bond dist	Gordy	JCP	14 (1946)	305
		-	-	FC, Theory	Sheline	JCP	18 (1950)	602
		-	-	Confirmed purity	Ayscough	JCS	- (1954)	3381
		-	-	Freq	Weston	JACS	76 (1954)	2645

	-	-	Bond freq Mol const, Internal rot	Sheppard Lide	TFS	51 (1955)	1465
	18-29K	G			SA	15 (1959)	473
	Mc/sec						
C_3H_9B	-	-	Pot barrier	French	JCP	14 (1946)	389
Trimethylborane	2-20 μ	G	Spec, Assign	Goubeau	ZAJA	268 (1952)	1
	-	-	FC, Assign	Siebert	ZAJA	268 (1952)	13
	2-40 μ	G	Spec, Assign, Struct	Stewart	JRNB	56 (1956)	337
	2-15 μ	G	Freq, Assign	Lehmann	JCP	28 (1958)	777
$C_3H_9B^{10}$	2-15 μ	G	Freq, Assign	Lehmann	JCP	28 (1958)	777
Trimethylborane (isotopic)							
C_3H_9BrN	-	S	H bond, Band freq	Nuttall	JCS	- (1960)	4965
Trimethylammonium bromide							
$C_3H_{10}ClNO$	400-4000	-	Spec, FC	Frasco	DA	19 (1958)	1219
Trimethylhydroxylammonium chloride							
$C_3H_{10}ClNO_4$	-	S	H bond, Band freq	Nuttall	JCS	- (1960)	4965
Trimethylammonium perchlorate							
$C_3H_{10}ClNB$	600-3500	S, L	Spec	Kynaston	JCS	- (1960)	1772
Trimethylammonium tetra- chloroborate							
$C_3H_{10}FNB$	-	S	H bond, Bond freq	Nuttall	JCS	- (1960)	4965
Trimethylammonium tetra- fluoroborate							
$C_3H_{10}F_6NP$	-	S	H bond, Bond freq	Nuttall	JCS	- (1960)	4965
Trimethylammonium hexafluoro- phosphate							
$C_3H_{10}IN$	400-4000	S	Assign	Ebsworth	SA	13 (1959)	261
Trimethylammonium iodide	-	S	H bond, Bond freq	Nuttall	JCS	- (1960)	4965
$C_3H_{10}N$	-	-	Freq, Assign	Edsall	JCP	5 (1937)	225
Trimethylammonium ion							
$C_3H_{10}NO_2PS$	-	-	Spec, Freq	Popov	ZOK	29 (1959)	1998
Thiophosphorylmethylamino- dimethoxy halide							
$C_3H_{10}N_2$	700-3500	G, L	IR, Freq, Assign	Shull	JCP	22 (1954)	1191
Trimethylhydrazine	307-3405	-	Thermo, Table	Aston	JACS	77 (1955)	281
	2-15 μ	G	Spec	Olsen	JCP	24 (1956)	1106
	2-15 μ	G	Spec, Threshold values	Pierson	AC	28 (1956)	1218

$C_3H_{10}OSi$	Trimethylsilanol	2-16 μ	Sol	Spec, H bond, Group freq Bond freq Freq H bond	Tatlook Kantor Kriegsmann West	JOC 17 (1952) JACS 75 (1953) ZAU A 294 (1958) JACS 81 (1959)	1555 2712 113 6145
$C_3H_{10}OSi$	Trimethoxysilane	2050-2250	Sol	Freq shift, Struct	Smith	SA 15 (1959)	412
$C_3H_{10}Si$	Trimethylmercaptoposilane	-	-	Freq, FC	Kriegsmann	ZAU A 294 (1958)	113
$C_3H_{10}Si$	Trimethylsilane	2-16 μ	G	Spec, Group freq	Kaye	JOC 18 (1953)	1750
		-	-	Group freq, Thermo	Tannenbaum	JACS 75 (1953)	3753
		2-16 μ	G	Spec not shown	White	JACS 76 (1954)	3897
		400-3500	G	Assign	Ball	SA 16 (1960)	1358
		-	G	Micro spec, Struct, Dipole	Pierce	JCP 33 (1960)	907
$C_3H_{12}NB$	Trimethylamine borine	-	-	Absorption freq	Price	JCP 17 (1949)	1044
$C_3H_{12}NB$	Trimethylborane ammoniate	250-300	-	Spec	Goubeau	ZAU A 268 (1952)	1
$C_3H_{12}NB$	Trimethylaminoboron	2-15 μ	L	Freq, Assign	Aubrey	JCS - (1960)	5239
$C_3H_{12}NB_3$	N-Trimethylborazole	-	-	Absorption freq	Price	JCP 17 (1949)	1044
$C_3H_{12}NB_3$	Guanidine carbonate	2.2-4.2 μ	S	Spec	Buswell	JPC 46 (1942)	575
		-	S	Bond freq	Pickard	JACS 76 (1954)	5169
		800-3500	Sol	Spec	Goto	BCSJ 30 (1957)	723
$C_3H_{12}O_3$	Methanol (trimer)	2700-3700	-	H bond, Stretch bond	Thiel	JCP 27 (1957)	95
$C_3H_{12}O_3Si_3$	Cyclotrimethylsiloxane	2050-2250	Sol	Freq, Struct	Smith	SA 15 (1959)	412
$C_3H_{12}NB$	Trimethylamine borine complex	-	-	Freq assign	Katritzky	JCS - (1959)	2049
$C_3H_{12}B_2$	Trimethyldiborane	-	-	Spec, Struct Freq	Cowan Shapiro	JCP 17 (1949) JCP 29 (1958)	218 237
$C_3H_{15}NSi_3$	Tri-(methylsilyl) nitride	1500-2850	-	Spec, Assign	Ebsworth	JCS - (1958)	1453
C_3DN	Cyanoacetylene-d ₁	-	-	Mol const, Inertia	Westenberg	JACS 72 (1950)	199
C^{13}_2DN	Cyanoacetylene-d ₁ (isotopic)	-	-	Mol const, Inertia	Westenberg	JACS 72 (1950)	199

$C_2C^{13}DN$	Cyanoacetylene-d ₁ (isotopic)	-	-	Mol const, Inertia	Westenberg	JACS 72 (1950)	199
$C_2C^{13}DN$	Cyanoacetylene-d ₁ (isotopic)	-	-	Mol const, Inertia	Westenberg	JACS 72 (1950)	199
C_3DN^{15}	Cyanoacetylene-d ₁ (isotopic)	-	-	Mol const, Inertia	Westenberg	JACS 72 (1950)	199
$C_3D_2Cl_6O_2$	$\alpha, \alpha, \alpha', \alpha', \alpha', \alpha'$ - Hexachloro- acetone hydrate-d ₂	S	-	Freq, Spec	Anderson	SA 12 (1958)	233
$C_3D_3Cl^{35}$	Methylchloroacetylene-d ₃ (isotopic)	-	-	Microwave	Costain	JCP 23 (1955)	2037
$C_3D_3Cl^{37}$	Methylchloroacetylene-d ₃ (isotopic)	-	-	Microwave	Costain	JCP 23 (1955)	2037
$C^{13}C_2D_2Cl^{35}$	Methylchloroacetylene-d ₃ (isotopic)	-	-	Microwave	Costain	JCP 23 (1955)	2037
$CC^{13}CD_3Cl^{35}$	Methylchloroacetylene-d ₃ (isotopic)	-	-	Microwave	Costain	JCP 23 (1955)	2037
$C_3D_3NO_3$	Cyanuric acid-d ₃	S	-	Spec, Assign, Polariza- tion	Newman	JACS 74 (1952)	3545
C_3D_4	Allene-d ₄	G	-	Vib anal, Spec	Lord	JCP 20 (1952)	1237
		-	-	Microwave absorption	Mizushima	BAPS 27 (1952)	11A
		G	-	Spec, Band freq	Overend	JOSA 43 (1953)	1065
		G	-	Spec, Vib assign, Table	Overend	TFS 52 (1956)	1295
		G	-	Struct, Mol const	Rao	JMS 1 (1957)	24
		-	-	Bond dist, Bond angle	Overend	JCP 29 (1958)	1002
C_3D_4	Propyne-d ₄	G	-	Spec, Freq assign	Christensen	TFS 52 (1956)	1439
$C_3D_4Cl_2$	1, 2-Dichloro-1-propene-d ₄	G, L	-	Spec	Bernstein	JACS 73 (1951)	1843
C_3D_6	Cyclopropane-d ₆	G, L	-	IR, Assign	Baker	JCP 23 (1955)	1636
		-	-	Struct	Lord	AC 27 (1955)	327
		G	-	Resolution	Lord	JOSA 45 (1955)	441
C_3D_6	Propylene-d ₆	G	-	Spec, Table	Thompson	JPC 56 (1952)	243

$C_3D_6N_6$	Malamine-d ₆	400-2400	G	Spec, Table, Assign, I	Lord	JOSA 43 (1953)	1079
C_3D_6O	Acetone-d ₆	450-5000	S	Struct, Freq assign	Jones	TFS 55 (1959)	A 203
		-	-	Vib anal	Rank	AC 23 (1951)	1048
		-	Sol	Table, I, Freq	Shiner	JACS 74 (1952)	5285
$C_3D_6O_2$	Methyl acetate-d ₆	700-4000	Sol	Group freq, Spec, Assign	Nolin	CJC 34 (1956)	1382
C_3D_8	Propane-d ₈	2-15 μ 2-16 μ	G G	Spec, Assign Spec, Table	McMurry Thompson	JCP 19 (1951)	1014
C_3D_9IOS	Dimethyl sulfoxide methiodide-d ₉	650-4000	S	Assign, Spec	Cotton	JPC 64 (1960)	1534
C_3D_9B	Trimethylborane-d ₉	2-15 μ	G	Freq, Assign	Lehmann	JCP 31 (1959)	1071
C_3BrF_7	1-Bromoheptafluoropropane	- 2-16 μ - -	- G - -	Ident Spec Ident Ident, Band freq	Haszeldine Hauptschein Haszeldine Husted	JCS - (1952) JACS 74 (1952) JCS - (1953) JACS 76 (1954)	4259 1347 3559 5141
$C_3Br_2F_6$	1,2-Dibromohexafluoro- propane	- 4.12-14.14 μ	- μ	Ident I, Table, Ident	Haszeldine Haszeldine	JCS - (1952) JCS - (1953)	4259 3559
$C_3Br_2F_6$	1,3-Dibromohexafluoro- propane	2-16 μ	G	Spec	Hauptschein	JACS 74 (1952)	848
C_3ClF_5O	Pentafluoropropionyl chloride	- 2-15 μ	- G	Bond freq Spec	Haszeldine Husted	JCS - (1953) JACS 75 (1953)	1548 1605
C_3ClF_6I	1-Chlorohexafluoro-1- iodopropane	-	-	Ident	Haszeldine	JCS - (1953)	1592
C_3ClF_7	1-Chloroheptafluoropropane	2-16 μ	G	Spec Ident	Hauptschein Haszeldine	JACS 74 (1952) JCS - (1953)	1347 1592
$C_3Cl_2F_6$	1,1-Dichlorohexafluoro- propane	-	-	Band study	Haszeldine	JCS - (1953)	1592
$C_3Cl_2F_6$	1,2-Dichlorohexafluoro- propane	9-15 μ 8-15 μ -	- G -	Spec Spec Band freq	Young Lacher Haszeldine	JACS 70 (1948) JACS 71 (1949) JCS - (1953)	2814 1334 1592
$C_3Cl_2F_6$	1,3-Dichlorohexafluoropropane	9-15 μ	-	Spec	Young	JACS 70 (1948)	2814

$C_3Cl_2F_9AS$	Tris-(trifluoromethyl)- dichloroarsine	2-15 μ	G	Spec	Hauptschein	JACS 74 (1952)	848
$C_3Cl_2F_9AS$	Tris-(trifluoromethyl)- dichloroarsine	-	G, S	Group freq	Emeleus	JCS - (1953)	1552
$C_3Cl_2N_3$	Cyanuric chloride	2-14 μ 2-16 μ 2-15 μ	Sol S Sol	Spec Spec, Struct Vib assign	Goubeau Padgett Reinschuessel	JPC 58 (1954) JACS 80 (1958) JACS 82 (1960)	1078 803 3756
C_3Cl_6O	Hexachloroacetone	-	L, G, S, Sol	Freq, Dipole effect	Bellamy	JCS - (1957)	4294
$C_3Cl_6O_3$	Bis-(trichloromethyl)- carbonate	-	Sol	Freq, Struct, Dissocia- tion	Hales	JCS - (1957)	618
C_3F_5N	Pentafluoroethyl cyanide	- 4-4.5 μ	- G	Bond freq Freq	Haszeldine Barr	JCS - (1953) JCS - (1957)	1548 3428
C_3F_6	Hexafluorocyclopropane	-	-	Ident, Group freq	Haszeldine	JCS - (1953)	3761
C_3F_6	Hexafluoropropene	2-15 μ 3-15 μ 8-15 μ - - - 2-38 μ - - - - -	- - G - - - L, G - - - - -	IR, Table, Vib Spec Spec Spec Ident Bond freq IR, Assign Anal Ident Purity, Photo chim react Ident Ident, Group freq Group freq Anal Freq, Shift	Edgell Young Lacher Hals Haszeldine Haszeldine Nielsen Haszeldine Haszeldine Haszeldine Haszeldine Lazerte Husted Bellamy	JACS 70 (1948) JACS 70 (1948) JACS 71 (1949) JACS 73 (1951) JCS - (1952) JCS - (1952) JCP 20 (1952) JCS - (1953) JCS - (1953) JCS - (1953) JCS - (1953) JACS 75 (1953) JACS 76 (1954) JCS - (1958)	2816 2814 1334 4054 4259 4423 1916 1592 2075 3559 3607 3761 4525 5141 2463
$C_3F_6I_2$	1,1-Diodohexafluoro- propane	2-16 μ	L	Spec	Hauptschein	JACS 73 (1951)	2461
C_3F_6NP	Cyanobis-(trifluoromethyl)- phosphine	4.4-14.0 μ -	G -	Table Ident	Bennett Bennett	JCS - (1953) JCS - (1954)	1565 3896
C_3F_6NSAs	Bis-(trifluoromethyl)- thiocyanosarsine	-	G, S	Group freq	Emeleus	JCS - (1953)	1552

C_3F_6NAS	Bis-(trifluoromethyl)- cyanoarsine	-	G,S	Group freq	Emeleus	JCS	- (1953)	1552
C_3F_6O	Hexafluoroacetone	-	-	Ident	Brice	JACS	75 (1953)	2698
		-	G	Carbonyl freq	Bellamy	JCS	- (1957)	4294
C_3F_6O	Pentafluoropropionyl fluoride	-	-	Reactant	Francis	JCS	- (1955)	2151
C_3F_7I	Heptafluoro-1-iodopropane	2-16 μ	L	Spec	Hauptschein	JACS	73 (1951)	2461
		-	-	Ident	Husted	JACS	76 (1954)	5141
		-	-	Anal	Pierce	JACS	76 (1954)	474
C_3F_7NO	Heptafluoronitrosopropane	-	-	Bond freq	Barr	JCS	- (1955)	1881
		-	G	Vib assign	Haszeldine	JCS	- (1955)	4172
C_3F_7NO	Perfluoro-2-methyl-1,2- oxazetidine	-	-	Band freq	Barr	JCS	- (1955)	1881
C_3F_8	Octafluoropropane	2-25 μ	G	Spec, Table Component of mixture	Edgell Ayscough	JACS	72 (1950)	4856
		-	-			JCS	- (1954)	3381
C_3F_9OP	Tris-(trifluoromethyl)- phosphine oxide	-	-	Bond freq	Barr	JCS	- (1955)	1881
		-	-	Group freq	Emeleus	JCS	- (1955)	563
		-	-	Group freq	Paul	JCS	- (1955)	574
C_3F_9P	Tris-(trifluoromethyl)- phosphine	4.09-13.73 μ	G	Table Ident	Bennett Bennett	JCS	- (1953)	1565
		-	-			JCS	- (1954)	3896
$C_3F_9PS_3$	Tris-(trifluoromethyl- thio)-phosphine	400-4000	G	Freq, Assign	Nabi	JCS	- (1959)	3439
C_3F_9AS	Tris-(trifluoromethyl)- arsine	-	G,L	Group freq	Emeleus	JCS	- (1953)	1552
$C_4^{HD}N_4$	sym-Pyrrole-d ₄	750-1950	L	Spec, Assign	Lord	JCP	10 (1942)	328
		-	-	Vib anal	Halverson	RMP	19 (1947)	87
		-	-	Micro spec	Bak	JCP	24 (1956)	720
		400-4000	L,G	Spec, Rot band contours	Morcillo	ARS	56B (1960)	231

C₄ COMPOUNDS

C_4H_9	Isobutane-d ₉	3-35	G	Spec, Assign	Wilmshurst	CJC	35 (1957)	969
$C_4HBrClF_5$	4-Bromo-3-chloro-1,1,3,4,4-pentafluoro-1-butene	-	-	C=C freq	Tarrant	JACS	77 (1955)	3640
$C_4HBrCl_2F_6$	1-Bromo-2,4-dichloro-1,1,2,3,3,4-hexafluorobutane	-	-	Comparison	Haszeldine	JCS	- (1954)	3747
C_4HBrF_7NO	N-Bromo-2,2,3,3,4,4,4-heptafluorobutamide	-	-	Absorption coeff	Bak	JACS	76 (1954)	1388
C_4HBrF_8	1-Bromo-1,1,2,2,3,3,4,4-octafluorobutane	3.36-14.33	G	Table, I	Haszeldine	JCS	- (1954)	3747
C_4HClF_4	1-Chloro-1,3,4,4-tetrafluoro-1,3-butadiene	-	-	Freq	Tarrant	JACS	77 (1955)	3640
C_4HClF_6	2-Chloro-1,1,1,4,4,4-hexafluoro-2-butene	-	-	Freq	Haszeldine	JCS	- (1954)	1261
C_4HClF_6	4-Chloro-1,1,2,3,3,4-hexafluoro-1-butene	3.35-12.8	G	Table, I	Haszeldine	JCS	- (1954)	3747
$C_4HCl_3F_4$	1,3,4-Trichloro-1,3,4,4-tetrafluoro-1-butene	-	-	Freq	Tarrant	JACS	77 (1955)	3640
$C_4HCl_3N_2$	2,4,6-Trichloropyrimidine	2-25	S	Spec, Group freq	Short	JCS	- (1952)	168
$C_4HCl_5F_4O$	1,3-Dichloro-1,1,3,3-tetrafluoroacetone	-	-	I	Kagarise	JCP	27 (1957)	827
$C_4HCl_7F_2O$	1,1,3,3-Tetrachloro-1,3-difluoroacetone chloroform adduct	-	-	I	Kagarise	JCP	27 (1957)	827
C_4HF_5	1,1,3,4,4-Pentafluoro-1,3-butadiene	-	-	C=C freq	Tarrant	JACS	76 (1954)	3640

C_4HF_5	3,3,4,4-Pentafluoro-butene	2-15.5 μ	G	Spec, C=C freq C=C freq	Haszeldine Haszeldine	JCS - JCS -	(1952) 3483 (1954) 1261
C_4HF_5	1H-Pentafluorocyclobutene	1500-1800	G	Stretch freq	Burdon	SA	12 (1958) 139
C_4HF_6I	2-Iodo-1,1,4,4,4-hexafluoro-2-butene	-	-	Group freq	Leedham	JCS	(1954) 1634
C_4HF_6I	3-Iodo-1,1,4,4,4-hexafluoro-2-butene	-	-	C=C freq	Haszeldine	JCS	(1954) 1261
C_4HF_6I	trans-1,1,4,4,4-Hexafluoro-3-iodo-2-butene	-	-	Bond freq	Haszeldine	JCS	(1954) 1261
C_4HF_7O	Perfluorobutyraldehyde	2-15 μ	G	Spec, Group freq	Husted	JACS	74 (1952) 5422
$C_4HF_7O_2$	Heptafluorobutanoic acid	1200-2000	Sol	C=O freq C=O freq H bond C=O band, Ident	Bender Haszeldine Lawson Sawicki	JACS JCS - PR AC	75 (1953) 5986 (1954) 4026 95 (1954) 300 31 (1959) 523
C_4HF_9	1-Hydroperfluorobutane	-	-	CH freq, Pyrolysis study	Lazerte	JACS	75 (1953) 4525
C_4H_2	Diacetylene	-	-	Vib assign Quant mech Vib assign Quant mech Force field bond inter-action	Woo Glockler Woo Meister Linnett	JCP JCP JCP JCP TFS	3 (1935) 541 5 (1937) 813 5 (1937) 786 15 (1947) 349 45 (1949) 844
		500-4000	L G	IR, Assign Vib anal FC	Ferigle Jones Torkington	PR AC PRS	81 (1951) 302 23 (1951) 1048 206 (1951) 17
		-	-	Pot const	Ferigle	JCP	20 (1952) 526
		-	-	Thermo	Ferigle	JCP	20 (1952) 1657
		-	-	Bending freq	Ferigle	JCP	20 (1952) 1928
		-	G	Mol spec, Mol const, Struct	Herzberg	N	169 (1952) 997
		1.2-7 μ	G	Mol spec, Bond dist	Jones	JCP	20 (1952) 860
		500-5000	G,L	IR, Spec, FC	Jones	PRS	211 (1952) 285
		-	-	FC, Bond dist, Mol orbitals	Longuet	TFS	48 (1952) 1077
		-	G	Mol spec, FC	Craine	TFS	49 (1953) 1273
		-	-	FC	Ferigle	JCP	21 (1953) 722
		-	-	Vib interaction theory	Torkington	JCP	21 (1953) 83

$C_4H_2D_2O_4$	Maleic acid-d ₂	-	S	Spec, H bond	Cardwell	JCS - (1953)	3740
$C_4H_2D_4O$	α, α', α' -Cyclobutanone-d ₄	300-7000	G, L	Spec, NCA, Assign	Frei	JMS 5 (1960)	218
$C_4H_2D_4O$	Succinic acid-d ₄	500-3500	S	Freq, Assign	Shimanouchi	SA 16 (1960)	1328
$C_4H_2D_6O_2$	Ethyl acetate-d ₆	700-4000	Sol	Spec, Freq	Nolin	CJC 34 (1956)	1392
$C_4H_2BrClF_4$	4-Bromo-3-chloro-1,3,4,4-tetrafluoro-1-butene	-	-	C=C freq	Tarrant	JACS 77 (1955)	3640
$C_4H_2BrClO_3$	α -Bromo- β -chloro- β -formylacrylic acid	760-3330	-	Spec	Kuh	JACS 75 (1953)	4597
$C_4H_2BrClO_3$	β -Bromo- α -chloro- β -formylacrylic acid	750-3330	-	Spec	Kuh	JACS 75 (1953)	4597
$C_4H_2BrF_7$	4-Bromo-1,1,1,2,2,3,3-heptafluorobutane	-	L	Group freq,	Tiers	JACS 75 (1953)	5978
$C_4H_2Br_2O_3$	Mucobromic acid	750-3300	-	Spec	Kuh	JACS 75 (1953)	4597
$C_4H_2ClF_7$	4-Chloro-1,1,1,2,2,3,3-heptafluorobutane	-	L	Freq	Tiers	JACS 75 (1953)	5978
$C_4H_2ClN_5S$	3,4-(5,6-2-Chloro-4-iminopyrimido)-1,2,5-thiadiazole	700-1930	S	Spec, Freq	Schrage	JOC 16 (1951)	207
$C_4H_2Cl_2N_2$	2,4-Dichloropyrimidine	2-25 μ	S	Spec, Freq	Short	JCS - (1952)	168
$C_4H_2Cl_2O_3$	Mucochloric acid	2-13 μ 750-3330	Sol -	Spec Spec	Wasserman Kuhn	JACS 74 (1952) JACS 75 (1953)	326 4597
$C_4H_2Cl_8O$	1,1,1,3,3,3,4,4-Octachloro-2-butanol	-	S, Sol	Spec, OH freq, H bond	Haszeldine	JCS - (1953)	1757
$C_4H_2F_4$	1,3,4,4-Tetrafluoro-1,3-butadiene	-	-	C=C freq	Tarrant	JACS 77 (1955)	3640
$C_4H_2F_4$	1H,2H-Tetrafluorocyclobutene	1500-1800	G	Stretch freq	Burdon	SA 12 (1958)	139

$C_4H_2F_4O_4$	Perfluoromuccinic acid	-	-	C=O freq	Haszeldine	JCS	- (1954)	4026
$C_4H_2F_6$	cis-1,1,1,4,4,4-Hexafluoro-2-butene	-	-	Absorption freq, Struct anal	Henne	JACS	71 (1949)	298
		1500-1800	G	Stretch freq	Burdon	SA	12 (1958)	139
$C_4H_2F_6$	trans-1,1,1,4,4,4-Hexafluoro-2-butene	2-16 μ 2-15.5 μ	G G	Spec Spec, Stretch freq	Henne Haszeldine	JACS	73 (1951)	5527
		-	-	Ident	Leedham	JCS	- (1952) - (1954)	2504 1634
$C_4H_2F_6O$	1,1,1,4,4,4-Hexafluoro-butanone	-	-	Ident	Haszeldine	JCS	- (1954)	1273
$C_4H_2F_6O_2$	2,2,3,4,4,4-Hexafluorobutanoic acid	-	-	Ident	Lazerte	JACS	77 (1955)	910
$C_4H_2F_7I$	1,1,1,2,2,3,3-Heptafluoro-4-iodobutane	-	L	-CF ₃ freq, Phys prop	Tiers	JACS	75 (1953)	5978
$C_4H_2F_7NO_2$	N-Heptafluoropropylcarbamic acid	3-6 μ	S	Freq, Assign	Barr	JCS	- (1956)	28
$C_4H_2N_2$	Fumaronitrile	-	-	C=N freq I	Kitson Felton	AC JCS	24 (1952) - (1955)	334 2170
$C_4H_2N_2$	Maleidinitrile	-	Sol	I	Felton	JCS	- (1955)	2170
$C_4H_2N_2$	Vinylidene cyanide	-	L	IR freq	Dannis	JCP	19 (1951)	382
		-	-	FC	Torkington	PRS	206 (1951)	17
		-	Sol	Absorption group freq, Spec	Potts	SA	15 (1959)	679
$C_4H_2N_2O \cdot H_2O$	Alloxan hydrate	2-15 μ -	S -	Spec, Struct, Freq Spec, Freq	Tipson Witkop	JOC JACS	16 (1951) 76 (1954)	1091 5813
$C_4H_2O_3$	Maleic anhydride	1050-2000 1750-1850	- Sol	Spec, Absorption freq Doublet coupling, Freq assign	Barnes Dauben	IEC JOC	15 (1943) 24 (1959)	659 1595
$C_4H_2O_4$	Acetylenedicarboxylic	700-1500 -	S S	Spec, Assign Group freq, I	Hadzi Allan	PRS JCS	216 (1953) - (1955)	247 1874
$C_4H_2Cl_3O \cdot H_2O$	1,1,1-Trichlorobutyraldehyde hydrate-d ₂	600-3000	S	FC	Anderson	SA	12 (1958)	233

Chemical formula	Compound name	Wavenumber (cm ⁻¹)	State	Spec, Freq	Source	Year
C ₄ H ₃ D ₅ O ₂	Ethyl acetate-d ₅	700-4000	Sol	Spec, Freq	Nolin	1952
C ₄ H ₃ BrClF ₃	4-Bromo-3-chloro-3,4,4-trifluoro-1-butene	-	-	CH ₂ freq	Tarrant	1955
C ₄ H ₃ BrS	2-Bromothiophene	3500-400 800-2000	L L	Table freq Position & I of bands	Hidalgo Katritzky	1954 1959
C ₄ H ₃ Br ₂ F ₃	2,3-Dibromo-1,1,1-trifluoro-2-butene	-	-	Group freq	Haszeldine	1954
C ₄ H ₃ Br ₂ F ₃	2,3-Dibromo-4,4,4-trifluoro-1-butene	-	-	Group freq	Haszeldine	1954
C ₄ H ₃ ClN ₂	2-Chloropyrimidine	2-25μ	S	Spec, Group freq	Short	1952
C ₄ H ₃ ClN ₂ O ₂	5-Chlorouracil	2-12μ	Sol	Spec, Group freq, Assign	Lacher	1955
C ₄ H ₃ ClO ₄	Mucoxchloric acid	2-13μ	S, Sol	Spec, Taut	Wasserman	1952
C ₄ H ₃ ClS	2-Chlorothiophene	3500-400 800-2000	L L	Table freq Position & I of bands	Hidalgo Katritzky	1954 1959
C ₄ H ₃ Cl ₂ F ₃ O	1-Methoxy-1,2-dichloro-3,3,3-trifluoro-1-propene	2-15μ	G	Spec, Phy prop, Struct	Park	1952
C ₄ H ₃ Cl ₂ N ₃	2-Amino-4,6-dichloro-pyrimidine	2-25μ	S	Spec, Group freq	Short	1952
C ₄ H ₃ Cl ₂ N ₃	4-Amino-2,6-dichloro-pyrimidine	2-25μ	S	Spec, Group freq	Short	1952
C ₄ H ₃ Cl ₂ N ₃	2-Methyl-4,6-dichloro-S-triazine	2-15μ	Sol	Vib assign	Reinschuessel	1960
C ₄ H ₃ F ₂ Cl ₅ Si	2,2-Dichloro-3,3-difluoro-cyclobutyltrichlorosilane	10.85-11.1μ	-	Freq	Park	1960
C ₄ H ₃ F ₃	1,1,1-Trifluoro-2,3-butadiene	-	-	Ident Group freq	Haszeldine Haszeldine	1954 1954
C ₄ H ₃ F ₃	3,4,4-Trifluoro-1,3-butadiene	-	-	C=C freq	Tarrant	1955

Micro spec

1

14

10

10

Back

JOE
TOD

$C_4H_3F_3$	1, 1, 1-Trifluoro-2-butyne	-	G	Micro spec C=C freq	Bak Haszeldine Lide	JCP JCS JCP	21 - 23	(1953) (1954) (1955)	1612 1261 2191
$C_4H_3F_3$	3, 3, 3-Trifluoro-1-butyne	-	-	Struct parameters	Bak	JCP	26	(1957)	241
$C_4H_3F_3$	4, 4, 4-Trifluoro-1-butyne	-	-	C=C freq Ident, Group freq	Haszeldine Haszeldine	JCS JCS	- -	(1954) (1954)	1261 2040
$C_4H_3F_3O_2$	4, 4, 4-Trifluoro-trans-2-butenic acid	-	-	C=C freq	Haszeldine	JCS	-	(1952)	2504
$C_4H_3F_3O_3$	Acetyl trifluoroacetate	1000-1250	Sol	Band freq, Ident	Bourue	JCS	-	(1954)	2006
$C_4H_3F_4Cl_3Si$	2, 2, 3, 3-Tetrafluoro-cyclobutyltrichlorosilane	10.85-11.1 μ	-	Freq	Park	JOC	25	(1960)	1628
$C_4H_3F_5$	1, 1, 3, 3, 3-Pentafluoro-2-methylpropene	-	-	Group freq	Haszeldine	JCS	-	(1953)	3565
$C_4H_3F_5O$	3, 3, 4, 4, 4-Pentafluoro-butanone-2	2-15.5 μ 650-5000	G Sol	Spec, Group freq Stretching freq	Haszeldine Griffin	JCS SA	- 16	(1952) (1960)	3483 1464
$C_4H_3F_5O_2$	Methyl pentafluoro-propionate	- 2-15 μ	- G	C=O Freq Spec	Haszeldine Husted	JCS JACS	- 75	(1953) (1953)	1548 1605
$C_4H_3F_6I$	1, 1, 1, 4, 4, 4-Hexafluoro-2-iodobutane	2-15 μ	L	Spec	Haszeldine	JCS	-	(1952)	2504
$C_4H_3F_7O$	2, 2, 3, 3, 4, 4, 4-Heptafluoro-butanol	- -	Sol L	OH freq, H bond Group freq, I	Haszeldine Henne	JCS JACS	- 75	(1953) (1953)	1757 991
$C_4H_3F_7O_2$	1, 1-Dihydroxy-2, 2, 3, 3, 4, 4, 4-heptafluorobutane	2-14.7 μ	S	Spec, Group freq	Husted	JACS	74	(1952)	5422
C_4H_3N	Methylcyanoacetylene	-	G	Spec, Mol const	Shridan	N	174	(1954)	798
$C_4H_3NO_2S$	2-Nitrothiophene	100-800 800-2000	- L	Spec, Order vs vib study Position & I of bands	Hallam Katritzky	N JCS	174 -	(1954) (1959)	134 3500
$C_4H_3NO_3$	5-Nitrofurane	2-22 μ	S	Spec, Correlation, Assign	Daasch	CIL	-	(1958)	1113
$C_4H_3NO_3Si$	Methyltriisocyanatosilane	-	-	Freq, Assign	Widmaier	ZAUA	300	(1959)	194

$C_4H_4N_3O_4$	2,4-Dihydroxy-5-nitro-pyrimidine	2-25 μ	S	Spec, Group freq	Short	JCS - (1952)	168
$C_4H_4N_3O_4S$	2,4-Dinitro-5-amino-thiophene	2-16 μ	S	Spec, C=N freq, Taut	Hard	JACS 74 (1952)	2965
$C_4H_4O_4$	Hydrogenmaleate ion	5000-1575	L	H bond, O-H stretching bond	Gill	N 183 (1959)	248
C_4H_4	Butatriene	-	-	FC, Bond dist, Mol orbitals	Longuet	TFS 48 (1952)	1077
		1050-3000	G	Freq, I	Schubert	JACS 74 (1952)	569
		-	G	Band freq	Schubert	JACS 76 (1954)	1929
C_4H_4	1-Butene-3-yne	-	-	Spec, Group study	Petrov	ZOK 27 (1957)	1167
		-	Sol	Group freq, Spec	Potts	SA 15 (1959)	679
C_4H_4	Vinylacetylene	2-15 μ	G	Spec	Brady	IEC 16 (1944)	422
		-	-	Assign	Sheppard	JCP 17 (1949)	74
		-	-	Assign, Thermo	Stamm	JCP 17 (1949)	104
		-	-	Bending freq	Ferigle	JCP 20 (1952)	1928
		-	-	Group freq	Bergmann	JAPC 3 (1953)	97
		630-3325	G	Table, Spec, Group freq, Assign	Georgieff	JACS 76 (1954)	5494
C_4H_4N	2-Pyrrole-d ₁	-	-	Micro spec	Bak	JCP 24 (1956)	720
C_4H_4N	3-Pyrrole-d ₁	-	-	Micro spec	Bak	JCP 24 (1956)	720
C_4H_4N	Pyrrole-N-d ₁	750-1950	L	Spec, Assign	Lord	JCP 10 (1942)	328
		-	Sol	Vib anal	Halverson	RMP 19 (1947)	87
		-	Sol	Freq shift	Tuomikoski	JCP 20 (1952)	1054
		-	-	Micro spec	Bak	JCP 24 (1956)	720
		400-4000	L,G	Spec	Morcillo	ARS 56B (1960)	231
$C_4H_4N_2O_2$	Diketopiperazine-d ₂	2000-2600	S	IR	Ambrose	PRS 206 (1951)	192
		1800-200	S	Freq, Spec	Miyazawa	JMS 4 (1960)	155
$C_4H_4O_4$	Succinic acid-d ₂	500-1500	S	Spec, Assign	Hadzi	PRS 216 (1953)	247
		500-3500	S	Freq, Assign	Shimanouchi	SA 16 (1960)	1328
C_4H_4O	2,2,5,5-Tetrahydrofuran-d ₄	350-3200	S,G,L	Spec, Freq	Palm	SA 16 (1960)	459

$C_4H_4D_4O$	2,3,4,5-Tetrahydrofuran-d ₄	350-3200	S,G,L	Spec, Freq	Palm	SA	16 (1960)	459
$C_4H_4D_4O$	3,3,4,4-Tetrahydrofuran-d ₄	350-3200	S,G,L	Spec, Freq	Palm	SA	16 (1960)	459
$C_4H_4BrNO_2$	N-Bromosuccinimide	-	S	Group freq	Ames	JCS	- (1955)	631
$C_4H_4Br_2$	1,4-Dibromo-2-butyne	-	-	Band freq, Ident	Schubert	JACS	76 (1954)	1929
$C_4H_4ClF_3$	3-Chloro-1,1,1-trifluoro-2-butene	-	-	Ident	Haszeldine	JCS	- (1954)	1261
C_4H_4ClN	α -Chloromethylacrylonitrile	-	-	Distinct from isomers	Ferris	JOC	19 (1954)	1971
C_4H_4ClN	cis- β -Chloro- α -methylacrylonitrile	-	-	Group freq	Ferris	JOC	19 (1954)	1971
C_4H_4ClN	trans- β -Chloro- α -methylacrylonitrile	-	-	Group freq	Ferris	JOC	19 (1954)	1971
$C_4H_4ClN_3$	2-Amino-4-chloropyrimidine	750-2000	-	Spec	Barnes	IEC	15 (1943)	659
$C_4H_4ClN_3$	2-Amino-6-chloropyrimidine	-	-	Effect of ring position	Stimson	AC	24 (1952)	1228
$C_4H_4ClN_3$	4-Amino-2-chloropyrimidine	2-25 μ	S	Spec, Group freq	Short	JCS	- (1952)	168
$C_4H_4ClN_3$	6-Amino-2-chloropyrimidine	-	-	Effect of ring position	Stimson	AC	24 (1952)	1228
$C_4H_4ClN_3O$	2-Amino-4-hydroxy-6-chloropyrimidine	2-25 μ	S	Spec, Group freq	Short	JCS	- (1952)	168
$C_4H_4Cl_2$	2,3-Dichloro-1,3-butadiene	700-1750	L,S	Spec, Struct	Szasz	TFS	49 (1953)	358
$C_4H_4Cl_2$	1,4-Dichloro-2-butyne	2-15 μ	L,Sol Sol	Group freq Group freq, I	Kitson Allan	AC JCS	25 (1953) - (1955)	1470 1874
$C_4H_4Cl_2O_2$	1,1- α -Dichlorovinyl acetate	-	Sol	Freq, Spec	Potts	SA	15 (1959)	671
$C_4H_4Cl_2F_3O$	α , α -Dichloroethyl α , α , β -trifluoro- β -chloroethyl ether	-	-	Spec	Park	JACS	74 (1952)	2292
$C_4H_4Cl_3O_4B$	Trichloroacetylene borate	6-14 μ	L,S	Group freq, Struct	Blau	JCS	- (1960)	380

$C_4H_4Cl_6O_2$	Di-1-hydroxy-2,2,2-trichloroethyl-1-peroxide	5-15 μ	Sol	Spec, Peroxide bands	Minkoff	PRS 224 (1954)	176
$C_4H_4F_4I_3$	2-Iodo-4,4,4-trifluoro-1-butene	-	-	Group freq, Distinct from iso	Haszeldine	JCS - (1954)	2040
$C_4H_4F_4I_3$	3-Iodo-1,1,1-trifluoro-1-butene	-	-	Purity, Ident	Leedham	JCS - (1954)	1634
$C_4H_4F_4I_3$	3-Iodo-2-trifluoromethyl-1-propene	-	-	Group freq, Distinct	Haszeldine	JCS - (1954)	2040
$C_4H_4F_4O_3B$	Ethylenetrifluoroacetyl borate	4-16 μ	L, S	Assign, Struct	Blau	JCS - (1960)	380
$C_4H_4F_4N_2O_6$	N-Nitroso-bis-2,2,2-trifluoroethylamine	-	G, L, Sol	Stretching vib assign	Haszeldine	JCS - (1955)	4172
$C_4H_4F_4N_2O_6$	N-Nitro-bis-2,2,2-trifluoroethylamine	-	L	NH stretching & deformation bands assign	Barr	JCS - (1955)	4169
$C_4H_4F_6O$	2,2,3,4,4-Hexafluoro-1-butanol	-	-	OH freq	Lazerte	JACS 77 (1955)	910
$C_4H_4N_2$	Pyrazine	1000-1900	-	Spec	Barnes	IEC 15 (1943)	659
		-	-	FC, Bond study	Anno	BCSJ 30 (1957)	638
		260-3800	G	Freq assign	Lord	SA 9 (1957)	113
		-	S	Spec	Yoshida	CPBT 7 (1959)	162
$C_4H_4N_2$	Pyridazine	900-1900	-	Spec	Barnes	IEC 15 (1943)	659
		3000-3800	Sol	Spec, H bond, Associ const	Brealey	JACS 77 (1955)	4462
$C_4H_4N_2$	Pyrimidine	260-3800	L, Sol	Freq assign	Lord	SA 9 (1957)	113
		750-2000	-	Spec	Barnes	IEC 15 (1943)	659
		2-25 μ	L	Table, Band freq	Brownlie	JCS - (1950)	3062
		260-3800	S	Spec, Group freq	Short	JCS - (1952)	168
		680-3800	L, Sol	Freq assign	Lord	SA 9 (1957)	113
			Sol	Spec, Freq, Struct	Spinner	JCS - (1960)	1226
$C_4H_4N_2$	Succinonitrile	1-12 μ	L	Spec	Bell	JACS 57 (1935)	1023
		-	-	FC	Linnett	TFS 41 (1945)	223

	-	-	-	C=N freq	Kitson	AC	24	(1952)	334
	-	Sol	Sol	C=N freq, I	Felton	JCS	-	(1955)	2170
	2-25 μ	L,S	L,S	Spec, Rot iso	Janz	JCP	23	(1955)	1973
	600-4000	-	-	Spec	Webb	JACS	77	(1955)	3491
	-	-	-	I, C=N band, I	Thompson	TFS	52	(1956)	1451
	2-25 μ	L	L	Spec, Assign, NCA, Temp effect	Fitzgerald	JMS	1	(1957)	49
	2200-2300	Sol	Sol	Freq, Struct	Jesson	SA	13	(1958)	2217
$C_4H_4N_2O$	3650-1400	Sol	Sol	Spec, Assign, Taut, Freq	Mason	JCS	-	(1957)	4874
$C_4H_4N_2O$	3650-1400	Sol	Sol	Spec, Assign, Taut, Freq	Mason	JCS	-	(1957)	4874
$C_4H_4N_2O$	3650-1400	Sol	Sol	Spec, Assign, Taut, Freq	Mason	JCS	-	(1957)	4874
$C_4H_4N_2O$	2-25 μ	S	S	Spec, Group freq	Short	JCS	-	(1952)	168
	1300-1800	S	S	Spec, Band freq, I	Brown	JCS	-	(1953)	331
	-	S	S	Spec, Assign, Taut, Freq	Brown	JCS	-	(1955)	211
	3650-1400	Sol	Sol	Spec, Assign, Taut, Freq	Mason	JCS	-	(1957)	4874
	680-1800	Sol	Sol	Spec, Freq, Struct	Albert	JCS	-	(1960)	1221
	680-3800	S,Sol	S,Sol	Struct, Band peaks	Spinner	JCS	-	(1960)	1232
$C_4H_4N_2O$	2-25 μ	S	S	Spec, Group freq	Short	JCS	-	(1952)	168
	1300-1800	S	S	Spec, Band freq, I	Brown	JCS	-	(1953)	331
	3650-1400	Sol	Sol	Spec, Assign, Taut, Freq	Mason	JCS	-	(1955)	211
	680-1800	Sol	Sol	Spec, Freq, Assign, Struct	Albert	JCS	-	(1960)	1221
	680-3800	S,Sol	S,Sol	Struct, Band peaks	Spinner	JCS	-	(1960)	1232
$C_4H_4N_2O$	3650-1400	Sol	Sol	Spec, Assign, Taut, Freq	Mason	JCS	-	(1957)	4874
$C_4H_4N_2O$	1570-3350	S	S	Spec	Turner	JACS	71	(1949)	3472
$C_4H_4N_2OS$	2-25 μ	S	S	Spec, Group freq	Short	JCS	-	(1952)	168
$C_4H_4N_2OS$	2-12 μ	Sol	Sol	Spec, Group freq, Assign	Lacher	JPC	59	(1955)	615
$C_4H_4N_2O$	2-25 μ	S	S	Spec, Group freq	Short	JCS	-	(1952)	168

$C_4H_4N_2O_2$	4,6-Dihydroxypyrimidine	2-25 μ	S	Spec, Group freq	Short	JCS - (1952)	168
$C_4H_4N_2O_2$	Uracil	2-25 μ	S	Spec Table, Band freq	Bloat	JACS 72 (1950)	479
		-	S	Spec, Assign, Group freq	Schwarz	APS 6 (1952)	15
		2.5-11.5 μ	Sol	Struct	Lacher	JPC 59 (1955)	615
		3-9.9 μ	-		Uchricht	NWS 45 (1958)	416
$C_4H_4N_2O_2S$	5-Mercaptouracil	-	S	Band freq	Bardos	JACS 77 (1955)	960
$C_4H_4N_2O_3$	Barbituric acid	2-12 μ	Sol	Spec, Assign, Group freq	Lacher	JPC 59 (1955)	615
$C_4H_4N_2O_3$	2,4,6-Trihydroxypyrimidine	2-25 μ	S	Spec, Group freq	Short	JCS - (1952)	168
$C_4H_4N_2O_3$	4,5,6-Trihydroxypyrimidine	650-3600	S	CO & OH group presence, Struct	Tanner	SA 8 (1956)	9
$C_4H_4N_2O_3S$	2-Mercapto-4,5,6-trihydroxypyrimidine	650-3600	S	CO & OH group presence, Struct	Tanner	SA 8 (1956)	9
$C_4H_4N_2O_4 \cdot H_2O$	Dialuric acid, hydrate	2-16 μ	S	Spec, Struct, Band freq	Tipson	JOC 16 (1951)	1091
$C_4H_4N_2O_4$	N-Nitrosuccinimide	-	-	Band & group freq	Kauffman	JOC 19 (1954)	1662
$C_4H_4N_2O_6$	Alloxan hydroperoxide	-	-	O-H freq	Witkop	JACS 76 (1954)	5813
$C_4H_4N_2S$	2-Mercaptopyrazine	700-3800	S, Sol	Freq, Assign	Spinner	JCS - (1960)	1237
$C_4H_4N_2S$	2-Mercaptopyrimidine	2-25 μ	S	Spec, Group freq	Short	JCS - (1952)	168
		700-3800	S, Sol	Freq, Assign	Spinner	JCS - (1960)	1237
$C_4H_4N_2S$	4-Mercaptopyrimidine	700-3800	S, Sol	Freq, Assign	Spinner	JCS - (1960)	1237
$C_4H_4N_2S_2$	2,4-Dimercaptopyrimidine	2-25 μ	S	Spec, Group freq	Short	JCS - (1952)	168
$C_4H_4N_2S_2$	Gauche-1,2-Dithiocyanatoethane	660-3140	S, Sol	Table, Assign, Group freq	Mizushima	JPC 59 (1955)	293
$C_4H_4N_2S_2$	trans-1,2-Dithiocyanatoethane	660-3140	S, Sol	Table, Assign, Group freq	Mizushima	JPC 59 (1955)	293
$C_4H_4N_2S_2$	Ethylene thiocyanate	-	S, Sol	Iso	Quagliano	JACS 75 (1953)	6084

$C_4H_4N_2O_4$	Furoxandicarboxamide	-	S	Table, I, Group freq	Boyer	JACS	77 (1955)	4238
C_4H_4O	Furan	-	-	Quant mech	Mullikan	JCP	7 (1939)	339
		-	-	Mol anal	Pickett	JCP	8 (1940)	293
		2.5-20 μ	G	Spec, Assign	Pickett	JCP	10 (1942)	660
		710-890	-	Spec, Review	Thompson	JCS	- (1944)	183
		3-20 μ	G	Spec, Freq, Assign	Thompson	TFS	41 (1945)	27
		-	G,L	Tables, IR, Assign, Thermo	Guthrie	JACS	74 (1952)	4662
		605-1596	G,L	Tables for struct	Cocker	JCS	- (1953)	2540
		2-22 μ	S	Spec, Assign	Daasch	CIL	- (1958)	1113
C_4H_4O	Vinyloxyethyne	-	-	Spec	Brandsma	RTC	79 (1960)	1307
C_4H_4OS	2-Thienol	2.5-12 μ	Sol	Spec	Hurd	JACS	72 (1950)	5543
$C_4H_4O_2$	Buta-2,3-dienoic acid	2-6 μ	-	Spec	Wotiz	JACS	73 (1951)	5503
		-	S	Absorption bands	Wotiz	JACS	74 (1952)	1860
		-	-	Band freq	Eglinton	JCS	- (1954)	3197
$C_4H_4O_2$	α,β -Butenolide	1550-1850	Sol	Freq	Jones	CJC	37 (1959)	2007
$C_4H_4O_2$	2-Butynoic acid	2-6 μ	-	Spec	Wotiz	JACS	73 (1951)	5503
		-	Sol	Freq & peaks	Goulden	SA	6 (1954)	129
		-	Sol	Group freq, I	Allan	JCS	- (1955)	1874
$C_4H_4O_2$	3-Butynoic acid	2-6 μ	S	Spec, H-C = bond freq	Wotiz	JACS	73 (1951)	5503
$C_4H_4O_2$	Diketene	3-15 μ	G	Spec, Table	Miller	JACS	70 (1948)	1890
		700-4000	S,L,G	Struct	Miller	JACS	79 (1957)	3995
$C_4H_4O_2$	Fumaric dialdehyde	2-16 μ	Sol	Spec, Stretch freq, Band freq	Hufford	JACS	74 (1952)	3014
$C_4H_4O_2$	Methyl propynoate	-	Sol	Group freq, I	Allan	JCS	- (1955)	1874
$C_4H_4O_3$	Succinic anhydride	1600-1800	-	Band freq	Lanning	JOC	19 (1954)	1171
		1750-1850	Sol	Freq	Hall	JACS	80 (1958)	6428
			Sol	Doublet from coupling, Assign	Dauben	JOC	24 (1959)	1595
$C_4H_4O_3$	Tetronic acid	-	S,Sol	Table, Band freq	Duncanson	JCS	- (1953)	1207
$C_4H_4O_4$	Fumaric acid	700-4000	-	Absorption freq	Barnes	IEC	15 (1943)	659
			L,S	Table, Association	Flett	JCS	- (1951)	962

$C_4H_4O_4$	Maleic acid	-	-	-	Ident C=O & C=C freq Spec	Hall Murray Hadzi	JCS JACS NC	- (1954) 76 (1954) 11 (1959)	2024 3665 715
		680-2500	-	-					
		700-4000	-	-	Absorption freq Table, Association, C=O freq	Barnes Flett	IEC JCS	15 (1943) - (1951)	659 962
		-	-	-	H bond, Bond dist vs freq	Rundle	JCP	20 (1952)	1487
		1200-5000	S	S	Spec, H bond C=O & C=C freq	Cardwell Murray Pimentel	JCS JACS JCP	- (1953) 76 (1954) 24 (1956)	3740 3665 639
		-	-	-	H bond				
$C_4H_4O_4$	Oxalacetic acid (enol)	-	-	-	Ident of spec of high & low m.p. forms	Hartree	JACS	75 (1953)	6244
$C_4H_4O_6$	Dihydroxyfumaric acid	-	-	-	Group freq	Goodwin	JACS	76 (1954)	5599
$C_4H_4O_6$	Tartrate ion	16-15 μ	-	-	Metallic tartates	Duval	JCP	18 (1950)	1117
C_4H_4S	Thiophene	-	-	-	C-H freq Spec Quant mech Spec Spec, Review Spec, Freq, Assign Assign, Thermo Spec Table, Assign Spec, Phy prop Group freq Thiophenes in virgin petroleum	Bonino Barnes Mulliken Barnes Thompson Thompson Waddington Birch McCullough Haines Hidalgo Thompson	TFS JCP JCP IEC JCS TFS JACS JCS JACS JPC CPR AC	25 (1929) 3 (1935) 7 (1939) 15 (1943) - (1944) 41 (1945) 71 (1949) - (1951) 75 (1953) 58 (1954) 239 (1954) 28 (1956)	876 446 339 659 183 27 797 2556 5075 270 253 1384
$C_4H_5DN_2OS$	1-Methyl-2-thiopyran-2-ol	2500-800	S	-	Bands assign	Elmore	JCS	- (1958)	3489
$C_4H_5DO_4$	Succinic acid-d ₁	-	-	-	ν_{OH}, ν_{OD}	Bratoz	SA	8 (1956)	249
$C_4H_5D_3O_2$	Ethyl acetate-d ₃	700-4000	Sol	-	Spec, Freq	Nolin	CJC	34 (1956)	1392
$C_4H_5D_3O_2$	Ethyl acetate- α -d ₃	700-4000	Sol	-	Spec, Freq	Nolin	CJC	34 (1956)	1392

C_4H_5Br	1-Bromo-2-butyne	-	L	Group freq, I	Allan	JCS	-	(1955)	1874
$C_4H_5BrN_4$	4,6-Diamino-5-bromo-pyrimidine	2-25 μ	S	Spec, Group freq	Short	JCS	-	(1952)	168
C_4H_5BrO	2-Bromocyclobutanone	-	-	Purity	Ramirez	JACS	76	(1954)	491
C_4H_5Cl	2-Chloro-1,3-butadiene	5-20 μ	G,L	Spec, Assign	Thompson	PRS	184	(1945)	21
		-	-	Moment of inertia	Torkington	JCP	18	(1950)	407
		2-25 μ	L,Sol	Group freq	Kitson	AC	25	(1953)	1470
		700-1750	S,L	Spec, Struct	Szasz	TFS	49	(1953)	358
C_4H_5Cl	1-Chloro-2-butyne	-	Sol	Group freq, I	Allan	JCS	-	(1955)	1874
		-	-	C=C freq	Ettlinger	JACS	77	(1955)	1831
		20-30K Mc/sec	G	Spec, Struct, Mol const	Victor	JCP	31	(1959)	939
$C_4H_5ClF_2$	1-Chloro-1,1-difluoro-2-butene	-	-	C=C freq	Tarrant	JACS	77	(1955)	768
$C_4H_5ClF_2$	1-Chloro-1,1-difluoro-3-butene	-	-	C=C freq	Tarrant	JACS	77	(1955)	768
$C_4H_5ClF_2O_2$	Chlorodifluoroethyl acetate	-	L	C=O, C-O & C-Cl freq	Mcbee	JACS	77	(1955)	755
$C_4H_5ClO_2$	α -Chloromethylacrylic acid	-	-	C=O, C=C freq	Ferris	JOC	19	(1954)	1971
$C_4H_5ClO_2$	cis- β -Chloro- α -methyl-acrylic acid	-	-	C=O, C=C freq	Ferris	JOC	19	(1954)	1971
$C_4H_5ClO_2$	trans- β -Chloro- α -methyl-acrylic acid	-	-	C=O, C=C freq	Ferris	JOC	19	(1954)	1971
$C_4H_5ClO_3$	1-Chlorovinyl acetate	-	Sol	Freq, Spec	Potts	SA	15	(1959)	679
$C_4H_5ClO_3$	Allyl chlorocarbonate	-	S	Freq	Ory	SA	16	(1960)	1488
$C_4H_5ClO_3$	Ethyl chloroglyoxylate	1740-1800	L	Freq	Simon	JOC	23	(1958)	1078
$C_4H_5ClO_4$	dl-Chlorosuccinic acid	-	S	Group freq, Table	Duncanson	JCS	-	(1952)	1753
$C_4H_5Cl_2F_3O$	β -Chloroethyl α,α,β -trifluoro- β -chloroethyl ether	-	-	Spec	Park	JACS	74	(1952)	2292

$C_4H_5Cl_2N$	α, β -Dichloroisobutyronitrile	-	-	C=N freq, Ident, Struct	Ferris	JOC	19 (1954)	1971
$C_4H_5Cl_2O_2B$	Dichloroacetylene borate	6-14 μ	L, S	Struct, Freq, Group position	Blau	JCS	-	(1960) 380
$C_4H_5Cl_3$	cis-1,2,3-Trichloro-2-butene	2-16 μ	-	Spec	Hatch	JACS	73 (1951)	4393
$C_4H_5Cl_3$	trans-1,2,3-Trichloro-2-butene	2-16 μ	-	Spec	Hatch	JACS	73 (1951)	4393
$C_4H_5Cl_3$	1,2,3-Trichloro-3-butene	2-16 μ	-	Spec	Hatch	JACS	73 (1951)	4393
$C_4H_5Cl_3$	1,2,4-Trichloro-2-butene	2-15 μ	L, Sol	Group freq	Kitson	AC	25 (1953)	1470
$C_4H_5Cl_3$	2,2,3-Trichloro-3-butene	2-16 μ 2-15 μ	- L, Sol	Spec Group freq	Hatch Kitson	JACS AC	73 (1951) 25 (1953)	4393 1470
$C_4H_5Cl_3O.H_2O$	α, α', β -Trichlorobutyraldehyde hydrate	600-3000	S	Freq	Anderson	SA	12 (1958)	233
$C_4H_5Cl_3O_2$	1,3-Dichloroisopropyl chloroformate	-	Sol	Struct, Dissociation, Freq	Hales	JCS	-	(1957) 618
$C_4H_5Cl_3O_2$	Ethyl trichloroacetate	-	G	Freq C=O	Hartwell	JCS	-	(1948) 1436
		-	Sol	Absorption band freq	Hampton	AC	21 (1949)	914
		-	L	Table, Band & group freq	Flett	JCS	-	(1952) 3355
		1200-2000	Sol	C=O freq	Bender	JACS	75 (1953)	5986
		-	L	C=O, C-O freq	Mcbee	JACS	77 (1955)	755
$C_4H_5Cl_3O_3$	Ethyl trichloromethylcarbonate	-	L	Struct, Dissociation, Freq	Hales	JCS	-	(1957) 618
$C_4H_5Cl_5$	1,2,2,3,4-Pentachlorobutane	2-16 μ	-	Spec	Hatch	JACS	73 (1951)	4393
$C_4H_5FO_3$	Methyl fluoropropionate	-	Sol	C=O freq	Blank	JCS	-	(1955) 2190
$C_4H_5F_3$	1,1,1-Trifluorobutene-2	-	-	Ident, Group freq, Iso	Haszeldine	JCS	-	(1953) 1199
		-	-	C=C freq, I	Haszeldine	JCS	-	(1954) 1261
$C_4H_5F_3$	1,1,1-Trifluorobutene-3	-	-	Ident	Haszeldine	JCS	-	(1953) 1199

Ident	-	-	-	Haszeldine	JCS	- (1954)	2040
C ₄ H ₅ F ₃ O	1, 1, 1-Trifluorobutan-2-one	-	-	Haszeldine	JCS	- (1954)	1261
C ₄ H ₅ F ₃ O	4, 4, 4-Trifluorobutan-2-one	-	-	Haszeldine	JCS	- (1954)	1261
C ₄ H ₅ F ₃ O	4, 4, 4-Trifluoro-2-butene-1-ol	-	-	Mcbee	JACS	76 (1954)	3725
C ₄ H ₅ F ₃ OS	Ethylthiol trifluoroacetate	2-16 μ	L	Hauptschein	JACS	74 (1952)	4005
C ₄ H ₅ F ₃ O ₂	Ethyl trifluoroacetate	1780-1011 1600-2000	G, L Sol	Fuson Bender	JCP JACS	20 (1952) 75 (1953)	1627 5986
		-	L	Mcbee	JACS	77 (1955)	755
		2-9 μ	Sol	Jencks	ABB	88 (1960)	193
C ₄ H ₅ F ₃ O ₂	γ, γ, γ -Trifluorobutyric acid	-	-	Haszeldine	JCS	- (1953)	1199
C ₄ H ₅ F ₆ N	bis-2, 2, 2-Trifluoroethyl-amine	-	G, L	NH stretching band assign Barr	JCS	- (1955)	4169
C ₄ H ₅ I	1-Iodo-2-butyne	-	L	Group freq, I Allan	JCS	- (1955)	1874
C ₄ H ₅ N	Allyl cyanide	1000-1950	-	Spec C=N freq	IEC AC	15 (1943) 24 (1952)	659 334
		-	Sol	C=C & CH freq	JCS	- (1953)	2607
		-	Sol	C=N freq, I, Ext coeff	JCS	- (1955)	487
		2200-2300	Sol	Freq & struct	SA	13 (1958)	217
		-	Sol	Group freq, Spec	SA	15 (1959)	679
C ₄ H ₅ N	cis-Crotononitrile	1050-1800	-	Spec C=N freq	IEC AC	15 (1943) 24 (1952)	659 334
		-	Sol	Shift, Mol struct	JCS	- (1955)	2170
C ₄ H ₅ N	trans-Crotononitrile	1050-1800	-	Spec C=N freq	IEC AC	15 (1943) 24 (1952)	659 334
		-	Sol	C=N, C=C freq, I	JCS	- (1955)	2170
		13-36K Mc/sec	G	Spec, Mol const	JCP	32 (1960)	1588
C ₄ H ₅ N	Crotononitrile	-	Sol	Absorption group freq, Spec	SA	15 (1959)	679
C ₄ H ₅ N	Cyclopropanecarbonitrile	2-14.5 μ	L	Spec, Table, Band freq	AC	24 (1952)	623

C_4H_5N	α -Methylacrylonitrile	-	C=N freq	Hammond	JACS	76 (1954)	4081
		400-4000	Spec, Assign, NCA, Thermo	Daly	JMS	2 (1958)	177
		-	Micro spec, Mol const	Friend	JCP	29 (1958)	577
		2-25 μ	NCA, Assign, Inertia	Daly	DA	19 (1959)	3145
		1200-1850	Spec	Barnes	IEC	15 (1943)	659
		-	C=N freq	Kitson	AC	24 (1952)	334
		-	C=C & CH freq	Devoson	JCS	- (1953)	2607
		2-15 μ	Group freq	Kitson	AC	25 (1953)	1470
		-	C=N, C=C freq, I, Mol struct	Felton	JCS	- (1955)	2170
		-	C=N freq, I, Ext coeff	Skinner	JCS	- (1955)	487
C_4H_5N	Pyrrole	-	Absorption group freq, Spec	Potts	SA	15 (1959)	679
		6700-6950	NH band	Liddel	JACS	55 (1933)	3574
		6700-7000	Spec, OH & NH group anal	Wulf	JACS	57 (1935)	1464
		-	Struct, Spec	Pauling	JACS	58 (1936)	94
		-	Quant mech	Mulliken	JCP	7 (1939)	339
		-	Spec, Assign	Zumwalt	JCP	7 (1939)	629
		2.6-3.1 μ	H bond	Gordy	JACS	62 (1940)	497
		750-1950	Spec, Assign	Lord	JCP	10 (1942)	328
		1050-1750	Spec	Barnes	IEC	15 (1943)	659
		-	Freq, Assign	Thompson	TFS	41 (1945)	27
C_4H_5N	Pyrrole	-	Mol anal	Halverson	RMP	19 (1947)	87
		-	Anal, Ext coeff	Densham	JCS	- (1952)	2433
		3 μ	NH band, H bond	Fuson	JCP	20 (1952)	145
		1-3.4 μ	NH freq shift	Tuomikoski	JCP	20 (1952)	1054
		-	Struct, Micro spec	Wilcox	JCP	20 (1952)	1656
		-	Freq shift	Josien	JCP	22 (1954)	1169
		-	H bond	Tuomikoski	JCP	22 (1954)	2096
		-	NH freq	Pozefsky	AC	27 (1955)	1466
		-	Band freq, I, Ext coeff	Russell	JCS	- (1955)	483
		-	Micro spec	Bak	JCP	24 (1956)	720
C_4H_5N	Pyrrole	-	H bond	Josien	JCP	24 (1956)	1261
		-	Solvent effect on vib of NH bond	Mivone	GCI	86 (1956)	1079
		-	Stretch vib, Shift	Benson	JCP	27 (1957)	1164
		.7-2 μ	Spec, Anal	Mitchell	AC	29 (1957)	499
		3000-3700	Freq	Soda	BCSJ	30 (1957)	499
		-	Shift & solvent, H bond	Bellamy	TFS	54 (1958)	1120
		400-1700	Freq line charts	Bohon	AC	30 (1958)	245
		4000-500	Spec, Freq, Vib assign	Eisner	JCS	- (1958)	971
		-	Spec, Freq, Vib assign	Eisner	JCS	- (1958)	971
		-	Spec, Freq, Vib assign	Eisner	JCS	- (1958)	971

	2.22-19.71 μ L	Phys. prop	Helm	JPC	62 (1958)	858
	2900-3100	Sol	Hill	JCS	- (1958)	760
	400-4000	S, Sol	Mason	JCS	- (1958)	976
	1600-4000	-	Scrocco	AAN	24 (1958)	316
	3200-3800	Sol	Bellamy	TFS	55 (1959)	220
	-	G	Wilcox	DA	19 (1959)	2498
	400-4000	L, G	Morecillo	ARS	56B (1960)	231
	2-12 μ	Sol	Ettlinger	JACS	72 (1950)	4699
	-	-	Linnett	TFS	41 (1945)	223
	3 μ	Sol	Russell	SA	8 (1956)	138
	1600-1800	Sol	Hall	JACS	80 (1958)	6428
	-	S	Ames	JCS	- (1955)	631
	650-4000	Sol	Pi anka	JCS	- (1960)	983
	-	-	Boer	RTC	79 (1960)	231
	-	-	Boer	RTC	79 (1960)	231
	-	-	Boer	RTC	79 (1960)	231
	2000-2300	Sol	Caldow	SA	13 (1958)	212
	600-2200	-	Lieber	SA	13 (1959)	296
	-	Sol	Potts	SA	15 (1959)	679
	400-4000	L, G	Ham	SA	16 (1960)	279
	600-3600	L	Taurins	CJC	35 (1957)	423
	600-3600	L	Taurins	CJC	35 (1957)	423
	600-3600	L	Taurins	CJC	35 (1957)	423
	600-4000	S	Stone	JCS	- (1958)	52
	2800-3500	S, Sol	Flett	JCS	- (1953)	347

$C_4H_5NS_2$	4-Methyl-2-thio-thiazolone	2-12 μ	Sol	Spec	Ettlinger	JACS	72 (1950)	4699
$C_4H_5N_3$	2-Aminopyrazine	3 μ	Sol	Freq, FC, N-H band	Mason	JCS	- (1958)	3619
$C_4H_5N_3$	4-Aminopyridazine	3 μ	Sol	Freq, FC, NH band	Mason	JCS	- (1958)	3619
$C_4H_5N_3$	2-Aminopyrimidine	3-6 μ	Sol	Spec, Table, Struct	Angyal	JCS	- (1952)	2911
		-	Sol	Table, NH_2 freq, Struct	Goulden	JCS	- (1952)	2939
		2-25 μ	S	Spec, Group freq	Short	JCS	- (1952)	4191
		-	Sol	Group study	Brown	JCS	- (1953)	331
		3300-3500	Sol	Freq, FC	Short	JCS	- (1956)	168
		3 μ	Sol	Freq, FC, NH band dipole	Mason	JCS	- (1958)	3619
$C_4H_5N_3$	4-Aminopyrimidine	-	Sol	Group study	Brown	JCS	- (1953)	331
		3300-3500	Sol	Freq, FC	Short	JCS	- (1956)	4191
		3 μ	Sol	Freq, FC, NH band dipole	Mason	JCS	- (1958)	3619
$C_4H_5N_3$	5-Aminopyrimidine	2-25 μ	S	Spec, Group freq	Short	JCS	- (1952)	168
		3300-3500	Sol	Freq, FC	Short	JCS	- (1956)	4191
		3 μ	Sol	Freq, FC, NH band dipole	Mason	JCS	- (1958)	3619
$C_4H_5N_3O$	Cytosine	2-15 μ	S	Spec	Bloat	JACS	72 (1950)	479
		-	S	I	Stimson	AC	23 (1951)	1050
		-	S	Table, Band freq	Schwarz	APS	6 (1952)	15
		2-15 μ	S	Spec, Bands	Stimson	JACS	74 (1952)	1805
		-	-	Ident	Flynn	JACS	75 (1953)	5867
		2.5-11.5 μ	Sol	Spec, Group freq	Lacher	JPC	59 (1955)	615
		3-9.9 μ	-	Struct	Ulbricht	NWS	45 (1958)	416
$C_4H_5N_3O \cdot H_2O$	Cytosine hydrate	2.5-15 μ	S	Spec	Blout	JOSA	41 (1951)	547
		-	S	Sample preparation	Stimson	AC	23 (1951)	1050
$C_4H_5N_3O$	2-Hydroxy-4-amino-pyrimidine	2-25 μ	S	Spec, Group freq	Short	JCS	- (1952)	168
$C_4H_5N_3O$	4-Hydroxy-6-amino-pyrimidine	2-25 μ	S	Spec, Group freq	Short	JCS	- (1952)	168
$C_4H_5N_3O$	I socytosine	2-15 μ	S	Spec	Stimson	JACS	74 (1952)	1805
$C_4H_5N_3O$	Imidazole-4-aldehyde oxime	1570-3350	S	Spec	Turner	JACS	71 (1949)	3472

$C_4H_5N_3OS$	4-Amino-2-thiouracil	2-12 μ	Sol	Spec, Group freq, Assign	Laohar	JPC	59 (1955)	615
$C_4H_5N_3OS$	2-Mercapto-4-hydroxy-6-aminopyrimidine	2-25 μ	S	Spec, Group freq	Short	JCS	- (1952)	168
$C_4H_5N_3OS$	5-Nitroso-4,6-diamino-2-mercaptopyrimidine	2-15 μ	S	Spec, Assign	Brownlie	JCS	- (1950)	3062
$C_4H_5N_3O_2$	2-Amino-4,5-dihydroxy-pyrimidine	650-3600	S	CO, OH group presence, Struct	Tanner	SA	8 (1956)	9
$C_4H_5N_3O_2$	2-Amino-4,6-dihydroxy-pyrimidine	2-25 μ 650-3600	S	Spec, Group freq CO, OH group presence, Struct	Short Tanner	JCS SA	- (1952) 8 (1956)	168 9
$C_4H_5N_3O_2$	6-Amino-2,4-dihydroxy-pyrimidine	2-25 μ 1530-1727	S	Spec, Group freq Table, I, Ident	Short Barker	JCS JCS	- (1952) - (1954)	168 4206
$C_4H_5N_3O_2S$	5-Amino-4-mercapto-2,6-dihydroxypyrimidine	2-15 μ	S	Spec, Assign	Brownlie	JCS	- (1950)	3062
$C_4H_5N_3O_3$	4-Amino-2,5,6-tri-hydroxypyrimidine	650-3600	S	OH bond, Struct	Tanner	SA	8 (1956)	9
$C_4H_5N_3O_3$	Uramil	9.5-13.5 μ	S	Band freq	Schwarz	APS	6 (1952)	15
$C_4H_5N_3O_3 \cdot H_2O$	2-Amino-4,5,6 Trihydroxy-pyrimidine hydrate	650-3600	S	Struct	Tanner	SA	8 (1956)	9
$C_4H_5N_3S$	2-Mercapto-4-amino-pyrimidine	2-25 μ	S	Spec, Group freq	Short	JCS	- (1952)	168
$C_4H_5N_3S$	Thiocytosine	2-12 μ	Sol	Spec, Assign	Lacher	JPC	59 (1955)	615
C_4H_6	1,2-Butadiene	3.2-10 μ 2-15 μ - - - - - - 16-33K MC/sec	G G - - - - G - G	Mol struct Spec, Assign Thermo, IR Anal Vib assign Absorption freq Thermo Band freq Micro spec, Struct	Yao Aston Rasmussen Seyfried Szasz Johnston Kilpatrick Haszeldine Lide	PR JACS JCP IEC JACS AC JRNBS JCS JCP	68 (1945) 69 (1947) 15 (1947) 19 (1947) 69 (1947) 20 (1948) 42 (1949) - (1954) 27 (1957)	99 3108 131 298 3150 805 225 2040 874

C_4H_6	cis-1,3-Butadiene	-	-	Quant mech	Mulliken	JCP	7 (1939)	1121
		-	-	Relative stability of iso	Rasmussen	JCP	11 (1943)	432
		-	-	Anal	Starr	AC	21 (1949)	572
		-	Sol	Group freq, Spec	Potts	SA	15 (1959)	679
C_4H_6	trans-1,3-Butadiene	-	-	Spec, NCA	Sverdlov	OS	9 (1960)	304
		-	-	Spec, NCA	Sverdlov	OS	9 (1960)	304
		-	-	Thermo	Kassel	JCP	4 (1936)	435
		-	-	Quant mech	Mulliken	JCP	7 (1939)	121
C_4H_6	1,3-Butadiene	750-1900	-	Spec, Anal	Barnes	IEC	15 (1943)	83
		800-1950	-	Absorption freq, Spec	Barnes	IEC	15 (1943)	659
		-	-	Relative stability of iso	Rasmussen	JCP	11 (1943)	432
		-	G	Analytical method	Brady	JOSA	34 (1944)	348
		4-9 μ	G	Spec, Anal	Brady	IEC	16 (1944)	422
		6.26-11 μ	G	Ext coeff	Nielsen	RMP	16 (1944)	307
		-	G	Anal	O'Bryan	JOSA	35 (1945)	799
		500-2000	-	Spec	Thompson	PRS	184 (1945)	3
		600-1800	-	Spec	Thompson	TFS	41 (1945)	246
		-	-	Thermo	Aston	JCP	14 (1946)	67
		-	-	Ext coeff, Anal	Lee	IEC	18 (1946)	659
		-	G	Mol struct	Nielsen	JOSA	37 (1947)	296
C_4H_6	1,3-Butadiene	2-15 μ	G	Spec, Assign	Rasmussen	JCP	15 (1947)	131
		-	-	Group anal	Seyfried	IEC	19 (1947)	298
		-	-	Quant mech, FC	Coulson	PRS	193 (1948)	456
		-	-	Absorption freq	Johnston	AC	20 (1948)	805
		1-15 μ	G, L	Spec	Greitz	JRNB	42 (1949)	365
		-	-	Anal	Hampton	AC	21 (1949)	923
		1000-900	-	Anal	Hart	JACS	71 (1949)	1980
		-	G	Thermo	Kilpatrick	JRNB	42 (1949)	225
		600-3600	G	Ident, Spec	Roberts	JACS	71 (1949)	3925
		-	-	IR, Anal	Starr	AC	21 (1949)	572
		-	G	Anal	Coggeshall	AC	22 (1950)	381
		-	-	Anal	Hauser	JPC	54 (1950)	256
		-	-	Moment of inertia theory	Torkington	JCP	18 (1950)	407
		-	-	C=C freq	Haszeldine	JCS	- (1952)	4423
		-	Sol	C=C & CH freq	Davison	JCS	- (1953)	2607
		-	-	Anal, Polymer struct	Foster	JACS	75 (1953)	2910
		-	-	Anal	Naylor	JACS	75 (1953)	5392
		10-15 μ	L	Spec	Patterson	AC	26 (1954)	823
		-	-	Ident	Schubert	JACS	76 (1954)	1929

C ₄ H ₆	1-Butyne	2-15 μ	G	Spec	Pierson	AC	28 (1956)	1218
	-	-	-	Assign	Cleveland	JCP	10 (1942)	172
	2-12 μ	-	G	Spec	Brady	IEC	16 (1944)	422
	-	-	-	Thermo	Wagman	JRNB	35 (1945)	467
	-	-	G	Anal, Press broadening	Seyfried	IEC	19 (1947)	298
	-	-	-	Assign	Sheppard	JCP	17 (1949)	74
	-	-	L,S	Thermo	Aston	JACS	72 (1950)	5287
	-	-	-	Bending freq	Ferigle	JCP	20 (1952)	1928
	300-3800	-	Sol	Freq, Deformation para-meters	Nyquist	SA	16 (1960)	417
C ₄ H ₆	2-Butyne	-	-	Assign	Badger	JCP	5 (1937)	178
	-	-	-	Thermo	Crawford	JCP	7 (1937)	437
	2-24 μ	-	-	Spec, Freq, Assign	Crawford	JCP	7 (1937)	555
	-	-	-	Quant mech	Glookler	JCP	5 (1937)	813
	-	-	-	Thermo	Kistiakowsky	JCP	8 (1940)	618
	-	-	-	Hindered rot	Langseth	JCP	8 (1940)	415
	-	-	-	Freq, Isotopic effect	Cleaveland	JCP	9 (1941)	390
	-	-	-	FC	Crawford	JCP	9 (1941)	69
	-	-	-	Pot fn, FC	Linnett	TFS	37 (1941)	469
	-	-	-	Thermo	Wagman	JRNB	35 (1945)	467
	-	-	-	Quant mech, Thermo	Halford	JCP	15 (1947)	364
	-	-	-	Quant mech	Meister	JCP	15 (1947)	349
	-	-	G	Press broadening	Seyfried	IEC	19 (1947)	298
	-	-	-	FC	Walsh	TFS	43 (1947)	60
	-	-	-	Hindered rot	Lassettre	JCP	17 (1949)	317
	-	-	-	C=C freq	Haszeldine	JCS	- (1954)	1261
	2-25 μ	-	G	Spec, Freq, Mol anal	Mills	PRS	226 (1954)	306
	-	-	G	NCA, I	Mills	PRS	228 (1955)	287
	-	-	-	Free rot, Selection rule	Bauman	JCP	24 (1956)	13
C ₄ H ₆	Cyclobutene	600-3500	G	Spec, Ident	Roberts	JACS	71 (1949)	3925
	2-16 μ	-	G	Spec	Roberts	JACS	74 (1952)	3192
	250-3500	-	-	C=C freq, Struct	Lord	AC	26 (1954)	429
	250-3800	-	L,G	Spec, Assign	Lord	JACS	79 (1957)	2401
C ₄ H ₆	Methylenecyclopropane	2-16 μ	G	Spec, Assign, Group freq	Gragson	JACS	75 (1953)	3344
C ₄ H ₆ D ₂ N ₂ O	Di acetylhydrazone-d ₂	400-3600	S	Spec, Group assign	Miyazawa	JCP	24 (1956)	408
C ₄ H ₆ D ₂ N ₂ O ₂	2,3-Butanedione dioxime-d ₂	-	-	OD freq	Gordyoki	JCP	19 (1951)	1205
	2-16 μ	-	S	Spec, H bond	Voter	AC	23 (1951)	1730
	2-15 μ	-	S	Spec	Nakahana	BCSJ	29 (1956)	296

$C_4H_6Cl_2$	cis-1,4-Dichloro-2-butene	5-14 μ 2-15 μ	- L, Sol	Spec Group freq	Mislow Kitson	JACS AC	73 (1951) 25 (1953)	244 1470
$C_4H_6Cl_2$	trans-1,4-Dichloro-2-butene	5-14 μ 2-15 μ	- L, Sol	Spec Group freq	Mislow Kitson	JACS AC	73 (1951) 25 (1953)	244 1470
$C_4H_6Cl_2$	cis-2,3-Dichloro-2-butene	2-16 μ	-	Spec	Hatch	JACS	73 (1951)	4393
$C_4H_6Cl_2$	trans-2,3-Dichloro-2-butene	2-16 μ	-	Spec	Hatch	JACS	73 (1951)	4393
$C_4H_6Cl_2$	3,4-Dichloro-1-butene	-	Sol	Group freq, Spec	Potts	SA	- (1959)	679
$C_4H_6Cl_2F_2O$	1,1-Difluoro-2,2-dichloro-ethyl ether	3-15 μ	G, L	Spec	Park	JACS	73 (1951)	861
$C_4H_6Cl_2O$	cis-2,3-Dichloro-2-buten-1-ol	2-16 μ	-	Spec	Hatch	JACS	73 (1951)	4393
$C_4H_6Cl_2O$	trans-2,3-Dichloro-2-buten-1-ol	2-16 μ	-	Spec	Hatch	JACS	73 (1951)	4393
$C_4H_6Cl_2O_2$	1-Chloroisopropyl chloroformate	-	L	Freq, Cl_2 substitution	Hales	JCS	- (1957)	618
$C_4H_6Cl_2O_2$	Ethyl dichloroacetate	-	L	C=O, C-O, C-Cl freq	Mcbee	JACS	77 (1955)	755
$C_4H_6Cl_2O_5B_2$	Dichlorodiacetyl diborate	1500-1800	S	Carbonyl freq, Assign	Duncanson	JCS	- (1958)	3652
$C_4H_6Cl_3NO.HCl$	N,N-Dimethyltrichloroacetamide hydrochloride	1350-4000	S	Struct	Griivas	CJC	37 (1959)	1260
$C_4H_6Cl_3NO.HCl$	N-Ethyltrichloroacetamide hydrochloride	1350-4000	S	Struct	Griivas	CJC	37 (1959)	1260
$C_4H_6Cl_4$	1,1,1,2-Tetrachlorobutane	-	-	Anal	Brown	JACS	77 (1955)	4019
$C_4H_6Cl_4$	1,1,1,3-Tetrachlorobutane	-	-	Anal	Brown	JACS	77 (1955)	4019
$C_4H_6Cl_4$	1,2,3,3-Tetrachlorobutane	2-16 μ	-	Spec	Hatch	JACS	73 (1951)	4393
$C_4H_6Cl_4$	1,2,3,4-Tetrachlorobutane (dl)	2-15 μ	L, Sol	Group freq	Kitson	AC	25 (1953)	1470
$C_4H_6Cl_4$	1,2,3,4-Tetrachlorobutane (meso)	2-15 μ	L, Sol	Group freq	Kitson	AC	25 (1953)	1470

$C_4H_6Cl_4O_2$	$\alpha, \gamma, \gamma, \gamma$, -Tetrachloro- butyraldehyde hydrate	-	L, Sol	Group freq, Struct	Hall	JCS - (1954) 2034
$C_4H_6FIO_2$	Ethyl fluoroiodoacetate	-	L	C=O, C-O freq	Mcbee	JACS 77 (1955) 755
$C_4H_6FN_3O_3$	Fluoropyruvic acid semicarbazone	-	-	H bond, CF freq	Bergmann	JCS - (1956) 1519
$C_4H_6F_2$	1,1-Difluoro-3-methyl- butadiene	-	-	Ident	Tarrant	JACS 76 (1954) 2343
$C_4H_6F_2O_2$	Ethyl difluoroacetate	1200-2000	Sol L	C=O freq C=O, C-O freq	Bender Mcbee	JACS 75 (1953) 5986 JACS 77 (1955) 755
$C_4H_6F_3NO.HCl$	N-Ethyltrifluoro- acetamide hydro- chloride	1350-4000	S	Struct, Protonation	Grivas	CJC 37 (1959) 1260
$C_4H_6F_3NO_2$	Ethyl N-Trifluoromethyl- carbamate	3-6 μ	S	Freq, FC, Assign	Barr	JCS - (1956) 3428
$C_4H_6F_4O$	1,1,2,2-Tetrafluoroethyl ethyl ether	2-15 μ	G, L	Spec	Park	JACS 73 (1951) 1329
$C_4H_6N_2$	4-Methylimidazole	- 625-4000	Sol S	Band freq Spec, Assign	Ehrlich Garfinkel	JACS 76 (1954) 5268 JACS 80 (1958) 3807
$C_4H_6N_2O$	4-Hydroxymethyl- imidazole	2400-3600	S	Spec	Turner	JACS 71 (1949) 3472
$C_4H_6N_2OS$	1-Methyl-2-thiohydantoin	2500-800	S	Bands assign	Elmore	JCS - (1958) 3489
$C_4H_6N_2OS$	5-Methyl-2-thiohydantoin	2500-800	S	Band assign	Elmore	JCS - (1958) 3489
$C_4H_6N_2O_2$	5,6-Dihydrouacil	-	S	NH & C = O freq	Murray	JACS 76 (1954) 3665
$C_4H_6N_2O_2$	Diketopiperazine	1-2.5 μ 1.7 μ 2.75-3.75 μ 2.8-3.6 μ 2800-3500 700-4000 2.8-15 μ	- S S S S S S	Spec, Assign Fermi resonance H bond Spec, Assign, FC Spec Spec Spec, Assign	Ellis Ellis Bushwell Kellner Ambrose Newman Shimanouchi	JCP 7 (1939) 862 PR 55 (1939) 1098 JACS 62 (1940) 2759 PRS 177 (1941) 447 PRS 206 (1951) 192 JCP 19 (1951) 1147 JCP 19 (1951) 1479

	S	NH freq	C=C freq, Bond angle	Badger	PNAS	40 (1954)	12
	-	-	C-H bond	Krimm	JCP	23 (1955)	1371
	-	-	H bond	Pimental	JCP	24 (1956)	639
1800-200	S	Freq, Assign		Miyazawa	JMS	4 (1960)	155
Dimethylfuroxan	-	Table, I, Group freq		Boyer	JACS	77 (1955)	4238
Dimethyldiisocyanato-silane	-	Freq, Assign		Widmaier	ZAUA	300 (1959)	194
N-Acetyethanenitrolic acid	-	C=O, C=N freq, I		Grabiel	JACS	77 (1955)	1293
cis-2,3-Dinitro-2-butene	-	Struct		Mead	JOC	23 (1958)	921
2,4,5,6-Tetrahydroxy-pyrimidine hydrate	S	650-3600	Freq, FC, Struct	Tanner	SA	8 (1956)	9
2-Imino-3-methyl- Δ^4 -thiazoline	Sol	3-6 μ	Spec, Table, Freq, Struct	Angyal	JCS	- (1952)	2911
1-Methyl-2-thioimidazolone	Sol	2-12 μ	Spec	Ettlinger	JACS	72 (1950)	4699
Dimethylsilyl diisothio-cyanate	-	280-3000	Spec, Struct, Assign	Goubeau	ZAUA	294 (1958)	96
Dimethyldiisocyano-silane	Sol	4.5-8 μ	Spec, Table, Freq	Mcbride	JACS	74 (1952)	5247
2,4-Diaminopyrimidine	S	2-25 μ	Spec, Group freq	Short	JCS	- (1952)	168
4,6-Diaminopyrimidine	S	2-15 μ	Spec, Group freq, Assign	Brownlie	JCS	- (1950)	3062
	S	2-25 μ	Spec, Group freq	Short	JCS	- (1952)	168
Acetyldiacyandiamide	-	-	C=N band freq	Adams	JOC	17 (1952)	1162
2,4-Diamino-6-hydroxy-pyrimidine	S	2-25 μ	Spec, Group freq	Short	JCS	- (1952)	168
4,6-Diamino-2-hydroxy-pyrimidine	S	2-15 μ	Spec, Group freq, Assign	Brownlie	JCS	- (1950)	3062
	S	2-25 μ	Spec, Group freq	Short	JCS	- (1952)	168
$C_4H_6N_2O_4 \cdot \frac{1}{2}H_2SO_4$	S	650-3600	Freq, Struct	Tanner	SA	8 (1956)	9
2,4-Diamino-5,6-dihydroxy-pyrimidine semisulfate	S						

$C_4H_6N_2O_7$	2,5,5-Trinitro-3-aza-4-oxa-2-hexene	3-10 μ -	Sol Sol	Spec, Group freq, I Ext coeff	Belew Grabiel	JACS 77 (1955) 1110 JACS 77 (1955) 1293
$C_4H_6N_2O_8$	2,2,3,3-Tetranitrobutane	3-10 μ -	Sol Sol	Spec, Group freq, I Ext coeff	Belew Grabiel	JACS 77 (1955) 1110 JACS 77 (1955) 1293
$C_4H_6N_2S$	5-Allylamino-1,2,3,4-thiatriazole	700-1700	S	Spec, Struct, Assign	Lieber	CJC 36 (1958) 801
$C_4H_6N_2S$	4,6-Diamino-2-mercapto-pyrimidine	2-15 μ	S	Spec, Group freq, Assign	Brownlie	JCS - (1950) 3062
$C_4H_6N_2S$	Guanazoguanazole	-	-	Group freq	Kaiser	JOC 18 (1953) 1610
C_4H_6O	Butadiene oxide	- 2-15 μ	- L, Sol	Struct Spec, Freq	Field Patterson	JCP 18 (1950) 1298 AC 26 (1954) 823
C_4H_6O	2-Buten-1-al	1400-2000 1800-1650 2-15 μ	G, Sol Sol L, Sol	Spec Ext coeff Group freq	Bloat Cross Kitson	JACS 70 (1948) 194 TFS 47 (1951) 354 AC 25 (1953) 1470
C_4H_6O	trans-2-Buten-1-al	-	Sol	Group freq, Spec	Potts	SA - (1959) 679
C_4H_6O	2-Butynol	-	-	C=C freq	Ettlinger	JACS 77 (1955) 1831
C_4H_6O	Cyclobutanone	650-3700 - - - 1600-1800 - 300-7000	L - - Sol Sol Sol G, L	Spec, Ident Ident C=O freq C=O freq Freq H bond, Freq shift Spec, Assign, NCA	Roberts Ramirez Snyder Bartlett Hall Tamres Frei	JACS 71 (1949) 3925 JACS 76 (1954) 491 JACS 76 (1954) 4601 JACS 77 (1955) 2806 JACS 80 (1958) 6428 JACS 81 (1959) 2100 JMS 5 (1960) 218
C_4H_6O	2,3-Dihydrofuran	650-3150 -	L -	Table, Band freq, I Group freq	Meakins Barr	JCS - (1953) 4170 JCS - (1954) 3766
C_4H_6O	3,4-Epoxy-1-butene	2-15 μ 1-37 μ -	L Sol Sol	Spec, Struct anal Terminal epoxides Group freq, Spec	Shreve Goddu Potts	AC 23 (1951) 277 AC 30 (1958) 2013 SA - (1959) 679
C_4H_6O	Methacrolein	1200-1800 1.6-2.1 μ	- Sol	Absorption freq, Spec Ext coeff	Barnes Goddu	IEC 15 (1943) 659 AC 29 (1957) 1790

C ₄ H ₆ O	Methoxy methylacetylene	300-3800	Sol, S	Freq, C-H deformation & chemical parameter	Nyquist	SA	16 (1960)	417
C ₄ H ₆ O	Methyl vinyl ketone	-	Sol	C=C, CH freq Anal, Struct	Davison Foster	JCS	- (1953)	2607
		-	-	C-H, CO bond freq	Baker	JACS	75 (1953)	2910
		-	Sol			JACS	82 (1960)	1923
C ₄ H ₆ O ₂	Butadiene dioxide	2-15 μ	L, Sol	Spec, Group freq	Patterson	AC	26 (1954)	823
C ₄ H ₆ O ₂	Butadione-2, 3	-	-	FC	Walsh	TFS	43 (1947)	158
		-	-	Absorption freq, Struct anal	Rasmussen	JACS	71 (1949)	1068
		-	Sol	C=O stretch freq	Cosgrove	JCS	- ((1952)	4821
		-	L	Band freq	Leonard	JACS	75 (1953)	3300
		-	-	Spec, Assign	Noack	ZE	64 (1960)	707
C ₄ H ₆ O ₂	2-Butenoic acid	2-15 μ	L, Sol	Group freq	Kitson	AC	25 (1953)	1470
		-	Sol	Freq, Dissociation const	Goulden	SA	6 (1954)	129
C ₄ H ₆ O ₂	cis-2-Butenoic acid	-	-	Band freq	Eglinton	JCS	- (1954)	3197
		-	Sol	I, Group freq	Allan	JCS	- (1955)	1874
		.9-3 μ	Sol	Spec	Holman	AC	28 (1956)	1533
C ₄ H ₆ O ₂	trans-2-Butenoic acid	700-4000	L, Sol	Table, Ext coeff	Flett	JCS	- (1951)	962
		-	-	I bands	Eglinton	JCS	- (1954)	3197
		-	Sol	Group freq	Allan	JCS	- (1955)	1874
		-	Sol	Group freq, Spec	Potts	SA	- (1959)	679
C ₄ H ₆ O ₂	3-Butenoic acid	-	-	Band freq	Eglinton	JCS	- (1954)	3197
C ₄ H ₆ O ₂	1,4-Butyne-2-diol	-	S	Spec	Karagounis	ZE	61 (1957)	1094
		8.87-9.44 μ	Sol	Relative absorbance anal	Spell	AC	31 (1959)	1600
C ₄ H ₆ O ₂	Carboxycyclopropane	2-16 μ	S	Spec, Struct	Allen	JOC	22 (1957)	1291
C ₄ H ₆ O ₂	4-Hydroxybutanoic acid lactone	-	L, S	Struct	Pinder	JCS	- (1952)	2236
		5.2-6.0 μ	Sol	Spec, H bond, Band freq	Searles	JACS	75 (1953)	71
		-	-	C=O freq	Radell	JACS	76 (1954)	4188
		-	-	Distinct from other	Hart	JACS	77 (1955)	3138
		1600-1800	L, Sol	Freq	Hall	JACS	80 (1958)	6428
C ₄ H ₆ O ₂	Methacrylic acid	700-4000	L, S	Table, C=O freq	Flett	JCS	- (1951)	962
		-	Sol	C=C, CH freq	Davison	JCS	- (1953)	2607
		5.7-5.9 μ	Sol	IR	Chang	JPC	60 (1956)	782

$C_4H_6O_2$	Methyl acrylate	-	Sol	Group freq, Spec	Potts	SA - (1959)	679
		1050-1800	-	Absorption freq, Spec	Barnes	IEC 15 (1943)	659
		500-3200	-	Spec	Thompson	TFS 41 (1945)	246
		-	Sol	Absorption band freq	Hampton	AC 21 (1949)	914
		-	Sol	C=O, C=C, CH freq	Davison	JCS - (1953)	2607
		200-3200	-	Spec, Assign	Hidalgo	ARS 52B (1956)	627
		2-15 μ	L	Spec, Assign	Walton	JACS 79 (1957)	3985
		-	Sol	Freq, I	Thompson	SA 13 (1958)	236
		800-1500	Sol	Group assign	Katritzky	SA 16 (1960)	954
		-	-	Assign	Katritzky	SA 16 (1960)	964
$C_4H_6O_2$	Vinyl acetate	1050-2000	-	Spec, Absorption freq	Barnes	IEC 15 (1943)	659
		500-3200	-	Spec	Thompson	TFS 41 (1945)	246
		2.8-4.5 μ	L	Spec, Band freq	Adelman	JOC 14 (1949)	1057
		-	Sol	C=C, CH freq	Davison	JCS - (1953)	2607
		1.6-2.1 μ	Sol	Ext coeff	Goddu	AC 29 (1957)	1790
		4.7-5.75 μ	S	Struct	Wiberly	AC 29 (1957)	210
		-	Sol	Freq, I	Thompson	SA 13 (1958)	236
		-	Sol	Group freq, Spec	Potts	SA - (1959)	679
		-	Sol	C-H, CO band freq	Baker	JACS 82 (1960)	1923
$C_4H_6O_2S$	Divinyl sulfone	-	Sol	Group freq	Waight	JCS - (1952)	2440
$C_4H_6O_2S_2$	Methyl carboxymethyl-dithioacetate	400-4000	S	Spec, Freq	Bak	ACS 12 (1958)	1451
$C_4H_6O_3$	Acetic anhydride	2-8 μ .8-6.4 μ	Sol	Spec, Assign	Bennett	JACS 49 (1927)	50
		1050-1850	G	Anal in rate study	Plyler	JCP 3 (1935)	679
		950-1250	-	Absorption freq, Spec	Barnes	IEC 15 (1943)	659
		-	Sol	Spec, Anal, Ext coeff	Brown	JCS - (1951)	87
		1050-1250	Sol	Effect of pyridine	Gold	JCS - (1953)	1409
		1000-1250	Sol	Reference	Bourne	JACS 76 (1954)	3206
		-	Sol	Band freq, Anal	Bourne	JCS - (1954)	2006
		1600-1800	-	Band freq, Reference	Launing	JOC 19 (1954)	1171
		1750-1850	Sol	Freq	Hall	JACS 80 (1958)	6428
		-	Sol	Doublet from coupling	Dauben	JOC 24 (1959)	1595
$C_4H_6O_3$	Acetoacetic acid	-	Sol	H bond	Oki	BCSJ 33 (1960)	119
$C_4H_6O_3$	Diacetyl ether	-	G, Sol	Freq	O'Sullivan	JCS - (1957)	4144
$C_4H_6O_3$	Methyl ethylenecarbonate	-	Sol, L	Struct, Dissociation	Hales	JCS - (1957)	618

$C_4H_6O_3$	Methylpyruvic acid	660-4000	-	Spec, Taut	Josien	BSCF	-	(1957)	1148
$C_4H_6O_3$	Trimethylene carbonate	1600-1800	L, Sol	Freq	Hall	JACS	80	(1958)	6428
$C_4H_6O_4$	Diacetyl peroxide	- 5-15 μ	Sol Sol	Table, C=O freq Spec, Peroxide bands	Davison Minkoff	JCS PRS	- 224	(1951) (1954)	2456 176
$C_4H_6O_4$	Dimethyl oxalate	1500-5000 1700-1800	Sol L, Sol	Group freq Iso, Vib coupling	Briggs Abramovitch	AC CJC	29 37	(1957) (1959)	904 1146
$C_4H_6O_4$	Methyl malonate	-	Sol	H bond	Oki	BCSJ	33	(1960)	119
$C_4H_6O_4$	Succinic acid	3 μ 1.87-2.7 μ 700-4000 500-1500	S S S, L S	H bond H bond Table, C=O freq, Assoc Spec, Assign	Glatt Glatt Flett Hadzi	JCP PR JCS PRS	15 73 - 216	(1947) (1948) (1951) (1953)	880 541 962 247
		- 670-2000	- L, S	Ident Spec	Blowquist Corish	JACS JCS	77 -	(1955) (1955)	1806 2431
		-	-	Group study	Bratoz	SA	8	(1956)	249
		-	S	H bond	Pimental	JCP	24	(1956)	639
		680-2500	-	Spec	Hadzi	NC	11	(1959)	715
		650-2000	S	Struct, Spec	Davies	TFS	56	(1960)	185
		5-15 μ	S	Pressure effect on freq & I	Lippincott	SA	16	(1960)	58
		500-3500	S, Sol	Assign, Freq	Shimanouchi	SA	16	(1960)	1328
$C_4H_6O_5$	l-Malic acid	-	S	Group freq	Eliel	JACS	75	(1953)	4585
$C_4H_6O_5$	dl-Malic acid	- -	S S	Group freq Spec, Freq, Ident	Eliel Kilkwarf	JACS AC	75 26	(1953) (1954)	4585 191
$C_4H_6O_6$	Tartaric acid	.5-2 μ -	Sol Sol	Rotatory dispersion Rotatory dispersion, Polarization	Ingersoll Ingersoll	PR JOSA	9 5	(1917) (1921)	257 156
		5-50 μ -	- S	Absorption Spec, Freq, Ident	Cartwright Kalkwarf	PR AC	35 26	(1930) (1954)	415 191
C_4H_6S	2,3-Dihydrothiophene	-	-	Spec	Birch	JCS	-	(1951)	2556
C_4H_6S	2,5-Dihydrothiophene	-	-	Spec	Birch	JCS	-	(1951)	2556
C_4H_6S	Divinyl sulphide	600-3500	G, L	Spec	Greogief	CJC	37	(1959)	1104
C_4H_7	Isobutene-1-d ₁	-	G	CD freq	Glockling	JCS	-	(1955)	716

C_4H_7DO	Butyraldehyde-d ₁	2-15 μ -	S -	CH vib CH freq	Eggers Pinchas	AC AC	28 (1956) 29 (1957)	1328 334
$C_4H_7DO_2$	Butyric acid-d ₁	1-13 μ - 1500-700	G - G	Spec, H bond Group study Spec, Freq assign	Herman Bratoz Hadzi	JCP SA SA	8 (1940) 8 (1956) 12 (1958)	252 249 162
$C_4H_7DO_2$	n-Butyric acid- α -d ₁	8-13 μ	-	Spec	Eliei	SA	10 (1958)	423
$C_4H_7DO_2$	Isobutyric acid- α -d ₁	8-13 μ	-	Spec	Eliei	SA	10 (1958)	423
C_4H_7Br	1-Bromo-3-butene	2-16 μ	Sol	Spec	Roberts	JACS	73 (1951)	2509
C_4H_7Br	cis-2-Bromo-2-butene	3.34-12.5 μ	L	Table, I	Dreiding	JACS	76 (1954)	1902
C_4H_7Br	trans-2-Bromo-2-butene	3.34-12.54 μ	L	Table, I	Dreiding	JACS	76 (1954)	1902
C_4H_7Br	Bromocyclobutane	2-16 μ 2-16 μ	Sol -	Spec Spec, Ext coeff, Band freq	Roberts Roberts	JACS JACS	73 (1951) 73 (1951)	2509 5030
$C_4H_7BrO_2$	α -Bromobutyric acid	-	Sol	OH & dissociation const	Goulden	SA	6 (1954)	129
$C_4H_7BrO_2$	Ethylbromoacetate	-	L	C=O, C-O, C-Br freq	Mcbee	JACS	77 (1955)	755
C_4H_7Cl	cis-1-Chloro-2-butene	2-15 μ 2-15 μ	G L, Sol	Spec Group freq	Hatch Kitson	JACS AC	72 (1950) 25 (1953)	727 1470
C_4H_7Cl	trans-1-Chloro-2-butene	2-15 μ 2-15 μ	G L, Sol	Spec Group freq	Hatch Kitson	JACS AC	72 (1950) 25 (1953)	727 1470
C_4H_7Cl	1-Chloro-2-butene	2-16 μ	Sol	Spec	Roberts	JACS	73 (1951)	2509
C_4H_7Cl	2-Chloro-3-butene	2-15 μ	L, Sol	Group freq	Kitson	AC	25 (1953)	1470
C_4H_7Cl	Chlorocyclobutane	2-16 μ 2-16 μ	Sol -	Spec Spec, Band freq	Roberts Roberts	JACS JACS	73 (1951) 73 (1951)	2509 5030
C_4H_7Cl	Chloromethylcyclopropane	2-16 μ	Sol	Spec	Roberts	JACS	73 (1951)	2509
C_4H_7Cl	Methallyl chloride	1050-1800 -	- Sol	Spec, Absorption freq Absorption freq, Spec	Barnes Potts	IEC SA	15 (1943) 15 (1959)	659 679
C_4H_7ClO	α -3-Chloro-2-buten-1-ol	3-12.7 μ	L	Table, I	Hatch	JACS	77 (1955)	1136

C_4H_7ClO	β -3-Chloro-2-buten-1-ol	3-14.7 μ L	Table, I	Hatch	JACS	77 (1955)	1136
C_4H_7ClO	Vinyl 2-chloroethyl ether	-	Sol C=C, CH freq	Davison	JCS	- (1953)	2607
C_4H_7ClOPS	Isopropylmethylphosphono-chloridethionate	600-900	S Band assign	McIvor	CJC	37 (1959)	869
$C_4H_7ClO_2$	dl- α -Chlorobutyric acid	-	S,L Spec	Takenishi	NKZ	81 (1960)	858
$C_4H_7ClO_2$	Ethyl chloroacetate	-	L C=O, C-O, C-Cl freq Sol I, Substitution	Mcbee Gutjahr	JACS SA	77 (1955) 16 (1960)	755 1209
$C_4H_7ClO_2$	Methyl β -chloropropionate	1800-600	Sol Spec	Lee	JAPC	3 (1953)	481
$C_4H_7ClO_3$	Isopropyl chlorocarbonate	-	S Band freq	Ory	SA	16 (1960)	1488
$C_4H_7ClO_3$	n-Propyl chlorocarbonate	-	S Band freq	Ory	SA	16 (1960)	1488
$C_4H_7ClO_3$	n-Propyl chloroformate	800-1500	Sol Band freq, Group assign - Band freq, Assign	Katritzky Katritzky	SA SA	16 (1960) 16 (1960)	954 964
$C_4H_7Cl_2O_4P$	O,O-Dimethyl-O-2,2-dichloroethenyl phosphate	-	S Spec, Group freq, Struct	Lorenz	JACS	77 (1955)	2554
$C_4H_7Cl_3NB$	n-Butyronitrile borontri-chloride complex	-	Sol Freq	Gerrard	JCS	- (1960)	2182
$C_4H_7Cl_3N_2$	N,N-Dimethyltrichloro-acetamide	1000-3500	L,Sol Assign, Struct, H bond	Grivas	CJC	37 (1959)	795
$C_4H_7Cl_3N_2$	N-Ethyltrichloro-acetamide	1000-3500	L,Sol Assign, Struct, H bond	Grivas	CJC	37 (1959)	795
$C_4H_7Cl_3O$	1,1,1-Trichloro-2-methyl-2-propanol	780-3600	Sol Band freq, H bond	Bergmann	JACS	74 (1952)	1263
$C_4H_7Cl_3O_4P$	O,O-Dimethyl-2,2,2-trichloro-1-hydroxyethyl phosphonate	2-15 μ	S Spec, Group freq	Lorenz	JACS	77 (1955)	2554
$C_4H_7FO_2$	Ethyl fluoroacetate	1200-200	Sol C=O freq L C=O, C-O freq	Bender Mcbee	JACS JACS	75 (1953) 77 (1955)	5986 755
C_4H_7N	Isobutyronitrile	-	- Ident	Naylor	JACS	75 (1953)	5392

C_4H_7N	Propyl cyanide	1-12 μ 1-6.5 μ - - - - 2200-2300 -	L L - Sol Sol - G,Sol Sol	Spec Spec C=N freq C=N freq, I C=N freq, I, Ext coeff I, Band tables Struct, Spec Freq	Bell Gordy Kitson Felton Skinner Thompson Jesson Gerrand	JACS - 57 (1935) 1023 JCP 4 (1936) 85 AC 24 (1952) 334 JCS - (1955) 2170 JCS - (1955) 487 TFS 52 (1956) 1451 SA 13 (1958) 217 JCS - (1960) 2182
C_4H_7N	n-Propyl isocyanide	1-6.5 μ	L	Spec	Gordy	JCP 4 (1936) 85
C_4H_7NO	Acetone cyanohydrin	8800-10500 - 2200-2300	L,G - Sol	H bond C=N freq, I Freq, Struct	Thompson Kitson Jesson	JACS 61 (1939) 1396 AC 24 (1952) 334 SA 13 (1958) 217
C_4H_7NO	γ -Hydroxybutyronitrile	8800-10500	L	H bond	Thompson	JACS 61 (1939) 1396
C_4H_7NO	3-Methoxypropionitrile	2200-2300	Sol	Freq, Struct	Jesson	SA 13 (1958) 217
C_4H_7NO	2-Pyrrolidone	3260-680 - - 1600-1800	S - - S,Sol L,Sol	Table, Band freq Group freq vs concentration Spec, Assign, Taut Freq	Edwards Klemperer Mason Hall	CJC 32 (1954) 85 JACS 76 (1954) 5846 JCS - (1957) 4874 JACS 80 (1958) 6428
C_4H_7NOS	Propylene thiocyanohydrin	2.95-14.1 μ	-	Table, Group freq, I	Price	JACS 75 (1953) 2396
$C_4H_7NO_2$	2-Methyl-1-nitropropene	2-16 μ	Sol	Spec, Anal, Ident	Shechter	JACS 76 (1954) 3617
$C_4H_7NO_2$	2-Methyl-3-nitropropene	2-16 μ	Sol	Spec, Ident, Anal	Shechter	JACS 76 (1954) 3617
$C_4H_7NO_2$	2-Nitro-1-butene	-	-	Char. band	Emmons	JACS 75 (1953) 1993
$C_4H_7NO_3$	O-Acetyl acetohydroxamate	700-4000	S	Spec, H bond	Hadzi	SA 10 (1958) 38
$C_4H_7NO_3$	N-Acetyl glycine	700-4000 - -	S - S	IR (polarized) H bond H bond	Newman Elliott Pimental	JCP 19 (1951) 1147 JCP 20 (1952) 756 JCP 24 (1956) 639
$C_4H_7NO_3$	N,N-Diacetylhydroxyl-amine	-	S	Group freq	Anes	JCS - (1955) 631
$C_4H_7NO_3$	N,O-Diacetylhydroxylamine	- -	S S	Group freq Freq	Anes Freeman	JCS - (1955) 631 JACS 80 (1958) 5954

$C_4H_7NO_4$	l-Aspartic acid	700-1500	S	Composition of d & dl forms	Tsuboi	BCSJ	32 (1959)	726
		1538-909 6-11 μ	Sol	Spec	Parker	SA	16 (1960)	910
			Sol	Spec	Parker	N	187 (1960)	386
$C_4H_7NO_4$	dl-Aspartic acid	600-4000 700-1500	S	Ident	Epp	AC	29 (1957)	1283
			S	Composition of d & dl forms	Tsuboi	BCSJ	32 (1959)	726
$C_4H_7NO_4$	Ethyl nitroacetate	-	L	Band freq, I	Haszeldine	JCS	- (1953)	2525
		-	-	Char. band	Emmons	JACS	77 (1955)	4391
$C_4H_7NO_4$	N-Hydroxysuccinamic acid	-	S	Group freq	Ames	JCS	- (1955)	631
$C_4H_7NO_4$	Tetrahydrofurfuryl nitrate	2-15 μ	Sol	Spec, Struct, Ext coeff	Carrington	SA	16 (1960)	1279
$C_4H_7NO_6$	Acetic anhydridenitric	2-5 μ	Sol	Struct, H bond	Marcus	JCP	27 (1957)	564
C_4H_7NS	Isopropyl isothio-cyanate	2000-2300	Sol	Spec, Group freq	Caldow	SA	13 (1958)	212
C_4H_7NS	n-Propyl isothiocyanate	2000-2300	Sol	Spec, Group freq	Caldow	SA	13 (1958)	212
C_4H_7NS	2-Methyl-2-thiazoline	-	-	Spec, Freq	Roggers	CPR	249 (1959)	2529
$C_4H_7NS_2$	4-Methyl-2-thiothiazolidone	-	-	Group freq	Clapp	JACS	75 (1953)	1490
$C_4H_7NS_2$	5-Methyl-2-thiothiazolidone	-	-	Group freq	Clapp	JACS	75 (1953)	1490
$C_4H_7N_3$	N-Dimethylcyanoformamidine	3-6.5 μ	Sol	Spec, Group freq	Woodburn	JOC	17 (1952)	1235
$C_4H_7N_3O$	Creatinine	5-10 μ	S	Spec, Group assign	Klotz	JPCO	52 (1948)	961
		-	S	C=N freq	Pickard	JACS	76 (1954)	5169
$C_4H_7N_3O.HCl$	Creatinine hydrochloride	680-3400	S	Spec	Mold	JACS	77 (1955)	178
$C_4H_7N_3O_2$	Methyl β -azidopropionate	2-16 μ	Sol	Spec, Freq	Boyer	JACS	73 (1951)	5248
$C_4H_7N_5$	2,4,6-Triaminopyrimidine	2-25 μ	S	Spec, Freq	Short	JCS	- (1952)	168
$C_4H_7O_3$	α -Hydroxyisobutyrate ion	-	-	Spec	Goulden	CIL	- (1960)	721
$C_4H_7O_4^B$	Acetyethylene borate	2-14 μ	S,L	Struct, Freq	Blau	JCS	- (1960)	380
C_4H_8	1-Butene	-	-	Thermo	Kassel	JCP	4 (1936)	144

	-	-	Thermo	Kassel	JCP	4	(1936)	435
	-	-	Thermo	Kassel	JCP	4	(1936)	435
	2.6-3.8 μ	Sol	Spec, Assign	Fox	PRS	175	(1940)	208
	-	-	Thermo	Pitzer	CR	27	(1940)	39
	-	G	Quant analysis	Brattain	JAP	13	(1942)	699
	800-1900	-	Spec	Barnes	IEC	15	(1943)	83
	700-1900	-	Spec, Freq	Barnes	IEC	15	(1943)	659
	-	G	Quant analysis	Brattain	JAP	14	(1943)	418
	4-9 μ	G	Spec	Brady	IEC	16	(1944)	422
	2-16 μ	G	Spec, Iso	McCarthy	JCP	12	(1944)	461
	-	-	Thermo	Aston	JCP	14	(1946)	67
	-	G	Thermo	Kilpatric	JRNB	37	(1946)	163
	-	-	Ext coefficient	Lee	IEC	18	(1946)	659
	2-15 μ	G	Spec, Assign	Rasmussen	JCP	15	(1947)	120
	-	-	Analysis	Seyfried	IEC	19	(1947)	298
	●	-	Iso	Dieler	JCP	16	(1948)	1008
	-	-	Rate of deuteration	Dieler	JCP	16	(1948)	1008
	-	-	Analysis	Partington	JCS	-	(1948)	2226
	1-15 μ	G, L	Purity	Creitz	JRNB	43	(1949)	365
	-	G	Analysis	Milson	AC	21	(1949)	547
	-	-	Analysis	Regier	JOC	14	(1949)	505
	700-1500	G	IR, Spec, Assign	Sheppard	PRS	196	(1949)	195
	-	-	Assign	Sheppard	JCP	17	(1949)	74
	-	-	Analysis	Starr	AC	21	(1949)	572
	-	-	Analysis	Starr	AC	21	(1949)	572
	-	G	Analysis	Coggeshall	AC	22	(1950)	381
	-	G	Analysis	O'Neal	AC	22	(1950)	991
	10-15 μ	L	Spec	Patterson	AC	26	(1954)	823
	10.85 μ	G	Analysis	Perry	AC	29	(1957)	1123
	-	-	Freq	Bellamy	JCS	-	(1958)	2463
	-	-	Assign	Sverdlov	OS	5	(1958)	354
	700-3500	L	Freq, Spec	Comeford	JMS	5	(1960)	474
	-	-	Assign	Harrah	JCP	33	(1960)	298
	-	-	Thermo	Kassel	JCP	4	(1936)	144L
	-	-	Thermo	Kassel	JCP	4	(1936)	435
	-	-	Thermo	Kassel	JCP	4	(1936)	435
	435-4000	G	Spec	Gershnowitz	JCP	6	(1938)	247
	2.6-3.8 μ	Sol	Spec, Assign	Fox	PRS	175	(1940)	208
	-	-	Thermo	Ki Strakowsky	JCP	8	(1940)	618
	-	-	Thermo	Pitzer	CR	27	(1940)	39
	-	G	Quant analysis	Brattain	JAP	14	(1943)	418
	-	-	Thermo	Scott	JRNB	33	(1944)	1

C₄H₈

cis-2-Butene

800-1100	-	-	Spec, Assign	Thompson	PRS	184	(1945)	5
-	-	-	Thermo	Aston	JCP	14	(1946)	67
-	-	G	Thermo	Kilpatrick	JRNB	37	(1946)	163
-	-	-	Ext coefficient	Lee	IEC	18	(1946)	659
-	-	-	Spec	Coggeshall	JCP	15	(1947)	65
-	-	G	NCA	Kilpatrick	JRNB	38	(1947)	191
2-15 μ	G	G	Spec, Assign	Rasmussen	JCP	15	(1947)	120
-	-	-	Analysis	Seyfried	IEC	19	(1947)	298
-	-	-	Thermo, Freq	Beckett	JACS	70	(1948)	4227
-	-	-	Rate of deuteration	Dibeler	JCP	16	(1948)	1008
1-15 μ	G,L	-	Purity	Crietz	JRNB	43	(1949)	365
-	G	-	Analysis	Roal	JCS	-	(1949)	2222
700-1500	G	G	Spec, Freq, Assign	Sheppard	PRS	196	(1949)	195
-	-	-	Analysis	Starr	AC	21	(1949)	572
-	-	-	Analysis	Starr	AC	21	(1949)	572
-	-	-	Quant mech, Assign	Torkington	JCP	17	(1949)	1279
7-14 μ	G	-	Spec	Coggeshall	AC	22	(1950)	381
-	G	-	Analysis	O'Neal	AC	22	(1950)	991
-	-	-	Iso	Smith	JCP	20	(1952)	1808L
10-15 μ	L	-	Spec	Patterson	AC	26	(1954)	823
4-9 μ	G	-	Spec, Iso	Bristow	PRS	229	(1955)	525
-	-	-	Freq	Brown	TFS	51	(1955)	1611
14.93 μ	G	-	Analysis	Perry	AC	29	(1957)	1123
-	-	-	Freq	Bellamy	JCS	-	(1958)	2463
trans-2-Butene								
-	-	-	Thermo	Kassel	JCP	4	(1936)	144L
-	-	-	Thermo	Kassel	JCP	4	(1936)	435
-	-	-	Thermo	Kassel	JCP	4	(1936)	435
435-4000	G	-	Spec	Gershonowitz	JCP	6	(1938)	247
2.6-3.8 μ	Sol	-	Spec, Assign	Fox	PRS	175	(1940)	208
-	-	-	Thermo	Kistrakowsky	JCP	8	(1940)	618
-	G	-	Thermo	Pitzer	CR	27	(1940)	39
800-1900	-	-	Spec, Analysis	Barnes	IEC	15	(1943)	83
750-1950	-	-	Spec, Freq	Barnes	IEC	15	(1943)	659
-	G	-	Quant analysis	Brattain	JAP	14	(1943)	418
4-9 μ	G	-	Analysis, Spec	Brady	IEC	16	(1944)	422
2-16 μ	G	-	Spec, Iso	McCarthy	JCP	12	(1944)	461
-	-	-	Thermo	Aston	JCP	14	(1946)	67
-	G	-	Thermo	Kilpatrick	JRNB	37	(1946)	163
-	-	-	Spec	Coggeshall	JCP	15	(1947)	65
-	G	-	NCA	Kilpatrick	JRNB	38	(1947)	191
2-15 μ	G	-	Spec, Assign	Rasmussen	JCP	15	(1947)	120
-	G	-	Analysis	Seyfried	IEC	19	(1947)	298

C₄H₈

C_4H_8	Cyclobutane	-	-	Rate of deuteration	Dieler	JCP	16	(1948)	1008L
		-	-	Product rule, Iso	Bernstein	JCP	17	(1949)	256
		1-15 μ	G,L	Purity	Crietz	JRNB	43	(1949)	365
		-	G	Analysis	Raal	JCS	-	(1949)	2222
		700-1500	G	Spec, Assign, Freq	Sheppard	PRS	196	(1949)	195
		-	-	Analysis	Starr	AC	21	(1949)	572
		-	-	Analysis	Starr	AC	21	(1949)	572
		-	G	Analysis	Coggeshall	AC	22	(1950)	381
		-	G	Analysis	O'Neal	AC	22	(1950)	991
		10-15 μ	L	Spec	Patterson	AC	26	(1954)	823
		4-9 μ	G	Spec, Iso	Bristow	PRS	229	(1955)	525
		-	-	Freq	Brown	TFS	51	(1955)	1611
		10.36 μ	G	Analysis	Perry	AC	29	(1957)	1123
		-	-	Freq	Bellamy	JCS	-	(1958)	2463
		2-25 μ	G	Spec, Assign	Wilson	JCP	11	(1943)	361
		-	-	Vibrations	Bell	PRS	183	(1945)	328
		-	-	Theoretical	Cottrel	TFS	44	(1948)	716
C_4H_8	Isobutene	600-3700	-	Spec, Ident	Roberts	JACS	71	(1949)	3925
		-	-	Diffraction	Dunitz	JCP	20	(1952)	1703
		600-4500	G,L	Spec, Assign, Thermo	Rothens	JACS	75	(1953)	5634
		-	-	Freq	O'Connor	AC	26	(1954)	1726
		-	-	Thermo	Kassel	JCP	4	(1936)	435
		-	-	Thermo	Kassel	JCP	4	(1936)	144
		-	G	Thermo	Pitzer	CR	27	(1940)	39
		1000-1800	-	Spec, Analysis	Barnes	IEC	15	(1943)	83
		1050-1750	-	Spec, Freq	Barnes	IEC	15	(1943)	659
		-	G	Quant analysis	Brattain	JAP	14	(1943)	418
		4-9 μ	G	Spec	Brady	IEC	16	(1944)	422
		2-16 μ	G	Spec, Analysis, Iso	McCarthy	JCP	12	(1944)	461
		11.23-11.44 μ	G	Ext coefficient	Nielsen	RMP	16	(1944)	307
		800-1100	-	Spec, Assign	Thompson	TFS	41	(1945)	246
		600-1800	S	Spec	Thompson	PRS	184	(1945)	3
		-	G	Thermo	Kilpatrick	JRNB	37	(1946)	163
		-	G	NCA	Kilpatrick	JRNB	38	(1947)	191
		2-15 μ	G	Spec, Assign	Rasmussen	JCP	15	(1947)	120
		-	-	Analysis	Seyfried	IEC	19	(1947)	298
		-	-	Ext coefficient	Clairborne	AC	21	(1949)	1165
		1-15 μ	G,L	Purity	Crietz	JRNB	43	(1949)	365
		-	G	Polymerization	Dainton	JPS	4	(1949)	37
		-	G	Analysis	Milson	AC	21	(1949)	547
		700-1500	G	IR, Spec, Assign	Sheppard	PRS	196	(1949)	195

C_4H_8	Methylcyclopropane	6-14 μ	G	Spec	Condon	JACS	69 (1947)	965
C_4H_8INO	N-Ethylacetamide-N-d ₁	400-3600	L	Spec, Assign	Miyazawa	JCP	24 (1956)	408
C_4H_8BrNO	N-Methyl- α -bromo-propionamide	-	Sol	Spec	Fukushima	NKZ	81 (1960)	215
$C_4H_8Br_2$	1,4-Dibromobutane	14-19 μ 450-1500	L L,S	Spec Spec, Assign, Iso	Mortimer Brown	JACS PRS	69 (1947) 231 (1955)	822 555
$C_4H_8Br_2$	1,2-Dibromo-2-methyl-propane	7-13.5 μ -	Sol G,L,S	Spec, Ident NCA, Assign, Iso	Eckstein Hayashi	JCP NKZ	22 (1954) 78 (1957)	28 1749
C_4H_8ClNO	N-Methyl- α -chloro-propionamide	- -	- Sol	Assign, Iso Spec	Fukushima Fukushima	NKZ NKZ	79 (1958) 81 (1960)	1096 215
$C_4H_8Cl_2$	1,2-Dichloroisobutane	100-4000	- G,L,S	Freq Spec, Assign, NCA	Nakamura Hayashi	JCP SA	26 (1957) 10 (1958)	970 1
$C_4H_8Cl_2$	1,4-Dichlorobutane	2-15 μ 450-1500	L, Sol L,S	Group freq Spec, Assign, Iso	Kitson Brown	AC AC	25 (1953) 231 (1955)	1470 555
$C_4H_8Cl_2$	2,3-Dichlorobutane	500-1500	L	Spec	Thompson	PRS	184 (1945)	21
$C_4H_8Cl_2O$	β,β -Dichloroethyl ether	- 8-14.5 μ	- Sol	Analysis Freq	Saier Urone	AC AC	20 (1948) 24 (1952)	812 626
$C_4H_8I_2O$	Tetrahydrofuran-iodine	-	Sol	Association	Glusker	JCS	- (1955)	471

$C_4H_8I_2O_2$	Dioxane-iodine	-	Sol	Association	Glusker	JCS	- (1955)	471
$C_4H_8N_2$	Acetaldazine	-	-	Vib analysis	West	JCP	6 (1938)	1
		1400-2000	G,Sol	Spec	Blout	JACS	70 (1948)	194
$C_4H_8N_2O$	Diacetyldiazine (anhydrate)	-	-	Planar mol form	Yamaguchi	NKZ	79 (1958)	880
$C_4H_8N_2O \cdot H_2O$	Diacetyldiazine (monohydrate)	2-16 μ 3.1 μ	S	Config Spec, H bond Freq	Yamaguchi Voter Godycki	NKZ AC JCP	79 (1958) 23 (1951) 19 (1951)	880 1730 1205
$C_4H_8N_2O$	Hexahydropyrimidinone	1600-1800	S,Sol	Freq	Hall	JACS	80 (1958)	6428
$C_4H_8N_2O_2$	Dimethylglyoxime	2-6 μ 2-15 μ 400-3500	S S -	Spec Spec Spec, Struct, Freq	Nakahara Nakahara Borello	BCSJ BCSJ GCI	28 (1955) 29 (1956) 87 (1957)	473 296 615
$C_4H_8N_2O$	Diacetamide	-	-	FC	Linnett	TFS	41 (1945)	223
		3100-3600 1600-1800	S Sol	Spec, Assign Freq CO, Hybridization effect	Richards Hall	JCS JACS	- (1947) 80 (1958)	1248 6428
$C_4H_8N_2O_2$	N,N'-Dimethylloxamide	400-3600	S	Spec, Assign	Miyazawa	JCP	24 (1956)	408
$C_4H_8N_2O_3$	Asparagine	2-9 μ	Sol	Spec, Freq	Jencks	ABB	88 (1960)	193
$C_4H_8N_2O_3$	L-Asparagine	1358-909	Sol	Spec	Parker	SA	16 (1960)	910
$C_4H_8N_2O_3 \cdot H_2O$	L-Asparagine hydrate	1300-3700 600-4000	S,Sol -	Spec, Group freq Ident	Davies Epp	JCS AC	- (1953) 29 (1957)	480 1283
$C_4H_8N_2O_3 \cdot HCl$	Asparagine hydrochloride	2-9 μ	Sol	Spec, Freq	Jencks	ABB	88 (1960)	193
$C_4H_8N_2O_3$	Ethyl N-methyl-N-nitroso-carbamate	3-6 μ	L,Sol	Freq, Assign	Barr	JCS	- (1956)	3428
$C_4H_8N_2O_3$	Glycyl-glycine	2.8-3.6 μ 4000-650 1450-5300	S S S	Spec, Assign Spec, Struct IR (polarized)	Kellnerq Blout	PRS JACS	177 (1941) 74 (1952)	447 1946
		-	-	Band freq	Abbott	PRS	219 (1953)	17
		-	-	Bond length & freq	Ehrlich	JACS	76 (1954)	5268
		-	-	Band freq, I	Margoshes	JCP	22 (1954)	381
		-	S	H bond	Asai	JPC	59 (1955)	322
		2-9 μ	Sol	Spec, Freq	Pimental	JCP	24 (1956)	639
		400-3600	S	Spec, Group assign	Jencks	ABB	88 (1960)	193
$C_4H_8N_2O_4$	N,N'-Diacetoxhydrazine	400-3600	S	Spec, Group assign	Miyazawa	JCP	24 (1956)	408
$C_4H_8N_2O_4$	1,1-Dinitrobutane	-	-	Dissociation const, Spec	Novikov	IANs	- (1959)	1855
$C_4H_8N_2O_4$	1,1-Dinitro-2-methylpropane	-	-	Dissociation const, Spec	Novikov	IANs	- (1959)	1855

$C_4H_8N_2O_6$	Nitrogen tetroxide dioxide	740-1800	S	Band freq, I	Rubin	JACS	74 (1952)	877
$C_4H_8N_2O_7$	Diethylene glycol-dinitrate	1049-1300 2-15 μ	Sol Sol	Spec, Anal Spec, Anal, Group freq	Pinchas Pristera	AC AC	23 (1951) 25 (1953)	201 844
$C_4H_8N_2S$	Allylthiourea	3-15 μ	S, Sol	Spec	Ebert	JACS	74 (1952)	2806
$C_4H_8N_4S$	5-Isopropylamino-1,2,3,4-thiatiazole	700-1700	S	Spec, Struct, Asslgn, Taut	Lieber	CJC	36 (1958)	801
C_4H_8O	2-Butanone	.8-2.5 μ	L	Spec	Sappenfield	PR	33 (1929)	37
		-	-	IR	Whitelaw	PR	34 (1929)	376
		-	-	Solvent effect	Gordy	JCP	7 (1939)	93
		-	-	Solvent effect	Gordy	JCP	7 (1939)	163
		500-1750	L	Asslgn	Thompson	JCS	- (1945)	640
		-	G	Freq	Hartwell	JCS	- (1948)	1436
		3.2-3.6 μ	-	Spec, Anal	Soler	AC	20 (1948)	812
		-	-	H bond	Rasmussen	JACS	71 (1949)	1068
		-	Sol	Effect of alcohol on OD	Coggeshall	AC	22 (1950)	381
		2900-1200	L	I.	Francis	JCP	19 (1951)	942
		2800-3000	Sol	Spec, Stretch freq	Pozefsky	AC	23 (1951)	1611
		-	G	Bond freq, I	Barrow	JCP	21 (1953)	2008
		1600-1800	Sol	Bond freq	Fuson	JACS	76 (1954)	2526
		-	L	Spec, Band effect	Haszeldine	JCS	- (1954)	4145
		-	L	Bond freq	Schubert	JACS	77 (1955)	4172
		-	S, L, G	Freq	Bellamy	JCS	- (1957)	4294
		2-15 μ	G	Spec, Quant anal	Friedel	AC	29 (1957)	1362
		-	-	FC	Botreau	JPR	19 (1958)	552
		-	Sol	I, Freq	Thompson	SA	13 (1958)	236
		18-50 μ	G	Spec	Moller	CPR	249 (1959)	2534
		-	Sol	FC, Freq	Rao	JPC	63 (1959)	1311
C_4H_8O	trans-2-Butenol-1	1050-1800 700-4000	- L	Spec Spec	Barnes Curtin	IEC JACS	15 (1943) 74 (1952)	659 4052
C_4H_8O	3-Butenol-1	1050-1800 700-4000 650-5000 3 μ	- L L Sol	Spec Spec Bond freq Freq	Barnes Curtin Zeiss Ok1	IEC JACS JACS BCSJ	15 (1943) 74 (1952) 75 (1953) 32 (1959)	659 4052 897 567
C_4H_8O	cis-Butene-2-oxide	2-15 μ	L	Spec, Group freq	Patterson	AC	26 (1954)	823
C_4H_8O	trans-Butene-2-oxide	2-15 μ	L	Spec, Group freq	Patterson	AC	26 (1954)	823

C_4H_8O	β -Butylene oxide	-	-	Epoxy struct	Field	JCP	18 (1950)	1298
C_4H_8O	Butyraldehyde	.7-2.5 μ	L	Carbonyl study	Ellis	JACS	51 (1929)	1384
		.8-2.5 μ	L	Spec	Sappenfield	PR	33 (1929)	37
		1.1-2.1 μ	L	Spec, Assign, Absorption coeff	Kellner	PRS	157 (1936)	100
		-	-	Solvent effect	Gordy	JCP	7 (1939)	93
		7-14 μ	-	Hemiacetals formation	Ashdown	JCS	- (1948)	1454
		2700-3000	Sol	Spec, Stretch freq	Pozefsky	AC	23 (1951)	1611
		-	Sol	Group & band freq	Pinchas	AC	27 (1955)	2
		2-15 μ	L, Sol, S	Bond vib	Eggers	AC	28 (1956)	1328
		170-470	-	Absorption bands	Moller	CPR	250 (1960)	3977
C_4H_8O	Cyclobutanol	650-3700	L	Spec, Ident	Roberts	JACS	71 (1949)	3925
		665-5000			Zeiss	JACS	75 (1953)	897
C_4H_8O	Cyclopropylcarbinol	2-14.5 μ	L	Spec, Freq	Wiberley	AC	24 (1952)	623
C_4H_8O	1,2-Epoxybutane	5-15 μ	-	Spec	Carrington	AC	31 (1959)	1117
C_4H_8O	Ethyl vinyl ether	-	-	Ident	Adelman	JACS	75 (1953)	2678
		-	Sol	Freq	Davison	JCS	- (1953)	2607
		-	-	Ident	Adelman	JACS	77 (1955)	1669
		600-4000	G, Sol	Spec, Freq	Mikawa	BCSJ	29 (1956)	110
		-	Sol	Spec, Freq	Potts	SA	15 (1959)	679
C_4H_8O	3-Buten-1-ol	2.5-13.5 μ	-	Spec, Freq	Freedman	JOC	16 (1951)	1701
C_4H_8O	Isobutylene oxide	1250	-	Struct	Field	JCP	18 (1950)	1298
		2-15 μ	L	Spec, Freq	Patterson	AC	26 (1954)	823
		2800-3100	Sol	Band freq	Henbest	JCS	- (1957)	1459
		14-15 μ	L	Quant analysis	Kiley	AC	29 (1957)	1553
C_4H_8O	Isobutyraldehyde	7-14 μ	-	Formation of hemiacetals in mixtures	Ashdown	JCS	- (1948)	1454
		2700-3000	Sol	Spec, Freq	Pozefsky	AC	23 (1951)	1611
		-	Sol	Freq, I	Pinchas	AC	27 (1955)	2
C_4H_8O	3-Hydroxy-2-methyl- propene-1	-	Sol	IR, Freq, Spec	Potts	SA	15 (1959)	679
C_4H_8O	1-Methoxy-1-methyl- ethylene	-	Sol	Freq, Spec, IR	Potts	SA	15 (1959)	679

C_4H_8O	1-Methyltrimethylene oxide	2-15 μ -	L, Sol L	Spec, Freq assign Ident	Barrow Gaylord	JACS 75 (1953) 1175 JACS 76 (1954) 59
C_4H_8O	Tetrahydrofuran	- 2-15 μ 2-15 μ - 3-4 μ 350-3200	Sol L L, Sol - L, Sol S, L, G	Deuterium bonding Spec Spec, Freq, Assign Stretch freq Spec, Freq	Searles Shreve Barrow Barker Tallent Palm	JACS 73 (1951) 3704 AC 23 (1951) 277 JACS 75 (1953) 1175 JCS - (1954) 4550 AC 28 (1956) 953 SA 16 (1960) 459
C_4H_8OS	Ethyl thiolacetate	2-16 μ 2-16 μ 2-9 μ	L L Sol	Spec, Freq Spec, Freq Spec, Freq	Hauptschein Noda Jencks	JACS 74 (1952) 4005 JACS 75 (1953) 913 ABB 88 (1960) 193
C_4H_8OS	Tetramethylenesulfoxide	-	Sol	H bond	Tamres	JACS 81 (1959) 2100
C_4H_8OS	Thioxane	500-1500	S	Spec, Struct	Hendra	JCS - (1960) 5105
$C_4H_8O_2$	Aldol	6800-7300	Sol	Spec, H bond	Hilbert	JACS 58 (1936) 548
$C_4H_8O_2$	Butane-2-ol-3-one	-	-	Ident	Kuhn	JACS 76 (1954) 328
$C_4H_8O_2$	1,4-cis-Butene-2-diol	8.87-9.44 μ	Sol	Relative absorbances analysis	Spell	AC 31 (1959) 1600
$C_4H_8O_2$	Butyric acid	0.8-2.5 μ 1-13 μ 2800-3100 6.82-13.67 μ 200-1400 - .9-3 μ 3500-670 2-15 μ - 8-13 μ 700-1500 - -	L G Sol L L - Sol L, S G Sol - G - G	Spec Spec, H bond Freq, Spec Freq, I, Spec Spec, Assign Freq IR Spec Spec Freq, I Spec Spec Spec, Freq, Assign Freq, Assign H bond	Sappenfield Herman Pozefsky Fowler Hadzi Bratoz Holman Corish Stephens Wenograd Eliehl Hadzi Michinori Pross	PR 33 (1929) 37 JCP 8 (1940) 252 AC 23 (1951) 1611 JOSA 43 (1953) 1054 PRS 216 (1953) 247 SA 8 (1956) 249 AC 28 (1956) 1533 JCS - (1957) 1746 AC 29 (1957) 776 JACS 79 (1957) 5844 SA 10 (1958) 423 SA 12 (1958) 162 BCSJ 32 (1959) 950 SA 16 (1960) 563
$C_4H_8O_2$	1,4-Dioxane	52-152 μ 2.5-6.5 μ 850-4500 2837-3700 2830-2990	L, Sol L G, L L L, Sol, G	Trans, Dispers H bond Spec C-H band freq Spec, Ext coefficients	Cartwright Gordy McKinney Errera Fox	PRS 154 (1936) 138 JCP 4 (1936) 769 JACS 59 (1937) 481 TFS 34 (1938) 728 PRS 167 (1938) 257

$C_4H_8O_2$	Ethyl acetate	-	-	H bond	Freymann	JCP	6	(1938)	497
		3.3-11.7 μ	L, Sol	Spec, H bond	Gordy	JACS	60	(1938)	605
		-	-	Effect as solvent	Gordy	JCP	7	(1939)	99
		-	-	Effect as solvent	Gordy	JCP	7	(1939)	163
		-	-	Effect as solvent	Gordy	JCP	7	(1939)	93
		-	-	H bond	Errera	JCP	8	(1940)	63
		-	-	Freq	Fugassi	JPC	46	(1942)	630
		1050-1800	-	Spec	Barnes	IEC	15	(1943)	659
		3-20 μ	L	Spec	Torkington	TFS	41	(1945)	184
		1.4-15 μ	G, L	Spec	Friedel	JACS	69	(1947)	604
		1500-700	G, L	Spec, Assign, FC	Ramsay	PRS	190	(1947)	562
		-	-	Assign	Ramsay	TFS	44	(1948)	289
		6.5-13 μ	L	Spec, Assign	Burket	JACS	72	(1950)	4397
		2578-2689	Sol	H bond	Searles	JACS	73	(1951)	3704
		2-15 μ	L	Spec, Struct	Shreve	AC	23	(1951)	277
		2-8 μ	L	Solvent	Smith	JACS	73	(1951)	2435
		2.5-37 μ	L, S	Spec, Assign	Malherbe	JACS	74	(1952)	4408
		15-25 μ	L	Transparent solvent	Marrison	JSI	29	(1952)	233
		2-15 μ	L	Spec	Priesteria	APS	6	(1952)	29
		2-16 μ	L	Spec	Vaughan	JOC	18	(1953)	382
		8-12 μ	L	Spec	Haszeldine	JCS	-	(1954)	4145
		-	-	Freq	Brown	JCS	-	(1955)	959
		2.5-11 μ	Sol	Spec	Potts	AC	28	(1956)	1255
		-	-	Solvent	Matheson	AC	30	(1958)	63
		700-4000	Sol, L	Freq, Ext coefficient	DeMaine	CJC	38	(1960)	1921
		500-1500	L	Spec, Struct	Hendra	JCS	-	(1960)	5105
$C_4H_8O_2$	Ethyl acetate	0.59-2.8 μ	L	Visible IR correlation	Ellis	PR	32	(1928)	906
		-	-	Freq	Bonino	TFS	25	(1929)	876
		0.7-2.5 μ	L	C=O study	Ellis	JACS	51	(1929)	1384
		0.8-2.5 μ	L	Spec	Sappenfield	PR	33	(1929)	37
		1-14 μ	L	Spec	Stair	JRNB	15	(1935)	295
		-	-	Effect on OH absorption	Gordy	JCP	4	(1936)	749
		4-8 μ	L	No exchange reaction	Barr	PR	51	(1937)	685
		2.5-5.3 μ	L	Spec, H bond	Gordy	JACS	59	(1937)	464
		5.6-6 μ	-	Spec, H bond	Gordy	JCP	5	(1937)	284
		2.5-6 μ	L	Spec, H bond	Williams	JACS	59	(1937)	817
		5.4-6.1 μ	L, Sol	Spec, H bond	Gordy	JACS	60	(1938)	605
		-	-	Solvent effect	Gordy	JCP	7	(1939)	93
		-	-	Solvent effect	Gordy	JCP	7	(1939)	99
		-	-	Solvent effect	Gordy	JCP	7	(1939)	167
		5.5-6.5 μ	L	Spec, H bond	Gordy	JCP	8	(1940)	516
		1050-1800	-	Spec	Barnes	IEC	15	(1943)	659

C ₄ H ₈ O ₂	1-Hydroxy-2-butanone	500-1750 1768	L	Assign Freq	Thompson	JCS	-	(1945)	640
C ₄ H ₈ O ₂	Isobutyric acid	5.7 μ	G	Band width	Hartwell	JCS	-	(1948)	1436
		2.8-3.9 μ	L	Spec	Anderson	AC	20	(1948)	998
		1700	Sol	I	Adelman	JOC	14	(1949)	1057
		1650-1800	Sol	Ext coefficient	Richards	TFS	45	(1949)	874
		1200-2900	L	I	Cross	TFS	47	(1951)	354
		2800-3000	Sol	I	Francis	JCP	19	(1951)	942
		15-25 μ	L	Spec, Freq	Pozefsky	AC	23	(1951)	1611
		1700-1800	Sol	Transparent solvent	Marrison	JSI	29	(1952)	233
		1734-1772	G, Sol	Freq	Short	JCS	-	(1952)	206
		1200-2000	Sol	Freq, I	Barrow	JCP	21	(1953)	2008
		-	Sol	Freq	Bender	JACS	75	(1953)	5986
		-	Sol	Freq, H bond	Searles	JACS	75	(1953)	71
		-	Sol	Freq, I	Hirota	BCSJ	27	(1954)	295
		-	-	Band freq	Karpovich	JCP	22	(1954)	1767
		-	Sol	C=O freq	Felton	JCS	-	(1955)	2170
		-	L	C=O freq	McBee	JACS	77	(1955)	755
		-	Sol	I	Russell	JCS	-	(1955)	479
		700-3500	Sol	Spec, Freq, Assign	Nolin	CJC	34	(1956)	1392
		1500-5000	Sol	Group freq	Briggs	AC	29	(1957)	904
		-	G, Sol	Freq	O'Sullivan	JCS	-	(1957)	4144
		2-15 μ	Sol	Spec, Freq	Abarmovitch	CJC	36	(1958)	151
		-	Sol	Freq, I	Thompson	SA	13	(1958)	236
		-	Sol	Freq	Horak	TEL	3	(1959)	19
		-	Sol	I, Freq	Mirone	AC	49	(1959)	52
		-	G, L	Freq	Nukada	NKZ	80	(1959)	1112
		-	Sol	I	Gutjahr	SA	16	(1960)	1209
		2-9 μ	Sol	Spec, Freq	Jeneks	ABB	88	(1960)	193
		800-1500	Sol	Assign	Katritzky	SA	16	(1960)	954
		-	-	Assign	Katritzky	SA	16	(1960)	965
		-	-	Freq	Barnes	IEC	15	(1943)	659
C ₄ H ₈ O ₂	Isopropyl formate	1752	G	Freq	Hartwell	JCS	-	(1948)	1436
C ₄ H ₈ O ₂	2-Methyl-1:3-dioxalan	400-3100	G, L, Sol	Freq, Assign	Barker	JCS	-	(1959)	802
C ₄ H ₈ O ₂	4-Methyl-1:3-dioxalan	400-3100	G	Freq, assign	Barker	JCS	-	(1959)	802

$C_4H_8O_2$	Methyl propionate	-	IR	High	PR	38	(1931)	1837
		500-1750	Assign	Thompson	JCS	-	(1945)	640
		1767	Freq	Hartwell	JCS	-	(1948)	1436
		1700	Sol	Richards	TFS	45	(1949)	874
		1600-1800	Sol	Cross	TFS	47	(1951)	354
		1200-2900	L	Francis	JCP	19	(1951)	942
		2800-3000	Sol	Pozefsky	AC	23	(1951)	1611
		6.81-12.35 μ L	L	Fowler	JOSA	43	(1953)	1054
		-	Sol	Searles	JACS	75	(1953)	71
		-	Sol	Russell	JCS	-	(1955)	479
		2-15 μ	Sol	Walton	JACS	79	(1957)	3985
		-	Sol	Assign	SA	13	(1958)	236
		800-1500	Sol	Thompson	SA	16	(1960)	954
		-	-	Katritzky	SA	16	(1960)	964
		-	Assign	Katritzky				
$C_4H_8O_2$	n-Propyl formate	500-1750	L	Thompson	JCS	-	(1945)	640
		1752	G	Hartwell	JCS	-	(1948)	1436
		2800-3150	Sol	Pozefsky	AC	23	(1951)	1611
		-	-	Karpovich	JCP	22	(1954)	1767
		-	Sol	Russell	JCS	-	(1955)	479
		800-1500	Sol	Katritzky	SA	16	(1960)	954
		-	-	Katritzky	SA	16	(1960)	964
		-	Assign					
$C_4H_8O_2$	Tetrahydrofuran-2-ol	3500-3700	Sol	Barker	TE	7	(1959)	10
$C_4H_8O_2$	Tetrahydrofuran-3-ol	3500-3700	Sol	Barker	TE	7	(1959)	10
$C_4H_8O_2S$	Methyl allyl sulfone	6.10-14.12 μ L		Price	JACS	75	(1950)	4750
$C_4H_8O_3$	1,4-Anhydroerythritol	3500-3650	Sol	Brimacombe	TE	4	(1958)	351
$C_4H_8O_3$	1,4-Anhydro-L-threitol	3500-3650	Sol	Brimacombe	TE	4	(1958)	351
$C_4H_8O_3$	Butyryl hydroperoxide	5-15 μ	Sol	Minkoff	PRS	224	(1954)	176
		2-15 μ	G	Stephens	AC	29	(1957)	776
$C_4H_8O_3$	1,3-Dioxan-5-ol	3500-3650	Sol	Brimacombe	TE	4	(1958)	351
		3500-3700	Sol	Barker	TE	7	(1959)	10
$C_4H_8O_3$	Ethyl glycolate	1000-1500	Sol	Coulson	SA	16	(1960)	715
$C_4H_8O_3$	Ethylene glycol monoacetate	6900-7200	Sol	Pauling	JACS	57	(1935)	1464
$C_4H_8O_3$			Spec					

C_4H_9DO	sec-Butanol- $O-d_1$	915 650-4000 650-4000 -	L L L, G -	O-D deformation band Spec Freq, I Analysis	Quinan Streitwieser Quinan Streitwieser	JCP JACS AC JACS	21 (1953) 75 (1953) 26 (1954) 77 (1955)	1896 5014 1762 1117
C_4H_9DO	n-Butyl alcohol- $\beta-d_1$	860-974 650-4000 -	G, L G, L G	O-D deformation band Freq, I Freq	Quinan Quinan Tarte	JCP AC JCP	21 (1953) 26 (1954) 26 (1957)	1896 1762 962
C_4H_9DO	n-Butyl alcohol- $\beta-d_1$	8-13 μ	-	Spec	Elie	SA	10 (1958)	423
C_4H_9DO	t-Butyl alcohol- d_1	- -	- Sol	Band freq Exchange equilibrium data	Hine Kwart	JACS JACS	76 (1954) 76 (1954)	612 5998
C_4H_9DO	Isobutyl alcohol- $\alpha-d_1$	- 300-4000	G Sol, L, S	Freq Freq, Spec, Assign	Tarte Pritchard	JCP JPC	26 (1957) 64 (1960)	962 795
C_4H_9Br	1-Bromo-2-methylpropane	8-13 μ	-	Spec	Elie	SA	10 (1958)	423
C_4H_9Br	n-Butyl bromide	7-13.5 μ	Sol	Spec, Ident	Eckstein	JCP	22 (1954)	28
C_4H_9Br	n-Butyl bromide	0-2.5 μ 1-14 μ 14.5-19 μ 720-750	L L L L	Spec Spec Spec Band freq	Ellis Stair Mortimer Wiberly	PR JRN JACS AC	23 (1924) 15 (1935) 69 (1947) 22 (1950)	48 295 822 841
C_4H_9Br	t-Butyl bromide	500-1500 -	L, S L	Ident Spec, Iso Mol ratio	Streitwieser Brown Yoshino	JACS TFS CJC	75 (1953) 50 (1954) 35 (1957)	5014 535 339
C_4H_9Br	t-Butyl bromide	14-20.5 μ 450-3500	- L	Spec Spec, Assign	Fugassi Mortimer Sheppard	JPC JACS TFS	46 (1942) 69 (1947) 46 (1950)	630 822 527
C_4H_9Br	t-Butyl bromide (isotopic)	- 7-13.5 μ	- Sol	Assign, Freq Spec, Ident	Tobin Eckstein	JACS JCP	75 (1953) 22 (1954)	1788 28
C_4H_9Br	t-Butyl bromide (isotopic)	-	-	Microwave	Williams	JCP	18 (1950)	994
C_4H_9Br	t-Butyl bromide (isotopic)	-	-	Microwave	Williams	JCP	18 (1950)	994
C_4H_9Br	Isobutyl bromide	0-2.5 μ 14-17 μ -	L L -	Spec Spec Freq, Iso	Ellis Mortimer Szasz	PR JACS JCP	23 (1924) 69 (1947) 23 (1955)	48 822 2449

C_4H_9Cl	sec-Butyl chloride	-	-	-	Freq, Rot iso Ref	Brown Smith	TFS JACS	50 (1954) 76 (1954)	1164 4564
		-	-	-	Freq	Nakamura	JCP	26 (1957)	970
C_4H_9Cl	t-Butyl chloride	-	-	-	Band freq Freq	Fugassi Sheppard	JPC TFS	46 (1942) 46 (1950)	630 429
		450-3500	L	-	Spec, Assign	Sheppard	TFS	46 (1950)	527
		-	-	-	Analysis	Schmerling	JACS	75 (1953)	4275
		-	-	-	Assign, Freq	Tobin	JACS	75 (1953)	1788
		-	-	-	Freq, Rot iso	Brown	TFS	50 (1954)	1164
		-	-	-	Analysis	Howald	JACS	77 (1955)	2046
		-	-	-	Freq	Nakamura	JCP	26 (1957)	970
$C_4H_9Cl^{35}$	t-Butyl chloride (isotopic)	-	-	-	Microwave	Williams	JCP	18 (1950)	994
$C_4H_9Cl^{37}$	t-Butyl chloride (isotopic)	-	-	-	Microwave	Williams	JCP	18 (1950)	994
C_4H_9Cl	Isobutyl chloride	0-2.5 μ	L	-	Spec Freq, Rot iso	Ellis Brown	PR TFS	23 (1924) 50 (1954)	48 1164
		-	-	-	Freq, Rot iso	Szasz	JCP	23 (1955)	2449
C_4H_9Cl	1-Chlorobutane	0-2.5 μ	L	-	Spec Ident	Ellis Smith	PR JACS	23 (1924) 76 (1954)	48 4564
C_4H_9Cl	1-Chloro-2-methylpropane	-	-	-	Freq	Nakamura	JCP	26 (1957)	970
$C_4H_9ClFO_2PS$	-Fluoropropylmethyl- phosphorochloridithionate	740-1500	Sol	-	Assign	McIvor	CJC	37 (1959)	869
C_4H_9ClO	t-Butyl hypochlorite	665-5000	L	-	Freq	Ory	AC	32 (1960)	509
$C_4H_9ClO_2S$	n-Butanesulfonyl chloride	-	-	-	Spec, Assign	Geiseler	ZE	63 (1959)	1140
$C_4H_9ClO_2S$	1-Methylpropanesulfonyl chloride	-	-	-	Spec, Assign	Geiseler	ZE	64 (1960)	421
$C_4H_9ClO_4S_2$	1-Methylsulfonyl-2- propanesulfonyl chloride	690-1340	S	-	Ident	Marvel	JACS	76 (1954)	61
$C_4H_9ClO_4S_2$	2-Methylsulfonyl-1- propanesulfonyl chloride	685-1335	S	-	Ident	Marvel	JACS	76 (1954)	61

$C_4H_9Cl_2OPS$	n-Butylphosphorodichloridithionate	740-1500	L	Assign	McIvor	CJC	37 (1959)	869
$C_4H_9Cl_3OSi$	Trichlorosilyl ethyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_4H_9Cl_3OSi$	Trichlorosilylpropyl methyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_4H_9Cl_3Si$	n-Butyltrichlorosilane	2-16 μ	Sol	Freq, Spec, Struct	Smith	SA	16 (1960)	87
C_4H_9F	t-Butyl fluoride	-	G	Freq, Struct	Anderson	ACS	7 (1953)	643
		-	-	Assign, Struct	Lide	JCP	29 (1958)	914
		1.7-30 μ	G	Assign, Spec	Mann	JMS	2 (1958)	575
C_4H_9I	1-Iodobutane	0-2.5 μ 720-750	L L	Spec Freq	Ellis Wiberley	PR AC	23 (1924) 22 (1950)	48 841
C_4H_9I	2-Iodobutane	-	-	Freq	Fugassi	JPC	46 (1942)	630
C_4H_9I	2-Iodo-2-methylpropane	450-3500	L	Spec, Assign	Sheppard	TFS	46 (1950)	527
		-	-	Assign, Freq	Tobin	JACS	75 (1953)	1788
C_4H_9I	Isobutyl iodide	0-2.5 μ -	L -	Spec Freq, Iso	Ellis Szasz	PR JCP	23 (1924) 23 (1955)	48 2449
$C_4H_9I^{127}$	1-Iodo-1,1-dimethylethane (isotopic)	-	-	Microwave	Williams	JCP	18 (1950)	994
C_4H_9INO	Dimethylacetamide-iodine	1600-1690	Sol	Complex formation	Shrullback	JACS	82 (1960)	4484
C_4H_9N	cis-Crotylamine	2.95-14.3 μ	L	Freq	Ettlinger	JACS	77 (1955)	1831
C_4H_9N	trans-Crotylamine	2.95-12.2 μ	L	Freq	Ettlinger	JACS	77 (1955)	1831
C_4H_9N	2,2-Dimethylaziridine	2.7-8.1 μ	L, Sol	Spec	Meguerian	JACS	73 (1951)	2121
C_4H_9N	2-Ethylaziridine	2.7-8.1 μ	L, Sol	Spec	Meguerian	JACS	73 (1951)	2121
C_4H_9N	Pyrrolidine	600-4000 3-4 μ 2.16-17.32 μ	L, Sol L, Sol L	Spec Freq Purification and physical properties	Heacock Tallent Helm	CJC AC JPC	34 (1956) 28 (1956) 62 (1958)	1782 953 858

C_4H_9NO	n-Butanone oxime	2.78 μ	-	Hydroxyl band, Oximes data	Coddu	JCS - (1958) 760 JCP 31 (1959) 650 JOC 24 (1959) 1362
C_4H_9NO	n-Butyraldehyde oxime	2.78 μ	-	Hydroxyl band, Oximes data	Coddu	AC 30 (1958) 1707
C_4H_9NO	n-Butyramide	1500-3600	S, Sol	Assign FC	Richards Richards Naylor Badger Snyder	JCS - (1947) 1248 TFS 44 (1948) 40 JACS 75 (1953) 5392 PNAS 40 (1954) 12 JACS 76 (1954) 118
C_4H_9NO	N,N-Dimethylacetamide	1639 1600-1800	Sol Sol, L	C=O freq, I Freq	Barrow Hall	JCP 21 (1953) 2008 JACS 80 (1958) 6428
C_4H_9NO	N,N-Dimethylacetamide hydrochloride	-	-	Struct	Grivas	SA 13 (1958) 236 TEL 3 (1959) 19 PRS 254 (1960) 1 JCP 64 (1960) 1956
C_4H_9NO	N-Ethylacetamide	2700-3900 2800-3600	Sol Sol	Spec, H bond H bond, Spec	Buswell Rodebush	JACS 60 (1938) 2444 JPC 43 (1939) 219
C_4H_9NO		-	-	FC	Richards	TFS 44 (1948) 40
C_4H_9NO		-	Sol	Freq	Klemperer	JACS 76 (1954) 5846
C_4H_9NO		-	L, S	Freq	Robson	JACS 77 (1955) 498
C_4H_9NO		-	L, Sol	Freq, H bond	Cannon	JCP 24 (1956) 491
C_4H_9NO		1200-8000	Sol	Assign	Hecht	PRS 235 (1956) 174
C_4H_9NO		400-3600	L	Spec, Assign	Miyazawa	JCP 24 (1956) 408
C_4H_9NO		400-3400	L, Sol	Spec, Freq assign, I	Beer	JCP 29 (1958) 1097
C_4H_9NO	Isobutyramide	-	-	Ident	Naylor	JACS 75 (1953) 5392
C_4H_9NO	2-Methyl-2-nitroso-propane	-	-	Freq	Jauder	JCS - (1954) 919
C_4H_9NO	N-Methylpropionamide	1200-800 600-3400	Sol L, Sol	Assign, Freq Spec, Freq assign	Hecht Beer	PRS 235 (1956) 174 JCP 29 (1958) 1097
C_4H_9NO	Morpholine	1.4-15 μ	G, L	Spec	Friedel	JACS 69 (1947) 604

$C_4H_9NO.HBr$	Morpholine hydrobromide	2.5-15.5 μ S	Spec	Wright	APS	9 (1955)	105
$C_4H_9NO.HCl$	Morpholine hydrochloride	600-4000	Spec, Freq	Heacock Nakanishi Stone	CJC BCSJ JCS	34 (1956) 30 (1957) - (1958)	1782 403 52
$C_4H_9NO.HCl$	Ethylimino acetate hydrochloride	-	Freq	Witkop	JACS	76 (1954)	5597
C_4H_9NOS	Methylthio dimethylamino- formate	-	Freq	Baker	JACS	82 (1960)	1923
C_4H_9NOSi	Trimethylisocyanato- silane	-	Freq, Assign	Widmaier	ZAUA	300 (1959)	194
$C_4H_9NO_2$	DL- α -Amino-n-butyric acid	667-5000 6-11 μ 1538-909	Spec, Freq, Struct Spec Spec	Leifer Parker Parker Takenishi	JACS N SA NKZ	79 (1957) 187 (1960) 16 (1960) 81 (1960)	5098 386 910 858
$C_4H_9NO_2.HCl$	DL- α -Aminobutyric acid hydrochloride	-	Spec, Assign	Takenishi	NKZ	81 (1960)	858
$C_4H_9NO_2$	DL- β -Aminobutyric acid	667-5000 1538-909	Spec, Freq, Struct Spec	Leifer Parker	JACS SA	79 (1957) 16 (1960)	5098 386
$C_4H_9NO_2$	γ -Aminobutyric acid	667-5000 6-11 μ 1538-909 1350-1550	Spec, Freq, Struct Spec Spec Spec, Ident	Leifer Parker Parker Watson	JACS N SA SA	79 (1957) 187 (1960) 16 (1960) 16 (1960)	5098 386 910 1322
$C_4H_9NO_2$	α -Aminoisobutyric acid	667-5000 400-4000 1538-909	Spec, Freq, Struct Spec, Freq, Assign Spec	Leifer Tsuboi Parker	JACS BCSJ SA	79 (1957) 32 (1959) 16 (1960)	5098 1044 910
$C_4H_9NO_2$	Butyl nitrite	0-2.5 μ L	Spec	Ellis	PR	23 (1924)	48

$C_4H_9NO_2$	sec-Butyl nitrite	2-25 μ	-	2-25 μ	G	Rot iso	Fugassi Tarte	JPC	46 (1942)	630
$C_4H_9NO_2$	t-Butyl nitrite	2-25 μ	G	2-25 μ	G	Rot iso	Haszeldine	JCP	20 (1952)	1570
$C_4H_9NO_2 \cdot HCl$	N,N-Dimethylglycine hydrochloride	667-5000 1350-1550	Sol S	667-5000 1350-1550	Sol S	Spec, Freq, Spec, Ident	Leifer Watson	JACS SA	79 (1957) 16 (1960)	5098 1322
$C_4H_9NO_2$	Ethoxyacetamide	-	Sol	-	Sol	Freq, I	Brown	JPC	63 (1959)	1324
$C_4H_9NO_2 \cdot HCl$	Ethyl glycinate hydro- chloride	2-16 μ 2-8 μ	S Sol	2-16 μ 2-8 μ	S Sol	Spec Spec	Muller Nakanishi	AC BCSJ	28 (1956) 30 (1957)	37 403
$C_4H_9NO_2$	Isobutyl nitrite	2-25 μ	G	2-25 μ	G	Rot iso	Tarte	JCP	20 (1952)	1570
$C_4H_9NO_2$	N-Methylglycine methyl ester	2-15 μ	-	2-15 μ	-	Freq, Struct	Rasmussen	JACS	71 (1949)	1073
$C_4H_9NO_2$	N-Methylurethane	2.5-6 μ 3 μ 1600-1800	L, Sol Sol Sol, L	2.5-6 μ 3 μ 1600-1800	L, Sol Sol Sol, L	Freq assign Band study Freq	Barr Russell Hall	JCS SA JACS	- (1956) 8 (1956) 80 (1958)	3428 138 6428
$C_4H_9NO_2$	1-Nitrobutane	-	L	-	L	Freq, I	Haszeldine	JCS	- (1953)	2525
$C_4H_9NO_2S$	DL-Homocysteine	1538-909	Sol	1538-909	Sol	Spec	Parker	SA	16 (1960)	910
$C_4H_9NO_2S$	S-Methylcysteine	670-1800	S	670-1800	S	Spec, Freq	Short	JCS	- (1951)	1746
$C_4H_9NO_3$	DL-Allothreonine	2-16 μ	S	2-16 μ	S	Spec, Config Struct, Ident	Bolhofer Prostenik	JACS JACS	76 (1954) 77 (1955)	1322 1856
$C_4H_9NO_3$	Butyl nitrate	1-7.5 μ 2-15 μ	L Sol	1-7.5 μ 2-15 μ	L Sol	Spec, Assign Spec, Ext coefficient	Plyler Carrington	PR SA	34 (1929) 16 (1960)	599 1279
$C_4H_9NO_3$	β -Hydroxy- α -aminobutyric acid	1350-1550	S	1350-1550	S	Spec, Ident	Watson	SA	16 (1960)	1322
$C_4H_9NO_3$	DL-Threonine	1-12 μ 600-4000	Sol -	1-12 μ 600-4000	Sol -	Spec, Freq, Assign Struct, Ident	Lacher Prostenik Epp	JPC JACS AC	58 (1954) 77 (1955) 29 (1957)	206 1856 1283

$C_4H_9NO_3$	L-Threonine	1620 6-11 μ	- Sol	Freq, Bond length Spec	Margoshes Parker	JCP N	22 (1954) 187 (1960)	381 386
$C_4H_9NO_3S$	5-Methylcystein sulfoxide	670-1800	S	Spec, Freq	Short	JCS	- (1951)	1746
C_4H_9NS	N-Ethylthioacetamide	- -	- -	Ident Ident	Moore Moore	JCS JCS	- (1954) - (1954)	2082 2089
C_4H_9NSSi	Trimethylsilyl isothio- cyanate	280-3000	-	Spec, Struct, Assign	Goubeau	ZAWA	294 (1958)	96
C_4H_9NSi	Isocyanotrimethylsilane	2-16 μ -	L -	Spec, Freq Ident	McBride Prober	JACS JACS	74 (1952) 77 (1955)	5247 3224
C_4H_9NSi	Trimethylcyanosilane	2200	-	Assign, Struct	Linton	DA	19 (1958)	687
$C_4H_9N_3O$	Acetone semicarbazone	700-3500	S	Ident, Assign	Davison	JCS	- (1955)	3389
$C_4H_9N_3O$	3-Azido-2-Butanol	-	-	Struct, Freq	Vander Werf	JACS	76 (1954)	1231
$C_4H_9N_3O_2$	Creatine	5-10 μ	S	Spec, Assign	Klotz	JPCC	52 (1948)	961
$C_4H_9N_3O_2.HCl$	Creatine hydrochloride	680-3400	S	Spec	Mold	JACS	77 (1955)	178
$C_4H_9N_3S$	4-Allylthiosemicarbazide	700-1700	S	Spec, Struct, Config, Assign, Taut.	Lieber	CJC	36 (1958)	801
$C_4H_9N_5$	1-Isopropyl-5-amino- tetrazole	2-6.6 μ	S	Freq	Murphy	JOC	19 (1954)	1807
$C_4H_9N_5$	1-Methyl-5-dimethyl- aminotetrazole	2-6.6 μ	S	Freq	Murphy	JOC	19 (1954)	1807
$C_4H_9N_5$	1-n-Propyl-5-aminotetrazole	2-6.6 μ	S	Freq	Murphy	JOC	19 (1954)	1807
$C_4H_9N_5.HCl$	1,4-Dimethyl-5-methyl- iminotetrazole hydrochloride	2-6.6 μ	S	Freq	Murphy	JOC	19 (1954)	1807
$C_4H_9N_5.HCl$	1-Methyl-5-dimethylamino- tetrazole hydrochloride	2-6.6 μ	S	Freq	Murphy	JOC	19 (1954)	1807
$C_4H_9O_3S$	n-Butane-1-sulfonate	500-4000	S	Freq	Fujimori	BCSJ	32 (1959)	850

$C_4H_9O_4P$	Ethylethylene phosphate	Sol	Assign	Jones	JCS	-	(1960)	4376
C_4H_{10}	n-Butane							
	2800-3050	G	Freq	Meyer	JOSA	15	(1927)	257
	-	-	C-H freq	Bonino	TFS	25	(1923)	876
	-	-	Thermo	Beck	JCP	4	(1936)	680
	-	-	Thermo	Kassel	JCP	4	(1936)	435
	-	-	Rotational entropy	Kassel	JCP	4	(1936)	276
	-	-	Thermo, Chem equil rev	Pitzer	CR	27	(1940)	39
	-	-	Freq, Thermo	Pitzer	JCP	8	(1940)	711
	-	-	Quant anal	Brattain	JAP	13	(1942)	699
800-1900	-	-	Spec, Anal	Barnes	IEC	15	(1943)	83
700-1500	-	-	Spec	Barnes	IEC	15	(1943)	659
-	-	G	Quant anal	Brattain	JAP	14	(1943)	418
-	-	-	Thermo	Dailey	JACS	65	(1943)	44
-	-	-	Thermo	Aston	JCP	12	(1944)	336
4-9 μ	-	G	Spec	Brady	IEC	16	(1944)	422
-	-	G	Anal	Jones	IEC	17	(1945)	349
-	-	-	Freq	Kellner	TFS	41	(1945)	217
-	-	-	Assign, FC	Ahonen	JCP	14	(1946)	625
-	-	-	Thermo	Aston	JCP	14	(1946)	67
2-14 μ	-	-	Spec, Group freq	Honig	JPC	50	(1946)	119
-	-	-	Ext coeff, Anal	Lee	IEC	18	(1946)	659
-	-	-	Pressure broadening, Spec	Coggeshall	JCP	15	(1947)	65
-	-	L	Anal	Glasgow	JRNB	38	(1947)	537
-	-	-	Stretch freq, FC	Ramsay	PRS	190	(1947)	245
-	-	G	Anal	Seyfried	IEC	19	(1947)	298
-	-	-	Isomerism	Otvos	JCP	16	(1948)	745
2-15 μ	-	G	Spec, Assign	Rasmussen	JCP	16	(1948)	712
-	-	-	Assign, Internal rot	Szasz	JCP	16	(1948)	704
-	-	S	C ₂ h symmetry	Axford	JCP	17	(1949)	430
-	-	-	Freq assign, IR	Gates	JCP	17	(1949)	393
-	-	G	Anal hydrocarbon	Starr	AC	21	(1949)	572
-	-	-	Vib freq	Mizushima	JACS	71	(1949)	1320
-	-	-	Assign, Thermo	Sheppard	JCP	17	(1949)	86
-	-	-	Selection rule	Simanouti	JCP	17	(1949)	1102
-	-	-	IR	Milson	AC	21	(1949)	547
1600-650	-	L, S	Rotation isomers	Axford	JCP	18	(1950)	51
-	-	G	Anal	Coggeshall	AC	22	(1950)	381
-	-	-	Anal	O'Neal	AC	22	(1950)	991
-	-	G	Anal in CH ₄	Stroupe	AC	22	(1950)	1125
-	-	G	Anal	Stroupe	AC	22	(1950)	505
-	-	G, L, S, Sol	Internal rot, Config	Mizushima	JPC	56	(1952)	324
2-16 μ	-	G	Spec, Table	Thompson	JPC	56	(1952)	243
-	-	-	Ident	Gragson	JACS	75	(1953)	3344

$C_4^{13}H_{10}$	n-Butane-1 (Isotopic)	-	10-14.5 μ	G, S	Thermo, Assign	Person	JACS	75 (1953)	532
					Spec, Epoxy study	Patterson	AC	26 (1954)	823
					Freq assign	Tschamler	JCP	22 (1954)	1845
					Rocking freq	Corish	JCS	- (1955)	2431
					Ident	Patterson	AC	27 (1955)	574
					Spec	Neu	JPC	60 (1956)	320
					Spec, Threshold values	Pierson	AC	28 (1956)	1218
					Anal	Perry	AC	29 (1957)	1123
					Vib anal, Dipole moment	Theimer	JCP	27 (1957)	1041
					Freq, Spec	Comeford	JMS	5 (1960)	474
$C_4^{13}H_{10}$	n-Butane-2 (Isotopic)	-	-	-	Iso	Otvos	JCP	16 (1948)	745
					Iso	Otvos	JCP	16 (1948)	745
					Thermo	Kassel	JCP	4 (1936)	276
					Rotational entropy	Kassel	JCP	4 (1936)	435
					FC, IR	Bonner	JCP	5 (1937)	293
					Freq assign	Edsall	JCP	5 (1937)	225
					Thermo	Pitzer	CR	27 (1940)	39
					Quan anal	Brattain	JAP	13 (1942)	699
					Thermo	Pitzer	JCP	10 (1942)	605
					Spec, Anal	Barnes	IEC	15 (1943)	83
C_4H_{10}	Isobutane	-	800-1900	-	Spec, Anal	Barnes	IEC	15 (1943)	659
					Spec	Brattain	JAP	14 (1943)	418
					Quant anal	Dailey	JACS	65 (1943)	44
					Thermo	Nielsen	RMP	16 (1944)	307
					Thermo, Ext coeff	Jones	IEC	17 (1945)	349
					Anal	Kellner	TFS	41 (1945)	217
					Freq	French	JCP	14 (1946)	389
					CH ₃ potential barrier	Lee	IEC	18 (1946)	659
					Ext coeff, Anal	Pitzer	CR	39 (1946)	435
					Thermo	Coggeshall	JCP	15 (1947)	65
C_4H_{10}	-	-	2-15 μ	G	Pressure broadening, Spec	Glasgow	JRNB	38 (1947)	537
					Anal	Seyfried	IEC	19 (1947)	298
					Anal	Sutherland	JCP	15 (1947)	153
					Freq	Kilpatrick	JCP	16 (1948)	749
					Quant mech	Otvos	JCP	16 (1948)	745
					Iso	Rasmussen	JCP	16 (1948)	712
					Spec, Assign	Sheppard	JCP	16 (1948)	690
					Assign, IR	Lassettre	JCP	17 (1949)	317
					Electrostatic theory	Nielsen	AC	21 (1949)	547
					Anal for hydrocarbons				

	-	-	Skeletal freq	Simpson	PRS	199 (1949)	169
	-	-	Anal	Starr	AC	21 (1949)	572
	7-15 μ	G	Spec, Anal	Coggeshall	AC	22 (1950)	581
	800-4000	G	IR, Spec	Condon	JCP	19 (1951)	1010
	10-15 μ	G	Spec, Epoxy study	Patterson	AC	26 (1954)	823
	-	-	Freq correction	Sheppard	JCP	23 (1955)	582
	-	G	Anal	Stroupe	AC	22 (1950)	1125
	3-35 μ	G	Spec, Assign	Evans	CJC	34 (1956)	1037
	2-15 μ	G	Spec, Threshold values	Pierson	AC	28 (1956)	1218
	-	G	Anal	Perry	AC	29 (1957)	1123
	-	-	Mol struct & const	Lide	JCP	29 (1958)	914
	-	G	Spec, Struct, Mol const	Lide	JCP	33 (1960)	1519
$C_3^{13}H_{10}$	-	-	Iso	Otvos	JCP	16 (1948)	745
	-	G	Spec, Struct, Mol const	Lide	JCP	33 (1960)	1519
$C_3^{13}H_{10}$	-	-	Iso	Otvos	JCP	16 (1948)	745
	-	G	Spec, Struct, Mol const	Lide	JCP	33 (1960)	1519
$C_4H_{10}DO_2B$	2-15 μ	G	Spec, Freq assign	Lehmann	JCP	30 (1959)	1222
$C_4H_{10}DB_2$	2-15 μ	G	Spec, Assign	Lehmann	JCP	33 (1960)	590
$C_4H_{10}ClO_2PS$	-	-	Spec, Freq	Popov	ZOK	29 (1959)	1998
	-	-	Spec, Bond freq	Bellamy	JCS	- (1952)	475
	700-1600	L, Sol	Band freq,	Helmann	JCS	- (1953)	626
	900-1060	Sol	Shift, Freq	Bell	JACS	76 (1954)	5185
	-	-	Freq, Struct	Smith	SA	15 (1959)	412
	2050-2250	Sol	Freq, Spec, Struct	Smith	SA	16 (1960)	87
	2-16 μ	Sol	Assign	McIvor	CJC	37 (1959)	869
	740-1500	Sol	Assign	McIvor	CJC	37 (1959)	869
	740-1500	Sol	Spec, Struct anal	Daasch	AC	23 (1951)	853
	2-21 μ	L	Freq, Shift	Bell	JACS	76 (1954)	5185
	-	-	Spec, Struct, anal	Daasch	AC	23 (1951)	853
$C_4H_{10}FNP$	2-21 μ	L	Spec, Struct, anal	Daasch	AC	23 (1951)	853
	-	-	Spec, Struct, anal	Daasch	AC	23 (1951)	853

$C_4H_4F_3O_3$	Diethyl ether boron-trifluoride	400-4000	S	Struct, Assign	Waddington	JCS	-	(1960)	2337
$C_4H_4F_4S$	Diethylsulfur hexafluoride	2-15 μ	L	Spec	Halpern	APS	11	(1957)	173
$C_4H_4I_2O_2$	Ethylether-iodine complex	-	Sol	Freq, I	Yamada	JACS	82	(1960)	1543
$C_4H_4N_2$	Piperazine	600-4000 500-1500	S, Sol S, Sol	Spec, Band study Spec, Struct	Heacock Hendra	CJC JCS	34 -	(1956) (1960)	1782 5105
$C_4H_4N_2 \cdot HCl$	Piperazine hydrochloride	600-4000	S, Sol	Spec, Band study	Heacock	CJC	34	(1956)	1782
$C_4H_4N_2 \cdot 2HCl$	Piperazine dihydrochloride	600-4000	S, Sol	Freq, Assign	Stone	JCS	-	(1958)	52
$C_4H_4N_2 \cdot HClO_4$	Piperazine perchlorate	600-4000	S	Spec, Freq	Heacock	CJC	34	(1956)	1782
$C_4H_4N_2O_2$	Diethylnitrosamine	5.73-9.35 μ	L	Table, Group freq, I G, L, Sol Vib assign	Haszeldine Haszeldine	JCS JCS	- -	(1954) (1955)	691 4172
$C_4H_4N_2O_2$	cis-Nitrosoethane dimer	1000-1300	S	Spec, Struct	Gowenlock	JCS	-	(1957)	3927
$C_4H_4N_2O_2$	trans-Nitrosoethane dimer	1000-1300	Sol, S	Spec, Struct	Gowenlock	JCS	-	(1957)	3927
$C_4H_4N_2O_2S$	s-Methylcysteine sulfoximine	670-1800 670-1800	S	Spec, Group freq	Short	JCS	-	(1951)	1746
$C_4H_4N_2S$	N,N,N'-Trimethylthiourea	2-12 μ	Sol	Spec	Ettlinger	JACS	72	(1950)	4699
$C_4H_4N_4$	Biacetyl dihydrazone	600-3500	S	Freq, Assign	Stonfer	JACS	82	(1960)	3491
C_4H_4O	n-Butanol	.8-2.0 μ 1-2.5 μ	L L	Magnetic rotation Spec	Ingersoll Smith	JOSA JACS	6 48	(1922) (1926)	663 1512
		-	-	Absorption coeff, Freq	Bonino	TFS	25	(1929)	876
		3-14 μ	L	Spec	Lecomte	TFS	25	(1929)	864
		.8-2.5 μ	L	Spec	Sappenfield	PR	33	(1929)	37
		-	-	Vibration theory	Lewis	PR	36	(1930)	568
		1-8 μ	L	Spec, Freq, Assign	Plyler	PR	35	(1930)	605
		-	G	Spec	Badger	JCP	4	(1936)	711
		2800-3800	L, Sol	Spec, H bond	Bushwell	JCP	5	(1937)	501
		2.5-3.9 μ	Sol	Spec, I	Fox	PRS	167	(1937)	419
		.4-4 μ	L, Sol	Spec, H bond	Kinusey	JCP	5	(1937)	399
		1000-1650	-	Spec, Anal	Barnes	IEC	15	(1943)	659
		-	-	Anal	Anderson	AC	20	(1948)	998

	-	-	Formation of hemiacetals	Ashtown	JCS	(1948)	1454
C ₄ H ₁₀ O	-	-	FC	Richards	TFS	44	1454
s-Butanol	720-750	L	Band freq	Wiberley	AC	22	1454
	2.7-3.2 μ	Sol	H bond, Equil const	Coggeshall	JACS	73	1454
	2.7 μ	Sol	Anal	Meeks	AC	23	1454
	2800-3000	Sol	Stretching freq, Spec	Pozefsky	AC	23	1454
	3 μ	Sol	Freq, H bond	Kuhn	JACS	74	1454
	8530-10000	Sol	Spec, I, Freq	Lauer	APS	6	1454
	-	-	Freq	Bell	AC	25	1454
	-	L	Deformation band	Quinan	JCP	21	1454
	665-5000	L	Bond freq	Zeiss	JACS	75	1454
	-	L, Sol	Anal, Freq	Gram	JACS	76	1454
	-	L	Ident	Soffer	JACS	76	1454
	3 μ	Sol	Pressure effect, Spec	Fishman	JCP	24	1454
	-	-	Freq, I shift	Finch	JCP	24	1454
	4000-350	L, G, Sol	Spec, OH band	Stuart	JCP	24	1454
	-	-	Stretching vib	Benson	JCP	27	1454
	2.73 μ	G	Absorption freq	Friedel	AC	29	1454
	8-13 μ	-	Spec	Eliel	SA	10	1454
	3 μ	Sol	FC, H bond	Flett	SA	10	1454
	3 μ	Sol	Dipole & bond strength, I	Moccia	PRS	243	1454
	3570-3700	Sol	Freq, I	Flynn	AJC	12	1454
C ₄ H ₁₀ O	3-14 μ	L	Spec	Lecomte	TFS	25	1454
s-Butanol	.8-2.5 μ	L	Spec	Sappenfield	PR	33	1454
	-	G	Spec	Badger	JCP	4	1454
	1050-1750	-	Spec	Barnes	IEC	15	1454
	-	-	Anal	Anderson	AC	20	1454
	-	-	Spec, Rot iso	Bernstein	JCP	17	1454
	2850-3000	Sol	Stretching freq, Spec	Pozefsky	AC	23	1454
	3 μ	Sol	Freq, H bond	Kuhn	JACS	74	1454
	650-5000	L	Bond freq	Zeiss	JACS	75	1454
	350-4000	L, Sol	Spec, FC	Stuart	JCP	24	1454
	-	G	OH bond freq	Tarte	JCP	26	1454
	3 μ	Sol	FC, H bond	Flett	SA	10	1454
	3 μ	Sol	Bond dipole & length, I	Moccia	PRS	243	1454
	-	-	Absorption band assign	Michinori	BCSJ	32	1454
C ₄ H ₁₀ O	3-14 μ	L	Spec	Lecomte	TFS	25	1454
t-Butanol	.8-2.5 μ	L	Spec	Sappenfield	PR	33	1454
	-	G	Spec	Badger	JCP	4	1454
	2.5-3.9 μ	Sol	Spec, I	Fox	PRS	162	1454
	-	-	Activation energy, Bond freq	Fugassi	JPC	46	1454
	800-1950	Sol	Spec	Barnes	IEC	15	1454

$C_4H_{10}O$	Isobutanol	720-750 2750-3000 2593-2689 2-15 μ 2-16 μ - - 2-11.5 μ 2-15 μ 2-15 μ - 700-4000	L Sol Sol L L Sol L G G G - Sol, L	Band freq Spec, Stretch freq H bond, Freq Spec, Solvent chart Spec, Solvent chart Band freq, H bond Spec Spec Spec Spec, Threshold values Freq, Assign Freq, Ext coeff	Wiberly Pozefsky Searles Pristera Anderson Seales Haszeldine Donovan Pristera Pierson Nukada DeMaine	AC AC JACS APS JOSA JACS JCS JCP AC AC NKZ CJC	22 (1950) 23 (1951) 73 (1951) 6 (1952) 43 (1953) 75 (1953) - (1954) 23 (1955) 27 (1955) 28 (1956) 80 (1959) 38 (1960)	841 1611 3704 29 221 71 4145 1592 457 1218 976 1921
$C_4H_{10}O$	Isobutanol	3-14 μ .8-2.5 μ 1-8 μ - - 7-14 μ 720-750 2800-3000 2.3-3.6 μ 665-5000 - 350-4000 1400-1600 8-13 μ 3 μ 3 μ 3570-3700 -	L L L G - - L L Sol Sol L - L, Sol Sol Sol Sol Sol -	Spec Spec Spec, Freq, Assign Spec Anal Formation of hemiacetals Band freq Stretch freq, Spec Spec, Band freq Bond freq Freq correction Bond freq Mol association Spec Freq, H bond Bond freq, Dipole mom, I Freq, I Freq, Absorption band	Lecomte Sappenfield Plyler Badger Anderson Ashdown Wiberly Pozefsky Allison Zeiss Shepard Stuart Ens Eliel Flett Moccia Flynn Michinori	TFS PR PR JCP AC JCS AC AC AC JACS JCP JCP CJC SA SA PRS AJC BCSJ	25 (1929) 33 (1929) 35 (1930) 4 (1936) 20 (1948) - (1948) 22 (1950) 23 (1951) 24 (1952) 75 (1953) 23 (1955) 24 (1956) 35 (1957) 10 (1958) 10 (1958) 243 (1958) 12 (1959) 32 (1959)	864 37 605 711 998 1454 841 1611 630 897 582 559 170 423 21 154 575 950
$C_4H_{10}O$	Methyl isopropyl ether	1-2.5 μ	L	Spec	Smith	JACS	48 (1926)	1512
$C_4H_{10}O$	Methyl n-propyl ether	1-2.5 μ	L	Spec	Smith	JACS	48 (1926)	1512
$C_4H_{10}O$	Trimethylmethanol	3300-3700	Sol	H bond	West	JACS	81 (1959)	6145
$C_4H_{10}OS$	Methyl propyl sulfoxide	6.8-14.5 μ	L	Table, I, Group freq	Price	JACS	75 (1953)	4750
$C_4H_{10}O_2$	1,3-Butanediol	700-1500 - .01-25 Mc/sec	L L, S, Sol Sol	Spec, Ident H bond, Freq, Config Spec	Shay Malyshv Morianez	AC IANS CPR	26 (1954) 22 (1958) 249 (1959)	652 1107 1622

C ₄ H ₁₀ O ₂	1,4-Butanediol	3 μ - 8.87-9.44 μ	L, Sol L, Sol, Sol	Spec H bond, Sol	Freq, Config	Kuhn Malyshv Spell	JACS 74 (1952) IANS 22 (1958) AC 31 (1959)	2492 1107 1600	
C ₄ H ₁₀ O ₂	2,3-Butanediol	2.6-3.1 μ 1000-1800 1050-1750 3 μ -	Sol - - Sol -	H bond Spec, Anal Spec Spec Ident		Wall Barnes Barnes Kuhn Kuhn	JACS 61 (1939) IEC 15 (1943) IEC 15 (1943) JACS 74 (1952) JACS 76 (1954)	2679 83 659 2492 328	
C ₄ H ₁₀ O ₂	n-Butyl hydroperoxide	5.5-14.5 μ	L	Group freq	Spec	Mosher	AC	27 (1955)	517
C ₄ H ₁₀ O ₂	s-Butyl hydroperoxide	5.5-14.5 μ	L	Group freq	Spec	Mosher	AC	27 (1955)	517
C ₄ H ₁₀ O ₂	t-Butyl hydroperoxide	2-15 μ 800-960 5-15 μ - 665-5000	L Sol Sol L L, G	Spec, Struct anal Band freq Spec Group freq Freq		Shreve Philpotts Minkoff Mosher Ory	AC 23 (1951) AC 24 (1952) PRS 224 (1954) AC 27 (1955) AC 32 (1960)	282 638 176 517 509	
C ₄ H ₁₀ O ₂	Diethyl peroxide	1-30 μ - 5-15 μ	G L Sol	Spec Group freq Spec		Kettering Gray Minkoff	P 4 (1933) JCS - (1952) PRS 224 (1954)	39 3150 176	
C ₄ H ₁₀ O ₂	1,1-Dimethoxyethane	1500-5000 -	Sol G, L	Group freq Characteristic freq		Briggs Nukada	AC 29 (1957) NKZ 80 (1959)	904 1112	
C ₄ H ₁₀ O ₂	1,2-Dimethoxyethane	- 1500-5000 7-14 μ	- Sol L	Ident Group freq Rocking freq		Baker Briggs Miyake	AC 25 (1953) AC 29 (1957) JACS 82 (1960)	1457 904 3040	
C ₄ H ₁₀ O ₂	2-Ethoxyethanol-1	2.6-3.2 μ 3 μ 3 μ	Sol Sol Sol	H bond Band freq FC, H bond		Wall Kuhn Flett	JACS 61 (1939) JACS 74 (1952) SA 10 (1958)	2679 2492 21	
C ₄ H ₁₀ O ₂	1-Methoxy-2-propanol	8-10 μ	-	Spec		Sexton	JACS 70 (1948)	3606	
C ₄ H ₁₀ O ₂	2-Methoxy-1-propanol	8-10 μ	-	Spec		Sexton	JACS 70 (1948)	3606	
C ₄ H ₁₀ O ₂ S	Diethyl sulfone	-	Sol	Group freq		Waight	JCS - (1952)	2440	
C ₄ H ₁₀ O ₂ S	Methyl 1-propyl sulfone	6.7-13 μ 865-1475	L Sol	Table, Group freq, I Ident, Table		Price Marvel	JACS 75 (1953) JACS 76 (1954)	4750 61	
C ₄ H ₁₀ O ₂ S	Thiodiglycol	1000-1500	Sol	Spec		Schreiber	AC 21 (1949)	1168	

$C_4H_{10}O_3$	Diethylene glycol	2800-3100 700-1500 2.5-10.5 μ - 863-1131	Sol L Sol - Sol	Stretch freq, Spec Ident, Spec Spec, Anal Freq, Assign Anal	Pozefsky Shay Potts Nukada Pinchas	AC AC AC NKZ AC	23 (1951) 26 (1954) 28 (1956) 80 (1959) 31 (1959)	1611 652 1255 976 1742
$C_4H_{10}O_3$	1-Hydroxy-1-hydroperoxy-n-butane	5-15 μ	Sol	Spec	Minkoff	PRS	224 (1954)	176
$C_4H_{10}O_3$	1-Hydroxy-1-peroxy-methylpropane	5-15 μ	Sol	Spec	Minkoff	PRS	224 (1954)	176
$C_4H_{10}O_3$	Trimethoxymethane	-	-	Spec, Freq	Nukada	NKZ	81 (1960)	1028
$C_4H_{10}O_3S$	Ethyl sulfite	7-10 μ	L	Freq assign	Haszeldine	JCS	- (1955)	2901
$C_4H_{10}O_4$	Di(1-hydroxyethyl)-1-peroxide	5-15 μ	Sol	Spec	Minkoff	PRS	224 (1954)	176
$C_4H_{10}O_4$	Erythritol (meso)	8-15 μ	S	Spec	Kuhn	AC	22 (1950)	276
$C_4H_{10}O_4S$	Diethyl sulphate	.7-2.5 μ 1-8 μ 1000-1500	L L Sol	Bond freq Spec, Freq, Assign Spec	Ellis Plyler Schreiber	JACS PR AC	51 (1929) 35 (1930) 21 (1949)	1384 605 1168
$C_4H_{10}O_4S$	Thiodiglycol sulfone	1000-1500	Sol	Spec	Schreiber	AC	21 (1949)	1168
$C_4H_{10}S$	n-Butyl mercaptan	6-2.8 μ 2.75-4.25 μ 3.1-4.5 μ 500-1700 - 2800-3000 - 2500-2700	L L L L - Sol - Sol	S-H study S-H freq H bond Spec, Assign IR, Freq Stretch freq, Spec IR, Spec I, Absorption coeff	Ellis Williams Gordy Trotter Sheppard Pozefsky Haines Spurr	JACS PR JACS JCS TFS AC JPC JPC	50 (1928) 54 (1938) 62 (1940) - (1946) 46 (1950) 23 (1951) 60 (1956) 62 (1958)	2113 504 497 481 429 1611 549 425
$C_4H_{10}S$	t-Butyl mercaptan	500-1700 - - 679-2959 2-25 μ 200-1500 2500-2700	G - - L L - Sol	Spec, Assign IR, Freq, FC Freq, Assign Table freq, Thermo Spec Freq, Assign, Struct Stretch freq, I	Trotter Sheppard Sheppard McCullough Haines Scott Spurr	JCS TFS TFS JACS JPC JACS JPC	- (1946) 46 (1950) 46 (1950) 75 (1953) 58 (1954) 80 (1958) 62 (1958)	481 429 527 1818 270 3554 425

$C_4H_{10}S$	Isobutyl mercaptan	500-1700 - 2800-3000	G, L - Sol	Spec, Assign IR, FC Spec, Stretch freq	Trotter Sheppard Pozefsky	JCS TFS AC	- 46 23	(1946) (1950) (1951)	481 429 1611
$C_4H_{10}S$	3-Methyl-2-thiabutane	- 200-1500	- -	IR, Spec Freq, Assign, Struct	Haines Scott	JPC JACS	60 80	(1956) (1958)	549 3554
$C_4H_{10}S$	2-Thiapentane	6.8-14.35 μ L - -	L - -	Table, I, Band & group freq IR, Spec	Price Haines	JACS JPC	75 60	(1953) (1956)	4750 549
$C_4H_{10}S$	3-Thiapentane	.6-2.8 μ 1050-1600 500-1700 - 2800-3000 - - 2-25 μ 200-1500	Sol - L - Sol - - L L -	S-H study Spec Spec, Assign Freq Stretch freq, Spec Group freq Table, IR, Thermo Spec, Freq, Assign, Struct	Ellis Barnes Trotter Sheppard Pozefsky Brandt Scott Haines Scott	JACS IEC JCS TFS AC JCS JACS JPC JACS	50 15 - 46 23 - 74 58 80	(1928) (1943) (1946) (1950) (1951) (1952) (1952) (1954) (1958)	2113 659 481 429 1611 2549 4656 270 3554
$C_4H_{10}S_2$	Ethyl disulphide	400-1700 - 2800-3000 - 500-1500 - 2-25 μ 200-1500	L - Sol - S, L - L -	Spec, Assign Freq Spec, Stretch freq Group freq, Stretch freq Freq, I, Energy function Ident Spec, Freq, Assign, Struct	Trotter Sheppard Pozefsky Brandt Scott Cairus Haines Scott	JCS TFS AC JCS JACS JOC JPC JACS	- 46 23 - 74 18 58 80	(1946) (1950) (1951) (1952) (1952) (1953) (1954) (1958)	481 429 1611 2549 2478 748 270 3554
$C_4H_{10}S_3$	Ethyl trisulfide	-	-	Ident	Cairus	JOC	18	(1953)	748
$C_4H_{10}Se$	Diethylselenide	2-40 μ	-	Assign	Bergson	ARK	13	(1958)	11
$C_4H_{11}ClNO_3P$	Ethyl dimethylphosphor- amidochloridothionate	400-1050	Sol	Assign	McIvor	CJC	37	(1959)	869
$C_4H_{11}ClNO_2P$	Ethyl dimethylamino- chlorophosphonate	-	-	Freq shift	Bell	JACS	76	(1954)	5185
$C_4H_{11}ClNO_2P$	Ethyl dimethylphosphora- midochloride	600-1050	Sol	Assign	McIvor	CJC	37	(1959)	869

$C_4H_{11}ClSi$	Chloromethyltrimethyl- silane	-	-	Ident, Spec	Roberts	JACS	73 (1951)	1879	
$C_4H_{11}ClSi$	Dimethylchlorosilane	-	2050-2250 2-16 μ	Band freq Freq shift, Struct Freq, Spec, Struct	Richards Smith Smith	JCS SA SA	- 15 16	(1949) (1959) (1960)	124 412 87
$C_4H_{11}N$	n-Butylamine	1-12 μ .6-2.4 μ 6400-6800 6400-6800 - 1050-1850 2-8 μ 3000-4000 2-15 μ	L L Sol Sol - - S Sol L	N-H study, Spec N-H study NH band Spec, Group anal Effect as solvent Spec Spec Freq, I Freq, Assign, NCA	Bell Ellis Liddel Wulf Gordy Barnes Nakanishi Orivelle Stewart	JACS JACS JACS JACS JCP IEC BCSJ JCS JCP	49 50 55 57 7 15 30 - 30	(1927) (1928) (1933) (1935) (1939) (1943) (1957) (1958) (1959)	1837 685 3574 1464 93 659 403 1047 1259
$C_4H_{11}N$	sec-Butylamine	2-15 μ	L	Freq, Assign, NCA	Stewart	JCP	30	(1959)	1259
$C_4H_{11}N$	t-Butylamine	2-15 μ	L	Freq, Assign, NCA	Stewart	JCP	30	(1959)	1259
$C_4H_{11}N.HBr$	n-Butylamine hydro- bromide	1000-3500	Sol	Freq, Spec	Chenon	CJC	36	(1958)	1181
$C_4H_{11}N.HCl$	n-Butylamine hydro- chloride	2-8 μ 1000-3500	Sol Sol	Spec Freq, Spec	Nakanishi Chenon	BCSJ CJC	30 36	(1957) (1958)	403 1181
$C_4H_{11}N.HI$	n-Butylamine hydriodide	1000-3500	Sol	Freq, Spec	Chenon	CJC	36	(1958)	1181
$C_4H_{11}N.HBr$	sec-Butylamine hydro- bromide	1000-3500	Sol	Freq, Spec	Chenon	CJC	36	(1958)	1181
$C_4H_{11}N.HCl$	sec-Butylamine hydro- chloride	1000-3500	Sol	Freq, Spec	Chenon	CJC	36	(1958)	1181
$C_4H_{11}N.HI$	sec-Butylamine hydr- iodide	1000-3500	Sol	Freq, Spec	Chenon	CJC	36	(1958)	1181
$C_4H_{11}N.HBr$	t-Butylamine hydro- bromide	1000-3500	Sol	Freq, Spec	Chenon	CJC	36	(1958)	1181
$C_4H_{11}N.HCl$	t-Butylamine hydro- chloride	1000-3500	Sol	Freq, Spec	Chenon	CJC	36	(1958)	1181
$C_4H_{11}N.HI$	t-Butylamine hydriodide	1000-3500	Sol	Freq, Spec	Chenon	CJC	36	(1958)	1181

$C_4H_{11}N$	Diethylamine	6400-6800 720-750 - 2.6-3.4 μ - - 1.24-3.18 μ 2-15 μ	Sol L L, G - Sol Sol G L, G	NH band Freq Assign H bond, I Freq, I, Ext coefficient Spec Microwave, Absorption Freq assign, NCA	Liddel Wilberley Barr Mizushima Russel Nakanishi Murty Stewart	JACS AC JCS SA JCS BCSJ JESIR JCP	55 (1933) 22 (1950) - (1955) 7 (1955) - (1955) 30 (1957) 18B (1959) 30 (1959)	3574 841 4169 100 483 403 455 1259
$C_4H_{11}N \cdot HBr$	Diethylamine hydrobromide	1000-3500	Sol, S	Freq, Spec	Chenon	CJC	36 (1958)	1181
$C_4H_{11}N \cdot HCl$	Diethylamine hydrochloride	2-8 μ 1000-3500 600-4000	- S, Sol S	Spec Freq, Spec Freq, Assign	Nakanishi Chenon Stone	BCSJ CJC JCS	30 (1957) 36 (1958) - (1958)	403 1181 52
$C_4H_{11}N \cdot HI$	Diethylamine hydriodide	1000-3500	S, Sol	Freq, Spec	Chenon	CJC	36 (1958)	1181
$C_4H_{11}N$	1,1-Dimethylethylamine	200-1250	-	Spec	Goubeau	ZAU A	268 (1952)	1
$C_4H_{11}N$	Isobutylamine	2-15 μ	L, G, Sol	Freq, FC, Assign, NCA	Stewart	JCP	30 (1959)	1259
$C_4H_{11}N \cdot HBr$	Isobutylamine hydrobromide	1000-3500	Sol	Freq, Spec	Chenon	CJC	36 (1958)	1181
$C_4H_{11}N \cdot HCl$	Isobutylamine hydrochloride	1000-3500	Sol	Freq, Spec	Chenon	CJC	36 (1958)	1181
$C_4H_{11}N \cdot HI$	Isobutylamine hydriodide	1000-3500	Sol	Freq, Spec	Chenon	CJC	36 (1958)	1181
$C_4H_{11}NO$	Dimethylethanolamine	2-15 μ -	- -	Spec Rot iso	Barr Kuhn	JACS ZAC	74 (1952) 170 (1959)	4430 106
$C_4H_{11}NO_2$	Diethanolamine	600-4000 2900-3100	Sol, L Sol	Spec Freq	Heacock Hill	CJC JCS	34 (1956) - (1958)	1782 760
$C_4H_{11}NO_2 \cdot HNO_3$	Diethanolamine nitrate	600-4000	S, Sol	Spec, Freq	Heacock	CJC	34 (1956)	1782
$C_4H_{11}N^3$	N, N', N'' -Trimethylguanidine	800-3500	S	Spec	Goto	BCSJ	30 (1957)	723
$C_4H_{11}N^3 \cdot HCl$	N, N', N'' -Trimethylguanidine hydrochloride	800-3500	S	Spec	Goto	BCSJ	30 (1957)	723

$C_4H_{11}NO$	N,N-Dimethylamino-acetamidoxime	930-3500	Sol, S	Freq	Hollander	JOC	23 (1958)	1112
$C_4H_{11}O_2P$	Ethyl ester of dimethyl-phosphinic acid	-	-	Freq assign	Ketelaar	RTC	78 (1959)	190
$C_2H_{11}O_2PS_2$	O,O-Diethylphosphoro-dithioic acid	450-830	L	Assign	McIvor	CJC	37 (1959)	869
$C_4H_{11}O_2B$	Diethoxyborane	2-15 μ	G	Spec, Freq, Assign	Lehmann	JCP	30 (1959)	1222
$C_4H_{11}O_3P$	n-Butylphosphonic acid	2-12 μ 600-4000	S S	Spec, Struct Group study	Daesch Braunholtz	AC JCS	23 (1951) - (1959)	853 868
$C_4H_{11}O_3P$	Diethylhydrogen phosphite	2-25 μ 2-21 μ 700-1400 - -	L Sol Sol - -	Spec Spec, Struct Spec, Freq P=O freq Band freq	Meyrick Daesch Bellamy Bell Bennett	JCS AC JCS JACS JCS	- (1950) 23 (1951) - (1952) 76 (1954) - (1954)	225 853 475 5185 3598
$C_4H_{11}O_4P$	Ethyl dimethyl-phosphate	900-1060	Sol	Band freq, Group freq	Helmann	JCS	- (1953)	626
$C_4H_{11}PS_2$	Diethylphosphino-dithioic acid	2200-2700	Sol	H bond, Spec	Allen	JCS	- (1957)	3912
$C_4H_{11}PS_4$	Methyl-n-propyl-phosphorotetrathioic acid	1950-2650	L, Sol	H bond	Alford	CIL	- (1959)	514
$C_4H_{11}PS_4$	Methyl-isopropyl-phosphorotetrathioic acid	1950-2650	L, Sol	H bond	Alford	CIL	- (1959)	514
$C_4H_{12}ClFSi_2$	1-Fluoro-2-chloro-tetramethyldisilane	-	-	Spec, Assign	Hayashi	NKZ	78 (1957)	1472
$C_4H_{12}ClFNB$	Tetramethylammonium chlorotrifluoroborate	400-4000	S, L	Struct, Assign	Waddington	JCS	- (1960)	2339
$C_4H_{12}ClN$	t-Butylammonium chloride	600-3500	S	Spec	Kynaston	JCS	- (1960)	1772
$C_4H_{12}ClNO_3S$	Tetramethylammonium chlorosulphate	400-4000	S, L	Struct, Assign	Waddington	JCS	- (1960)	2339

$C_4H_{12}Cl_2Si_2$	1,2-Dichlorotetramethyl-disilane	-	G,L,S	Struct	Hayashi	NKZ	79 (1958)	775
$C_4H_{12}Cl_4NB$	Butylammonium tetra-chloroborate	600-3500	S	Spec	Kynaston	JCS	- (1960)	1772
$C_4H_{12}Cl_4NB$	Tetramethylammonium tetrachloroborate	600-3500	S	Spec	Kynaston	JCS	- (1960)	1772
$C_4H_{12}Cl_4N_2P_5$	Dimethylamino derivative of trimeric phospho-nitric chloride	1150-1350	-	Freq, Struct	Sharo	CIL	- (1959)	514
$C_4H_{12}FN_2OP$	Bis-dimethylamino-fluorophosphine oxide	700-1500	L	Spec, Freq P=O freq	Bellamy Bell	JCS JACS	- (1952) 76 (1954)	475 5185
$C_4H_{12}F_2Si_2$	1,2-Difluorotetramethyl-disilane	-	-	Spec, Assign	Hayashi	NKZ	78 (1957)	1472
$C_4H_{12}F_3O_2B$	Borontrifluoride diethanol complex	2200-7600	-	Struct	Babushkin	OS	5 (1958)	256
$C_4H_{12}IN$	Tetramethylammonium	600-4000 2800-3000 400-4000	S L,S S	Spec Group detection Assign	Heacock Braunholtz Ebsworth	CJC JCS SA	34 (1956) - (1958) 13 (1959)	1782 2780 261
$C_4H_{12}INO_3$	Tetramethylammonium iodate	-	S	Spec, Struct	Desent	JCS	- (1960)	2429
$C_4H_{12}N$	Diethylammonium ion	2-15 μ	S	Assign, Freq	Bellamato	SA	16 (1960)	1344
$C_4H_{12}N$	Tetramethylammonium ion	-	-	Freq, Assign	Edsall	JCP	5 (1937)	225
		-	-	Quant mech	Silver	JCP	8 (1940)	919
		-	-	Freq assign	Young	JACS	69 (1947)	1410
		-	-	FC	Sheline	JCP	18 (1950)	595
		-	-	FC	Sheline	JCP	18 (1950)	602
$C_4H_{12}NO_2PS$	Ethylidimethylphosphor-amidothioic acid	740-1500	Sol	Assign	McIvor	CJC	37 (1959)	869
$C_4H_{12}NO_3P$	Diethylamino phosphonate	-	-	P=O freq	Bell	JACS	76 (1954)	5185

$C_4H_{12}NO_3P$	Diethylphosphoramidate	600-1050	Sol	Assign	McIvor	CJC	37 (1959)	869
$C_4H_{12}NO_6P$	Glycine ethyl ester phosphonate	3-15 μ	L, S	Spec, Freq	Li	JACS	77 (1955)	3519
$C_4H_{12}N_2$	1,2-Diethylhydrazine	600-4000	L, Sol	Spec, Freq	Heacock	CJC	34 (1956)	1782
$C_4H_{12}N_2 \cdot HCl$	1,2-Diethylhydrazine hydrochloride	600-4000	S	Spec, Freq	Heacock	CJC	34 (1956)	1782
$C_4H_{12}N_2$	Tetramethylhydrazine	2-15 μ 400-4500	G G, L, S	Spec Spec, Assign	Pierson McKean	AC SA	28 (1956) 10 (1958)	1218 161
$C_4H_{12}N_2$	N,N-Dimethylethylenediamine	3.38-3.60 μ	S	Freq	Wright	JOC	24 (1959)	1362
$C_4H_{12}N_4$	Tetramethyltetrazene	2-15 μ	G	Spec	Pierson	AC	28 (1956)	1218
$C_4H_{12}N_4O_2$	Dimethylnitrosamine dimer	-	Sol, L	Assign	Haszeldine	JCS	- (1955)	4172
$C_4H_{12}OSi$	Methoxytrimethylsilane	2-25 μ	-	Assign	Fornesis	ZE	62 (1958)	1130
$C_4H_{12}O_2Si$	Dimethyldimethoxysilane	2-25 μ - 700-3500	- L, S L, Sol	Assign Spec, Config Spec, Struct	Fornesis Hayashi Tanaka	ZE NKZ BCSJ	62 (1958) 79 (1958) 31 (1958)	1130 436 762
$C_4H_{12}O_3Si$	Methyl-trimethoxysilane	2-25 μ 700-3500	- L, Sol	Assign Struct	Fornesis Tanaka	ZE BCSJ	62 (1958) 31 (1958)	1130 762
$C_4H_{12}O_4$	Ethyleneglycol dimer	700-1600	L	Config	Kuroda	JPS	26 (1957)	323
$C_4H_{12}O_4Si$	Silicon methoxide	-	-	Spec, Assign	Kriegsmann	ZE	62 (1958)	1163
$C_4H_{12}O_4Si$	Tetramethoxysilane	700-3500	L	FC Spec	Iguchi Tanaka	JCP BCSJ	22 (1954) 31 (1958)	1937 762
$C_4H_{12}O_7P_2$	Tetramethyl pyrophosphate	2-21 μ - -	Sol Sol -	Spec, Struct Group freq P=O freq	Daasch Bergmann Bell	AC JCS JACS	23 (1951) - (1952) 76 (1954)	853 847 5185
$C_4H_{12}Si$	Dimethylsilane	2-16 μ - 2-13 μ 2-16 μ	L, Sol - Sol G	Spec, Freq Freq, Thermo Spec Ident, Freq	Kaye Tannenbaum West White	JOC JACS JOC JACS	18 (1953) 75 (1953) 18 (1953) 76 (1954)	1750 3753 303 3897

$C_4H_{12}Si$	n-Butylsilane	2-16 μ	L, Sol	Spec, Freq Freq, Thermo	Kaye Tannenbaum	JOC JACS	18 (1953) 75 (1953)	1750 3753
$C_4H_{12}Si$	Isobutylsilane	2-16 μ	L, Sol	Spec, Freq Freq, Thermo	Kaye Tannenbaum	JOC JACS	18 (1953) 75 (1953)	1750 3653
$C_4H_{12}Si$	Tetramethylsilane	-	-	Assign FC	Anderson Wall	JCP	4 (1936) 6 (1938)	161 107
		-	-	Freq	Silver	JCP	7 (1939)	1113
		-	-	Quant mech	Silver	JCP	8 (1940)	919
		-	-	Internal rotation	Aston	JCP	12 (1944)	336
		-	-	Thermo	French	JCP	14 (1946)	389
		-	-	FC, Bond distances	Gordy	JCP	14 (1946)	305
		600-6000	G	Spec	Young	JACS	69 (1947)	1410
		-	-	Absorption freq, FC	Simanouti	JCP	17 (1949)	848
		-	-	FC	Sheline	JCP	18 (1950)	595
		-	-	FC	Sheline	JCP	18 (1950)	602
		-	-	Assign	Shimanouchi	JCP	18 (1950)	1306
		-	-	Spec, Ident	Roberts	JACS	73 (1951)	1879
		650-1375	G, L, S	Spec	Simon	JCP	20 (1952)	905
		2-16 μ	G	Spec, Freq	Kaye	JOC	18 (1953)	1750
		2-25 μ	G	Spec, Assign	Shull	JCP	21 (1953)	2024
		2-25 μ	G	Spec, Assign	Smith	JCP	21 (1953)	1997
		-	-	Freq, Thermo	Tannenbaum	JACS	75 (1953)	3753
		2-16 μ	G	Spec	White	JACS	76 (1954)	3897
		12-36 μ	G	Spec	Sheppard	TFS	51 (1955)	1465
		2-25 μ	-	Assign	Fornesis	ZE	62 (1958)	1130
		-	-	Mol consts	Kovalev	OS	6 (1959)	594
		-	-	NCA, Assign, Thermo	Shimizu	JMS	5 (1960)	44
		2-16 μ	Sol	Spec, Struct, Freq	Smith	SA	16 (1960)	87
$C_4H_{13}NSi$	Methyl-N-trimethyl- silylamine	-	-	Spec, Assign	Goubeau	ZAVA	303 (1960)	217
$C_4H_{13}NSi$	Trimethylsilylmethyl- amine	-	-	Absorption Spec	Noll George	JACS JACS	73 (1951) 77 (1955)	3871 3493
$C_4H_{14}N_2O_3P$	Bis-dimethylamino- phosphinic anhydride	700-1500	L	Spec, Freq	Bellamy	JCS	- (1952)	475
$C_4H_{14}N_6 \cdot H_2SO_4$	Methylguanidine sulfate	-	S	C=N freq	Pickard	JACS	76 (1954)	5169

$C_4H_{14}OSi_2$	Tetramethyldisiloxane	600-3500	Sol	Spec, Freq	Sakiyama	BCSJ	31 (1956)	67
$C_4H_{14}O_3Si_2$	Tetramethyldisiloxane-1,3-diol	- 2.5-4 μ -	S S, Sol S	Ident Struct, H bond Freq, H bond	Hyde Kakudo Kantor	JACS JCP JACS	75 (1953) 21 (1953) 75 (1953)	2166 1894 2712
$C_4H_{14}B_2$	Tetramethyldiborane	2-25 μ - 1500-2850	- - -	Theoretical Freq Freq	Cowan Price Shapiro	JCP JCP JCP	17 (1949) 17 (1949) 29 (1958)	218 1044 237
$C_4H_{14}B_2$	1,1-Diethyldiborane	1500-2850	-	Freq	Shapiro	JCP	29 (1958)	237
$C_4H_{14}B_2$	1,2-Diethyldiborane	2-15 μ	G	Spec, Assign	Lehmann	JCP	33 (1960)	590
$C_4H_{16}O_4$	Methanol (Tetramer)	2700-3700	-	H bond	Thiel	JCP	27 (1957)	95
$C_4H_{16}OSi_4$	Tetramethylcyclotetra-siloxane	600-3500	-	Spec, Freq	Sakiyama	BCSJ	31 (1958)	67
$C_4H_{28}OSi_4$	Tetradimethylsiloxysilane	2050-2250	Sol	Freq, Struct	Smith	SA	15 (1959)	412
$C_4D_{10}O_4$	2-Butynedioic acid-d ₂	700-1500	S	Spec, Assign	Hadzi	PRS	216 (1953)	247
$C_4D_3F_3$	Trifluorobutylene-d ₃	-	-	Struct	Bak	JCP	26 (1957)	241
C_4D_5N	Pyrrole-d ₅	750-1950 - - 400-4000	G, L - - G, L	Spec, Analysis Microwave Spec, Mol consts	Lord Halverson Bak Morcillo	JCP RMP JCP ARS	10 (1942) 19 (1947) 24 (1956) 56B (1960)	328 87 720 231
C_4D_6	Cyclobutene-d ₆	250-3500 250-3800	- L, G	C=C freq, Struct Assign, Spec, I	Lord Lord	AC JACS	6 (1954) 79 (1957)	429 2401
$C_4D_6O_2$	Diacetyl-d ₆	-	-	Spec, Assign	Noack	ZE	64 (1960)	707
$C_4D_6O_4$	Succinic acid-d ₆	500-3500	S	Freq, Assign	Shimanouchi	SA	16 (1960)	1328
C_4D_8O	Tetrahydrofuran-d ₈	350-3200	S, L, G	Spec, Freq	Palm	SA	16 (1960)	459
C_4D_8O	Ethyl acetate-d ₈	700-3500	Sol	Spec, Freq, Assign	Nolin	CJC	34 (1956)	1392
C_4D_9Br	t-Butyl bromide	-	-	Spec, Assign	Zeil	ZE	64 (1960)	769
C_4D_9Cl	t-Butyl chloride	-	-	Spec, Assign	Zeil	ZE	64 (1960)	769

C_4D_{10}	Butane- d_{10}	2-16 μ	G	Spec	Thompson	JPC	56 (1952)	243
C_4D_{10}	Isobutane- d_{10}	-	G	Spec, Ident	Stall	JCP	21 (1953)	2024
		3-35 μ	G	Spec, Assign	Wilmshurst	CJC	35 (1957)	969
$C_4D_{10}O$	Butanol- d_{10}	-	L, G	Spec, Assign	Tanaka	NKZ	81 (1960)	1042
$C_4D_{12}Si$	Tetramethylsilane- d_{12}	-	-	FC, Vibrations	Kovalev	OS	6 (1959)	594
$C_4D_{14}B_2$	1,2-Diethylborane- d_{12}	2-15 μ	G	Spec, Assign	Lehmann	JCP	33 (1960)	590
$C_4Cl_2F_6$	1,2-Dichlorohexafluorocyclobutane	8-15 μ	G	Spec	Lacher	JACS	71 (1949)	1334
$C_4Cl_2F_6$	cis-1,2-Dichlorohexafluorocyclobutane	2.15-15 μ	G	Spec	Lacher	JCP	20 (1952)	1014
$C_4Cl_2F_6$	trans-1,2-Dichlorohexafluorocyclobutane	2.15-15 μ	G	Spec	Lacher	JCP	20 (1952)	1014
$C_4Cl_2F_6$	1,4-Dichlorohexafluoro-2-butene	-	-	Purity test	Haszeldine	JCS	- (1952)	4423
$C_4Cl_2F_6$	3,4-Dichlorohexafluoro-1-butene	-	-	C=C freq	Tarrant	JACS	77 (1955)	3640
$C_4Cl_2N_2$	Dichlorofumaronitrile	-	-	Freq	Eldred	JACS	75 (1953)	4338
$C_4Cl_3F_7$	Heptafluoro-1,1,1-trichlorobutane	-	L	-CF ₃ freq	Tiers	JACS	75 (1953)	5978
$C_4Cl_4F_6$	Hexafluoro-1,2,3,4-tetrachlorobutane	-	-	Ident	Haszeldine	JCS	- (1952)	4423
C_4Cl_6	Hexachloro-1,3-butadiene	-	-	Use as solvent	Ard	AC	23 (1951)	680
		-	-	Freq	Haszeldine	JCS	- (1952)	4423
		2-15 μ	L	Spec	Ard	AC	25 (1953)	1743
		700-1750	S	Spec, Struct	Szasz	TFS	49 (1953)	398
C_4Cl_5S	2,2,3,4,5,5-Hexachloro-3-thiolene	-	-	Struct	Coomadt	JACS	74 (1952)	163
C_4F_6	Hexafluorobutadiene-1,2	-	-	Ident, Spec	Henne	JACS	71 (1949)	298

C ₄ F ₆	Hexafluorobutadiene-1,3	2-15 μ - - 2.5-36.3 μ 1500-1800	G - - G G	Spec, Freq Ident C=C freq Spec Freq	Haszeldine Haszeldine Tarrant Albright Burdon	JCS JCS JACS JCP SA	- - 77 26 12	(1952) (1954) (1955) (1957) (1958)	4423 4026 3640 370 139
C ₄ F ₆	1,1,1,4,4,4-Hexafluoro-2-butyne	- 2-15.5 μ - 280-4000	- G - G	Freq, Struct Spec C=C freq Spec, Assign	Henne Haszeldine Haszeldine Miller	JACS JCS JCS JCP	71 - - 22	(1949) (1952) (1954) (1954)	298 2504 1261 1544
C ₄ F ₆	Hexafluorocyclobutene	8-15 μ 2-15 μ 2-38 μ 1500-1800	G G L, G G	Freq Freq, Spec Spec, Assign Freq	Lacher Haszeldine Nielsen Burdon	JACS JCS JCP SA	71 - 23 12	(1949) (1952) (1955) (1958)	1334 4423 324 139
C ₄ F ₆ O ₂	Perfluorobutyrolactone	2-16 μ	G	Spec	Hauptschein	JACS	74	(1952)	1974
C ₄ F ₆ O ₃	Hexafluoroacetic anhydride	1205-1884 - 1000-1250	G - Sol	Freq Analysis Freq, Analysis	Fuson Emmons Bourne	JCP JACS JCS	20 75 -	(1952) (1953) (1954)	1627 6047 2006
C ₄ F ₇ I	Heptafluoro-4-iodo-1-butene	-	-	Freq	Haszeldine	JCS	-	(1954)	4026
C ₄ F ₇ N	Heptafluoropropyl cyanide	4-4.5 μ	G	Freq assign	Barr	JCS	-	(1956)	3428
C ₄ F ₇ NO	Heptafluoropropyl isocyanate	4-7.5 μ	G	Freq, Assign	Barr	JCS	-	(1956)	3428
C ₄ F ₈	Octafluoro-1-butene	- - - 2-15 μ - -	- - - G - -	Freq C=C freq Ident Spec, Freq Freq Group freq	Hals Haszeldine Atkinson Brice Lazerte Bellemy	JACS JCS JCS JACS JACS JCS	73 - - 75 75 -	(1951) (1952) (1953) (1953) (1953) (1958)	405 4423 2082 2698 4525 2463
C ₄ F ₈	Octafluoro-2-butene	2-15 μ - 2-15 μ 1500-1800	G - G G	Spec, Group freq Ident Spec, Freq Freq	Haszeldine Atkinson Brice Burdon	JCS JCS JACS SA	- - 75 12	(1952) (1953) (1953) (1958)	4423 2082 2698 139
C ₄ F ₈	Octafluorocyclobutane	2-15 μ 2-23.1 μ	- G	Freq assign IR, Assign	Edgell Claassen	JACS JCP	69 18	(1947) (1950)	660 543

C_4F_8	Perfluoroisobutene	400-1450 G	IR, Assign	Edgell	JCP	18 (1950)	571
C_4F_8	cis-Perfluoro-2-butene	2-15 μ	Spec, Freq	Brice Bellamy	JACS JCS	75 (1953) - (1958)	2698 2463
C_4F_8	trans-Perfluoro-2-butene	-	Ident, Freq	Henne	JACS	76 (1954)	610
C_4F_8	1,4-Diodooctafluoro- butane	-	Ident, Freq	Henne	JACS	76 (1954)	610
C_4F_8	Perfluorotetrahydro- furan	2-16 μ L	Spec	Hauptschein	JACS	74 (1952)	1974
C_4F_8O	Nonafluoro-2-iodo- butane	2-16 μ G	Spec	Henne	JACS	74 (1952)	5420
C_4F_9I	Decafluoro-n-butane	4.12-14.2 μ -	Ident, I	Haszeldine	JCS	- (1953)	3559
C_4F_{10}	Tetrakis(trifluoro- methyl)diarsine	-	Ident I, Ident Anal	Haszeldine Haszeldine Ayscough	JCS JCS JCS	- (1952) - (1953) - (1954)	4423 3559 3381
$C_4F_{12}P_2$	Tetrakis(trifluoro- methyl)diarsine	4.42-13.37 μ G	Table Ident	Bennett Bennett	JCS JCS	- (1953) - (1954)	1565 3896
$C_4F_{12}As_2$	Tetrakis(trifluoro- methyl)diarsine	-	Freq	Emeleus	JCS	- (1953)	1552
C_4N_2	Dicyanoacetylene	420-3400 L,G 420-3200 G	Spec, Assign, FC, Spec, Assign,	Miller Miller	JCP JCP	21 (1953) 23 (1955)	110 2127
$C_4N_2O_2 \cdot 2H_2O$	Alloxantin hydrate	2-16 μ S	Spec	Topson	JOC	16 (1951)	1091

C₅ COMPOUNDS

C ₅ HBrF ₉ NO	2,2,3,3,4,4,5,5,5-Nonafluoro-N-bromovaleramide	-	-	NH freq, Absorption coefficient	Park	JACS	76 (1954)	1388
C ₅ HClF ₈	3-Chloro-1,2,3,4,4,5,5,5-octafluoro-1-pentene	-	-	Ident	Haszeldine	JCS	- (1953)	1592
C ₅ HClF ₉	1,3-Dichloro-1,2,2,3,4,4,5,5,5-nonafluoropentane	3.38-15.32 μ	-	Group freq	Haszeldine	JCS	- (1953)	1592
C ₅ HClF ₅ O ₂	4,4-Difluoro-2,3,5-trichloro-2-cyclopentenone	-	-	C=O freq, C=C	McBee	JACS	77 (1955)	387
C ₅ HClO ₅	2,3,4,4,5-Pentachloro-2-cyclopentenone	-	Sol	C=O, C=C freq	McBee	JACS	77 (1955)	559
C ₅ HF ₇ O ₂	2,2,3,3,4,5,5-Heptafluoropent-4-en-1-oic acid	-	-	C=O, C=C freq	Haszeldine	JCS	- (1954)	4026
C ₅ HF ₈ I	3-Iodo-1,1,4,4,5,5,5-octafluoro-2-pentene	-	-	Group freq	Leedham	JCS	- (1954)	1634
C ₅ HF ₉	1,1,3,3,4,4,5,5,5-Nonafluoro-1-pentene	-	-	C=C freq	Lazerte	JACS	77 (1955)	910
C ₅ HF ₁₁	1-Hydroperfluoropentane	-	-	CH freq	Lazerte	JACS	75 (1953)	4525
C ₅ H ₂ D ₂ O ₂	γ-Pyrone-α-d ₂	-	-	Absorption, rates of exchange	Lord	JACS	74 (1952)	2429
		-	-	Production in deuterio exchange study	Lord	AC	26 (1954)	429
C ₅ H ₂ ClF ₉	1-Chloro-2,2,3,3,4,4,5,5,5-nonafluoropentane	-	L	-CF ₃ freq	Tiers	JACS	75 (1953)	5978
C ₅ H ₂ ClF ₆	4,5-Dichloro-1,1,4,5,5-hexafluoro-2-pentene	-	-	C=C freq	Tarrant	JACS	75 (1955)	3640
C ₅ H ₂ Cl ₈ O ₃	Bis-(1,2,2,2-Tetrachloroethyl) carbonate	-	Sol	Freq, Struct, Dissociation	Hales	JCS	- (1957)	618
C ₅ H ₂ Cl ₈ O ₃	Di-1,1,1,2-tetrachloroethyl carbonate	-	Sol	Freq, struct	Hales	JCS	- (1957)	618

$C_5H_2F_6$	1,1,2,5,5,5-Hexafluoro-1,3-pentadiene	-	-	C=C freq	Tarrant	JACS	77 (1955)	3640
$C_5H_2F_8O_2$	2,2,3,4,4,5,5,5-Octafluoropentanoic acid	-	-	Ident	Lazarte	JACS	77 (1955)	910
$C_5H_2F_9I$	1-Iodo-2,2,3,3,4,4,5,5,5-nonafluoropentane	-	L	Group freq	Tiers	JACS	75 (1953)	5978
$C_5H_3DN_4S$	2-Mercaptopurine-d ₁	-	S	Struct	Brown	JCS	- (1957)	682
$C_5H_3DN_4S$	6-Mercaptopurine-d ₁	-	S	Struct	Brown	JCS	- (1957)	682
$C_5H_3DN_4S$	8-Mercaptopurine-d ₁	-	S	Struct	Brown	JCS	- (1957)	682
$C_5H_3D_2N$	Pyridine-2,6-d ₂	300-3200	L,G	Spec, Assign	Wilmshurst	CJC	35 (1957)	1183
$C_5H_3D_2N$	Pyridine-3,5-d ₂	300-3200	L,G	Spec, Assign	Wilmshurst	CJC	35 (1957)	1183
$C_3H_3D_7O$	3-Pentanone-1,1,2,2,4,4-d ₇	1300-3050	Sol	Assign, Freq, Ext coeff, Spec	Nolin	JACS	75 (1953)	5626
$C_5H_3BrN_2O_2$	2-Nitro-5-bromopyridine	-	Sol	Spec	Bogomolor	IANS	23 (1959)	1199
$C_5H_3ClF_4O$	1-Methoxy-2-chloro-3,3,4,4-tetrafluorocyclobutene-1	3-15 μ	G,L	Spec, Struct	Park	JACS	73 (1951)	2342
$C_5H_3ClN_2O_2$	2-Nitro-5-chloropyridine	-	Sol	Spec	Bogomolor	IANS	23 (1959)	1199
$C_5H_3Cl_2F_3O_2$	3,3-Dichloro-1,1,1-trifluoro-2,4-pentanedione	-	-	C=O Freq, H bond	Park	JACS	75 (1953)	4753
$C_5H_3Cl_2F_5$	3,4-Dichloro-2-methyl-1,1,3,4,4-pentafluoro-1-butene	-	-	C=C freq	Tarrant	JACS	77 (1955)	3640
$C_5H_3Cl_3O$	2,3,4-Trichloro-2-cyclopentenone	-	Sol	C=O, C=C freq	McBee	JACS	77 (1955)	559
$C_5H_3F_5$	1,1,3,4,4-Pentafluoro-2-methyl-1,3-butadiene	-	-	C=C freq	Tarrant	JACS	77 (1955)	3640

$C_5H_3F_7$	3,3,4,4,5,5,5-Heptafluoro-1-pentene	-	-	C=C freq	Pierce	JACS	75 (1953)	5618
C_5H_5NO	2-Cyanofuran	800-1700	Sol	Freq, Assign	Katritzky	JCS	- (1959)	657
$C_5H_5NO_4$	5-Nitro-2-furfural-dehyde	2-22 μ	S	Spec, Assign	Daasch	CIL	- (1958)	1113
$C_5H_3NO_5$	5-Nitro-2-furoic acid	2-22 μ	S	Spec, Assign	Daasch	CIL	- (1958)	1113
$C_5H_5N_2O_2$	Pyrido-2,3-furoxane	1400-1700	Sol	Band freq	Boyer	JACS	75 (1953)	5298
$C_5H_5N_2O_2$	6-Nitropyridotetrazole	1400-1700	S	Band freq	Boyer	JACS	75 (1953)	5298
$C_5H_5N_2O_2$	8-Nitropyridotetrazole	1400-1700	S	Band freq	Boyer	JACS	75 (1953)	5298
C_5H_4	Pentatetraene	-	-	FC, Bond lengths	Longuet	TFS	48 (1952)	1077
C_5H_4	Pente-1,3-diyne	-	G	Spec, Mol const	Heath	N	172 (1953)	771
C_5H_4DN	Pyridine-2-d ₁	-	G	Microwave	Bak	JCP	22 (1954)	2013
		400-3200	L	Spec, Assign	Anderson	JCP	23 (1955)	1047
C_5H_4DN	Pyridine-3-d ₁	-	G	Microwave	Bak	JCP	22 (1954)	2013
		400-3200	L	Spec, Assign	Anderson	JCP	23 (1955)	1047
C_5H_4DN	Pyridine-4-d ₁	-	G	Microwave	Bak	JCP	22 (1954)	2013
		300-3200	G	Spec, Assign	Anderson	JCP	23 (1955)	1047
		300-3200	L,G	Spec, Assign	Wilmshurst	CJC	35 (1957)	1183
C_5H_4DNO	2-Pyridone-d ₁	2000-3500	Sol	Spec, Freq	Bellamy	PRS	257 (1960)	98
C_5H_4ClNO	2-Chloropyridine-N-oxide	800-3000	Sol	I, Band study	Katritzky	JCS	- (1958)	2195
$C_5H_4D_2O$	Cyclopentanone- $\alpha,\alpha',\alpha'-d_4$	600-3200	Sol	Solvent dependence	Angell	SA	15 (1959)	926
$C_5H_4D_2O$	3-Pentanone-1,1,1,5,5,5-d ₆	1300-3050	Sol	Assign, Ext coefficient,	Nolin	JACS	75 (1953)	5626
$C_5H_4D_2O$	2,3,4,4-Tetradeutero-2-dideutromethyl-butyric acid	-	-	Spec	Bunhoi	BSCF	- (1960)	1586

C_5H_4BrN	3-Bromopyridine	600-3000	Sol	Assign	Katritzky	JCS - (1958)	3165
C_5H_4BrNO	γ -Bromopyridine-1-oxide	600-3000	Sol	I	Katritzky	JCS - (1958)	2192
$C_5H_4BrN_3O_2$	2-Amino-3-bromo-5-nitropyridine	-	Sol	Spec	Bogomolor	IANS 23 (1959)	1199
C_5H_4ClN	3-Chloropyridine	600-3000	Sol	Assign	Katritzky	JCS - (1958)	3680
C_5H_4ClNO	3-Chloropyridine-1-oxide	800-3000	Sol	Spec, I, Freq	Katritzky	JCS - (1959)	3165
C_5H_4ClNO	γ -Chloropyridine-1-oxide	600-3000	S	I	Katritzky	JCS - (1958)	2192
$C_5H_4ClN_3O_2$	2-Amino-3-chloro-5-nitropyridine	-	S	Spec	Bogomolor	IANS 23 (1959)	1199
$C_5H_4Cl_2N_2$	2,4-Dichloro-6-methylpyrimidine	1000-2000	L	Spec	Barnes	IEC 15 (1943)	659
$C_5H_4Cl_2N_2$	2-Methyl-4,6-dichloropyrimidine	2-25 μ	S	Spec	Short	JCS - (1952)	168
$C_5H_4Cl_4NB$	4-Chloropyridine-boron trichloride	-	-	Freq assign	Katritzky	JCS - (1959)	2049
C_5H_4FN	2-Fluoropyridine	-	L	Spec	Stephenson	JCP 22 (1954)	1945
C_5H_4FN	3-Fluoropyridine	-	L	Spec	Stephenson	JCP 22 (1954)	1945
$C_5H_4F_8O$	2,2,3,3,4,4,5,5-Octafluoropentanol	-	Sol	Freq, H bond	Haszeldine	JCS - (1953)	1757
$C_5H_4N_2$	Di azocyclopentadiene	600-4000	G, Sol	Spec	Doering	JACS 75 (1953)	5955
$C_5H_4N_2$	Mesaconodinitrile	-	Sol	Mol struct	Felton	JCS - (1955)	2170
$C_5H_4N_2O$	2-Hydroxypyrimidine	680-3800	S, Sol	Spec, Freq, Struct	Spinner	JCS - (1960)	1226
$C_5H_4N_2O_2$	2-Nitropyridine	-	S	Spec	Bogomolor	IANS 23 (1959)	1199
$C_5H_4N_2O_2$	3-Nitropyridine	600-3000	Sol	Assign	Katritzky	JCS - (1958)	3165

$C_5H_4N_2O_2$	Pyrazinemonocarboxylic acid	-	Sol	Spec	Yoshida	CPBT	7 (1959)	162
$C_5H_4N_2O_2$	3-Pyrazinoic acid	1500-2000	S	Spec, Group freq	Solomons	JACS	75 (1953)	679
$C_5H_4N_2O_3$	3-Nitropyridine-1-oxide	-	Sol	Spec, I, Freq	Katritzky	JCS	- (1959)	3680
$C_5H_4N_2O_3$	4-Nitropyridine-1-oxide	600-3000	Sol	I	Katritzky	JCS	- (1958)	2192
$C_5H_4N_2O_4$	Orotic acid	2-12 μ	Sol	Spec, Group freq, Assign	Lacher	JPC	59 (1955)	615
$C_5H_4N_2O_5S$	2,4-Dinitro-5-methoxy-thiophene	2-16 μ	S	Spec, Band freq	Hurd	JACS	74 (1952)	2965
$C_5H_4N_4$	Purine	2-16 μ 650-4000	S S Sol	Spec Spec, Group freq Freq	Beaman Willits Brown	JACS JACS JCS	76 (1954) 77 (1955) - (1957)	5633 2569 682
$C_5H_4N_4$	Pyridotetrazole	1400-1700	Sol	Band freq	Boyer	JACS	75 (1953)	5298
$C_5H_4N_4O$	2-Hydroxypurine	-	S	Freq, Struct	Brown	JCS	- (1957)	682
$C_5H_4N_4O$	6-Hydroxypurine	2-15 μ - 2.5-11.5 μ	S S S	Spec Band freq Spec, Group freq, Assign Freq, Struct	Blout Schwarz Lacher Brown	JACS APS JPC JCS	72 (1950) 6 (1952) 59 (1955) - (1957)	479 15 615 682
$C_5H_4N_4O$	8-Hydroxypurine	-	S	Freq, Struct	Brown	JCS	- (1957)	682
$C_5H_4N_4O_2$	Xanthine	2-15 μ - 2.5-11.5 μ	S S S	Spec Band freq Spec, Group freq, Assign	Blout Schwarz Lacher	JACS APS JPC	72 (1950) 6 (1952) 59 (1955)	479 15 615
$C_5H_4N_4O_3$	Uric acid	8.5-13 μ 2.5-11.5 μ	S Sol	Band freq Spec, Assign, Group freq	Schwarz Lacher	APS JCP	6 (1952) 59 (1955)	15 615
$C_5H_4N_4S$	2-Mercaptopurine	730-2974 -	S S	I, Group freq Freq, Struct	Willits Brown	JACS JCS	77 (1955) - (1957)	2569 682
$C_5H_4N_4S$	6-Mercaptopurine	-	S	Freq, Struct	Brown	JCS	- (1957)	682
$C_5H_4N_4S$	8-Mercaptopurine	-	S	Freq, Struct	Brown	JCS	- (1957)	682
C_5H_4OS	1,4-Thiapyrone	710-1609	S	I, Group freq	Tarbell	JACS	76 (1954)	2451

C_5H_4OS	2-Thiofurfural	800-2000	L	I	Katritzky	JCS	- (1959)	3500
$C_5H_4O_2$	Furfural	2-12 μ 4-9 μ 1050-1800 1700 700-3500	L - - Sol L, Sol, G I, Freq G, Sol S	Spec Spec Spec, C=O freq C=O freq L, Sol, G I, Freq Spec Spec, Assign Freq, Assign	Rogers Randall Barnes Flett Glusker Seutaka Daash Katritzky	JACS JAP IEC TFS SA GCI CIL JCS	60 (1938) 10 (1939) 15 (1943) 44 (1948) 6 (1954) 86 (1956) - (1958) - (1959)	2619 768 659 767 434 783 1113 657
$C_5H_4O_2$	trans-2-Penten-4-ynoic acid	-	Sol	Group freq, I	Allen	JCS	- (1955)	1874
$C_5H_4O_2$	α -Pyrone	1550-1850	Sol	Freq, I	Jones	CJC	37 (1959)	2007
$C_5H_4O_2$	γ -Pyrone	-	-	Reagent in deut exchange study	Lord	AC	26 (1954)	249
$C_5H_4O_3$	2-Furoic acid	1550-1850	Sol	Freq, I	Jones	CJC	37 (1959)	2007
$C_5H_4O_3$	1,2,4-Cyclopentene-trione	700-4000 2-22 μ	S, L S	C=O freq, Association Spec, Assign	Flett Daash	JCS CIL	- (1951) - (1958)	962 1113
$C_5H_4O_3$	Cyclopropane-1,2-dicarboxylic acid anhydride	2-15 μ	S	Spec, Ident	Booche	JACS	75 (1953)	1732
$C_5H_4O_3$	Glutaconic acid anhydride	1750-1850	Sol	Freq, Assign	Douben	JOC	24 (1959)	1595
$C_5H_4O_3$	2-Methylmaleic anhydride	6 μ	S	Band freq	Crow	JCS	- (1952)	3705
$C_5H_4O_3S$	1,4-Thiapyrone sulfone	1750-1850	Sol	Freq, Assign	Douben	JOC	24 (1959)	1595
$C_5H_4O_4$	Methyl acetylene-dicarboxylate	850-1657	S	I, Group freq	Tarbell	JACS	76 (1954)	2451
$C_5H_4O_4$	Penta-2,3-diendioic acid	2-15 μ	L	Spec, Assign	Walton	JACS	79 (1957)	3985
$C_5H_4O_4$	Penta-2,3-diendioic acid	-	S	Band freq, Struct	Jones	JCS	- (1954)	3208

C_5H_5DFNB 4	Pyridinium tetrafluoroborate-d ₁	-	S	H bond, Band freq	Nuttall	JCS - (1960)	4965
$C_5H_5D_5O$	3-Pentanone-1,1,1,2,2,-d ₅	1300-3050	Sol	Assign, Ext coefficient, Spec	Nobin	JACS 75 (1953)	5626
$C_5H_5BrN_2$	2-Amino-5-bromopyridine	2.97-12.30 μ	Sol S	Group freq Spec	Hard Bogomolor	JACS 77 (1955) IANS 23 (1959)	117 1199
$C_5H_5BrN_2O_2$	1-Methyl-5-bromouracil	-	S	Band freq	Brown	JCS - (1955)	211
$C_5H_5BrN_2O_2$	3-Methyl-5-bromouracil	-	S	Band freq	Brown	JCS - (1955)	211
C_5H_5BrNB 3	Pyridine-boron tribromide complex	-	-	Freq	Katritzky	JCS - (1959)	2049
C_5H_5Cl	1-Chloro-trans-2-penten-4-yne	-	Sol	Group freq, I	Allan	JCS - (1955)	1874
$C_5H_5ClN_2$	2-Amino-5-chloro-pyridine	-	S	Spec	Bogomolor	IANS 23 (1959)	1199
$C_5H_5ClN_2O_2$	5-Chloromethyluracil	-	-	Group freq	West	JACS 76 (1954)	3146
$C_5H_5ClF_2O$ 2 3	1-Ethoxy-1,2-dichloro-3,3,3-trifluoro-1-propene	2-15 μ	G	Spec, Struct	Park	JACS 74 (1952)	4104
$C_5H_5Cl_3F_3Si$ 4	2,2,3,3-Tetrafluorocyclobutylmethyltrichlorosilane	10.85-11.1 μ	-	Freq	Park	JOC 25 (1960)	1628
$C_5H_5Cl_3NB$ 3	Pyridine-boron trichloride complex	1400-1600	-	I	Katritzky	JCS - (1958)	4162
		-	-	Freq assign	Katritzky	JCS - (1959)	2049
		600-3500	S	Spec	Baker	JACS 82 (1960)	1923
		800-3300	Sol	Complex study	Greenwood	JCS - (1960)	1130
		400-4000	S, L	Struct, Assign	Waddington	JCS - (1960)	2339
$C_5H_5Cl_3F_2Si$ 5 2	2,2-Dichloro-3,3-difluorocyclobutylmethyltrichlorosilane	10.85-11.1 μ	-	Freq	Park	JOC 25 (1960)	1628
$C_5H_5F_3$	1,1,2-Trifluoro-1,3-pentadiene	-	-	C=C freq	Tarrant	JACS 76 (1954)	5423

$C_5H_5F_3$	1,1,2-Trifluoro-1,4-pentadiene	-	-	C=C freq	Tarrant	JACS	76 (1954)	5423
$C_5H_5F_3NB$	Pyridine-boron trifluoride complex	-	Sol S,L	Freq assign Struct, Assign	Katritzky Waddington	JCS	- (1959) - (1960)	2049 2339
$C_5H_5F_3O_2$	1,1,1-Trifluoro-2,4-pentadiene	-	-	H bond, C=O freq	Park	JACS	75 (1953)	4753
$C_5H_5F_5OS$	Ethylthio pentafluoropropionate	2-46 μ	L	Spec, Band freq	Hauptschein	JACS	74 (1952)	4005
$C_5H_5F_5O_2$	Ethyl pentafluoropropionate	-	Sol	C=O freq C=O freq Spec	Bender Haszeldine Husted	JACS	75 (1953) - (1953) 75 (1953)	5986 1548 1605
$C_5H_5F_7O$	2,2,3,3,4,4,4-Heptafluoro-2-pentanol	-	Sol	OH freq, H bond	Haszeldine	JCS	- (1953)	1757
$C_5H_5I_2N$	Pyridine-iodine complex	-	Sol Sol	Struct Freq	Reid Glusker	JACS	76 (1954) - (1955)	3869 471
C_5H_5N	4-Cyanobut-1-yne	-	-	C=N	Shaw	JCS	- (1954)	3217
C_5H_5N	1-Cyano-1,3-butadiene	-	- Sol	C=N freq Group freq, Spec	Kitson Potts	AC SA	24 (1952) 15 (1959)	334 679
C_5H_5N	cis-1-Cyano-1,3-butadiene	2-15 μ	L	Spec, Config Ident	Snyder Wise	JACS	75 (1953) 76 (1954)	4742 3074
C_5H_5N	trans-1-Cyano-1,3-butadiene	2-15 μ	L	Spec, Config	Snyder	JACS	75 (1953)	4742
C_5H_5N	Pyridine	-	L	Beer's law, Association C-H freq	Baly	JCS	- (1915)	1121
		0.8-2.5 μ	L	Spec	Bonino	TFS	25 (1929)	876
		-	L	Band freq	Sappenfield	PR	33 (1929)	37
		52-152 μ	L, Sol	Dispersion	Venkateswaran	JPC	34 (1930)	145
		-	-	Effect as solvent on O band	Cartwright	PRS	154 (1936)	138
		-	-	Effect as solvent on H-C band	Gordy	JCP	7 (1939)	93
		-	-	Effect as solvent on H-C band	Gordy	JCP	7 (1939)	163
		2-16 μ	-	H bond	Errero	JCP	8 (1940)	63
		-	G	Spec	Turkevich	JCP	11 (1943)	328
		3-20 μ	-	Assign, Thermo	Kline	JCP	12 (1944)	300
		5-8 μ	L	Spec, Use as solvent	Torkington	TFS	41 (1945)	184
		650-2040	L	Vibration analysis	Depaigne-Delay	JPR	7 (1946)	33
			L	Spec	Cannon	SA	4 (1951)	373

2800-4200	L	Spec	Coulson	JCS	-	(1951)	2125
6 μ	-	Spec, Band freq, Struct	Angyal	JCS	-	(1952)	2911
-	L, Sol	Analysis for ext coeff	Densham	JCS	-	(1952)	2433
15-25 μ	L	Transparent solvent	Marrison	JSI	29	(1952)	233
2-15 μ	L	Spec, Solvent	Priester	APS	6	(1952)	29
-	-	Group freq	Short	JCS	-	(1952)	168
-	-	Ident	VanMeter	AC	24	(1952)	1758
2-16 μ	L	Spec	Anderson	JOSA	43	(1953)	221
250-3500	L	IR, Spec, Assign	Corrsin	JCP	21	(1953)	1170
-	-	Microwave	Bak	JCP	22	(1954)	2013
-	-	Microwave	Bak	JCP	22	(1954)	565
702-4600	G, L	I	Biddi sembe	JCS	-	(1954)	1263
20-40 KMC	G	Microwave	DeMore	JCP	22	(1954)	876
22140-27300	G	Microwave	McCulloh	JCP	22	(1954)	681
Mc							
4.5-5.5 μ	L	I	Schurmann	AC	26	(1954)	1263
-	-	Freq	Anderson	JCP	23	(1955)	1047
25-100 μ	L	Absorption peaks	Cook	AC	28	(1956)	993
-	L	Spec	Levi	AC	28	(1956)	1591
3-4 μ	L, Sol	C-H stretch	Tallent	AC	28	(1956)	953
-	-	FC, Bond study	Anno	BCSJ	30	(1957)	638
670-5000	G, L	Spec	Long	TFS	53	(1957)	1171
300-3200	L, G	Spec, Assign	Wilmschurst	CJC	35	(1957)	1183
18000-27000	G	Microwave, Struct, Mol	Bak	JMS	2	(1958)	361
MHz		consts					
400-1700	-	Freq	Bohon	AC	30	(1958)	245
-	S	Spec	Chiorboli	ANCR	48	(1958)	355
-	-	Calculation of B" & D _J	Dauti	SA	13	(1958)	180
2.16-16.63 μ	L	Purification	Helm	JPC	62	(1958)	858
1400-1600	Sol	I, Freq	Katritzky	JCS	-	(1958)	4162
650-4000	Sol, L	Spec, Freq, H bond	Heinert	JACS	81	(1959)	3933
-	S	Spec	Yoshida	CPBT	7	(1959)	162
400-3000	-	Spec	Rao	ZAUA	304	(1960)	176
680-3800	Sol, S	Spec, Freq, Struct	Spinner	JCS	-	(1960)	1226
1000-3500	S, Sol	Freq	Chenan	CJC	36	(1958)	1181
2000-4000	S	H bond	Brisette	CJC	38	(1960)	34
-	S	H bond, Band freq	Nuttall	JCS	-	(1960)	4965
-	Sol	Band freq	Barrow	JACS	76	(1954)	5211
1000-3500	Sol	Freq	Chenon	CJC	36	(1958)	1181
600-4000	S	Freq, Assign	Stone	JCS	-	(1958)	52
2000-4000	S	H bond	Brisette	CJC	38	(1960)	34
-	S	H bond, Freq	Nuttall	JCS	-	(1960)	4965

C₅H₅N.HBr Pyridinium bromide

C₅H₅N.HCl Pyridinium chloride

$C_5H_5N \cdot HI$	Pyridinium iodide	1000-3500 2000-4000	Sol, S S	Freq H bond H bond, Freq	Chenon Brisette Nuttall	CJC CJC JCS	36 (1958) 38 (1960) - (1960)	1181 34 4965
$C_5H_5N \cdot 2HF$	Pyridinium bifluoride	-	S	H bond, Freq	Nuttall	JCS	- (1960)	4965
$C_5H_5N \cdot HClO_4$	Pyridinium perchlorate	-	S	H bond, Freq	Nuttall	JCS	- (1960)	4965
$C_5H_5N \cdot HNO_3$	Pyridinium nitrate	-	S	H bond, Freq	Nuttall	JCS	- (1960)	4965
C_5H_5NO	Pyridone-2	-	- S, Sol L, G	C=O Struct Spec, Freq, Assi gn, Struct	Berson Gibson Nakamura	JACS JCS NKZ	77 (1955) - (1955) 80 (1959)	1281 4340 231
		2000-3500 800-4000	Sol Sol	Freq, Spec Spec, Freq	Bellamy Katritzky	PRS JCS	257 (1960) - (1960)	98 2947
C_5H_5NO	2-Hydroxypyridine	3650-1400 680-1800	S, Sol Sol	Taut, Freq Spec, Freq, Struct, Assi gn	Mason Albert	JCS JCS	- (1960) - (1960)	4874 1221
		680-3800 680-3800	Sol Sol, S	Spec, Struct, Freq Struct, Band peaks	Spinner Spinner	JCS JCS	- (1960) - (1960)	1226 1232
C_5H_5NO	3-Hydroxypyridine	- 3650-1400 650-4000 700-3800 680-3800 680-3800	S, Sol S, Sol Sol Sol, L Sol S, Sol S, Sol	Spec Taut, Freq Spec, Assi gn Spec, Freq, H bond Spec, Struct, Freq Spec, Freq, Struct Struct, Band peaks	Gibson Mason Mason Heinert Albert Spinner Spinner	JCS JCS JCS JACS JCS JCS JCS	- (1955) - (1957) - (1957) 81 (1959) - (1960) - (1960) - (1960)	4340 4874 4874 3933 1221 1226 1232
C_5H_5NO	4-Hydroxypyridine	1400-3650 700-3800 680-1800 680-3800	Sol, S Sol S, Sol S, Sol	Spec, Assi gn, Taut Spec, Struct, Freq Spec, Freq, Struct Struct, Band peaks	Mason Albert Spinner Spinner	JCS JCS JCS JCS	- (1957) - (1960) - (1960) - (1960)	4874 1221 1226 1232
C_5H_5NO	Pyridine-1-oxide	1400-1600	-	I, Freq	Katritzky	JCS	- (1958)	4162
C_5H_5NO	Pyridine-N-oxide	400-4000	Sol, S	Spec, Assi gn, Freq	Ito	BCSJ	28 (1955)	353
C_5H_5NO	Pyridone-4	- 800-4000	L, G S	Spec, Freq, Assi gn, Struct Spec, Freq	Nakamura Katritzky	NKZ JCS	80 (1959) - (1960)	231 2947

C ₄ H ₅ NO	2-Pyrrolecarboxylic aldehyde	-	S,Sol	Freq	Mirone	ANCR	48 (1958)	72
C ₅ H ₅ NOS	N-Hydroxypyrid-2-thione	800-4000	S	Spec, Freq	Katritzky	JCS	- (1960)	2947
C ₅ H ₅ NOS	N-Hydroxypyrid-4-thione	800-4000	S	Spec, Freq	Katritzky	JCS	- (1960)	2947
C ₅ H ₅ NOS	2-Thiofurfural aldoxime	800-2000	L	I	Katritzky	JCS	- (1959)	3500
C ₅ H ₅ NO ₂	2-Carboxypyrrole	-	S,Sol	Spec	Sorocco	AAN	20 (1956)	795
C ₅ H ₅ NO ₂	3-Carboxypyrrole	-	S,Sol	Spec	Sorocco	AAN	20 (1956)	795
C ₅ H ₅ NO ₂	Furfural aldoxime	800-1700	Sol	Freq, Assign	Katritzky	JCS	- (1959)	657
C ₅ H ₅ NO ₂	2,4-Dihydroxypyridine	1400-3650	S,Sol	Freq, Taut	Mason	JCS	- (1957)	4874
C ₅ H ₅ NO ₂	2,5-Dihydroxypyridine	600-4000	S	Spec	Adams	JACS	69 (1947)	1806
C ₅ H ₅ NO ₂	Furoic amide	1500-1750	S,Sol	Spec, Assign	Rechards	JCS	- (1947)	1248
C ₅ H ₅ NO ₂	N-Hydroxypyridone-2	800-4000	Sol	Spec, Freq	Katritzky	JCS	- (1960)	2947
C ₅ H ₅ NO ₂	3-Hydroxy-4-pyridone	650-3900	S	Spec	Adams	JACS	69 (1947)	1810
C ₅ H ₅ NO ₂ ·H ₂ O	3-Hydroxy-4-pyridone hydrate	650-3900	S	Spec	Adams	JACS	69 (1947)	1810
C ₅ H ₅ NO ₂ S	5-Ethylidenthiazolidine-2,4-dione	3-9/μ	-	Assign, Struct	Durden	JACS	81 (1959)	1943
C ₅ H ₅ NO ₅	1-Nitro-1,2-dicarboxy-propane anhydride	-	-	Spec	Boer	RTC	79 (1960)	231
C ₅ H ₅ NO ₆	1-Nitro-1,2-dicarboxy-cyclopropane	-	-	Spec	Boer	RTC	79 (1960)	231
C ₅ H ₅ NS	2-Mercaptopyridine	700-3800	S,Sol	Freq, Assign	Spinner	JCS	- (1960)	1237
C ₅ H ₅ NS	3-Mercaptopyridine	700-3800	S,Sol	Freq, Assign	Spinner	JCS	- (1960)	1237
C ₅ H ₅ NS	4-Mercaptopyridine	700-3800	S,Sol	Freq, Assign	Spinner	JCS	- (1960)	1237
C ₅ H ₅ NS	Thiapyridone-2	1100-1150	Sol	C=S band study	Spinner	JOC	23 (1958)	2037
		2500-3500	Sol	Freq, Spec	Bellamy	PRS	257 (1960)	98

		800-4000	Sol	Spec, Freq	Katritzky	JCS	- (1960)	2947
C_5H_5NS	Thiapyridone-4	1100-1150 800-4000	Sol Sol	C=S band study Spec, Freq	Spinner Katritzky	JOC JCS	23 (1958) - (1960)	2037 2947
$C_5H_5N_3O_2$	2-Amino-3-nitropyridine	-	S	Spec	Bogomolov	IANS	23 (1959)	1199
$C_5H_5N_3O_2$	2-Amino-5-nitropyridine	-	S	Spec	Bogomolov	IANS	23 (1959)	1199
$C_5H_5N_3O_4$	1-Methyl-5-nitroureacil	-	S	Band freq	Brown	JCS	- (1955)	211
$C_5H_5N_3O_4$	3-Methyl-5-nitroureacil	-	S	Band freq	Brown	JCS	- (1955)	211
$C_5H_5N_5$	Adenine	2-15 μ 2.5-11.5 μ	S Sol	Spec Spec, Group freq, Assign	Blout Lacher	JACS JPC	72 (1950) 59 (1955)	479 615
$C_5H_5N_5$	2-Aminopurine	786-3240	S	I, Group freq	Willits	JACS	77 (1955)	2569
$C_5H_5N_5 \cdot HCl$	Adenine hydrochloride	700-2900	S, Sol	Spec, Struct	Bentley	JCS	- (1951)	2301
$C_5H_5N_5 \cdot H_2SO_4$	Adenine sulfate	750-2000	S S	Spec Band freq, Table	Barnes Schwarz	IEC APS	15 (1943) 6 (1952)	659 15
$C_5H_5N_5O$	Guanine	2-15 μ -	S S	Spec Pressed cake with KBr illustration of preparation	Blout Stimson	JACS AC	72 (1950) 23 (1951)	479 1050
$C_5H_5N_5S$	Thiodenine	- 2-12 μ	S S	Table, Band freq Spec	Schwarz Scott	APS JACS	6 (1952) 74 (1952)	15 275
$C_5H_5N_5S$	6-Amino-2-mercaptopurine	2.5-11.5 μ 782-2987	Sol S	Spec, Group freq	Lacher	JPC	59 (1955)	615
C_5H_6	Cyclopentadiene	-	-	Quant mech Microwave	Willits	JACS	77 (1955)	2569
C_5H_6	2-Methyl-1-buten-3-yne	-	-	Spec	Mulliken Laurie	JCP JCP	7 (1939) 24 (1956)	121 635
					Petrov	ZOK	27 (1957)	1167

C_5H_6	4-Methyl-1-buten-3-yne	-	-	Spec	Petrov	ZOK	27 (1957)	1167
C_5H_6	cis-Pent-2-en-4-yne	723-3390	L, Sol	Band freq, I Group freq, I	Allan	JCS	- (1953)	3314
C_5H_6	trans-Pent-2-en-4-yne	900-3390	L, Sol	Band freq, I Group freq, I	Allan	JCS	- (1955)	1874
$C_5H_6D_2O_2$	cis-Methyl crotonate-d ₂	700-1800	Sol	Freq	Dalton	JCS	- (1960)	3681
$C_5H_6D_2O_2$	trans-Methyl crotonate-d ₂	700-1800	Sol	Freq	Dalton	JCS	- (1960)	3681
$C_5H_6D_2O_4$	Glutaric acid-0-d ₂	500-1500	S	Spec, Assign	Hadzi	PRS	216 (1953)	247
$C_5H_6D_4O$	3-Pentanone-2,2,4,4-d ₄	1300-3050	Sol	Assign, Ext coefficient, Spec	Nolin	JACS	75 (1953)	5626
$C_5H_6ClN_3$	2-Amino-4-methyl-6-chloropyrimidine	2-25 μ	S	Spec, Group freq	Short	JCS	- (1952)	168
$C_5H_6ClN_3$	2-Chloro-4-amino-6-methylpyrimidine	2-25 μ	S	Spec, Group freq	Short	JCS	- (1952)	168
$C_5H_6ClN_3$	2-Methyl-4-amino-6-chloropyrimidine	2-25 μ	S	Spec, Group freq	Short	JCS	- (1952)	168
$C_5H_6ClN_3O_2$	2-Chloro-4,6-dimethoxy-5-triazine	2-25 μ	Sol	Assign	Reimschuesse	JACS	82 (1960)	3756
$C_5H_6Cl_2O_2$	3,3-Dichloro-2,4-pentanedione	-	-	C=O freq	Park	JACS	75 (1953)	4753
$C_5H_6Cl_4NB$	Pyridinium tetrachloroborate	600-3500	S	Spec H bond, Band freq	Kynaston Nuttall	JCS	- (1960)	1772
$C_5H_6F_2Se$	2-Methylselenophene	600-3000	Sol	Freq	Chumaevskii	OS	6 (1959)	45
$C_5H_6F_2Se$	3-Methylselenophene	600-3000	Sol	Freq	Chumaevskii	OS	6 (1959)	45
$C_5H_6F_4NB$	Pyridinium tetrafluoroborate	-	S	H bond, Band freq	Nuttall	JCS	- (1960)	4965
$C_5H_6F_5I$	1-Iodo-1,3,5,5,5-pentafluoropentane	-	-	Struct	Haszeldine	JCS	- (1953)	1199

$C_5H_6F_6NP$	Pyridinium hexafluoro-phosphate	S	H bond, Band freq	Nuttall	JCS	-	(1960)	4965
$C_5H_6N_2$	2-Aminopyridine	Sol	3-6 μ	Spec, Struct	JCS	-	(1952)	2911
		Sol	-	Freq, Struct	JCS	-	(1952)	2739
		Sol	-	Freq, FC, H bond	JCS	-	(1952)	4584
		Sol	3000-3700	Freq, Taut	BCSJ	30	(1957)	499
		Sol	3 μ	Freq, FC	JCS	-	(1958)	3619
		S	-	Spec	IANS	23	(1959)	1199
		-	-	Absorption, Freq, Assign, Struct	JCS	-	(1959)	3674
		-	-	Spec	DANS	131	(1960)	1366
$C_5H_6N_2$	3-Aminopyridine	Sol	3-6 μ	Spec, Struct	JCS	-	(1952)	2911
		Sol	-	Freq, Struct	JCS	-	(1952)	2939
		Sol	-	Freq, FC, H bond	JCS	-	(1952)	4584
		Sol	600-3000	Assign, Symmetry	JCS	-	(1958)	3165
		Sol	3 μ	Freq, FC	JCS	-	(1958)	3619
		-	-	Absorption, Freq, Assign, Struct	JCS	-	(1959)	3674
$C_5H_6N_2$	4-Aminopyridine	Sol	3-6 μ	Spec, Struct, Freq	JCS	-	(1952)	2911
		Sol	-	Freq, Struct	JCS	-	(1952)	2939
		Sol	-	Freq, FC, H bond	JCS	-	(1952)	4584
		Sol	3 μ	Freq, FC	JCS	-	(1958)	3619
		-	-	Absorption, Freq, Assign, Struct	JCS	-	(1959)	3674
$C_5H_6N_2$	2, 2-Dicyanopropane	-	7.7 μ	Spec, Freq	JACS	74	(1952)	5247
$C_5H_6N_2$	Glutaronitrile	-	-	C=N freq	AC	24	(1952)	334
		-	-	I	TFS	52	(1956)	1451
		Sol	2200-2300	Freq, Struct	SA	13	(1958)	217
$C_5H_6N_2$	2-Vinylimidazole	-	-	Struct	JACS	75	(1953)	3398
$C_5H_6N_2O$	Acetylimidazole	Sol	2-9 μ	Spec, Freq	ABB	88	(1960)	193
$C_5H_6N_2O$	2-Aminopyridine oxide	Sol	800-3000	I	JCS	-	(1958)	2195
		-	-	Absorption, Freq, Assign, Struct	JCS	-	(1959)	3674
$C_5H_6N_2O$	1, 4-Dihydro-1-methyl-4-oxopyrimidine	S	-	C=O freq	JCS	-	(1955)	211

$C_5H_6N_2O$	1,6-Dihydro-1-methyl-6-oxopyrimidine	-	S	C=O freq	Brown	JCS - (1955)	211
$C_5H_6N_2O$	4-Hydroxy-6-methyl-pyrimidine	2-25 μ	S	Spec, Group freq	Short	JCS - (1952)	168
$C_5H_6N_2O$	3-Methyl-6-pyridazone	-	Sol	Struct, Band freq	Overend	JCS - (1950)	3500
$C_5H_6N_2O$	2-Methoxypyrimidine	1300-1800	L	Spec, Struct, Group freq	Brown	JCS - (1953)	331
$C_5H_6N_2O$		-	S	Band freq, I	Brown	JCS - (1955)	211
$C_5H_6N_2O$	4-Methoxypyrimidine	1300-1800	L	Spec, Struct, Group freq	Brown	JCS - (1953)	331
$C_5H_6N_2O$		-	S	Band freq, I	Brown	JCS - (1955)	211
$C_5H_6N_2O$	1-Methyl-2-pyrimidone	-	S	C=O freq	Brown	JCS - (1955)	211
$C_5H_6N_2OS$	2-Amino-5-ethylidene-2-thiazolin-4-one	3-9 μ	-	Struct assign	Durden	JACS 81 (1959)	1943
$C_5H_6N_2OS$	2-Mercapto-4-hydroxy-6-methylpyrimidine	2-15 μ 2-25 μ	S S	Spec, Group freq, Assign Spec, Group freq	Brownlie Short	JCS - (1950) JCS - (1952)	3062 168
$C_5H_6N_2OS$	6-Methyl-2-thiouracil	2-12 μ	Sol	Spec, Group freq, Assign	Lacher	JPC 59 (1955)	615
$C_5H_6N_2OS$	Thiothymine	2-12 μ	Sol	Spec, Group freq, Assign	Lacher	JPC 59 (1955)	615
$C_5H_6N_2O_2$	Imidazoleacetic acid	-	-	Ident	Tabor	JACS 77 (1955)	505
$C_5H_6N_2O_2$	2,4-Dihydroxy-1-methyl-pyrimidine	-	S, Sol	Freq, Taut	Mason	JCS - (1957)	4874
$C_5H_6N_2O_2$	2,4-Dihydroxy-3-methyl-pyrimidine	-	S, Sol	Freq, Taut	Mason	JCS - (1957)	4874
$C_5H_6N_2O_2$	2,4-Dihydroxy-6-methyl-pyrimidine	2-25 μ	S	Spec, Group freq	Short	JCS - (1952)	168
$C_5H_6N_2O_2$	2,6-Dihydroxy-5-methyl-pyrimidine	2-15 μ - 2.5-11.5 μ	S S Sol	Spec Band freq Spec, Group freq, Assign	Blout Schwary Lacher	JACS 72 (1950) APS 6 (1952) JPC 59 (1955)	479 15 615
$C_5H_6N_2O_2$	2-Methyl-4,5-dihydroxy-pyrimidine	650-3600	S	Freq, Struct	Tanner	SA 8 (1956)	9

$C_5H_6N_2O_2$	2-Methyl-4,6-dihydroxy-pyrimidine	2-25 μ 650-3600	S	Spec, Group freq Freq, Struct, H bond	Short Tanner	JCS SA	-(1952) 8 (1956)	168 9
$C_5H_6NO_2$	6-Methyluracil	2-12 μ	Sol	Spec, Group freq, Assign	Lacher	JPC	59 (1955)	615
$C_5H_6NO_2$	Thymine	3-9.9 μ	-	Struct	Ulbricht	NWS	45 (1958)	416
$C_5H_6NO_2$	2-Methyl-4,5,6-tri-hydroxypyrimidine	650-3600	S	Freq, Struct	Tanner	SA	8 (1956)	9
$C_5H_6NO_2$	Fumarylurea	-	S	C=O, C=C freq	Murray	JACS	76 (1954)	3665
$C_5H_6NO_2$	Maleylurea	-	S	C=O, C=C freq	Murray	JACS	76 (1954)	3665
$C_5H_6NO_2$	DL-Dihydroötic acid	-	-	Distinction of preparation from other methods	Miller	JACS	75 (1953)	6086
$C_5H_6NO_2$	5,6-Dihydroötic acid	-	S	Group freq	Murray	JACS	76 (1954)	3665
$C_5H_6N_2S$	2-Methylmercapto-pyrazine	700-3800	S, Sol	Freq, Assign	Spinner	JCS	-(1960)	1237
$C_5H_6N_2S$	4-Methylmercapto-pyrazine	700-3800	S, Sol	Freq, Assign	Spinner	JCS	-(1960)	1237
$C_5H_6N_2S$	N-Methyl-2-thiopyrazone	700-3800	S, Sol	Freq, Assign	Spinner	JCS	-(1960)	1237
$C_5H_6N_2S$	N-Methyl-2-thiopyrimidone	700-3800	S, Sol	Freq, Assign	Spinner	JCS	-(1960)	1237
$C_5H_6N_2S$	N-Methyl-4-thiopyrimidone	700-3800	S, Sol	Freq, Assign	Spinner	JCS	-(1960)	1237
$C_5H_6N_2S$	3-N-Methyl-4-thiopyrimidine	700-3800	S, Sol	Freq, Assign	Spinner	JCS	-(1960)	1237
C_5H_6NO	2-Hydroxy-9-methyl-purine	-	S, Sol	Freq, Struct	Brown	JCS	-(1957)	682
C_5H_6NO	6-Hydroxy-9-methyl-purine	- 1400-3650	S, Sol Sol	Freq, Struct Spec, Assign	Brown Mason	JCS JCS	-(1957) -(1957)	682 4874
C_5H_6NO	8-Hydroxy-9-methyl-purine	-	S, Sol	Freq, Struct	Brown	JCS	-(1957)	682
C_5H_6NS	8-Mercapto-9-methyl-purine	-	Sol	Freq, Struct	Brown	JCS	-(1957)	682

$C_5H_6N_6$	2,6-Diaminopurine	711-3434	S	I, Group freq	Willits	JACS	77 (1955)	2569
C_5H_6O	2-Methoxy-1-buten-3-yne	-	-	H bond	Kuznetsov	ZOK	525 (1958)	525
C_5H_6O	2-Cyclopenten-1-one	-	L	Ident	Johnson	JACS	76 (1954)	6266
C_5H_6O	2-Methylfuran	6.20-11.24 μ - 800-1700	Sol	I, Ext coefficient Freq, Assign	Hurd Katritzky	JACS JCS	76 (1954) - (1959)	50 657
C_5H_6O	trans-2-Penten-4-yn-1-ol	-	Sol	Group freq, I	Allen	JCS	- (1955)	1874
C_5H_6OS	2-Methoxythiophene	-	S	Group freq	Sice	JACS	75 (1953)	3697
		-	-	Ident	Herz	JACS	77 (1955)	3529
$C_5H_6O_2$	Furfuryl alcohol	2-12 μ 750-3300	L Sol	Spec Group freq Freq, H bond	Rogers Cocker Flett	JACS JCS SA	60 (1938) - (1953) 10 (1958)	2619 2540 21
$C_5H_6O_2$	α -Angelica lactone	800-1700 1550-1850	Sol Sol	Freq, Assign Freq	Katritzky Jones	JCS CJC	- (1959) 37 (1959)	657 2007
$C_5H_6O_2$	β -Angelica lactone	1550-1850	Sol	Freq	Jones	CJC	37 (1959)	2007
$C_5H_6O_2$	β, γ -Angelica lactone	2-15 μ	-	Freq, Struct	Rasmussen	JACS	71 (1949)	1073
$C_5H_6O_2$	1,3-Cyclopentanedione	2-15 μ	S	Spec, Ident	Booth	JACS	75 (1953)	1732
$C_5H_6O_2$	5,6-Dihydro- α -pyrone	1550-1850	Sol	Freq	Jones	CJC	37 (1959)	2007
$C_5H_6O_2$	Ethylcarboxyacetylene	-	Sol	H bond	Murshashi	BCSJ	32 (1959)	1001
$C_5H_6O_2$	2-Hydroxy-2-cyclopenten-1-one	-	S	Band freq, Struct	Cordon	JACS	76 (1954)	1643
$C_5H_6O_2$	γ -Methylbutanolide	1550-1850	Sol	Freq	Jones	CJC	37 (1959)	2007
$C_5H_6O_2$	Methyl 2-butanate	-	Sol	Group freq, I	Allen	JCS	- (1955)	1874
$C_5H_6O_2$	Penta-2,3-dienoic acid	-	-	I	Jones	JCS	- (1954)	3201
$C_5H_6O_2$	Penta-3,4-dienoic acid	-	L	I	Jones	JCS	- (1954)	3201
$C_5H_6O_2$	2-Pentynoic acid	-	Sol	Group freq, I	Allen	JCS	- (1955)	1874
$C_5H_6O_3$	α -Methyltetronic acid	-	Sol	Band freq	Chopra	JCS	- (1955)	588

$C_5H_6O_3$	γ -Methyltetronic acid	1600-1850	S, Sol	Spec, Freq, Struct	Duncanson	JCS	-	(1953)	1207
$C_5H_6O_3$	Glutaric anhydride	4-8 μ 1600-1800 1750-1850	Sol Sol Sol	Spec, Struct Freq Freq assign	Wasserman Hall Douben	JACS JACS JOC	72 80 24	(1950) (1958) (1959)	5787 6428 1595
$C_5H_6O_4$	Methyl fumarate	2-15 μ	Sol	Assign	Walton	JACS	79	(1957)	3985
$C_5H_6O_5$	α -Ketoglutaric acid	2-9 μ	Sol	Spec, Freq	Jenecks	ABB	88	(1960)	193
C_5H_8S	2-Methylthiophene	9-15 μ - 400-3500 - 238-1538 -	L - L - - -	Spec, Ident Ident Group freq IR, Mass spectra Spec, Thermo, Assign Thiophenes in virgin petroleum	Wender Birch Hidalgo Haines Pennington Thompson	JACS JCS CPR JPC JACS AC	72 - 239 60 78 28	(1950) (1951) (1954) (1956) (1956) (1956)	4375 3411 253 549 2055 1384
C_5H_8S	3-Methylthiophene	800-2000	Sol	I	Katritzky	JCS	-	(1959)	3500
C_5H_8S	3-Ethyl-2-thio- hydantoin-d ₁	- 236-3000 400-3500 -	- - L -	Ident Assign Group freq IR, Mass spectra	Birch McCullough Hidalgo Haines	JCS JACS CPR JPC	- 75 239 60	(1951) (1953) (1954) (1956)	3411 5075 253 549
C_5H_7BrO	α -Bromocyclopentanone	800-2500	S	Assign	Elmore	JCS	-	(1958)	3489
$C_5H_7DO_4$	Glutaric acid-d ₁	-	-	Freq	Bratoz	SA	8	(1956)	249
$C_5H_7D_3O$	3-Pentanone-1,1,1-d ₃	1300-3050	Sol	Assign, Ext coefficient, Spec	Nolin	JACS	75	(1953)	5626
C_5H_7BrO	α -Bromocyclopentanone	-	Sol	Freq, Config	Corey	JACS	75	(1953)	2301
C_5H_7Cl	2-Chloroisopropyl- acetylene	670-3245	-	Table	Bailey	JOC	20	(1955)	95
$C_5H_7ClFNO_3$	2-Fluoroethyl N-chloro- acetylcarbamate	650-4000	Sol	Spec	Pianka	JCS	-	(1960)	983
C_5H_7ClO	α -Chlorocyclopentanone	-	Sol	Freq, Config	Corey	JACS	75	(1953)	2301
C_5H_7ClO	Ethyl chlorovinyl ketone	5.93 μ	Sol	Quality analysis as impurity	Washburn	AC	29	(1957)	346

$C_5H_7Cl_2NO$	2,3-Dichloro-2-methyl- butyronitrile-N-oxide	600-3000	Sol	Spec	Wiley	JOC	25 (1960)	546
$C_5H_7Cl_3$	1,1,2-Trichloro-3-methyl -1-butene	7.5-14 μ	-	Qualit. analysis	Schmerling	JACS	71 (1949)	2015
$C_5H_7F_5O$	Trifluoromethyl isopropyl ketone	650-5000	Sol	Freq	Griffin	SA	16 (1960)	1464
$C_5H_7F_5O$	1-Ethoxy-1,1,3,3,3-penta- fluoropropane	-	-	Ind of purity	Haszeldine	JCS	- (1954)	923
$C_5H_7IO_2$	β -Iodopentanoic acid- γ - lactone	-	Sol	Freq, Struct	VanTamelen	JACS	76 (1954)	2315
$C_5H_7IO_2$	δ -Iodopentanoic acid- γ - lactone	-	Sol	Freq, Struct	VanTamelen	JACS	76 (1954)	2315
C_5H_7N	2-Methylpyrrole	3.2-3.5 μ	-	-CH ₃ vibrations	Scrocco	AAN	24 (1958)	429
C_5H_7N	3-Methylpyrrole	3.2-3.5 μ	-	-CH ₃ vibrations	Scrocco	AAN	24 (1958)	429
C_5H_7N	cis- α,β -Dimethyl- acrylonitrile	1150-1800	-	Spec	Barnes	IEC	15 (1943)	659
C_5H_7N	α -Ethacrylonitrile	1150-1800	-	Spec Ident	Barnes Chopin	IEC JACS	15 (1943) 76 (1954)	659 4179
C_5H_7N	cis- β -Ethylacrylo- nitrile	1150-1800	-	Spec	Barnes	IEC	15 (1943)	659
C_5H_7N	trans- β -Ethylacrylo- nitrile	1150-1800	-	Spec	Barnes	IEC	15 (1943)	659
C_5H_7N	trans-1-cyano-2-butene	-	-	C=N freq	Kitson	AC	24 (1952)	334
C_5H_7N	3-Methyl-2-butenitrile	-	-	Analysis C=C freq, I, Struct	Corey Felton	JACS JCS	75 (1953) - (1955)	1163 2170
C_5H_7N	3-Methyl-3-butenitrile	1050-1900	-	Spec	Barnes	IEC	15 (1943)	659
		-	-	C=N freq	Kitson	AC	24 (1952)	334
		-	-	Analysis	Corey	JACS	75 (1953)	1163
C_5H_7N	α -Methylcrotonitrile	-	-	Ident	Chopin	JACS	76 (1954)	4179

C_5H_7N	2-Methylcyclopropane-carbonitrile	2-14.5 μ L	Spec, Band freq	Wiberley	AC	24 (1952)	623
C_5H_7NO	2-Aminomethylfuran	800-1700	Freq, Assign	Katritzky	JCS	- (1959)	657
C_5H_7NO	3-Cyano-3-hydroxy-2-methylpropene-1	-	Group freq, Spec	Potts	SA	15 (1959)	679
C_5H_7NO	2-Hydroxymethyl-3-butenonitrile	-	Ident, Single strong C=N and C=C	Price	JACS	74 (1952)	2987
C_5H_7NO	2-Hydroxymethylpyrrole	-	Bounded OH Ident	Silverstein Silverstein	JACS JOC	76 (1954) 20 (1955)	4485 668
C_5H_7NOS	3,4-Dimethyl-2-thiazolone	2-12 μ	Spec	Ettlinger	JACS	72 (1950)	4699
C_5H_7NOS	3-Thiocyano-2-butanone	-	Freq	Gregory	JACS	74 (1952)	1719
$C_5H_7NO_2$	Ethyl cyanoacetate	2-15 μ	Freq, Struct C=N freq, I, Ext coeff C=N freq	Rasmussen Felton Skinner	JACS JCS JCS	71 (1949) - (1955) - (1955)	1073 2170 487
		2-15 μ	Spec, Freq	Abramovitch	CJC	36 (1958)	151
		2200-2300	Struct	Jesson	SA	13 (1958)	217
		-	Freq, I	Thompson	SA	13 (1958)	236
$C_5H_7NO_2$	Glutarimide	700-4000 1600-1800	Spec, Struct Freq	Frank Hall	JACS JACS	71 (1949) 80 (1958)	1387 6428
$C_5H_7NO_2$	N-Methylsuccinimide	1600-1800	Freq	Hall	JACS	80 (1958)	6428
$C_5H_7NO_2$	N-Vinyl-2-oxazolidone	-	Spec	Potts	SA	15 (1959)	679
$C_5H_7NO_3$	N-Acetyloxazolidone	1600-1800	Freq	Hall	JACS	80 (1958)	6428
$C_5H_7NO_3$	3,5-Dimethyl-oxazolid-2,4-dione	650-4000	Spec	Planka	JCS	- (1960)	983
$C_5H_7NO_3$	Dimethyl triketone oxime	2700-3900	Spec, H bond	Buswell	JACS	60 (1938)	2444
$C_5H_7NO_3$	3-Ethylloxazolid-2,4-dione	650-4000	Spec	Planka	JCS	- (1960)	983

$C_5H_7NO_3$	N-Hydroxyglutarimide	-	S	Group freq	Area	JCS - (1955)	631
$C_5H_7NO_3$	1-Pyrrolidonecarboxylic acid	800-4000	-	Spec	Hutchings	JACS 70 (1948)	10
$C_5H_7NO_6$	Dimethyl nitromalonate	2-16 μ	Sol	Spec, Group freq	Shechter	JACS 76 (1954)	2716
C_5H_7NS	Allylcarbinyl isothiocyanate	-	L	Group freq, Ident	Ettlinger	JACS 77 (1955)	1831
C_5H_7NS	oIs-Crotyl isothiocyanate	3.43-13.4 μ	L	Group freq, Band freq	Ettlinger	JACS 77 (1955)	1831
C_5H_7NS	trans-Crotyl isothiocyanate	3.43-13.4 μ	L	Group freq, Band freq	Ettlinger	JACS 77 (1955)	1831
C_5H_7NS	2,2-Dimethylthiazole	600-3600	L	Spec, Freq	Taurins	CJC 35 (1957)	423
C_5H_7NS	2,4-Dimethylthiazole	600-3600	L	Spec, Freq	Taurins	CJC 35 (1957)	423
C_5H_7NS	2,5-Dimethylthiazole	600-3600	L	Spec, Freq	Taurins	CJC 35 (1957)	423
C_5H_7NS	3,4-Dimethylthiazole	600-3600	L	Spec, Freq	Taurins	CJC 35 (1957)	423
C_5H_7NS	4,5-Dimethylthiazole	600-3600	L	Spec, Freq	Taurins	CJC 35 (1957)	423
$C_5H_7N_3$	3-Amino-6-methylpyridazine	3 μ	Sol	Freq, FC	Mason	JCS - (1958)	3619
$C_5H_7N_3O$	2-Amino-4-hydroxy-6-methylpyrimidine	2-25 μ	S	Spec, Group freq	Short	JCS - (1952)	168
$C_5H_7N_3O$	6-Amino-4-hydroxy-2-methylpyrimidine	2-15 μ 2-25 μ	S S	Spec, Group freq, Assd gn Spec, Group freq	Brownlie Short	JCS - (1950) JCS - (1952)	3062 168
$C_5H_7N_3O$	5-Methylcytosine	3-9.9 μ	-	Struct	Ulbricht	NWS 45 (1958)	416
$C_5H_7N_3OS$	6-Amino-4-hydroxy-2-methylmercaptopyrimidine	2-15 μ 2-25 μ	S S	Spec, Group freq, Assd gn Spec, Group freq	Brownlie Short	JCS - (1950) JCS - (1952)	3062 168
$C_5H_7N_3O_2$	5-Hydroxymethylcytosine	- 3-9.9 μ	S -	Ident Struct	Miller Ulbricht	JACS 77 (1955) NWS 45 (1958)	752 416

$C_5H_7N_3O_3 \cdot \frac{1}{2}H_2SO_4$	2-Amino-4,5-dihydroxy-6-hydroxymethyl-pyrimidine hemisulphate	650-3600	S	Freq, Struct	Tanner	SA	8 (1956)	9
$C_5H_7N_3O_4$	O-Diazoacetyl-D-serine	-	-	Spec, Ident	Nicolalides	JACS	76 (1954)	2887
$C_5H_7N_3O_4$	O-Diazoacetyl-L-serine	2-15 μ	S	Spec, Band freq	Fusari	JACS	76 (1954)	2878
		-	S	Group freq, Struct	Fusari	JACS	76 (1954)	2881
		2-15 μ	S	Spec, Ident	Moore	JACS	76 (1954)	2884
$C_5H_7N_3O_4$	O-Diazoacetyl-DL-serine	2-15 μ	S	Spec	Moore	JACS	76 (1954)	2884
$C_5H_7N_3O_5$	5-Nitroso-4,6-diamino-2-methylpyrimidine	2-15 μ	S	'Spec, Group freq, Assign	Brownlie	JCS	- (1950)	3062
$C_5H_7N_7$	5,7-Diamino-3-methyl-S-triazole[4,3-a]-S-triazine	-	-	Group freq	Kaiser	JOC	18 (1953)	1610
$C_5H_7O_2$	Crotonic acid	3-15 μ	Sol	Spec	Farmer	SA	8 (1957)	374
C_5H_8	Cyclopentene	-	-	Thermo	Beckett	JACS	70 (1948)	4227
		-	-	Thermo	Epstein	JRNB	42 (1949)	379
		2.2-4.2 μ	Sol	Assign, Spec	Plyler	JRNB	43 (1949)	37
		-	-	Band freq	Henbest	JCS	- (1954)	800
		-	-	Band freq, I	O'Connor	AC	26 (1954)	1726
		3-4 μ	L, Sol	C-H stretch freq	Tallent	AC	28 (1956)	953
		650-3100	Sol	Spec	Henbest	JCS	- (1957)	997
		-	-	NCA, Assign	Sverdlov	OS	6 (1959)	334
C_5H_8	2-Methyl-1,3-butadiene	-	-	Absorption band	Williams	P	7 (1936)	399
		2.5-9 μ	S	Spec, Freq, Assign	Williams	JCP	4 (1936)	460
		-	-	Quant mech	Mullikan	JCP	7 (1939)	121
		800-1950	-	Freq, Spec	Barnes	IEC	15 (1943)	659
		2-15 μ	G	Spec, Assign	Rasmussen	JCP	15 (1947)	131
		-	-	Freq	Johnston	AC	20 (1948)	805
		-	G	Thermo	Kilpatrick	JRNB	42 (1949)	223
		-	Sol	Freq	Davison	JCS	- (1953)	2607
		-	-	Struct	Szasz	TFS	49 (1953)	358
		-	-	Ident	Blomquist	JACS	78 (1955)	78
		-	Sol	Group freq, Spec	Potts	SA	15 (1959)	679

		3400-3800 2-300m	Sol Sol	H bond Struct	West Kuwata	JACS 81 (1959) BCSJ 33 (1960)	1614 1091
C ₅ H ₈	3-Methyl-1,2-Butadiene	- 850-2960 -	- - -	Thermo Table Assign	Kilpatrick Bailey Sverdlov	JRNB 42 (1949) JOC 20 (1955) OS 5 (1958)	225 95 354
C ₅ H ₈	3-Methyl-1-butene	-	-	Thermo	Wagman	JRNB 35 (1945)	467
C ₅ H ₈	1-Methylcyclobutene	2.5-14.5/ μ	L, G	Spec, Assign	Cleveland	JCP 15 (1947)	742
C ₅ H ₈	Methylenecyclobutane	2.5-14.5/ μ 650-3700 -	G, L - -	Spec, Assign Spec, Ident Analysis	Cleveland Roberts Pines	JCP 15 (1947) JACS 71 (1949) JACS 75 (1953)	742 3925 2315
C ₅ H ₈	1,2-Pentadiene	- 2-15/ μ -	- L -	Thermo Freq Group freq	Kilpatrick Jacobs Oroshnik	JRNB 42 (1949) JACS 73 (1951) JACS 75 (1953)	225 1273 1050
C ₅ H ₈	cis-1,3-Pentadiene	- 2-15/ μ - 2-15/ μ -	- G G L Sol	Spec Spec, Assign Thermo Freq Freq	Frank Rasmussen Kilpatrick Jacobs Davison	JACS 69 (1947) JCP 15 (1947) JRNB 42 (1949) JACS 73 (1951) JCS - (1953)	2313 131 225 1273 2607
C ₅ H ₈	trans-1,3-Pentadiene	1200-1800 - 2-15/ μ - 2-15/ μ -	- - G - G L Sol	Freq, Spec Spec Spec, Assign Freq Thermo Freq	Barnes Frank Rasmussen Johnston Kilpatrick Jacobs Davison	IEC 15 (1943) JACS 69 (1947) JCP 15 (1947) AC 20 (1948) JRNB 42 (1949) JACS 73 (1951) JCS - (1953)	659 2313 131 805 225 1273 2607
C ₅ H ₈	1,3-Pentadiene	-	Sol	Group freq, Spec	Potts	SA 15 (1959)	679
C ₅ H ₈	1,4-Pentadiene	800-1100 - - -	- G - Sol	Spec, Assign Thermo Assign Group freq, Spec	Thompson Kilpatrick Sverdlov Potts	PRS 184 (1945) JRNB 42 (1949) OS 5 (1958) SA 15 (1959)	3 225 354 679
C ₅ H ₈	2,3-Pentadiene	-	-	Thermo	Kilpatrick	JRNB 42 (1949)	225
C ₅ H ₈	1-Pentyne	- -	- -	Assign Thermo	Cleveland Wagman	JCP 10 (1942) JRNB 35 (1945)	172 467

C_5H_8	2-Pentyne	2-15 μ	L	Spec Freq Group freq	Jacobs Ferigle Oroshnik	JACS JCP JACS	73 (1951) 20 (1952) 75 (1953)	1273 1928 1050
C_5H_8	2-Pentyne	-	-	Thermo Ident	Wagman Jacobs	JHNB JACS	35 (1945) 73 (1951)	467 1273
C_5H_8	Spiropentane	2.5-14.5 μ	L, G	Spec, Assign Struct	Cleveland Walsh	JCP TFS	15 (1947) 45 (1949)	742 179
C_5H_8	Spiropentane	-	-	Assign, Thermo	Scott	JACS	72 (1950)	4664
C_5H_8	Spiropentane	-	-	Assign	Guthrie	JACS	74 (1952)	2795
C_5H_8	Spiropentane	-	L, Sol	Freq	Slabey	JACS	76 (1954)	3604
C_5H_8	Vinylcyclopropane	2-15 μ	G	Spec	Volkenburgh	JACS	71 (1949)	3595
C_5H_8	Vinylcyclopropane	2-16 μ	L, Sol	Spec	Slabey	JACS	74 (1952)	4930
C_5H_8	Vinylcyclopropane	-	L, Sol	Freq	Slabey	JACS	76 (1954)	3604
C_5H_8BrN	5-Bromovaleronitrile	-	-	Freq	Kitson	AC	24 (1952)	334
$C_5H_8BrNO_2$	γ -Bromoallylglycine	2-15 μ	S	Assign	Moreno	SA	16 (1960)	1368
$C_5H_8BrNO_2 \cdot HCl$	γ -Bromoallylglycine hydrochloride	2-15 μ	S	Assign	Moreno	SA	16 (1960)	1368
$C_5H_8BrO_2$	1,3-Dibromo-2-propyl acetate	-	L	Band freq, I	Edwards	JCS	- (1953)	3427
$C_5H_8BrO_2$	2,3-Dibromopropyl acetate	-	L	Band freq, I Ident	Edwards delaware	JCS JCS	- (1953) - (1954)	3427 3990
$C_5H_8ClF_3$	3-Chloro-3-methyl-1,1,1- trifluorobutane	-	-	Ident	Tarrant	JACS	76 (1954)	2343
$C_5H_8ClNO_2$	γ -Chloroallylglycine	2-15 μ	S	Assign	Moreno	SA	16 (1960)	1368
$C_5H_8ClNO_2 \cdot HCl$	γ -Chloroallylglycine hydrochloride	2-15 μ	S	Assign	Moreno	SA	16 (1960)	1368
$C_5H_8ClNO_3$	Ethyl N-chloroacetyl- carbamate	650-4000	Sol	Spec	Pianaka	JCS	- (1960)	983
$C_5H_8ClNO_3$	Methyl N-chloroacetyl -N-methylcarbamate	650-4000	Sol	Spec	Pianaka	JCS	- (1960)	983

$C_5H_8ClN_5$	2,4-Dimethylamino-6-chloro-1,3,5-triazine	2-16 μ	S	Spec, Struct	Padgett	JACS 80 (1958)	803
$C_5H_8Cl_2$	1,1-Dichloro-2,2-dimethylcyclopropane	670-4000	L	Spec	Doering	JACS 76 (1954)	6162
$C_5H_8Cl_2$	1,1-Dichloro-3-methyl-1-butene	8-14 μ 7.5-14 μ	- -	Freq Quality analysis	Schmerling Schmerling	JACS 71 (1949) JACS 71 (1949)	701 2015
$C_5H_8Cl_2$	1,4-Dichloro-2-methyl-2-butene	2-15 μ	L, Sol	Group freq	Kitson	AC 25 (1953)	1470
$C_5H_8Cl_2O_2$	2-Chloro-1,2-dimethyl-ethyl chloroformate	-	Sol	Freq, Struct	Hales	JCS - (1957)	618
$C_5H_8Cl_2O_3$	Dichloroethyl carbonate	-	Sol	Freq, Struct	Hales	JCS - (1957)	618
$C_5H_8Cl_2F_2O$	1,1-Difluoro-2,2-dichloro-ethyl n-propyl ether	3-15 μ	G, L	Spec	Park	JACS 73 (1951)	861
$C_5H_8F_5NO$	N-Isopropyltrifluoroacetamide	-	S	Amide freq	Robson	JACS 77 (1955)	498
$C_5H_8F_4O$	1,1,2,2-Tetrafluoroethyl n-propyl ether	2-15 μ	G	Spec	Park	JACS 73 (1951)	1329
$C_5H_8INO_2$	Dioxane-iodine complex	-	Sol	Mol const	Popov	JACS 82 (1960)	1850
C_5H_8NB	Pyridine-borine complex	-	-	Freq assign	Katritzky	JCS - (1959)	2049
$C_5H_8N_2$	3,5-Dimethylpyrazole	670-3800 -	Sol Sol	Struct, Spec I, Freq, Struct	Charette Mirene	SA 15 (1959) AC 49 (1959)	70 59
$C_5H_8N_2O$	2- β -Hydroxyethylimidazole	-	-	Struct	Lawson	JACS 75 (1953)	3398
$C_5H_8N_2O$	1,3,5,6-Tetrahydro-6-keto-3-methylpyradazine	-	Sol	Struct, Band freq	Overend	JCS - (1950)	3500
$C_5H_8N_2O$	N,N'-Tetramethyleneurea	1600-1800	S, Sol	Freq	Hall	JACS 80 (1958)	6428
$C_5H_8N_2OS$	1,3-Dimethyl-2-thiohydantoin	800-2500	S	Band assign	Elmore	JCS - (1958)	3489
$C_5H_8N_2OS$	3-Ethyl-2-thiohydantoin	800-2500	S	Assign	Elmore	JCS - (1958)	3489

$C_5H_8N_2OS$	5-Ethyl-2-thiohydantoin	800-2500	S	Assign	Elmore	JCS - (1958)	3489
$C_5H_8N_2O_2$	N-Acetyl-2-imidazolidone	1600-1800	S	Freq	Hall	JACS 80 (1958)	6428
$C_5H_8N_2O_2$	5,6-Dihydro-5-methyl-2,4(1,3)-pyrimidine-dione	2-16 μ	-	Spec	Clark	APS 6 (1952)	14
		-	S	C=O freq	Murray	JACS 76 (1954)	3665
		2-12 μ	Sol	Spec, Group freq, Assign	Lacher	JPC 59 (1955)	615
$C_5H_8N_2O_2$	5,6-Dihydro-6-methyl-2,4(1,3)-pyrimidine-dione	2-16 μ	-	Spec	Clark	APS 6 (1952)	14
$C_5H_8N_2O_2S$	2-Amino-5-(1-hydroxyethyl)-2-thiazolin-4-one	3-9 μ	-	Assigned struct	Durden	JACS 81 (1959)	1943
$C_5H_8N_2O_2S$	N-Carbamyliminoöxa-thiolane	2.86-14.3 μ	-	Band freq, I, Ident	Price	JACS 75 (1953)	2396
$C_5H_8N_2O_4$	Succinylurea	-	S	Freq	Murray	JACS 76 (1954)	3665
$C_5H_8N_4$	3-Amino-5,6-dimethyl-1,2,4-triazine	3 μ	Sol	Freq, FC	Mason	JCS - (1958)	3619
$C_5H_8N_4$	4,6-Diamino-2-methylpyrimidine	2-15 μ	S	Spec, Freq, Assign	Brownlie	JCS - (1950)	3062
$C_5H_8N_4O$	2-Amino-4-methyl-6-carbamylpyrimidine	2-25 μ	S	Spec, Group freq	Short	JCS - (1952)	168
$C_5H_8N_4O_2$	Carbethoxydicyandiamide	-	S	Ident	Kaiser	JOC 17 (1952)	185
$C_5H_8N_4S$	4,6-Diamino-2-methylmercaptopyrimidine	2-15 μ	S	Spec, Freq, Assign	Brownlie	JCS - (1950)	3062
C_5H_8O	Cyclopentanone	1772 1650-1800	G Sol	Freq C=O ext coefficient	Hartwell	JCS - (1948)	1436
		-	Sol	C=O freq, Config.	Cross	TFS 47 (1951)	354
		-	Sol	Freq	Corey	JACS 75 (1953)	2301
		-	Sol	Microwave	Cram	JACS 76 (1954)	2753
		-	-	C=O freq	Erlandsson	JCP 22 (1954)	563
		-	-	Freq	Snyder	JACS 76 (1954)	4601
		-	Sol	Microwave	Bartlett	JACS 77 (1955)	2806
		-	-	C=O freq	Burkhalter	JCP 23 (1955)	1172
		-	Sol	C=O freq	Schubert	JACS 77 (1955)	4172

	1600-1800	S	Freq I, Freq	Hall	JACS	80 (1958)	6428
	-	Sol	Solvent dependency of	Thompson	SA	13 (1958)	236
	600-3200	Sol	Fermi resonance coupling. Doublet carbonyl stretching band.	Angell	SA	15 (1959)	926
	-	G	Mol consts	Kokeritz	AF	16 (1959)	197
	-	Sol	H bond	Tamres	JACS	81 (1959)	2100
	600-4000	Sol	Carbonyl doublet effect of solvent	Allen	JCS	- (1960)	1909
	-	Sol	Freq	Burr	HCA	43 (1960)	1487
	2-14.5 μ	L	Spec, Band freq	Wiberley	AC	24 (1952)	623
	5-7 μ	L	Carbonyl band; Rate study	Friess	JACS	74 (1952)	1302
	-	-	Ref. in react	Hammond	JACS	76 (1954)	4081
	-	L, Sol	Band freq	Slabey	JACS	76 (1954)	3604
	3-11 μ	L, S	Spec, Struct	Allen	JOC	22 (1957)	1291
	-	L	Band freq, I	Meakins	JCS	- (1953)	4170
	-	-	Group freq	Barr	JCS	- (1954)	3766
	650-3150	L	Band freq, I	Meakins	JCS	- (1953)	4170
	-	-	Group freq, Struct	Hurd	JACS	77 (1955)	2793
	3100-3400	L	Ident	Filler	CIL	- (1957)	1322
	300-3800	S, Sol	Freq	Nyquist	SA	16 (1960)	417
	2800-3100	Sol	C-H stretching band	Henbest	JCS	- (1957)	1459
	-	Sol	C=C and CH freq, Absorption	Davison	JCS	- (1953)	2607
	1050-1800	-	Spec	Barnes	IEC	15 (1943)	
	-	Sol	Freq, Absorption	Davison	JCS	- (1953)	2607
	-	-	Band freq	Pitts	JACS	76 (1954)	4815
	-	-	Ident	Pitts	JACS	76 (1954)	4815
	650-3150	L	Band freq, I	Meakins	JCS	- (1953)	4170
	-	Sol	Group and band freq	Pinchas	AC	27 (1955)	2

$C_5H_8O_8$	3-Ketothiacyclohexane	-	-	Band freq	Leonard	JACS	74 (1952)	917
$C_5H_8O_2$	1-Acetoxy-1-methyl-ethylene	-	Sol	Group freq, Spec	Potts	SA	15 (1959)	679
$C_5H_8O_2$	Allyl acetate	1050-1800 1.626-2.105 μ	Sol	Spec, Freq Ext coefficient	Barnes Goddu	IEC AC	15 (1943) 29 (1957)	655 1790
$C_5H_8O_2$	Angellic acid	- 600-1900 3.41-11.68 μ	Sol	C=C freq Spec Band freq, I	Adams Cason Dreiding	JACS JOC JACS	75 (1953) 19 (1954) 76 (1954)	4631 1947 1902
$C_5H_8O_2$	Cyclopropyl acetate	2-16 μ	Sol	Spec	Roberts	JACS	73 (1951)	5034
$C_5H_8O_2$	2,6-Dioxaspiro (3,3) heptane	400-3000	Sol	IR, Spec, Struct, Assign	Sirker	JCP	23 (1955)	1684
$C_5H_8O_2$	Ethyl acrylate	850-1950 - 1.620-2.103 μ	Sol	Spec Freq Ext coefficient	Barnes Davison Goddu	IEC JCS AC	15 (1943) - (1953) 29 (1957)	659 2607 1790
		200-3200 600-3000	-	Spec, Assign Freq	Hidalgo Gillis	ARS JACS	52B (1956) 80 (1958)	627 2999
		- -	Sol	Freq, I	Thompson	SA	13 (1958)	236
		- -	-	Assign, Freq	Katritzky	SA	16 (1960)	964
		800-1500	Sol	Assign	Katritzky	SA	16 (1960)	954
$C_5H_8O_2$	2-Hydroxycyclopentanone	2-12 μ	Sol	Spec	Sheehan	JACS	72 (1950)	3376
$C_5H_8O_2$	cis-Methyl 2-butenate	-	Sol	Group freq, I	Allan	JCS	- (1955)	1874
$C_5H_8O_2$	trans-Methyl 2-butenate	-	Sol	Group freq, I	Allan	JCS	- (1955)	1874
$C_5H_8O_2$	Methyl 3-butenate	200-3200	-	Spec, Assign	Hidalgo	ARS	52B (1956)	627
$C_5H_8O_2$	3-Methyl-2-butenic acid	0.9-3 μ	Sol	Spec	Holman	AC	28 (1956)	1533
$C_5H_8O_2$	Methyl crotonate	1717-1729 - -	Sol	Freq, I I	Barrow Hiota	JCP BCSJ	21 (1953) 27 (1954)	2008 295
		800-1500	Sol	Assign	Katritzky	SA	16 (1960)	954
			Sol	Assign	Katritzky	SA	16 (1960)	964
$C_5H_8O_2$	cis-Methyl crotonate	700-1800	Sol	Freq	Dalton	JCS	- (1960)	3681

$C_5H_8O_2$	trans-Methyl crotonate	700-1800	Sol	Freq	Dalton	JCS	-	(1960)	3681
$C_5H_8O_2$	Methyl methacrylate	1000-1800	-	Freq, Spec	Barnes	IEC	15	(1943)	659
		500-3100	-	Spec	Thompson	TFS	41	(1945)	75
		-	-	Spec	Barnes	AC	20	(1948)	402
		1740	Sol	Freq	Hampton	AC	21	(1949)	914
		2-15 μ	-	Freq, Struct	Rasmussen	JACS	71	(1949)	1073
		2-15 μ	L, Sol	Group freq	Kitson	AC	25	(1953)	1470
		-	L, S	Group freq	Loshak	JACS	75	(1953)	3544
		10-15 μ	L	Spec	Patterson	AC	26	(1953)	823
		1.620 μ	Sol	Ext coefficient	Goddu	AC	29	(1957)	1790
		2-15 μ	L	Assign, Spec	Walton	JACS	79	(1957)	3985
		-	Sol	Freq, I	Thompson	SA	13	(1958)	236
		-	Sol	Band freq	Baker	JACS	82	(1960)	1923
		800-1500	Sol	Assign	Katritzky	SA	16	(1960)	954
		-	-	Assign	Katritzky	SA	16	(1960)	964
$C_5H_8O_2$	1,4-Pentadiene dioxide	2-15 μ	L, Sol	Spec, Group freq	Patterson	AC	26	(1954)	823
$C_5H_8O_2$	2,4-Pentadione	0.7-2.5 μ	L	C=O study	Ellis	JACS	51	(1929)	1384
		2.8-3.7 μ	L	Assign, Spec	Bawn	JCS	-	(1932)	1189
		2400-4000	-	Spec, H bond	Barnes	JCP	4	(1936)	722
		5.5-6.5 μ	L	Spec, H bond	Gordy	JCP	8	(1940)	516
		-	-	Freq, Absorption	Rasmussen	JACS	71	(1949)	1008
		-	G, Sol	Taut	Powling	JACS	73	(1951)	4353
		-	S	Freq, H bond	Bellamy	JCS	-	(1952)	4653
		1200-2000	Sol	Freq	Bender	JACS	75	(1953)	6304
		-	-	Freq, H bond	Smith	JACS	75	(1953)	1134
		850-4000	Sol	Spec	Park	JACS	75	(1953)	4753
		-	Sol	Freq	Bellamy	JCS	-	(1954)	4487
		-	Sol	Group freq	Fetizon	CPR	238	(1954)	2542
		-	-	C=O freq	Davis	JACS	77	(1955)	3284
		1600-1700	L	Keto-enol ratio	Yoshino	JCP	23	(1955)	1564
$C_5H_8O_2$	2-Pentenoic acid	0.9-3 μ	Sol	Spec	Holman	AC	28	(1956)	1533
$C_5H_8O_2$	Isopropenyl acetate	-	Sol	Struct	Vanderhaeghe	JACS	74	(1952)	2810
		-	Sol	Freq, Absorption	Davison	JCS	-	(1953)	2607
		850-4000	L	Spec	Smith	JACS	75	(1953)	1134
		2-9 μ	Sol	Spec, Freq	Jencks	ABB	88	(1960)	193
$C_5H_8O_2$	Tetrahydrofurfural- dehyde	-	-	Band freq, Struct	Bremner	JCS	-	(1949)	27
		-	-	Freq	Pinchas	AC	27	(1955)	2
$C_5H_8O_2$	Triglic acid	-	Sol	Freq	Goulden	SA	6	(1954)	129

$C_5H_8O_2$	Tiglic acid (trans)	- 600-1900 Sol 3.8-11.55 μ Sol	C=C freq, Config Spec, Iso Freq, I	Adams Cason Dreiding	JACS 75 (1953) 4631 JOC 19 (1954) 1947 JACS 76 (1954) 1902
$C_5H_8O_2$	γ -Valerolactone	2-15 μ -	Freq, Struct Freq	Rasmussen Radell	JACS 71 (1949) 1073 JACS 76 (1954) 4488
$C_5H_8O_2$	δ -Valerolactone	2-15 μ 5.2-6.0 μ Sol 1600-1800 S -	Freq, Struct Spec, H bond Freq Freq	Rasmussen Searles Hall Jones	JACS 71 (1949) 1073 JACS 75 (1953) 71 JACS 80 (1958) 6428 CJC 37 (1959) 2007
$C_5H_8O_2$	Vinylpropionate	- Sol	Freq, Spec	Potts	SA 15 (1959) 679
$C_5H_8O_2S_2$	Carboxymethylthio propionate	400-4000 S	Spec, Freq	Bak	ACS 12 (1958) 1451
$C_5H_8O_3$	Acetic propionic anhydride	5-6.4 μ -	Reaction rate study	Barr	JCP 9 (1936) 90
$C_5H_8O_3$	Dimethylpyruvic acid	660-4000 -	Spec, Taut	Josien	BSCF - (1957) 1148
$C_5H_8O_3$	Ethyl pyruvate	- -	Band freq	King	JACS 77 (1955) 2217
$C_5H_8O_3$	2-Hydroperoxy-2-methyl -2,5-dihydrofuran	- -	Group freq	Milas	JACS 76 (1954) 2322
$C_5H_8O_3$	Methyl glycolate vinyl ether	- -	Band freq	Adelman	JACS 75 (1953) 2678
$C_5H_8O_3$	Methyl α -(hydroxymethyl)- acrylate	- -	C=O, CH ₂ = C freq	Ferris	JOC 20 (1955) 780
$C_5H_8O_4$	Dimethylmalonic acid	- S	Band freq	Duncan son	JCS - (1952) 1753
$C_5H_8O_4$	Ethyl malonate	500-1750 L	Assign	Thompson	JCS - (1945) 640
$C_5H_8O_4$	Glutaric acid	500-1500 S 670-2000 L, S - - 680-2500 -	Spec, Assign Spec Freq Spec Freq, Assign	Hadzi Corish Bratoz Hadzi Ryzanova	PRS 216 (1953) 247 JCS - (1955) 2431 SA 8 (1956) 249 NC 11 (1959) 715 IANS 23 (1959) 143

$C_5H_8O_4$	Glutaric acid (α and β)	670-3500	S, L	Freq, Struct	Coriah	JCS - (1955)	2431
$C_5H_8O_4$	D-Methylsuccinic acid	-	S	Group freq Ident	Duncanson Grove	JCS - (1952)	1753
		-	-	Freq, Ident	James	JCS - (1952)	3967
		-	-			JCS - (1955)	637
$C_5H_8O_4$	DL-Methylsuccinic acid	750-1750 800-1500	S	Spec, Freq Spec	Duncanson Buckley	JCS - (1952)	1753
		-	S	Freq	James	JCS - (1953)	1325
		-	-			JCS - (1955)	637
$C_5H_8O_5$	Thioitamic acid	-	-	Ref compounds	Kuuch	JOC 19 (1954)	845
$C_5H_8O_5$	Arabino- γ -lactone	8-15 μ	S	Spec	Kuber	AC 22 (1950)	276
$C_5H_8O_5$	L-Arabo- γ -lactone	1700-1800	S	Freq	Barker	CIL - (1958)	658
$C_5H_8O_5$	Lyxono- γ -lactone	1700-1800	S	Freq	Barker	CIL - (1958)	658
$C_5H_8O_5$	D-Ribono- γ -lactone	1700-1800	S	Freq	Barker	CIL - (1958)	658
C_5H_9D	Cyclopentane- d_1	400-3000	L, G	Spec, Assign, Thermo	Miller	JCP 18 (1950)	1519
$C_5H_9DN_2O_2$	Acetyl glycine methylamide -N- d_1	400-1800	S	Assign	Moriwaki	JACS 81 (1959)	5914
$C_5H_9DO_2$	2,2-Dimethylpropanoic acid-O- d_1	700-1500	S	Spec, Assign	Hadzi	PRS 216 (1953)	247
$C_5H_9DO_2$	n-Pentanoic acid-O- d_1	500-1500	L	Spec, Assign	Hadzi	PRS 216 (1953)	247
C_5H_9Br	Bromocyclopentane	2-16 μ	-	Spec, Struct	Roberts	JACS 73 (1951)	5030
C_5H_9Cl	Chlorocyclopentane	2-16 μ	-	Spec, Struct	Roberts	JACS 73 (1951)	5030
C_5H_9Cl	Vinylchloropropane	15-35 μ	S	Spec, Struct	Bentley	SA 15 (1959)	165
C_5H_9ClO	Chloromethyl isopropyl ketone	-	L, G, S, Sol	Freq	Bellamy	JCS - (1957)	4294
$C_5H_9ClO_2$	n-Butyl chloroformate	-	Sol	Freq, I	Thompson	SA 13 (1958)	236
$C_5H_9ClO_2$	α -Chloroethyl propionate	-	Sol	I	Gutjahr	SA 16 (1960)	1209
$C_5H_9ClO_2$	β -Chloroethyl propionate	-	Sol	I	Gutjahr	SA 16 (1960)	1209

$C_5H_9ClO_2$	DL- α -Chlorovaleric acid	-	L, Sol	Spec, Assign	Takenishi	NKZ	81 (1960)	1382
$C_5H_9ClO_2$	Isobutyl chloroformate	-	Sol	Freq, I Assign	Thompson	SA	13 (1958)	236
		-	-	Assign	Katritzky	SA	16 (1960)	964
		800-1500	Sol	Assign	Katritzky	SA	16 (1960)	954
$C_5H_9ClO_3$	s-Butyl chlorocarbonate	-	S	Freq	Ory	SA	16 (1960)	1488
$C_5H_9ClO_3$	n-Butyl chlorocarbonate	-	S	Freq	Ory	SA	16 (1960)	1488
$C_5H_9ClO_3$	Isobutyl chlorocarbonate	-	S	Freq	Ory	SA	16 (1960)	1488
$C_5H_9ClO_3$	Methyl α -chloro- β -methoxy propionate	800-1800	Sol	Spec	Lee	JAPC	3 (1953)	481
$C_5H_9ClO_3$	Methyl β -chloro- α -methoxypropionate	800-1800	Sol	Spec	Lee	JAPC	3 (1953)	481
$C_5H_9Cl_3$	2-Chloromethyl-1,3-dichloro-2-methylpropane	2-15 μ	-	Spec, Ident	Urry	JACS	74 (1952)	5822
$C_5H_9Cl_3NB$	n-Butyl cyanide-boron trichloride complex	-	Sol	Freq	Gerrard	JCS	- (1960)	2182
C_5H_9N	N-Allylideneethylamine	2.5-15 μ	L	Spec, Band freq Band freq	Pollard Smith	JACS	73 (1951)	2925
		-	-			JACS	75 (1953)	3316
C_5H_9N	t-Butyl cyanide	4.5-8.1 μ	-	Spec, Freq Analysis Spec, Struct Microwave	McBride McBee Sparstad Weil	JACS	74 (1952)	5247
		-	L			JACS	77 (1955)	917
		-	G			JCP	27 (1957)	317
		-	G			ZE	61 (1957)	938
C_5H_9N	n-Butyl isocyanide	1.0-6.5 μ	L	Spec	Gordy	JCP	4 (1936)	85
C_5H_9N	t-Butyl isocyanide	4.7-6.3 μ	Sol	Spec, Freq Struct, Spec, Mol consts	McBride Bak	JACS	74 (1952)	5247
		-	G			JMS	2 (1958)	54
C_5H_9N	2-Methyl- Δ^1 or Δ^2 -pyrroline	2-11 μ 6.05 μ	Sol	Spec, Struct C=N band	Evans Meyers	JACS	73 (1951)	5230
			Sol			JOC	24 (1959)	1233
C_5H_9N	Valeronitrile	1-12 μ	L	Spec	Bell	JACS	57 (1935)	1023

C_5H_9NO	4-Amino-3-pentene-2-one	1.0-6.5 μ 720-750	L L - Sol	Spec Freq C=N freq Freq	Gordy Wiberley Kitson Gerrard	JCP AC AC JCS	4 (1936) 22 (1950) 24 (1952) - (1960)	85 841 334 2182
C_5H_9NO	Cyclopentanoxime	650-4000 3-6 μ	L, S S, Sol	Spec, Assign H bond	Holtzelaw Weinstein	JACS JOC	80 (1958) 23 (1958)	1100 1618
C_5H_9NO	3-Methyl-2-butenamide	1650-1800	Sol	C=O ext coefficient	Cross	TFS	47 (1951)	354
C_5H_9NO	3-Methyl-3-butenamide	-	-	Analysis	Corey	JACS	75 (1953)	1163
C_5H_9NO	N-Methylpyrrolidinone	-	-	Analysis	Corey	JACS	75 (1953)	1163
C_5H_9NO	1-Methyl-2-pyrrolidone	1600-1800	L, Sol	Freq	Hall	JACS	80 (1958)	6428
C_5H_9NO	2-Piperidone	650-3480	L	Band freq, Absorption	Edwards	CJC	32 (1954)	785
C_5H_9NO	Valerolactam	600-3600 1400-3650 1600-1800	L S, Sol S	Absorption Freq, Taut Freq	Edwards Mason Hall	CJC JCS JACS	32 (1954) - (1957) 80 (1958)	683 4874 6428
C_5H_9NOS	5,5-Dimethyl-2-thio-oxazolidone	2.6-3.6 μ -	S, L L	Molecular association Config	Tsuboi Tsuboi	BCSJ BCSJ	22 (1949) 22 (1949)	215 255
C_5H_9NOS	5-Ethyl-2-thiooxazolidone	2-12 μ	S, L	Spec	Ettlinger	JACS	72 (1950)	4699
$C_5H_9NO_2$	Allylglycine	-	-	Group freq	Clapp	JACS	75 (1953)	1490
$C_5H_9NO_2 \cdot HCl$	Allylglycine hydrochloride	2-15 μ	S	Assign	Moreno	SA	16 (1960)	1368
$C_5H_9NO_2$	Cyclopentyl nitrite	2-15 μ	S	Assign	Moreno	SA	16 (1960)	1368
$C_5H_9NO_2$	N-Methylidacetamide	2-25 μ	G	Rot iso	Tarte	JCP	20 (1952)	1570
$C_5H_9NO_2$	Proline	1600-1800	L, Sol	Freq	Hall	JACS	80 (1958)	6428
$C_5H_9NO_2$	L-Proline	-	-	Band freq	Buswell	JPC	44 (1940)	1126
$C_5H_9NO_2$		2.4-4.1 μ 600-400 600-4000 6-11 μ	S S S Sol	Spec, Assign, Quant anal Spec Ident Spect	Buswell Heacock Epp Parker	JPC CJC AC N	46 (1942) 34 (1956) 29 (1957) 187 (1960)	575 1782 1283 386

$C_5H_9NO_2 \cdot HCl$	L-Proline hydrochloride	600-4000	S	Spec	Heacock	CJC	34 (1956)	1782
$C_5H_9NO_3$	Acetyl-DL-alanine-N-methylamide	2800-3500	Sol	Config	Tsuboi	JACS	81 (1959)	1406
$C_5H_9NO_3$	Ethyl N-acetylcarbamate	650-4000	Sol	Spec	Pianka	JCS	- (1960)	893
$C_5H_9NO_3$	Hydroxy-L-proline	1580-1640	-	Freq	Margoshes	JCP	22 (1954)	381
		-	S	H bond	Pimental	JCP	24 (1956)	639
		600-4000	S	Ident	Epp	AC	29 (1957)	1283
		6-11 μ	Sol	Spec	Parker	N	187 (1960)	386
$C_5H_9NO_3$	N-Methylsuccinamic acid	5-8 μ	Sol	Spec, Freq, Assign	Ehrlich	JACS	76 (1954)	5268
$C_5H_9NO_3S$	Acetylcysteine	2-15 μ	S	Spec	Fuson	JACS	74 (1952)	1
$C_5H_9NO_4$	O-Acetyl-L-serine	-	S	Ident	Fusari	JACS	76 (1954)	2881
$C_5H_9NO_4$	L-Glutamic acid	600-4000	S	Ident	Epp	AC	29 (1957)	1283
		6-11 μ	Sol	Spec	Parker	N	187 (1960)	386
		1538-909	Sol	Spec	Parker	SA	16 (1960)	910
$C_5H_9NO_4$	DL-Glutamic acid	15.38-909	Sol	Spec	Parker	SA	16 (1960)	910
$C_5H_9N^{15}O_4$	DL-Glutamic acid	-	-	Spec, Freq	Takenishi	NKZ	81 (1960)	1380
$C_5H_9NO_4$	Ethyl α -nitropropionate	-	-	Freq	Emmons	JACS	77 (1955)	4391
$C_5H_9NO_4$	4-Hydroxy-5-nitro-2-pentanone	-	-	Group, Band freq	Leonard	JOC	17 (1952)	1262
$C_5H_9NO_5$	Isopropyl glycolate nitrate	-	L	Group freq	Kumler	JACS	75 (1953)	4346
C_5H_9NS	n-Butyl isothiocyanate	600-2200	-	Freq, NCA	Lieber	SA	13 (1959)	296
C_5H_9NS	n-Butyl thiocyanate	600-2200	-	Freq	Lieber	SA	13 (1959)	296
C_5H_9NS	2-Ethyl-2-thiazoline	-	-	Spec, Freq	Roggers	CFR	249 (1959)	2529
$C_5H_9NS_2$	4,4-Dimethyl-2-thio-thiazolidone	-	Sol	Spec, Freq, Ident	Clapp	JACS	75 (1953)	1490

$C_5H_9NS_2$	5,5-Dimethyl-2-thiothiazolidone	2-12 μ	Sol	Spec	Ettlinger	JACS	72 (1950)	4699
$C_5H_9NS_2$	4-Ethyl-2-thiothiazolidone	-	-	Group freq	Clapp	JACS	75 (1953)	1490
$C_5H_9N_3O_3$	Metriol trinitrate	2-15 μ	Sol	Spec, Group freq	Priester	AC	25 (1953)	844
$C_5H_9O_2$	Ethyl propionate	-	Sol	Struct	Felton	JCS	- (1955)	2170
C_5H_{10}	Cyclopentane	-	-	Freq	Kellner	TFS	41 (1945)	217
		-	-	Thermo	Kilpatrick	JACS	69 (1947)	2483
		2-15 μ	L	Spec	Plyler	JRNB	38 (1947)	211
		16-23 μ	G,L	Spec	Plyler	JOSA	37 (1947)	746
		8000-9000	Sol	Analysis for CH_3 and CH_2 groups	Hibbard	AC	21 (1949)	486
		-	G	Analysis	Bell	AC	22 (1950)	1005
		400-3000	L,G	Spec, Assign, Thermo	Miller	JCP	18 (1950)	1519
		-	-	Functional group analysis	Hastings	AC	24 (1952)	612
		-	-	Analysis	Jones	JCS	- (1952)	3261
		3.4-14.7 μ	Sol	Struct	Francis	AC	25 (1953)	1466
		-	-	Assign	Barker	JCS	- (1954)	4550
		-	-	Band freq, I	O'Connor	AC	26 (1954)	1726
		-	-	Ident	McBee	JACS	77 (1955)	389
		3-4 μ	L, Sol	Freq	Tallent	AC	28 (1956)	953
		-	-	Stretching vibrations	Benson	JCP	27 (1957)	1164
		-	-	NCA, FC, Assign	Curnutte	JMS	1 (1957)	239
		15-35 μ	S	Spec, Struct	Bentley	SA	15 (1959)	165
		-	-	NCA	Lebedev	OS	6 (1959)	154
C_5H_{10}	1,1-Dimethylcyclopropane	5-14.5 μ 2-15 μ	G G,L	Spec, Assign Spec	Cleveland Derfer	JCP JACS	15 (1947) 71 (1949)	742 2482
C_5H_{10}	Ethylcyclopropane	2-15 μ	G	Purity Ident	Derfer Cragson	JACS JOC	71 (1949) 20 (1955)	2482 275
C_5H_{10}	2-Methyl-1-butene	800-1100	-	Spec, Assign	Thompson	PRS	184 (1945)	3
		-	-	Analysis, Ext coefficient	Lee	IEC	18 (1946)	659
		-	-	Analysis	Anderson	AC	20 (1948)	998
		-	G	Analysis	Thornton	AC	20 (1948)	9
		700-1500	-	IR, Spec, Assign, Freq	Sheppard	PRS	196 (1949)	195
		3400-3800	Sol	H bond	West	JACS	81 (1959)	1614
C_5H_{10}	2-Methyl-2-butene	-	-	Thermo	Kassel	JCP	4 (1936)	435
		2.6-3.8 μ	Sol	Spec, Assign	Fox	PRS	175 (1940)	208
		500-2000	-	Spec	Thompson	PRS	184 (1945)	3

C_5H_{10}	3-Methyl-1-butene	2-15 μ	G	Spec, Assign Analysis	Rasmussen Thornton	JCP AC	15 (1947)	120
		-	G	Assign, Thermo	Scott	JACS	20 (1948)	9
		700-1500	-	IR, Spec, Assign	Sheppard	PRS	71 (1949)	2767
		-	L	Ext coeff	Barnard	JCS	196 (1949)	195
		-	G	Band freq	Levy	JCS	- (1950)	915
		-	Sol	Analysis	Sailer	JACS	75 (1953)	1253
		-	-	Freq	Brown	AC	26 (1954)	1258
		3400-3800	Sol	H bond	West	TFS	51 (1955)	1611
		-	-	Spec, Assign	Thompson	JACS	81 (1959)	1614
		800-1100	-	Analysis	Thornton	PRS	184 (1945)	3
C_5H_{10}	Methylcyclobutane	-	-	Ident	Bailey	AC	20 (1948)	9
		-	-	Freq	Bellamy	JACS	77 (1955)	75
		-	Sol	Group freq	Potts	JCS	- (1958)	2463
		2-15 μ	G	Purity	Derfer	SA	15 (1959)	679
		-	-	Ident	Pines	JACS	71 (1949)	2482
		-	G	Band freq	Levy	JACS	75 (1953)	2315
		800-1100	-	Spec, Assign	Thompson	JACS	75 (1953)	1253
		-	-	Optical density vs conc	Johnston	PRS	184 (1945)	3
		-	-	Analysis	Partington	AC	20 (1948)	805
		-	G	Analysis	Thornton	JCS	- (1948)	226
C_5H_{10}	1-Pentene	-	-	Analysis	Milson	AC	20 (1948)	9
		700-1500	-	IR, Spec, Assign	Sheppard	AC	21 (1949)	547
		-	L	Freq, Iso	Morton	PRS	196 (1949)	195
		-	-	Freq	Bellamy	JOC	20 (1955)	839
		15-35 μ	S	Spec, Struct	Bentley	JCS	- (1958)	2463
		700-3500	L	Freq, Spec	Comeford	SA	15 (1959)	205
		-	S	Band assign	Harrah	JMS	5 (1960)	474
		3400-3800	Sol	H bond	West	JCP	33 (1960)	298
		800-1100	-	Spec, Assign	Thompson	JACS	81 (1959)	1614
		9-15 μ	G	Analysis	Thornton	PRS	184 (1945)	3
C_5H_{10}	cis-2-Pentene	-	G	Spec	Fred	AC	20 (1948)	9
		-	-	Analysis	Hampton	AC	21 (1949)	900
		15-35 μ	S	Analysis	Oakes	AC	21 (1949)	923
		-	-	Spec, Struct	Bentley	JCS	- (1949)	2929
		-	-	Optical density vs conc	Johnston	SA	15 (1959)	165
		800-1100	-	Spec, Assign	Thompson	AC	20 (1948)	805
		9-15 μ	G	Spec	Fred	AC	21 (1949)	900
		-	-	Analysis	Hampton	AC	21 (1949)	923
		-	-	Analysis	Oakes	JCS	- (1949)	2929
		15-35 μ	S	Spec, Struct	Bentley	SA	15 (1959)	165
C_5H_{10}	trans-2-Pentene	-	-	Optical density vs conc	Johnston	AC	20 (1948)	805
		800-1100	-	Spec, Assign	Thompson	PRS	184 (1945)	3
		9-15 μ	G	Spec	Fred	AC	20 (1948)	9
		-	-	Analysis	Hampton	AC	21 (1949)	900
		-	-	Analysis	Oakes	AC	21 (1949)	923
		15-35 μ	S	Spec, Struct	Bentley	JCS	- (1949)	2929
		-	-	Optical density vs conc	Johnston	SA	15 (1959)	165
		800-1100	-	Spec, Assign	Thompson	AC	20 (1948)	805
		9-15 μ	G	Spec	Fred	AC	21 (1949)	900
		-	-	Analysis	Hampton	AC	21 (1949)	923

	G	-	9-15 μ	G	Analysis Spec	Thornton Fred	AC	20 (1948)	9
C ₅ H ₁₀ N	L	-	-	L	N-D strong, N-H weak	Hawthorne	JACS	76 (1954)	6358
C ₅ H ₁₀ NO ₂ .DCI	-	400-3600	-	-	Spec, Assign	Takenishi	NKZ	81 (1960)	1496
C ₅ H ₁₀ Br ₂	S,L	450-1500	-	S,L	Spec, Assign, Iso	Brown	PRS	231 (1955)	555
C ₅ H ₁₀ Cl ₂	S,L	450-1500	-	S,L	Spec, Assign, Iso	Brown	PRS	231 (1955)	555
C ₅ H ₁₀ ClN ₂ O ₂	S	600-1600	-	S	Freq	George	CJC	37 (1959)	679
C ₅ H ₁₀ Cl ₂ S ₁	L	2-35 μ	-	L	Assign, Spec	Oshesky	JACS	79 (1957)	2057
C ₅ H ₁₀ Cl ₂ O ₂ P	L	2-21 μ	-	L	Spec, Struct	Daasch	AC	23 (1951)	853
C ₅ H ₁₀ F ₃ O ₃ P	L	740-1500	-	L	Assign	McIlvor	CJC	37 (1959)	869
C ₅ H ₁₀ I ₂	L,S	450-1500	-	L,S	Spec, Assign, Iso	Brown	PRS	231 (1955)	555
C ₅ H ₁₀ NO ₃ P	-	-	-	-	P=O freq	Bell	JACS	76 (1954)	5185
C ₅ H ₁₀ N ₂	-	-	-	-	Ident	Doering	JACS	75 (1953)	5955
C ₅ H ₁₀ N ₂	Sol	2300-2000	-	Sol	I	Meakins	JCS	- (1957)	993
C ₅ H ₁₀ N ₂	-	1050-1550	-	-	Spec	Barnes	IEC	15 (1943)	659
C ₅ H ₁₀ N ₂	Sol,G	2200-2300	-	Sol,G	Freq, Struct	Jesson	SA	13 (1958)	217
C ₅ H ₁₀ N ₂	Sol,G	2200-2300	-	Sol,G	Freq, Struct	Jesson	SA	13 (1958)	217
C ₅ H ₁₀ N ₂	-	-	-	-	C-N freq	Peerman	JACS	76 (1954)	6085

$C_5H_{10}N_2O$	N-Nitrosopiperidine	- 5.63-9.14 μ L	Sol	Freq Freq, I	Emmons Haszeldine	JOC 19 (1954) 1472 JCS - (1954) 691
$C_5H_{10}N_2O_2$	Acetyl-glycine-N-methyl- amide	2.8-3.2 μ 2.7-3.1 μ 2.8-3.2 μ 2.7-3.5 μ 2.8-3.1 μ	Sol Sol Sol S Sol	Spec, Freq Spec, H bond Spec, Config, H bond Spec, Config Spec, Struct I	Mizushima Mizushima Mizushima Mizushima Mizushima	JACS 73 (1951) 1330 JACS 74 (1952) 270 JACS 74 (1952) 4639 JACS 75 (1953) 1863 JACS 76 (1954) 2479 JACS 76 (1954) 6003
		2-16 μ 400-1800 2800-3500	S S Sol	Spec, Assign, I Assign Config	Asai Moriwaki Tsuboi	JPC 59 (1955) 322 JACS 81 (1959) 5914 JACS 81 (1959) 1406
$C_5H_{10}N_2O_2$	N-Methyldiacetamide	1600-1800	L, Sol	Freq	Hall	JACS 80 (1958) 6428
$C_5H_{10}N_2O_3$	Alanylglycine (L,D)	500-625	S	Freq, Assign	Ellenbogen	JACS 78 (1956) 363
$C_5H_{10}N_2O_3$	Glutamine	2-9 μ	Sol	Spec, Freq	Jencks	ABB 88 (1960) 193
$C_5H_{10}N_2O_3$	L-Glutamine	1538-909	Sol	Spec	Parker	SA 16 (1960) 910
$C_5H_{10}N_2O_3.HCl$	Glutamine hydrochloride	2-9 μ	Sol	Spec, Freq	Jencks	ABB 88 (1960) 193
$C_5H_{10}N_2O_3$	Glycyl-DL-alanine	- 500-625	- S	Freq Freq, assign	Buswell Ellenbogen	JPC 44 (1940) 1126 JACS 78 (1956) 363
$C_5H_{10}N_2O_4$	1,1-Dinitropentane	-	-	Spec	Novikov	IANS - (1959) 1855
$C_5H_{10}N_2O_4$	1,1-Dinitro-3-methyl- butane	-	-	Spec	Novikov	IANS - (1959) 1855
$C_5H_{10}N_2O_4.HCl$	O-Glycyl-DL-serine hydrochloride	2-15 μ	S	Spec	Moore	JACS 76 (1954) 2884
$C_5H_{10}N_2O_4.HCl$	O-Glycyl-L-serine hydrochloride	2-15 μ -	S -	Spec Ident	Moore Nicholaids	JACS 76 (1954) 2884 JACS 76 (1954) 2887
$C_5H_{10}N_2S$	cis-Crotylthiourea	7.65-13 μ	S	Table	Ettlinger	JACS 77 (1955) 1831
$C_5H_{10}N_2S$	trans-Crotylthiourea	7.65-13 μ	S	Table	Ettlinger	JACS 77 (1955) 1831
$C_5H_{10}N_4S$	5-(n-Butylamino)- 1,2,3,4-thiazotriazole	700-1700	S	Spec, Struct, Config assign, Tant	Lieber	CJC 36 (1958) 801

$C_5H_{10}N_2O$	$N-(\beta\text{-Hydroxyethyl})\text{-melamine}$	2-16 μ	S	Spec, Struct	Padgett	JACS	80 (1958)	803
$C_5H_{10}N_2O$	1,9-Dinitroxy-2,4,6,8-tetranitro-2,4,6,8-tetrazanone	2-15 μ	S	Spec, Freq	Lieber	AC	23 (1951)	1594
$C_5H_{10}O$	Allyl ethyl ether	800-1900 10-15 μ	- L	Spec Spec	Barnes Patterson	IEC AC	15 (1943) 26 (1954)	659 823
$C_5H_{10}O$	Cyclopentanol	665-500 -	L L	Freq Reference for -O-OH comparison	Zeiss Mosher	JACS AC	75 (1953) 27 (1955)	897 517
$C_5H_{10}O$	1-Cyclopropylethanol	2.75-2.90 μ	Sol	Freq, H bond	Moriconi	JACS	81 (1959)	6472
$C_5H_{10}O$	Diethyl ketone	2-13 μ -	- L	Freq Ident	Slabey Pearson	JACS JACS	71 (1949) 75 (1953)	3252 1065
$C_5H_{10}O$	Diethyl ketone	665-5000 -	L L, Sol	Freq Freq	Zeiss Slabey	JACS JACS	75 (1953) 76 (1955)	897 3604
$C_5H_{10}O$	Diethyl ketone	500-1750 1738 1700	L G Sol	IR, Spec Assign C=O freq	Whitelaw Thompson Hartwell	PR JCS	34 (1929) - (1945)	376 640
$C_5H_{10}O$	Diethyl ketone	1200-2900 2800-3000 15-25 μ 1710-1727	L Sol L Sol	I I Freq, Spec Transparent solvent Freq, I	Richards Francis Pozzafsky Marriison	TFS JCP AC	45 (1949) 19 (1951) 23 (1951)	874 942 1611
$C_5H_{10}O$	Diethyl ketone	1300-3050 1600-1800 -	Sol Sol Sol	Ident, Assign C=O freq I	Barrow Nolin Fuson	JCP JACS	29 (1952) 21 (1953)	233 2008
$C_5H_{10}O$	Diethyl ketone	18-20 μ	Sol G	Freq, I Spec	Hirota Thompson Moller	JACS BCSJ SA CPR	75 (1953) 76 (1954) 27 (1954) 13 (1958) 249 (1959)	5626 2526 295 236 2534
$C_5H_{10}O$	1,1-Dimethyltrimethyl-ene oxide	2564-2689 2-15 μ	Sol Sol, L	Freq, H bond Spec, Freq, Assign	Searles Barrow	JACS JACS	73 (1951) 75 (1953)	3704 1175
$C_5H_{10}O$	2,2-Dimethyltrimethylene oxide	2-15 μ	Sol, L	Spec, Freq, Assign	Barrow	JACS	75 (1953)	1175
$C_5H_{10}O$	α -Hydroxyethylcyclopropane	3-11 μ	L	Ident	Allen	JOC	22 (1957)	1291
$C_5H_{10}O$	Isopropyl vinyl ether	600-4000 -	G, Sol Sol	Spec, Freq Freq, Spec	Mikawa Potts	BCSJ SA	29 (1956) 15 (1959)	110 679

$C_5H_{10}O$	Isovaleraldehyde	1.1-2.1 μ 7-14 μ 2700-3000 -	L - Sol Sol	Spec, Assign Formation of hemiacetate Spec, Freq Freq, I, Ext coefficient	Kellner Ashdown Pozefsky Pinchas	PRS 157 (1936) JCS - (1948) AC 23 (1951) AC 27 (1955)	100 1454 1611 2
$C_5H_{10}O$	Methyl n-propyl ketone	0.7-2.5 μ 500-1750 17.37 μ 1650-1800 1200-2900 2800-3600 1600-1800 1700 -	L L G Sol L Sol Sol Sol Sol Sol	C=O freq Assign C=O freq Ext coefficient I Stretch freq, Spec C=O freq Freq, I Freq	Ellis Thompson Hartwell Cross Francis Pozefsky Fuson Thompson Rao	JACS 51 (1929) JCS - (1945) JCS - (1948) TFS 47 (1951) JCP 19 (1951) AC 23 (1951) JACS 76 (1954) SA 9 (1957) JPC 63 (1959)	1384 640 1436 354 942 1611 2526 208 1311
$C_5H_{10}O$	Methyl isopropyl ketone	- 2800-3000 5-7 μ 1600-1800 -	- Sol L Sol Sol	Freq Freq, Spec Freq, Rate study C=O freq Freq	Barnes Pozefsky Frieess Fuson Bellamy	IEC 15 (1943) AC 23 (1951) JACS 74 (1952) JACS 76 (1954) JCS - (1957)	659 1611 1302 2526 4294
$C_5H_{10}O$	2-Methyltetrahydro- furan	2-15 μ	L, Sol	Spec, Freq, Assign	Barrow	JACS 75 (1953)	1175
$C_5H_{10}O$	cis-n-3-Pentenol	6-15 μ	L	Spec	Crombie	JCS - (1950)	1714
$C_5H_{10}O$	trans-n-3-Pentenol	6-15 μ	L	Spec	Crombie	JCS - (1950)	1714
$C_5H_{10}O$	4-Penten-1-ol	3 μ	Sol	Freq	Ok1	BCSJ 32 (1959)	567
$C_5H_{10}O$	n-Propyl vinyl ether	600-4000	G, Sol	Spec, Freq	Mikawa	BCSJ 29 (1956)	110
$C_5H_{10}O$	Tetrahydropyran	- 6.5-13 μ 2689-2574 2-15 μ - -	- L Sol L - -	Assign Spec H bond, Freq Spec Group & band freq Struct	Ramsey Burket Searles Shieve Barker Hurd	TFS 44 (1948) JACS 72 (1950) JACS 73 (1951) AC 23 (1951) JCS - (1954) JACS 77 (1955)	289 4397 3704 277 4211 2793
$C_5H_{10}O$	Trimethylethylene oxide	1250	-	Struct	Field	JCP 18 (1950)	1298

$C_5H_{10}O$	Valeraldehyde	1.1-2.1 μ	L	Spec, Assign	Kellner	PRS 157 (1936)	100
$C_5H_{10}OS$	Acetone ethylenehemithioetal	-	Sol	Band freq	Djerassi	JACS 75 (1953)	3704
$C_5H_{10}OS$	Butyl formyl sulphide	16-25 μ	Sol	Struct	Nyquist	SA 15 (1959)	514
$C_5H_{10}OS$	Pentamethylene sulfoxide	-	Sol	Bonds with $CHCl_3$ determined by heat of mixing	Tamres	JACS 81 (1959)	2100
$C_5H_{10}OS_2$	Dithioethyl carbonate	1-16 μ	-	Spec	Felumb	BSCF - (1957)	890
$C_5H_{10}O_2$	n-Butyl formate	500-1750 1754 2800-3100	L G Sol	Absorption coefficient Assign C=O freq Freq, Spec	Bonino Thompson Hartwell Pozefsky	TFS 25 (1929) JCS - (1945) JCS - (1948) AC 23 (1951)	876 640 1436 1611
		- 1200	- Sol	Band freq, Rot iso Freq	Karpovich Russell	JCP 22 (1954) JCS - (1955)	1767 479
		- 800-1500	Sol Sol	Freq, I Assign	Thompson Katritzky	SA 13 (1958) SA 16 (1960)	236 954
		-	-	Assign	Katritzky	SA 16 (1960)	964
$C_5H_{10}O_2$	sec-Butyl formate	2800-3150	Sol	Freq, Spec	Pozefsky	AC 23 (1951)	1611
$C_5H_{10}O_2$	cis-Cyclopentane-1,2-diol	3 μ	Sol	Freq	Kuhn	JACS 74 (1952)	2492
		-	Sol	Freq	Kwart	JACS 76 (1954)	5400
		3500-3650	Sol	OH freq	Elie	JACS 77 (1955)	3600
		-	Sol	H bond	Brimacombe	TE 4 (1958)	351
$C_5H_{10}O_2$	trans-Cyclopentane-1,2-diol	3 μ	Sol	Freq	Kuhn	JACS 74 (1952)	2492
		3500-3650	Sol	OH freq	Elie	JACS 77 (1955)	3600
		-	Sol	H bond	Brimacombe	TE 4 (1958)	351
$C_5H_{10}O_2$	Cyclopentyl hydroperoxide	5.5-14.5 μ	L	Spec, Freq	Mosher	AC 27 (1955)	517
$C_5H_{10}O_2$	2,2-Dimethyl-1,3-dioxolan	400-3100	G	Freq, Assign	Barker	JCS - (1959)	802
$C_5H_{10}O_2$	2,4-Dimethyl-1,3-dioxolan	400-3100	G	Freq, Assign	Barker	JCS - (1959)	802
$C_5H_{10}O_2$	2,2-Dimethylpropionic acid	1300-2000 700-1500	Sol S	Spec	Gillette	JACS 58 (1936)	58
		5.7-5.9 μ	Sol	Spec, IR	Hadzi Chang	PRS 216 (1953) JPC 60 (1956)	247 782
$C_5H_{10}O_2$	1,2-Epoxy-1-methoxybutane	2-16 μ	Sol	Spec	Stevens	JACS 76 (1954)	2695

$C_5H_{10}O_2$	β -Ethoxypropaldehyde	-	-	Ident	Hall	JCS	-	(1954)	3388
$C_5H_{10}O_2$	Ethyl propionate	1-2.5 μ	L	Spec	Smith	JACS	48	(1926)	1512
		-	-	Freq, Absorption coeff	Bonino	TFS	25	(1929)	876
		0.7-2.5 μ	L	C=O study	Ellis	JACS	51	(1929)	1384
		500-1750	L	Assign	Thompson	JCS	-	(1945)	640
		1761 μ	G	C=O freq	Hartwell	JCS	-	(1948)	1436
		1200-2900	L	I	Francis	JCP	19	(1951)	942
		2800-3000	Sol	Freq, Spec	Pozefsky	AC	23	(1951)	1611
		15-25 μ	L	Transparent solvent	Marri son	JSI	29	(1952)	233
		1726-1741	Sol	Freq, I	Barrow	JCP	21	(1953)	2008
		-	L	Analysis	Lashack	JACS	75	(1953)	3544
		-	Sol	I	Hirota	BCSJ	27	(1954)	295
		-	Sol	Freq	Felton	JCS	-	(1955)	2170
		1200	Sol	I	Russell	JCS	-	(1955)	479
		2-15 μ	Sol	Assign	Walton	JACS	79	(1957)	3985
		600-4000	L	Spec, Assign	LePerre	AJC	11	(1958)	92
		-	-	23 solvents added to spectroquality grade	Barrow	AC	30	(1958)	63
$C_5H_{10}O_2$	2-Hydroxy-2-methyl-butanoic acid	-	-	Ident	Ham	JACS	76	(1954)	6066
$C_5H_{10}O_2$	4-Hydroxy-3-methyl-2-butenone	-	-	Freq, I	Thompson	SA	13	(1958)	236
		-	Sol	I	Gutjahr	SA	16	(1960)	1209
		800-1500	Sol	Assign	Katritzky	SA	16	(1960)	954
		-	-	Assign	Katritzky	SA	16	(1960)	964
$C_5H_{10}O_2$	1-Hydroxymethyl-1-cyclobutanol	-	-	Ident					
$C_5H_{10}O_2$	Isobutylformate	-	-	Spec	Barnes	IEC	15	(1943)	659
$C_5H_{10}O_2$		1050-1800	-	Spec					
$C_5H_{10}O_2$		650-3700	L	Spec, Ident	Roberts	JACS	71	(1949)	3925
$C_5H_{10}O_2$		-	-	Absorption coefficient	Bonino	TFS	25	(1929)	876
		500-1750	L	Assign	Thompson	JCS	-	(1945)	640
		1754	G	Freq	Hartwell	JCS	-	(1948)	1436
		2800-3150	Sol	Spec, Freq	Pozefsky	AC	23	(1951)	1611
		-	-	C-O band freq, Rot iso	Karpovich	JCP	22	(1954)	1767
		1200	Sol	Band, I	Russell	JCS	-	(1955)	479
		-	Sol	Freq, I	Thompson	SA	13	(1958)	236
		800-1500	Sol	Assign	Katritzky	SA	16	(1960)	954
		-	-	Assign	Katritzky	SA	16	(1960)	964

$C_5H_{10}O_2$	Isopropyl acetate	500-1750 500-1500 1762 2800-3000 - - 1200 800-1500 -	L - G Sol - - Sol Sol - -	Assign Spec C=O freq Freq, Spec Band freq C-O freq I Assign Assign	Thompson Thompson Hartwell Pozefsky Edwards Karpovich Russell Katritzky Katritzky	JCS TFS JCS AC JCS JCP JCS SA SA	- 41 - 23 - 22 - 16 16	(1945) (1945) (1948) (1951) (1953) (1954) (1955) (1960) (1960)	640 246 1436 1611 3427 1767 479 954 964
$C_5H_{10}O_2$	Isovaleric acid	2800-3100 7-8 μ .9-3 μ	Sol L Sol	Freq, Spec Struct, Spec Spec, IR	Pozefsky Freeman Holman	AC JACS AC	23 74 28	(1951) (1952) (1956)	1611 2523 1533
$C_5H_{10}O_2$	1-Methoxy-3-butenone	-	Sol	Freq, H bond	Searles	JACS	75	(1953)	71
$C_5H_{10}O_2$	2-Methoxyethyl vinyl ether	1500-5000	Sol	Group freq	Briggs	AC	29	(1957)	904
$C_5H_{10}O_2$	Methyl isobutyrate	20.7-152 μ 500-1750 500-1500	S L -	Transmission reflection Assign Spec	Seifert Thompson Thompson	RSI JCS TFS	11 - 41	(1940) (1945) (1945)	365 640 246
$C_5H_{10}O_2$	Methyl n-butyrate	500-1750 2800-3000 6.84-13.29 μ - 800-1500	L Sol L - Sol	Assign Spec, Freq Freq, I Assign Assign	Thompson Pozefsky Fowler Katritzky Katritzky	JCS AC JOSA SA SA	- 23 43 16 16	(1945) (1951) (1953) (1960) (1960)	640 1611 1054 964 954
$C_5H_{10}O_2$	n-Propyl acetate	1-2.5 μ - 0.8-2.5 μ 500-1750 5.7 μ 1768 720-750 1200-2900 2800-3000 - 1200 800-1500 -	L - L L - G L L Sol L - Sol Sol -	Spec Freq Spec Assign Band width C=O freq Freq I Freq, Spec Band freq C-O freq I Assign Assign	Smith Bonino Sappenfield Thompson Anderson Hartwell Wiberley Francis Pozefsky Edwards Karpovich Russell Katritzky Katritzky	JACS TFS PR JCS AC JCS AC JCP AC JCS JCP JCS SA SA	48 25 33 - 20 - 22 19 23 - 22 - 16 16	(1926) (1929) (1929) (1945) (1948) (1948) (1950) (1951) (1951) (1953) (1954) (1955) (1960) (1960)	1512 876 37 640 998 1436 841 942 1611 3427 1767 479 954 964

$C_5H_{10}O_2$	Tetrahydropyran-2-ol	3500-3700	Sol	H bond	Barker	TE	7 (1959)	10
$C_5H_{10}O_2$	Tetrahydropyran-3-ol	3500-3700	Sol	H bond	Barker	TE	7 (1959)	10
$C_5H_{10}O_2$	Tetrahydropyran-4-ol	3500-3700	Sol	H bond	Barker	TE	7 (1959)	10
$C_5H_{10}O_2$	2-Tetrahydrofurfuryl alcohol	2-12 μ 7-13 μ 700-1000 3 μ 3500-3700	L - - Sol Sol	Spec, Ident Spec Freq, I Freq, H bond H bond	Rogers Craig Barker Flett Barker	JACS JACS JCS SA TE	60 (1938) 72 (1950) - (1954) 10 (1958) 7 (1959)	2619 3277 4550 21 10
$C_5H_{10}O_2$	Trimethylacetic acid	-	Sol	Freq	Goulden	SA	6 (1954)	129
$C_5H_{10}O_2$	Valeric acid	3500-670 3-6 μ	L, S Sol	Spec Equilibrium const, I	Corish Wenograd	JCS JACS	- (1957) 79 (1957)	1746 5844
$C_5H_{10}O_2S$	2-Methyl-p-oxathiane	-	-	Spec, Ident	Hatch	JACS	74 (1952)	1826
$C_5H_{10}O_3$	3-Acetoxypropan-1-ol	-	Sol	Band position, Ext coeff	Henbest	JCS	- (1958)	2633
$C_5H_{10}O_3$	1:5-Anhydro-2-deoxy-L-erythropentitol	3500-3650	Sol	H bond	Brimacombe	TE	4 (1958)	351
$C_5H_{10}O_3$	1:5-Anhydro-2-deoxy-D-threopentitol	3500-3650	Sol	H bond	Brimacombe	TE	4 (1958)	351
$C_5H_{10}O_3$	Diethyl carbonate	1-2.5 μ 1-12 μ - 1050-1800 500-1750 1767 1744-1750 - 1200 1-15 μ - 700-400 1600-1800	L L - - L G Sol Sol Sol - Sol S L, Sol	Spec Spec, Assign Freq, Absorption coeff Spec, Freq Assign Freq, I I I Spec Freq, Struct Freq, Assign Freq Freq, I I, Freq Assign	Smith Bell Bonino Barnes Thompson Hartwell Barrow Hirato Russell Felumb Hales Gatehouse Hall Thompson Mirone Katritzky	JACS JACS TFS IEC JCS JCS JCP BCSJ JCS BSCF JCS JCS JACS	48 (1926) 50 (1928) 25 (1929) 15 (1943) - (1945) - (1948) 21 (1953) 27 (1954) - (1955) - (1957) - (1957) - (1958) 80 (1958)	1512 2940 876 659 640 1436 2008 295 479 890 618 3137 6428
		-	Sol	Freq, I	Thompson	SA	13 (1958)	236
		-	Sol	I, Freq	Mirone	AC	49 (1959)	52
		-	-	Assign	Katritzky	SA	16 (1960)	964

$C_5H_{10}O_3$	Ethyl ethoxy formate	800-1500	Sol	Assign	Katritzky	SA	16 (1960)	954
$C_5H_{10}O_3$	Ethyl lactate	1-2.5 μ 6700-7400	L Sol	Spec Spec	Smith Wulf	JACS JACS	48 (1926) 57 (1935)	1512 1464
		-	Sol	Spec, Struct	Pauling	JACS	58 (1936)	94
		3 μ	Sol	H bond	Mori	NKZ	77 (1956)	459
		3 μ	Sol	Freq	Tsubomura	JCP	24 (1956)	927
		3 μ	Sol	H bond, Freq	Flett	SA	10 (1958)	21
		1000-1500	Sol	Freq	Goulden	SA	16 (1960)	715
$C_5H_{10}O_3$	2-Methoxybutyric acid	1500-5000	Sol	Freq	Briggs	AC	29 (1957)	904
$C_5H_{10}O_3$	2-Methyl-1,3-dioxan-5-ol	3500-3700	Sol	H bond	Barker	TE	7 (1959)	10
$C_5H_{10}O_3$	Methyl β -methoxy- propionate	1800-800 1300-2500	Sol -	Spec Spec	Lee Hediger	JAPC HCA	3 (1953) 37 (1954)	431 1125
$C_5H_{10}O_4$	d-Desoxyribose	9-11.5 μ	S	Freq	Schwarz	APS	6 (1952)	15
$C_5H_{10}O_4$	α -Methyl- α,β -dihydroxy- butyric acid	2-13 μ -	S -	Spec Ident	Klohs Klohs	JACS JACS	74 (1952) 75 (1953)	5107 3595
$C_5H_{10}O_4$	dl- α -Methyl- α,β -dihydroxy- butyric acid	-	S	Ident	Myers	JACS	77 (1955)	3348
$C_5H_{10}O_5$	β -D-Arabinose	800-3000	S	Freq	Barker	N	186 (1960)	307
$C_5H_{10}O_5$	D-1-Arabinose	1090-3030 1.7-4.6 μ - -	Sol Sol - S	Freq, Assign Spec, Struct Freq, Assign Freq, I	Rogers Barr Loofbourov Barker	JACS JCP RMP JCS	60 (1938) 8 (1940) 12 (1940) - (1954)	2619 51 267 3468
$C_5H_{10}O_5$	L-D-Arabinose	1110-3030 1.7-4.6 μ - -	Sol Sol - S	Freq, Assign Spec, Struct Freq, Assign Spec Freq, I	Rogers Barr Loofbourov Kuhn Whistler	JACS JCP RMP AC AC	60 (1938) 8 (1940) 12 (1940) 22 (1950) 25 (1953)	2619 51 267 276 1463
$C_5H_{10}O_5$	d-Lyxose	1100-3030 - -	Sol - S	Freq, Assign Freq, Assign Freq, I	Rogers Loofbourov Whistler	JACS RMP AC	60 (1938) 12 (1940) 25 (1953)	2619 267 1463
$C_5H_{10}O_5$	D-Ribose	2-15 μ -	S S	Spec Band freq	Kuhn Schwary	AC APS	22 (1950) 6 (1952)	276 15

$C_5H_{10}O_5$	α -D-Xylose	800-3000	S	Freq	Barker	N	186 (1960)	307
$C_5H_{10}O_5$	d-Xylose	1.7-4.6 μ	Sol	Spec, Struct Freq, Assign	Barr	JCP	8 (1940)	51
		-	-	Spec	Loofbuorow	RMP	12 (1940)	267
		8-15 μ	S	Spec	Kuhn	AC	22 (1950)	276
		-	S	Freq, I	Whistler	AC	25 (1953)	1463
		-	S	Freq, I	Barker	JCS	- (1954)	3468
$C_5H_{10}O_5$	l-Xylose	960-3030	Sol	Freq, Assign	Rogers	JACS	60 (1938)	2619
		-	-	Freq, Assign	Loofbuorow	RMP	12 (1940)	267
		-	S	Band freq, I	Barker	JCS	- (1954)	3468
		2-15 μ	S	Study interaction with KBr	Baker	CHIN	46 (1954)	1418
$C_5H_{10}S$	2-Methylthiacyclopentane	650-3500	-	Spec	Leonard	JACS	74 (1952)	917
$C_5H_{10}S$	Thiacyclohexane	650-3500	-	Spec	Leonard	JACS	74 (1952)	917
		506-1437	L	Assign	Sheppard	TFS	46 (1954)	429
		-	-	IR, Spec	Haines	JPC	60 (1956)	549
$C_5H_{10}S_2$	Ethylidithio propionate	777-2960	L	Freq	Marvel	JACS	77 (1955)	5997
$C_5H_{11}DO$	n-Pentanol-O-d ₁	938	L	O-D deformation band	Quinan	JCP	21 (1953)	1896
		650-4000	G,L	Freq, I	Quinan	AC	26 (1954)	1762
$C_5H_{11}Br$	1-Bromo-2-methylbutane	5.5-14 μ	-	Spec, Analysis	Brokaw	JOC	13 (1948)	194
$C_5H_{11}Br$	1-Bromo-3-methylbutane	14-19 μ	L	Spec	Mortimer	JACS	69 (1947)	822
		-	L	Trans and gauche ratio determination	Yoshino	CJC	35 (1957)	339
$C_5H_{11}Br$	2-Bromo-2-methylbutane	5.5-14 μ	-	Spec	Brokaw	JOC	13 (1948)	194
$C_5H_{11}Br$	1-Bromopentane	6.35-14 μ	L	Spec, Iso	Pines	JACS	74 (1952)	4063
		500-1500	L,S	Spec, Rot iso	Brown	TFS	50 (1954)	535
		-	L	Trans and gauche ratio determination	Yoshino	CJC	35 (1957)	339
$C_5H_{11}Br$	2-Bromopentane	6.4-14 μ	L	Spec, Iso	Pines	JACS	74 (1952)	4063
		10.2 μ	Sol	Quant analysis	Scheske	AC	29 (1957)	1895
$C_5H_{11}Br$	3-Bromopentane	6.35-14 μ	L	Spec, Iso	Pines	JACS	74 (1952)	4063
		12.1-12.8 μ	Sol	Quant analysis	Scheske	AC	29 (1957)	1895

$C_5H_{11}Cl$	1-Chloro-2,2-dimethyl- propane	-	-	Freq, Rot iso Freq	Brown Nakamura	TFS JCP	50 (1954) 26 (1957)	1164 970
$C_5H_{11}Cl$	2-Chloro-2-methyl- butane	-	-	Freq, Rot iso	Brown	TFS	50 (1954)	1164
$C_5H_{11}Cl$	3-Chloropentane	-	-	Freq	Nakamura	JCP	26 (1957)	970
$C_5H_{11}Cl$	1-Chloropentane	16-25 μ	L	Transparent solvent	Marri son	JSI	29 (1952)	233
$C_5H_{11}ClO_2S$	1-Ethylpropanesulphonyl chloride	-	-	Spec, Freq	Geiseler	ZE	60 (1960)	421
$C_5H_{11}ClO_2S$	1-Methylbutanesulphonyl chloride	-	-	Spec, Freq	Geiseler	ZE	60 (1960)	421
$C_5H_{11}ClO_2S$	n-Pentanesulphonyl chloride	-	-	Spec, Freq	Geiseler	ZE	60 (1960)	421
$C_5H_{11}Cl_3NB$	Piperidine-boron trichloride complex	600-3500	Sol	Complex study	Greenwood	JCS	- (1960)	1130
$C_5H_{11}Cl_3OSi$	Trichlorosilylbutyl methyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_5H_{11}Cl_3OSi$	Trichlorosilylmethyl butyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_5H_{11}Cl_3OSi$	Trichlorosilylpropyl ethyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_5H_{11}N$	N-Methylpyrrolidine	2900-3100	Sol	Freq	Hill	JCS	- (1958)	760
$C_5H_{11}N$	Piperidine	-	-	Freq	Bonino	TFS	25 (1929)	876
		-	-	Effect as solvent on OD band	Gordy	JCP	7 (1939)	93
		-	-	Effect as solvent on HC band	Gordy	JCP	7 (1939)	163
		1550-3700	L, Sol	Spec, Freq	Marion	JACS	73 (1951)	305
		2.7-4.7 μ	Sol	Spec	Sternberg	JACS	75 (1953)	3148
		-	Sol	Freq, I, Ext coefficient	Russell	JCS	- (1955)	483
		600-4000	L	Spec	Heacock	CJC	34 (1956)	1782
		3-4 μ	L, Sol	Freq	Tallent	AC	28 (1956)	953
		2-8 μ	S	Spec	Nakani shi	BCSJ	30 (1957)	403

	2800-3000	L, S	Detection of group	N Me	Braunhotz	JCS	-	(1958)	2780
	2900-3100	L	Freq		Hill	JCS	-	(1958)	760
	3.38-3.6 μ	S	Freq		Wright	JOC	24	(1959)	1362
C ₅ H ₁₁ N.HCl	Piperidine hydrochloride	600-400 -	S S	Spec Spec	Heacock Nakanishi	CJC	34 30	(1956) (1957)	1782 403
		1000-3500 600-4000	Sol, S S	Spec, Freq Freq, Assign	Chenon Stone	CJC	36	(1958)	1181
						JCS	-	(1958)	52
C ₅ H ₁₁ N.HBr	Piperidine hydrobromide	1000-3500	S, Sol	Freq	Chenon	CJC	36	(1958)	118
C ₅ H ₁₁ N.HI	Piperidine hydriodide	1000-3500	S, Sol	Freq	Chenon	CJC	36	(1958)	1181
C ₅ H ₁₁ NO	cis-2-Aminocyclopentanol	-	Sol	Freq, Assign	Sicher	CCCC	24	(1959)	950
C ₅ H ₁₁ NO	trans-2-Aminocyclopentanol	-	Sol	Freq, Assign	Sicher	CCCC	24	(1959)	950
C ₅ H ₁₁ NO	N,N-Diethylformamide	1700 - -	Sol L Sol	I, C=O vibrations Amide I band Freq, I	Richards Robson Thompson	TFS JACS SA	45 77 13	(1949) (1955) (1958)	874 498 236
C ₅ H ₁₁ NO	N,N-Dimethylpropionamide	51-59 μ	Sol	I	Schmulbach	JPC	64	(1960)	1956
C ₅ H ₁₁ NO	N-Ethylpropionamide	600-3400	Sol, L	Freq, Spec, Assign	Beer	JCP	29	(1958)	1097
C ₅ H ₁₁ NO	2,2-Dimethyloxazolidine	-	Sol	Freq, Ext coefficient	Bergmann	JACS	75	(1953)	358
C ₅ H ₁₁ NO	2-Methylbutyramide	-	-	Ident	Snyder	JACS	76	(1954)	2441
C ₅ H ₁₁ NO	N-Methylmorpholine	2900-3100	Sol	Freq	Hill	JCS	-	(1958)	760
C ₅ H ₁₁ NO	N-Propylacetamide	1200-8000 400-3400	Sol L, Sol	Freq, Assign Spec, Freq, Assign	Hecht Beer	PRS JCP	235 29	(1956) (1958)	174 1097
C ₅ H ₁₁ NO	N-Valeramide	2.7-3.7 μ -	S -	H bond FC	Buswell Richards	JACS TFS	62 44	(1940) (1948)	2759 40
C ₅ H ₁₁ NO ₂	O-Amino-n-Valeric acid	1538-909	Sol	Spec	Parker	SA	16	(1960)	910

$C_5H_{11}NO_2$	n-Amyl nitrite	5.76-8.07/ μ -	L,Sol L,G,Sol	I, Freq Assign, Rot iso, Struct	Haszeldine Haszeldine	JCS - (1954) 691 JCS - (1955) 4172
$C_5H_{11}NO_2$	Betaine	4000-650 3200-3700	S -	Spec H bond	Adams Saxena	JACS 71 (1949) 3826 JCS - (1959) 1579
$C_5H_{11}NO_2$	Ethyl N-ethyloarbamate	- 3/ μ	- Sol	Freq Close pair of bands more stable, Freq	Robson Russell	JACS 77 (1955) 245 SA 8 (1956) 138
$C_5H_{11}NO_2$	β -Hydroxyisovaleramide	-	-	OH and NH_2 indio	Gresham	JACS 76 (1954) 486
$C_5H_{11}NO_2$	Isopentyl nitrite	2-25/ μ -	G G,L, Sol	Rot iso Assign, Rot iso, Struct	Tarte Haszeldine	JCP 20 (1952) 1570 JCS - (1955) 4172
$C_5H_{11}NO_2$	1-Nitropentane	-	L	Freq, I	Haszeldine	JCS - (1953) 2525
$C_5H_{11}NO_2$	DL-Norvaline	667-5000 400-3600	S -	Spec, Freq, Struct Spec, Assign	Liefer Takenishi	JACS 79 (1957) 5098 NKZ 81 (1960) 1496
$C_5H_{11}NO_2$	s-Pentyl nitrite	2-25/ μ	G	Rot iso	Terte	JCP 20 (1952) 1570
$C_5H_{11}NO_2$	t-Pentyl nitrite	2-25/ μ	G	Rot iso	Tarte	JCP 20 (1952) 1570
$C_5H_{11}NO_2$	Valine	5-10/ μ 1-12/ μ 2.5-11/ μ 2.5-11/ μ 600-4000	S Sol Sol Sol S	Spec, Assign Spec, Assign Spec Spec Ident	Klotz Lacher Wright Potts Epp	JPC 52 (1948) 961 JPC 58 (1954) 206 APS 9 (1955) 105 AC 28 (1956) 1255 AC 29 (1957) 1283
$C_5H_{11}NO_2$	DL-Valine	667-5000 6-11/ μ 1538-909	S Sol Sol	Spec, Freq, Struct Spec Spec	Leifer Parker Parker	JACS 79 (1957) 5098 N 187 (1960) 386 SA 16 (1960) 910
$C_5H_{11}NO_2 \cdot HCl$	Alanine ethyl ester hydrochloride	2-9/ μ	Sol	Spec, Freq	Jenoks	ABB 88 (1960) 193
$C_5H_{11}NO_2 \cdot HCl$	Betaine hydrochloride	667-5000 1350-1500	S S	Spec, Freq, Struct Spec, Ident	Liefer Watson	JACS 79 (1957) 5098 SA 16 (1960) 1322
$C_5H_{11}NO_2 \cdot HCl$	N,N-Dimethyl- β -alanine hydrochloride	1350-1500	S	Spec, Ident	Watson	SA 16 (1960) 1322

$C_5H_{11}NO_2 \cdot HCl$	Valine hydrochloride	5-10 μ	Sol	Spec, Assign	Klotz	JPC	52 (1948)	961
$C_5H_{11}NO_2 \cdot HCl$	L-Valine hydrochloride	2-15 μ	-	Spec, Ident	Larsson	ACS	4 (1950)	27
$C_5H_{11}NO_2 S$	Methionine	-	-	Band freq	Cymerman	JCS	- (1951)	1332
		670-1800	S	Spec, Freq	Short	JCS	- (1951)	1746
		600-4000	S	Ident	Epp	AC	29 (1957)	1283
$C_5H_{11}NO_2 S$	L-Methionine	1538-909	Sol	Spec	Parker	SA	16 (1960)	910
$C_5H_{11}NO_3$	n-Pentyl nitrate	2-15 μ	Sol	Spec, Struct	Carrington	SA	16 (1960)	1279
$C_5H_{11}NO_3 \cdot HCl$	Serine ethyl ester hydrochloride	2-9 μ	Sol	Spec, Freq	Jencks	ABB	88 (1960)	193
$C_5H_{11}NO_3 S$	DL-Methionine sulfoxide	670-1800	S	Spec, Freq	Short	JCS	- (1951)	1746
$C_5H_{11}NO_4 \cdot HCl$	3-Amino-3-deoxy-D-arabinose hydrochloride	-	-	Ident	Baker	JACS	77 (1955)	7
$C_5H_{11}NO_4 \cdot HCl$	3-Amino-3-deoxy-D-ribofuranose hydrochloride	-	-	Ident	Baker	JACS	77 (1955)	7
$C_5H_{11}NO_4 \cdot HCl$	3-Amino-D-ribofuranose hydrochloride	-	-	Ident	Baker	JOC	19 (1954)	646
$C_5H_{11}NO_4 S$	DL-Methionine sulfone	670-1800	S	Spec, Freq	Short	JCS	- (1951)	1746
$C_5H_{11}NO_5$	D-3-Aminoribose	-	-	Ident	Waller	JACS	75 (1953)	2025
$C_5H_{11}NSi$	Cyanomethyltrimethylsilane	-	-	Freq, Ident	Prober	JACS	77 (1955)	3224
$C_5H_{11}N_2O_2 P$	Ethyl dimethylamino-cyanophosphonate	-	-	P=O freq	Bell	JACS	76 (1954)	5185
$C_5H_{11}N_3 O$	Ethyl methyl ketone semicarbazone	700-3500	S	Ident, Assign	Davison	JCS	- (1955)	3389
$C_5H_{11}O_3 B$	Ethylene-n-propyl borate	6-14 μ	L, S	Assign, Struct	Blau	JCS	- (1960)	380

$C_5H_{11}O_3B$	Ethylene-isopropyl- borate	6-14 μ	L, S	Assign, Struct	Blau	JCS - (1960)	380
$C_5H_{11}O_4P$	Ethyltrimethylene- phosphate	-	Sol	Assign	Jones	JCS - (1960)	4376
C_5H_{12}	Isopentane	1.1-1.8 μ	Sol	Spec	Liddel	JRNB	11 (1933) 599
		-	-	Thermo	Pitzer	CR	27 (1940) 39
		-	-	Thermo	Schmann	JACS	64 (1942) 1039
		-	G	Analysis	Jones	IEC	17 (1945) 349
		-	-	Freq	Kellner	TFS	41 (1945) 217
		-	-	Ext coefficient	Lee	IEC	18 (1946) 659
		-	L	Analysis	Glasgow	JRNB	38 (1947) 537
		-	-	Freq	Kent	AC	19 (1947) 290
		-	-	Freq	Sutherland	JCP	15 (1947) 153
		2-15 μ	G	Spec, Assign	Rasmussen	JCP	16 (1948) 712
		-	-	Assign	Sheppard	JCP	16 (1948) 690
		-	G	Analysis	Thornton	AC	20 (1948) 9
		-	G	Analysis	Milsum	AC	21 (1949) 547
		-	-	Band width	Rank	JCP	17 (1949) 339
		-	-	Freq	Simpson	PRS	199 (1949) 169
		-	-	Analysis	Starr	AC	21 (1949) 572
		-	-	Assign, Thermo	Szasz	JCP	17 (1949) 93
		650-1600	L, S	Rot iso	Axford	JCP	18 (1950) 51
		-	G	Analysis	Bell	AC	22 (1950) 1005
		-	G	Analysis	O'Neal	AC	22 (1950) 991
		-	-	Rot iso	Sheppard	JCP	18 (1950) 145
		-	-	Rot iso	Brown	JCP	19 (1951) 976
		-	-	Thermo, Freq, Assign	Scott	JACS	73 (1951) 1707
		700-350	L	Freq	Donneaud	CPR	239 (1954) 1480
C_5H_{12}	n-Pentane	-	L	Freq	Ellis	JOSA	8 (1924) 1
		0-2.5 μ	L	Spec	Ellis	PR	23 (1924) 48
		.589-2.8 μ	L	Spec	Ellis	PR	27 (1926) 298
		0.75 -0.92 μ	L	Band struct	Barnes	JACS	50 (1928) 1033
		-	-	Freq	Bonino	TFS	25 (1929) 876
		0.7-2.5 μ	L	C=O freq	Ellis	JACS	51 (1929) 1384
		0-2.4 μ	L	Spec	Lecomte	TFS	25 (1929) 864
		1-30 μ	G	Spec	Kattering	P	4 (1933) 39
		1.1-1.8 μ	Sol	Spec	Liddle	JRNB	11 (1933) 599
		-	-	Normal modes	Kassel	JCP	3 (1935) 326
		1-16 μ	-	Moment of inertia	Stinchcomb	JCP	7 (1939) 853
		-	-	Freq, Thermo	Pitzer	JCP	8 (1940) 711

-	-	Thermo	Pitzer	CR	27 (1940)	39
1100-1800	-	Spec	Barnes	IEC	15 (1943)	659
-	-	Thermo	Aston	JCP	12 (1944)	336
-	-	Freq	Kellner	TFS	41 (1945)	217
-	-	Spec	Coggeshall	JCP	15 (1947)	65
-	L	Analysis	Glasgow	JRNB	38 (1947)	537
-	-	Freq	Kent	AC	19 (1947)	290
2-15/ μ	G	Spec, Assign	Rasmussen	JCP	16 (1948)	712
-	-	Assign, IR	Sheppard	JCP	16 (1948)	690
-	-	Analysis	Thornton	AC	20 (1948)	9
-	-	Analysis, FC	Gates	JCP	17 (1949)	393
8000-9000	Sol	Analysis	Hibbard	AC	21 (1949)	486
-	-	Analysis	Milson	AC	21 (1949)	547
-	-	Freq	Mizushima	JACS	71 (1949)	1320
-	-	Band width	Rank	JCP	17 (1949)	1339
-	-	Assign, Thermo	Sheppard	JCP	17 (1949)	86
-	-	Selection rules	Simanouti	JCP	17 (1949)	1102
-	-	Analysis	Starr	AC	21 (1949)	572
650-1600	L, S	Rot iso	Arford	JCP	18 (1950)	51
-	G	Analysis	Bell	AC	22 (1950)	1005
1370-2900	L	I	Francis	JCP	18 (1950)	861
-	G	Analysis	O'Neal	AC	22 (1950)	991
-	-	Analysis	Jones	JCS	- (1952)	3261
-	-	Band freq	Bell	AC	25 (1953)	1720
120-244	G	No absorption	O'Loane	JCP	21 (1953)	669
-	S, G	Thermo, Assign	Person	JACS	75 (1953)	532
300-700	L	Freq	Donneaud	CPR	239 (1954)	1480
650-1450	S	Freq, Assign	Tschamler	JCP	22 (1954)	1845
-	-	Freq	Corish	JCS	- (1955)	2431
-	-	I	Theimer	JCP	27 (1957)	1041
15-35/ μ	S	Spec, Struct	Bentley	SA	15 (1959)	165
700-3500	L	Freq, Spec	Comeford	JMS	5 (1960)	474

C₅H₁₂ Neopentane

-	-	Solution of rotational wave eqn	Lacoste	PR	46 (1934)	718
-	-	Thermo	Kassel	JCP	3 (1935)	115
-	-	Assign	Anderson	JCP	4 (1936)	161
-	-	Assign	Kassel	JCP	4 (1936)	276
-	-	Thermo	Edsall	JCP	5 (1937)	225
-	-	FC	Wall	JCP	6 (1938)	107
-	-	Freq	Silver	JCP	7 (1939)	1113
-	-	Thermo	Aston	CR	27 (1940)	59

	-	-	Thermo	Pitzer	CR	27 (1940)	39
	-	-	Quant mech	Silver	JCP	8 (1940)	919
	-	-	Vib analysis	Crawford	JCP	9 (1941)	323
	-	-	Thermo	Pitzer	JCP	10 (1942)	605
	-	-	Internal rotation	Aston	JCP	12 (1944)	336
	2-15 μ	G	Spec	Jones	IEC	17 (1945)	349
	-	-	Thermo	Pitzer	CR	39 (1946)	435
	-	-	CH ₃ potential barrier	French	JCP	14 (1946)	389
	-	L	Analysis	Glasgow	JRNB	38 (1947)	537
	-	-	Freq	Sutherland	JCP	15 (1947)	153
	2700-3400	G	Spec, Freq, Assign	Young	JACS	69 (1947)	1410
	2-18 μ	G	Spec, Assign	Rasmussen	JCP	16 (1948)	712
	-	-	Assign	Sheppard	JCP	16 (1948)	690
	-	-	Electrostatic theory of hindered rotation	Lassette	JCP	17 (1949)	317
	-	-	Freq, FC	Simanouti	JCP	17 (1949)	848
	-	-	Freq, FC	Simpson	PRS	199 (1949)	169
	-	-	FC	Sheline	JCP	18 (1950)	595
	-	-	FC	Sheline	JCP	18 (1950)	602
	-	S	IR	Malner	PR	83 (1951)	201
	200-1250	-	Spec	Gaubeau	ZAUA	268 (1952)	1
	2-25 μ	G	IR, Spec, Assign	Snell	JCP	21 (1953)	2024
	-	--	NCA, I	Long	PRS	224 (1954)	33
	-	-	Freq	Sheppard	JCP	23 (1955)	585
	-	-	NCA, Assign	Shimizu	BCSJ	30 (1957)	487
C ₅ H ₁₂ BrNO ₂	-	S	Group study	Freeman	JACS	80 (1958)	5954
N,N,N-Trimethyl-N-acetoxyammonium bromide							
C ₅ H ₁₂ ClN.HCl	-	-	Spec	Nakanishi	BCSJ	30 (1957)	403
2-Chloroisopropyl-dimethyl-amine hydrochloride							
C ₅ H ₁₂ Cl ₂ Si	2050-2250	Sol	Freq, Struct	Smith	SA	15 (1959)	412
C ₅ H ₁₂ INS	-	Sol	Freq	Goulden	JCS	- (1953)	997
N-1-Methylthio-1-ethylidene-N,N-dimethylammonium iodide							
C ₅ H ₁₂ NO ₄ P	2-16 μ	L,S	Freq	Reetz	JACS	77 (1955)	3813
Diethyl carbam(o)yl-phosphonate							
C ₅ H ₁₂ N ₂	3.38-3.60 μ	S	Freq	Wright	JOC	24 (1959)	1362
1-Methylpiperazine							

$C_5H_{12}NO_2$	N-Butylurea	-	-	Freq	Biswell	JPC	44 (1940)	1126
$C_5H_{12}NO_2$	N,N,N',N'-Tetramethyl-urea	-	Sol	Solvent effect Freq	Beguin Baker	HCA JACS	42 (1959) 82 (1960)	2262 1923
$C_5H_{12}NO_2 \cdot 2HCl$	L-Ornithine dihydrochloride	2-15 μ	S	Spec, Ident	Larsson	ACS	4 (1950)	27
$C_5H_{12}NO_3S$	L-Methionine sulfoximine	6700-1800	S	Spec, Freq	Short	JCS	- (1951)	1746
$C_5H_{12}N_2S$	S,N,N,N'-Tetramethylisothiourea	2-12 μ	Sol	Spec	Ettlinger	JACS	72 (1950)	4699
$C_5H_{12}N_2S$	N,N,N',N'-Tetramethylthiourea	2-12 μ	Sol	Spec	Ettlinger	JACS	72 (1950)	4699
$C_5H_{12}NO_4$	N-n-Butyl-N'-nitroguanidine	2-15 μ	S	Spec, Freq	Lieber	AC	23 (1951)	1594
$C_5H_{12}NO_4$	N-Methylene-bis-(N-ethylidimide)dioxide	600-1600	L,S, Sol	Freq, Struct	George	CJC	37 (1959)	679
$C_5H_{12}O$	1,1-Dimethylpropanol-1	-	-	Freq, Assign	Michinori	BCSJ	32 (1959)	950
$C_5H_{12}O$	2,2-Dimethylpropanol-1	665-5000	L S -	C-O freq Ident Freq, Assign	Zeiss D'adamo Michinori	JACS JACS BCSJ	75 (1953) 77 (1955) 32 (1959)	897 4408 950
$C_5H_{12}O$	Ethyl isopropyl ether	-	-	Ident	Crocker	JCS	- (1955)	2052
$C_5H_{12}O$	L-1-2-Methoxybutane	-	L	Spec not shown	Wiberg	JACS	74 (1952)	3891
$C_5H_{12}O$	2-Methyl-1-butanol	1050-1700 667-5000 350-4000	- L L, Sol	Spec Freq Spec	Barnes Zeiss Stuart	IEC JACS JCP	15 (1943) 75 (1953) 24 (1956)	659 897 559
$C_5H_{12}O$	2-Methyl-2-butanol	900-1100	L	Spec, H bond Vib freq	Badger Bauer	JCP JCP	5 (1937) 5 (1937)	839 852
		-	-	Activation energy, Band freq	Fugassi	JPC	46 (1942)	630
		720-750 680-1800	L Sol	Band freq Spec, Band freq	Wiberly Philpotts	AC AC	22 (1950) 24 (1952)	841 638

$C_5H_{12}O$	3-Methyl-1-butanol	- 350-4000 1400-1600 3570-3700	Sol L, Sol Sol Sol	Band freq Spec, FC Mol association Freq, I	Levy Stuart Ens Flynn	JACS JCP CJC AJC	75 (1953) 24 (1956) 35 (1957) 12 (1959)	1253 559 170 575
$C_5H_{12}O$	3-Methyl-2-butanol	0.6-1.35 μ 0.8-2.5 μ 1-8 μ 100 μ 0.9-4 μ 7-14 μ	L L L Sol L, Sol -	μ m variable with conc Spec Spec, Freq, Assign Ext coefficient Spec, H bond Formation of hemiacetate in mixtures C-O freq -O-OH comparison OH bands Freq shift with temp Freq, I	Hulburt Sapenfield Plyler Errera Kinsey Ashdown	JPC PR PR TFS JCP JCS	21 (1917) 33 (1929) 35 (1930) 33 (1937) 5 (1937) - (1948)	150 37 605 120 399 1454
$C_5H_{12}O$	3-Methyl-2-butanol	665-5000 - 350-4000 - 3570-3700	L L L, Sol - Sol	C-O freq -O-OH comparison OH bands Freq shift with temp Freq, I	Zeiss Mosher Finch Stuart Flynn	JACS AC JCP JCP AJC	75 (1953) 27 (1955) 24 (1956) 24 (1956) 12 (1959)	897 517 908 559 575
$C_5H_{12}O$	Methyl isobutyl ether	6900-7300 - 665-5000 350-4000 -	Sol Sol L L, Sol -	Spec, Band, Group freq Band freq Bond freq OH bands Assign	Wulf Leoz Zeiss Stuart Michinori	JACS JACS JACS JCP BCSJ	57 (1935) 75 (1953) 75 (1953) 24 (1956) 32 (1959)	1464 1253 897 559 950
$C_5H_{12}O$	Methyl n-butyl ether	1-2.5 μ 2750-3000 1-2.5 μ 2594-2689 -	L Sol L Sol Sol	Spec Freq, Spec Spec H bond Band freq, H bond	Smith Pozefsky Smith Searles Searles	JACS AC JACS JACS JACS	48 (1926) 23 (1951) 48 (1926) 73 (1951) 75 (1953)	1512 1611 1512 3704 71
$C_5H_{12}O$	Methyl s-butyl ether	1-2.5 μ	L	Spec	Smith	JACS	48 (1926)	1512
$C_5H_{12}O$	Methyl t-butyl ether	1-2.5 μ 665-5000	L L, G	Spec Freq	Smith Ory	JACS AC	48 (1926) 32 (1960)	1512 509
$C_5H_{12}O$	1-Pentanol	- - 52-152 μ 9000-11000 .9-4 μ 9.3-13 μ -	- - L L L, Sol L -	Bond freq, Absorption coeff Pressure effect Dispers, Iso Spec, H bond Spec, H bond Freq Beer law, Anal	Bonino Collins Cartwright Badger Kinsey Shearin Anderson	TFS PR PRS JCP JCP JOSA AC	25 (1929) 36 (1930) 154 (1936) 5 (1937) 5 (1937) 28 (1938) 20 (1948)	876 305 138 839 399 61 998

$C_5H_{12}O$	2-Pentanol	720-750	L	Band freq	Wiberley	AC	22 (1950)	841
		-	L	Ident	Pines	JACS	74 (1952)	4063
		665-5000	L	Bond freq	Zeiss	JACS	75 (1953)	897
		-	L	Reference for -O-OH compar	Mosher	AC	27 (1955)	517
$C_5H_{12}O$	3-Pentanol	2.75 μ	Sol	Temp dependence. of I	Hughes	JCP	24 (1956)	489
		390-4000	L, S, Sol	Spec, Freq, FC	Stuart	JCP	24 (1956)	559
		3570-3700	Sol	Freq, I	Flynn	AJC	12 (1959)	575
		9000-11000	L	Spec, H bond	Badger	JCP	5 (1937)	839
$C_5H_{12}O$	3-Pentanol	-	L	Ident	Pines	JACS	74 (1952)	4063
		650-5000	L	C-O freq	Zeiss	JACS	75 (1953)	897
		-	L	-O-OH comparison	Mosher	AC	27 (1955)	517
		350-4000	L, Sol	OH bands	Stuart	JCP	24 (1956)	559
$C_5H_{12}O$	3-Pentanol	1-15 μ	L	H ₂ bridging, Spec	Smith	JRNB	46 (1951)	145
		-	L	Ident	Pines	JACS	74 (1952)	4063
		665-5000	L	C-O freq	Zeiss	JACS	75 (1953)	897
		-	L	Ref for O-OH compar	Mosher	AC	27 (1955)	517
$C_5H_{12}O$	n-Amyl hydroperoxide	350-4000	L, Sol	OH bands	Stuart	JCP	24 (1956)	559
		5.5-14.5 μ	L	Spec, Freq	Mosher	AC	27 (1955)	517
		680-1780	Sol	Spec, Freq	Philpotts	AC	24 (1952)	638
		1500-3000	Sol	Freq	Briggs	AC	29 (1957)	904
$C_5H_{12}O$	2, 2-Dimethoxypropane	-	G, L	Freq	Nukada	NKZ	80 (1959)	1112
		-	-	Drying agent for IR samples	Erley	AC	29 (1957)	1564
$C_5H_{12}O$	3-Ethoxypropanol-1	2.6-3.2 μ	Sol	H bond	Wall	JACS	61 (1939)	2679
		5.5-14.5 μ	L	Spec, Freq	Mosher	AC	27 (1955)	517
		-	-	Ident	Blomquist	JACS	77 (1955)	78
		2.6-3.2 μ	Sol	H bond	Wall	JACS	61 (1939)	2679
$C_5H_{12}O$	1, 5-Pentandiol	700-1500	L	Ident, Spec	Shay	AC	26 (1954)	652
		25000	-	Spec	Boullet	CPR	246 (1958)	2364
		-	-	-	-	-	-	-
		-	-	-	-	-	-	-

$C_5H_{12}O_2$	2-Pentyl hydroperoxide	5.5-14.5 μ L	Spec, Freq	Mosher	AC	27 (1955)	517
$C_5H_{12}O_2$	3-Pentyl hydroperoxide	5.5-14.5 μ L	Spec, Freq	Mosher	AC	27 (1955)	517
$C_5H_{12}O_2S_1$	Acetoxy-trimethylsilane	0-8 μ Sol	Freq, Spec	Okawara	JACS	82 (1960)	3287
$C_5H_{12}O_3$	t-Butoxymethyl hydroperoxide	- -	Freq	Milas	JACS	77 (1955)	2536
$C_5H_{12}O_3$	1,3-Dimethoxypropen-2-ol	3 μ Sol	Freq, H bond	Flett	SA	10 (1958)	21
$C_5H_{12}O_3$	1-Hydroxy-1-peroxy-isopropylethane	5-15 μ Sol	Spec	Minkoff	PRS	224 (1954)	176
$C_5H_{12}O_3$	Methyltrimethoxymethane	- Sol	Spec, Freq	Nukada	NKZ	81 (1960)	1028
$C_5H_{12}O_3$	Trimethylolmethane	700-1500 S	Ident, Spec	Shay	AC	26 (1954)	652
$C_5H_{12}O_4$	Pentaerythritol	1-2.5 μ - 1.7 μ S	Spec, Assign Pleochroism, Fermi resonance	Ellis Ellis	JCP PR	7 (1939) 55 (1939)	862 1098
		- -	Selection rule	Halford	JCP	14 (1946)	8
		800-1200 Sol	Christiansen effect	Price	JCP	16 (1948)	1157
		- -	H bond, Dist vs freq	Rundle	JCP	20 (1952)	1487
		700-1500 S	Spec, Ident	Shay	AC	26 (1954)	652
		- S	H bond	Pimental	JCP	24 (1956)	639
		2.5-3.5 μ -	Steroid molecule	Kabasakalian	AC	31 (1959)	375
$C_5H_{12}O_5$	D-Arabitol	2.5-3.5 μ -	No of OH groups in steroid molecule	Kabasakalian	AC	31 (1959)	375
$C_5H_{12}O_5$	Xylitol	8-15 μ S	Spec	Kuhn	AC	22 (1950)	276
$C_5H_{12}S$	Isoamyl mercaptan	0.6-2.8 μ L - - 2800-3000 Sol	S-H study Freq, IR Freq, Spec	Ellis Sheppard Pozefsky	JACS TFS AC	50 (1928) 46 (1950) 23 (1951)	2113 429 1611
$C_5H_{12}S$	n-Amyl mercaptan	2800-3000 Sol 2-25 μ L	Freq, Spec Spec	Pozefsky Haines	AC JPC	23 (1951) 58 (1954)	1611 270
$C_5H_{12}S$	3,3-Dimethyl-2-thiabutane	200-1500 -	Freq, Assign, Struct	Scott	JACS	80 (1958)	3554
$C_5H_{12}S$	tert-Amyl mercaptan	- -	Freq	Sheppard	TFS	46 (1950)	429

$C_5H_{12}S$	2-Methyl-3-thiapentane	200-1500	-	Freq, Assign, Struct	Scott	JACS	80 (1958)	3554
$C_5H_{12}S$	2-Thiahexane	2800-3000	Sol	Spec, Freq Group freq	Pozefsky Brandt	AC JCS	23 (1951) - (1952)	1611 2549
$C_5H_{12}S_2$	3,3-Pentanedithiol	2.5-15 μ	L	Spec, not shown, Band freq	Cairns	JACS	74 (1952)	3982
$C_5H_{12}Si$	Cyclopentamethylene- silane	2-35 μ	L	Assign, Spec	Oshesky	JACS	79 (1957)	2057
$C_5H_{12}Si$	Silacyclobutane	-	-	Si-H freq	Sommer	JACS	76 (1954)	5002
$C_5H_{12}Si$	Trimethylvinylsilane	3-15 μ	L	Spec	Kozima	BCSJ	27 (1954)	287
$C_5H_{13}ClNOPS$	Isopropyl dimethyl- phosphoramidochlorido- thionate	740-1500	Sol	Assign	McIvor	CJC	37 (1959)	869
$C_5H_{13}ClNOPS$	n-Propyl dimethyl- phosphoramidochlorido- thionate	740-1500	Sol	Assign	McIvor	CJC	37 (1959)	869
$C_5H_{13}FNO_2P$	Dimethylaminoethoxy- methylphosphonyl fluoride	2-15 μ	S	Spec, Struct	Larsson	ACS	12 (1958)	587
$C_5H_{13}N$	n-Amylamine	-	-	Effect as solvent Freq, Assign, NCA	Gordy Stewart	JCP JCP	7 (1939) 30 (1959)	93 1259
$C_5H_{13}N$	Isoamylamine	1-12 μ .6-2.4 μ 2-15 μ	L L L	Spec N-H study Freq assign	Bell Ellis Stewart	JACS JACS JCP	49 (1927) 50 (1928) 30 (1959)	1837 685 1259
$C_5H_{13}NO$	3-Methyl-2-amino- butanol-3	-	Sol	Group freq, H bond	Bergmann	JACS	75 (1953)	68
$C_5H_{13}NO_2$	N-Methyldiethanolamine	2900-3100	Sol	Freq	Hill	JCS	- (1958)	760
$C_5H_{13}N_3O_2$	Diethylo guanidine	1250-1750	-	Spec	Barnes	IEC	15 (1943)	659
$C_5H_{13}N_3S$	4-n-Butylthiosemi- carbazide	700-1700	S	Spec, Struct, Config, Assign, Taut	Lieber	CJC	36 (1958)	801

$C_5H_{13}O_2PS$	O, S-Diethyl hydrogenmethylthiolphosphate	-	-	Spec, Freq	Popov	ZOK	29 (1959)	1998
$C_5H_{13}O_2PS$	Diethyl methylphosphonothionate	740-1500	L	Assign	McIvor	CJC	37 (1959)	869
$C_5H_{13}O_3P$	Diethyl methylphosphonate	2-25 μ	L	Spec, Struct P=O study	Meyrick Bell	JCS JACS	- (1950) 76 (1954)	225 5185
$C_5H_{13}PS_3$	Diethyl methylthiophosphonate	2-25 μ	-	Spec, Struct	Menfree	JOC	22 (1957)	792
$C_5H_{14}N$	N-n-Propylethylenediamine	3-6.5 μ	Sol	Spec	Woodburn	JOC	17 (1952)	1235
$C_5H_{14}NO_2PS$	Diethyl methylphosphoramidothionate	-	-	Spec, Freq	Popov	ZOK	29 (1959)	1998
$C_5H_{14}OSi$	Trimethylsilylmethyl methyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_5H_{14}^OSi$	Methyldiethoxy silane	2050-2250	Sol	Freq, Struct	Smith	SA	15 (1954)	412
$C_5H_{14}^OSi$	Ethyltrimethoxysilane	600-300	L	Spec, Assign	Richards	JCS	- (1949)	124
$C_5H_{14}Si$	Methyldiethylsilane	2050-2250	Sol	Freq, Struct	Smith	SA	15 (1959)	412
$C_5H_{15}FO_2S$	Monofluoropentamethyldisilane	-	-	Spec, Assign	Hayashi	NKZ	78 (1957)	1472
$C_5H_{15}NOSi$	Dimethylethoxysilylmethylamine	-	-	No absorption	Noll	JACS	73 (1951)	3871
$C_5H_{15}NSi$	Dimethyl trimethylsilylamine	-	-	Spec, Assign	Goubean	ZAJA	303 (1960)	217
$C_5H_{16}OSi_2$	Pentamethyldisiloxane	600-3500	L	Spec, Freq	Sakiyama	BCSJ	31 (1958)	67
$C_5H_{16}^OSi_2$	Di-(Dimethylhydroxysilyl)methane	2.5-4 μ	S, Sol	Struct, H bond	Kakudo	JCP	21 (1953)	1894
$C_5H_{18}^OSi_3$	Pentamethyltrisiloxane	600-3500	Sol	Spec, Freq	Sakiyama	BCSJ	31 (1958)	67
$C_5H_{18}^OSi_4$	Pentamethylcyclotetrasiloxane	600-3500	Sol	Spec, Freq	Sakiyama	BCSJ	31 (1958)	67

$C_5H_{20}O_5Si_5$	Pentamethylcyclopentasiloxane	600-3500 2050-2250	Sol Sol	Spec, Freq	Skiiyama Smith	BCSJ SA	31 (1958) 15 (1959)	67 412
$C_5D_4O_2$	Pyrrone-d ₄	-	-	Prod of deuterium exchange study	Lord	AC	26 (1954)	429
C_5D_5N	Pyridine-d ₅	250-3500 -	L -	IR, Spec, Assign Freq	Corrsin Anderson	JCP JCP	21 (1953) 23 (1955)	1170 1047
$C_5D_9ClO_2$	DL- α -Chlorovaleric acid-d ₉	-	Sol, L	Spec, Assign	Takenishi	NKZ	81 (1960)	1382
C_5D_{10}	Cyclopentane-d ₁₀	400-3000 -	L, G -	Spec, Assign, Thermo NCA	Miller Labedev	JCP OS	18 (1950) 6 (1959)	1519 154
$C_5D_{10}O$	3-Pentanone-d ₁₀	1300-3050	Sol	Assign, Spec	Nobin	JACS	75 (1953)	5626
C_5D_{12}	Neopentane-d ₁₂	2-25/ μ 400-3000	G -	IR, Spec, Assign NCA, Assign	Shull Shimizu	JCP BCSJ	21 (1953) 30 (1957)	2024 487
C_5BrF_{11}	1-Bromoundecafluoropentane	2-16/ μ	G	Spec	Hauptschein	JACS	74 (1952)	849
C_5ClF_{11}	1-Chloroundecafluoropentane	2-16/ μ	G	Spec	Hauptschein	JACS	74 (1952)	849
$C_5Cl_2F_9I$	1,3-Dichloro-1-iodononafluoropentane	-	-	Ident	Haszeldine	JCS	- (1953)	1592
$C_5Cl_2F_9I$	2,4-Dichloro-1-iodononafluoropentane	-	-	Band freq	Haszeldine	JCS	- (1953)	1592
$C_5Cl_3F_9$	1,1,3-Tri chlorononafluoropentane	-	-	Band freq	Haszeldine	JCS	- (1953)	1592
C_5Cl_6	Hexachlorocyclopentadiene	6.25-12.55/ μ	Sol -	Freq C=C freq	McBee McBee	JACS JACS	77 (1955) 77 (1955)	4375 4379
C_5Cl_6O	Hexachloro-2-cyclopentenone	-	Sol	C=O, C=C freq	McBee	JACS	77 (1955)	559
C_5Cl_6O	Hexachloro-3-cyclopentenone	-	Sol	C=O, C=C freq	McBee	JACS	77 (1955)	559

C_5Cl_8	Octachlorocyclopentene	-	Sol	C=C freq	MoBee	JACS	77 (1955)	559
$C_5F_6O_3$	Perfluoroglutaric anhydride	2-16 μ	L	Spec, Freq	Hauptschein	JACS	74 (1952)	4005
C_5F_8	Perfluorocyclopentene	- 1500-1800	G G	Freq Freq	Henne Burdon	JACS SA	76 (1954) 12 (1958)	610 139
C_5F_8	Perfluoro-2-pentyne	-	G	Freq	Henne	JACS	76 (1954)	610
C_5F_{10}	Decafluoropentene-1	-	-	CF = CF ₂ study C = CF ₂ freq	Hals Lazarte	JACS JACS	73 (1951) 75 (1953)	4054 4525
$C_5F_{11}I$	1-Iodoundecafluoropentane	2-16 μ	L, G	Spec	Hauptschein	JACS	74 (1952)	849
C_5F_{12}	Dodecafluoropentane	9-13 μ	G, L, S	Iso	Szasz	JCP	18 (1950)	1417
<hr/>								
C_6 COMPOUNDS								
C_6HD_5	Benzene-d ₅	-	-	C-H vib, Product rule Struct Quant mech Sum rule	Redlich Bailey Miller Bernstein	JCP JCS JCP JCP	7 (1939) - (1946) 14 (1946) 21 (1953)	856 222 282 2188
$C_6HBrCl_3F_9$	1-Bromo-1,1,2,3,3,4,5,5,6-nonafluoro-2,4,6-trichlorohexane	3.3-14.54 μ	L	I	Haszeldine	JCS	- (1954)	3747
$C_6HCl_3O_2$	2,3,5-Trichloro-1,4-benzoquinone	5-15 μ	Sol	Freq	Yates	JACS	78 (1956)	650
$C_6HCl_3O_3$	2-Hydroxy-3,5,6-trichloro-1,4-benzoquinone	2.7-3.0 μ	Sol	H bond	Baker	JACS	80 (1958)	5358
C_6HCl_5	Pentachlorobenzene	3.25 μ	-	Halogen derivatives of C ₆ H ₆ Spec Spec Analysis	Brackett Plyler Young Smiley	PR JOSA AC AC	37 (1931) 40 (1950) 23 (1951) 26 (1954)	108 801 709 434

C_6HCl_5O	Pentachlorophenol	13.9-15.5/ μ 2-38/ μ L	Sol L	Quant analysis Spec, Freq	Kiley Plyler	AC JRN B	29 (1957) 58 (1957)	1896 255
		10000 7200-8800 13.0/ μ	Sol Sol Sol	Spec, H bond Spec, H bond Quant analysis	Wulf Wulf Sheddel	JCP JCP AC	8 (1940) 8 (1940) 29 (1957)	745 753 1553
$C_6HCl_7O_2$	2,3,4,4,5,6,6-Hepta- chlorohexadien-2,5-oic acid	2-25/ μ L	L	Spec, Freq	Pennino	JOC	20 (1955)	530
C_6HF_5	Pentafluorobenzene	2900-3100 300-4000	G G, L	Freq Freq	Steele Steel	TE SA	3 (1958) 16 (1960)	181 368
C_6HF_5O	Pentafluorophenol	900-1550	L, G	Freq, H bond	Birchall	JCS	- (1959)	13
C_6HF_7	1H-Heptafluorocyclo- hexa-1,3-diene	1500-1800 2900-3100	G G	Freq Freq	Burdon Steele	SA TE	12 (1958) 3 (1958)	139 181
C_6HF_7	1H-Heptafluorocyclo- hexane-1,4-diene	1500-1800 2900-3100	G G	Freq Freq	Burdon Steele	SA TE	12 (1958) 3 (1958)	139 181
C_6HF_7	2H-Heptafluorocyclo- hexane-1,3-diene	1500-1800 2900-3100	G G	Freq Freq	Burdon Steele	SA TE	12 (1958) 3 (1958)	139 181
C_6HF_9	1H-Nonafluorocyclo- hex-1-ene	- 1500-1800 2900-3100	Sol G G	C=C freq Freq Freq	Roylance Burdon Steele	JCS SA TE	- (1954) 12 (1958) 3 (1958)	4426 139 181
C_6HF_9	3H-Nonafluorocyclo- hexene	1500-1800 2900-3100	G G	Freq Freq	Burdon Steele	SA TE	12 (1958) 3 (1958)	139 181
C_6HF_9	4H-Nonafluorocyclo- hexene	1500-1800 2900-3100	G G	Freq Freq	Burdon Steele	SA TE	12 (1958) 3 (1958)	139 181
$C_6HF_{10}I$	1,1,1,4,4,5,5,6,6,6- Decafluoro-2-iodohex- 2-ene	-	-	Freq	Leedham	JCS	- (1954)	1634
C_6HF_{11}	Undecafluorocyclohexane	2900-3100	G	Freq	Steele	TE	3 (1958)	181
$C_6HF_{11}O_2$	Perfluorocaproic acid	0.9-3/ μ	Sol	Spec	Holman	AC	28 (1956)	1533

C_6H_2	Triacetylene	-	FC, Bond lengths	Longuet	TFS	48 (1952)	1071
$C_6H_2D_2F_2$	Fluorobenzene-2,4,6-d ₃	-	17500-28000 KMic/sec	Bak	JCP	26 (1957)	134
$C_6H_2D_4$	m-Benzene-d ₄	-	-	Product rule, C-H vib Quant mech, Vib analysis	JCP	7 (1939) 14 (1946)	856 282
$C_6H_2D_4$	o-Benzene-d ₄	-	-	C-H vib, Product rule Quant mech, Vib analysis	JCP	7 (1939) 14 (1946)	856 282
$C_6H_2D_4$	p-Benzene-d ₄	-	-	Product rule, C-H vib Thermo, Freq Struct	JCP	7 (1939) 65 (1943)	856 803
		-	-	Struct	JCS	- (1946)	222
		370-3200	G	Quant mech	JCS	- (1946)	288
		-	-	Inactive fundamentals	JCS	- (1946)	316
		-	-	Quant mech	JCP	14 (1946)	282
		2-25 μ	G	Spec, Assign	JCP	14 (1946)	292
		-	-	Vib analysis	RMP	19 (1947)	87
		500-650	G	Freq, I	JCP	20 (1952)	761
		-	-	Sum rule	JCP	21 (1953)	2188
		-	-	Freq	JCP	23 (1955)	1047
$C_6H_2D_8O_4$	Adipic acid-d ₈	400-4000	S	Assign, Struct	SA	15 (1959)	1063
$C_6H_2Br_2N_2O$	2-Diazo-3,5-dibromo- 1-oxobenzene	-	S	Freq	JCS	- (1954)	4686
$C_6H_2Br_2N_2O_4$	2,3-Dinitro-1,4-di bromo- benzene	2-16 μ	S	Spec, Freq	JACS	75 (1953)	1388
$C_6H_2Br_2N_2O_4$	2,5-Dinitro-1,4-di bromo- benzene	2-16 μ	S	Spec, Freq	JACS	75 (1953)	1388
$C_6H_2Br_2N_2O_4$	2,6-Dinitro-1,4-di bromo- benzene	2-16 μ	S	Spec, Freq	JACS	75 (1953)	1388
$C_6H_2Br_2NO$	2,4,6-Tribromonitroso- benzene	-	-	Struct, Freq	ZE	61 (1957)	976
$C_6H_2Br_4$	1,2,4,5-Tetrabromo- benzene	5-6 μ	-	Spec	AC	23 (1951)	709
$C_6H_2Br_4O_2$	Tetrabromocatechol	6700-7100 7000	Sol -	OH band freq Absorption band	JACS JCP	58 (1936) 6 (1938)	2287 702

$C_6H_2Cl_2N_2O_4$	2,3-Dinitro-1,4-dichloro- benzene	2-16 μ	Sol	Spec, Freq	Hammond	JACS 75 (1953)	1388
$C_6H_2Cl_2N_2O_4$	2,5-Dinitro-1,4-dichloro- benzene	2-16 μ	Sol	Spec, Freq	Hammond	JACS 75 (1953)	1388
$C_6H_2Cl_2N_2O_4$	2,6-Dinitro-1,4-dichloro- benzene	2-16 μ	Sol	Spec, Freq	Hammond	JACS 75 (1953)	1388
$C_6H_2Cl_2O_2$	2,3-Dichloro-p-benzo- quinone	5-15 μ	S, Sol	Effect of substitution	Yates	JACS 78 (1956)	650
$C_6H_2Cl_2O_2$	2,5-Dichloro-p-benzo- quinone	5-15 μ	S, Sol	Effect of substitution	Yates	JACS 78 (1956)	650
$C_6H_2Cl_2O_2$	2,6-Dichloro-p-benzo- quinone	5-15 μ	S, Sol	Effect of substitution	Yates	JACS 78 (1956)	650
$C_6H_2Cl_2O_4$	3,6-Dichloro-2,5-dihydroxy- p-benzoquinone	2.7-3.0 μ	Sol	H bond, Freq	Baker	JACS 80 (1958)	5358
$C_6H_2Cl_4$	1,2,3,4-Tetrachlorobenzene	2-38 μ 5-6 μ - - 8.50 μ 7.7-10.2 μ 2-38 μ	- - - - Sol Sol Sol, S	Spec Spec Ident Analysis Quant analysis Quant analysis Spec, Freq	Plyler Young Kolka Smiley Hudson Kiley Plyler	JOSA 40 (1950) AC 23 (1951) JACS 76 (1954) AC 26 (1954) AC 29 (1957) AC 29 (1957) AC 29 (1957) JRN 58 (1957)	801 709 3940 434 1717 1896 255
$C_6H_2Cl_4$	1,2,3,5-Tetrachlorobenzene	2-38 μ 5-6 μ 12.47 μ 11.0-13.9 μ 2-38 μ	- Sol Sol Sol Sol, S	Spec Spec Quant analysis Quant analysis Spec, Freq	Plyler Young Hudson Kiley Plyler	JOSA 40 (1950) AC 23 (1951) AC 29 (1957) AC 29 (1957) JRN 58 (1957)	801 709 1717 1896 255
$C_6H_2Cl_4$	1,2,4,5-Tetrachlorobenzene	2-38 μ 5-6 μ - - 7.58 μ 7.7-10.2 μ 2-38 μ	- Sol - - Sol Sol Sol	Spec Spec Analysis Vib analysis Quant analysis Quant analysis Spec, Freq	Plyler Young Smiley Matubara Hudson Kiley Plyler	JOSA 40 (1950) AC 23 (1951) AC 26 (1954) JCP 24 (1956) AC 29 (1957) AC 29 (1957) JRN 58 (1957)	801 709 434 595 1717 1896 255

$C_6H_2F_{10}$	1H: 3H-Decafluoro-cyclohexane	2900-3100	G	Freq	Steele	TE	3 (1958)	181
$C_6H_2F_{10}$	1H: 4H-Decafluoro-cyclohexane	2900-3100	G	Freq	Steele	TE	3 (1958)	181
$C_6H_2F_{10}O_2$	2,2,2-Trifluoroethyl heptafluorobutyrate	2-16 μ -	L L	Spec, Freq C=O freq	Rappaport Filler	JACS JACS	75 (1953) 76 (1954)	2695 1376
$C_6H_2F_{12}O$	1,1,1,2,2,3,3,5,5,6,6,6-Dodecafluorohexanol-4	-	Sol	Freq, H bond	Haszeldine	JCS	- (1953)	1757
$C_6H_2N_2O_3$	Pyrazine-2,3-dicarboxylic anhydride	1500-2000	S	Spec, Freq	Solomons	JACS	75 (1953)	679
$C_6H_2N_4O_6$	4,6-Dinitrobenz-furoxan	4.8-7.5 μ	-	Spec, Freq	Gaughran	JACS	76 (1954)	2233
$C_6H_2N_6O_4$	6-Azido-5-nitrobenz-furoxan	-	-	Freq	Gaughran	JACS	76 (1954)	2233
$C_6H_2N_6O_{10}$	Pentanitroaniline	3-15 μ	S	Spec	Lothrop	JACS	73 (1951)	3581
$C_6H_3D_3$	1,2,3-Benzene- d_3	- -	- -	Product rule, vib anal Quant mech, Vib anal	Redlich Miller	JCP JCP	7 (1939) 14 (1946)	856 282
$C_6H_3D_3$	1,3,5-Benzene- d_3	500-1600 - - - 380-3200 - - 740-890 500-650 - -	G - - - G - - G - - -	IR, Spec Product rule, Vib anal Thermo, Freq Struct Struct Inactive fundamentals Quant mech, Vib anal Spec Vib analysis Freq, I Sum rule Assign Vibrations, I	Ingold Redlich Pitzer Bailey Bailey Herzfeld Miller Weldon Halverson Tiers Bernstein Danti Kakiyuchi	PRS JCP JACS JCS JCS JCS JCP JCS RMP JCP JCP SA NKZ	169 (1938) 7 (1939) 65 (1943) - (1946) - (1946) - (1946) 14 (1946) - (1946) 19 (1947) 20 (1952) 21 (1953) 13 (1958) 80 (1959)	149 856 803 222 255 316 282 244 87 761 2488 180 21
$C_6H_3BrCl_2$	2-Bromo-4,6-dichloro-phenol	2.75-2.95 μ 3500-3800	Sol Sol	H bond Freq	Baker Puttnam	JACS JCS	81 (1959) - (1960)	5904 5100

$C_6H_3BrN_2O_4$	2,6-Dinitrobromobenzene	2-16 μ	S	Proved absent from mixtures	Hammond	JACS	75 (1953)	1388
$C_6H_3Br_2FO$	2,6-Dibromo-4-fluorophenol	3500-3800	Sol	Freq	Puttnam	JCS	- (1960)	5100
$C_6H_3Br_2FO$	4,6-Dibromo-2-fluorophenol	2.75-2.95 μ 3500-3800	Sol Sol	H bond Freq	Baker Puttnam	JACS JCS	81 (1959) - (1960)	5904 5100
$C_6H_3Br_2IO$	2,4-Dibromo-6-iodophenol	2.75-2.95 μ	Sol	H bond	Baker	JACS	81 (1959)	5904
$C_6H_3Br_2IO$	4,6-Dibromo-2-iodophenol	3500-3800	Sol	Freq	Puttnam	JCS	- (1960)	5100
$C_6H_3Br_2NO_2$	2,5-Dibromonitrobenzene	2-16 μ	Sol	Spec, Freq	Hammond	JACS	75 (1953)	1388
$C_6H_3Br_3$	1,2,4-Tribromobenzene	9-14 μ 5-6 μ	Sol -	Freq, I Spec	Cole Young	TFS AC	46 (1950) 23 (1951)	103 709
$C_6H_3Br_3$	1,3,5-Tribromobenzene	9-14 μ 700-1000	Sol S, Sol	Freq, I Out of plane CH deformation	Cole Bellamy	TFS JCS	46 (1950) - (1955)	103 2818
$C_6H_3Br_3O$	2,4,6-Tribromophenol	6700-7000 10000 7200-8800 2.84 μ 3100-3550 3500-3800	Sol Sol Sol Sol Sol Sol	OH band Spec, H bond Spec, H bond Analysis H bond Freq, Hammett consts	Wulf Wulf Wulf Simard Lund Puttnam	JACS JCP JCP AC ACS JCS	58 (1936) 8 (1940) 8 (1940) 23 (1951) 12 (1958) - (1960)	2287 745 753 1384 298 5100
$C_6H_3ClN_2O$	5-Chlorobenzofurazan	6-7 μ	-	Spec, Freq	Gaughran	JACS	76 (1954)	2233
$C_6H_3ClN_2O_2$	5-Chlorobenzofuroxan	6-7 μ	-	Spec, Freq	Gaughran	JACS	76 (1954)	2233
$C_6H_3ClN_4$	2-Chloropteridine	716-2000	S	I	Mason	JCS	- (1955)	2336
$C_6H_3ClN_4$	4-Chloropteridine	678-3500	S	Spec, Assign, I	Mason	JCS	- (1955)	2336
$C_6H_3ClO_2$	2-Chloro-p-benzoquinone	5-15 μ	S, Sol	Effect of substitution	Yates	JACS	78 (1956)	650
$C_6H_3Cl_2FO$	2-Fluoro-4,6-dichlorophenol	2.75-2.95 μ 3500-3800	Sol Sol	H bond Freq, Hammett consts	Baker Puttnam	JACS JCS	81 (1959) - (1960)	5904 5100

$C_6H_3Cl_2IO$	2, 4-Dichloro-6-iodophenol	2.75-2.95 μ	Sol	H bond	Baker	JACS	81 (1959)	5904
$C_6H_3Cl_2IO$	4, 6-Dichloro-2-iodophenol	3500-3800	Sol	Freq, Hammett const	Puttnam	JCS	- (1960)	5100
$C_6H_3Cl_2NO$	3, 5-Dichloronitroso-benzene	-	-	Freq	Luttke	ZE	61 (1957)	976
$C_6H_3Cl_2NO_2$	2, 5-Dichloronitro-benzene	2-16 μ	Sol	Spec, Freq	Hammond	JACS	75 (1953)	1388
$C_6H_3Cl_3$	1, 2, 3-Trichlorobenzene	-	-	Vibrating mechanical models	Murray	JCP	3 (1935)	180
		2-38 μ	-	Spec	Plyler	JOSA	40 (1950)	801
		5-6 μ	-	Spec	Young	AC	23 (1951)	709
		-	Sol	Ident	Kolka	JACS	76 (1954)	3940
		-	-	Analysis	Smiley	AC	26 (1954)	434
		8.64 μ	Sol	Quant analysis	Hudson	AC	29 (1957)	1717
		7.7-10.2 μ	Sol	Quant analysis	Kiley	AC	29 (1957)	1896
		2-38 μ	Sol	Spec, Assign	Plyler	JRNB	58 (1957)	255
$C_6H_3Cl_3$	1, 2, 4-Trichlorobenzene	3.25 μ	-	Halogen derivatives of C_6H_6	Brackett	PR	37 (1931)	108
		-	-	Vibrating mechanical model	Murray	JCP	3 (1935)	180
		12-14 μ	Sol	Freq, I	Bell	PRS	192 (1948)	498
		22-39 μ	L	Freq	Plyler	JCP	17 (1949)	218
		9-14 μ	Sol	Freq, I	Cole	TFS	46 (1950)	103
		2-38 μ	-	Spec	Plyler	JOSA	40 (1950)	801
		14-24 μ	L	Spec	Plyler	JRNB	45 (1950)	462
		-	-	Ident, Purity of sample	Calingaert	JACS	73 (1951)	2359
		5-6 μ	-	Spec	Young	AC	23 (1951)	709
		1.6-2.5 μ	L	Spec, Freq	Acquista	JRNB	49 (1952)	13
		-	Sol	Ident	Kolka	JACS	76 (1954)	3940
		-	Sol	Analysis	Kovacic	JACS	76 (1954)	5491
		-	-	Analysis	Smiley	AC	26 (1954)	434
		9.14 μ	Sol	Quant analysis	Hudson	AC	29 (1957)	1717
		7.7-13.9 μ	Sol	Quant analysis	Kiley	AC	29 (1957)	1896
		2-38 μ	Sol	Spec, Freq	Plyler	JRNB	58 (1957)	255
		600-1800	L	Spec	Deb	IJP	34 (1960)	554
$C_6H_3Cl_3$	1, 3, 5-Trichlorobenzene	3.25 μ	-	Halogen derivatives of	Brackett	PR	37 (1931)	108

Chemical	Compound	Wavenumber	Assignment	Author	Year	Page
C ₆ H ₃ Cl ₃ O	2,3,6-Trichlorophenol	9-14/μ	Sol	Murray	1935	180
		2-38/μ	-	Cole	1950	103
		5-6/μ	-	Plyler	1950	801
		700-1000	S, Sol	Young	1951	709
C ₆ H ₃ Cl ₃ O	2,4,5-Trichlorophenol	11.0-13.9/μ	Sol	Baker	1953	1457
		2-38/μ	Sol	Bellamy	1955	2818
		400-5000	G	Kiley	1957	1896
		5-6/μ	-	Plyler	1957	255
C ₆ H ₃ Cl ₃ O	2,4,6-Trichlorophenol	2.7-3.0/μ	Sol	Saeki	1959	2307
		6700-7000	Sol	Saeki	1960	1024
		10000	Sol	Young	1951	709
		7200-8800	Sol	Young	1951	709
C ₆ H ₃ Cl ₃ O	2,4,6-Trichlorophenol	5-6/μ	Sol	Baker	1958	8358
		13.7/μ	Sol	Wulf	1935	1464
		3100-3550	Sol	Pauling	1936	94
		3500-3800	Sol	Wulf	1940	745
C ₆ H ₃ Cl ₃ O ₃	α-Parachloral	3600-650	S, Sol	Young	1951	709
		3600-650	S, Sol	Scheddel	1957	1553
		3600-650	S, Sol	Lund	1958	298
		3600-650	S, Sol	Putnam	1960	5100
C ₆ H ₃ Cl ₃ O ₃	β-Parachloral	3600-650	S, Sol	Novak	1958	1116
		3600-650	S, Sol	Novak	1958	1116
		2.75-2.95/μ	Sol	Baker	1959	5904
		3500-3800	Sol	Putnam	1960	5100
C ₆ H ₃ F ₃	1,2,4-Trifluorobenzene	2-38/μ	L	Ferguson	1953	1727
		-	-	Ferguson	1952	10
		-	-	Ferguson	1953	895
		-	-	Ferguson	1953	886
C ₆ H ₃ F ₃	1,3,5-Trifluorobenzene	700-1000	S, Sol	Bellamy	1955	2818
		-	-	Chamberlain	1955	1041
		-	-	JACS	1955	1041
		-	-	JACS	1955	1041

$C_6H_3F_7$	1H: 2H, 4H-Heptafluorocyclohexene	1500-1800	G	Freq	Burdon	SA	12 (1958)	139
$C_6H_3F_7$	1H, 4H, 5H-Heptafluorocyclohexene	1500-1800	G	Freq	Burdon	SA	12 (1958)	139
$C_6H_3F_7O$	Vinyl α, β, γ -heptafluorobutyrate	-	Sol	Freq, Spec	Potts	SA	15 (1959)	679
$C_6H_3F_9$	1H: 2H/4H-Nonfluorocyclohexane a/e/a	2900-3100	G	Freq	Steele	TE	3 (1958)	181
$C_6H_3F_9$	1H: 2H: 4H/-Nonfluorocyclohexane e: a/a/	2900-3100	G	Freq	Steele	TE	3 (1958)	181
$C_6H_3F_9$	1H/2H: 4H-Nonfluorocyclohexane a/a/a	2900-3100	G	Freq	Steele	TE	3 (1958)	181
$C_6H_3F_9$	1H: 4H/2H-Nonfluorocyclohexane a/e/a	2900-3100	G	Freq	Steele	TE	3 (1958)	181
$C_6H_3I_3O$	2, 4, 6-Triiodophenol	6600-7000 10000	Sol	OH-band Spec, H bond	Wulf Wulf Wulf	JACS JCP JCP	58 (1936) 8 (1940) 8 (1940)	2287 745 753
$C_6H_3NO_5S_2$	2-Aza-5-carboxy-1, 6-dithia [3, 3, 0] bicycloacta-2, 4, 7-triene	-	S	Freq	Jones	JACS	77 (1955)	4069
$C_6H_3N_3O_3$	2-Di azo-4-nitro-1-oxobenzene	-	S	Freq	LeFevre	JCS	- (1954)	4686
$C_6H_3N_3O_3$	4-Di azo-2-nitro-1-oxobenzene	-	S	Freq	LeFevre	JCS	- (1954)	4686
$C_6H_3N_3O_3$	4-Nitrobenzofurazan	6-7 μ	-	Spec, Freq	Gaughran	JACS	76 (1954)	2233
$C_6H_3N_3O_4$	4-Nitrobenzofuroxan	6-7 μ	-	Spec, Freq	Gaughran	JACS	76 (1954)	2233
$C_6H_3N_3O_6$	1, 2, 4-Trinitrobenzene	6-8 μ	Sol	Freq, I	Conduit	JCS	- (1959)	3273
$C_6H_3N_3O_6$	1, 3, 5-Trinitrobenzene	700-1400	S	Spec, Struct	Burton	JCS	- (1950)	1316

	-	S, Sol Sol	Ident CH deformation Freq, I	JACS JCS - JCS -	Blatt Bellamy Conduct	74 (1952) - (1955) - (1959)	6273 2818 3273
C ₆ H ₃ N ₃ O ₇	700-1000 6-8/ μ	S, Sol Sol	H bond Freq, I	ACS JCS -	Boll Conduitt	12 (1958) - (1959)	1777 3273
C ₆ H ₃ N ₃ O ₈	3000-3500 6-8/ μ	S, Sol Sol	Spec, Freq	JACS	Zingaro	76 (1954)	816
C ₆ H ₃ N ₃ O ₉	600-1700	S	Spec, Group freq	JOC	Dubiel	19 (1954)	1359
C ₆ H ₃ N ₃ O ₄	Trinitrophenol	-	Freq	JOC	Lieber	24 (1959)	1014
C ₆ H ₃ N ₃ O ₈	3, 5-Dinitrobenzamide	S	Spec	JACS	Lothrop	73 (1951)	3581
C ₆ H ₃ N ₃ O ₃	2, 3, 4, 6-Tetrinitro-aniline	S	Assign	Punkelstein		6 (1959)	33
C ₆ H ₄ DF	Cyamelic acid	-	Spec, Mol consts MHz	Bak		26 (1957)	134
C ₆ H ₄ DF	Fluorobenzene-3-d ₁	Sol	Freq, I Spec, Mol consts MHz	Tiers Bak		20 (1952) 26 (1957)	761 134
C ₆ H ₄ DNO ₂	1, 4-Benzoquinone-mono-xime-d ₁	S	Spec, Struct, Assign	Hadzi		- (1956)	2725
C ₆ H ₄ DNO ₂	m-Nitrobenzene-d ₁	L	Freq, I	Dauben		77 (1955)	2886
C ₆ H ₄ DNO ₃	o-Nitrophenol-d ₁	Sol	D bond	Ruswell		5 (1937)	501
C ₆ H ₄ DNO ₃	p-Nitrophenol-d ₁	Sol	H bond	Bell		31 (1959)	1158
C ₆ H ₄ DNO ₄	p-Nitrobenzoic acid-o-d ₁	L, Sol	CH out of plane	Yoshida		8 (1960)	389
C ₆ H ₄ D ₂	m-Benzene-d ₂	-	Vibrations, Product rule Vib analysis, Quant mech	Redlich Miller		7 (1939) 14 (1946)	856 282
C ₆ H ₄ D ₂	o-Benzene-d ₂	-	Vibrations, Product rule Vib anal, Quant mech	Redlich Miller		7 (1939) 14 (1946)	856 282
C ₆ H ₄ D ₂	p-Benzene-d ₂	-	IR, Freq	Ingold		169 (1938)	149

					Vibrations, Product rule	Redlich	JCP	7 (1939)	856
					Thermo, Assign	Pitzer	JACS	65 (1943)	803
					Product rule	Halverson	JCP	13 (1945)	533
					Struct	Bailey	JCS	- (1946)	222
					Spec, Assign	Bailey	JCS	- (1946)	288
					Inactive fundamentals	Herzfeld	JCS	- (1946)	316
					Vib anal, Quant mech	Miller	JCP	14 (1946)	282
					Spec, Assign	Miller	JCP	14 (1946)	292
					Vib anal	Halverson	HMP	19 (1947)	87
					Assign	Mair	JCP	17 (1949)	1236
					Freq, I	Tiers	JCP	20 (1952)	761
					Sum rule	Bernstein	JCP	21 (1953)	2188
					Freq	Anderson	JCP	23 (1955)	1047
					I	Dunstan	JCS	- (1960)	5221
					Spec	Ferguson	AC	23 (1951)	1510
					Analysis	Ferguson	JACS	76 (1954)	1250
					Spec, Assign	Krishnamachari	CS	26 (1957)	144
					C ₆ H ₆ derivatives	Depalgne	JPR	7 (1946)	33
					Spec, Anal	Ferguson	AC	23 (1951)	1510
					Ident	Haszeldine	JCS	- (1952)	993
					Anal	Ferguson	JACS	76 (1954)	1250
					Spec, Assign	Krishnamachari	CS	26 (1957)	144
					C ₆ H ₆ derivatives	Depalgne	JPR	7 (1946)	33
					Freq, I	Cole	TFS	46 (1950)	103
					Spec, Anal	Ferguson	AC	23 (1951)	1510
					Analysis	Ferguson	JACS	76 (1954)	1250
					Analysis	Kavacie	JACS	76 (1954)	5491
					Freq	Kross	JACS	78 (1956)	1332
					Band I	Randle	TFS	52 (1956)	9
					Assign	Stojiljkovic	SA	12 (1958)	57
					Anal	Ferguson	JACS	76 (1954)	1250
					Spec, Assign	Krishnamachari	CS	26 (1957)	144
					Analysis	Ferguson	JACS	76 (1954)	1250
					Spec	Krishnamachari	CS	25 (1956)	355
					Spec, Assign	Krishnamachari	CS	26 (1957)	144
					Anal	Ferguson	JACS	76 (1954)	1250
					IR, Assign	Narsimham	JCP	24 (1956)	420

C_6H_4BrI	p-Bromiodobenzene	9-14 μ 822-1535 1020 -	Sol S Sol S, Sol	Freq, I Assign, Freq I Assign	Cole Nakamoto Randle Stojiljkovic	TFS JACS TFS SA	46 (1950) 78 (1956) 52 (1956) 12 (1958)	103 1113 9 57
$C_6H_4BrNO_2$	m-Bromonitrobenzene	700-1700	Sol	I	Katritzky	JCS	- (1959)	2058
$C_6H_4BrNO_2$	o-Bromonitrobenzene	650-3600 10.01-14 μ 800-1600	- Sol Sol	Spec, Assign Quant analysis I, Ext coefficient	Francel Jackson Katritzky	JACS JACS JCS	74 (1952) 77 (1955) - (1959)	1265 5625 3670
$C_6H_4BrNO_2$	p-Bromonitrobenzene	10.01-14 μ 12-15 μ 1300-1600 700-1700	Sol S, Sol Sol	Quant analysis CH out of plane bending freq shift Struct Assign, Freq	Jackson Kross Kross Katritzky	JACS JACS JACS JCS	77 (1955) 78 (1956) 78 (1956) - (1959)	5625 1332 1332 2051
$C_6H_4BrNO_2$	2-Bromo-p-benzoquinone -4-oxime	700-3500	S	Struct	Philbrook	JOC	24 (1959)	568
$C_6H_4BrN_3$	5-Bromobenzo triazole	650-1000 -	- S	Freq H bond, Freq	Binder O'Sullivan	JACS JCS	81 (1959) - (1960)	3608 3653
$C_6H_4BrO_2B$	o-Phenylenebromo- boronate	6-14 μ	L, S	Freq, Struct	Blau	JCS	- (1960)	380
$C_6H_4Br_2$	m-Dibromobenzene	52-152 μ - 700-1700	L Sol Sol	Ext coefficient Analysis I	Errera Ferguson Katritzky	TFS JACS JCS	33 (1937) 76 (1954) - (1959)	120 1250 2058
$C_6H_4Br_2$	o-Dibromobenzene	52-152 μ 5-6 μ - 800-1600	L L Sol Sol	Ext coefficient Spec Analysis Analysis I, Ext coefficient	Errera Young Ferguson Kovacic Katritzky	TFS AC JACS JACS JCS	33 (1937) 23 (1951) 76 (1954) 76 (1954) - (1959)	120 709 1250 5491 3670
$C_6H_4Br_2$	p-Dibromobenzene	3.25 μ 12-14 μ 700-1200 700-1700 9-14 μ 5-6 μ -	- Sol - L, S Sol Sol Sol	C_6H_6 derivatives Freq, I Christiansen effect Spec Freq, I Spec Analysis	Brackett Bell Price Richards Cole Young Ferguson	PR PRS JCP PRS TFS AC JACS	37 (1931) 192 (1948) 16 (1948) 195 (1948) 46 (1950) 23 (1951) 76 (1954)	108 498 1157 1 103 709 1250

$C_6H_4Br_2O$	2, 4-Dibromophenol	700-1000	S, Sol	Out of plane CH deformation	Bellamy	JCS -	(1955)	2818
		12-15 μ	S, Sol	C-H out of plane bending vib, Freq	Kross	JACS	78	(1956) 1332
		1020	Sol	I	Randle	TFS	52	(1956) 9
		400-3300	S, Sol	Assign	Stojiljkovic	SA	12	(1958) 47
		700-1700	Sol	Freq, Assign, I	Katritzky	JCS -	(1959)	2051
		2.7-3.0 μ	Sol	H bond, Freq	Baker	JACS	80	(1958) 5358
		3100-3550	Sol	H bond	Lund	ACS	12	(1958) 298
		3500-3800	Sol	Freq, Hammett consts	Putnam	JCS -	(1960)	5100
		-	Sol, L	H bond, Freq	Reeves	CJC	38	(1960) 1249
$C_6H_4Br_3ClN_2$	p-Chloroaniline diazoperbromide	1350-3250	-	Freq	Aroney	JCS -	(1955)	1630
$C_6H_4Br_3N$	2, 4, 6-Tribromoaniline	6400-7100	Sol	Spec	Wulf	JACS	57	(1935) 1464
C_6H_4ClF	m-Chlorofluorobenzene	2-38 μ	G, L	IR, Spec, Assign	Harris	JCP	24	(1956) 1232
		400-3300	S, Sol	Assign	Stojiljkovic	SA	12	(1958) 47
C_6H_4ClF	o-Chlorofluorobenzene	-	-	Spec	Harris	JCP	24	(1956) 1232
		2-38 μ	G, L	IR, Spec, Assign	Narasimham	JCP	24	(1956) 433
		1000-3200	L	Spec, Assign	Krishnamachari	CS	26	(1957) 144
C_6H_4ClF	p-Chlorofluorobenzene	-	-	IR, Spec	Harris	JCP	24	(1956) 1232
		2-38 μ	G, L	IR, Spec, Assign	Narasimham	JCP	24	(1956) 420
C_6H_4ClI	m-Chloroiodobenzene	5-8 μ	-	C_6H_6 derivative	Depaigne	JPR	7	(1946) 33
		9-14 μ	Sol	Freq, I	Cole	TFS	46	(1950) 103
		700-1000	S, Sol	Out of plane CH deformation	Bellamy	JCS -	(1955)	2818
C_6H_4ClI	o-Chloroiodobenzene	5-8 μ	-	C_6H_6 derivative	Depaigne	JPR	7	(1946) 33
		9-14 μ	Sol	Freq, I	Cole	TFS	46	(1950) 103
		800-1600	-	I, Ext coeff	Katritzky	JCS -	(1959)	3670
C_6H_4ClI	p-Chloroiodobenzene	9-14 μ	Sol	Freq, I	Cole	TFS	46	(1950) 103
		12-15 μ	S, Sol	Freq	Kross	JACS	78	(1956) 1332
		1020	Sol	Band I	Randle	TFS	52	(1956) 9
		-	S, Sol	Assign	Stojiljkovic	SA	12	(1958) 57
C_6H_4ClNO	p-Chloronitrosobenzene	822-1535	S, Sol	Assign, Freq	Nakamoto	JACS	78	(1956) 1113

$C_6H_4ClNO_2$	2-Chloro-p-benzoquinone -4-oxide	700-3500	S	Struct	Philbrook	JOC	24 (1959)	568
$C_6H_4ClNO_2$	m-Chloronitrobenzene	6.8-13 μ 11-15 μ 700-1700	S Sol Sol	Spec Analysis I	Coates Roberts Katritzky	JOSA JACS JCS	43 (1953) 76 (1954) - (1959)	984 4525 2058
$C_6H_4ClNO_2$	o-Chloronitrobenzene	650-3600 6-8 μ 800-1600	- Sol -	Spec, Freq assign Freq, I I, Ext coefficient	Francel Conduit Katritzky	JACS JCS JCS	74 (1952) - (1959) - (1959)	1265 3273 3670
$C_6H_4ClNO_2$	p-Chloronitrobenzene	12-15 μ	Sol, S	Freq, CH out of plane bending	Kross	JACS	78 (1956)	1332
$C_6H_4ClNO_3$	o-Chloro-p-nitrophenol	1300-1600 700-1700 9.9 μ	S, Sol Sol Sol	Struct Freq assign Relative absorbances	Kross Katritzky Seeber	JACS JCS AC	78 (1956) - (1959) 31 (1959)	4225 2051 622
$C_6H_4ClNO_3$	5-Chlorobenzotriazole	2.7-3.0 μ 5-15 μ	Sol S	H bond, Freq I, Freq	Baker Lippinoott	JACS SA	80 (1958) 16 (1960)	5358 58
$C_6H_4ClNO_3$	o-Phenylenechloroboronate	650-1000 -	- S	Freq Freq, H bond	Binder O'Sullivan	JACS JCS	81 (1959) - (1960)	3608 3653
$C_6H_4ClO_2$	m-Dichlorobenzene	6-14 μ	L, S	Assign, Struct	Blau	JCS	- (1960)	380
$C_6H_4Cl_2$		3.25 μ	-	Halogen derivatives of C_6H_6	Brackett	PR	37 (1931)	108
		-	-	Vibrating mechanical model	Murray	JCP	3 (1935)	180
		52-152 μ	L, Sol	Ext coefficient	Errera	TFS	33 (1937)	120
		-	-	Assign	Sponer	JCP	9 (1941)	667
		5-8 μ	-	C_6H_6 derivative	Depaigne	JPR	7 (1946)	33
		12-14 μ	Sol	Freq, I	Bell	PRS	192 (1948)	498
		9-14 μ	Sol	Freq, I	Cole	TFS	46 (1950)	103
		2-38 μ	-	Spec	Plyler	JOSA	40 (1950)	801
		190-270	L	Spec	Acquista	JOSA	43 (1953)	997
		-	Sol	Analysis	Kovacio	JACS	76 (1954)	5491
		700-1000	S, Sol	Out of plane CH deformation	Bellamy	JCS	- (1955)	2818
		1650-2000	-	H bond, Assign, Freq	Whiffen	SA	7 (1955)	253
		12.78 μ	Sol	Quant analysis	Hudson	AC	29 (1957)	1717
		11.0-13.9 μ	Sol	Quant analysis	Kiley	AC	29 (1957)	1896
		2-38 μ	Sol, L	Spec, Freq	Plyler	JRNB	58 (1957)	255
		700-1700	Sol	I	Katritzky	JCS	- (1957)	2058

$C_6H_4Cl_2$	o-Dichlorobenzene	3.25 μ	-	Halogen derivatives of C_6H_6	Brackett	PR	37 (1931)	108
		-	-	Vibrating mechanical model	Murray	JCP	3 (1935)	180
		1-14 μ	L	Spec	Stair	JRNB	15 (1935)	295
		52-152 μ	L, Sol	Ext coefficient	Errera	TFS	33 (1937)	120
		-	-	Assign	Sponer	JCP	9 (1941)	667
		1050-2000	-	Freq, Spec	Barnes	IEC	15 (1943)	659
		5-8 μ	-	C_6H_6 derivatives	Depaigne	JPR	7 (1946)	33
		12-14 μ	Sol	Freq, I	Bell	PRS	192 (1948)	498
		22-39 μ	L	Absorption frequency	Plyler	JCP	17 (1949)	218
		2-38 μ	-	Spec	Plyler	JOSA	40 (1950)	801
		9-14 μ	Sol	Freq, I	Cole	TFS	46 (1950)	103
		5-6 μ	L	Spec	Young	AC	23 (1951)	709
		8.14-5 μ	Sol	Freq	Urone	AC	24 (1952)	626
		-	-	H bond	Tamres	JACS	74 (1952)	3375
		-	Sol	Analysis	Kovacic	JACS	76 (1954)	5491
		1650-2000	-	Freq, assign	Whiffen	SA	7 (1955)	253
		13.37 μ	Sol	Quant analysis	Hudson	AC	29 (1957)	1717
		11.0-13.9 μ	Sol	Quant analysis	Kiley	AC	29 (1957)	1896
		2-38 μ	L, Sol	Spec, Freq	Plyler	JRNB	58 (1957)	255
		800-1600	-	I, Ext coefficient	Katritzky	JCS	- (1959)	3670
$C_6H_4Cl_2$	p-Dichlorobenzene	3.25 μ	-	Halogen derivatives of C_6H_6	Brackett	PR	37 (1931)	108
		-	-	Vibrating mechanical models	Murray	JCP	3 (1935)	180
		52-152 μ	L, Sol	Ext coefficient	Errera	TFS	33 (1937)	120
		-	-	Assign	Sponer	JCP	9 (1941)	667
		5-8 μ	-	C_6H_6 derivatives	Depaigne	JPR	7 (1946)	33
		12-14 μ	Sol	Freq, I	Bell	PRS	192 (1948)	498
		700-1700	L, Sol	Spec	Richards	PRS	195 (1948)	1
		9-14 μ	Sol	Freq, I	Cole	TFS	46 (1950)	103
		2-38 μ	-	Spec	Plyler	JOSA	40 (1950)	801
		5-6 μ	Sol	Spec	Young	AC	23 (1951)	709
		-	Sol	Analysis	Kovacic	JACS	76 (1954)	5491
		700-1000	S, Sol	Out of plane C-H deformation	Bellamy	JCS	- (1955)	2818
		2-25 μ	S	Orientation effect	Stewart	JCP	23 (1955)	986
		1650-2000	-	Assign	Whiffen	SA	7 (1955)	253
		12-15 μ	S, Sol	Freq	Kross	JACS	78 (1956)	1332
		1020	Sol	I	Randle	TFS	52 (1956)	9
		9.85 μ	Sol	Quant analysis	Hudson	AC	29 (1957)	1717

$C_6H_4Cl_2$	1,6-Dichloro-2,4-hexadiyne	-	L	Freq, I	Allan	JCS	-	(1955)	1874
$C_6H_4Cl_2F_6$	4,5-Dichloro-1,1,4,5,5-hexafluoro-2-methyl-2-pentene	-	-	C=C freq	Tarrant	JACS	77	(1955)	3640
$C_6H_4Cl_2O$	2,4-Dichlorophenol	13.8 μ	Sol	Quant analysis	Soheddel	AC	29	(1957)	1553
		2.7-30 μ	Sol	H bond, Freq	Baker	JACS	80	(1958)	8358
		3100-3550	Sol	H bond	Lund	ACS	12	(1958)	298
		3500-3800	Sol	Freq, Hammett const	Putnam	JCS	-	(1960)	5100
		-	L, Sol	H bond, Freq	Reeves	CJC	38	(1960)	1249
$C_6H_4Cl_2O$	2,6-Dichlorophenol	13.1 μ	Sol	Quant analysis	Scheddel	AC	29	(1957)	1553
		3500-3800	Sol	Freq, Hammett const	Putnam	JCS	-	(1960)	5100
$C_6H_4Cl_3$	1,4,5-Trichloroaniline	26.0-8 μ	Sol	I, Quant analysis	Whetsel	AC	30	(1958)	1598
$C_6H_4Cl_3N$	2,4,6-Trichloroaniline	6400-7100	Sol	Spec, Freq	Wulf	JACS	57	(1935)	1464
		8-26 μ	Sol	I, Quant analysis	Whetsel	AC	30	(1958)	1598
$C_6H_4Cl_6$	α -Hexachlorocyclohexene	2-16 μ	Sol	Spec, Config	Kolka	JACS	76	(1954)	1244
$C_6H_4Cl_6$	β -Hexachlorocyclohexene	2-16 μ	Sol	Spec, Config	Kolka	JACS	76	(1954)	1244
$C_6H_4Cl_6$	γ -Hexachlorocyclohexene	2-16 μ	Sol	Spec, Config	Kolka	JACS	76	(1954)	1244
$C_6H_4Cl_6$	δ -Hexachlorocyclohexene	2-16 μ	Sol	Spec, Config	Kolka	JACS	76	(1954)	1244
C_6H_4FI	m-Fluoriodobenzene	100-3200	L, G	Spec, Assign	Kri shnamachari	CS	26	(1957)	144
C_6H_4FI	o-Fluoriodobenzene	100-3200	L, G	Spec, Assign	Kri shnamachari	CS	26	(1957)	144
C_6H_4FI	p-Fluoriodobenzene	2-38 μ	L	IR, Spec, Assign	Narasimham	JCP	24	(1956)	420
		400-3500	S, Sol	Assign	Stojiljkovic	SA	12	(1958)	47
$C_6H_4F_2$	1,3-Difluorobenzene	2-22 μ	G, L	IR, Spec, Assign	Ferguson	JCP	21	(1953)	1470

$C_6H_4F_2$	1,4-Difluorobenzene	3-25 μ - 2-38 μ - 400-1500 G	L, G - L, G - G	IR, Assign Freq IR, Spec, Assign NCA, FC, Freq I	Delsemme Bomstein Ferguson Steele Steele	JCP AC JCP TFS TFS	18 (1950) 25 (1953) 21 (1953) 56 (1960) 56 (1960)	1680 512 1457 8 177
$C_6H_4F_6$	1,1,2,5,5,5-Hexafluoro-4-methyl-1,3-pentadiene	-	-	C=C freq	Tarrant	JACS	77 (1955)	3640
$C_6H_4F_8$	1H:4H/2H:5H-Octafluoro-cyclohexane	2900-3100	G	Freq	Steele	TE	3 (1958)	181
$C_6H_4F_{10}$	1,1,2,3,3,4,4,4-Octafluorobutyl methyl ketone	-	-	C=O freq	Lazerte	JACS	77 (1955)	910
C_6H_4INO	p-Iodonitrosobenzene	822-1535	S, Sol	Assign, Freq	Nakamoto	JACS	78 (1956)	1113
$C_6H_4INO_2$	m-Iodonitrosobenzene	11-15 μ 700-800	Sol S, Sol	Spec Assign, I	Roberts Bell	JACS JCS	76 (1954) - (1960)	4525 1209
$C_6H_4INO_2$	o-Iodonitrosobenzene	11-15 μ 700-800	Sol S, Sol	Spec Assign, I	Roberts Bell	JACS JCS	76 (1954) - (1960)	4525 1209
$C_6H_4INO_2$	p-Iodonitrosobenzene	800-1600 11-15 μ 1300-1600 700-800	S Sol S, Sol Sol, S	Freq, Assign Spec Struct Assign, I	Glusker Roberts Kross Bell	SA JACS JACS JCS	6 (1954) 76 (1954) 78 (1956) - (1960)	434 4525 4225 1209
$C_6H_4INO_3$	m-Iodoxynitrosobenzene	700-800	S, Sol	Assign, I	Bell	JCS	- (1960)	1209
$C_6H_4INO_3$	o-Iodoxynitrosobenzene	700-800	S, Sol	Assign, I	Bell	JCS	- (1960)	1209
$C_6H_4INO_3$	p-Iodoxynitrosobenzene	700-800	S, Sol	Assign, I	Bell	JCS	- (1960)	1209
$C_6H_4I_2$	p-Diiodobenzene	900-1150 1020 400-3300	- Sol S, Sol	Christiansen effect I Assign	Price Randle Stojiljkovic	JCP TFS SA	16 (1948) 52 (1956) 12 (1958)	1157 9 47
$C_6H_4N_2$	3-Cyanopyridine	- 600-3000 -	Sol Sol Sol, L	C=N freq, I Assign Freq, I	Skinner Katritzky Foffain	JCS JCS NC	- (1955) - (1958) 13 (1959)	487 3165 213

$C_6H_4N_2$	4-Cyanopyridine	-	Sol, L	Freq, I	Foffain	NC	13 (1959)	213
$C_6H_4N_2O$	Benzfuran	6-7 μ	-	Spec, Freq	Gaughran	JACS	76 (1954)	2233
$C_6H_4N_2O$	p-Cyanopyridine-1-oxide	600-3000 800-3000	Sol Sol	I Spec, Freq, I	Katritzky Katritzky	JCS	- (1958) - (1959)	2192 3680
$C_6H_4N_2O$	2-Cyanopyridine-N-oxide	800-3000	Sol	I	Katritzky	JCS	- (1958)	2195
$C_6H_5N_2O_2$	Benzfuroxan	2-8.2 μ 1400-1700 6-7 μ	Sol Sol -	Spec Freq Spec	Smith Boyer Gaughran	JACS	73 (1951) 75 (1953) 76 (1954)	2435 5298 2233
$C_6H_4N_2O_3$	p-Nitronitroso-benzene	822-1535	S, Sol	Assign, Freq	Nakamoto	JACS	78 (1956)	1113
$C_6H_4N_2O_3S$	p-Diazobenzene-sulfonic acid	-	S	Freq	Aroney	JCS	- (1955)	276
$C_6H_4N_2O_4$	m-Dinitrobenzene	1050-1800 - 700-1000	- - S, Sol	Spec Absorbance Out of plane CH deformation	Barnes Bomstein Bellamy	IEC AC JCS	15 (1943) 25 (1953) - (1955)	659 512 2818
		1650-1200 1650-1200 6-8 μ - 700-1700 -	Sol Sol Sol L Sol Sol	H bond Freq, Ext coefficient Freq, I Spec I Freq	Dyall Hamby Conduit Karagounis Katritzky Bryson	AJC AJC JCS ZE JCS JACS	11 (1958) 11 (1958) - (1959) 63 (1959) - (1959) 82 (1960)	513 513 3273 1120 2058 4858
$C_6H_4N_2O_4$	o-Dinitrobenzene	1050-1850 - 1200-1650 1200-1650 6-8 μ -	- - Sol Sol Sol L	Spec Absorbance H bond Freq, ext coefficient Freq, I Spec	Barnes Bomstein Dyall Hamby Conduit Karagounis	IEC AC AJC AJC JCS ZE	15 (1943) 25 (1953) 11 (1958) 11 (1958) - (1959) 63 (1959)	659 512 513 529 3273 1120

$C_6H_4N_2O_4$	p-Dinitrobenzene	1200-1800 800-1250 700-3400 - 12-15 μ 1300-1600 - 6-8 μ - 700-1700	- - S - L, Sol S, Sol - Sol L Sol	Spec Christiansen effect IR, Spec Absorbance Freq Struct Spec of complex Freq, I Spec Freq, Assign	Barnes Price Mann Bomstein Kross Kross Gagnaux Conduit Karagounis Katritzky	IEC JCP PRS AC JACS JACS HCA JCS ZE JCS	15 (1943) 16 (1948) 211 (1952) 25 (1953) 78 (1956) 78 (1956) 41 (1958) - (1959) 63 (1959) - (1959)	659 1157 168 512 1332 4225 1322 3273 1120 2051
$C_6H_4N_2O_4$	2,3-Dicarboxypyrazine	1500-2000 -	S Sol	Spec, Freq Spec	Solomons Yoshida	JACS CPBT	75 (1953) 7 (1959)	679 162
$C_6H_4N_2O_5$	2,4-Dinitrophenol	2.7-3.0 μ 3000-3500 -	Sol Sol, S Sol, L	H bond, Freq H bond H bond, Freq	Baker Boll Reeves	JACS ACS CJC	80 (1958) 12 (1958) 38 (1960)	5358 1777 1249
$C_6H_4N_2O_7$	Dinitrophenylglucitol	2-10 μ	-	Spec, Group freq	Dubiel	JOC	19 (1954)	1359
$C_6H_4N_2S$	Benzo-1-thia-2,3-diazole	-	S	Freq	LeFevre	JCS	- (1954)	4686
$C_6H_4N_4$	Pteridine	434-3117	S	Spec, I	Mason	JCS	- (1955)	2336
$C_6H_4N_4O$	6-Hydroxypteridine	-	S	Freq	Albert	JCS	- (1952)	1620
$C_6H_4N_4O$	7-Hydroxypteridine	-	-	Distinction from 6-Hydroxypteridine	Albert	JCS	- (1952)	1620
$C_6H_4N_4O_2$	m-Nitrobenzazide	2000-2200	S	Freq	Lieber	JOC	24 (1959)	1014
$C_6H_4N_4O_2$	p-Nitrobenzazide	2000-2200	S	Freq	Lieber	JOC	24 (1959)	1014
$C_6H_4N_4O_2$	4-Nitrobenzotriazole	-	S	H bond, Freq	O'Sullivan	JCS	- (1960)	3653
$C_6H_4N_4O_2$	5-Nitrobenzotriazole	650-1000 -	- S	Freq H bond, Freq	Binder O'Sullivan	JACS JCS	81 (1959) - (1960)	3608 3653
$C_6H_4N_4O_6$	2,4,6-Trinitroaniline	650-3500 1250-3600 3000-3600	S Sol Sol	Spec H bond H bond	Lothrop Dyall Hamblly	JACS AJC AJC	73 (1951) 11 (1958) 11 (1958)	3581 513 529
$C_6H_4O_2$	1,2-Benzoquinone	1600-1800	Sol	Freq	Josien	JCP	21 (1953)	331
$C_6H_4O_2$	1,4-Benzoquinone	0.7-2.5 μ	Sol	Study of CO band	Ellis	JACS	- (1929)	1384

$C_6H_4O_2$	2,4-Hexadiyonic acid	-	-	Sol	Freq, I	Allan	JCS	-	(1955)	1874
$C_6H_4O_3$	2-Furylglyoxal	-	-	Sol	Freq	Cosgrove	JCS	-	(1952)	4821
$C_6H_4O_3$	2-Hydroxy-p-benzoquinone	-	-	Sol	Assign	Flaig	A	626	(1959)	215
$C_6H_4O_3S$	3-Carboxy-1,4-thiapyrone	717-1718	-	S	I, Freq, H bond	Tarbell	JACS	76	(1954)	2451
$C_6H_4O_4$	Coumalic acid	2-15 μ	-	S	Spec, Freq, Struct	Stitt	JACS	76	(1954)	3642
$C_6H_4O_4$	2,5-Dihydroxy-1,4-benzoquinone	-	-	Sol	Freq, Ident	Hochstein	JACS	75	(1953)	5455
C_6H_5D	Benzene-d ₁	-	-	-	Comparison with pyridine	Kline	JCP	12	(1944)	300
		-	-	-	Struct	Bailey	JCS	-	(1946)	222
		380-3200	-	G	Assign, Spec	Bailey	JCS	-	(1946)	299
		-	-	-	Quant mech	Miller	JCP	14	(1946)	282
		-	-	-	Vib analysis	Helverson	HMP	19	(1947)	87
		-	-	-	Assign	Mair	JCP	17	(1949)	1236
		-	-	-	Freq	Short	JCS	-	(1952)	168
		500-900	-	G	Freq, I	Tiers	JCP	20	(1952)	761
		-	-	-	Sum rule	Bernstein	JCP	21	(1953)	2188
		-	-	-	Freq	Anderson	JCP	23	(1955)	1047
		-	-	L	Freq, I	Dauben	JACS	77	(1955)	2886
		1030	-	-	Freq	Kross	JACS	77	(1955)	5858
		625-900	-	L	Out of plane CH binding vibrations	Margoshes	SA	7	(1955)	14
		-	-	-	Freq, Assign	Narasimham	JCP	24	(1956)	420

C_6H_5DO	Phenol- d_1	1-15 μ	G	Freq, Assign	Williams	JCP, PR	7 (1939) 55 (1939)	802 684
		-	-	Association	Davies	JCP	16 (1948)	267
		890-400	Sol	Spec, Struct, Assign	Davies	JCS	- (1954)	120
		350-4000	L, Sol	OD bands	Stuart	JCP	24 (1956)	559
		3.5-5.5 μ	Sol	H bond	Bell	JCP	31 (1959)	1158
		300-3800	S, L, G, Sol	Spec, Assign, Thermo	Evans	SA	16 (1960)	1382
C_6H_5DS	Thiophenol- d_1	-	L	Band freq	Plant	JACS	77 (1955)	1572
$C_6H_5DO_2$	Benzoic acid- d_1	650-900	L, Sol	CH out of plane	Yoshida	CPBT	8 (1960)	389
$C_6H_5DO_2S$	Benzenesulphinic acid- d_1	700-3000	S	Spec, Struct, Assign, H bond	Detoni	JCS	- (1955)	3163
$C_6H_5D_2N$	Aniline- d_2	1-15 μ 1-15 400-3800	G G G, L, Sol	Freq, Assign Freq, Assign Spec	Williams Williams Evans	JCP PR SA	7 (1939) 55 (1939) 16 (1960)	802 684 428
$C_6H_5D_2O_2P$	Benzenephosphinic acid- d_2	2-21 μ	S	Spec, Struct	Daasch	AC	23 (1951)	853
$C_6H_5D_2O_3P$	Benzenephosphonic acid- d_2	2-21 μ	S	Spec, Struct	Daasch	AC	23 (1951)	853
C_6H_5Br	Bromobenzene	- 1-7.5 μ 3.1-3.6 μ 8787	- L L -	CH freq Spec, Freq Spec, Freq Halogen derivatives of C_6H_6	Bonino Daugherty Barnes Brackett	TFS PR PR PR	25 (1929) 34 (1929) 35 (1930) 37 (1931)	876 1549 1524 108
		-	-	Freq, Assign	Teets	JCP	3 (1935)	175
		1-13 μ	L	Spec, Struct	Plum	JCP	5 (1937)	172
		-	-	Solvent effect	Gordy	JCP	7 (1939)	93
		-	-	C-H FC	Linnett	TFS	41 (1945)	223
		5-8 μ	-	C_6H_6 derivatives	Depaigne	JPR	7 (1946)	33
		12.5-16.5 μ	L	Spec	Mortimer	JACS	69 (1947)	822
		12-14 μ	Sol	Freq, I	Bell	PRS	192 (1948)	498
		22-39 μ	L	Freq	Plyler	JCP	17 (1949)	218
		9-14 μ	Sol	Freq, I	Cole	TFS	46 (1950)	103
		-	Sol	Freq, H bond	Tamres	JACS	74 (1952)	3375
		-	L	Ident	Gilman	JOC	18 (1953)	1743

C_6H_5BrO	m-Bromophenol	- - 1071 625-900 - 1020 - 2-38 μ 4000-600 -	Sol Sol L L - Sol - L Sol -	Analysis Analysis Freq Out of plane CH bending Microwave dispersion I Assign, Thermo Spec, Freq, Assign Freq Assign	Ferguson Kovacic Kross Margoshes Poley Randle Whiffen Plyler Katritzky Kakiyuchi	JACS JACS JACS SA JCP TFS JCS JRN B JCS NKZ	76 (1954) 76 (1954) 77 (1955) 7 (1955) 23 (1955) 52 (1956) - (1956) 58 (1957) - (1958) 80 (1959)	1250 5491 5858 14 405 9 1350 255 4155 28
C_6H_5BrO	o-Bromophenol	3598 - 3500-3800	Sol L Sol	Freq, Hammett const Substitution effect Freq, Hammett const	Baker Cabana Puttnam	JPC JPC JCS	62 (1958) 64 (1960) - (1960)	744 1941 5100
C_6H_5BrO	o-Bromophenol	6700-7200 7000 2.7-2.95 μ 10000 7200-8800 - 3600 2.7-3.0 μ 800-1600 - - 3500-3800 -	Sol - Sol Sol Sol G, Sol - Sol - L Sol Sol L, Sol	OH bands Absorption band Spec Spec, H bond H bond Freq Freq H bond, Freq I, Ext coefficient Substitution effect H bond Freq, Hammett const Freq, H bond	Wulf Wulf Davies Wulf Wulf Rosamy Baker Baker Katritzky Cabana Jones Puttnam Reeves	JACS JCP TFS JCP JCP JCP JACS JACS JCS JPC CIL JCS CJC	58 (1936) 6 (1938) 36 (1940) 8 (1940) 8 (1940) 21 (1953) 80 (1958) 80 (1958) - (1959) 64 (1960) - (1960) - (1960) 38 (1960)	2287 712 333 745 753 1606 3598 5358 3670 1941 661 5100 1249
C_6H_5BrO	p-Bromophenol	3 μ - 3600 3 μ 3570-3700 - 3500-3800	Sol Sol Sol Sol Sol L Sol	Freq Freq Freq I Freq, I Substitution effect Freq	Ingraham Bavin Baker Moccia Flynn Cabana Puttnam	JACS CJC JPC PRS AJC JPC JCS	74 (1952) 35 (1957) 62 (1958) 243 (1958) 12 (1959) 64 (1960) - (1960)	2297 1555 744 154 575 1941 5100
C_6H_5BrOS	5-Bromo-2-acetyl- thiophene	-	-	Spec	Otsuji	NKZ	80 (1959)	1199
$C_6H_5BrO_2$	4-Bromocatechol	3 μ	Sol	Freq	Ingraham	JACS	74 (1952)	2297

$C_6H_5BrO_3S$	m-Bromobenzenesulfonic acid	14.83-15.32 μ Sol	Quant analysis	Jackson	JACS 77 (1955)	5625
$C_6H_5BrO_3S$	o-Bromobenzenesulfonic acid	9.84-15.43 μ Sol	Quant analysis	Jackson	JACS 77 (1955)	5625
$C_6H_5BrO_3S$	p-Bromobenzenesulfonic acid	12.22-13.61 μ Sol	Quant analysis	Jackson	JACS 77 (1955)	5625
$C_6H_5Br_2N$	3,5-Dibromoaniline	- Sol	Freq	Bryson	JACS 82 (1960)	4858
C_6H_5Cl	Chlorobenzene	0.59-2.8 μ - - 1-7.5 μ L 3.1-3.6 μ L 8800 --	IR Freq Spec, Freq Spec, Freq Halogen derivatives of C_6H_6	Ellis Bonino Daugherty Barnes Brackett	PR 32 (1928) TFS 25 (1929) PR 34 (1929) PR 35 (1930) PR 37 (1931)	906 876 1549 1524 108
		2 μ L - -		Ingersoll Murray	PR 44 (1933) JCP 3 (1935)	399 180
		1-14 μ L - - 3-4 μ L - -	model Spec Mechanical models, Freq Solvent effect on HCl Dispersion of magnetic double refr	Stair Teets Williams Davis	JRNB 15 (1935) JCP 3 (1935) PR 50 (1936) JOSA 30 (1940)	295 175 719 488
		- - 1050-1800 - - - 5-8 μ - 12-14 μ Sol 22-39 μ L 9-14 μ Sol 2-38 μ - 8.5-14 μ Sol 5-6 μ L 15-20 μ L - - 8-14.5 μ Sol 190-270 L - - 11-15 μ Sol 1082 625-900 L	Assgn Freq, Spec C-H FC C_6H_6 derivatives Freq, I Freq Freq, I Spec Spec Spec Transparent solvent Freq, H bond Freq Spec Analysis Analysis Ident. freq Out of plane δ CH	Spener Barnes Linnett Depaigne Bell Plyler Cole Plyler Ferguson Young Marlison Tammes Urone Acquisti Ferguson Kovacic Roberts Kross Margoshes	JCP 9 (1941) IEC 15 (1943) TFS 41 (1945) JPR 7 (1946) PRS 192 (1948) JCP 17 (1949) TFS 46 (1950) JOSA 40 (1950) AC 23 (1951) AC 23 (1951) JST 29 (1952) JACS 74 (1952) AC 24 (1952) JOSA 43 (1953) JACS 76 (1954) JACS 76 (1954) JACS 76 (1954) JACS 77 (1955)	667 659 223 33 498 218 103 1801 1510 709 233 3375 626 977 1250 5491 4525 5858 14

$C_6H_5ClF_4$	1-Ethoxy-2-chloro-3,3,4,4-tetrafluorocyclobutene-1	- 1650-2000 1020 - 11.0-13.9 μ 2-38 μ - 600-4000 -	- Sol - Sol L - Sol -	Microwave dispersion Assign, Freq Band I Assign, Thermo Quant analysis Spec, Assign Microwave, Mol consts Freq Out of plane vibration assign	Poley Whiffen Randle Whiffen Kiley Plyler Selen Katritzky Kakiyuchi	JCP SA TFS JCS AC JRN AF JCS NKZ	23 (1955) 7 (1955) 52 (1956) - (1956) 29 (1957) 58 (1957) 13 (1957) - (1958) 80 (1959)	405 253 9 1350 1896 255 81 4155 28
$C_6H_5ClN_2$	1-Nitro-3-chloro-3,3,4,4-tetrafluorocyclobutene-1	600-1700 2-15 μ 3-15 μ	L Sol G, L	Spec Freq, Spec, Struct Spec, Struct	Lecompte Smith Park	CPR SA JACS	249 (1959) 16 (1960) 73 (1951)	2443 87 2342
$C_6H_5ClN_2$	Benzenediazonium chloride	420-4000	-	Spec, Assign	Gray	DA	19 (1958)	454
$C_6H_5ClN_2O_2$	2-Nitro-3-chloro-aniline	- 1250-3600 3000-3600	Sol Sol Sol	Freq, H bond H bond Freq	Dyall Dyall Hamby	CIL AJC AJC	- (1958) 11 (1958) 11 (1958)	262 513 513
$C_6H_5ClN_2O_2$	2-Nitro-6-chloro-aniline	- 1250-3650 3000-3600	Sol Sol Sol	Freq, H bond H bond Freq	Dyall Dyall Hamby	CIL AJC AJC	- (1958) 11 (1958) 11 (1958)	262 513 529
$C_6H_5ClN_2O_4S$	1-Chloro-2-nitrobenzene-4-sulfonamide	-	-	Spec	Marian	HCA	43 (1960)	1122
C_6H_5ClO	Chloroethynyl ethynyl-methyl carbinol	-	-	Freq	McLamore	JOC	20 (1955)	109
C_6H_5ClO	m-Chlorophenol	5-8 μ - - 3598 3 μ -	- - Sol Sol Sol Sol L Sol	C_6H_6 derivatives Analysis Freq Freq I Freq Substitution effect Freq, Hammett const	Depaigne Johnson Goulden Baker Moccia Stone Cabana Putnam	JPR JCS SA JPC PRS SA JPC JCS	7 (1946) - (1951) 6 (1954) 62 (1958) 243 (1958) 10 (1958) 64 (1960) - (1960)	33 3275 129 744 154 17 1941 5100

C_6H_5ClO	<i>o</i> -Chlorophenol	6800-7200	Sol	Spec	Wulf	JACS	57	(1935)	1464
		-	G	Spec	Badger	JCP	4	(1936)	711
		-	Sol	Spec, Struct	Pauling	JACS	58	(1936)	94
		2.7-3 μ	Sol	Spec	Davies	TFS	34	(1938)	1427
		-	-	Temp effect	Zumwalt	JCP	7	(1939)	87
		-	-	H bond	Bedger	JCP	8	(1940)	288
		-	-	Freq	Davies	TFS	36	(1940)	333
		10000	Sol	Spec, H bond	Wulf	JCP	8	(1940)	745
		7200-8800	Sol	H bond	Wulf	JCP	8	(1940)	753
		10000-10600	G	3d Harmonic O-H	Zumwalt	JACS	62	(1940)	305
		1100-1700	-	Freq, Spec	Barnes	IEC	15	(1943)	659
		5-8 μ	-	C_6H_6 derivatives	Depaigne	JPR	7	(1946)	33
		-	-	Analysis	Johnson	JCS	-	(1951)	3275
		3577-13340	G, Sol	Freq, Iso	Rossmay	JCP	21	(1953)	1606
		-	-	H-Cl bond effect on CH of CHO	Pinchas	AC	29	(1957)	334
		9.7 μ	Sol	Quant analysis	Scheddel	AC	29	(1957)	1553
		3000	-	Freq	Baker	JACS	80	(1958)	3598
		2.7-3.0 μ	Sol	H bond, Freq	Baker	JACS	80	(1958)	5358
		9415	Sol	Absorption	Bhattacharya	IJP	32	(1958)	1573
		Mc/sec							
		2800-3700	Sol	Freq, H bond	Flett	SA	10	(1958)	21
		3	L, Sol	Effect of change of solvent	Sirkar	IJP	32	(1958)	345
		800-1600	-	I, Ext coefficient	Katritzky	JCS	-	(1959)	3670
		-	Sol	H bond, Temp effect	Jones	CIL	-	(1960)	661
		3500-3800	Sol	Freq, Hammett const	Puttnam	JCS	-	(1960)	5100
		-	L, Sol	H bond, Freq	Reeves	CJC	38	(1960)	1249
		-	L	Substitution effect	Cabana	JPC	64	(1960)	1941
C_6H_5ClO	<i>p</i> -Chlorophenol	1050-1800	-	Freq, Spec	Barnes	IEC	15	(1943)	659
		5-8 μ	-	C_6H_6 derivatives	Depaigne	JPR	7	(1946)	33
		-	-	Analysis	Johnsons	JCS	-	(1951)	3275
		5-6 μ	-	Spec	Young	AC	23	(1951)	709
		3 μ	Sol	Freq, Hammett const	Ingraham	JACS	74	(1952)	2297
		-	Sol	Freq	Goulden	SA	6	(1954)	129
		-	S, L	Spec	Karagonuis	ZE	61	(1957)	1094
		9.1 μ	Sol	Quant analysis	Scheddel	AC	29	(1957)	1553
		3602	Sol	Freq	Baker	JPC	62	(1958)	744
		3600	-	Freq	Baker	JACS	80	(1958)	3598
		3 μ	Sol	Freq, H bond	Flett	SA	10	(1958)	21
		3 μ	Sol	I	Moccia	PRS	243	(1958)	154
		-	Sol	Freq	Stone	SA	10	(1958)	17
		3500-3700	Sol	Freq, I	Flynn	AJC	12	(1959)	575
		700-1700	Sol	Freq, Assign	Katritzky	JCS	-	(1959)	2051

	3500-3800	Sol	Freq	Putnam	JCS	- (1960)	5100
	-	L	Substitution effect	Cabana	JPC	64 (1960)	1941
C_6H_5ClOS	-	-	Spec	Otauji	NKZ	80 (1959)	1199
5-Chloro-2-acetyl-thiophene							
C_6H_5ClOS	700-3300	L	Struct, Assign, H bond	Detoni	JCS	- (1955)	3163
Benzenesulphinyl chloride							
$C_6H_5ClO_2$	3 μ	Sol	Freq	Ingraham	JACS	74 (1952)	2297
4-Chlorocatechol							
$C_6H_5ClO_2S$	1000-1500	Sol	Spec	Schreiber	AC	21 (1949)	1168
Benzenesulphonyl chloride	400-3500	L	Freq, Assign	Ham	AJC	6 (1953)	135
	625-900	-	Out of plane CH bending vibration	Margoshes	SA	7 (1955)	14
	12-15 μ	L	Freq	Kross	JACS	78 (1956)	1332
$C_6H_5Cl_2N$	8-26 μ	Sol	Quant analysis	Whetzel	AC	30 (1958)	1598
1,4-Dichloroaniline							
$C_6H_5Cl_2OP$	2-21 μ	L	Spec, Struct	Daasch	AC	23 (1951)	853
Phenyldichlorophosphine oxide	-	-	P=O freq	Bell	JACS	76 (1954)	5185
$C_6H_5Cl_2OP$	2.5-25 μ	Sol	Freq	Nyquist	APS	11 (1957)	161
Phenylphosphonyl chloride							
$C_6H_5Cl_2O_2P$	700-1400	Sol	Spec, Freq	Bellamy	JCS	- (1952)	475
Phenyl dichlorophosphonate	-	-	P=O freq	Bell	JACS	76 (1954)	5185
$C_6H_5Cl_2P$	2-21 μ	L	Spec, Struct	Daasch	AC	23 (1951)	853
Phenyldichlorophosphine							
$C_6H_5Cl_2PS$	2-21 μ	L	Spec, Struct	Daasch	AC	23 (1951)	853
Phenyldichlorophosphine sulfide							
$C_6H_5Cl_3Si$	400-5000	Sol	Ident	Smith	AC	31 (1959)	1174
Phenyltrichlorosilane	2-30 μ	Sol	Freq, Struct	Grenoble	APS	14 (1960)	85
	2-15 μ	Sol	Freq, Spec	Smith	SA	16 (1960)	87
$C_6H_5Cl_5$	2-16 μ	Sol	Spec, Analysis	Kolka	JACS	76 (1954)	1244
α -Pentachlorocyclohexene							
$C_6H_5Cl_5$	2-16 μ	Sol	Spec, Analysis	Kolka	JACS	76 (1954)	1244
β -Pentachlorocyclohexene							
$C_6H_5Cl_5$	2-16 μ	Sol	Spec, Analysis	Kolka	JACS	76 (1954)	1244
γ -Pentachlorocyclohexene							

$C_6H_5Cl_5$	δ -Pentachlorocyclohexene	2-16 μ	Sol	Spec, Analysis	Kolka	JACS	76 (1954)	1244
$C_6H_5Cl_7$	Heptachlorocyclohexane	2-24 μ 11.05-13.5 μ	Sol	Spec, Iso Quant anal	Daasch Hudson	AC	19 (1947) 29 (1957)	779 1718
$C_6H_5Cl_7$	α -Heptachlorocyclohexane	-	-	Freq	Marri son	JCS	- (1951)	1614
$C_6H_5Cl_7$	β -Heptachlorocyclohexane	-	-	Freq	Marri son	JCS	- (1951)	1614
$C_6H_5Cl_7$	δ -Heptachlorocyclohexane	-	-	Freq Ident	Marri son Kolka	JCS JACS	- (1951) 76 (1954)	1614 3940
C_6H_5F	Fluorobenzene	5-8 μ 12-14 μ 9-14 μ 5-6 μ 807-831 2-38 μ - - - 1195 625-900	- Sol Sol L - G, L Sol Sol G L L	C_6H_6 derivatives Freq, I Freq, I Spec Struct IR, Spec, Assign Analysis Analysis Microwave Freq Out of plane CH bending vibrations	Depaigne Bell Cole Young Garg Smith Ferguson Kovacic McGulloh Kross Margoshes	JPR PRS TFS AC JCP JCP JACS JACS JCP JACS SA	7 (1946) 192 (1948) 46 (1950) 23 (1951) 21 (1953) 21 (1953) 76 (1954) 76 (1954) 22 (1954) 77 (1955) 7 (1955)	33 498 103 709 1907 1475 1250 5491 1144 5858 14
		-	-	Microwave dispersion Freq, Assign I	Poley Narasimham Randle	JCP JCP TFS	23 (1955) 24 (1956) 52 (1956)	405 420 9
		1020	Sol	Assign, Thermo Spec, Mol consts	Whiffen Bak	JCS JCP	- (1956) 26 (1957)	1350 134
		17500-28000 Mc/sec	-	Spec, Freq assign Electric dipole moment	Plyler deKowalevski	JRNB JCP	58 (1957) 31 (1959)	255 1438
C_6H_5FO	m-Fluorophenol	3500-3800 - 2500-3800	Sol L Sol	Freq Substitution effect Freq, Hammett const	Baker Cabana Putnam	JP JPC JCS	62 (1958) 64 (1960) - (1960)	744 1941 5100
C_6H_5FO	o-Fluorophenol	6800-7200 3600 2.7-3.0 μ	Sol - Sol	OH band Freq H bond, Freq	Wulf Baker Baker	JACS JACS JACS	58 (1936) 80 (1958) 80 (1958)	2287 3598 5358

C_6H_5FO	p-Fluorophenol	- 3500-3800	L Sol	Substitution effect Freq, Hammett const	Cabana Putnam	JPC JCS	64 (1960) - (1960)	1941 5100
		3607 3600	Sol -	Freq Freq	Baker Baker	JPC JACS	62 (1958) 80 (1958)	744 3598
		3400-3800	Sol	H bond	West	JACS	81 (1959)	1614
		-	L	Substitution effect	Cabana	JPC	64 (1960)	1941
		3500-3800	Sol	Freq, Hammett const	Putnam	JCS	- (1960)	5100
$C_6H_5FO_2$	4-Fluorocatechol	3/4	Sol	Freq, Hammett const	Ingraham	JACS	74 (1952)	2297
$C_6H_5FO_2S$	Benzenesulfonyl fluoride	400-3500	L	Freq, Assign	Ham	AJC	6 (1953)	135
$C_6H_5F_4N_2B$	Phenyldiazonium borofluoride	-	S	Freq	LeFevre	JCS	- (1954)	4686
$C_6H_5FO_5$	1,1,1,2,2-Pentafluoro -3,5-hexadione	-	-	Freq, H bond	Park	JACS	75 (1953)	4753
$C_6H_5FO_7$	Ethylthio n-hepta- fluorobutyrate	2-16/4	L	Spec, Freq	Hauptschein	JACS	74 (1952)	4005
$C_6H_5FO_8$	Ethyl perfluorobutyrate	1200-2000 2-16/4	Sol L L	Freq Spec, Freq Freq	Bender Rappaport Filler	JACS JACS JACS	75 (1953) 75 (1953) 76 (1954)	5986 2695 1376
C_6H_5I	Iodobenzene	1-7.5/4 8780	L -	Spec, Freq Halogen derivatives of C_6H_6	Daugherty Brackett	PR PR	34 (1929) 37 (1931)	1549 108
		-	-	Mechanical models, Freq	Teets	JCP	3 (1935)	175
		1-13/4 1-13/4	L L	assign Spec, Struct	Plum	JCP	5 (1937)	172
		-	-	FC	Linnett	TFS	41 (1945)	223
		5-8/4	-	C_6H_6 derivatives	Depaigne	JPR	7 (1946)	33
		12-14/4	Sol	Freq, I	Bell	PRS	192 (1948)	498
		22-39/4	L	Freq	Plyler	JCP	17 (1949)	218
		200-280	L	Spec	Acquista	JOSA	43 (1953)	977
		-	Sol	Analysis	Kovacic	JACS	76 (1954)	5491
		11-15/4	Sol	Spec	Roberts	JACS	76 (1954)	4525
		1066	L	Freq	Kross	JACS	77 (1955)	5858
		625-900	L	Out of plane CH bending vibrations	Margoshes	SA	7 (1955)	14
		-	-	Microwave	Poley	JCP	23 (1955)	405

$C_6H_5IN_2$	Pyridine iodinecyanide	1020	Sol	I	Randle Whiffen Plyler Bell	TFS 52 (1956) JCS - (1956) 1350 JRN B 58 (1957) 255 JCS - (1960) 1209	9
C_6H_5IO	Iodoxybenzene	700-800	S, Sol	Assign, I	Popkov	JACS 82 (1960) 1850	
C_6H_5IO	m-Iodophenol	-	L	Substitution effect	Bell	JCS - (1960) 1209	
C_6H_5IO	o-Iodophenol	6600-7200 10000 7200-8800 3500-13000 3600 2.7-3.0 μ	Sol Sol Sol G, Sol - Sol Sol	OH band Spec, H bond Spec, H bond Iso, Freq Freq H bond, Freq H bond, Temp effect	Cabana	JPC 64 (1960) 1941	
C_6H_5IO	-	3500-3800	Sol	Freq, Hammett const	Wulf Wulf Wulf Rossm Baker Baker Jones Cabana Putnam Reeves	JACS 58 (1936) 2287 JCP 8 (1940) 745 JCP 8 (1940) 753 JCP 21 (1953) 1606 JACS 80 (1958) 3598 JACS 80 (1958) 5358 CIL - (1960) 661 JPC 64 (1960) 1941 JCS - (1960) 5100 CJC 38 (1960) 1249	
C_6H_5IO	p-Iodophenol	3599	Sol	Freq	Baker	JPC 62 (1958) 744	
C_6H_5IO	5-Iodo-2-acetylthiophene	-	-	Spec	Cabana Putnam	JPC 64 (1960) 1941 JCS - (1960) 5100	
C_6H_5NO	2-Formylpyridine	-	Sol	Assign	Otsuji	NKZ 80 (1959) 1199	
C_6H_5NO	3-Formylpyridine	600-3000	Sol	Assign	Katritzky	JCS - (1958) 2182	
C_6H_5NO	4-Formylpyridine	-	Sol	Assign	Katritzky Katritzky Katritzky	JCS - (1958) 2182 JCS - (1958) 3165	
C_6H_5NO	Nitrosobenzene	800-1600 1-15 μ	S, Sol, L - G -	Assign Freq Freq	Katritzky	JCS - (1958) 2182	
C_6H_5NO	2-Pyridinecarboxaldehyde	650-4000	L, Sol	Spec, Freq, H bond	Glusker Jander Lutke O'Sullivan	SA 6 (1954) 434 JCS - (1954) 919 JPR 15 (1954) 633 JCS - (1957) 4144	
C_6H_5NO	3-Pyridinecarboxaldehyde	650-4000	L, Sol	Spec, Freq, H bond	Chiorboli Heinbert	ACR 48 (1958) 355 JACS 81 (1959) 3933	

C_6H_5NO	4-Pyridinecarboxaldehyde	-	S	Spec	Spec, Freq, H bond	Chiorboli Heinbert	ACR JACS	48 (1958) 81 (1959)	355 3933
$C_6H_5NO.HCl$	2-Pyridinecarboxaldehyde hydrochloride	-	S	Spec		Chiorboli	ACR	48 (1958)	355
$C_6H_5NO.HCl$	3-Pyridinecarboxaldehyde hydrochloride	-	S	Spec		Chiorboli	ACR	48 (1958)	355
$C_6H_5NO.HCl$	4-Pyridinecarboxaldehyde hydrochloride	-	S	Spec		Chiorboli	ACR	48 (1958)	355
$C_6H_5NO_2$	p-Benzquinone-4-oxime	700-3500	S	Struct		Philbrook	JOC	24 (1959)	568
$C_6H_5NO_2$	3-Hydroxy-2-pyridine- carboxaldehyde	650-4000	Sol,L	Spec,	Freq, H bond	Heinbert	JACS	81 (1959)	3933
$C_6H_5NO_2$	3-Hydroxy-4-pyridine- carboxaldehyde	650-4000	L,Sol	Spec,	Freq, H bond	Heinbert	JACS	81 (1959)	3933
$C_6H_5NO_2$	Isonicotinic acid	600-4000	S	X(:O)OH group presence established		Braunholtz	JCS	- (1959)	868
$C_6H_5NO_2$	Nicotinic acid	700-4000	S,Sol	Freq	Freq	Flett Witkop	JCS JACS	- (1951) 75 (1953)	962 2572
$C_6H_5NO_2$	Nitrobenzene	0.8-2.0 μ 1-8 μ 0-2 μ 52-152 μ 3-4 μ 100 μ 2.5-3.7 μ	L L L L,Sol L Sol L,Sol	Magnetic rotation Spec, Freq, Assign Kerr effect in IR Trans dispers Solvent effect Ext coefficient Spec, H bond Solvent effect Solvent effect Solvent effect Dispersion of magnetic double refr		Ingersoll Plyler Ingersoll Cartwright Williams Errera Gordy Gordy Gordy Gordy Davis	JOSA PR PR PRS PR TFS JACS JCP JCP JCP JOSA	6 (1922) 35 (1930) 44 (1933) 154 (1936) 50 (1936) 33 (1937) 60 (1938) 7 (1939) 7 (1939) 7 (1939) 30 (1940)	663 605 399 138 719 120 605 93 99 167 488
		1050-1800	-	Spec		Barnes	IEC	15 (1943)	659
		-	-	FC		Linnett	TFS	41 (1945)	223
		5-8 μ 5-6 μ	- L	C_6H_6 derivatives Spec		Depaigne Young	JPR AC	7 (1946) 23 (1951)	33 709

	700-1800	L, S	Freq, I	Randle	JCS	-	(1952)	4153
	-	Sol	Freq, Struct	Fanta	JACS	75	(1953)	737
	100-800	L	Spec	Hallam	N	174	(1954)	134
	10.01-14 μ	Sol	Quant analysis	Jackson	JACS	77	(1955)	5625
	625-900	-	Out of plane CH bending vibrations	Margoshes	SA	7	(1955)	14
	-	-	Microwave dispersion	Poley	JCP	23	(1955)	405
	1650-2000	-	Assign, Freq	Whiffen	SA	7	(1955)	253
	12-15 μ	-	Freq	Kross	JACS	78	(1956)	1332
	-	-	Dielectric const, Dipole moment	Krishna	TFS	53	(1957)	767
	-	-	Effect as solvent on CH of CHO	Pinchas	AC	29	(1957)	334
	1650-1200	Sol	H bond	Dyall	AJC	11	(1958)	513
	400-600	L, Sol	Freq	Friedel	JPC	62	(1958)	1341
	1600-1200	Sol	Freq, Ext coefficient	Hamby	AJC	11	(1958)	529
	600-4000	Sol	I	Katritzky	JCS	-	(1958)	4155
	6-8 μ	Sol	Freq, I	Conduit	JCS	-	(1959)	3273
	-	-	Out of plane vibration assign	Kakiyuchi	NKZ	80	(1959)	28
	600-1700	L	Spec	Lecompte	CPR	249	(1959)	2443
	-	G	Mol consts	Reinert	ZN	15a	(1960)	85
	-	Sol	Freq	Baker	JPC	62	(1958)	744
	3000-3500	S, Sol	H bond	Boll	ACS	12	(1958)	1777
	2-25 μ	G	Iso	Tarte	JCP	20	(1952)	1570
	-	Sol	Freq	Witkop	JACS	75	(1953)	2572
	-	S	Freq	Witkop	JACS	75	(1953)	2572
	2-16 μ	S	Spec	Zacharins	JACS	76	(1954)	2908
	-	Sol	Spec	Yoshida	CPET	7	(1959)	162
	694-1684	S	I	Tarbell	JACS	76	(1954)	2451
	6900-7200	Sol	Spec	Wulf	JACS	57	(1935)	1464
	2.6-3.2 μ	Sol	Spec, H bond	Gordy	JCP	7	(1939)	167
	1050-18000	-	Spec	Barnes	IEC	15	(1943)	659
	3 μ	Sol	Freq	Ingram	JACS	74	(1952)	2297
	-	-	Absorbance	Bomstein	AC	25	(1953)	512
	-	Sol	Freq	Goulden	SA	6	(1954)	129
$C_6H_5NO_2$								
$C_6H_5NO_2$								
$C_6H_5NO_2$								
$C_6H_5NO_2 \cdot HCl$								
$C_6H_5NO_2$								
$C_6H_5NO_2S$								
$C_6H_5NO_3$								

[illegible]

343

	5-15 μ 3500-3600	S	I, Freq Freq, Hammett const	Lippincott Puttnam	SA JCS	16 (1960) - (1960)	58 5100
$C_6H_5NO_3$							
5-Nitro-2-acetylthiophene	-	-	Spec	Otsuji	NKZ	80 (1959)	1199
$C_6H_5NO_4$							
2,3-Dicarboxypyrrrole	-	S, Sol	Spec	Scrocco	AAN	20 (1956)	795
$C_6H_5NO_4$							
2,5-Dicarboxypyrrrole	-	S, Sol	Spec	Scrocco	AAN	20 (1956)	795
$C_6H_5NO_4$							
3,4-Dicarboxypyrrrole	-	S, Sol	Spec	Scrocco	AAN	20 (1956)	795
$C_6H_5NO_4$							
p-Nitrobenzoic acid	650-900	L, Sol	CH out of plane	Yoshida	CPBT	8 (1960)	389
$C_6H_5NO_4$							
3-Nitrocatechol	6800-7100	Sol	Spec, H bond	Hilbert	JACS	58 (1936)	548
$C_6H_5NO_4$							
4-Nitrocatechol	3 μ	Sol	Freq, Hammett const	Ingraham	JACS	74 (1952)	2297
$C_6H_5NO_4$							
2-Nitroresorcinol	650-3600	-	Spec, Freq assign	Francel	JACS	74 (1952)	1265
$C_6H_5NO_5$							
Methyl 5-nitro-2-furate	2-22 μ	S	Spec, Assign	Daasch	CIL	- (1958)	1113
$C_6H_5NO_5$							
Nitrophloroglucinol	2-10 μ	-	Spec, Group freq	Dubiel	JOC	19 (1954)	1359
$C_6H_5N_3$							
Benzotriazole	650-1000	-	Freq	Binder	JACS	81 (1959)	3608
	-	S	Freq, H bond	O'Sullivan	JCS	- (1960)	3653
$C_6H_5N_3$							
Benzazide	2000-2200	S	Freq	Lieber	JOC	24 (1959)	1014
$C_6H_5N_3O_4$							
2,3-Dinitroaniline	-	Sol	Freq, H bond	Dyall	CIL	- (1958)	262
	1250-3600	Sol	Freq, H bond	Dyall	AJC	11 (1958)	513
	8000-3600	Sol	Freq	Hambly	AJC	11 (1958)	513
$C_6H_5N_3O_4$							
2,4-Dinitroaniline	1250-3600	Sol	Freq, H bond	Dyall	AJC	11 (1958)	513
	3000-3600	Sol	Freq	Hambly	AJC	11 (1958)	529
	1400-1600	Sol	Freq	Moritz	SA	15 (1959)	242
$C_6H_5N_3O_4$							
2,6-Dinitroaniline	-	Sol	Freq, H bond	Dyall	CIL	- (1958)	262
	1250-3600	Sol	Freq, H bond	Dyall	AJC	11 (1958)	513
	3000-3600	Sol	Freq, H bond	Hambly	AJC	11 (1958)	513
$C_6H_5O_3B$							
o-Phenylenehydrogen borate	6-14 μ	L, S	Assign, Struct	Blau	JCS	- (1960)	380

C ₆ H ₆	Benzene	L	-	Perm to heat rays	Rubens	WA	64	(1938)	602
		L	52 μ	Transparency	Hollnagel	PR	11	(1918)	505
		L	0.8-2.0 μ	Magnetic rotation	Ingersoll	JOSA	6	(1922)	663
		L	-	Spec	McVicker	JCS	123	(1923)	642
		L	3.3 μ	Freq	Meyer	PR	21	(1923)	712
		L	0-2.5 μ	Spec	Ellis	PR	23	(1924)	48
		L	1-12 μ	Spec	Bell	JACS	47	(1925)	2811
		L	0.589-14 μ	Spec	Ellis	PR	27	(1926)	298
		L	0.87-0.71 μ	Spec	Barnes	JOSA	15	(1927)	331
		L	-	Photo recording on IR	Barnes	JACS	49	(1927)	2034
		L	0.8-2.8 μ	Spec	Ellis	JACS	49	(1927)	347
		G	2975-3175	Wave number difference	Meyer	JOSA	15	(1927)	257
		-	-	Spec	Andrews	GR	5	(1928)	533
		L	1.11-1.17 μ	Spec, Freq	Barnes	PR	32	(1928)	618
		L	0.59-2.8 μ	IR correlation	Ellis	PR	32	(1928)	906
		L	1.1-1.2 μ	Band shift	Barnes	JACS	51	(1929)	1750
		-	-	CH freq	Bonino	TFS	25	(1929)	876
		L	1-7.5 μ	Spec, Freq	Daugherty	PR	34	(1929)	1549
		-	-	CH linkage heat	Ellis	PR	33	(1929)	27
		L	-	Theoretical	Ellis	PR	33	(1929)	625
		-	-	CH overtones	Ellis	TFS	25	(1929)	888
		L	3.1-3.6 μ	Spec, Freq	Barnes	PR	35	(1930)	1524
		L	3-4 μ	Spec	Barnes	PR	36	(1930)	296
		-	-	Mechanical models of normal vibrations	Kattering	PR	36	(1930)	531
		G, L	1.1-1.6 μ	Spec	McAlister	PR	36	(1930)	1799
		L	-	Freq	Venkateswaran	JPC	34	(1930)	145
		-	-	Vibration theory	Yates	PR	36	(1930)	563
		-	8772	C ₆ H ₆ derivatives	Brackett	PR	37	(1931)	108
		-	-	Vibrations	Shapiro	PR	38	(1931)	1170
		G	6.7-33 μ	Transmission	Strong	PR	37	(1931)	1565
		L, G	6.75 μ	Spec	Silverman	PR	41	(1932)	486
		G	1-30 μ	Spec	Kattering	P	4	(1933)	39
		L, S, G	2.19-2.46 μ	Spec	Leberknight	PR	43	(1933)	967
		L	1.1-1.8 μ	Spec	Liddle	JRNB	11	(1933)	599
		G	-	Thermo	Mayer	JACS	55	(1933)	37
		-	-	Freq	Wilson	PR	45	(1934)	706
		-	605-3080	Assignment, IR	Wilson	PR	46	(1934)	146
		G	1-55 μ	Spec	Barnes	JCP	3	(1935)	446
		G, L	40-135	Spec, Assign	Barnes	PR	47	(1935)	129
		G	-	Vibrations	Duncan	JCP	3	(1935)	384
		-	-	Vibrating mechanical models	Murray	JCP	3	(1935)	180

-	-	-	Freq assign	Teets	JCP	3	(1935)	175
-	-	-	Quant mech	Wilson	JCP	3	(1935)	276
-	-	L	Struct	Angus	JCS	-	(1936)	912
-	-	L	Spec	Angus	JCS	-	(1936)	925
-	-	-	Struct, Freq	Angus	JCS	-	(1936)	966
-	-	-	Freq assign	Angus	JCS	-	(1936)	971
1-22 μ	G, L	-	Spec	Bailey	JCS	-	(1936)	931
52-152 μ	L	-	Trans dispers	Cartwright	PRS	154	(1936)	138
-	L	-	Direct deuteration	Ingold	JCS	-	(1936)	915
-	-	-	Thermo	Kassel	JCP	7	(1936)	276
2-4.2 μ	L	-	Transmission curves	Plyler	PR	49	(1936)	215
3-4 μ	L	-	Solvent effect	Williams	PR	50	(1936)	719
52-152 μ	L	-	Ext coefficient	Errera	TFS	33	(1937)	120
-	-	-	Effect as solvent on OH band	Gordy	JCP	5	(1937)	284
5.6-6.0 μ	-	-	H bond, Spec	Gordy	JCP	5	(1937)	284
-	-	-	Struct, Spec	Lord	JCS	-	(1937)	1728
-	-	-	Thermo, FC	Lord	JPC	41	(1937)	149
1-13 μ	L	-	Spec	Plum	JCP	5	(1937)	172
3.22-3.32 μ	G, L, Sol	-	Spec	Fox	PRS	167	(1938)	257
600-1700	L, G	-	Spec, Assign	Ingold	PRS	169	(1938)	149
-	-	-	Freq, Struct	Simons	JAP	9	(1938)	781
-	-	-	Spec	Crawford	JCP	7	(1939)	223
-	-	-	Solvent effect	Gordy	JCP	7	(1939)	93
-	-	-	Quant mech	Mullikan	JCP	7	(1939)	121
-	-	-	Quant mech	Mullikan	JCP	7	(1939)	353
-	-	-	Quant mech	Mullikan	JCP	7	(1939)	20
-	-	-	Vibration analysis	Sponer	JCP	7	(1939)	207
3.2-3.4 μ	Sol	-	HC band	Wall	JACS	61	(1939)	1053
-	L	-	Dispersion of magnetic double refr	Davis	JOSA	30	(1940)	488
3.2-3.4 μ	Sol	-	CH band	Wall	JACS	62	(1940)	2225
-	-	-	Assign	Baner	CR	31	(1942)	43
1250-1800	-	-	Spec	Barnes	IEC	15	(1943)	659
-	-	-	Thermo, Freq	Pitzer	JACS	65	(1943)	803
2-16 μ	G	-	Spec	Turkevich	JCP	11	(1943)	328
-	-	-	Vibrations	Kline	JCP	12	(1944)	300
2-14 μ	L	-	Prism dispersion	Wright	RSI	15	(1944)	22
-	-	-	Freq, FC	Bell	TFS	41	(1945)	293
-	-	-	Thermo	Brickudde	JCP	13	(1945)	547
-	L	-	Analysis	Fouss	RSI	16	(1945)	53
-	-	-	Product rule	Halverson	JCP	13	(1945)	533
-	-	-	FC	Jinnett	TFS	41	(1945)	223
2-30 μ	L	-	Spec, Use as solvent	forkington	TFS	41	(1945)	184
-	-	-	Struct	Bailey	JCS	-	(1946)	222

5-8 μ	L	Vibration analysis	Depaig	JPR	7	(1946)	33
-	-	Analysis	Fred	AC	18	(1946)	603
-	-	FC	Gordy	JCP	14	(1946)	305
3-16.7 μ	S, L, G	Spec, Assign	Halford	JCP	14	(1946)	141
-	-	Inactive fundamentals	Herzfeld	JCS	-	(1946)	316
-	-	Quant mech	Miller	JCP	14	(1946)	282
-	-	FC	Walsh	TFS	42	(1946)	779
-	-	Comparison with C_6H_6	Carpenter	JCP	15	(1947)	99
-	-	Secular equation computer	Frost	JCP	15	(1947)	383
-	-	Quant mech	Griffing	JCP	15	(1947)	421
-	-	Vibration analysis	Halverson	RMP	19	(1947)	87
-	-	Thermo	Scott	JCP	15	(1947)	565
-	-	FC	Walsh	TFS	43	(1947)	60
-	-	Freq, FC	Westheimer	JCP	15	(1947)	252
2-15 μ	L	Spec	Wild	RST	18	(1947)	436
12-14 μ	Sol	Freq, I	Bell	PRS	192	(1948)	498
-	-	Quant mech	Coulson	PRS	193	(1948)	456
24-40 μ	-	Freq	Plyler	JCP	16	(1948)	1008
3.2-3.6 μ	-	Analysis	Saller	AC	20	(1948)	812
3-15 μ	L, G	Freq, assign	Barchewitz	JPR	10	(1949)	1
3-5 μ	L	Freq assign	Cause	JPR	10	(1949)	49
-	-	Assign, FC	Crawford	JCP	17	(1949)	249
-	-	Planar vibrations	Crawford	JCP	17	(1949)	249
-	-	Quant mech	Crawford	JCP	17	(1949)	72
-	-	Ring-twisting const	Crawford	JCP	17	(1949)	726
660-1200	S	Freq	Hainer	PR	76	(1949)	473
8000-9000	Sol	Analysis	Hibbard	AC	21	(1949)	486
-	-	Analysis	Ipatieff	JACS	71	(1949)	2685
650-5000	L, S	Spec, Assign	Mair	JCP	17	(1949)	1236
-	-	Vib analysis, Spec	Small	JCP	17	(1949)	295
-	-	Freq	Brownlie	JCS	-	(1950)	3062
-	-	FC	Cole	TFS	46	(1950)	103
-	-	Theoretical Frank-Condon principle	Craig	JCS	-	(1950)	2146
-	-	Freq, Thermo	Hornig	JACS	72	(1950)	5772
700-5000	L	Spec	Savitzky	RSI	21	(1950)	203
-	S	Entropy	Ichishima	JCP	19	(1951)	388
3.4 μ	Sol	Analysis	Sinard	AC	23	(1951)	1384
2-15 μ	L	Spec	Tetlow	JSI	28	(1951)	161
-	-	FC	Torkington	PRS	206	(1951)	17
-	-	I	Crawford	JCP	20	(1952)	977
15.5-25 μ	L	Transparent solvent	Marri son	JSI	29	(1952)	233
-	-	Spec	Mecke	JCP	20	(1952)	1935

2-15 μ	L	Spec	Pri stera	APS	6	(1952)	29
980-1090	G,L	Spec	Ramsay	JACS	74	(1952)	72
2.8-3.8 μ	L	Analysis	Robinson	AC	24	(1952)	619
2400-2800	L,Sol	Spec, H bond	Tamres	JACS	74	(1952)	3375
-	Sol	Analysis	Williams	AC	24	(1952)	1911
3.27-3.31 μ	-	Freq	Woodward	JACS	74	(1952)	3458
2-16 μ	L	Spec	Anderson	JOSA	43	(1953)	221
-	L	Mixture with CCl ₄	Bellamy	JAPC	3	(1953)	421
-	-	Sum rule	Bernstein	JCP	21	(1953)	2188
-	-	Vibrations	Duchesne	JCP	21	(1953)	2005
700-1000	L	Spec	Hales	JSI	30	(1953)	52
-	G	Analysis	Chapman	AC	26	(1954)	435
700-3300	-	Spec	Dixon	JPC	58	(1954)	430
640-1400	Sol	Spec	Haller	JCP	22	(1954)	720
0.6-3.0 μ	Sol,L	Spec, I, Assign	Kaye	SA	6	(1954)	257
8-13 μ	-	Spec not shown, Struct	Klemm	JACS	76	(1954)	1688
-	Sol	Analysis	Kovacic	JACS	76	(1954)	5491
2-15 μ	L	Spec	Lauring	JOC	19	(1954)	1171
-	-	Analysis, Freq	Martin	AC	26	(1954)	1886
2-8 μ	-	Spec	Ahlens	JSI	32	(1955)	61
-	-	Freq	Anderse	JCP	23	(1955)	1047
-	-	Analysis	Buswell	JACS	77	(1955)	2766
0.21-0.3 μ	G	Spec with Perkin-Elmer	Coates	APS	9	(1955)	14
-	-	Freq	Coulson	JCS	-	(1955)	1813
-	-	I	Eggers	JCP	23	(1955)	221
11-14 μ	Sol	Spec	Fair	AC	27	(1955)	1886
671-3099	-	I	Fateley	JACS	77	(1955)	249
-	-	Ident	Hine	JACS	77	(1955)	594
-	-	Vibrations	Morino	JCP	23	(1955)	737
2-15 μ	L	Spec	Pri stera	AC	27	(1955)	217
-	-	Temp effect	Slowinski	JOSA	45	(1955)	396
650-4000	L	Spec	Zwerdling	JCP	23	(1955)	2221
2-15 μ	S	IR, Assign	Zwerdling	PR	98	(1955)	243
-	-	FC	Lord	JCP	25	(1956)	1252
300-750	G	Spec, assign	Miller	JCP	24	(1956)	996
2-15 μ	G	Spec, Threshold values	Pierson	AC	28	(1956)	1218
-	Sol	Band I	Randle	TFS	52	(1956)	9
3-4 μ	L,Sol	Stretch freq	Tallent	AC	28	(1956)	953
-	Sol	Solution sensitivity	Ferguson	JCP	26	(1957)	1265
14-16 μ	G	Spec, linearity test	Friedel	AC	29	(1957)	1362
1-14 μ	-	Refractive index	Jaffe	JOSA	47	(1957)	782
13.9-15 μ	Sol	Quant anal	Kiley	AC	29	(1957)	1896
650-700	G	Spec	Lord	JOSA	47	(1957)	689
15-150 μ	-	Spec, Struct	Lord	JOSA	47	(1957)	340

	2-38 μ	L	Spec, Freq, Assign	Plyer	JRN B	58 (1957)	255
	-	-	Characteristic freq	Podall	AC	29 (1957)	1423
	1450-750	Sol	I, Solvent effect	Thompson	JCS	- (1957)	1658
	-	-	Calculation of B" & D _J	Danti	SA	13 (1958)	180
	1400-1600	Sol	I	Katritzky	JCS	- (1958)	4162
	-	L	I, Refractive index	Person	JCP	28 (1958)	319
	15-35 μ	S	Spec, Struct	Bentley	SA	15 (1959)	165
	15-14 μ	Sol	Anal	Cirillo	AC	31 (1959)	959
	650-4000	Sol, L	Spec, Freq, H bond	Heinert	JACS	81 (1959)	3933
	670-3100	L	I, Absorption bands	Hisatsune	JCP	30 (1959)	848
	11-15 μ	Sol	Anal	Jacobson	AC	31 (1959)	1600
	-	-	NCA	Kakiyuchi	NKZ	80 (1959)	21
	-	-	NCA, Assign	Kovner	OS	7 (1959)	751
	600-1700	L	Spec	Leompte	OPR	249 (1959)	2443
	-	-	I	Swenson	DA	19 (1959)	3153
	1025-1045	S	Temp effect	Swenson	JCP	31 (1959)	1324
	3400-3800	Sol	H bond	West	JACS	81 (1959)	1614
	-	-	NCA, Assign	Califano	SA	16 (1960)	889
	700-4000	L, Sol	Freq, Ext coeff	Denaine	CJC	38 (1960)	1921
	650-4000	L	IR, Spec	Dows	JCP	32 (1960)	1581
	1500-2000	G	I	Dunstan	JCS	- (1960)	5221
	3-15 μ	L	I, Solvent effect	Hisatsune	JCP	32 (1960)	565
	-	S	Assign, Splitting	Person	JCP	32 (1960)	1268
	970-1080	S	I	Person	JCS	33 (1960)	233
	2-12 μ	L	Refractive index, I	Schatz	JCP	32 (1960)	894
C ₆ H ₆	5-8 μ	L	Vib anal	Depaigne	JPR	7 (1946)	38
	-	-	Assign	Mair	JCP	17 (1949)	1236
Butadienyliacetylene	781-3346	G	Spec, Table, Group freq	Georgieff	JACS	76 (1954)	5494
Dimethyldiacetylene	-	-	FC, Bond order	Walsh	TFS	42 (1946)	779
	-	-	Quant mech	Meister	JCP	15 (1947)	349
	675-6000	Sol, G	Freq	Cleveland	JCP	18 (1950)	355
	353-5861	G, Sol	IR, Assign	Ferigle	JCP	20 (1952)	1928
	-	-	Band freq	Weber	JCP	21 (1953)	1613
	-	-	NCA	Weber	JCP	23 (1955)	579
Divinyliacetylene	673-3120	G, L, Sol	Spec, Table, Group freq	Georgieff	JACS	76 (1954)	5494
Aniline-N-d ₁	400-3800	G, L, Sol	Struct, Assign, Freq	Evans	SA	16 (1960)	428

C_6H_6IN	Aniline-m-d ₁	-	L	Bond freq, I	Dau ber	JACS	77 (1955)	2886
$C_6H_6D_2O_4$	Isopropylidene malonate-d ₂	3-6 μ	S, Sol	Spec	Abramovitch	CJC	37 (1959)	361
$C_6H_6D_6O_2$	2,2,3,4,5,5-Caproic acid-d ₆	-	-	Spec	Buhoi	BSCF	- (1960)	1586
$C_6H_6D_6O_2$	Methylvaleric acid-2,2,3,4,5,5-d ₆	-	-	Spec	Buhoi	BSCF	- (1960)	1586
$C_6H_6D_6O_2$	Methylvaleric acid-2,2,4,4,5,5-d ₆	-	-	Spec	Buhoi	BSCF	- (1960)	1586
C_6H_6BrN	m-Bromoaniline	-	-	Group freq S, Sol, L Spec 2000-4000 2600-800 700-1700	Califano Califano Whetzel Katritzky Katritzky	GCI GCI AC JCS JCS	86 (1956) 87 (1957) 30 (1958) - (1959) - (1959)	1014 805 1598 3674 2058
C_6H_6BrN	o-Bromoaniline	2600-800 800-1600	Sol -	NH band freq, Struct I, Ext coeff	Whetzel Katritzky	AC JCS	30 (1958) - (1959)	1598 3670
C_6H_6BrN	p-Bromoaniline	-	-	Ident Group freq Freq, FC	Weisblat Califano Krueger	JACS GCI PRS	75 (1953) 86 (1956) 243 (1957)	3630 1014 143
$C_6H_6BrO_3As$	o-Bromophenylarsonic acid	700-1700	Sol -	Freq, Assig, I Freq, Assig, Struct	Katritzky Katritzky	JCS JCS	- (1959) - (1959)	2051 3674
$C_6H_6Br_2$	Benzene, bromine complex	600-4000	S	Group study	Braunhotz	JCS	- (1959)	868
C_6H_6ClI	Benzene, iodine mono-chloride	-	-	Interactions study I	Persson Ferguson	JCP JACS	27 (1957) 82 (1960)	1211 3268
C_6H_6ClIN	m-Chloroaniline	-	Sol	Mol const	Popov	JACS	82 (1960)	1850
C_6H_6ClIN	m-Chloroaniline	2.6-3.1 μ 1050-2000 700-1000	L - S, Sol	H bond Spec CH out of plane	Gordy Barnes Bellamy	JACS IEC JCS	62 (1940) 15 (1943) - (1955)	497 659 2818
C_6H_6ClIN	m-Chloroaniline	-	-	Group freq	Califano	GCI	86 (1956)	1014
C_6H_6ClIN	m-Chloroaniline	2000-4000	S, Sol	Spec	Califano	GCI	87 (1957)	805

C_6H_6ClN	o-Chloroaniline	-	Sol	Freq, FC	Krueger	PRS	243	(1957)	143
		2600-800	Sol	NH band freq, Struct	Whetsel	AC	30	(1958)	1598
		700-1700	Sol	Position variation, I	Katritzky	JCS	-	(1959)	2058
		-	-	Freq, Assign, Struct	Katritzky	JCS	-	(1959)	3674
		-	Sol	Stretch freq	Bryson	JACS	82	(1960)	4858
		1.4-1.6 μ	Sol	Solvent effect	Whetsel	AC	32	(1960)	1281
		6400-7000	Sol	Spec, Group freq, Anal	Wulf	JACS	57	(1935)	1464
		2.6-3.1 μ	L	H bond	Gordy	JACS	62	(1940)	497
		1050-1850	-	Spec	Barnes	IEC	15	(1943)	659
		-	Sol	Resolution	Barnes	JAP	16	(1945)	77
C_6H_6ClN	p-Chloroaniline	2100-1400	Sol	Anal, Struct	Whetsel	AC	30	(1958)	1594
		2600-800	Sol	Position variation, I	Whetsel	AC	30	(1958)	1598
		800-1600	-	I, Ext coeff	Katritzky	JCS	-	(1959)	3670
		-	-	Freq, Assign, Struct	Katritzky	JCS	-	(1959)	3674
		1.4-1.6 μ	Sol	Solvent effect	Whetsel	AC	32	(1960)	1281
		1050-1800	-	Spec	Barnes	IEC	15	(1943)	659
		-	Sol	Resolution	Barnes	JAP	16	(1945)	77
		3415-3500	Sol	Freq, Chem properties	Flett	TFS	44	(1948)	767
		700-1000	S, Sol	CH out of plane	Bellamy	JCS	-	(1955)	2818
		2000-4000	S, L, Sol	Spec	Califano	GCI	87	(1957)	805
$C_6H_6ClO_3P$	p-Chlorophenylphosphonic acid	-	-	Group freq	Califano	GCI	86	(1956)	1014
		-	Sol	Freq, FC	Krueger	PRS	243	(1957)	143
		2600-800	Sol	NH band freq, Struct	Whetsel	AC	30	(1958)	1598
		700-1700	Sol	Freq, Assign	Katritzky	JCS	-	(1959)	2051
		-	-	Freq, Assign, Struct	Katritzky	JCS	-	(1959)	3674
		2-21 μ	S	Spec, Struct anal	Daasch	AC	23	(1951)	853
		-	-	Ident	Lecher	JACS	76	(1954)	1045
		600-4000	S	Group presence P(=O)OH	Braunholtz	JCS	-	(1959)	868
		600-4000	S	Group study	Braunholtz	JCS	-	(1959)	868
		-	Sol	I	Ferguson	JACS	82	(1960)	3268
$C_6H_6Cl_2$	Benzene-Chlorine complex	-	S	Ident, Spec	Cope	JACS	74	(1952)	168
		-	-	-	-	-	-	-	-
$C_6H_6Cl_2O_4$	3,4-Dichloro-cis-1,2-cyclobutanedicarboxylic acid	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
$C_6H_6Cl_2O_4$	Dimethyl dichloro-fumarate	-	-	Group freq	Eldred	JACS	75	(1953)	4338
		-	-	-	-	-	-	-	-

$C_6H_6Cl_2O_4$	Dimethyl dichloromaleate	-	-	Group freq	Eldred	JACS	75 (1953)	4338
$C_6H_6Cl_2Si$	Phenyldichlorosilane	2050-2250 2-30 μ	Sol	Struct, Electronegativity Spec, Struct, Anal	Smith Grenoble	SA APS	15 (1959) 14 (1960)	412 85
$C_6H_6Cl_4$	α -Benzene tetrachloride	2-23 μ 2-16 μ -	Sol Sol Sol	Spec Spec, Anal Quant anal, Iso	Colingaert Orloff Hudson	JACS JACS AC	73 (1951) 75 (1953) 29 (1957)	5224 4243 1718
$C_6H_6Cl_4$	β -Benzene tetrachloride	2-16 μ	Sol	Spec, Anal	Orloff	JACS	75 (1953)	4243
$C_6H_6Cl_4$	γ -Benzene tetrachloride	2-16 μ	Sol	Spec, Anal	Orloff	JACS	75 (1953)	4243
$C_6H_6Cl_4$	δ -Benzene tetrachloride	2-16 μ	Sol	Spec, Anal	Orloff	JACS	75 (1953)	4243
$C_6H_6Cl_4$	ξ -Benzene tetrachloride	2-16 μ	Sol	Spec, Anal	Orloff	JACS	75 (1953)	4243
$C_6H_6Cl_4O$	2,2,6,6-Tetrachlorocyclohexanone	-	-	Shift, Table	Corey	JACS	77 (1955)	5418
$C_6H_6Cl_4O_4$	Tetrachloroadipic acid	-	-	Ident, Struct	Kolka	JACS	76 (1954)	1244
$C_6H_6Cl_6$	α -Benzene hexachloride	2-24 μ 700-1400 - - - -	Sol Sol - - - Sol	Spec, Anal Spec, Anal Band freq Anal, Iso Anal, Iso Quant anal Quant anal	Daasch Whiffen Marrison Whetstone Mecke Hudson Mcdonald	AC JCS JCS JACS ZE AC AC	19 (1947) - (1948) - (1951) 75 (1953) 58 (1954) 29 (1957) 29 (1957)	779 1420 1614 1768 1 1718 339
$C_6H_6Cl_6$	β -Benzene hexachloride	2-24 μ 700-1400 - -	Sol Sol - -	Spec, Anal Spec, Anal Band freq Anal, Iso Anal, Iso	Daasch Whiffen Marrison Whetstone Mecke	AC JCS JCS JACS ZE	19 (1947) - (1948) - (1951) 75 (1953) 58 (1954)	779 1420 1614 1768 1
$C_6H_6Cl_6$	γ -Benzene hexachloride	2-24 μ 700-1400 2-15 μ 3-15 μ - 2-15.5 μ - -	Sol Sol - s - Sol - -	Spec, Anal Spec, Anal Spec Spec, Anal Band freq Spec Anal, Spec Anal, Iso	Daasch Whiffen Cupples Trenner Marrison Garhart Trenner Whetstone	AC JCS AC AC JCS AC APS JACS	19 (1947) - (1948) 21 (1949) 21 (1949) - (1951) 24 (1952) 7 (1953) 75 (1953)	779 1420 630 285 1614 851 166 1768

$C_6H_6Cl_6$	δ -Benzene hexachloride	- 600-900 14.55-10.9 μ 1450-600 7.5-10 μ	- Sol Sol Sol Sol	Anal, Iso Quant anal Quant anal, Iso Quant anal Iso	Mecke Braid Hudson McDonald Cupples	ZE AC AC AC AC	58 (1954) 29 (1957) 29 (1957) 29 (1957) 31 (1959)	1 1625 1718 339 967
$C_6H_6Cl_6$	δ -Benzene hexachloride	2-24 μ 700-1400	Sol Sol	Spec, Anal Spec, Anal Band freq	Daasch Whiffen Marriison Whetstone Mecke Hudson McDonald	AC JCS JCS JACS ZE AC AC	19 (1947) - (1948) - (1951) 75 (1953) 58 (1954) 29 (1957) 29 (1957)	779 1420 1614 1768 1 339 1718
$C_6H_6Cl_6$	ϵ -Benzene hexachloride	2-24 μ	Sol	Spec, Anal	Daasch	AC	19 (1947)	779
$C_6H_6F_6$	η -Benzene hexachloride	-	-	Anal, Iso	Whetstone	JACS	75 (1953)	1768
$C_6H_6F_6$	m-Fluoroaniline	-	-	Anal, Iso	Mecke	ZE	58 (1954)	1
$C_6H_6F_6$	p-Fluoroaniline	-	Sol	Quant anal, Iso	Hudson	AC	29 (1957)	1718
$C_6H_6F_6O_2$	1,2-Dimethoxy-3,3,4,4-tetrafluorocyclobutene	2-16 μ	Sol	Spec, Struct	Kolka	JACS	76 (1954)	3940
$C_6H_6F_7NO_2$	Ethyl N-heptafluoropropylcarbamate	-	-	Group freq	Califano	GCI	86 (1956)	1014
$C_6H_6F_8O$	3,3,4,5,5,6,6-Octafluorohexan-2-ol	-	Sol	Freq, FC	Krueger	PRS	243 (1957)	143
C_6H_6IN	m-Iodoaniline	-	Sol	NH freq	Bryson	JACS	82 (1960)	4858
C_6H_6IN	p-Iodoaniline	-	-	Group freq	Califano	GCI	86 (1956)	1014
$C_6H_6I_2$	Benzene-iodine complex	-	Sol	Freq, FC	Krueger	PRS	243 (1957)	143
		2-15 μ	L	Spec, Struct anal	Park	JACS	71 (1949)	2337
		2.5-6 μ	L, G	Freq assign	Barr	JCS	- (1956)	3428
		-	-	Ident	Lazerte	JACS	77 (1955)	910
		-	-	Group freq	Califano	GCI	86 (1956)	1014
		-	-	Group freq	Califano	GCI	86 (1956)	1014
		-	Sol	I	Ferguson	JACS	82 (1960)	3268

C_6H_6NO	6-Methyl-2-pyridone	-	S, Sol	Spec	Gibson	JCS	- (1955)	4340
C_6H_6NS	N-Methylthiopyridone-2	1100-1150	Sol	Band study	Spinner	JOC	23 (1958)	2037
C_6H_6NS	N-Methylthiopyridone-4	1100-1150	Sol	Band study	Spinner	JOC	23 (1958)	2037
$C_6H_6N_2$	2-Cyanomethyl-3-cyano-1-propene	-	-	Bond freq	Kitson	AC	24 (1952)	334
$C_6H_6N_2$	1,2-Dicyano-1-butene	-	-	Bond freq	Kitson	AC	24 (1952)	334
$C_6H_6N_2$	1,2-Dicyano-2-butene	-	-	Bond freq	Kitson	AC	24 (1952)	334
$C_6H_6N_2$	cis-1,4-Dicyano-1-butene	-	-	Bond freq	Kitson	AC	24 (1952)	334
$C_6H_6N_2$	trans-1,4-Dicyano-2-butene	-	-	Bond freq	Kitson	AC	24 (1952)	334
$C_6H_6N_2$	2,3-Dicyano-2-butene	-	-	Bond freq	Kitson	AC	24 (1952)	334
$C_6H_6N_2$	1,3-Dicyano-2-methyl-1-propene	-	-	Bond freq	Kitson	AC	24 (1952)	334
$C_6H_6N_2$	Dimethylfumaronitrile	-	Sol	Band freq, I	Felton	JCS	- (1955)	2170
$C_6H_6N_2$	Dimethylmaleidinitrile	-	Sol	Band freq	Felton	JCS	- (1955)	2170
$C_6H_6N_2$	4-Vinylpyrimidine	-	L	Group freq	Overberger	JACS	76 (1954)	1879
$C_6H_6N_2O$	Nicotinamide	-	S	H bond	Pimental	JCP	24 (1956)	639
$C_6H_6N_2OS_2 \cdot HCL \cdot H_2O$	Pyrrhothine hydrochloride hydrate	2-16 μ	S	Spec	Celmer	JACS	77 (1955)	2861
$C_6H_6N_2O_2$	Acetyl cyanide dimer	4000-750	-	Spec, Struct anal	Marvel	JACS	71 (1949)	34
$C_6H_6N_2O_2$	m-Nitroaniline	6500-7100 1050-1800 3420-3510 700-1800	Sol - Sol L, S	Spec, Group anal Spec Freq, Chem prop I, Freq	Wulf Barnes Flett Randle	JACS IEC TFS JCS	57 (1935) 15 (1943) 44 (1948) - (1952)	1464 659 767 4153
		-	-	Absorbance study	Bomstein	AC	25 (1953)	512
		700-1000	S, Sol	CH out of plane	Bellamy	JCS	- (1955)	2818
		-	Sol	Freq, FC	Krueger	PRS	243 (1957)	143
		3600-1250	Sol	H bond	Dyall	AJC	11 (1958)	513

$C_6H_6N_2O_2$	o-Nitroaniline	Sol	-	Freq, H bond	Dyall	CIL	-	(1958)	262
		Sol	3000-3600	Freq	Hamby	AJC	11	(1958)	529
		Sol	2-8 μ	Freq	Ubranski	CIL	-	(1958)	1206
		-	2600-800	NH band freq, Struct	Whetzel	AC	30	(1958)	1598
		L	-	Spec	Karagounis	ZE	63	(1959)	1120
		Sol	700-1700	Position variation, I	Katritzky	JCS	-	(1959)	2058
		-	-	Freq, Assign, Struct	Katritzky	JCS	-	(1959)	3674
		Sol	6400-7100	Spec, Group anal	Wulf	JACS	57	(1935)	1464
		Sol	2.6-3.1 μ	H bond	Gordy	JACS	62	(1940)	497
		-	1050-1800	Spec	Barnes	IEC	15	(1943)	659
		-	650-3600	Spec, Freq	Francel	JACS	74	(1952)	1265
		L, S	-	Struct, Freq, I	Randle	JCS	-	(1952)	4153
		-	-	Absorbance study	Bomstein	AC	25	(1953)	512
		Sol	3600-1250	H bond	Dyall	AJC	11	(1958)	513
		Sol	-	Freq, H bond	Dyall	CIL	-	(1958)	262
		Sol	3000-3600	Freq	Hamby	AJC	11	(1958)	513
		Sol	2-8 μ	Freq, H bond	Ubranski	CIL	-	(1958)	1206
		Sol	6-8 μ	Freq, I	Conduit	JCS	-	(1959)	3273
		L	-	Spec	Karagounis	ZE	63	(1959)	1120
		$C_6H_6N_2O_2$	p-Nitroaniline	-	800-1600	I, Ext coeff	Katritzky	JCS	-
-	-			Freq, Assign, Struct	Katritzky	JCS	-	(1959)	3674
Sol	3000-3500			H bond	Farmer	SA	16	(1960)	559
Sol	6400-7100			Spec, Group anal	Wulf	JACS	57	(1935)	1464
-	1100-1800			Spec	Barnes	IEC	15	(1943)	659
Sol	3436-3535			Freq, Chem prop	Flett	TFS	44	(1948)	767
Sol	-			Table, Freq, Struct	Goulden	JCS	-	(1952)	2939
S	700-3400			IR (polarized), Anal	Mann	PRS	211	(1952)	168
L, S	700-1800			I, Struct anal	Randle	JCS	-	(1952)	4153
-	-			Absorbance study	Bomstein	AC	25	(1953)	512
S, Sol	700-1000			CH out of plane	Bellamy	JCS	-	(1955)	2818
S, Sol	12-15 μ			CH out of phase	Kross	JACS	78	(1956)	1332
S, Sol	1300-1600			Struct	Kross	JACS	78	(1956)	4225
S	-			H bond	Pimental	JCP	24	(1956)	639
Sol	-			Freq, FC, Solvent effect	Krueger	PRS	243	(1957)	143
Sol	3600-1250			H bond	Dyall	AJC	11	(1958)	513
Sol	-			Freq, H bond	Dyall	CIL	-	(1958)	262
Sol	3000-3600			Freq	Hamby	AJC	11	(1958)	513
Sol	2-8 μ			H bond, Freq	Ubranski	CIL	-	(1958)	1206
Sol	2600-800			NH band, I	Whetzel	AC	30	(1958)	1598
Sol	6-8 μ	Freq, I	Conduit	JCS	-	(1959)	3273		
L	-	Spec	Karagounis	ZE	63	(1959)	1120		
355									

$C_6H_6N_2O_2$	3-Pyrazionic acid, methyl ester	700-1700 -	Sol -	Freq, Assign Freq, Assign, Struct	Katritzky Katritzky	JCS - (1959) 2051 JCS - (1959) 3674
$C_6H_6N_4$	2-Amino-4-methyl-6- cyanopyrimidine	1500-2000	Sol	Spec, Group freq	Solomons	JACS 75 (1953) 679
$C_6H_6N_4$	2-Amino-4-methyl-6- cyanopyrimidine	2-25 μ	S	Spec, Group freq	Short	JCS - (1952) 168
$C_6H_6N_4O$	7,8-Dihydro-6-hydroxy- pteridine	-	-	Ident	Albert	JCS - (1952) 1620
$C_6H_6N_4O$	1,6-Dihydro-1-methyl -6-oxopurine	-	Sol	Spec, Freq	Brown	JCS - (1957) 682
$C_6H_6N_4O$	3,6-Dihydro-3-methyl -6-oxopurine	-	Sol	Spec, Freq	Brown	JCS - (1957) 682
$C_6H_6N_4O$	2-Hydroxy-6-methyl- purine	673-3040	S	Table, I, Group freq	Willits	JACS 77 (1955) 2569
$C_6H_6N_4O$	6-Hydroxy-2-methyl- purine	666-3040	S	Table, I, Group freq	Willits	JACS 77 (1955) 2569
$C_6H_6N_4O$	6-Hydroxy-7-methyl- purine	- 3650-1400	Sol Sol	Struct, Freq Spec, Assign, Taut	Brown Mason	JCS - (1957) 682 JCS - (1957) 4874
$C_6H_6N_4O$	6-Hydroxy-9-methyl- purine	-	S, Sol	Freq, Taut	Mason	JCS - (1957) 4874
$C_6H_6N_4O$	8-Hydroxy-7-methyl- purine	- 3650-1400	Sol Sol	Struct, Freq Spec, Assign, Taut	Brown Mason	JCS - (1957) 682 JCS - (1957) 4874
$C_6H_6N_4O$	8-Hydroxy-9-methyl- purine	3650-1400	Sol	Spec, Assign, Taut	Mason	JCS - (1957) 4874
$C_6H_6N_4O$	6-Methoxypurine	-	Sol	Spec, Freq	Brown	JCS - (1957) 682
$C_6H_6N_4O$	8-Methoxypurine	-	Sol	Spec, Freq	Brown	JCS - (1957) 682
$C_6H_6N_4O$	2,4-Dinitrophenyl- hydrazine	6-15 μ 1300-3400	S L	Spec, Table, Band freq Spec, Struct	Ross Isherwood	AC 25 (1953) 1288 N 175 (1955) 419

$C_6H_4N_4O_4 \cdot HCl$ hydrochloride	6-15 μ	S	Spec	Ross	AC	25 (1953)	1288
6-Mercapto-7-methylpurine	-	Sol	Struct, Freq	Brown	JCS	- (1957)	682
Melem	2-15 μ	S	Assign	Frinkelshstein	OS	6 (1959)	33
Phenol	1.1-1.8 μ 6900-7200	Sol	Spec, Group freq	Liddel	JACS	55 (1933)	3574
	-	Sol	Spec, Group anal	Wulf	JACS	57 (1935)	1464
	2400-4000	G	Spec	Badger	JCP	4 (1936)	711
	-	-	Spec, H bond	Barnes	JCP	4 (1936)	722
	2.5-3.9 μ	-	Struct, Spec	Pauling	JACS	58 (1936)	94
	1-15 μ	Sol	Spec, I	Fox	PRS	162 (1937)	419
	-	L	Temp effect, Spec	Brattain	JCP	6 (1938)	298
	2.6-3.6 μ	-	Bond freq	Errera	TFS	34 (1938)	728
	2.7-12 μ	-	Solvent effect	Gordy	JCP	6 (1938)	12
	4.75 μ	Sol	Association	White	PR	53 (1938)	932
	1-15 μ	G	Absorption effect	Barr	JCP	5 (1939)	8
	-	-	Band freq	Williams	JCP	7 (1939)	802
	-	-	H bond, Freq shift	Badger	JCP	8 (1940)	288
	-	Sol	H bond, Absorption freq	Wulf	JCP	8 (1940)	745
7200-8800	-	Sol	H bond, Absorption freq	Wulf	JCP	8 (1940)	753
1050-1800	-	-	Spec, Absorption freq	Barnes	IEC	15 (1943)	659
	-	-	FC	Linnett	TFS	41 (1945)	223
700-1300	-	L	Spec, Anal, Assign	Wiffen	JCS	- (1945)	268
5-8 μ	-	-	C_6H_6 derivatives	Depaigne	JPR	7 (1946)	33
-	-	-	Band freq	Gordy	JCP	14 (1946)	305
700-1300	-	L,S	Spec	Kletz	JCS	- (1947)	644
3100-3700	-	S,Sol	Spec, Assign	Richards	JCS	- (1947)	1260
-	-	S	Band freq	Thompson	JCS	- (1947)	289
6.5-15 μ	-	Sol	Anal, Association	Davies	JCP	16 (1948)	267
-	-	-	FC	Richards	TFS	44 (1948)	40
2.2-3.6 μ	-	Sol	Spec	Hukins	JCS	- (1949)	898
-	-	L,S,Sol	Spec	Sears	JACS	71 (1949)	4110
-	-	Sol	H bond	Friedel	AC	22 (1950)	418
-	-	Sol	Anal	Husberger	JACS	72 (1950)	5626
1600-3700	-	Sol	Spec, Chelation study	Coggeshall	JACS	73 (1951)	5414
2.7-3.2 μ	-	Sol	H bond, Equil const	Friedel	JACS	73 (1951)	2881
2.5-15 μ	-	Sol	Spec, Band freq, I	Simard	AC	23 (1951)	1384
-	-	Sol	Anal	Smith	AC	23 (1951)	684
5-6 μ	-	-	Anal	Young	AC	23 (1951)	709
-	-	L	Spec	Ingraham	JACS	74 (1952)	2297
-	-	Sol	Stretch freq, Hammett const	Kuhn	JACS	74 (1952)	2492
-	-	Sol	Spec, H bond				

-	Sol	Anal	Smith	AC	24	(1952)	497
-	Sol	H bond	Tsuboi	BCSJ	25	(1952)	60
-	-	I	Vanmeter	AC	24	(1952)	1758
-	-	Anal	Spivy	JCS	-	(1953)	1647
890-1400	Sol	Spec, Struct, Assign	Davies	JCS	-	(1954)	120
-	-	Band freq	Ek	JACS	76	(1954)	5579
-	Sol	Freq	Coulden	SA	6	(1954)	129
-	Sol	Freq shift	Josien	JCP	22	(1954)	1169
8-13 μ	-	Struct	Klemm	JACS	76	(1954)	1688
2-12 μ	Sol	Spec, Struct	O' Connor	JACS	76	(1954)	2368
-	-	Ident	Entel	JACS	77	(1955)	611
11-14 μ	Sol	Spec	Fair	AC	27	(1955)	1886
625-900	-	Out of Plane CH bending vibrations	Margoshes	SA	7	(1955)	14
2.6-3.4 μ	-	I, H bond	Mizushima	SA	7	(1955)	100
3360	Sol	Freq, I, H bond	Tsubomura	JCP	23	(1955)	2130
1650-2000	-	Freq, Assign	Whiffen	SA	7	(1955)	253
-	-	Freq	Finch	JCP	24	(1956)	908
2.77 μ	Sol	I	Hughes	JCP	24	(1956)	489
11-25 μ	Sol	Spec	Potts	AC	28	(1956)	1255
12-15 μ	S, Sol	Freq	Kross	JACS	78	(1956)	1332
350-4000	L, Sol	OH bands	Stuart	JCP	24	(1956)	559
3 μ	Sol	Freq, I	Tsubomura	JCP	24	(1956)	927
-	Sol	Freq	Bavin	CJC	35	(1957)	1555
-	-	Stretching vibrations	Benson	JCP	27	(1957)	1164
14.95 μ	Sol	Quant anal	Curry	AC	29	(1957)	1717
-	-	Freq related to Hammett const	Rao	CS	26	(1957)	375
14.95 μ	Sol	Quant anal	Schedel	AC	29	(1957)	1553
3604	Sol	Freq	Baker	JPC	62	(1958)	744
3600	-	Freq	Baker	JACS	80	(1958)	3598
3 μ	Sol	Freq, H bond	Flett	SA	10	(1958)	21
4000-600	Sol	Freq	Katritzky	JCS	-	(1958)	4155
3100-3550	Sol	H bond	Lund	ACS	12	(1958)	298
3 μ	Sol	I	Moccia	PRS	243	(1958)	154
-	-	H bond	Sato	NKZ	79	(1958)	1384
2800-3700	L, Sol	Solvent effect	Sirkar	IJP	32	(1958)	345
-	Sol	Freq	Stone	SA	10	(1958)	17
2.7-2.95 μ	Sol	H bond	Baker	JACS	81	(1959)	4524
6000-10000	Sol	H bond	Bell	JCP	31	(1959)	300
3200-3800	Sol	Freq, H bond	Bellamy	TFS	55	(1959)	220
3570-3700	Sol	Freq, I	Flynn	AJC	12	(1959)	575
-	Sol	Spec	Karagonuis	ZE	63	(1959)	1120

C_6H_6OS	2-Acetylthiophene	900-1500 6-11 μ - 3400-3800 - 300-3800 - 250-5000 - 3500-3800	- Sol Sol Sol L L, S, Sol Sol S G Sol	Spec Dissociation IR, Freq, Spec H bond Substitution effect Spec, Assign, Thermo Spec Spec, Freq assign Spec Spec Freq	Lindberg Parker Potts West Cabana Evans Goddu Hidalgo Kojima Putnam	SK 32b JPC 63 SA 15 JACS 81 JPC 64 SA 16 JACS 82 SA 16 JPSJ 15 JCS -	(1959) (1959) (1959) (1959) (1960) (1960) (1960) (1960) (1960) (1960) (1960)	193 1342 679 1614 1941 1382 4533 528 284 5100
$C_6H_6O_2$	2-Acetylthiophene	400-3500 800-2000 -	L L -	Freq I Spec	Hidalgo Katritzky Otsuji	GPR 239 JCS - NKZ 80	(1954) (1959) (1959)	253 3500 1199
$C_6H_6O_2$	2-Acetylthiophene	800-1700	Sol	Freq, Assign	Katritzky	JCS -	(1959)	1199
$C_6H_6O_2$	Resorcinol	6900-7200 2.7-3.5 μ 1050-1800 650-1300 3 μ 3 μ - - - 2-16 μ 700-1100	Sol S S S Sol Sol - - Sol Sol S, Sol	Spec Spec, H bond Spec Spec Christiansen effect Freq Freq H bond, Freq Analysis Freq Spec Out of plane CH deformation	Wulf Davies Barnes Price Ingraham Kuhn Rundle Bard Goulden Bard Bellamy	JACS 57 JCP 8 IEC 15 JCP 16 JACS 74 JACS 74 JCP 20 AC 26 SA 6 AC 27 JCS -	(1935) (1940) (1943) (1948) (1952) (1952) (1952) (1954) (1954) (1955) (1955)	1464 577 659 1157 2217 2492 1487 434 129 12 2818
$C_6H_6O_2$	Catechol	- - 3-15 μ - 520-1220 - 250-5000 3500-3800 6800-7200 - 2.7-2.9 μ	S Sol S S, L, Sol S, Sol L S Sol Sol Sol	H bond Freq Spec H bond, Config, Freq Polymorphism Substitution effect Spec, Assign Freq, Hammett const Spec Struct, Spec Iso, Spec	Pimental Bavin Farmer Malyshev Nonnenmacher Cabana Hidalgo Putnam Wulf Pauling Davies	JCP 24 CJC 35 SA 8 IANS 22 ZAC 170 JPC 64 SA 16 JCS - JACS 57 JACS 58 TFS 34	(1956) (1957) (1957) (1958) (1959) (1960) (1960) (1960) (1960) (1935) (1936) (1938)	639 1555 374 1107 127 1941 528 5100 1464 94 1427

$C_6H_6O_2$	Hydroquinone	7000	-	Absorption	Wulf	JCP	6 (1938)	712
		2.7-3.5 μ	S	Spec, H bond	Davies	JCP	8 (1940)	577
		1050-1800	-	Spec	Barnes	IEC	15 (1943)	659
		2-14.5 μ	Sol	Spec	Wright	JOSA	37 (1947)	211
		-	-	H bond	Coggeshall	JCP	18 (1950)	978
		3 μ	Sol	Freq	Ingraham	JACS	74 (1952)	2297
		3 μ	Sol	Freq	Kuhn	JACS	74 (1952)	2492
		-	-	Analysis	Bard	AC	26 (1954)	434
		2-16 μ	Sol	Spec	Bard	AC	27 (1955)	12
		2-15 μ	Sol	Spec	Wright	APS	9 (1955)	105
		-	-	IR analysis	Washburn	AC	29 (1957)	346
		800-1600	-	Ext coefficient	Katritzky	JCS	- (1959)	3670
		-	L	Substitution effect	Cabana	JPC	64 (1960)	1941
		3500-3800	Sol	Freq	Puttnam	JCS	- (1960)	5100
		6900-7200	Sol	Spec	Wulf	JACS	57 (1935)	1464
		2.7-3.5 μ	S	Spec, H bond	Davies	JCP	8 (1940)	577
		3 μ	Sol	Freq	Ingraham	JACS	74 (1952)	2297
		2-16 μ	S	Spec	Anderson	AC	25 (1953)	1906
		-	-	Analysis	Bard	AC	26 (1954)	434
		2-16 μ	Sol	Spec	Bard	AC	27 (1955)	12
		700-1000	S, Sol	Out of plane CH deformation	Bellamy	JCS	- (1955)	2818
$C_6H_6O_2$	cis-2-Hexen-4-ynoic acid	12-15 μ	S	Freq	Kross	JACS	78 (1956)	1332
		-	Sol	Freq	Bavin	CJC	35 (1957)	1555
		3-15 μ	S	Spec	Farmer	SA	8 (1957)	374
		-	Sol	IR	Washburn	AC	29 (1957)	3416
		-	S, L, Sol	H bond, Config, Freq	Malysher	IAMS	22 (1958)	1107
		-	Sol	Freq	Stone	SA	10 (1958)	17
		-	L	Substitution effect	Cabana	JPC	64 (1960)	1941
		250-5000	S	Spec, Assign	Hidalgo	SA	16 (1960)	528
		3500-3800	Sol	Freq, Hammett const	Puttnam	JCS	- (1960)	5100
		-	Sol	Freq, I	Allan	JCS	- (1955)	1874
$C_6H_6O_2$	trans-2-Hexen-4-ynoic acid	-	Sol	Freq, I	Allan	JCS	- (1955)	1874
		-	Sol	Freq, I	Allan	JCS	- (1955)	1874
$C_6H_6O_2$	cis-4-Hexen-2-ynoic acid	-	Sol	Freq, I	Allan	JCS	- (1955)	1874
		-	Sol	Freq, I	Allan	JCS	- (1955)	1874
$C_6H_6O_2$	trans-4-Hexen-2-ynoic acid	-	Sol	Freq, I	Allan	JCS	- (1955)	1874
		-	Sol	Freq, I	Allan	JCS	- (1955)	1874
$C_6H_6O_2$	5-Methyl- α -pyrone	1550-1850	Sol	Freq, I	Jones	CJC	37 (1959)	2007

$C_6H_6O_2$	6-Methyl- α -pyrone	-	-	Freq	Allan	JCS - (1955)	1862
$C_6H_6O_2$	Pyrocatechin	250-5000	S	Spec, Assign	Hidalgo	SA 16 (1960)	528
$C_6H_6O_2$	Pyrocatechol	3200-7100	S, L, Sol	H bond, Config, Freq	Malyshev	IANS 22 (1958)	1107
$C_6H_6O_2S$	Benzenesulphinic acid	700-3300 600-4000	S, Sol S	Struct, Assign, H bond Group study	Detoni Braunholtz	JCS - (1955) JCS - (1959)	3163 868
$C_6H_6O_2S$	2-Carbomethoxythiophene	800-2000 800-1500	L Sol	I Assign	Katritzky Katritzky	JCS - (1959) SA 16 (1960)	3500 954
$C_6H_6O_3$	Cyclobutane-1,2-dicarboxylic acid anhydride	-	-	Assign	Katritzky	SA 16 (1960)	964
$C_6H_6O_3$	Methyl 2-furoate	1750-1850	Sol	Freq	Douben	JOC 24 (1959)	1595
$C_6H_6O_3$	β -Methylglutaconic anhydride	2-22 μ 800-1700 800-1500	S Sol Sol	Spec, Assign Freq, Assign Assign	Daasch Katritzky Katritzky Katritzky	CIL - (1958) JCS - (1959) SA 16 (1960) SA 16 (1960)	1113 657 954 964
$C_6H_6O_3$	Phloroglucinol	-	-	Ident, Freq, Struct	Adams	JACS 75 (1953)	2377
$C_6H_6O_3 \cdot 2H_2O$	Phloroglucinol dihydrate	2-10 μ	S	Spec, Freq	Dubiel	JOC 19 (1954)	1359
$C_6H_6O_3$	Pyrogallol	2-12 μ	S	Spec, Struct	O' Connor	JACS 76 (1954)	2368
$C_6H_6O_3S$	Benzenesulphonic acid	6800-7200	Sol	OH bond	Wulf	JACS 58 (1936)	2287
$C_6H_6O_4$	α -Acetyltetronic acid	1000-1500 14.95 μ	Sol Sol	Spec Quant analysis	Schreiber Jackson	AC 21 (1949) JACS 77 (1955)	1168 5625
$C_6H_6O_4$	β -Carboxymethyl- α -oxybutyro- γ -lactone	1550-1800	S, Sol	Spec, Freq	Duncanson	JCS - (1953)	1207
$C_6H_6O_4$	1,4-Dicarboxybutane dilactone	-	-	Freq, Struct	Little	JCS - (1954)	2636
$C_6H_6O_4$	Dimethyl 2-Butynedioate	-	S, Sol	Freq	Marvel	JACS 75 (1953)	2326
$C_6H_6O_4$		-	L	Freq, I	Allan	JCS - (1955)	1874

$C_6H_6O_4$	Ethyl acetylenedicarboxylate	2-15 μ	L	Assign, Spec	Walton	JACS	79 (1957)	3985
$C_6H_6O_4$	2,4-Hexadiyn-1,6-dihydroperoxide	-	-	Freq	Milas	JACS	75 (1953)	5970
$C_6H_6O_4$	Hex-2-ynedioic acid	-	S	I	Jones	JCS	- (1954)	3208
$C_6H_6O_4$		-	S	Freq, I	Allan	JCS	- (1955)	1874
$C_6H_6O_4$	Kojic acid	2-16 μ	S	Spec	Kuhn	AC	22 (1950)	276
$C_6H_6O_6$	Dimethyl diketosuccinate	-	Sol	Freq	Goodwin	JACS	76 (1954)	5599
C_6H_6S	Benzenethiol	0.6-2.8 μ 3.1-4.5 μ	L L	S-H study H bond	Ellis	JACS	50 (1928)	2113
		-	Sol	H bond	Gordy	JACS	62 (1940)	497
		-	-	PC	Sutherland	TFS	36 (1940)	889
		-	-	S-H freq	Linnett	TFS	41 (1945)	223
		2-12 μ	Sol	Spec	Gordy	JCP	14 (1946)	305
		2.7-8.1 μ	L, Sol	Spec, Freq	Ettlinger	JACS	72 (1950)	4699
		-	Sol	S-H band, Freq	Meguerian	JACS	73 (1951)	2121
		600-4000	Sol	Freq	Plant	JACS	77 (1955)	1572
		2500-2700	Sol	I	Katritzky	JCS	- (1958)	4155
					Spurr	JPC	62 (1958)	425
C_6H_6S	2-Ethenylthiophene	400-3500	L	Freq	Hidalgo	CPR	239 (1954)	253
C_6H_7Br	3-Bromo-1,3,5-hexatriene	2-16 μ	-	Spec	Woods	JACS	72 (1950)	139
C_6H_7BrO	Methylvinyl (bromoethynyl)-carbinol	-	-	Freq	McLamore	JOC	20 (1955)	109
$C_6H_7BrO_2$	2-Bromo-1,3-Cyclohexadione	1550-1750	Sol	Spec, Assign	Ananchenko	IANS	- (1960)	1644
C_6H_7BrSi	Phenylbromosilane	-	L, Sol	Reference	Harvey	JACS	76 (1954)	4555
C_6H_7Cl	cis-1-Chloro-2-hexen-4-yne	-	Sol	Freq, I	Allan	JCS	- (1955)	1874
C_6H_7Cl	trans-1-Chloro-2-hexen-4-yne	-	Sol	Freq, I	Allan	JCS	- (1955)	1874
C_6H_7Cl	cis-1-Chloro-4-hexene-	-	Sol	Freq, I	Allan	JCS	- (1955)	1874

C_6H_7Cl	trans-1-Chloro-4-hexene -2-yne	-	Sol	Freq, I	Allan	JCS - (1955)	1874
C_6H_7Cl	cis-2-Chloro-3-hexen -5-yne	-	Sol	Freq, I	Allan	JCS - (1955)	1874
C_6H_7Cl	trans-2-Chloro-3-hexen -5-yne	-	Sol	Freq, I	Allan	JCS - (1955)	1874
$C_6H_7ClNO_3P$	N-p-Chlorophenyl- aminophosphoric acid	3-15 μ	L, S	Spec, Freq	Li	JACS 77 (1955)	3519
C_6H_7ClSi	m-Chlorophenylsilane	2050-2250	Sol	Freq, Struct	Smith	SA 15 (1959)	412
$C_6H_7Cl_2F_2O$	1-n-Propoxy-1,2-dichloro- 3,3,3-trifluoro- 1-propene	2-15 μ	G	Spec, Struct	Park	JACS 74 (1952)	4104
$C_6H_7Cl_3F_4Si$	β -(2,3-Tetrafluorocyclo- butylethyl) trichloro- silane	10.85-11.1 μ	-	Freq	Park	JOC 25 (1960)	1628
$C_6H_7Cl_3NOB$	4-Methoxypyridine-N- boron trichloride	900-3000	Sol	Freq, Assign	Katritzky	JCS - (1959)	2062
$C_6H_7Cl_3NOB$	4-Methoxypyridine boron trichloride	-	Sol	Freq, Assign	Katritzky	JCS - (1959)	2049
$C_6H_7Cl_3NB$	4-Methylpyridine boron trichloride	-	Sol	Freq, Assign	Katritzky	JCS - (1959)	2049
$C_6H_7Cl_3F_5Si$	β -(2,2-Dichloro-3,3- difluorocyclobutylethyl) trichlorosilane	10.85-11.1 μ	-	Freq	Park	JOC 25 (1960)	1628
$C_6H_7F_5O$	Pentafluoroethyl isopropyl ketone	650-5000	Sol, S	Freq	Griffin	SA 16 (1960)	1464
$C_6H_7F_5O$	Pentafluoroethyl n-propyl ketone	650-5000	Sol, S	Freq	Griffin	SA 16 (1960)	1464
$C_6H_7F_5O_2$	Isopropyl perfluoro- propionate	2-15 μ	L	Spec	Husted	JACS 75 (1953)	1605

$C_6H_7I_2N$	α -Picoline-iodine	-	Sol	Freq	Glusker	JCS	-	(1955)	471
$C_6H_7I_2N$	β -Picoline-iodine	-	Sol	Freq	Glusker	JCS	-	(1955)	471
C_6H_7N	Aniline	-	-	Beer's law	Baly	JCS	107	(1915)	1121
	1-12 μ	-	L	Spec	Bell	JACS	47	(1925)	2192
	0.8-2.8 μ	-	L	Spec	Ellis	JACS	49	(1927)	347
	0.6-2.3 μ	-	L	Spec	Ellis	JACS	50	(1928)	685
	0.59-2.8 μ	-	L	IR, Visible correlation	Ellis	PR	32	(1928)	906
	-	-	-	Freq	Bonino	TFS	25	(1929)	876
	-	-	-	C-H, N-H linkage heat	Ellis	PR	33	(1929)	27
	2.9 μ	-	-	Freq	Ellis	PR	35	(1930)	595
	1-30 μ	-	G	Spec	Kattering	P	4	(1933)	39
	6500-6800	-	Sol	Spec	Liddle	JACS	55	(1933)	3574
	6400-7000	-	Sol	Spec	Wulf	JACS	57	(1935)	1464
	-	-	-	H bond	Gordy	JCP	4	(1936)	749
	2.5-3.1 μ	-	L	Spec	Gordy	JACS	59	(1937)	464
	0.9-4 μ	-	L, Sol	Spec, H bond	Kinsey	JCP	5	(1937)	379
	7000	-	-	Struct	Wulf	JCP	6	(1938)	702
	2900-3800	-	Sol	Spec, H bond	Buswell	JACS	61	(1939)	3252
	2.6-3.2 μ	-	Sol	Spec, H bond	Gordy	JCP	7	(1939)	167
	1-15 μ	-	G	Freq, Assign	Williams	JCP	7	(1939)	802
	-	-	Sol	H bond	Sutherland	TFS	36	(1940)	889
	2400-3600	-	Sol	Spec	Muller	IEC	13	(1941)	667
	2400-3600	-	-	Spec	Barnes	IEC	15	(1943)	659
	1100-1700	-	-	Spec	Barnes	IEC	15	(1943)	659
	-	-	-	FC	Linnett	TFS	41	(1945)	223
	700-1400	-	L	Spec	Whiffen	TFS	41	(1945)	200
	5-8 μ	-	-	C_6H_6 derivatives	Depaigne	JPR	7	(1946)	33
	3410-3489	-	Sol	Freq	Flett	TFS	44	(1948)	767
	-	-	-	FC	Richards	TFS	44	(1948)	40
	650-2020	-	L	Spec	Cannon	SA	4	(1951)	373
	650-3500	-	L	Spec	Lothrop	JACS	73	(1951)	3581
	3 μ	-	Sol	Spec, Struct	Angyal	JCP	-	(1952)	2911
	3 μ	-	L	H bond	Fuson	JCP	20	(1952)	145
	-	-	Sol	Freq, Struct	Goulden	JCS	-	(1952)	2939
	6500-7000	-	L	Spec, Freq, I	Lauer	APS	6	(1952)	29
	15-25 μ	-	L	Opaque	Marri son	JST	29	(1952)	233
	-	-	Sol	FC, H bond	Short	JCS	-	(1952)	4584
	2-12 μ	-	Sol	Spec, Struct	O'Connor	JACS	76	(1954)	2368
	-	-	-	Purity check	Dannby	JOC	20	(1955)	92
	625-900	-	-	CH bending vibrations	Margoshes	SA	7	(1955)	14
	2.6-3.4 μ	-	-	H Bonds	Mizushima	SA	7	(1955)	100
	-	-	-	Freq	Califano	GCI	86	(1956)	1014

	12-15 μ	L	CH bending vibrations Stretching vibrations and liquid-vapour shift	Kross Benson	JACS JCP	78 (1956) 27 (1957)	1332 1164
	2000-4000	L, S, Sol	Spec	Califano	GCI	87 (1957)	805
	-	Sol	Freq	Krueger	PRS	243 (1957)	143
	3000-3700	Sol	Freq	Soda	BCSJ	30 (1957)	499
	1250-3600	Sol	Freq	Dyall	AJC	11 (1958)	513
	400-6000	-	IR	Friedel	JPC	62 (1958)	1341
	2900-3100	Sol	Freq	Hill	JCS	- (1958)	760
	4000-600	Sol	Freq	Katritzky	JCS	- (1958)	4155
	3 μ	Sol	FC	Mason	JCP	- (1958)	3619
	3000-4000	Sol	Freq	Orville-Thomas	JCS	- (1958)	1047
	14-22 μ	Sol	Analysis	Whetzel	AC	30 (1958)	1594
	8-26 μ	Sol	I, N-H band study	Whetzel	AC	30 (1958)	1598
	3 μ	Sol	Freq, FC	Elliot	JCS	- (1959)	1275
	-	S	Spec	Karagonuis	ZE	63 (1959)	1120
	-	-	Freq assign, Struct	Katritzky	JCS	- (1959)	3674
	600-1700	L	Spec	Lecompte	CPR	249 (1959)	2443
	-	Sol	Freq	Bryson	JACS	82 (1960)	4850
	400-3800	G, L, Sol	Config, Assign, Freq	Evans	SA	16 (1960)	428
	3000-3500	Sol	H bond	Farmer	SA	16 (1960)	559
	500-3500	Sol	Freq, Assign	Tsibol	SA	16 (1960)	505
	1.4-1.6 μ	Sol	Bond study	Whetzel	AC	32 (1960)	1281
$C_6H_7N.HBr$	1000-3500	Sol	Freq	Chenon	CJC	36 (1958)	1181
	4000-2000	S	H bond	Brisette	CJC	38 (1960)	34
$C_6H_7N.HCl$	-	Sol	Freq	Barrow	JACS	76 (1954)	5211
	625-900	-	Bending freq	Margoshes	SA	7 (1955)	14
	12-15 μ	S	Freq	Penland	JACS	78 (1956)	887
	2-8 μ	-	Spec	Nakaniishi	BCSJ	30 (1957)	403
	1000-3500	Sol	Freq	Chenon	CJC	36 (1958)	1958
	420-4000	-	Spec, Assign	Gray	DA	19 (1958)	454
	2000-4000	S	H bond	Brisette	CJC	38 (1960)	34
$C_6H_7N.HCl$	-	-	Freq	Witkop	JACS	76 (1954)	1954
$C_6H_7N.HI$	1000-3500	Sol	Freq	Chenon	CJC	36 (1958)	1181
	2000-4000	S	H bond	Brisette	CJC	38 (1960)	34
C_6H_7N	52-152 μ	L, Sol	Iso, Dispersion	Cartwright	PRS	154 (1936)	138

C_6H_7N	3-Methylpyridine	-	-	Solvent effect	Gordy	JCP	7 (1939)	93
		-	-	Solvent effect	Gordy	JCP	7 (1939)	163
		750-1950	-	Spec	Barnes	IEC	15 (1943)	659
		-	-	Freq	Kline	JCP	12 (1943)	300
		2-14 μ	L	Spec	Frieser	JACS	70 (1948)	2575
		2800-4200	L	Spec	Coulson	JCS	- (1951)	2125
		-	L, Sol	Analysis	Densham	JCS	- (1952)	2433
		-	-	Ident	Vanmeter	AC	24 (1952)	1758
		729-4300	G, L	I	Biddiscombe	JCS	- (1954)	1957
		5-8 μ	Sol	Spec	Ehrlich	JACS	76 (1954)	5263
		-	L	Freq	Cook	AC	28 (1956)	993
		670-5000	G, L	Spec	Long	TFS	53 (1957)	1171
		2-15 μ	L	Freq	Podall	AC	29 (1957)	1423
		400-1700	L	Quant analysis	Bohon	AC+	30 (1958)	245
		2.18-21.20 μ	L	Purification	Helm	JPC	62 (1958)	858
		52-152 μ	L	Trans, Dispers	Cartwright	PRS	154 (1936)	138
		750-1950	-	Spec	Barnes	IEC	15 (1943)	659
		660-2040	L	Spec	Cannon	SA	4 (1951)	373
		2800-4200	L	Spec	Coulson	JCS	- (1951)	2125
C_6H_7N	4-Methylpyridine	-	L, Sol	Analysis, Ext coefficient	Densham	JCS	- (1952)	2433
		-	-	Ident	Vanmeter	AC	24 (1952)	1758
		708-4590	G, L	I	Biddiscombe	JCS	- (1954)	1957
		-	L	Analysis	Cook	AC	28 (1956)	993
		3-4 μ	L, Sol	C-H stretch freq	Tallent	AC	28 (1956)	953
		670-5000	G, L	Spec	Long	TFS	53 (1957)	1171
		2-15 μ	L	Freq	Podall	AC	29 (1957)	1423
		2.5-25 μ	Sol	Spec, Quant analysis	Bohon	AC	30 (1958)	245
		600-3000	Sol	Assign	Katritzky	JCS	- (1958)	3165
		750-1950	-	Spec	Barnes	IEC	15 (1943)	659
		650-2030	L	Spec	Cannon	SA	4 (1951)	373
		2800-4200	L	Spec	Coulson	JCS	- (1951)	2125
		-	L, Sol	Ext coefficient	Densham	JCS	- (1952)	2433
		-	-	Ident	Vanmeter	AC	24 (1952)	1758
		728-4580	G, L	I	Biddiscombe	JCS	- (1954)	1957
		-	L	Analysis	Cook	AC	28 (1956)	993
		670-5000	G, L	Spec	Long	TFS	53 (1957)	1171
		2-15 μ	L	Freq	Podall	AC	29 (1957)	1423
		400-1700	L, Sol	Spec	Bohon	AC	30 (1958)	245
C_6H_7N	2-Vinylpyrrole	-	Sol	Freq	Hery	JACS	76 (1954)	576
	2-Acetylpyrrole	4000-5000	S, Sol	Spec, Struct, Assign	Elsner	JCS	- (1958)	971

C_6H_7NO	m-Aminophenol	3 μ	S, Sol S, Sol Sol	H bond, Struct Freq I, Freq, Struct	Mirone Mirone Mirone	AC ANCR ANCR	48 (1958) 48 (1958) 49 (1959)	881 72 59
C_6H_7NO	o-Aminophenol	- - 3500-3800	Sol L Sol	Freq Substitution effect Freq	Ingrahan Cabana Puttnam	JACS JPC JCS	74 (1952) 64 (1960) - (1960)	2297 1941 5100
C_6H_7NO	p-Aminophenol	3612 3500-3800 -	S, Sol Sol L	Spec, Freq Substitution effect Freq, Hammett const Freq, Hammett const Substitution effect	Witkop Cabana Cabana Puttnam Baker	JACS JPC JPC JCS JPC	74 (1952) 64 (1960) 62 (1958) - (1960) 64 (1960)	3861 1941 744 5100 1941
C_6H_7NO	2-Cyanocyclopentanone	2-15 μ	L	Freq, Spec	Hammer	JACS	77 (1955)	3649
C_6H_7NO	3-Hydroxymethylpyridine	600-3000	Sol	Assign	Katritzky	JCS	- (1958)	3165
C_6H_7NO	3-Hydroxy-4-methylpyridine	-	-	No absorption	Berson	JACS	77 (1955)	1281
C_6H_7NO	α -Methoxypyridine	900-3000	Sol	Freq, Assign	Katritzky	JCS	- (1959)	2062
C_6H_7NO	γ -Methoxypyridine	900-3000	Sol	Freq, Assign	Katritzky	JCS	- (1959)	2062
C_6H_7NO	2-Methyl-6-oxypyridine	2-16 μ	Sol	Spec, Freq, Ident	Ramirey	JOC	19 (1954)	183
C_6H_7NO	3-Methoxypyridine	650-4000	L, Sol	Spec, Freq, H bond	Heinert	JACS	81 (1959)	3933
C_6F_7NO	3-Methylpyridine-1-oxide	800-3000	Sol	Spec, Freq, I	Katritzky	JCS	- (1959)	3680
C_6H_7NO	4-Methylpyridine-1-oxide	600-3000	Sol	I	Katritzky	JCS	- (1958)	2192
C_6H_7NO	N-Methyl-2-pyridone	- 800-4000	Sol S	Freq, Ident Spec, Freq	Bellamy Katritzky	SA JCS	16 (1960) - (1960)	30 2947
C_6H_7NO	N-Methyl-4-pyridone	- 800-4000 700-3800	Sol S S, Sol	Freq, Ident Spec, Freq Spec, Struct, Freq	Bellamy Katritzky Albert	SA JCS JCS	16 (1960) - (1960) - (1960)	30 2947 1221
C_6H_7NO	N-Phenylhydroxylamine	-	Sol	Freq, Struct	Fanta	JACS	75 (1953)	737

$C_6H_7NO_5$	2-Acetylthiophene ketoxime	800-2000	L	I	Katritzky	JCS - (1959)	3500
$C_6H_7NO_5$	N-Methylthiofuramide	600-1700	S, Sol	Spec, Assign	Hadzi	JCS - (1957)	847
$C_6H_7NO_2$	3-Acetoxy-3-cyanoprop -1-ene	-	Sol	Freq	Davison	JCS - (1953)	2607
$C_6H_7NO_2$	2-Acetylfuran ketoxime	800-1800	-	Freq, Assign	Katritzky	JCS - (1959)	657
$C_6H_7NO_2$	N-Ethylmaleinimide	2-15 μ	Sol	Freq	Tsou	JACS 77 (1955)	4613
$C_6H_7NO_2$	N-Methoxy-2-pyridone	800-4000	S	Spec, Freq	Katritzky	JCS - (1960)	2947
$C_6H_7NO_2$	N-Methoxy-4-pyridone	800-4000	S	Spec, Freq	Katritzky	JCS - (1960)	2947
$C_6H_7NO_2$	2-Methoxypyridine-N-oxide	900-3000	Sol	Freq, Assign	Katritzky	JCS - (1959)	2062
$C_6H_7NO_2$	3-Methoxypyridine-N-oxide	900-3000	Sol	Spec, Freq, I Freq, Assign	Katritzky Katritzky	JCS - (1959) JCS - (1959)	2062 3680
$C_6H_7NO_2$	4-Methoxypyridine-N-oxide	600-3000 900-3000	Sol Sol	I Freq, Assign	Katritzky Katritzky	JCS - (1958) JCS - (1959)	2192 2062
$C_6H_7NO_2$	2-Methyl-4-carboxypyrrrole	3.2-3.5 μ	-	Vibrations	Sorocco	AAN 24 (1958)	429
$C_6H_7NO_2$	2-Methyl-5-carboxypyrrrole	3.2-3.5 μ	-	Vibrations	Sorocco	AAN 24 (1958)	429
$C_6H_7NO_2$	3-Methyl-4-carboxypyrrrole	3.2-3.5 μ	-	Vibrations	Sorocco	AAN 24 (1958)	429
$C_6H_7NO_2$	3-Methyl-5-carboxypyrrrole	3.2-3.5 μ	-	Vibrations	Sorocco	AAN 24 (1958)	429
$C_6H_7NO_2$	4-Methyl-5-carboxypyrrrole	3.2-3.5 μ	-	Vibrations	Sorocco	AAN 24 (1958)	429
$C_6H_7NO_2$	5-Methyl-4-carboxypyrrrole	3.2-3.5 μ	-	Vibrations	Sorocco	AAN 24 (1958)	429
$C_6H_7NO_2$	N-Methyl-3-hydroxy-4- pyridone	650-3900	S	Spec	Adams	JACS 69 (1947)	1810
$C_6H_7NO_2 \cdot HCl \cdot 2H_2O$	2,6-Dihydroxy-4-methyl- pyridine hydrochloride dihydrate	824-3400	S	Table, Band freq	Ames	JCS - (1953)	3008

$C_6H_7NO_2S$	Benzenesulfonamide	1000-1500	Sol S, Sol	Spec Freq	Schreiber Baxter	AC JCS	21 (1949) - (1955)	1168 669
$C_6H_7NO_3$	3-Allyloxazolid-2,4-dione	650-4000	Sol	Spec	Pianka	JCS	- (1960)	983
$C_6H_7NO_3$	N-Hydroxy- α,β -dimethylmaleinimide	-	S	Freq	Ames	JCS	- (1955)	631
$C_6H_7NO_3 \cdot HCl$ $2H_2O$	2,3,6-Trihydroxy-4-methylpyridine hydrochloride dihydrate	741-3200	S	Band freq, Table	Ames	JCS	- (1953)	3008
$C_6H_7NO_3S$	Metanilic acid	750-1950	S -	Spec Absorbance	Barnes Bomstein	IEC AC	15 (1943) 25 (1953)	659 512
$C_6H_7NO_3S$	Orthanilic acid	750-1950	S -	Spec Absorbance	Barnes Bomstein	IEC AC	15 (1943) 25 (1953)	659 512
$C_6H_7NO_3S$	Sulfanilic acid	750-1950	- S -	Spec Specular reflectance Absorbance	Barnes Rappaport Bomstein	IEC PR AC	15 (1943) 74 (1948) 25 (1953)	659 115 512
$C_6H_7NO_4$	N-Acetoxy succinimide	-	S	Freq	Ames	JCS	- (1955)	631
C_6H_7NS	2-Methylmercapto-pyridine	700-3600	S, Sol	Freq, Assign	Spinner	JCS	- (1960)	1237
C_6H_7NS	3-Methylmercapto-pyridine	700-3600	S, Sol	Freq, Assign	Spinner	JCS	- (1960)	1237
C_6H_7NS	4-Methylmercapto-pyridine	700-3600	S, Sol	Freq, Assign	Spinner	JCS	- (1960)	1237
C_6H_7NS	N-Methyl-2-thio-pyridone	800-4000 700-3600	S S, Sol	Spec, Freq Freq, Assign	Katritzky Spinner	JCS JCS	- (1960) - (1960)	2947 1237
C_6H_7NS	N-Methyl-4-thio-pyridone	800-4000 700-3600	S S, Sol	Spec, Freq Freq, Assign	Katritzky Spinner	JCS JCS	- (1960) - (1960)	2947 1237
$C_6H_7N_5$	2-Amino-6-methylpurine	700-3500	S	Spec, Freq	Willits	JACS	77 (1955)	2569

$C_6H_7N_5$	6-Amino-2-methylpurine	795-3271	S	I, Freq	Willits	JACS	77 (1955)	2569
C_6H_7NS	6-Amino-2-methyl-mercaptapurine	677-3295	S	I, Freq	Willits	JACS	77 (1955)	2569
$C_6H_7O_2P$	Benzenephosphinic acid	2-21/ μ	Sol	Spec	Deasch	AC	23 (1951)	853
$C_6H_7O_2P$	Phenylhypophosphorous acid	-	-	P = O study	Bell	JACS	76 (1954)	5185
		-	-	Freq	Bennett	JCS	- (1954)	3598
		600-4000	S	Group study	Braunholtz	JCS	- (1959)	868
$C_6H_7O_3P$	Phenylphosphorous acid	2-21/ μ	S	Spec	Deasch	AC	23 (1951)	853
		600-4000	S	P(:O)OH group presence established	Braunholtz	JCS	- (1959)	868
$C_6H_7O_3As$	Phenylarsonic acid	1500-4000	S	Spec	Braunholtz	JCS	- (1959)	868
$C_6H_7O_4P$	Phenoxypophosphorous acid	-	Sol	P-OH freq	Bellamy	JCS	(1952)	1701
		600-4000	S	P(:O)OH group presence established	Braunholtz	JCS	- (1959)	868
$C_6H_7O_4P.H_2O$	Phenyldihydrogen phosphate monohydrate	-	-	Freq	Bellamy	JCS	- (1952)	1701
C_6H_8	1,3-Cyclohexadiene	-	-	Quant mech	Mulliken	JCP	7 (1939)	121
		-	-	Quant mech	Mulliken	JCP	7 (1939)	339
		-	-	Ident	Hine	JACS	77 (1955)	594
C_6H_8	1,4-Cyclohexadiene	-	-	Spec	Gerding	RTC	68 (1949)	293
C_6H_8	1,2-Dimethyl-1-buten-3-yne	-	-	Spec	Petrov	ZOK	27 (1957)	1167
C_6H_8	1,2-Dimethylene-cyclobutane	2-15/ μ	G	Spec	Blomquist	JACS	77 (1955)	1806
C_6H_8	1-Ethyl-1-buten-3-yne	-	-	Spec	Petrov	ZOK	27 (1957)	1167
C_6H_8	4-Ethyl-1-buten-3-yne	-	-	Spec	Petrov	ZOK	27 (1957)	1167
C_6H_8	1,3,5-Hexatriene	2-15/ μ	L	Spec	Woods	JACS	70 (1948)	3394
			L,G	Spec, Assign, Config	Lippincott	JACS	80 (1958)	2926

C_6H_8	1-Hexen-4-yne	-	-	Spec	Petrov	ZOK	27 (1957)	1167
C_6H_8	2-Vinyl-1,3-butadiene	3.8-13.25 μ	-	Freq Speco, Freq	Bailey Blomquist	JACS JACS	77 (1955) 77 (1955)	1133 81
$C_6H_8D_2N_2O_2$	1,2-Cyclohexanedione dioxime-d ₂	2-16 μ	S	Speco, H bond	Voter	AC	23 (1951)	1730
$C_6H_8D_2O_4$	Adipic acid-d ₂	500-1500 400-4000	S S	Speco, Assign Assign, Struct	Hadzi Busi	PRS SA	216 (1953) 15 (1959)	247 1063
C_6H_8BrCl	cis-1-Bromo-2-chloro- cyclohexene	-	-	Ident	Goering	JACS	77 (1955)	3465
$C_6H_8Br_2$	Trans-4,5-Dibromo- cyclohexene	-	-	Freq	Varfameleu	JACS	77 (1955)	1704
$C_6H_8Br_2$	3,6-Dibromo-1-cyclohexene	-	-	Iso	Sakashita	NKZ	80 (1959)	13
$C_6H_8Br_2$	1,6-Dibromo-2,4- hexadiene	-	-	Struct	Bateman	JCS	- (1950)	936
$C_6H_8Br_2Cl_2$	1,2-Dichloro-4,5- dibromocyclohexane	495-928	S,Sol	Iso	Kozima	JCP	25 (1956)	177
$C_6H_8Br_2O$	2,2-Dibromocyclo- hexanone	-	Sol	Freq	Corey	JACS	75 (1953)	3297
$C_6H_8Br_2O$	cis-2,6-Dibromo- cyclohexanone	-	Sol	Freq	Corey	JACS	75 (1953)	3297
$C_6H_8Br_2O$	trans-2,6-Dibromo- cyclohexanone	-	Sol	Freq	Corey	JACS	75 (1953)	3297
$C_6H_8ClNO_3$	Allyl-N-Chloroacetyl- carbamate	650-4000	Sol	Speco	Pianka	JCS	- (1960)	983
$C_6H_8ClN_3$	2-Methylamino-4- methyl-6-chloro- pyrimidine	2-25 μ	S	Speco, Freq	Short	JCS	- (1952)	168
$C_6H_8Cl_2$	4,5-Dichloro-1-cyclo- hexene	-	S,Sol	Speco, Assign, Struct	Sakashita	NKZ	79 (1958)	329

$C_6H_8Cl_2O$	2,2-Dichlorocyclohexanone	-	-	Band shift	Corey	JACS	77 (1955)	5418
$C_6H_8F_2Se$	2,3-Dimethyl-selenophene	600-3000	Sol	Freq	Chumaevskii	OS	6 (1959)	45
$C_6H_8F_2Se$	2,4-Dimethyl-selenophene	600-3000	Sol	Freq	Chumaevskii	OS	6 (1959)	45
$C_6H_8F_2Se$	3,4-Dimethyl-Selenophene	600-3000	Sol	Freq	Chumaevskii	OS	6 (1959)	45
$C_6H_8F_4NB$	Phenylammonium tetrafluoroborate	-	S	H bond, freq	Nut tall	JCS	- (1960)	4965
$C_6H_8N_2$	Adiponitrile	3-5.5 μ	L	Spec Freq, I	Magat Kitson	JACS	73 (1951)	1031
		-	-	I	Thompson	TFS	24 (1952)	334
		2200-2300	Sol	Freq, Struct	Jesson	SA	52 (1956)	1451
							13 (1958)	217
$C_6H_8N_2$	Amino-2-cyanocyclopentene-1	2-15 μ	Sol	Freq, Spec	Hammer	JACS	77 (1955)	3649
$C_6H_8N_2$	1,2-Dihydro-2-imino-1-methylpyridine	3 μ	Sol	Spec, Freq	Angyal	JOS	- (1952)	2911
		-	Sol	Freq, Struct	Goulden	JOS	- (1952)	2939
$C_6H_8N_2$	1,4-Dihydro-4-imino-1-methylpyridine	6 μ	-	Spec, Freq, Struct	Angyal	JOS	- (1952)	2911
$C_6H_8N_2$	Ethylsuccinonitrile	-	-	Freq	Kitson	AC	24 (1952)	334
$C_6H_8N_2$	2-Methylaminopyridine	-	Sol	Freq, Struct	Goulden	JOS	- (1952)	2939
		-	-	Freq, Assign, Struct	Katritzky	JOS	- (1959)	3674
$C_6H_8N_2$	3-Methylaminopyridine	600-3000	Sol	Assign	Katritzky	JOS	- (1958)	3165
		-	-	Freq, Assign, Struct	Katritzky	JOS	- (1959)	3674
$C_6H_8N_2$	4-Methylaminopyridine	-	-	Freq, Struct	Katritzky	JOS	- (1959)	3674
$C_6H_8N_2$	4-Methylglutaronitrile	-	-	Freq	Kitson	AC	24 (1952)	334
$C_6H_8N_2$	1-Methyl-2-vinylimidazole	-	L	Struct	Lawson	JACS	75 (1953)	3398

$C_6H_8N_2$	m-Phenylenediamine	6400-7000	Sol	Spec Absorption band	Wulf Wulf Califano Karagounis Katritzky Bryson	JACS JCP GCI ZE JCS JACS	57 (1935) 6 (1938) 86 (1956) 63 (1959) - (1959) 82 (1960)	1464 702 1014 1120 3674 4858
$C_6H_8N_2$	o-Phenylenediamine	6400-6900	Sol	Spec Absorption band	Wulf Wulf	JACS JCP	57 (1935) 6 (1938)	1464 702
		-	-	Spec	Karagounis	ZE	63 (1959)	1120
		800-1600	-	I, Ext coeff	Katritzky	JCS	- (1959)	3674
		-	-	Freq, Assign, Struct	Katritzky	JCS	- (1959)	3670
$C_6H_8N_2$	p-Phenylenediamine	6400-7000	Sol	Spec Absorption band	Wulf Wulf	JACS JCP	57 (1935) 6 (1938)	1464 702
		700-1000	S, Sol	Deformation study	Bellamy	JCS	- (1955)	2818
		-	-	Freq	Califano	GCI	186 (1956)	1014
		-	Sol	Freq	Krueger	PRS	243 (1957)	143
		14-26 μ	S	Struct, Quant anal	Whetsel	AC	30 (1958)	1598
		-	S	Spec	Karagounis	ZE	63 (1959)	1120
$C_6H_8N_2$	Phenylhydrazine	6200-6800	Sol	Spec	Wulf	JACS	57 (1935)	1464
$C_6H_8N_2O$	2,4-Dimethyl-6-hydroxypyrimidine	-	-	Struct	Snyder	JACS	76 (1954)	118
$C_6H_8N_2O$	1,3-Dimethyl-6-pyridazone	-	Sol	Struct, Freq	Overend	JCS	- (1950)	3500
$C_6H_8N_2O$	4-Hydroxy-2,6-dimethyl-pyrimidine	2-25 μ	S	Spect, Freq	Short	JCS	- (1952)	168
$C_6H_8N_2O$	4-Methylaminopyridine-1-oxide	600-3000	Sol	I Freq, Assign, Struct	Katritzky Katritzky	JCS JCS	- (1958) - (1959)	2192 3674
$C_6H_8N_2O$	2-Methylaminopyridine-N-oxide	800-3000	Sol	I Freq, Assign, Struct	Katritzky Katritzky	JCS JCS	- (1958) - (1959)	2195 3674
$C_6H_8N_2O$	β, β' -Oxydipropionitrile	8-11 μ	Sol	Spec, Ident	Dupre	AC	27 (1955)	1878
$C_6H_8N_2O \cdot HCl$	2,4-Dimethyl-6-hydroxypyrimidine hydrochloride	-	-	Ident	Snyder	JACS	76 (1954)	118
$C_6H_8N_2OS$	2-Amino-5-isopropylidene-2-thiazolin-4-one	3-9 μ	-	Assign of struct	Durden	JACS	81 (1959)	1943
$C_6H_8N_2OS$	4-Hydroxy-2-methylthio-6-methylpyrimidine	2-15 μ	S	Spec, Freq, Assign	Brownlie	JCS	- (1950)	3062

$C_6H_8N_2O_2$	DL-Biacetyloyanohydrin	-	-	Freq	Kitson	AC	24 (1952)	334
$C_6H_8N_2O_2$	meso-Biacetyloyanohydrin	-	-	Freq	Kitson	AC	24 (1952)	334
$C_6H_8N_2O_2$	1,3-Dimethyl-2,4-diketopyrimidine	2-25 μ	S	Spec, Freq	Short	JCS	- (1952)	168
$C_6H_8N_2O_2$	α -N-Methoxyamino-pyridine-N-oxide	800-3000	Sol	Effect of substituent	Katritzky	JCS	- (1958)	2195
$C_6H_8N_2O_2S$	2-Amino-5(1-hydroxy-1-methyl)ethyl-2-thiazolin-4-one	3-9 μ	-	Assign of struct	Durden	JACS	81 (1959)	1943
$C_6H_8N_2O_2S$	3-Methane sulfonamido-pyridine	900-3350	Sol	Freq, Assign, Ext coefficient	Katritzky	JCS	- (1960)	4497
$C_6H_8N_2O_2S$	m-Sulfanilamide	750-1950	S	Spec	Barnes	IEC	15 (1943)	659
$C_6H_8N_2O_2S$	o-Sulfanilamide	750-1950	S	Spec	Barnes	IEC	15 (1943)	659
$C_6H_8N_2O_2S$	p-Sulfanilamide	750-1950	S	Spec	Barnes	IEC	15 (1943)	659
$C_6H_8N_2O_2S$		5-40.0 μ	S	Freq	Baxter	JCS	- (1955)	669
$C_6H_8N_2O_2S.H_2O$	2-Amino-3-(2-carboxy-ethyl)-thiazolium-betaine hydrate	2.88-15.5 μ	S	Freq	Hurd	JACS	77 (1955)	117
$C_6H_8N_2O_3$	6-Ethoxyuracil	2-12 μ	Sol	Spec, Freq assign	Lacher	JPC	59 (1955)	615
C_6H_8O	Cyclohex-1-en-4-one	650-3100	Sol	Spec	Henbest	JCS	- (1957)	997
C_6H_8O	Cyclohex-2-enone	-	-	Quant analysis	Boteman	JCS	- (1955)	1996
C_6H_8O		650-900	Sol	Spec	Henbest	JCS	- (1957)	997
C_6H_8O	2,5-Dimethylfuran	-	-	Spec	Santhamna	TFS	53 (1957)	1061
C_6H_8O	1-Ethoxybut-1-en-3-yne	650-3150	L	Freq, I	Meakins	JCS	- (1953)	4170
C_6H_8O	1-Ethynylcyclobutanol	3100-3400	L	Ident	Filler	CIL	- (1957)	1322

C_6H_8O	2,4-Hexadienal	1400-2000	G,Sol	Spec	Blout	JACS	70 (1948)	194
C_6H_8O	trans-2-Hexen-4-yn-1-ol	-	Sol	Freq, I	Allan	JCS	- (1955)	1874
C_6H_8O	cis-3-Hexen-5-yn-2-ol	-	Sol	Freq, I	Allan	JCS	- (1955)	1874
C_6H_8O	trans-3-Hexen-5-yn-2-ol	-	Sol	Freq, I	Allan	JCS	- (1955)	1874
C_6H_8O	cis-4-Hexen-2-yn-1-ol	-	Sol	Freq, I	Allan	JCS	- (1955)	1874
C_6H_8O	trans-4-Hexen-2-yn-1-ol	-	Sol	Freq, I	Allan	JCS	- (1955)	1874
C_6H_8O	2-Methoxy-1-penten-3-yne	-	-	Spec, Freq	Petrov	ZOK	28 (1958)	71
$C_6H_8O_2$	Allyl acrylate	-	Sol	Freq	Davison	JCS	- (1953)	2607
$C_6H_8O_2$	1,4-Cyclohexadiene dioxide	3-15 μ	Sol	Spec, Freq	Patterson	AC	26 (1954)	823
$C_6H_8O_2$	Cyclohexanedione	1550-1750	Sol	Spec, Assign	Ananchinku	IANS	- (1960)	1644
$C_6H_8O_2$	γ,γ -Dimethyl- $\Delta^{\alpha,\beta}$ -butenolide	1550-1850	Sol	Freq, I	Jones	CJC	37 (1959)	2007
$C_6H_8O_2$	Dimethylcyclobutane-dione	-	S	Ident	Reid	JACS	75 (1953)	1655
$C_6H_8O_2$	Ethyl buta-2,3-dienoate	-	-	Purity	Eglinton	JCS	- (1954)	3197
$C_6H_8O_2$	Ethyl but-3-ynoate	-	-	Impurity	Eglinton	JCS	- (1954)	3197
$C_6H_8O_2$	1- α -Furylethanol-1	665-5000	L	Freq	Zeiss	JACS	75 (1953)	897
$C_6H_8O_2$	1,3-Hexadienic acid	- 3 μ	Sol Sol	Freq I, Freq	Goulden Wenograd	SA JACS	6 (1954) 79 (1957)	129 5844
$C_6H_8O_2$	cis-2,cis-4-Hexadienoic acid	-	L	Freq, I	Allan	JCS	- (1955)	1874

$C_6H_8O_2$	cis-2,trans-4-Hexadienoic acid	-	-	Sol	Purity Freq, I	Allan Allan	JCS JCS	- -	(1955) (1955)	1862 1874
$C_6H_8O_2$	trans-2,cis-4-Hexadienoic acid	-	-	Sol	Freq, I	Allan	JCS	-	(1955)	1874
$C_6H_8O_2$	trans-2,trans-4-Hexadienoic acid	-	-	S	Freq, I	Allan	JCS	-	(1955)	1874
$C_6H_8O_2$	δ -Hexenolactone	-	-	L,S	Freq, Struct	Pinder	JCS	-	(1952)	2236
$C_6H_8O_2$	4-Hydroxy-2,3-dimethylbut-2-enoic lactone	760-2967	L	Freq		Ames	JCS	-	(1954)	375
$C_6H_8O_2$	Methyl pent-3-ynoate	-	-	-	Freq	Jones	JCS	-	(1954)	3201
$C_6H_8O_2$	γ -Vinyl- γ -butyrolactone	3.4-8.6 μ	-	Ident		Zuidema	JACS	75	(1953)	294
$C_6H_8O_2$	Vinyl crotonate	-	-	Sol	Freq Spec Assign	Davison Patterson Walton	JCS AC JACS	- 26 79	(1953) (1954) (1957)	2607 823 3985
$C_6H_8O_3$	α -Acetyl- γ -butyrolactone	2-15 μ	-	-	Freq	Rasmussen	JACS	71	(1949)	1073
$C_6H_8O_3$	α,γ -Dimethyltetronic acid	-	-	S,Sol	Freq	Chopra	JCS	-	(1955)	588
$C_6H_8O_3$	3-Ethyltetronic acid	2-15 μ 1550-1750	S S,Sol	Spec, Freq Spec, Freq, Struct		Reid Duncanson	JOC JCS	16 -	(1951) (1953)	33 1207
$C_6H_8O_3$	6-Hydroxyhex-2-ynoic acid	-	-	S	I	Jones	JCS	-	(1954)	3208
$C_6H_8O_3$	7-Oxo-6,8-dioxabicyclo-[3.2.1] octane	-	-	-	CHO, OH, COOH group study	Whetstone	JACS	73	(1951)	5280
$C_6H_8O_3Si$	Phenylsilanetriol	3.15-14.35 μ S	-	-	Freq	Tyler	JACS	77	(1955)	770
$C_6H_8O_4$	cis-1,2-Cyclobutanedicarboxylic acid	-	-	S	Spec, Ident	Cope	JACS	74	(1952)	168

$C_6H_8O_4$	Dimethyl fumarate	1050-1800 - 2-16/ μ 600-4000	- Sol L,Sol L	Spec Freq, I Spec, Ident Spec, Assign	Barnes Goodwin Walton Lefevre	IEC JACS AC AJC	15 (1943) 75 (1953) 28 (1956) 11 (1958)	659 4273 1388 92
$C_6H_8O_4$	Dimethyl maleate	1100-1950 - 2-16/ μ 600-4000	- Sol L,Sol L	Spec Freq, I Spec, Ident Spec, Assign	Barnes Goodwin Walton Lefevre	IEC JACS AC AJC	15 (1943) 75 (1953) 28 (1956) 11 (1958)	659 4273 1388 92
$C_6H_8O_4$	Ethyl fumarate	2-15/ μ	L	Assign	Walton	JACS	79 (1957)	3985
$C_6H_8O_4$	Isopropylidene malonate	3-6/ μ	S,Sol	Struct, Spec	Abramovich	CJC	37 (1959)	361
$C_6H_8O_4$	meso-Lactide	4-8/ μ	Sol	Spec, Struct	Wasserman	JACS	72 (1950)	5787
$C_6H_8O_6$	Ascorbic acid	2-13/ μ	Sol	Spec	Sternglanz	APS	10 (1956)	77
$C_6H_8O_6$	L-Ascorbic acid	2-8/ μ 700-3600	Sol S	Spec, Struct Spec	Williams Weigl	JACS AC	59 (1937) 24 (1952)	1422 1483
$C_6H_8O_6$	Dimethyl dihydroxy- fumarate	3.16-11.41/ μ	S,Sol	Freq, I	Goodwin	JACS	76 (1954)	5599
$C_6H_8O_6$	Glucuronic acid lactone	5.5-6.5/ μ	S	Spec	Ulteo	AC	27 (1955)	557
$C_6H_8O_6$	D-Glucuronofurono-6- β -lactone	700-1000	S	Freq, I	Barker	JCS	- (1954)	4550
$C_6H_8O_7$	Dimethyl- α -keto- α' - hydroperoxysuccinate	-	S	Freq	Goodwins	JACS	76 (1954)	5599
$C_6H_8O_7$	Dimethyl fumarate ozonide	-	Sol	Freq, I, Ident	Goodwin	JACS	75 (1953)	4273
$C_6H_8O_7$	Dimethyl maleate ozonide	-	Sol	Freq, I, Ident	Goodwin	JACS	75 (1953)	4273
C_6H_8S	2,3-Dimethylthiophene	-	-	Ident	Birch	JCS	- (1951)	3411
C_6H_8S	3,4-Dimethylthiophene	-	-	Ident	Marvel	JACS	77 (1955)	66
C_6H_8S	2-Ethylthiophene	400-3500	L	Freq	Hidalgo	CPR	239 (1954)	253

C_6H_8Si	Phenylsilane	- 2-16 μ 2050-2250	L, Sol Sol	Ref Freq Freq	Harvey Kniseley Smith	JACS SA SA	76 (1954) 15 (1959) 15 (1959)	4555 651 412
C_6H_9D	t-Butylacetylene- d_1	-	G	Spec	Zeil	ZN	15a (1960)	1011
C_6H_9D	1-Hexene-1- d_1	450-4000	-	Substitution effect	Hoffman	A	618 (1958)	276
C_6H_9D	2-Hexene-2- d_1	450-4000	-	Substitution effect	Hoffman	A	618 (1958)	276
C_6H_9D	3-Hexene-cis-3- d_1	450-4000	-	Substitution effect	Hoffman	A	618 (1958)	276
$C_6H_9DO_4$	Adipic acid- d_1	-	-	Freq, Struct	Bratoz	SA	8 (1956)	249
C_6H_9Br	1-Bromocyclohexene	-	-	Ident	Goering	JACS	77 (1955)	3465
C_6H_9Br	1-Bromocyclohex-2-ene	650-3100	Sol	Spec	Henbest	JCS	- (1957)	997
C_6H_9Br	3-Bromocyclohexene	-	L	Analysis	Westfahl	JACS	77 (1955)	2910
$C_6^{19}Br$	4-Bromo-1-cyclohexene	-	G, L	Spec, Struct	Sakashita	NKZ	80 (1959)	972
C_6H_9Br	cis-1-Bromo-2,5-hexadiene	-	-	Struct	Bateman	JCS	- (1950)	936
C_6H_9Br	trans-1-Bromo-2,5-hexadiene	- 5-15 μ	- L	Struct Ident	Bateman Lora	JCS JCS	- (1950) - (1950)	936 1418
C_6H_9Br	3-Bromo-1,5-hexadiene	-	-	Struct	Lora	JCS	- (1950)	1418
C_6H_9Br	1-Bromo-2-hexyne	-	L	Freq	Wotiz	JACS	72 (1950)	5055
C_6H_9BrO	2-Bromocyclohexanone	-	Sol Sol	Freq, Config IR shifts	Corey Leonard	JACS JACS	75 (1953) 80 (1958)	2301 6039
$C_6H_9BrO_2$	Ethyl- α -(bromomethyl)acrylate	-	-	Freq	Ferris	JOC	20 (1955)	780
$C_6H_9Cl^{35}$	1-Chloro-2-t-butylacetylene (Isotopic)	-	G	Spec	Zeil	ZN	15a (1960)	1011
$C_6H_9Cl^{37}$	1-Chloro-2-t-butylacetylene (Isotopic)	-	G	Spec	Zeil	ZN	15a (1960)	1011

C ₆ H ₉ Cl	1-Chlorocyclohexene	8-15 μ	L	Speo Ident	Stevens Goering	JACS JACS	74 (1952) 77 (1955)	4876 3465
C ₆ H ₉ ClO	α -Chlorocyclohexanone	- 1675-1705 2-25 μ 5-7 μ	Sol - Sol Sol	Freq, Config -C1 shifts Speco, Iso Spec, Taut	Corey Corey Kojima Campbell	JACS JACS JACS JACS	75 (1953) 77 (1955) 81 (1959) 82 (1960)	2301 5418 4159 5426
C ₆ H ₉ ClO	m-Chlorocyclohexanone	5-7 μ	Sol	Speco, Taut	Campbell	JACS	82 (1960)	5426
C ₆ H ₉ ClO	p-Chlorocyclohexanone	5-7 μ	Sol	Spec, Taut	Campbell	JACS	82 (1960)	5426
C ₆ H ₉ ClO	Ethylmethyl (Chloro- ethynyl) carbinol	-	-	RC = CR freq	McLamore	JOC	20 (1955)	109
C ₆ H ₉ ClO	Isopropenyl 2-chloro- ethyl ketone	-	Sol	Freq	Davison	JCS	- (1953)	2607
C ₆ H ₉ ClO ₂	2-Chloroallyl glycidyl ether	-	-	Ident	Noland	JACS	77 (1955)	3395
C ₆ H ₉ ClO ₂	Ethyl α -(Chloromethyl) acrylate	-	-	Freq	Ferris	JOC	20 (1955)	780
C ₆ H ₉ ClO ₂	cis-Ethyl β -chloroiso- crotonate	3.35-14.6 μ	L	I	Hatch	JACS	77 (1955)	1136
C ₆ H ₉ ClO ₂	trans-Ethyl β -chloro- isocrotonate	3.24-15.1 μ	L	I	Hatch	JACS	77 (1955)	1136
C ₆ H ₉ Cl ₃ OS	Butylthio trichloro- acetate	2.5-16 μ	Sol	Freq, Struot	Nyquist	SA	15 (1959)	514
C ₆ H ₉ Cl ₃ O ₂	t-Butyl trichloro- acetate	-	L	Freq	Flett	JCS	- (1952)	3355
C ₆ H ₉ FO	o-Fluorocyclohexanone	5-7 μ	Sol	Speco, Taut	Campbell	JACS	82 (1960)	5426
C ₆ H ₉ FO	p-Fluorocyclohexanone	5-7 μ	Sol	Speco, Taut	Campbell	JACS	82 (1960)	5426
C ₆ H ₉ FO	Trifluoromethyl n-butyl ketone	650-5000	Sol, L	Freq	Griffin	SA	16 (1960)	1464

$C_6H_9F_3OS$	Butylthio trifluoroacetate	2.5-16 μ	Sol	Freq, Struct	Nyquist	SA	15 (1959)	514
$C_6H_9F_3O_2$	2,2,2-Trifluoroethyl butyrate	2-16 μ	L	Freq, Spec Freq	Rappaport Filler	JACS	75 (1953)	2695
$C_6H_9IN_2O$	1,4(3,4)-Dihydro-1,3-dimethyl-4-oxopyridinium iodide	-	S	Freq	Brown	JCS	- (1955)	211
C_6H_9IO	Ethylmethyl(iodoethyl)carbinol	-	-	Freq	McLamore	JOC	20 (1955)	109
C_6H_9N	2,3-Dimethyl-2-butene-nitrile	-	-	Analysis	Corey	JACS	75 (1953)	1163
C_6H_9N	2,3-Dimethyl-3-butene-nitrile	-	-	Analysis	Corey	JACS	75 (1953)	1163
C_6H_9N	2,4-Dimethylpyrrole	-	Sol	Freq	Mirone	ANCR	48 (1958)	72
C_6H_9N	2,5-Dimethylpyrrole	3480	Sol	Freq	Pozefsky	AC	27 (1955)	1466
C_6H_9N	2-Ethylpyrrole	-	-	Ident	Herz	JACS	76 (1954)	576
C_6H_9N	N-Ethylpyrrole	2900-3100	Sol	Freq	Hill	JCS	- (1958)	760
C_6H_9NO	6-Methyl-5,6-dihydro-2-pyridone	600-3600	S	Spec	Edwards	CJC	32 (1954)	683
C_6H_9NO	N-Methyl-2-hydroxymethylpyrrole	-	-	Freq	Ryskiewicz	JACS	76 (1954)	5802
C_6H_9NO	2-Pyrrolemethylcarbinol	-	-	Bounded OH	Herz	JACS	76 (1954)	576
C_6H_9NO	3,4,5-Trimethylisoxazole	2-16 μ	L	Spec, Freq	Shechter	JACS	76 (1954)	2716
C_6H_9NO	N-Vinylpyrrolidone	2-9 μ	L	Spec, Freq Freq, Spec	Oster Potts	JACS SA	76 (1954) 15 (1959)	1393 679

C_6H_9NOS	trans-2-Hydroxy- cyclopentyl thio- cyanate	-	Absorption	Tamelen	JACS	73 (1951)	3444
$C_6H_9NO_2$	N-Acetyl-2-pyrrolidinone	1600-1800	L, Sol Freq	Hall	JACS	80 (1958)	6428
$C_6H_9NO_2$	N-Methylglutarimide	1600-1800	L, Sol Freq	Hall	JACS	80 (1958)	6428
$C_6H_9NO_2 \cdot HCl$	Baikalain hydrochloride	2-16 μ	S Spec	Zacharius	JACS	76 (1954)	2908
$C_6H_9NO_3$	N-Hydroxy- α, β -dimethyl- succinimide	-	S Freq	Ames	JCS	- (1955)	631
$C_6H_9NO_3S$	N-Acetylthiazolidine- 4-carboxylic acid	1000-3400	S Spec	Cavallits	JOC	15 (1950)	815
$C_6H_8NO_4$	Biacetyl-N-acetoxyammonia	-	Freq	Freeman	JACS	80 (1958)	5954
$C_6H_9NO_4S$	N-Acetylthiazolidine- 4-carboxylic acid sulfoxide	1000-3400	S Spec	Cavallits	JOC	15 (1950)	815
$C_6H_9NO_6$	Dimethyl 2-(methyl- nitronato) malonate	2-16 μ	Sol Spec, Freq	Shechter	JACS	76 (1954)	2716
$C_6H_9NS_3$	5-Aza-2,8,10-Trithia- adamentan	-	Freq	Craig	JACS	77 (1955)	1283
$C_6H_9N_2O_2P$	Phenyl diamino- phosphonate	-	Freq	Bellamy	JCS	- (1952)	1701
		-	Freq	Bell	JACS	76 (1954)	5185
		-	Bond study	Steiger	ZE	61 (1957)	1004
$C_6H_9N_3$	2-Amino-4,6-dimethyl- pyrimidine	2-25 μ 3 μ	S Spec, Freq FC, Freq	Short Mason	JCS	- (1952)	168
$C_6H_9N_3$	4-Amino-2,6-dimethyl- pyrimidine	2-25 μ	S Spec, Freq	Short	JCS	- (1958)	3619
$C_6H_9N_3$	2,4,6-Trimethyl-1,3,5- triazine	2-15 μ	Sol Spec	Goubean	JPC	58 (1954)	1078
$C_6H_9N_3O$ $1/2H_2O$	2,3,4-Triazabicyclo [3.4.0]-3-hydroxy- 1,4-nonadiene hemihydrate	2-16 μ	S Spec, Struct	Banks	JOC	18 (1953)	267

$C_6H_9N_3O_2$	2-Amino-4,6-dimethoxy-pyrimidine	2-25 μ	S	Spec, Freq	Short	JCS	-	(1952)	168
$C_6H_9N_3O_2$	Histidine	625-4000	S	Spec, Assign	Garfinkel	JACS	80	(1958)	3807
$C_6H_9N_3O_2$	l-Histidine	600-4000	S	Ident	Bpp	AC	24	(1957)	1283
$C_6H_9N_3O_2 \cdot HCl$	l-Histidine hydrochloride	2-15 μ 1538-909	S Sol	Spec, Ident Spec	Larsson Parker	ACS SA	4 16	(1950) (1960)	27 910
$C_6H_9N_3O_3$	2,4,6-Trime thoxy-S-triazine	2-15 μ	-	Spec	Finkelshtein	OS	5	(1958)	264
$C_6H_9N_3OS$	5-Nitroso-6-amino-4-methylamino-2-methylthiopyrimidine	2-16 μ	S	Spec, Freq, Assign	Brownlie	JCS	-	(1959)	360
C_6H_9P	Trivinylphosphine	650-3500	L	Freq assign, Spec	Kaes	SA	15	(1959)	360
C_6H_{10}	t-Butylacetylene	-	G	Spectroscopic const	Zeil	ZN	15a	(1960)	1011
C_6H_{10}	Cyclohexene	1-30 μ 2.6-3.8 μ 3 μ 1050-1800 860-940 - - 2.2-4.2 μ 2-15 μ - 5300-9000 - 650-3100 - - 13.95 μ 3-4 μ 650-3100	G Sol - - - - - Sol L Sol L - Sol - - Sol - - Sol L, Sol Sol	Spec Spec, Assign Spec Spec, Freq Spec Thermo Thermo Assign, Spec Spec, Struct Freq Spec, I, Freq Ident, Config Freq, I Freq, I Ident Ident Stretch freq Spec	Kattering Fox Gore Barnes Thompson Beckett Epstein Plyler Shreve Jones Lauer Cope Henbest O'Connor Hine Dewhurst Tallent Henbest	P PRS IEC IEC JCS JACS JRNb JRNb AC JACS APS JACS JCS AC JACS JCP AC JCS	4 175 13 15 - 70 42 43 23 74 6 75 - 26 77 24 28 -	(1933) (1940) (1941) (1943) (1944) (1948) (1949) (1949) (1951) (1952) (1952) (1953) (1954) (1954) (1955) (1956) (1956) (1957)	39 208 768 659 183 5227 379 37 282 5652 29 3212 800 1726 594 1254 953 997
C_6H_{10}	2-Cyclopropylpropene	2-15 μ -	G L, Sol	Analysis Freq	Darter Stabey	JACS JACS	71 76	(1949) (1954)	2482 3604

C_6H_{10}	Dicyclopropyl	2-16 μ	L, Sol L, Sol	Spec Freq	Slabey Slabey	JACS JACS	74 76	(1952) (1954)	4928 3604
C_6H_{10}	1,3-Dimethyl-1,3-butadiene	700-1450 700-1500	- L	Spec Spec	Thompson Whiffen	JCS TFS	- 41	(1944) (1945)	183 200
C_6H_{10}	2,3-Dimethyl-1,3-butadiene	- 600-1800	- Sol	Quant Mech Spec Freq	Mulliken Thompson Davison Szasz	JCP TFS JCS TFS	7 41 - 49	(1939) (1945) (1953) (1953)	121 246 2607 258
C_6H_{10}	3,3-Dimethyl-1-butene	- -	- -	Assign Freq	Sheppard Fergle	JCP JCP	17 20	(1949) (1952)	455 1928
C_6H_{10}	2-Ethyl-1,3-butadiene	650-3900	-	Spec	Marvel	JACS	70	(1948)	3842
C_6H_{10}	Ethylidenecyclobutane	2-15 μ	G	Spec, Assign	Derfer	JACS	71	(1949)	2482
C_6H_{10}	Ethylmethylallene	847-2960	-	Table	Bailey	JOC	20	(1955)	95
C_6H_{10}	Diallyl	- -	- -	Quant mech Molecular ext coeffi- cient	Mulliken Bateman	JCP JCS	7 -	(1939) (1950)	121 936
		-	-	Reactant in bromi- nation rearrange- ment	Lora	JCS	-	(1950)	1419
C_6H_{10}	1,2-Hexadiene	-	-	Freq, Struot	Hennlon	JACS	71	(1949)	1964
C_6H_{10}	2,4-Hexadiene	- 1400-2000	- G, Sol	Quant mech Spec	Mulliken Blout	JCP JACS	7 70	(1939) (1948)	121 194
C_6H_{10}	1-Hexyne	- - -	- - -	Assign Freq Vibrations, Vapour-liquid shift	Cleveland Fergle Benson	JCP JCP JCP	10 20 27	(1942) (1952) (1952)	172 1928 1164
		3.05 μ 3400-3600	Sol Sol	Absorbance H bond	Curry West	AC JACS	31 81	(1959) (1959)	960 1614
C_6H_{10}	3-Hexyne	-	-	Assign	Cleveland	JCP	10	(1942)	172
C_6H_{10}	2-Methyl-1,3-pentadiene	-	Sol	Freq	Davison	JCS	-	(1953)	2607

C_6H_{10}	3-Methyl-1,3-pentadiene	650-3900	-	Spec	Marvel	JACS	70	(1948)	3842
C_6H_{10}	4-Methyl-1,3-pentadiene	700-1500 700-1450 700-1500	- - L	Quant mech Spec Spec	Mulliken Thompson Whiffen	JCP JCS TFS	7 - 41	(1939) (1945)	121 200
		-	Sol	Freq	Davison	JCS	-	(1953)	2607
$C_6H_{10}D_2$	cis-3-Hexene-3,4-d ₂	450-4000	-	Effect of substitution	Hoffman	A	618	(1958)	276
$C_6H_{10}BrCl$	1-Bromo-1-chlorocyclohexane	-	-	Ident	Goering	JACS	77	(1955)	3465
$C_6H_{10}BrCl$	cis-1-Bromo-2-chlorocyclohexane	-	-	Ident	Goering	JACS	77	(1955)	3465
$C_6H_{10}BrCl$	trans-1-Bromo-2-chlorocyclohexane	-	-	Ident	Goering	JACS	77	(1955)	3465
$C_6H_{10}Br_2$	1,1-Dibromocyclohexane	-	-	Ident	Goering	JACS	77	(1955)	3465
$C_6H_{10}Br_2$	1,2-Dibromocyclohexane	400-3000	L	Spec, Analysis	Klaeboe	ACS	11	(1957)	1677
$C_6H_{10}Br_2$	trans-1,2-Dibromocyclohexane	-	L	Freq, I Ident	Kozima VanFameleu	JACS JACS	76 77	(1954) (1955)	1965 1704
$C_6H_{10}Br_2$	cis-1,4-Dibromocyclohexane	7-23 μ 7-23 μ	L Sol	Spec Spec	Bennett Yoshino	JACS BCSJ	74 27	(1952) (1954)	5076 592
$C_6H_{10}Br_2$	trans-1,4-Dibromocyclohexane	2-16 μ 7-23 μ	Sol Sol	Spec Spec	Bennett Yoshino	JACS BCSJ	74 27	(1952) (1954)	5076 592
$C_6H_{10}Br_2$	4,6-Dibromo-1-hexene	-	-	Group study	Bateman	JCS	-	(1950)	936
$C_6H_{10}Br_2O_2$	Ethyl β, β' -dibromo-isobutyrate	-	-	Freq	Ferris	JOC	20	(1955)	780
$C_6H_{10}ClNO$	2-Chloronitrosocyclohexane	-	-	Freq, Struct	Luttkie	ZE	61	(1957)	976
$C_6H_{10}ClNO_3$	Ethyl N-chloroacetyl-N-methylcarbamate	650-4000	Sol	Spec	Pianka	JCS	-	(1960)	983

$C_6H_5ClNO_2$	Propyl N-chloroacetylcarbamate	650-4000	Sol	Spec	Pianka	JCS	-	(1960)	983
$C_6H_5Cl_2$	1,1-Dichlorocyclohexane	-	-	Ident	Goering	JACS	77	(1955)	3465
$C_6H_5Cl_2$	cis-1,2-Dichlorocyclohexane	8-15 μ	Sol	Spec Ident	Stevens Lindsey	JACS JACS	74 75	(1952) (1953)	4876 5613
$C_6H_5Cl_2$	trans-1,2-Dichlorocyclohexane	8-15 μ - 400-3000	Sol L L	Spec Freq, I Spec	Stevens Kozima Klaeboe	JACS JACS ACS	74 76 11	(1952) (1954) (1957)	4876 1965 1677
$C_6H_5Cl_2$	cis-1,4-Dichlorocyclohexane	2-16 μ 7-23 μ	L Sol	Spec Spec, Solvent effect	Bennett Yoshino	JACS BCSJ	74 27	(1952) (1954)	5076 592
$C_6H_5Cl_2$	trans-1,4-Dichlorocyclohexane	2-16 μ - 7-23 μ	Sol - Sol	Spec Assign Spec, Solvent effect	Bennett Kozima Yoshino	JACS JACS BCSJ	74 75 27	(1952) (1953) (1954)	5076 166 592
$C_6H_5Cl_2$	1,1-Dichloro-3,3-dimethyl-1-butene	- 760-785	S, Sol Sol	Iso Solvent solute interaction	Yoshino Yoshino	JCP JCP	23 24	(1955) (1956)	1974 76
$C_6H_5Cl_2$	trans-1,4-Dichloro-2,3-dimethyl-2-butene	8-14 μ 7.5-14 μ	- -	Freq Quant ident	Sohmerling Sohmerling	JACS JACS	71 71	(1949) (1949)	701 2015
$C_6H_5Cl_2$	1,1-Difluoro-2,2-dichloroethyl n-butyl ether	3.4-14.2 μ	Sol	Ident	Hellman	JACS	76	(1954)	1175
$C_6H_5Cl_2F_2$	1,1-Difluoro-2,2-dichloroethyl n-butyl ether	3-15 μ	G, L	Spec	Park	JACS	73	(1951)	861
$C_6H_5Cl_2O$	cis-2,5-Bis-(chloromethyl)tetrahydrofuran	-	-	Ident	Cope	JACS	77	(1955)	393
$C_6H_5Cl_2O$	t-Butyl dichloromethyl ketone	-	S, L, Sol, G	Freq	Bellamy	JCS	-	(1957)	4294
$C_6H_5Cl_2OS$	Butylthio dichloroacetate	2.5-16 μ	Sol	Struct, Freq	Nyquist	SA	15	(1959)	514

$C_6H_{10}Cl_2Si$	Diallyldichloro- silane	8-15 μ	Sol	Spec	Scott	JACS	73	(1951)	2599
$C_6H_9F_3NO$	N-n-Butyltrifluoro- acetamide	2-15 μ	L, Sol	Spec, Group study Freq	Letaw Robson	JCP JACS	21 77	(1953) (1955)	1621 498
$C_6H_9F_3NO$	N,N-Diethyltrifluoro- acetamide	-	L, S	Freq	Robson	JACS	77	(1955)	498
$C_6H_9F_4O$	1,1,2,2-Tetrafluoro- ethyl n-butyl ether	2-15 μ	G	Spec	Park	JACS	73	(1951)	1329
$C_6H_{10}I_2O$	Cyclohexanone-iodine complex	400-3500	Sol	Freq, I	Yamada	JACS	82	(1960)	1543
$C_6H_9N_2O$	Diazomethyl t-butyl ketone	-	-	Band freq	Wiberg	JACS	76	(1954)	5367
$C_6H_{10}N_2O$	3-Methyl-5-ethoxy- pyrazole	2.4-4.5 μ	-	Spec	Bogunets	OS	5	(1958)	707
$C_6H_{10}N_2O$	1-Methyl-2- β -hydroxy- ethylimidazole	-	-	Struct	Lawson	JACS	75	(1953)	3398
$C_6H_{10}N_2O$	1,3,5,6-Tetrahydro-6- keto-1,3-dimethyl- pyridazine	-	Sol	Struct, Freq	Overend	JCS	-	(1950)	3500
$C_6H_{10}N_2OS$	3-Ethyl-1-methyl-2- thiohydantion	800-2500	S	Assign	Elmore	JCS	-	(1958)	3489
$C_6H_{10}N_2OS$	5-Isopropyl-2-thio- hydantion	800-2500	S	Assign	Elmore	JCS	-	(1958)	3489
$C_6H_{10}N_2OS$	5-n-Propyl-2-thio- hydantion	800-2500	S	Assign	Elmore	JCS	-	(1958)	3489
$C_6H_{10}N_2O_2$	1,2-Cyclohexanedione dioxime	2-16 μ	S	Spec, H bond	Voter	AC	23	(1951)	1730
$C_6H_{10}N_2O_2$	2,4-Dimethyl-1,3-cyclo- butanedione dioxime	-	-	Freq, Ident	Reid	JACS	75	(1953)	1655

$C_6H_{10}N_2O_2$	N-(n-Butyl)-Sydnone	2-15 μ	L	Spec	Fugge	JACS	77 (1955)	1843
$C_6H_{10}N_2O_3$	γ -Methyleneglutamine	2-15 μ	S	Spec, Ident	Zacharius	JACS	76 (1954)	1961
$C_6H_{10}N_2O_4$	ois-3,4-Dinitro-3-hexene	1676	-	Struct	Mead	JOC	23 (1958)	921
$C_6H_{10}N_3O$	N-Morpholyltrichloro-acetamide	1000-3500	L,Sol	Assign, Struct, H bond	Grivas	CJC	37 (1959)	795
$C_6H_{10}N_4$	6-Amino-4-methylamino-2-methylpyrimidine	2-15 μ	S	Spec, Freq, Assign	Brownlie	JCS	- (1950)	3062
$C_6H_{10}N_4O_8$	3,3,4,4-Tetranitro-hexane	-	Sol	Ext coeff	Grabiel	JACS	77 (1955)	1293
$C_6H_{10}N_6O_2$	N-(α -Carboxy) Ethyl-melamine	2-16 μ	S	Spec, Struct	Padgett	JACS	80 (1958)	803
$C_6H_{10}N_6O_2$	N-(β -Carboxy) Ethyl-melamine	2-16 μ	S	Spec, Struct	Padgett	JACS	80 (1960)	803
$C_6H_{10}O$	2-Acetyl-but-l-ene	-	Sol	Freq, Spec	Potts	SA	15 (1959)	679
$C_6H_{10}O$	Allyl ether	825-1975	-	Spec Freq	Barnes Davison	IEC JCS	15 (1943) - (1953)	659 2607
$C_6H_{10}O$	Cyclobutyl methyl ketone	5-7 μ	L	Freq	Friess	JACS	74 (1952)	1302
$C_6H_{10}O$	Cyclohexanone	0.8-2.5 μ	L	Spec	Sappenfield	PR	33 (1929)	37
		-	-	Freq, Beer's law	Barnes	IEC	15 (1943)	659
		1050-1800	-	Spec	Barnes	IEC	15 (1943)	659
		1700	Sol	Freq	Flett	TFS	44 (1948)	767
		1742	G	Freq	Hartwell	JCS	- (1948)	1436
		1700	Sol	Vibrations, I	Richards	TFS	45 (1949)	874
		1650-1800	Sol	Ext coefficient	Cross	TFS	47 (1951)	354
		-	Sol	Freq, Analysis	Copper	JCS	- (1952)	1180
		1600-1800	Sol	Freq.	Hall	JACS	80 (1958)	6428

			Analysis	Childer	AC	25 (1953)	1311
		Sol	Freq	Corey	JACS	75 (1953)	3297
		Sol	Freq, Config	Corey	JACS	75 (1953)	2301
		Sol	Freq, H bond	Searles	JACS	75 (1953)	71
		Sol	Freq	Leonard	JACS	76 (1954)	3463
		-	Ident	Price	JACS	76 (1954)	1211
		-	Freq	Snyder	JACS	76 (1954)	4601
		Sol	Freq	Bartlett	JACS	77 (1955)	2806
	1712	-	Freq	Corey	JACS	77 (1955)	5418
		L	Freq	Schubert	JACS	77 (1955)	4172
	8.6-9.3 μ	Sol	Spec, I	Slowinski	JOSA	45 (1955)	396
		-	I	Brown	JCP	24 (1956)	1281
	5.5-6.5 μ	Sol	H bond	Juitric	JACS	78 (1956)	1147
	400-4000	Sol	Spec, Config, Ext	Cummings	JCS	- (1957)	3847
		-	coefficient				
		-	Analysis	Wheeler	AC	29 (1957)	538
		Sol	Carbonyl max	Leonard	JACS	80 (1958)	6039
		Sol	Freq	Mirone	AAN	24 (1958)	54
		L	Temp dependent of I	Person	JCP	28 (1958)	319
		Sol	Freq, I	Thompson	SA	13 (1958)	236
	1650-1850	G,L,S	Solvent effect on freq	Bellamy	TFS	55 (1959)	14
		Sol	H bond	Tamres	JACS	81 (1959)	2100
	600-4000	Sol	Carbonyl doublet, Solvent effect	Allen	JCS	- (1960)	1909
		Sol	Freq	Burer	HCA	43 (1960)	1487
		-	Struct	Field	JCP	18 (1950)	1298
	1250	Sol	H bond, Freq	Searles	JACS	73 (1951)	3704
	2590-2689	L	Spec, Freq	Patterson	AC	26 (1954)	823
	3-15 μ	Sol	C-H stretching band	Henbest	JCS	- (1957)	1459
	2800-3100	Sol	Spec, Struct, Freq	Bomstein	AC	30 (1958)	544
	2-15 μ	Sol					
		Sol	Freq, H bond	Bateman	JCS	- (1952)	4594
		L	Freq, I	Henbest	JCS	- (1954)	800
	650-3100	Sol	Spec	Henbest	JCS	- (1957)	997
	650-3100	Sol	Spec	Henbest	JCS	- (1957)	997
		-	Freq, Struct	Dreiding	JACS	75 (1953)	939
		-	Freq	Barr	JCS	- (1954)	3766
		-					
C ₆ H ₁₀ O	Cyclohexene oxide						
C ₆ H ₁₀ O	Cyclohex-2-en-1-ol						
C ₆ H ₁₀ O	Cyclohex-3-en-1-ol						
C ₆ H ₁₀ O	1-Cyclopentenemethanol						
C ₆ H ₁₀ O	2,3-Dihydro-2,2-dimethylfuran						

$C_6H_{10}O$	2-Ethoxy-1,3-butadiene	-	-	Spec, Freq	Petrov	ZOK	28 (1958)	71
$C_6H_{10}O$	Ethyl cyclopropyl ketone	-	-	Freq	Slabey	JACS	76 (1954)	3604
$C_6H_{10}O$	trans-2,trans-4-Hexa-dienol	-	-	Freq, I	Allan	JCS	- (1955)	1874
$C_6H_{10}O$	Mesityl oxide	-	-	Solvent effect on freq	Ito	JCP	31 (1959)	1694
$C_6H_{10}O$	3-Methoxy-3-methylbutyne-1	300-3800	Sol,S	Freq	Nyquist	SA	16 (1960)	417
$C_6H_{10}O$	2-Methylcyclo-pentanone	1650-1800	Sol	Ext coeff	Gross	TFS	47 (1951)	354
$C_6H_{10}O$	2-Methylenecyclo-pentanol	-	-	Freq, Struct	Drieding	JACS	75 (1953)	939
$C_6H_{10}O$	4-Methyl-3-pentene-2-one	1050-1800 500-1750 3.25-7.88 μ	- L L	Freq, Spec Assign Iso	Barnes Thompson Gray	IEC JCS JACS	15 (1943) - (1945) 69 (1947)	659 640 1630
$C_6H_{10}O$	2-Methyl-1-pentenone-4	-	Sol	Ext coeff	Bernard	JCS	- (1950)	915
$C_6H_{10}O$	Vinyl propyl ketone	-	Sol	Freq	Davison	JCS	- (1953)	2607
$C_6H_{10}OS$	5,6-Dihydro-2,3-dimethyl-1,4-oxathiin	-	-	Freq	Parhom	JACS	77 (1955)	1169
$C_6H_{10}OS$	3-Ketothiacyclo-heptane	-	-	Band study	Leonard	JACS	74 (1952)	917
$C_6H_{10}O_2$	Acetonylacetone	1150-1800	-	Spec	Barnes	IEC	15 (1943)	659
$C_6H_{10}O_2$	Adipic aldehyde	-	-	Ident	Kuhn	JACS	76 (1954)	328
$C_6H_{10}O_2$	Allylcarbonyl acetate	2-16 μ	Sol	Spec, Ident	Roberts	JACS	73 (1951)	5034
$C_6H_{10}O_2$	ε-Caprolactone	1600-1800	Sol	Freq	Hall	JACS	80 (1958)	6428
$C_6H_{10}O_2$	Cyclobutyl acetate	2-16 μ	Sol	Spec, Ident	Roberts	JACS	73 (1951)	5034

$C_6H_{10}O_2$	Cyclohexene-4,5-diol	-	Sol	Band freq	VarTameleu	JACS	77 (1955)	1704
$C_6H_{10}O_2$	Cyclohexene-1-hydroperoxide	2-15 μ 5-15 μ	L Sol	Spec Spec	Shreve Minkoff	AC PRS	23 (1951) 224 (1954)	282 176
$C_6H_{10}O_2$	Cyclohexenyl-3-hydroperoxide	-	Sol	Freq, H bond, Analysis	Bateman	JCS	- (1952)	4594
$C_6H_{10}O_2$	Cyclopropylcarbonyl acetate	2-16 μ	Sol	Spec, Ident	Roberts	JACS	73 (1951)	5034
$C_6H_{10}O_2$	Diallyl ether monoxide	2-15 μ	Sol, L	Spec, Freq	Patterson	AC	26 (1954)	823
$C_6H_{10}O_2$	γ, γ -Dimethylbutan-olide	1550-1850	Sol	Freq, I	Jones	CJC	37 (1959)	2007
$C_6H_{10}O_2$	cis-2,3-Epoxy-cyclohexanol	2800-3100	Sol	C-H band study	Henbest	JCS	- (1957)	1459
$C_6H_{10}O_2$	3,4-Epoxy-cyclohexanol	2800-3100	Sol	C-H band study	Henbest	JCS	- (1957)	1459
$C_6H_{10}O_2$	1-Ethoxycarbonyl-2-methyl-trans-ethylene	-	Sol	Freq, Spec	Potts	SA	15 (1959)	679
$C_6H_{10}O_2$	Ethyl crotonate	1050-1800 500-1750 10-15 μ	- L L	Freq, Spec Assign Spec	Barnes Thompson Patterson	IEC JCS AC	15 (1943) - (1945) 26 (1954)	659 640 823
		-	Sol	Freq	Felton	JCS	- (1955)	2170
		2-15 μ	-	Assign	Watton	JACS	79 (1957)	3985
		800-1500	Sol	Assign	Katritzky	SA	16 (1960)	954
		-	-	Assign	Katritzky	SA	16 (1960)	964
$C_6H_{10}O_2$	Ethyl cyclopropane-carboxylate	-	Sol	Freq, I	Piehl	JACS	75 (1953)	5023
		-	-	Freq	Ferris	JOC	20 (1955)	780
$C_6H_{10}O_2$	Ethyl methacrylate	10-15 μ	L	Spec	Patterson	AC	26 (1954)	823
		-	Sol	Freq	Felton	JCS	- (1955)	2170
		-	Sol	Freq, I	Thompson	SA	13 (1958)	236
		-	-	Assign	Katritzky	SA	16 (1960)	964

$C_6H_{10}O_2$	Ethyl α -methylaacrylate	800-1500	Sol	Assign	Katritzky	SA	16 (1960)	954
$C_6H_{10}O_2$	trans-2-trans-4-Hexadiene-1,6-diol	-	L	Freq, I	Allan	JCS	- (1955)	1874
$C_6H_{10}O_2$	2,5-Hexanedione	2-15 μ	Sol	Spectro, Assign	Tensmeyer	JPC	64 (1960)	1655
$C_6H_{10}O_2$	δ -Hexanolactone	-	S,L	Freq, Struct	Pinder	JCS	- (1952)	2236
$C_6H_{10}O_2$	cis-3-Hexenoic acid	0.9-3 μ	Sol	Spec	Holman	AC	28 (1956)	1533
$C_6H_{10}O_2$	trans-3-Hexenoic acid	2-16 μ	Sol	Spec, Freq	Howton	JOC	16 (1951)	1405
$C_6H_{10}O_2$	2-Hydroxycyclohexanone	2-12 μ	S,Sol	Spec Ident	Sheehan Highet	JACS	72 (1950)	3376
		-	-	Freq	Jaeger	JACS	77 (1955)	4399
			S,L			JCS	- (1955)	160
$C_6H_{10}O_2$	4-Hydroxy-2,3-dimethylbutanoic lactone	707-3597	L	Freq	Ames	JCS	- (1954)	375
$C_6H_{10}O_2$	Isopropyl acrylate	-	Sol	Freq	Davison	JCS	- (1953)	2607
$C_6H_{10}O_2$	Methyl angelate	3.34-13.6 μ	L	Freq, I	Dreiding	JACS	76 (1954)	1902
$C_6H_{10}O_2$	3-Methyl-3-hydroperoxy-pentyne-1	2-6 μ	-	Spec	Milas	JACS	74 (1952)	1471
$C_6H_{10}O_2$	Methyl pent-4-enoate	200-3200	-	Spec, Assign	Hidalgo	ARS	52B(1956)	627
$C_6H_{10}O_2$	trans-2-Methyl-2-pentenoic acid	600-1900	Sol	Spec	Cason	JOC	19 (1954)	1947
$C_6H_{10}O_2$	Methyl tiglate	3.34-13.50 μ	L	Freq, I	Dreiding	JACS	76 (1954)	1902
$C_6H_{10}O_2$	Tetrahydrofurfuryl vinyl ether	-	-	Ident	Adelman	JACS	75 (1953)	2678
		-	-	Freq, Ident	Adelman	JACS	77 (1955)	1669

$C_6H_{10}O_3$	Acetic butyric anhydride	950-1250	Sol	Spec	Brown	JCS	-	(1951)	87
$C_6H_{10}O_3$	Diallyl ether dioxide	2-15 μ	L, Sol	Spec, Freq	Patterson	AC	26	(1954)	823
$C_6H_{10}O_3$	Ethyl acetoacetate	1-8 μ 2.8-6.2 μ 9000-11000 5.5-6.5 μ 1050-1800 2.2-3.6 μ 3 μ 2-15 μ	L L Sol L - Sol L, Sol -	Spec, Freq, Assign Spec, Assign Spec, H bond Spec, H bond Spec Spec Spec Freq, Struct Freq	Plyler Bawn Badger Gordy Barnes Hukins LeFevre Rasmussen Bender	PR JCS JCP JCP IEC JCS JCS JACS JACS	35 - 5 8 15 - - 71	(1930) (1932) (1937) (1940) (1943) (1949) (1949) (1949) (1953) (1953)	605 1189 369 516 659 898 2230 1073 6304
$C_6H_{10}O_3$	Ethyl α -(hydroxy-methyl)acrylate	1200-2000 2300-4200 - -	Sol L Sol Sol	Comparison Freq Taut, Assign Freq	Kumler Bellamy Morsesyan	JACS JCS IAMS	75 75 22	(1953) (1953) (1954) (1958)	4346 4487 1126
$C_6H_{10}O_3$	Ethyl β -methoxyacrylate	2-15 μ	L	Assign, Spec	Walton	JACS	79	(1957)	3985
$C_6H_{10}O_3$	Propionic anhydride	5-6.4 μ 1750-1850	- Sol	Reaction rate study Freq, Assign, Vibrations	Barr Dauben	JCP JOC	4 24	(1936) (1959)	90 1595
$C_6H_{10}O_4$	Adipic acid	1-3 μ 1.87-2.7 μ 700-3100 2800-3500 700-4000 500-1500 670-2000 - - 680-2500 400-4000 650-2000	S S S S L, S S L, S - S - S S	H bond H bond Spec Spec Freq Spec, Assign Spec Freq, Struct H bond Spec Assign, Struct Struct, Spec	Glatt Glatt Mann Ambrose Flett Hadzi Corish Bratoz Pimental Hadzi Susi Davies	JCP PR PRS PRS JCS PRS JCS SA JCP NC SA TFS	15 73 192 206 - 216 - 8 24 11 15 56	(1947) (1948) (1948) (1951) (1951) (1953) (1955) (1956) (1956) (1959) (1959) (1960)	880 541 489 192 962 247 2431 249 639 715 1063 185

$C_6H_{10}O_4$	2-Deoxy-3,6-anhydro-D-glucofuranose	700-1000	S	Freq, I	Barker	JCS	- (1954)	4550
$C_6H_{10}O_4$	1:4,3:6-Dianhydro-D-glucitol	3500-3650	Sol	H bond	Brimacombe	T	4 (1958)	351
$C_6H_{10}O_4$	1:4,3:6-Dianhydro-L-iditol	3500-3650	Sol	H bond	Brimacombe	T	4 (1958)	351
$C_6H_{10}O_4$	1:4,3:6-Dianhydro-D-mannitol	700-1000 3500-3650	S Sol	Freq H bond	Barker Brimacombe	JCS T	- (1954) 4 (1958)	4550 351
$C_6H_{10}O_4$	1:4,3:6-Dianhydro-sorbitol	700-1000	L	Freq, I	Barker	JCS	- (1954)	4550
$C_6H_{10}O_4$	Diethyl oxalate	1200-2000 1500-5000 600-4000 1740-1800 1700-1800	Sol Sol L L L,Sol	Freq Freq Spec, Assign Freq Iso	Bender Briggs LeFevre Simon Abramovitch	JACS AC AJC JOC CJC	75 (1953) 29 (1957) 11 (1958) 23 (1958) 37 (1959)	5986 904 92 1078 1146
$C_6H_{10}O_4$	Dimethyl succinate	500-1750 670-3500	L L,S	Assign Spec, Config	Thompson Corish	JCS JCS	- (1945) - (1958)	640 927
$C_6H_{10}O_4$	Ethyl acetoxyacetate	2-15 μ	Sol	Spec	Roberts	JACS	74 (1952)	3679
$C_6H_{10}O_4$	Ethyl succinate	2-15 μ	Sol	Spec	Abramovitch	CJC	36 (1958)	151
$C_6H_{10}O_4$	α -Methylglutaric acid	-	-	Freq	James	JCS	- (1958)	637
$C_6H_{10}O_4$	dl- α -Methylglutaric acid	- - - -	- Sol - Sol	Ident Ident Freq Ident	Scheer Eisenbram James Scheer	JACS JACS JCS JACS	75 (1953) 77 (1955) - (1955) 77 (1955)	4871 3383 637 641
$C_6H_{10}O_5$	3:6-Anhydro-D-glucofuranose	700-1000	S	Freq, I	Barker	JCS	- (1954)	4550

$C_6H_{10}O_5$	Dicritical acid	-	-	Freq, Struct	Adams	JACS	75 (1953)	2377
$C_6H_{10}O_5$	Dihydrostreptosonic acid lactone	5-65 μ	-	Struct	Kuchl	JACS	71 (1949)	1445
$C_6H_{10}O_5$	Levoglucofuran	8-15 μ 2-15 μ	S S	Spec Spec, Ident	Kuhn Resnik	AC AC	22 (1950) 29 (1957)	276 1874
$C_6H_{10}O_5$	D-Methoxy-D-hydroxy-methyl-d-glycolic aldehyde	2-15 μ	S	Spec	Kuhn	AC	22 (1950)	276
$C_6H_{10}O_5$	L-Rhamnono- γ -lactone	1700-1800	S	Freq	Barker	CIL	- (1958)	658
$C_6H_{10}O_6$	D-Galactono- γ -lactone	1700-1800	S	Freq	Barker	CIL	- (1958)	658
$C_6H_{10}O_6$	Glucono- δ -lactone	8-15 μ 1700-1800	S S	Spec Freq	Kuhn Barker	AC CIL	22 (1950) - (1958)	276 658
$C_6H_{10}O_6$	D-Glucono- γ -lactone	1700-1800	S	Freq	Barker	CIL	- (1958)	658
$C_6H_{10}O_6$	L-Glucono- γ -lactone	1700-1800	S	Freq	Barker	CIL	- (1958)	658
$C_6H_{10}O_6$	D-Gulono- γ -lactone	1700-1800	S	Freq	Barker	CIL	- (1958)	658
$C_6H_{10}O_6$	L-Gulono- γ -lactone	1700-1800	S	Freq	Barker	CIL	- (1958)	658
$C_6H_{10}O_6$	D-Mannono- δ -lactone	1700-1800	S	Freq	Barker	CIL	- (1958)	658
$C_6H_{10}O_6$	D-Mannono- γ -lactone	1700-1800	S	Freq	Barker	CIL	- (1958)	658
$C_6H_{10}O_6$	L-Mannono- γ -lactone	1700-1800	S	Freq	Barker	CIL	- (1958)	658
$C_6H_{10}O_7$	Galacturonic acid	5.5-6.5 μ	S	Spec	Ultee	AC	27 (1955)	557
$C_6H_{10}O_7$	D-Glucuronic acid	2-15 μ	S	Spec	Kuhn	AC	22 (1950)	276
$C_6H_{10}O_8$	Mucic acid	2-16 μ	S	Spec	Tipson	JOC	18 (1953)	952

$C_6H_{10}S$	Allyl sulfide	500-1500	L	Spec	Sheppard	TFS	46 (1950)	429
$C_6H_{10}S$	Cyclohexene episulfide	500-1500	L	Spec	Sheppard	TFS	46 (1950)	429
$C_6H_{11}D$	Cyclohexane- d_1	-	-	Assign	Langseth	JCP	8 (1940)	403
$C_6H_{11}D$	Hex-1-ene-1- d_1	450-4000	-	Group study	Hoffman	A	618 (1958)	276
$C_6H_{11}D$	Hex-1-ene-2- d_1	450-4000	-	Group study	Hoffman	A	618 (1958)	276
$C_6H_{11}D$	cis-Hex-3-ene-3- d_1	450-4000	-	Group study	Hoffman	A	618 (1958)	276
$C_6H_{11}DN_2O_4S_2$	Cystine- d_1	1-14 μ	S	Spec	Herget	PR	57 (1940)	1078
$C_6H_{11}DO_3$	4-Deuterioxyethyl-2,2 dimethyl-1,3-dioxolan	400-3100	G	Freq, Assign	Barker	JCS	- (1959)	802
$C_6H_{11}Br$	1-Bromocyclohexane	13.5-16 μ 2-16 μ 685-709	L - L	Spec Spec, Freq Equilibrium const study	Mortimer Roberts Eliel	JACS JACS CIL	69 (1947) 73 (1951) - (1959)	822 5030 568
$C_6H_{11}Br$	Bromo-2-methyl-pentene	700-1700	L	Spec, Iso	Bateman	JCS	- (1950)	3045
$C_6H_{11}BrN_2O_2$	Bromural	2-16 μ	Sol	Spec, Freq	Umberger	AC	24 (1952)	1309
$C_6H_{11}BrOS$	Butylthio monobromo-acetate	2.5-16 μ	Sol	Freq, Struct	Nyquist	SA	15 (1959)	514
$C_6H_{11}BrO_2$	Ethyl- α -bromo-n-butyrate	1740	Sol	Freq	Hompton	AC	21 (1949)	914
$C_6H_{11}Br_3$	1,1,1-tris-(Bromo-methyl) propane	2-14 μ	G	Spec	Derfer	JACS	71 (1949)	175
$C_6H_{11}Cl$	1-Chlorocyclohexane	- 2-16 μ - 430-3000	- - Sol G,L,S	Freq Spec, Freq Freq Freq	Marrison Roberts Brand Kojima	JCS JACS JACS BCSJ	- (1951) 73 (1951) 77 (1955) 31 (1958)	1614 5030 2703 796

$C_6H_{11}Cl$	1-Chloro-2,3-dimethyl-2-butene	3.56-14.6 μ	L	Analysis	Hatch	JACS	75 (1953)	3712
$C_6H_{11}Cl$	1-Chloro-3,3-dimethyl-1-butene	7.5-14 μ	-	Spec, Ident	Schmerling	JACS	71 (1949)	2015
$C_6H_{11}Cl$	3-Chloro-2,3-dimethyl-1-butene	3.42-13.55 μ	L	Analysis	Hatch	JACS	75 (1953)	3712
$C_6H_{11}ClFNO$	N-Butyl-2-chloro-2-fluoroethanamide	2-15 μ	L, Sol	Freq, Assign	Letaw	JCP	21 (1953)	1621
$C_6H_{11}ClO$	t-Butyl chloromethyl ketone	-	S, L, Sol, G	Freq	Bellamy	JCS	- (1957)	4294
$C_6H_{11}ClO$	cis-2-Chlorocyclohexanol	8-15 μ	Sol	Spec	Stevens	JACS	74 (1952)	4876
$C_6H_{11}ClO$	trans-2-Chlorocyclohexanol	8-15 μ	Sol	Spec	Stevens	JACS	74 (1952)	4876
$C_6H_{11}ClOS$	Butylthio monochloroacetate	2.5-16 μ	Sol	Struct, Freq	Nyquist	SA	15 (1959)	514
$C_6H_{11}ClO_2$	Methyl 4-chlorovalerate	-	-	Spec	Wiberg	JACS	74 (1952)	3957
$C_6H_{11}ClO_3$	n-Amyl chlorocarbonate	-	S	Freq	Ory	SA	16 (1960)	1488
$C_6H_{11}Cl_2NO$	N-Butyl-2,2-dichloroethanamide	2-15 μ	S	Freq, Assign	Letaw	JCP	21 (1953)	1621
$C_6H_{11}Cl_2OP$	Cyclohexyldichlorophosphine oxide	700-1350	Sol	Spec, Freq	Bellamy Bell	JCS JACS	- (1952) 76 (1954)	475 5185
$C_6H_{11}Cl_2O_4P$	O,O-Dimethyl-2,2-dichloro-1-oxoethyl phosphonate	-	-	Freq	Barthel	JACS	77 (1955)	2424

$C_6H_{11}Cl_2O_4P$	O,O-Diethyl-2,2-dichlorovinyl phosphonate	-	-	Freq	Barthel	JACS	77 (1955)	2424
$C_6H_{11}Cl_3NB$	Cyclopentylcyanide boron trichloride complex	-	Sol	Freq	Gerrard	JCS	- (1960)	2182
$C_6H_{11}Cl_3N_2$	N-n-Butyltrichloroacetamide	1000-3500	L	Assign, Struct	Grivas	CJC	37 (1959)	795
$C_6H_{11}Cl_3N_2$	N,N-Diethyltrichloroacetamide	1000-3500	L	Assign, Struct	Grivas	CJC	37 (1959)	795
$C_6H_{11}Cl_3N_2$	N,N-Diethyltrichloroacetamide hydrochloride	1350-4000	S	Struct	Grivas	CJC	37 (1959)	1260
$C_6H_{11}F_2NO$	N-Butyl-2,2-difluoroethanamide	2-15 μ	L,Sol	Freq, Assign	Letaw	JCP	21 (1953)	1621
$C_6H_{11}F_3N_2.HCl$	N,N-Diethyltrifluoroacetamide hydrochloride	1350-4000	S	Struct	Grivas	CJC	37 (1959)	1260
$C_6H_{11}N$	N-Allylideneisopropylamine	2.5-15 μ	L	Spec, Freq	Pollard	JACS	73 (1951)	2925
$C_6H_{11}N$	Cyclohexenimine	2-15 μ	L	Spec, Freq	Paris	JACS	74 (1952)	3007
$C_6H_{11}N$	Cyclopentylnitride	-	Sol	Freq	Gerrard	JCS	- (1960)	2182
$C_6H_{11}N$	2,5-Dimethyl- Δ^1 -pyrroline	2-11 μ 6.05 μ	Sol Sol	Spec, Struct Freq	Evans Meyers	JACS JOC	73 (1951) 24 (1959)	5230 1233
$C_6H_{11}N$	2,5-Dimethyl- Δ^3 -pyrroline	2-11 μ	Sol	Spec, Struct	Evans	JACS	73 (1951)	5230

$C_6H_{11}N$	Hexanenitrile	-	Sol	I, Freq I	Skinner Thompson Jesson	JCS TFS SA	- 52 (1956) 13 (1958)	487 1451 217
		2200-2300	Sol	Freq, Struct				
$C_6H_{11}N$	Isocapronitrile	1-12 μ	L	Spec	Bell	JACS	57 (1935)	1023
		-	-	Freq	Kitson	AC	24 (1952)	334
		-	-	I	Thompson	TFS	52 (1956)	1451
$C_6H_{11}N$	Isopentyl cyanide	2200-2300	Sol	Freq, Struct	Jesson	SA	13 (1958)	217
$C_6H_{11}N.HClO_4$	1,2-Dimethyl- Δ^2 - pyrrolidine perchlorate	-	S	Freq	Leonard	JACS	76 (1954)	2781
$C_6H_{11}NO$	N-Acetylpyrrolidine	-	G	Solvent effect on freq	Caldow	PRS	254 (1960)	1
$C_6H_{11}NO$	4-Amino-3-methyl-3- pentene-2-one	650-3800	S	Table, Chart	Cromwell	JACS	71 (1949)	3337
$C_6H_{11}NO$	Cyclohexanone oxime	2700-3800 1650-1800 2.78 μ	Sol Sol -	Spec, H bond Ext coefficient I	Buswell Cross Goddu	JACS TFS AC	60 (1938) 47 (1951) 30 (1958)	2444 354 1707
$C_6H_{11}NO$	ϵ -Caprolactam	-	L, S	Config.	Tsuboi	BCSJ	22 (1949)	255
$C_6H_{11}NO$	N,N-Dimethyl- amidopropene-1	-	Sol	Freq, Spec	Potts	SA	15 (1959)	679
$C_6H_{11}NC$	2,3-Dimethyl-2- butenamide	-	-	Analysis	Corey	JACS	75 (1953)	1163
$C_6H_{11}NO$	2,3-Dimethyl-3- butenamide	-	-	Analysis	Corey	JACS	75 (1953)	1163
$C_6H_{11}NO$	N-Ethylpyrrolidone	2-9 μ	L	Spec, Freq	Oster	JACS	76 (1954)	1393
$C_6H_{11}NO$	N-Formylpiperidine	-	Sol	Freq	Emmons	JOC	19 (1954)	1472
$C_6H_{11}NO$	ϵ -Isopropoxy-	-	-	Freq	Kitson	AC	24 (1952)	334

$C_6H_{11}NO$	4-Methylamino-3-pentene-2-one	650-4000	L, S	S _{rec} , Assign	Holtzclaw	JACS	80	(1958)	1100
$C_6H_{11}NO$	6-Methyl-2-piperidone	-	-	Ident	Jones	JCS	-	(1952)	3261
$C_6H_{11}NO$	8-Oxa-3-azabicyclo[3.2.1]octane	-	-	Ident	Cope	JACS	77	(1955)	393
$C_6H_{11}NO$	2-Oxohexamethylenimine	1600-1800	Sol Sol	Freq H bond	Hall Lord	JACS ZE	80 64	(1958) (1960)	6428 672
$C_6H_{11}NO_2$	N-Acetylmorpholine	-	-	Ident	Brace	JACS	75	(1953)	357
$C_6H_{11}NO_2$	Cyclohexyl nitrite	2-25 μ	G	Iso	Tarte	JCP	20	(1952)	1570
$C_6H_{11}NO_2$	γ -Methylallylglycine	2-15 μ	S	Assign	Moreno	SA	16	(1960)	1386
$C_6H_{11}NO_2$	Nipecotic acid	2-16 μ	S	Spec	Zacharius	JACS	76	(1954)	2908
$C_6H_{11}NO_2$	Nitrocyclohexane	-	Sol	Analysis	Brand	JACS	77	(1955)	2703
$C_6H_{11}NO_2$	l-Pipecolic acid	2-16 μ	S	Spec	Zacharius	JACS	76	(1954)	2908
$C_6H_{11}NO_2$	γ -Pipecolic acid	2-16 μ	S	Spec	Zacharius	JACS	76	(1954)	2908
$C_6H_{11}NO_2 \cdot HCl$	γ -Methylallylglycine hydrochloride	2-15 μ	Sol	Assign	Moreno	SA	16	(1960)	1368
$C_6H_{11}NO_2 \cdot HCl$	(DL)-Pipecolic acid hydrochloride	-	-	Ident	Zackarius	JACS	74	(1952)	2949
$C_6H_{11}NO_2 \cdot HCl$	l-Pipecolic acid hydrochloride	-	-	Ident	Zackarius	JACS	74	(1952)	2949
$C_6H_{11}NO_3$	N-Acetylglycine ethyl ester	2.7-3.6 μ 2.9-3.6 μ	S, Sol S, Sol	H band Spec, Config	Buswell Mizushima	JACS JACS	62 75	(1940) (1953)	2759 1863
$C_6H_{11}NO_3$	Cyclohexyl nitrate	-	Sol	Band study	Brand	JACS	77	(1955)	2703

$C_6H_{11}NC_4$	Ethyl α -nitrobutyrate	-	-	Freq	Emmons	JACS	77 (1955)	4391
$C_6H_{11}NO_5$	n-Butyl glycolate nitrate	-	L	Freq	Kumler	JACS	75 (1953)	4346
$C_6H_{11}NO_5$	sec-Butyl glycolate nitrate	700-4300	L,Sol	Spec, Freq	Kumler	JACS	75 (1953)	4346
$C_6H_{11}NO_5$	Ethyl β -hydroxy- γ - nitrobutyrate	-	-	Freq	Leonard	JOC	17 (1952)	1262
$C_6H_{11}NO_5$	N-Isopropylglycine carbonic anhydride	3 μ	L,Sol	Association in solution	Waley	PRS	199 (1949)	499
$C_6H_{11}NS$	β -(2-Hydroxyethyl) mercapto- α -methyl- propionitrile	-	-	Ident	Ross	JACS	73 (1951)	540
$C_6H_{11}NS$	2-Isopropyl-2-thiazoline	-	-	Spec, Freq	Roggers	CPR	249 (1959)	2529
$C_6H_{11}NS$	2,5,5-Trimethyl-3- thiopyrroline	6.09 μ	Sol	Freq	Meyers	JOC	24 (1959)	1233
$C_6H_{11}N_2O$	4-Azido-4-methyl- pentanone	2-16 μ	Sol	Spec, Freq	Boyer	JACS	73 (1951)	5248
$C_6H_{11}N_2O$	Methyl isopropenyl ketone semicarbazone	700-3500	S	Ident, Assign	Davison	JCS	- (1955)	3389
$C_6H_{11}N_2O_4$	Triglycine	650-4000	S	Spec	Blout	JACS	74 (1952)	1946
$C_6H_{11}N_2O_6$	5,5-Dinitro-2-ethoxy- 3-aza-4-oxa-2-hexene	-	Sol	Freq, I	Belew	JACS	77 (1955)	1110
$C_6H_{11}N_2O$	2-Isopropoxy-4,6- diamino-1,3,5-triazine	2-16 μ	S	Spec, Struct	Padgett	JACS	80 (1958)	803

C ₆ H ₁₁ OS	Butylthio acetate	2.5-16/ μ	S	Freq, Struct	Nyquist	SA	15 (1959)	514
C ₆ H ₁₁ O ₆	4D-Hydroxymethyl-2L-methoxy-diglycolaldehyde hemiacetal hydrate	-	-	Freq, Struct	Hurd	JOC	18 (1953)	186
C ₆ H ₁₂	Cyclohexane	0.59-2.8/ μ	L	IR correlation	Ellis	PR	32 (1928)	906
		-	-	CH-overtones	Ellis	TFS	25 (1929)	888
		-	-	Heats of CH linkage	Ellis	PR	33 (1929)	27
		3-4/ μ	L	Spec	Barnes	PR	36 (1930)	296
		0.57-3.5/ μ	-	C-H overtones	Ellis	PR	35 (1930)	437
		1.0-1.8/ μ	L	Spec	Bruun	JRNB	7 (1931)	607
		1.1-1.8/ μ	L	Spec	Bruun	JRNB	9 (1932)	53
		1-16/ μ	G	Spec	Kattering	P	4 (1933)	39
		1.1-1.8/ μ	Sol	Spec	Liddel	JRNB	11 (1933)	599
		3.1-3.6/ μ	Sol	Spec	Fox	PRS	167 (1938)	257
		-	-	Config	Langseth	JCP	8 (1940)	415
		-	-	Hindered rotation	Langseth	JCP	8 (1940)	403
		3/ μ	-	Spec	Gore	IEC	13 (1941)	768
		-	-	Struct, Thermo	Aston	JACS	65 (1943)	1135
		1200-1800	-	Spec	Barnes	IEC	15 (1943)	659
		2-14.5/ μ	G	Spec, Assign	Rasmussen	JCP	11 (1943)	249
		3-4/ μ	L	Prism dispersion	Wright	RSI	15 (1944)	22
		-	-	Freq	Kellner	TFS	41 (1945)	217
		3-20/ μ	L	Spec	Torkington	TFS	41 (1945)	184
		-	-	Struct, Thermo	Beckett	JACS	69 (1947)	2488
		3-15/ μ	S,L,G	Spec, Struct	Carpenter	JCP	15 (1947)	1947
		16-24/ μ	L,G	Spec	Plyler	JOSA	37 (1947)	746
		2-15/ μ	L	Spec	Plyler	JRNB	38 (1947)	211
		500-1500	G,L	FC	Ramsay	PRS	190 (1947)	245
		-	-	FC	Ramsay	PRS	190 (1947)	562
		-	-	Thermo	Beckett	JACS	70 (1948)	4227
		-	-	Assign	Ramsay	TFS	44 (1948)	289
		-	-	Analysis	Saier	AC	20 (1948)	812
		9-14/ μ	L	Spec	Fred	AC	21 (1949)	900
		8000-9000	Sol	Spec	Hibbard	AC	21 (1949)	486
		-	L	Analysis	Ipatieff	JACS	71 (1949)	2665
		-	G	Analysis	Bel	AC	22 (1950)	1005

C_6H_{12}	3,3-Dimethyl-1-butene	-	-	Analysis Assign Freq Freq, Spec	Hampton Sheppard Bellamy Potts	AC JCP JCS SA	21 (1949) 17 (1949) - (1958) 15 (1959)	923 455 2463 679
C_6H_{12}	2-Ethyl-1-butene	-	-	Analysis	Anderson	AC	20 (1948)	998
C_6H_{12}	Ethylcyclobutane	2-15 μ	G	Anal Ident	Derfer Pines	JACS JACS	71 (1949) 75 (1949)	2482 2315
C_6H_{12}	1-Hexene	1-30 μ	G	Spec Optical density vs conc Analysis Ident Freq Absorbances H bond Assign	Kattering Johnston Real Greenfield Bellamy Curry West Harrah	P AC JCS JACS JCS AC JACS JCP	4 (1933) 20 (1948) - (1949) 76 (1954) - (1958) 31 (1959) 81 (1959) 33 (1960)	39 805 2222 1258 2463 960 1614 298
C_6H_{12}	2-Hexene	3400-3800	Sol	H bond	West	JACS	81 (1959)	1614
C_6H_{12}	cis-2-Hexene	15-35 μ	S	Spec, Struct	Bentley	SA	15 (1959)	165
C_6H_{12}	trans-2-Hexene	-	-	Optical density vs conc Analysis Spec, Struct	Johnston Hampton Bentley	AC AC SA	20 (1948) 21 (1949) 15 (1959)	805 923 165
C_6H_{12}	trans-3-Hexene	-	-	Analysis Thermo	Hampton Kilpatrick	AC JCP	21 (1949) 17 (1949)	923 1064
C_6H_{12}	Methylcyclopentane	1.0-1.8 μ 1.1-1.8 μ 1150-1800 3-20 μ 2-15 μ 15-24 μ 8000-9000	L Sol - L L L Sol	Spec Spec Spec Spec Spec Spec Analysis Analysis	Brunn Liddel Barnes Torkington Plyler Plyler Hibbard Ipatieff	JRNB JRNB IEC TFS JOSA JRNB AC JACS	7 (1931) 11 (1933) 15 (1943) 41 (1945) 37 (1947) 38 (1947) 21 (1949) 71 (1949)	799 599 659 184 746 211 486 2685

C_6H_{12}	4-Methyl-1-pentene	-	-	Analysis	Hampton	AC	21 (1949)	923
C_6H_{12}	4-Methyl-ois-2-pentene	-	-	Struct	Hall	AC	21 (1949)	422
		-	-	Analysis	Hampton	AC	21 (1949)	923
		1.0-2.8 μ	L,Sol	Spec, Iso	Goddu	AC	29 (1957)	1790
C_6H_{12}	4-Methyl-trans-2-pentene	-	-	Struct	Hall	AC	21 (1949)	422
		-	-	Analysis	Hampton	AC	21 (1949)	923
		1.0-2.8 μ	L,Sol	Spec	Goddu	AC	29 (1957)	1790
		-	-	Freq	Bellamy	JCS	- (1958)	2463
C_6H_{12}	Isopropylcyclopropane	2-15 μ	G	Anal	Derfer	JACS	71 (1949)	2482
		-	-	Freq	Slabey	JACS	71 (1949)	1518
		-	-	Freq	Pines	JACS	75 (1953)	2311
		-	L,Sol	Freq	Slabey	JACS	76 (1954)	3604
C_6H_{12}	n-Propylcyclopropane	-	L	Freq	Pines	JACS	75 (1953)	2311
		-	-	Ident	Gragson	JOC	20 (1955)	275
C_6H_{12}	1,1,2-Trimethylcyclopropane	3-14 μ 2-15 μ	G G	Spec Anal	Bartleson Derfer	JACS JACS	68 (1946) 71 (1949)	2513 2482
C_6H_{12}	1,2,3-Trimethylcyclopropane	2-15 μ	L	Solvent effect	Derfer	JACS	71 (1949)	2482
$C_6H_{12}DNO$	N^{14} -Butylacetamide- $N-d_1$	700-3400	L,Sol	Spec, Freq, Assign	Beer	JCP	29 (1958)	1097
$C_6H_{12}DNO$	N^{15} -Butylacetamide- $N-d_1$	-	-	Freq	Vaughan	JOC	20 (1955)	819
		700-3400	L,Sol	Spec, Freq, Assign	Beer	JCP	29 (1958)	1097
$C_6H_{12}Br_2$	2,3-Dibromo-2,3-dimethylbutane	400-5000	Sol	IR	Cleveland	JCP	18 (1950)	1320
		-	S,L,G, Sol	Config	Mizushima	JPC	56 (1952)	324
$C_6H_{12}ClNO$	N-Butyl-2-chloroethanamide	4500-5300 2-15 μ	L L,Sol	Spec Freq, Assign	Abbott Letaw	PRS JCP	219 (1953) 21 (1953)	17 1621

$C_6H_{12}ClNO_2$	Ethyl N- α -chloro-propionylcarbamate	650-4000	Sol	Spec	Pianka	JCS - (1960)	983
$C_6H_{12}Cl_2$	1,3-Dichloro-2,3-dimethylbutane	3.5-13.68 μ L		Ident	Hatch	JACS 75 (1953)	3712
$C_6H_{12}Cl_2$	2,3-Dichloro-2,3-dimethylbutane	-	G, Sol, L, S	Config	Mizushima	JPC 56 (1952)	324
$C_6H_{12}Cl_3O_4P$	Tri-2-chloroethyl phosphate	670-1480	L, Sol	Spec P = O group freq	Bellamy Bell	JCS - (1952) JACS 76 (1954)	475 5185
$C_6H_{12}Cl_3O_4P$	O, O-Diethyl-2,2,2-trichloro-1-hydroxyethylphosphonate	-	-	Freq	Barthel	JACS 77 (1955)	2424
$C_6H_{12}NO_3PS$	S-Cyanomethyl-0,0-diethyl thio-phosphate	-	-	Struct	Hoegberg	JACS 73 (1951)	557
$C_6H_{12}N_2$	6-Aminocapronitrile	-	-	Freq	Kitson	AC 24 (1952)	334
$C_6H_{12}N_2$	3,6-Dimethyltetrahydropridazine	2-15 μ	-	Ident	Overberger	JACS 77 (1955)	4100
$C_6H_{12}N_2OS_3$	Dimethylcarbamyl dimethylthiocarbamyl disulfide	2-15 μ	S	Spec, Freq	Gregg	JACS 74 (1952)	3691
$C_6H_{12}N_2O_2$	Acetylalanine-N-methylamide	2.8-3.1 μ 2.7-3.5 μ	Sol S	Spec, H bond, Config Spec, Config	Mizushima Mizushima	JACS 74 (1952) JACS 75 (1953)	4639 1863
$C_6H_{12}N_2O_2$	Isopropyl methylglyoxime	400-3500	-	Spec, Struct	Borello	GCI 87 (1957)	615
$C_6H_{12}N_2O_2S_2$	Dimethylcarbamyl disulfide	2-25 μ	S	Spec	Gregg	JACS 75 (1952)	3691

$C_6H_{12}N_2O_3$	Glycylglycine ethyl ester	2700-3800	Sol	Spec, H bond	Buswell	JACS	61 (1939)	3252
$C_6H_{12}N_2O_4$	1,1-Dinitrohexane	-	-	Spec	Novikov	IANS	- (1959)	1855
$C_6H_{12}N_2O_4S_2$	Cystine	1-14 μ	S	Spec	Herget	PR	51 (1940)	1078
		-	-	Freq	Cymerman	JCS	- (1951)	1332
		600-4000	S	Ident	Epp	AC	29 (1957)	1283
$C_6H_{12}N_2O_5$	D-Serine anhydride	-	-	Ident	Hidy	JACS	77 (1955)	2345
$C_6H_{12}N_2O_5$	DL-Serine anhydride	-	-	Ident	Hidy	JACS	77 (1955)	2345
$C_6H_{12}N_2O_8$	Triethylene glycol dinitrate	2-15 μ	Sol	Spec, Freq	Pristera	AC	25 (1953)	844
$C_6H_{12}N_2S_4$	Dimethylthiocarbonyl disulfide	2-25 μ	S	Spec	Gregg	JACS	74 (1952)	3691
$C_6H_{12}N_2O_3$	Reseonine	800-3500 750-4000	S	Spec	Goto	BCSJ	30 (1957)	723
			-	Spec, Struct	Nakanishi	BCSJ	30 (1957)	725
$C_6H_{12}N_6$	N,N',N''-Trimethylmelamine	2-16 μ	S	Spec, Struct	Padgett	JACS	80 (1958)	803
$C_6H_{12}O$	Allyldimethylcarbinol	-	-	Spec, Temp effect	Michinori	BCSJ	33 (1960)	1600
$C_6H_{12}O$	3-Butenyl ethyl ether	-	-	Spec	Bergstrom	JACS	74 (1952)	145
$C_6H_{12}O$	t-Butyl vinyl ether	-	Sol	Freq, Spec	Potts	SA	15 (1959)	679
$C_6H_{12}O$	n-Butyl vinyl ether	-	Sol	Freq	Davison	JCS	- (1953)	2607
		650-3150	L	Freq	Meakins	JCS	- (1953)	4170
		600-4000	G,Sol	Spec, Freq	Mikawa	BCSJ	29 (1956)	110
		1.615-2.093 μ Sol	μ Sol	Ext coefficient	Goddu	AC	29 (1957)	1790

$C_6H_{12}O$	Crotyl ethyl ether	2-16 μ	-	Spec, Ident	Bergstrom	JACS	74 (1952)	145
$C_6H_{12}O$	Cyclohexanol	1050-1800	-	Spec Freq	Barnes	IEC	15 (1943)	659
		-	-	Opaque	Marrison	JCS	- (1951)	1614
		15-25 μ	L	Analysis	Marrison	JSI	29 (1952)	233
		-	Sol	Freq	Childers	AC	25 (1953)	1311
		665-5000	L	Freq, I	Zeiss	JACS	75 (1953)	897
		3.8-12.7 μ	L	Spec	Smith	JACS	76 (1954)	4564
		400-4000	Sol	Spec	Cummins	JCS	- (1957)	3847
		3 μ	Sol	Freq, H bond	Flett	SA	10 (1958)	21
		9-11 μ	Sol	Freq, I	Pickering	JACS	80 (1958)	4931
		3570-3700	Sol	Freq, I	Flynn	AJC	12 (1959)	575
		2.5-3.5 μ	-	OH group	Kabasakalian	AC	31 (1959)	375
		2.75-2.9 μ	Sol	Freq, H bond	Moriconi	JACS	81 (1959)	6472
		700-4000	Sol, L	Freq, Ext coefficient	Delmaine	CJC	38 (1960)	1921
$C_6H_{12}O$	Cyclopentylcarbinol	3.8-12.70 μ	L	Freq, I	Smith	JACS	76 (1954)	4564
$C_6H_{12}O$	Cyclopropylmethyl ethyl ether	2-16 μ	-	Spec, Ident	Bergstrom	JACS	74 (1952)	145
$C_6H_{12}O$	Dimethylcyclopropylcarbinol	-	L, Sol	Freq	Slabey	JACS	76 (1954)	3604
$C_6H_{12}O$	2,2-Dimethyltetrahydrofuran	2569-2689	Sol	H bond, Freq	Searles	JACS	73 (1951)	3704
$C_6H_{12}O$	2,5-Dimethyltetrahydrofuran	2-15 μ	L, Sol	Spec, Freq assign	Barrow	JACS	75 (1953)	1175
$C_6H_{12}O$	2-Ethylbut-3-en-1-ol	2.5-13.5 μ	-	Spec, Freq	Freedman	JOC	16 (1951)	1701
		-	L, S	Ident, Freq	Harper	JCS	- (1955)	1512
$C_6H_{12}O$	2-Ethylbutyraldehyde	-	Sol	Freq	Pinchas	AC	27 (1955)	2
$C_6H_{12}O$	3-Hexanone	1600-1800	Sol	Freq	Fuson	JACS	76 (1954)	2526

$C_6H_{12}O$	cis-3-Hexenol-1	5-15 μ 6-15 μ - -	L L - S,L	Spec Spec Perfume study, Spec Ident	Crombie Crombie Sondheimer Harper	JCS JCS JCS JCS	- - - -	(1950) (1950) (1950) (1955)	873 1714 877 1512
$C_6H_{12}O$	trans-3-Hexenol-1	5-15 μ 6-15 μ 5-15 μ -	L L L L,S	Spec Spec Spec, Perfume study Freq	Crombie Crombie Sondheimer Harper	JCS JCS JCS JCS	- - - -	(1950) (1950) (1950) (1955)	873 1714 877 1512
$C_6H_{12}O$	cis-n-4-Hexenol-1	3-12 μ	L	Spec, Struct	Crombie	JCS	-	(1950)	1707
$C_6H_{12}O$	trans-n-4-Hexenol-1	8-12 μ	L	Spec	Crombie	JCS	-	(1950)	1707
$C_6H_{12}O$	Isobutyl vinyl ether	- 1.615 μ	Sol Sol	Freq Ext coefficient	Davison Goddu	JCS AC	- 29	(1953) (1957)	2607 1790
$C_6H_{12}O$	Methyl butyl ketone	2800-3000	Sol	Freq, Spec	Pozefsky	AC	23	(1951)	1611
$C_6H_{12}O$	Methyl isobutyl ketone	1600-1800 - -	Sol S,L,G, Sol	Freq Freq Freq	Fuson Bellamy	JACS JCS	76 -	(1954) (1957)	2526 4294
$C_6H_{12}O$	Methyl t-butyl ketone	- - - - -	- - Sol S,L,G Sol	Ext coefficient Ident Freq Freq Freq	Cross Baker Bartlett Bellamy Rao	TFS AC JACS JCS JFC	47 25 77 - 63	(1951) (1953) (1955) (1957) (1959)	354 1457 2806 4294 1311
$C_6H_{12}O$	1-Methylcyclopentanol	3.8-12.7 μ	L	Freq, I	Smith	JACS	76	(1954)	4564
$C_6H_{12}O$	Methyl cyclopropyl- carbonylmethyl ether	-	-	Ident	Pearson	JACS	75	(1953)	1065
$C_6H_{12}O$	1-Methyl-3-ethyl- trimethylene oxide	-	L	Freq	Gaylord	JACS	76	(1954)	59

$C_6H_{12}O$	trans-3-Penten-1-yl methyl ether	-	-	Freq, Ident	Pearson	JACS	75 (1953)	1065
$C_6H_{12}O$	Tetramethylethylene oxide	1250	-	Struct	Field	JCP	18 (1950)	1298
$C_6H_{12}O$	1,2,2-Trimethyl trimethylene oxide	2.5-15 μ	-	Spec	Rust	JACS	76 (1954)	1055
$C_6H_{12}OS$	Acetone trimethylene- hemithioacetal	-	Sol	Freq	Djerassi	JACS	75 (1953)	3704
$C_6H_{12}OS$	n-Butylthio acetate	2-16 μ	L	Spec, Freq	Noda	JACS	75 (1953)	913
$C_6H_{12}OS$	Methyl ethyl ketone ethylenehemithio- ketal	-	Sol	Freq	Djerassi	JACS	75 (1953)	3704
$C_6H_{12}O_2$	n-Amyl formate	1-2.5 μ	L	Spec	Smith	JACS	48 (1926)	1512
$C_6H_{12}O_2$	n-Butyl acetate	0.7-2.5 μ	L	C = O study	Ellis	JACS	51 (1929)	1384
		0.8-2.5 μ	L	Spec	Sappanfield	PR	33 (1929)	37
		500-1750	L	Assign	Thompson	JCS	- (1945)	640
		1768	G	Freq	Hartwell	JCS	- (1948)	1436
		720-750	L	Freq	Wibberly	AC	22 (1950)	841
		2800-3000	Sol	Freq	Pozefsky	AC	23 (1951)	1611
		-	-	Freq	Bell	AC	25 (1953)	1720
		1200	-	Freq	Karpovich	JCP	22 (1954)	1767
		-	Sol	Freq, I	Russell	JCS	- (1955)	479
		800-1500	Sol	Freq, I	Thompson	SA	13 (1958)	236
		-	Sol	Assign	Katritzky	SA	16 (1960)	954
		-	-	Assign	Katritzky	SA	16 (1960)	964
$C_6H_{12}O_2$	sec-Butyl acetate	500-1750	L	Assign	Thompson	JCS	- (1945)	640
		1764	G	Freq	Hartwell	JCS	- (1948)	1436
		-	-	Freq	Karpovich	JCP	22 (1954)	1767
		1200	Sol	I	Russell	JCS	- (1955)	479
		800-1500	Sol	Assign	Katritzky	SA	16 (1960)	954
		-	-	Assign	Katritzky	SA	16 (1960)	964

$C_6H_{12}O_2$	t-Butyl acetate	665-5000	L	Freq	Ory	AC	32 (1960)	509
$C_6H_{12}O_2$	Cyclohexane-1,2-diol	-	S	Ident	Jaeger	JCS	- (1955)	160
$C_6H_{12}O_2$	cis-Cyclohexane-1,2-diol	3 μ	Sol	Spec, Freq	Kuhn	JACS	74 (1952)	2492
		-	Sol	Freq	Kuhn	JACS	76 (1954)	4323
		-	Sol	Freq	Kwart	JACS	76 (1954)	5400
		-	Sol	Freq	Eliel	JACS	77 (1955)	3600
		-	-	Ident	Marrow	JACS	77 (1955)	756
		3500-3650	Sol	H bond	Brimacombe	TE	4 (1958)	351
$C_6H_{12}O_2$	trans-Cyclohexane-1,2-diol	3 μ	S, Sol	Spec, Freq	Kuhn	JACS	74 (1952)	2492
		-	-	Ident	Eastman	JACS	75 (1953)	1493
		-	Sol	Freq	Kuhn	JACS	76 (1954)	4323
		-	Sol	Freq	Kwart	JACS	76 (1954)	5400
		-	Sol	Freq	Eliel	JACS	77 (1955)	3600
		3500-3650	Sol	H bond	Brimacombe	TE	4 (1958)	351
$C_6H_{12}O_2$	cis-Cyclohexane-1,3-diol	3 μ	Sol	Freq, Spec	Kuhn	JACS	74 (1952)	2492
$C_6H_{12}O_2$	trans-Cyclohexane-1,3-diol	3 μ	Sol	Freq	Kuhn	JACS	74 (1952)	2492
$C_6H_{12}O_2$	cis-Cyclohexane-1,4-diol	3 μ	Sol	Freq	Kuhn	JACS	74 (1952)	2492
$C_6H_{12}O_2$	trans-Cyclohexane-1,4-diol	3 μ	Sol	Freq	Kuhn	JACS	74 (1952)	2492
$C_6H_{12}O_2$	Diacetone alcohol	9000-1100	Sol	Spec, H bond	Badger	JCP	5 (1937)	839
		-	-	Freq, Struct	Rasmussen	JACS	71 (1949)	1068
		15-25 μ	L	Opaque	Marrison	JSI	29 (1952)	233
		3 μ	Sol	Freq, H bond	Flett	SA	10 (1958)	21
$C_6H_{12}O_2$	1,1-Diethoxyethylene	-	Sol	Freq, Spec	Potts	SA	15 (1959)	679
$C_6H_{12}O_2$	Diethylacetic acid	1300-2000	Sol	Spec	Gillette	JACS	58 (1936)	1143
		0.9-3 μ	Sol	Spec	Holman	AC	28 (1956)	1533

$C_6H_{12}O_2$	2,2-Dimethylbutanoic acid	-	-	Ident	Kwart	JACS	76 (1954)	5403
$C_6H_{12}O_2$	1,2-Epoxy-3-isopropoxy propane	1-3.1 μ	Sol	Terminal epoxides	Goddu	AC	30 (1958)	2013
$C_6H_{12}O_2$	trans-3,4-Epoxyhexan-1-ol	2800-3100	Sol	Freq	Henbest	JCS	- (1957)	1459
$C_6H_{12}O_2$	Ethyl butyrate	0.8-2.5 μ 500-1750 1760 1740 2-16 μ - - 800-1500	L L G Sol L L Sol Sol	Spec Assign Freq Freq Spec, Freq Freq I Assign	Sappenfield Thompson Hartwell Hampton Rappaport Filler Gutjahr Katritzky	PR JCS JVS AC JACS JACS SA SA	33 (1929) - (1945) - (1948) 21 (1949) 75 (1953) 76 (1954) 16 (1960) 16 (1960)	37 640 1436 914 2695 1376 1209 954
$C_6H_{12}O_2$	Ethyl isobutyrate	20.7-152 μ 500-1750 1759	S L G Sol	Transmission Assign Freq I	Seifert Thompson Hartwell Gutjahr	RSI JCS JCS SA	11 (1940) - (1945) - (1948) 16 (1960)	365 640 1436 1209
$C_6H_{12}O_2$	Ethyl n-butyrate	1-2.5 μ 2800-3000 2-16 μ -	L Sol L -	Spec Spec, Freq Spec Assign	Smith Pozefsky Rappaport Katritzky	JACS AC JACS SA	48 (1926) 23 (1951) 75 (1953) 16 (1960)	1512 1611 2695 964
$C_6H_{12}O_2$	n-Hexanoic acid	5-10 μ 700-4000 1-12 μ 2-14 μ 6.81-13.61 μ 3500-670 3-6 μ	Sol S,L, Sol Sol S L,S Sol	Spec, Assign Freq, Ext coefficient Spec, Ext coefficient Spec Freq, I, Spec Spec I	Klotz Flett O'Connor Harple Fowler Corish Wenograd	JFOC JCS JACS AC JOSA JCS JACS	52 (1948) - (1951) 28 (1951) 24 (1952) 43 (1953) - (1957) 79 (1957)	961 962 154 635 1054 1746 5844
$C_6H_{12}O_2$	2-Hydroxymethyltetrahydrofuran	3500-3700	Sol	H bond	Barker	TE	7 (1959)	10

$C_6H_{12}O_2$	Isoamyl formate	1752	G	Freq	Hartwell	JCS -	(1948)	1436
$C_6H_{12}O_2$	Isobutyl acetate	500-1750 1770 2800-3000	L G Sol	Assign Freq Freq, Spec	Thompson Hartwell Pozefsky	JCS - JCS - AC 23	(1945) (1948) (1951)	640 1436 1611
		-	-	Freq	Karpovich	JCP	(1954)	1767
		1200	Sol	Band I	Russell	JCS -	(1955)	479
		-	Sol	Freq, I	Thompson	SA 13	(1958)	236
$C_6H_{12}O_2$	Isocaproic acid	-	Sol	I, Freq	Wenograd	JACS	79 (1957)	5844
$C_6H_{12}O_2$	Isopropyl propionate	5-20 μ 1758 2800-3000 800-1500	L G Sol Sol	Freq, Assign Freq Freq, Spec Assign	Thompson Hartwell Pozefsky Katritzky Katritzky	JCS - JCS - AC 23 SA 16 SA 16	(1945) (1948) (1951) (1960) (1960)	640 1436 1611 954 964
$C_6H_{12}O_2$	3-Methylene-1,5-pentanediol	-	-	Indic no ac	Blonoquist	JACS	77 (1955)	78
$C_6H_{12}O_2$	Methyl trimethyl acetate	500-1750 1758 2-15 μ	L G -	Assign Freq Freq, Struct	Thompson Hartwell Rasmussen	JCS - JCS - JACS 71	(1945) (1948) (1949)	640 1436 1073
$C_6H_{12}O_2$	Methyl valerate	6.84-13.59 μ	L	Freq, I	Fowler	JOSA	43 (1953)	1054
$C_6H_{12}O_2$	β -Propoxypropaldehyde	-	-	Ident	Hall	JCS -	(1954)	3388
$C_6H_{12}O_2$	n-Propyl propionate	0.8-2.5 μ 1740 2800-3000 800-1500	L L Sol Sol	Freq Spec Freq Freq, Spec Assign Assign	Bonino Sappenfield Hompton Pozefsky Katritzky Katritzky	TFS PR 33 AC 21 AC 23 SA 16 SA 16	(1929) (1929) (1949) (1951) (1960) (1960)	876 37 914 1611 954 964
$C_6H_{12}O_2$	2,2,4-Trimethyl-1,3-dioxolan	400-3100	G	Freq, Assign	Barker	JCS -	(1959)	802

$C_6H_{12}O_2Si$	Diallylsilanediol	2.5-4 μ	S, Sol	Spec, Struct, H bond	Kakudo	JCP	21 (1953)	1894
$C_6H_{12}O_3$	t-Butyl peracetate	- 6.65-5000	- L	Freq Freq	Davison Ory	JCS AC	- 32 (1951) 32 (1960)	2456 509
$C_6H_{12}O_3$	1-Dimethoxymethyl-2-methoxy-trans ethylene	-	Sol	Freq, Spec	Potts	SA	15 (1959)	679
$C_6H_{12}O_3$	2-Ethyl-1:3-dioxan-5-diol	3500-3700	Sol	H bond	Barker	TE	7 (1959)	10
$C_6H_{12}O_3$	Ethyl ethoxyacetate	2-15 μ	Sol	Spec	Roberts	JACS	74 (1952)	3679
$C_6H_{12}O_3$	Ethyl β -hydroxy-butyrate	3 μ	Sol	H bond	Mori	NKZ	77 (1956)	459
$C_6H_{12}O_3$	1-Hydroxycyclohexyl-1-hydroperoxide	-	-	Spec	Cooper	JCS	- (1951)	1340
$C_6H_{12}O_3$	4-Hydroxymethyl-2,2-dimethyl-1,3-dioxalan	400-3100	G	Freq, Assign	Barker	JCS	- (1959)	802
$C_6H_{12}O_3$	Paraldehyde	-	-	Freq	Fugassi	JPC	46 (1942)	630
$C_6H_{12}O_4$	Ethyl 2-methoxyethyl-carbonate	1500-5000	Sol	Freq	Briggs	AC	29 (1957)	904
$C_6H_{12}O_4S_2$	1,1-Diethylsulphonyl-ethylene	-	Sol	Freq, Spec	Potts	SA	15 (1959)	679
$C_6H_{12}O_4S_2$	2,5-Dimethyl-p-dithiane-1,1,4,4-tetroxide	670-1330	S	Ident	Marvel	JACS	76 (1954)	61
$C_6H_{12}O_4S_2$	2,6-Dimethyl-p-dithiane-1,1,4,4-tetroxide	-	-	Ident	Marvel	JACS	76 (1954)	61
$C_6H_{12}O_4Se_2$	Diselenium- α -dipropionic acid	2-40 μ	-	Assign	Bergson	ARK	13 (1958)	11

$C_6H_{12}O_4Se_2$	Diselenium- β -dipropionic acid	2-40 μ	-	Assign	Bergson	ARK	13 (1958)	11
$C_6H_{12}O_4Si$	Dimethyldiacetoxy- silane	0.8 μ	Sol	Spec, Freq	Okawara	JACS	82 (1960)	3287
$C_6H_{12}O_5$	1,4-Anhydro-D- mannitol	700-1000	S	Freq, I	Barker	JCS	- (1954)	4550
$C_6H_{12}O_5$	3,6-Anhydrosorbitol	700-1000	S	Freq, I	Barker	JCS	- (1954)	4550
$C_6H_{12}O_5$	2-Deoxy- β -D- galactopyranose	-	S	Freq, I	Barker	JCS	- (1954)	4211
$C_6H_{12}O_5$	6-Deoxy- β -D- galactopyranose	-	S	Freq, I	Barker	JCS	- (1954)	3468
$C_6H_{12}O_5$	2-Deoxy- β -D-gluc- opyranose	-	S	Freq, I	Barker	JCS	- (1954)	4211
$C_6H_{12}O_5 \cdot H_2O$	6-Deoxy- α -L-manno- pyranose monohydrate	-	S	Freq, I	Barker	JCS	- (1954)	3468
$C_6H_{12}O_5$	L-Fucose	8-15 μ	S	Spec Freq, I	Kuhn Whistler	AC AC	22 (1950) 25 (1953)	276 1463
$C_6H_{12}O_5$	Methyl α -D-arabo- pyranoside	-	S	Freq, I	Barker	JCS	- (1954)	3468
$C_6H_{12}O_5$	Methyl β -D-arabo- pyranoside	-	S	Freq, I	Barker	JCS	- (1954)	3468
$C_6H_{12}O_5$	Methyl D-ribofura- noside	700-1000	L	Freq, I	Barker	JCS	- (1954)	4550
$C_6H_{12}O_5$	Methyl α -D-xylo- pyranoside	-	S	Freq, I	Barker	JCS	- (1954)	3468

$C_6H_{12}O_5$	Methyl β -D-xylopyranoside	8-15 μ -	S S	Spec Freq, I	Kuhn Barker	AC JCS	22 -	(1950) (1954)	276 3468
$C_6H_{12}O_5$	protoquercitol	-	S	Freq	Barker	JCS	-	(1954)	4211
$C_6H_{12}O_5$	scyllo-Quercitol	-	S	Freq	Barker	JCS	-	(1954)	4211
$C_6H_{12}O_5$	l-vibo-Quercitol	-	S	Freq	Barker	JCS	-	(1954)	4211
$C_6H_{12}O_5$	L-1-Rhamnose	1.7-4.6 μ -	Sol -	Spec, Struct Freq assign	Barr Loofbouroow	JCP RMP	8 12	(1940) (1940)	51 267
		8-15 μ -	S S	Spec Freq, I	Kuhn Whistler	AC AC	22 25	(1950) (1953)	276 1463
$C_6H_{12}O_5$	Tetrahydro-3,4-dihydroxy-2,5-dimethoxyfuran	-	S	Freq	Friedmann	JCS	-	(1954)	3687
$C_6H_{12}O_6$	Fructose	1100-3030 1.7-4.6 μ - - 2-15 μ	Sol Sol - S S	Freq, Assign Spec, Struct Freq, Assign Freq, I Spec, Ident	Rogers Barr Loofbouroow Whistler Resnik	JACS JCP RMP AC AC	60 8 12 25 29	(1938) (1940) (1940) (1953) (1957)	2619 51 267 1463 1874
$C_6H_{12}O_6$	β -D-Galactopyranose	- 800-3000	S S	Freq, I Freq	Barker Barker	JCS N	- 186	(1954) (1960)	3468 307
$C_6H_{12}O_6$	α -D-Galactose	800-3000	S	Freq	Barker	N	186	(1960)	307
$C_6H_{12}O_6$	D-d-Galactose	1125-3030 1.7-4.6 μ - 8-15 μ - - 2-15 μ	Sol Sol - S S S S	Freq assign Spec, Struct Freq, Assign Spec Freq, I Freq, I Study interaction with	Rogers Barr Loofbouroow Kuhn Whistler Barker Barker	JACS JCP RMP AC AC JCS CIL	60 8 12 22 25 - 46	(1938) (1940) (1940) (1950) (1953) (1954) (1954)	2619 51 267 276 1463 3468 1418

$C_6H_{12}O_6$	α -D-Glucopyranose	-	S	Freq, I Freq, I Freq, I Spec Freq Spec Freq	Barker Barker Barker Marrinan Nakanishi Farmer Barker	JCS JCS JCS JAP BCSJ SA N	- - - 4 29 8 186	(1954) (1954) (1954) (1954) (1956) (1957) (1960)	171 3468 4211 204 434 374 307
$C_6H_{12}O_6$	β -D-Glucopyranose	-	S	Spec Freq, I Freq, I Freq, I Freq	Barker Barker Barker Barker Barker	CIL JCS JCS JCS N	46 - - - 186	(1954) (1954) (1954) (1954) (1960)	1418 171 3468 4211 307
$C_6H_{12}O_6$	D-Glucose	1000-3030 1.7-4.6 μ - - 2-15 μ - - 750-930 -	Sol Sol - - S S S S S	Freq, Assign Spec, Struct Freq Freq, Assign Spec, Struct Spec, I Freq, I Spec Spec	Rogers Barr Bushwell Loofbaurow Kuhn Schwarz Whistler Barker Kalkwarf	JACS JCP JPC RMP AC AFS AC CIL AC	60 8 44 12 22 6 25 46 26	(1938) (1940) (1940) (1940) (1950) (1952) (1953) (1954) (1954)	2619 51 1126 267 276 15 1463 1418 191
$C_6H_{12}O_6$	d-Inositol	-	S	Freq	Barker	JCS	-	(1954)	4211
$C_6H_{12}O_6$	l-Inositol	-	S	Freq	Barker	JCS	-	(1954)	4211
$C_6H_{12}O_6$	i-Inositol	8-15 μ 700-1500	S S	Spec Spec	Kuhn Shay	AC AC	22 26	(1950) (1954)	276 652
$C_6H_{12}O_6$	meso-Inositol	-	S	Freq	Barker	JCS	-	(1954)	4211
$C_6H_{12}O_6$	muco-Inositol	-	S	Freq	Barker	JCS	-	(1954)	4211
$C_6H_{12}O_6$	scyllo-Inositol	-	S	Freq	Barker	JCS	-	(1954)	4211
$C_6H_{12}O_6$	α -L-Mannopyranose	-	S	Freq	Barker	JCS	-	(1954)	3468

$C_6H_{12}O_6$	α -D-Mannose	800-3000	S	Freq	Barker	N	186 (1960)	307
$C_6H_{12}O_6$	β -D-Mannose	2-15 μ 800-3000	S	Interaction with KBr Freq	Barker Barker	CIL N	46 (1954) 186 (1960)	1418 307
$C_6H_{12}O_6$	D-Mannose	1040-3030 1.7-4.6 μ - 2-15 μ - -	Sol Sol - S S S	Freq, Assign Spec Freq, Assign Spec Freq, I Freq, I	Rogers Barr Loofbourov Kuhn Whistler Barker	JACS JCP RMP AC AC JCS	60 (1938) 8 (1940) 12 (1940) 22 (1950) 25 (1953) - (1954)	2619 51 267 276 1463 3468
$C_6H_{12}O_6$	L-Sorbose	8-15 μ	S	Spec	Kuhn	AC	22 (1950)	276
$C_6H_{12}O_6$	α -D-Talopyranose	2-15 μ	S	Spec, Config	Isbell	JRNB	57 (1956)	179
$C_6H_{12}O_6$	β -D-Talopyranose	2-15 μ	S	Spec, Config	Isbell	JRNB	57 (1956)	179
$C_6H_{12}O_6B_2$	Tetramethylene diborate	6-14 μ	L, S	Freq, Struct	Blau	JCS	- (1960)	380
$C_6H_{12}S$	Cyclohexanethiol	500-1000 2-15 μ -	L L -	Spec Spec Ident	Sheppard Arnold Moore	TFS AC JCS	46 (1950) 24 (1952) - (1954)	429 1741 2082
$C_6H_{12}S$	2-Methylthiacyclo- hexane	650-3500	-	Spec	Leonard	JACS	74 (1952)	917
$C_6H_{12}S$	Thiacycloheptane	650-3500	-	Spec	Leonard	JACS	74 (1952)	917
$C_6H_{12}S_2$	1,1-Cyclohexane- dithiol	2.5-15 μ	L	Spec, Freq	Cairns	JACS	74 (1952)	3982
$C_6H_{12}S_2$	Isobutyl dithio- acetate	865-2955	L	Freq	Marvel	JACS	77 (1955)	5997
$C_6H_{12}Si$	Dimethyldivinyl- silane	3-15 μ	L	Spec	Kozima	BCSJ	27 (1954)	287

$C_6H_{13}DO$	n-Hexanol-d ₁	-	L	O-D band study Freq, I	Quinan Quinan	JCP AC	21 (1953) 26 (1954)	1896 1762
		650-4000	G,L	O-D band study	Stuart	JCP	24 (1956)	559
		350-4000	L,S					
$C_6H_{13}DS$	n-Hexanethiol-d ₁	-	L	Freq	Plant	JACS	77 (1955)	1572
$C_6H_{13}Br$	n-Hexyl bromide	500-1500	L,S	Spec, Iso	Brown	TFS	50 (1954)	535
		-	L	Mole ratio of trans and Gauche	Yoshino	CJC	35 (1957)	339
$C_6H_{13}Cl$	n-Hexyl chloride	16-25 μ	L	Transparent solvent	Morrison	JSI	29 (1952)	233
$C_6H_{13}ClO_2S$	n-Hexanesulfonyl chloride	-	-	Spec, Assign	Geisler	ZE	63 (1959)	1140
$C_6H_{13}Cl_3OSi$	Trichlorosilylethyl butyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_6H_{13}Cl_3OSi$	Trichlorosilylbutyl ethyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_6H_{13}Cl_3OSi$	Trichlorosilylpentyl methyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_6H_{13}N$	Allyl isopropylamine	2-15 μ	L	Freq, Assign, NCA	Stewart	JCP	30 (1959)	1259
$C_6H_{13}N$	Cyclohexylamine	6300-6800	Sol	Spec	Wulf	JACS	57 (1935)	1464
		600-1000	L	Spec	Heacock	CJC	34 (1956)	1782
		2-8 μ	S	Spec	Nakanishi	BOSJ	30 (1957)	403
		3 μ	Sol	Freq	Mason	JOS	- (1958)	3619
		3 μ	Sol	Freq, FC	Elliot	JOS	- (1959)	1275
		2-15 μ	L,Sol	Freq assign, NCA	Stewart	JCP	30 (1959)	1259
$C_6H_{13}N.HBr$	Cyclohexylamine hydrobromide	1000-3500 2000-4000	S,Sol S	Freq, Spec H bond	Chenon Brisette	CJC CJC	36 (1958) 38 (1960)	1181 34

$C_6H_{13}N.HCl$	Cyclohexylamine hydrochloride	600-4000 2-8 μ 1000-3500 2000-4000	S S S, Sol S	Spec Spec Freq, Spec H bond	Heacock Nakanishi Chenon Brisette	CJC BCSJ CJC CJC	34 (1956) 30 (1957) 36 (1958) 38 (1960)	1782 403 1181 34
$C_6H_{13}N.HI$	Cyclohexylamine hydroiodide	1000-3500 2000-4000	S S	Freq, Spec H bond	Chenon Brisette	CJC CJC	36 (1958) 38 (1960)	1181 34
$C_6H_{13}N.HClO_4$	Cyclohexylamine perchlorate	600-4000	S	Spec, Band study	Heacock	CJC	39 (1956)	1782
$C_6H_{13}N$	cis-2,5-Dimethyl- pyrrolidine	2-15 μ	-	Freq	Overberger	JACS	77 (1955)	4100
$C_6H_{13}N$	trans-2,5-Dimethyl- pyrrolidine	2-15 μ	-	Freq	Overberger	JACS	77 (1955)	4100
$C_6H_{13}N$	Hexamethyleneimine	3.38-3.6 μ	S	Freq	Ory	AC	32 (1960)	509
$C_6H_{13}N$	2-Methylpiperidine	- 3-4 μ 2900-3100	- L, Sol Sol	Ident Stretch freq Freq	Jones Tallent Hill	JCS AC JCS	- (1952) 28 (1956) - (1958)	3261 953 760
$C_6H_{13}N.HCl$	2-Methylpiperidine hydrochloride	2-8 μ	S	Spec	Nakanishi	BCSJ	30 (1957)	403
$C_6H_{13}N.HCl$	N-Methylpiperidine hydrochloride	600-4000	S	Assign	Stone	JCS	- (1958)	52
$C_6H_{13}NO$	cis-2-Aminocyclohexanol	-	Sol	Freq, Assign	Sicher	CCCC	24 (1959)	950
$C_6H_{13}NO$	trans-2-Aminocyclohexanol	-	Sol	Freq, Assign	Sicher	CCCC	24 (1959)	950
$C_6H_{13}NO$	N-Butylacetamide	- 2-15 μ 3000-3550	- L, Sol Sol	Spec, Struct Freq, Assign Spec	Abbott Letaw Badger	PRS JCP PWAS	219 (1953) 21 (1953) 40 (1954)	17 1621 12
$C_6H_{13}NO$		- 1200-8000 400-3400	Sol Sol L, Sol	Freq Freq assign Spec, Freq assign	Klemperer Hecht Beer	JACS PRS JCP	76 (1954) 235 (1956) 29 (1958)	5846 174 1097

$C_6H_{13}NO$	N^{15} -Butylacetamide (Isotopic)	-	-	Vaughan	JOC	20 (1955)	819
$C_6H_{13}NO$	N,N-Diethylacetamide	1500-3600 1633	S, Sol Sol	Richards Barrow	JCS JCP	- 21 (1953)	1248 2008
$C_6H_{13}NO$		1760-1560 51-59 μ	L Sol Sol	Robson Archibald Schmulback	JACS SA JCP	77 (1955) 12 (1958) 64 (1960)	498 34 1956
$C_6H_{13}NO$	1-Ethylmorpholine	3.38-3.6 μ	S	Wright	JOC	24 (1959)	1362
$C_6H_{13}NO$	N-Ethylmorpholine	-	-	Hill	JCS	- (1958)	760
$C_6H_{13}NO.HCl$	N-Ethylmorpholine hydrochloride	600-400	S	Stone	JCS	- (1958)	52
$C_6H_{13}NO.HI$	N-Ethylmorpholine hydriodide	2-8 μ	S	Nakanishi	BCSJ	30 (1957)	403
$C_6H_{13}NO$	Caproamide	1500-3600 5-10 μ	S, Sol S, Sol -	Richards Kloty Richards	JCS JPCG TFS	- (1947) 52 (1948) 44 (1948)	1248 961 40
$C_6H_{13}NO$		4400-5100	S	Elliot	PRS	211 (1952)	490
$C_6H_{13}NO$	4-Hydroxy-1-methyl- piperidine	3.38-3.6 μ	S	Wright	JOC	24 (1959)	1362
$C_6H_{13}NO$	2-Methyl-2-ethyl- oxazolidine	-	Sol	Bergmann	JACS	75 (1953)	358
$C_6H_{13}NO$	N-Propylpropion- amide	1200-8000 600-3400	Sol L, Sol	Hecht Beer	PRS JCP	235 (1956) 29 (1958)	174 1097
$C_6H_{13}NO_2$	α -Aminocaproic acid	-	S	Witkop	JACS	76 (1954)	5589
$C_6H_{13}NO_2$	ϵ -Amino-n-caproic acid	3060-3290 -	S S	Abbott Witkop Parker	PRS JACS SA	219 (1953) 76 (1954) 16 (1960)	17 5589 910

$C_6H_{13}NO_2$	N,N-Diethylglycine	-	sol	H bond, Freq	Barrow	JACS	80 (1958)	86
$C_6H_{13}NO_2$	n-Hexyl nitrite	420-4000	-	Spec, Assign	Gray	DA	19 (1958)	454
$C_6H_{13}NO_2$	DL-Isoleucine	1-12 μ 600-4000 667-5000	Sol S S	Spec, Freq Ident Spec, Freq, Struct	Lacher Epp Leifer	JPC AC JACS	58 (1954) 29 (1957) 79 (1957)	206 1283 5098
$C_6H_{13}NO_2$	L-Isoleucine	6-11 μ 1538-909	Sol Sol	Spec Spec	Parker Parker	N SA	187 (1960) 16 (1960)	386 910
$C_6H_{13}NO_2$	L-Leucine	2-15 μ 1-12 μ 600-4000 6-11 μ 1538-909	S Sol S Sol Sol	Spec, Ident Spec, Freq assign Ident Spec Spec	Larson Lacher Epp Parker Parker	ACS JPC AC N SA	4 (1950) 58 (1954) 29 (1957) 187 (1960) 16 (1960)	27 206 1283 386 910
$C_6H_{13}NO_2$	N-Methyl- β -hydroxy- isovaleramide	-	-	OH and NH indic	Gresham	JACS	76 (1954)	486
$C_6H_{13}NO_2$	2-Morpholinoethanol	3 μ	Sol	Freq	Flett	SA	10 (1958)	21
$C_6H_{13}NO_2$	1-Nitrohexane	-	L	Freq, I	Haszeldine	JCS	- (1953)	2525
$C_6H_{13}NO_2$	DL-Norleucine	5-10 μ 667-5000	S S	Spec, Assign Spec, Freq, Struct	Klotz Leifer	JPC JACS	52 (1948) 79 (1957)	961 5098
$C_6H_{13}NO_2 \cdot HCl$	Norleucine hydro- chloride	5-10 μ	-	Spec, Assign	Klotz	JPC	52 (1948)	961
$C_6H_{13}NO_2 S$	DL-Ethionine	909-1538	Sol	Spec	Parker	SA	16 (1960)	910
$C_6H_{13}NO_3$	1,3-Dimethylbutyl nitrate	2-15 μ	Sol	Spec, Struct	Carrington	SA	16 (1960)	1279
$C_6H_{13}NO_3$	n-Hexyl nitrate	2-15 μ	Sol	Spec, Struct	Carrington	SA	16 (1960)	1279
$C_6H_{13}NO_5$	scyllo-Inosamine	-	-	C-N freq	Straube	JACS	75 (1953)	694

$C_6H_{13}NO_5$	D, L-epi-Inosamine-2	-	-	Freq	Straube	JACS	75 (1953)	694
$C_6H_{17}NO_5$	myo-Inosamine-2	-	-	Freq	Straube	JACS	75 (1953)	694
$C_6H_{13}NO_5$	D, L-myo-Inosamine-4	-	-	Freq	Straube	JACS	75 (1953)	694
$C_6H_{13}NO_5 \cdot HCl$	2-Amino-2-deoxy- α -D-glucopyranose hydrochloride	8-15 μ	S	Spec Freq, I	Kuhn Barker	AC JCS	22 (1950) - (1954)	1950 171
$C_6H_{13}NO_6$	D-Galactose oxime	8-15 μ	S	Spec	Kuhn	AC	22 (1950)	276
$C_6H_{17}NO_6$	D-Mannose oxime	8-15 μ	S	Spec	Kuhn	AC	22 (1950)	276
$C_6H_{13}NS$	N-n-Butylthioacetamide	686-3220	L	Freq	Marvel	JACS	77 (1955)	5997
$C_6H_{13}NS$	N, N-Diethylthioacetamide	-	-	Ident	Moore	JCS	- (1954)	2082
$C_6H_{13}N_3O$	Diethyl ketone semicarbazone	700-3500	S	Ident, Assign	Davison	JCS	- (1955)	3389
$C_6H_{13}N_3O$	Methyl isopropyl ketone semicarbazone	700-3500	S	Ident, Assign	Davison	JCS	- (1955)	3389
$C_6H_{13}N_3O$	Methyl n-propyl ketone semicarbazone	700-3500	S	Ident, Assign	Davison	JCS	- (1955)	3389
$C_6H_{13}N_3O_2 \cdot HCl$	Creatine ethyl ester hydrochloride	680-3400	S	Spec	Mold	JACS	77 (1955)	178
$C_6H_{13}O_2SB$	n-Butylethylene thioborate	2-14 μ	L, S	Struct, Freq	Blau	JCS	- (1960)	380
$C_6H_{13}O_3P$	Cyclohexylphosphonic acid	-	-	Freq Freq	Bellamy Braunkholtz	JCS JCS	- (1952) - (1959)	1701 868

$C_6H_{13}O_3P$	Diethyl vinylphosphonate	600-3000	L	Spec, Assign, Config	Gillis	JACS	80 (1958)	2999
$C_6H_{13}O_3S$	n-Hexane-1-sulfonate	500-4000	S	Struct	Fujimori	BCSJ	32 (1959)	850
$C_6H_{13}O_3B$	sec-Butylethylene borate	2-14 μ	L,S	Assign, Struct	Blau	JCS	- (1960)	380
$C_6H_{13}O_3B$	Isobutylethylene borate	2-14 μ	L,S	Assign, Struct	Blau	JCS	- (1960)	380
$C_6H_{13}O_4P$	Cyclohexyldiacid phosphate	-	-	Freq	Bell	JACS	76 (1954)	5185
$C_6H_{13}O_4P$	Glucose-1-phosphate	9-12 μ	S	Freq	Schwarz	APS	6 (1952)	15
C_6H_{14}	2,2-Dimethylbutane	1-30 μ	G	Spec	Kettering	P	4 (1933)	39
		-	-	Thermo	Pitzer	CR	27 (1940)	39
		2-15 μ	G	Spec	Avery	JCP	10 (1942)	10
		700-1450	-	Spec	Thompson	JCS	- (1944)	183
		-	-	Freq	Kellner	TFS	41 (1945)	217
		2.5-13.5 μ	L	Spec	Fry	JAP	17 (1946)	150
		-	-	Thermo, Assign	Kilpatrick	JACS	68 (1946)	1066
		-	L	Analysis	Glasgow	JRNB	38 (1947)	537
		-	-	Analysis	Heigl	IEC	19 (1947)	293
		-	-	Freq	Kent	AC	19 (1947)	290
		-	-	Freq	Sutherland	JCP	15 (1947)	153
		-	-	Assign	Sheppard	JCP	16 (1948)	690
		8000-9000	Sol	Analysis	Hibbard	AC	21 (1949)	486
		-	-	Thermo	Kilpatrick	JCP	17 (1949)	1064
		-	-	Band width and temp	Rank	JCP	17 (1949)	1339
		-	-	Analysis, Assign	Sheppard	JCP	17 (1949)	455
		-	-	Freq	Simpson	FRS	199 (1949)	169
		-	-	Shape of band at low temp	Walsh	JCP	17 (1949)	8382
		-	G	Analysis	Bell	AC	22 (1950)	1005
		1370-2900	L	I	Francis	JCP	18 (1950)	861
		-	L	Analysis	Ipatieff	JACS	73 (1951)	553
		-	-	Analysis	Hastings	AC	24 (1952)	612

C₆H₁₄ 2,3-Dimethylbutane

350-700	L	Freq	Donneaud	CPR	239	(1954)	1480
15-35 μ	S	Spec, Struct	Bentley	SA	15	(1959)	165
1-19 μ	G	Spec	Kellering	P	4	(1933)	39
1.1-1.8 μ	Sol	Spec	Liddel	JRNB	11	(1933)	599
-	Sol	Spec, Assign	Fox	PRS	179	(1940)	208
-	-	Thermo	Pitzer	CR	27	(1940)	39
700-1450	-	Spec	Thompson	JCS	-	(1944)	183
-	-	Freq	Kellner	TFS	41	(1945)	217
8.2-9 μ	L	Spec	Fry	JAP	17	(1946)	150
-	-	Ext coefficient	Lee	IEC	18	(1946)	659
-	L	Analysis	Glasgow	JRNB	38	(1947)	1947
-	-	Analysis	Heigl	IEC	19	(1947)	293
-	-	Freq	Kent	AC	19	(1947)	290
-	-	Thermo, Assign	Szasz	JCP	17	(1949)	93
-	G	Analysis	Axford	JCP	18	(1950)	51
650-1600	L,S	Iso	Bell	AC	22	(1950)	1005
-	-	Iso	Sheppard	JCP	18	(1950)	145
-	S	Iso	Brown	JCP	19	(1951)	976
-	L	Analysis	Ipatieff	JACS	73	(1951)	553
-	-	Analysis	Schrieder	JACS	73	(1951)	5013
-	-	Iso, Thermo, Assign	Scott	JACS	73	(1951)	1707
-	-	Analysis	Hastings	AC	24	(1952)	612
2-15 μ	L	Spec	Rossini	APS	6	(1952)	3
350-700	L	Freq	Donneaud	CPR	239	(1954)	1480
-	-	Iso	Podlovchenko	OS	6	(1959)	146

C₆H₁₄ n-Hexane

0-2.5 μ	L	Spec	Ellis	PR	23	(1924)	48
6-14 μ	L	Spec, Absorption	Ellis	PR	27	(1926)	298
2825-3050	G	Freq	Meyer	JOSA	15	(1927)	257
59-2.8 μ	L	IR, Visible spec	Ellis	PR	32	(1928)	906
-	-	Bend freq	Bonino	TFS	25	(1929)	876
-	-	Heat of bond linkage	Ellis	PR	33	(1929)	27
-	-	Band overtones	Ellis	TFS	25	(1929)	888
0-2.4 μ	L	Spec	Lecomte	TFS	25	(1929)	864
1-19 μ	G	Spec	Kettering	P	4	(1933)	39
1.1-1.8 μ	Sol	Spec	Liddel	JRNB	11	(1933)	599
-	G	Assign	Adel	JCP	2	(1934)	627

52-152 μ	L	Dispersion	Cartwright	PRS	154	(1936)	138
-	-	Freq, Vib	Kirkwood	JCP	7	(1939)	506
-	-	Thermo	Pitzer	CR	27	(1940)	39
-	-	Thermo	Pitzer	JCP	8	(1940)	711
1300-1700	-	Spec	Barnes	IEC	15	(1943)	659
3-4 μ	L	Prism dispersion	Wright	RSI	15	(1944)	22
-	-	Freq	Kellner	TFS	41	(1945)	217
6.5-14 μ	L	Spec	Thompson	PRS	184	(1945)	3
-	-	Assign, FC	Ahonen	JCP	14	(1946)	625
8.2-9 μ	L	Spec, Quant anal	Fry	JAP	17	(1946)	190
-	-	Absorption freq	Kent	AC	19	(1947)	290
-	-	IR, Assign	Sheppard	JCP	16	(1948)	690
-	-	IR, Vib anal	Gates	JCP	17	(1949)	393
-	-	Vib freq	Mizushima	JACS	71	(1949)	1320
-	-	Band width	Rank	JCP	17	(1949)	1339
-	-	Assign, Thermo	Sheppard	JCP	17	(1949)	86
-	-	Selection rule	Simanouti	JCP	17	(1949)	1102
1600-650	L,S	Rotational iso	Axford	JCP	18	(1950)	51
-	G	Anal	Bell	AC	22	(1950)	1005
3.4 μ	-	Group anal	Hastings	AC	24	(1952)	612
-	-	Anal	Jones	JCS	-	(1952)	3261
5600-800	L	Spec, Group I	Lauer	APS	6	(1952)	29
3.45 μ	G	Anal	Mader	AC	24	(1952)	1899
15-25 μ	L	Solvent effect	Marison	JSI	29	(1952)	233
244-120	G	Absorption study	O'Loane	JCP	21	(1953)	669
-	G,S	Thermo, Assign	Person	JACS	75	(1953)	532
700-350	L	Table, Freq	Donneaud	CPR	239	(1954)	1480
-	-	Ident	Greenfield	JACS	76	(1954)	1258
2-12 μ	Sol	Struct, Band freq	O'Connor	JACS	76	(1954)	2368
13-8 μ	S	Freq	Stein	JCP	22	(1954)	1993
145-650	S	Freq assign	Tschamler	JCP	22	(1954)	1845
-	-	Rocking freq	Corish	JCS	-	(1955)	2431
3.45 μ	G	Struct	Levin	AC	27	(1955)	599
3-4 μ	L,Sol	Stretch freq	Tallent	AC	28	(1956)	953
700-1300	Sol	Ext coeff	Jones	SA	9	(1957)	235
-	-	Vib anal, Dipole moment	Theimer	JCP	27	(1957)	1041
700-4000	L,Sol	Freq, Ext coeff	Demaine	CJC	38	(1960)	1921

C ₆ H ₁₄	2-Methylpentane	1-30 μ	G	Spec Thermo	Kettering Pitzer	P CR	4 (1933) 27 (1940)	39 39
		-	-	Freq	Kellner	TFS	41 (1945)	217
		8.2-9 μ	L	Spec, Quant anal	Fry	JAP	17 (1946)	150
		-	L	Anal	Glasgow	JRNB	38 (1947)	537
		-	-	Anal	Heigl	IEC	19 (1947)	293
		-	-	Absorption freq	Kent	AC	19 (1947)	290
		-	-	Freq	Sutherland	JCP	15 (1947)	153
		-	-	IR, Assign	Sheppard	JCP	16 (1948)	690
		-	-	Freq	Simpson	PRS	199 (1949)	169
		-	G	Anal	Bell	AC	22 (1950)	1005
		-	-	Anal	Schneider	JACS	73 (1951)	5013
		-	-	Group anal	Hastings	AC	24 (1952)	612
		700-350	L	Table, Freq	Donneaud	CFR	239 (1954)	1480
		15-35 μ	S	Spec, Struct	Bentley	SA	15 (1959)	165
C ₆ H ₁₄	3-Methylpentane	1-30 μ	G	Spec	Kettering	P	4 (1933)	39
		1.1-1.8 μ	Sol	Spec	Liddel	JRNB	11 (1933)	599
		-	-	Thermo	Pitzer	CR	27 (1940)	39
		-	-	Freq	Kellner	TFS	41 (1945)	217
		8.2-9 μ	G	Spec, Quant anal	Fry	JAP	17 (1946)	150
		-	-	Anal	Glasgow	JRNB	38 (1947)	537
		-	-	Absorption freq	Heigl	IEC	19 (1947)	293
		-	L	Anal	Kent	AC	19 (1947)	290
		-	-	IR, Assign	Sheppard	JCP	16 (1948)	690
		-	G	Anal	Bell	AC	22 (1950)	1005
		-	-	Anal	Schneider	JACS	73 (1951)	5013
		-	-	Group anal	Hastings	AC	24 (1952)	612
		-	-	Ident	Hennion	JACS	75 (1953)	4297
		700-350	L	Table, Freq	Donneaud	CFR	239 (1954)	1480
C ₆ H ₁₄ ClO ₂ PS	Diisopropyl phosphoro- chloridothionate	600-900	S	Assign Spec, Freq	McIvor PopRov	CJC ZOK	37 (1959) 29 (1959)	869 1998
C ₆ H ₁₄ ClO ₂ PS	Di-m-Propylphosphoro- chloridothionate	-	-	Spec, Freq	PopRov	ZOK	29 (1959)	1998

$C_6H_{14}ClO_3P$	Di-isopropyl chloro-phosphonate	900-1060	Sol	Freq, I	Halmann	JCS - (1953)	626
$C_6H_{14}ClO_3P$	Di-Osopropyl phosphorochloridate	-	-	Spec, Freq	Maarsen	RTC 76 (1957)	713
$C_6H_{14}Cl_2Si$	Dichloro-n-hexylsilane	2050-2250	Sol	Struct	Smith	SA 15 (1959)	412
$C_6H_{14}FO_3P$	Di-isopropylphosphorofluoridate	600-900	L	Assign	McIvor	CJC 37 (1959)	869
$C_6H_{14}FO_3P$	Di-n-propylphosphorofluoridate	600-900	L	Assign	Maarsen	RTC 76 (1957)	713
$C_6H_{14}F_4N_2O_2Si$	Silicon tetrafluoride 2-N,N-dimethyl formamide	2-15 μ	S	Spec	Piper	JACS 76 (1954)	4318
$C_6H_{14}NO_2B$	Ethylenediethyl-amino boronate	2-14 μ	S, L	Struct, Freq	Blau	JCS - (1960)	380
$C_6H_{14}N_2$	cis-1-Amino-2,5-dimethylpyrrolidine	2-15 μ	-	Ident	Overberger	JACS 77 (1955)	4100
$C_6H_{14}N_2$	trans-1-Amino-2,5-dimethylpyrrolidine	2-15 μ	-	Freq	Overberger	JACS 77 (1955)	4100
$C_6H_{14}N_2$	1-(2-Aminoethyl)pyrrolidine	3.38-3.6 μ	S	Freq	Wright	JOC 24 (1959)	1362
$C_6H_{14}N_2$	Dimethylpiperacine	500-1500	L	Spec, Struct	Hendra	JCS - (1960)	5105
$C_6H_{14}N_2$	1,4-Dimethylpiperazine	2800-3000	L, S	Freq	Braunholtz	JCS - (1958)	2780
$C_6H_{14}N_2O$	1-Azoxypropane	-	L	Freq	Langley	JCS - (1952)	4191

$C_6H_{14}N_2O$	2-Azoxyp propane	-	L	Freq	Langley	JCS	- (1952)	4191
$C_6H_{14}N_2O$	Di-n-propyl nitrosamine	6.87-9.35 μ	L	Freq, I	Haszeldine	JCS	- (1954)	691
$C_6H_{14}N_2O$		-	G, L, Sol	Assign, Spec	Haszeldine	JCS	- (1955)	4172
$C_6H_{14}N_2O_2$	Isolysine	-	-	Ident, Struct	VarTamleu	JACS	74 (1952)	3713
$C_6H_{14}N_2O_2$	l-Lysine	600-4000	S	Ident	Epp	AC	29 (1957)	1283
$C_6H_{14}N_2O_2$	Nitroso-isopropane dimer	1000-1300	S	Spec, Struct, Iso	Gowenlock	JCS	- (1957)	3927
$C_6H_{14}N_2O_2$	cis-Nitroso-isopropane dimer	1000-1300	S, Sol	Assign	Gowenlock	JCS	- (1957)	3927
$C_6H_{14}N_2O_2$	Nitroso-n-propane dimer	1000-1300	Sol, S	Spec, Struct, Iso	Gowenlock	JCS	- (1957)	3927
$C_6H_{14}N_2O_2$	cis-Nitroso-n-propane dimer	1000-1300	S	Assign	Gowenlock	JCS	- (1957)	3927
$C_6H_{14}N_4$	Biacetyldihydrazone	600-4000	S	Assign	Bush	JACS	78 (1956)	1137
$C_6H_{14}N_4$	sym-Diethyloxamidine	3-6.5 μ	Sol	Spec, Freq	Woodburn	JOC	17 (1952)	1235
$C_6H_{14}N_4O_2$	Arginine	2.2-4.2 μ	S	Spec, Assign	Buswell	JPC	46 (1942)	575
		-	S	Freq, I	Witkop	JACS	76 (1954)	5589
		600-4000	S	Ident	Epp	AC	29 (1957)	1283
$C_6H_{14}N_4O_2$	L-Arginine	2-15 μ	S	Spec, Ident	Larsson	ACS	4 (1952)	27
$C_6H_{14}N_4O_2 \cdot HCl$	L-Arginine hydrochloride	2.2-4.2 μ	S	Spec, Assign	Buswell	JPC	46 (1942)	575
		5-10 μ	-	Spec, Assign	Kloty	JPC	52 (1948)	961
$C_6H_{14}O$	3,3-Dimethyl-butanol-2	665-5000	L	Band freq	Zeiss	JACS	75 (1953)	897

$C_6H_{14}O$	Di-isopropyl ether	2.5-3.1 μ 5.6-6.0 μ - - - 850-1800 720-750 2750-3000 2579-2689 795-1460 700-4000	L - - - - - L Sol Sol - L,Sol	Spec, H bond Spec Solvent effect Solvent effect Solvent effect Spec Band freq Spec, Stretch freq H bond, Band freq Table, Ident Freq, Ext coeff	Gordy Gordy Gordy Gordy Gordy Barnes Wiberly Pozefsky Searles Marvel Demaine	JACS JCP JCP JCP JCP IEC AC AC JACS JACS CJC	59 (1937) 5 (1937) 7 (1939) 7 (1939) 7 (1939) 15 (1943) 22 (1950) 23 (1951) 73 (1951) 76 (1954) 38 (1960)	464 284 93 99 167 659 841 1611 3704 61 1921
$C_6H_{14}O$	Di-n-propyl ether	7-2.5 μ 52-152 μ 2750-3000 - 3-4 μ 3000	L L,Sol Sol Sol L,Sol -	Band study Dispersion Spec, Stretch freq Ext coeff Stretch freq Freq, Assign	Ellis Cartwright Cross Pozefsky Tallent Nukada	JACS PRS TFS AC AC NKZ	51 (1929) 154 (1936) 47 (1951) 23 (1951) 28 (1956) 80 (1959)	1384 138 354 1611 953 976
$C_6H_{14}O$	2-Ethylbutanol-1	2.6-3.3 μ	L,Sol	Spec, H bond	Stanford	JACS	62 (1940)	1247
$C_6H_{14}O$	Ethyl n-butyl ether	800-1500 - 2592-6800 10-15 μ	- Sol Sol L	Spec Ext coeff H bond Spec	Barnes Cross Searles Patterson	IEC TFS JACS AC	15 (1943) 47 (1951) 73 (1951) 26 (1954)	659 354 3704 823
$C_6H_{14}O$	Ethyl t-butyl ether	690-1730 665-5000	Sol L	Spec Group freq	Philpotts Ory	AC AC	24 (1952) 32 (1960)	638 509
$C_6H_{14}O$	1-Hexanol	- - 9-4 μ 2.6-3.3 μ - - 665-5000 -	- - L,Sol L,Sol - L L L	Band freq, Absorption coeff Vib theory, Heat capacity Spec, H bond H bond Anal Deformation band Band freq Band freq	Bonino Lewis Kinsey Stanford Saler Quinan Zeiss Mosher	TFS PR JCP JACS AC JCP JACS AC	25 (1929) 36 (1930) 5 (1937) 62 (1940) 20 (1948) 21 (1953) 75 (1953) 27 (1955)	876 568 399 1247 812 1896 897 517

$C_6H_{14}O$	2-Hexanol	4000-350 3570-3700	L,G, Sol Sol	Spec Freq, I	Stuart Flynn	JCP AJC	24 (1956) 12 (1959)	559 575
		2.6-3.3 μ 665-5000 -	L,Sol L L	Spec, H bond Band freq Band freq	Stanford Zeiss Mosher	JACS JACS AC	62 (1940) 75 (1953) 27 (1955)	1247 897 517
$C_6H_{14}O$	3-Hexanol	2.6-3.3 μ 665-5000 -	L,Sol L L	Spec, H bond Band freq Band freq	Stanford Zeiss Mosher	JACS JACS AC	62 (1940) 75 (1953) 27 (1955)	1247 897 517
$C_6H_{14}O$	Methyl isoamyl ether	1-2.5 μ	L	Spec	Smith	JACS	48 (1926)	1512
$C_6H_{14}O$	Methyl n-amyl ether	1-2.5 μ -	L Sol	Spec Ext coeff	Smith Sharp	JACS TFS	48 (1926) 47 (1951)	1512 354
$C_6H_{14}O$	Methyl t-amyl ether	1-2.5 μ	L	Spec	Smith	JACS	48 (1926)	1512
$C_6H_{14}O$	Methyl t-butyl- carbinol	-	-	Band assign	Michinori	BCSJ	32 (1959)	950
$C_6H_{14}O$	Methyl diethyl- carbinyl ether	1-2.5 μ	L	Spec	Smith	JACS	48 (1926)	1512
$C_6H_{14}O$	2-Methylpentanol-1	2.6-3.3 μ 350-4000	L,Sol L,Sol	Spec, H bond Band freq	Stanford Stuart	JACS JCP	62 (1940) 24 (1956)	1247 559
$C_6H_{14}O$	2-Methylpentanol-2	2.6-3.3 μ	L,Sol	Spec, H bond	Stanford	JACS	62 (1940)	1247
$C_6H_{14}O$	2-Methylpentanol-4	2.6-3.3 μ 665-5000	L,Sol L	Spec, H bond Band freq	Stanford Zeiss	JACS JACS	62 (1940) 75 (1953)	1247 897
$C_6H_{14}O$	3-Methylpentanol-1	2.6-3.3 μ	L,Sol	Spec, H bond	Stanford	JACS	62 (1940)	1247
$C_6H_{14}O$	3-Methylpentanol-3	1-2.6 μ 1-15 μ	L L	Spec Spec, H bridging	Smith Smith	JACS JPNB	48 (1926) 46 (1951)	1512 145

$C_6H_{14}O_2$	2-Butoxyethanol	720-750 3μ	L Sol	Band freq H bond, Freq	Wiberly Flett	AC SA	22 (1950) 10 (1958)	841 21
$C_6H_{14}O_2$	1,2-Diethoxyethane	720-750	L	Band freq	Wiberly	AC	22 (1950)	841
$C_6H_{14}O_2$	Diethylacetyl	-	G,L	Characteristic freq	Nukada	NKZ	80 (1959)	1112
$C_6H_{14}O_2$	4-Ethoxybutanol-1	2.6-3.2 μ	Sol	H bond	Wall	JACS	61 (1939)	2679
$C_6H_{14}O_2$	Hexamethylene glycol	2.6-3.2 μ 3μ	Sol Sol	H bond Band freq	Wall Kuhn	JACS JACS	61 (1939) 74 (1952)	2679 2492
$C_6H_{14}O_2$	2,5-Hexanediol	700-1500	L	Spec, Ident	Shay	AC	26 (1954)	652
$C_6H_{14}O_2$	n-Hexyl hydroperoxide	5.5-14.5 μ	L	Spec, Group freq	Mosher	AC	27 (1955)	517
$C_6H_{14}O_2$	2-Hexyl hydroperoxide	5.5-14.5 μ	L	Spec, Group freq	Mosher	AC	27 (1955)	517
$C_6H_{14}O_2$	3-Hexyl hydroperoxide	5.5-14.5 μ	L	Spec, Group freq	Mosher	AC	27 (1955)	517
$C_6H_{14}O_2$	2-Methyl-1,3-pentanediol	700-1500	L	Spec, Ident	Shay	AC	26 (1954)	652
$C_6H_{14}O_2$	2-Methyl-2,4-pentanediol	700-1500	L	Spec, Ident	Shay	AC	26 (1954)	652
$C_6H_{14}O_2$	3-Methyl-1,5-pentane-diol	-	-	Ident	Blomquist	JACS	77 (1955)	78
$C_6H_{14}O_2$	Pinacone	-	L,S	H bond, Freq	Malyshev	IANS	22 (1958)	1107
$C_6H_{14}O_2$	n-Propyl peroxide	6.74-13.12 μ	-	Table, I	Weich	JACS	77 (1955)	551
$C_6H_{14}O_2$	Tetramethylethylene glycol	3 μ	Sol	Spec, Freq	Kuhn	JACS	74 (1952)	2492
$C_6H_{14}O_3$	Diethylene glycol monoethyl ether	1000-1775 3.2-3.6 μ 3μ	- - Sol	Spec Spec, Anal H bond, Freq	Barnes Sailer Flett	IEC AC SA	15 (1943) 20 (1948) 10 (1958)	659 812 21

$C_6H_{14}O_3$	1,2,6-Hexanetriol	700-1500	L	Spec, Ident	Shay	AC	26 (1954)	652
$C_6H_{14}O_3$	2,2-Hydroxypropoxy-1-propanol	8-10 μ	Sol	Spec, Iso	Sexton	JACS	75 (1953)	4357
$C_6H_{14}O_3$	1,1'-Oxy-di-2-propanol	8-10 μ 700-1500	Sol L	Spec, Iso Spec, Ident	Sexton Shay	JACS AC	75 (1953) 26 (1954)	4357 652
$C_6H_{14}O_3$	2,2'-Oxy-di-1-propanol	8-10 μ	Sol	Spec, Iso	Sexton	JACS	75 (1953)	4357
$C_6H_{14}O_3$	Trimethylolpropane	700-1500	S	Spec, Ident	Shay	AC	26 (1954)	652
$C_6H_{14}O_3Si_2$	Bis-methylvinyl-disiloxanediol	-	-	Band freq, Assign	Frisch	JACS	74 (1952)	4584
$C_6H_{14}O_4$	Di-1-hydroxypropyl-1-peroxide	5-15 μ	Sol	Spec	Minkoff	PRS	224 (1954)	176
$C_6H_{14}O_4$	Triethylene glycol	2400-4000 700-1500 700-1600	- L L	Spec, H bond Spec, Ident Rooking freq, Struct	Barnes Shay Kuroda	JCP AC JFS	4 (1936) 26 (1954) 26 (1957)	722 652 323
$C_6H_{14}O_4S$	Dipropyl sulfate	5-10 μ	-	Spec, Group assign	Klotz	JPCC	52 (1948)	961
$C_6H_{14}O_5$	Fucitol	8-15 μ	S	Spec	Kuhn	AC	22 (1950)	276
$C_6H_{14}O_6$	Dulcitol	8-15 μ	S	Spec	Kuhn	AC	22 (1950)	276
$C_6H_{14}O_6$	Mannitol	8-15 μ	S	Spec	Kuhn	AC	22 (1950)	276
$C_6H_{14}O_6$	Sorbitol	8-15 μ 700-1500 2.5-3.5 μ	S S Sol	Spec Spec, Ident Group study	Kuhn Shay Kabasakalian	AC AC AC	22 (1950) 26 (1954) 31 (1959)	276 652 375
$C_6H_{14}O_{12}P_2$	Hexose diphosphate	9.5-11 μ	S	Band freq	Schwarz	APS	6 (1952)	15
$C_6H_{14}S$	2,2-Dimethyl-3-thiapentane	200-1500	-	Freq, Assign, Struct	Scott	JACS	80 (1958)	3554

$C_6H_{14}S$	2,4-Dimethyl-3-thiapentane	200-1500	-	Freq, Assign, Struct	Scott	JACS	80 (1958)	3554
$C_6H_{14}S$	Di-n-propyl sulfide	6-2.8 μ 500-1500 2800-3000	L L Sol	Band study Spec, Assign Spec, Stretch freq Group freq	Ellis Sheppard Pozefsky Brandt	JACS TFS AC JCS	50 (1928) 46 (1950) 23 (1951) - (1952)	2113 429 1611 2549
$C_6H_{14}S$	Ethyl butyl sulfide	2800-3000	Sol	Spec, Stretch freq Group freq	Pozefsky Brandt	AC JCS	23 (1951) - (1952)	1611 2549
$C_6H_{14}S$	n-Hexyl mercaptan	2800-3000 3.95 μ -	Sol L -	Spec, Stretch freq Spec Band freq	Pozefsky Cairns Plant	AC JACS JACS	23 (1951) 74 (1952) 77 (1955)	1611 3982 1572
$C_6H_{14}S$	2-Methylpentane-2-thiol	-	-	Ident	Moore	JCS	- (1954)	2089
$C_6H_{14}S_2$	Di-isopropyl disulphide	2.5-15 μ 2000-1500	L -	Spec, Ident Freq, Assign, Struct	Cairns Scott	JACS JACS	74 (1952) 80 (1958)	3982 3554
$C_6H_{14}S_2$	Di-n-propyl disulphide	- 2800-3000 -	- Sol -	Freq Spec, Stretch freq Group freq	Sheppard Pozefsky Brandt	TFS AC JCS	46 (1950) 23 (1951) - (1952)	429 1611 2549
$C_6H_{14}S_2$	Hexamethylenedithiol	2400-3900	-	Spec	Marvel	JACS	72 (1950)	2106
$C_6H_{14}Se$	Diisopropylselenide	2-40 μ	-	Assign	Bergson	ARK	13 (1958)	11
$C_6H_{14}Si$	Cyclohexylsilane	2-16 μ	Sol	Freq	Kniseley	SA	15 (1959)	651
$C_6H_{14}Si$	Diethylvinylsilane	2050-2250	Sol	Freq, Struct	Smith	SA	15 (1959)	412
$C_6H_{15}DOSi$	Triethylhydroxy-silane-O-d ₁	- 700-4000	- -	Spec Spec, Freq	Riskin Riskin	CCCC IANS	24 (1959) - (1959)	3816 1019
$C_6H_{15}BrS$	Triethylsulfonium bromide	1-3.5 μ	Sol	Solvent effect	Taylor	JCS	121 (1922)	665

$C_6H_{15}BrSi$	Triethylbromosilane	-	-	Speco	Riskin	CCCC 24 (1959)	3816
$C_6H_{15}Br_2NB$	Triethylamine-boron-tribromide	-	Sol	Freq assign	Katritzky	JCS - (1959)	2049
$C_6H_{15}ClNOB$	Nitrosyl boron triethyl chloride	-	-	Freq, Speco	Waddington	ZAUA 304 (1960)	185
$C_6H_{15}ClSi$	Triethylchlorosilane	-	-	Speco	Riskin	CCCC 24 (1959)	3816
$C_6H_{15}Cl_3NB$	B-Trichloro-N-triethylborazole	-	Sol	Speco	Watanabe	SA 16 (1960)	78
$C_6H_{15}FSi$	Triethylfluorosilane	-	-	Speco	Riskin	CCCC 24 (1959)	3816
$C_6H_{15}ISi$	Triethyliodosilane	-	-	Speco	Riskin	CCCC 24 (1959)	3816
$C_6H_{15}N$	Di-isopropylamine	2-15 μ 3.38-3.60 μ	L S	NCA, Freq, Assign Freq	Stewart Wright	JCP 30 (1959) JOC 24 (1959)	1259 1362
$C_6H_{15}N$	Di-n-propylamine	1-12 μ 6-2.4 μ	L L	Speco Band study Solvent effect	Bell Ellis Gordy	JACS 49 (1927) JACS 50 (1928) JCP 7 (1939)	1837 685 93
		2400-3600	-	Speco	Barnes	IEC 15 (1943)	659
		-	Sol	Band freq, Ext coeff, I	Russell	JCS - (1955)	483
		2-15 μ	L	Freq assign, NCA	Stewart	JCP 30 (1959)	1259
		3.38-3.66 μ	L	Freq	Wright	JOC 24 (1959)	1362
$C_6H_{15}N$	n-Hexylamine	2-8 μ 2-15 μ	Sol L	Speco Freq assign, NCA	Nakanishi Stewart	BCSJ 30 (1957) JCP 30 (1959)	403 1259
$C_6H_{15}N$	Isobutylidimethylamine	2900-3100	Sol	Freq	Hill	JCS - (1958)	760
$C_6H_{15}N$	Isocetylamine	5-10 μ	Sol	Speco, Group assign	Klotz	JPCC 52 (1948)	961
$C_6H_{15}N.HCl$	Isocetylamine hydrochloride	5-10 μ 2-8 μ	- Sol	Speco, Group assign Speco	Klotz Nakanishi	JPCC 52 (1948) BCSJ 30 (1957)	961 403

$C_6H_{15}N$	Triethylamine	3μ	Sol	Association effect Solvent effect	Baker Ard	JCS AC	- 23	(1949) (1951)	24 133
		600-4000	G	Spec	Heacock	CJC	34	(1956)	1782
		2-8 μ	Sol	Spec	Nakanishi	BCSJ	30	(1957)	403
		3.38-3.60 μ	S	Freq	Wright	JOC	24	(1959)	1362
$C_6H_{15}N.HBr$	Triethylamine hydrobromide	1000-3500 2000-4000	S,Sol S,Sol	Freq, Spec H bond	Chenon Brisette	CJC CJC	36 38	(1958) (1960)	1181 34
$C_6H_{15}N.HCl$	Triethylamine hydrochloride	- 600-4000	Sol Sol	Band freq Spec	Barrow Heacock	JACS CJC	76 34	(1954) (1956)	5211 1782
		-	Sol	Spec	Nakanishi	BCSJ	30	(1957)	403
		1000-3500	Sol,S	Spec	Chenon	CJC	36	(1958)	1181
		600-4000	Sol,S	Freq, Assign	Stone	JCS	-	(1958)	52
		2000-4000	S,Sol	H bond	Brisette	CJC	38	(1960)	34
$C_6H_{15}N.HI$	Triethylamine iodide	1000-3500 2000-4000	S,Sol S,Sol	Freq, Spec H bond	Chenon Brisette	CJC CJC	36 38	(1958) (1960)	1181 34
$C_6H_{15}.HNO_3$	Triethylamine nitrate	-	Sol	Band freq	Barrow	JACS	76	(1954)	5211
$C_6H_{15}NO$	2-Diethylaminoethanol	3μ	Sol	H bond, Freq	Flett	SA	10	(1958)	21
$C_6H_{15}NO$	N,3-Dimethyl-2-amino- butanol-3	-	Sol	H bond, Group freq	Bergmann	JACS	75	(1953)	68
$C_6H_{15}N_3.HCl$	N,N-Diethyl-N'-methyl- guanidine hydrochloride	800-3500	Sol	Spec	Goto	BCSJ	30	(1957)	723
$C_6H_{15}N_3O$	n-Butylaminoacetamide	930-3500	Sol,S	Freq	Hollander	JOC	23	(1958)	1112
$C_6H_{15}OP$	Triethylphosphine oxide	-	-	Band study	Hooge	RTC	77	(1958)	911
$C_6H_{15}O_2PS$	Diethyl ethylphosphonothionate	740-1500	L	Band assign	McIvor	CJC	37	(1959)	869

$C_6H_{15}O_2PS$	Diethylphosphoroethyl thionate	-	-	Spec, Freq	Popkov	ZOK	29 (1959)	1998
$C_6H_{15}O_2PS$	O,O,S-Triethylphosphoro- thioate	-	-	Spec, Freq	Popkov	ZOK	29 (1959)	1998
$C_6H_{15}O_2PS_2$	Diethylthioethyl phosphate	-	-	Band freq	Bell	JACS	76 (1954)	5185
$C_6H_{15}O_2PS_2$	O,O-Di-isopropyl- phosphorodithioic acid	450-550	L	Band assign	McIver	CJC	37 (1959)	869
$C_6H_{15}O_2PS_2$	O,O-Di-n-propyl- phosphorodithioic acid	450-530	L	Band assign	McIver	CJC	37 (1959)	869
$C_6H_{15}O_2PS_2$	O,O,S-Triethylphosphoro- thionate	-	-	Spec, Freq	Pepkov	ZOK	29 (1959)	1998
$C_6H_{15}O_2B^{10}$	Diisopropoxyborane (isotopic)	2-15 μ	G	Spec, Assign	Lehmann	JCP	30 (1959)	1226
$C_6H_{15}O_3P$	Diethylethyl phosphonate	2-25 μ 700-1500	L L, Sol	Spec, Table, Struot Spec, Group freq Band freq, Shift	Meyrick Bellamy Bell Halmann Gillis	JOS JCS JACS JCS JACS	- (1950) - (1952) 76 (1954) - (1954) 80 (1958)	225 475 5185 2158 2999
$C_6H_{15}O_3P$	Di-isopropyl ester of phosphorous oxide	600-3000	L	Spec, Assign config	Maarsen	RTC	76 (1957)	713
$C_6H_{15}O_3P$	Di-isopropyl phosphonate	2-25 μ - -	L - -	Spec, Table Band freq, Shift Band freq	Meyrick Bell Bennett	JCS JACS JCS	- (1950) 76 (1954) - (1954)	225 5185 3598

$C_6H_{15}O_3P$	Triethyl phosphite	2-25 μ 2-21 μ 700-1500 -	L L L,Sol -	Spec, Table, Struct Spec, Struct anal Spec, Group freq Band freq	Meyrick Daasch Bellamy Halman	JCS AC JCS JCS	- 23 - -	(1950) (1951) (1952) (1954)	225 853 475 2158
$C_6H_{15}O_3PS$	Diethylethylthio phosphate	-	-	Band freq	Bell	JACS	76	(1954)	5185
$C_6H_{15}O_3PS$	O,O,S-Triethylphosphoro- thioate	-	-	Freq, Assign	Ketelaar	RFC	78	(1959)	190
$C_6H_{15}O_3B$	Ethyl borate	3.36-12.37 μ	-	Table	George	JACS	77	(1955)	1900
$C_6H_{15}O_3B$	Treithoxyborane	2-15 μ	G	Spec, Freq assign	Lehmann	JCP	30	(1959)	1222
$C_6H_{15}O_4P$	Di-isopropoxyhypo- phosphorous acid	600-4000	S	Group study	Braunholtz	JCS	-	(1959)	868
$C_6H_{15}O_4P$	Di-isopropylester of O-phosphonic acid	-	-	Spec, Freq	Maarsen	RFC	76	(1957)	713
$C_6H_{15}O_4P$	Triethyl phosphate	670-1650 - 900-1060 - 1160-2998 450-1600	L,Sol Sol Sol - Sol L,S	Spec, Group freq Group freq Band & Group freq, I Band freq H bond, I Spec, Freq assign, Iso	Bellamy Bergmann Halman Bell Halpern Mortimer	JCS JCS JCS JACS JACS SA	- - - 76 77 9	(1952) (1952) (1953) (1954) (1955) (1957)	475 847 626 5185 4472 270
$C_6H_{15}P$	Triethylphosphine	-	-	Band study Spec, Freq assign	Hooze Kaes	RFC SA	77 15	(1958) (1959)	911 360
$C_6H_{15}PS_4$	Ethyl isopropyl methyl- tetraethiophosphate	2-25 μ	-	Spec, Struct	Menefee	JOC	22	(1957)	792
$C_6H_{15}PS_4$	Triethyl phosphoro- tetraethioate	2-25 μ	-	Spec, Struct	Menefee	JOC	22	(1957)	792
$C_6H_{15}B$	Triethylborane	2-15 μ	G	Freq, Assign	Lehmann	JCP	28	(1958)	781

$C_6H_5^{10}$	Triethylborane (isotopic)	2-15 μ	G	Freq, Assign	Lehmann	JCP	28 (1958)	781
$C_6H_5^{13}Cl_4^{NB}$	Triethylammonium tetrachloroborate	600-3500	S	Spec	Kynaston	JCS	- (1960)	1772
$C_6H_5^{16}F^{10}NO_2P$	Iodide of methyl- phosphonylcholine	-	-	Spec	Larsson	ACS	12 (1958)	587
$C_6H_5^{16}F^{14}NB$	Triethylammonium fluoroborate	-	S	Band freq, H bond	Nuttall	JCS	- (1960)	4965
$C_6H_5^{16}F^{16}NB_2$	Hexamethylenediamine- 2-boron trifluoride complex	2-16 μ	S	Spec	Brown	JACS	76 (1954)	2537
$C_6H_5^{16}N$	Triethylammonium ion	2-15 μ	S	Assign, Freq	Bellamato	SA	16 (1960)	1344
$C_6H_5^{16}NO_2PS$	Diethyldimethyl- phosphoramidodithionate	740-1500	L	Assign	McIvion	CJC	37 (1959)	869
$C_6H_5^{16}NO_3P$	Diethyldimethyl- phosphoramidate	600-1050	L	Assign	McIvion	CJC	37 (1959)	869
$C_6H_5^{16}NO_3P$	Di-isopropyl phosphoramidate	-	-	Spec, Freq	Maarsen	RTC	76 (1957)	713
$C_6H_5^{16}N_2$	N,N-Diethylethylene- diamine	3-6.5 μ	Sol	Spec	Woodburn	JOC	17 (1952)	1235
$C_6H_5^{16}N_2$	Hexamethylenediamine	2-5 μ	S	NCA, Freq, Assign	Stewart	JCP	30 (1959)	1259
$C_6H_5^{16}N_2$	N,N,N',N'-Tetramethyl- ethylenediamine	2900-3100 3.38-3.60 μ	Sol S	Freq Freq	Hill Wright	JCS JOC	- (1958) 24 (1959)	760 1362
$C_6H_5^{16}OSi$	t-Butyldimethyl silanol	-	-	Ident	Sommer	JACS	76 (1954)	1186

$C_6H_{16}OSi$	Triethylsilanol	2-16 μ - 3300-3700	Sol - Sol	Spec, Group freq, H bond Spec H bond	Tatlock Riskin West	JOC 17 (1952) CCCC 24 (1959) JACS 81 (1959)	1555 3816 6145
$C_6H_{16}OSi$	Trimethylsilyl- methyl ethyl ether	-	-	Inductive effect	Josien	COR 249 (1959)	826
$C_6H_{16}OSi$	Trimethylsilyl- ethyl methyl ether	-	-	Inductive effect	Josien	CPR 279 (1959)	826
$C_6H_{16}O_2Si$	Diethyldimethoxy- silane	550-3000	L	Spec, Group assign, Table	Richards	JCS - (1949)	124
$C_6H_{16}O_2Si$	Dimethyldiethoxy- silane	700-3000 - 600-3500	L L, Sol L	Spec, Group assign, Table Spec, Struct Spec	Richards Hayashi Okawara	JCS - (1949) NKZ 79 (1958) BCSJ 31 (1958)	124 436 154
$C_6H_{16}O_3Si$	Triethoxysilane	2050-2250	Sol	Freq, Struct	Smith	SA 15 (1959)	412
$C_6H_{16}Si$	Di-isopropylsilane	2-13 μ	Sol	Spec	West	JOC 18 (1953)	303
$C_6H_{16}Si$	Di-n-propylsilane	2-13 μ	Sol	Spec	West	JOC 18 (1953)	303
$C_6H_{16}Si$	n-Hexylsilane	2-16 μ	Sol	Freq, Vib	Kniseley	SA 15 (1959)	651
$C_6H_{16}Si$	Triethylsilane	2-16 μ - 2-16 μ - 2050-2250	L, Sol - Sol - Sol	Spec, Group freq Group freq, Thermo Freq, Vib Spec Freq, Struct	Kaye Tannenbaum Kniseley Riskin Smith	JOC 18 (1953) JACS 75 (1953) SA 15 (1959) CCCC 24 (1959) SA 15 (1959)	1750 3753 651 3816 412
$C_6H_{17}NO_2Si$	Methyldiethoxysilyl- methylaniline	-	-	Absorption study	Noll	JACS 73 (1951)	3871
$C_6H_{18}N_3OP$	Hexamethyl phos- phoramide	- - -	- - -	Ident, Anal Ident, Anal	Tolkwith Tolkwith	JACS 75 (1953) JACS 75 (1953)	5273 5276

$C_6H_{18}N_3O_6P_3$	Methyl phosphonitrate (trimer)	2-22 μ 1150-1350	L -	Spec, Struct anal Freq, Struct	Daesch Shaw	AC CIL	23 -	(1951) (1959)	853 54
$C_6H_{18}N_3B_3$	Hexamethylborazole	-	Sol	Struct	Watanabe	SA	16	(1960)	78
$C_6H_{18}OSi_2$	Hexamethyldisiloxane	650-1300 2.5-14 μ 500-1700 650-1375 2-15 μ 1-24 μ - - 600-3500	- Sol L L,G,S - L - - L	Spec Spec Spec, Group freq, Table Spec Spec, Thermo IR Ident Spec, Assign, FC Spec, Freq	Thompson Wright Richards Simon Thompson Gerato Prober Kriegsmann Sakiyama	JCS JCS JCS JCP JCS JCP JACS ZE BCSJ	- 69 69 20 - 22 77 61 31	(1947) (1947) (1949) (1952) (1953) (1954) (1955) (1957) (1958)	289 803 124 905 1908 1 3224 1088 67
$C_6H_{18}O_2Si_2$	Ethoxymethylsiloxy- trimethylsilane	2050-2250	Sol	Freq, Struct	Smith	SA	15	(1959)	412
$C_6H_{18}O_3Si_2$	Dimethoxytetramethyl- disiloxane	700-3500	L	Spec, Struct	Tanaka	BCSJ	31	(1958)	762
$C_6H_{18}O_3Si_3$	Hexamethyloxylo- trisiloxane	650-1300 2.5-14 μ 2-16 μ 500-1700	- Sol Sol S	Spec Spec Spec Spec, Group assign, Table	Thompson Wright Young Richards	JCS JACS JACS JCS	- 69 70 -	(1947) (1947) (1948) (1949)	289 803 3758 124
$C_6H_{18}O_5Si_2$	Dimethyltetramethoxy- disiloxane	- 2-16 μ 700-3500	Sol Sol L	Assign, Struct Spec, Freq, Struct Spec, Struct	Kriegsmann Smith Tanaka	ZAUA SA BCSJ	298 16 31	(1958) (1960) (1958)	223 87 762
$C_6H_{18}O_7Si_2$	Hexamethoxydisiloxane	700-3500	L	Spec, Struct	Tanaka	BCSJ	31	(1958)	762
$C_6H_{18}O_9Si_6$	Hexamethylsilses- quioxane	-	S	Group freq	Sprung	JACS	77	(1955)	3990

$C_6H_{18}S_3Si$	Di-trimethylsilyl sulphide	-	-	Spec, Assign, FC	Kriegsmann	ZE 61 (1957)	1088
$C_6H_{18}S_3Si_3$	Hexamethylcyclotri-silthiane	400-3200	S, Sol	Assign, Struct	Kriegsmann	ZAUA 300 (1958)	210
$C_6H_{18}B_2$	Triethyldiborane	1500-2850	-	Freq	Shapiro	JCP 29 (1958)	237
$C_6H_{18}Si_2$	Hexamethyldisilane	1-50 μ	L, Sol	Assign, IR	Cerato	JCP 22 (1954)	1
		-	-	Assign, Struct, FC	Murata	JCP 23 (1955)	1968
$C_6H_{19}NOSi_2$	Aminomethylpenta-methyldisiloxane	2-15 μ	-	Spec	George	JACS 77 (1955)	3493
$C_6H_{19}NSi_2$	Di-trimethylsilylamine	-	-	Spec, Assign	Kriegsmann	ZE 61 (1957)	1088
$C_6H_{19}NSi_2$	Hexamethyldisilazine	1-24 μ	L, Sol	IR	Cerato	JCP 22 (1954)	1
		-	-	Spec, Assign	Goubeau	ZAUA 303 (1960)	217
$C_6H_{20}N_2OSi_2$	Di-dimethyl-d-amino-methylsilyl oxide	-	-	Absorption study	Noll	JAC 73 (1951)	3871
$C_6H_{20}O_4Si_4$	Hexamethylcyclotetra-siloxane	600-3500	Sol	Spec, Freq	Sakiyama	BCSJ 31 (1958)	67
$C_6H_{21}N_3Si_3$	Hexamethylcyclo-trisilazane	-	G, L, Sol	Assign, Struct	Kriegsmann	ZAUA 298 (1958)	223
$C_6H_{22}O_3Si_4$	Hexamethyltetrasiloxane	600-3500	Sol	Spec, Freq	Sakiyama	BCSJ 31 (1958)	67
$C_6H_{22}O_3Si_4$	Tri-dimethylsiloxysilane	2050-2250	Sol	Freq, Struct	Smith	SA 15 (1959)	412
$C_6H_{24}O_6Si_6$	Hexamethylcyclohexasiloxane	600-3500 2050-2250	Sol Sol	Spec, Freq	Sakiyama	BCSJ 31 (1958)	67
				Freq, Struct	Smith	SA 15 (1959)	412
$C_6^{DF}F_5$	Pentafluorobenzene-d ₁	300-4000	G, L	Freq	Steel	SA 16 (1960)	368
$C_6^{DCl}Cl_4$	1,2,4,5-Tetrachloro-benzene-d ₂	-	-	Spec, Assign	Saeki	CPR 249 (1959)	2307

C ₆ H ₃ Cl ₃	1,3,5-Trichloro- benzene-d ₃	- 400-5000	G	Speco, Assign Assign	Saeki Saeki	CPR 249 (1959) BCSJ 33 (1960)	2307 1024
C ₆ D ₄ Cl ₂	p-Dichlorobenzene-d ₄	- 400-5000	G	Speco, Assign Freq, Assign	Saeki Saeki	CPR 249 (1959) BCSJ 33 (1960)	2307 1021
C ₆ D ₄ F ₂	1,4-Difluorobenzene -d ₄	400-1500	G	I, Dipole moment	Steele	TFS 56 (1960)	177
C ₆ D ₅ F	Fluorobenzene-d ₅	5000-250	G,L	Assign	Steele	JCP 33 (1960)	1242
C ₆ D ₆	Benzene-d ₆	1-13.5 μ	G	Speco	Barnes	JCP 3 (1935)	446
		-	L	Speco	Angus	JCS - (1936)	925
		-	-	IR, Freq	Angus	JCS - (1936)	966
		-	-	Assign	Angus	JCS - (1936)	971
		1-22 μ	G,L	Speco	Bailey	JCS - (1936)	931
		-	-	Iso	Ingold	JCS - (1936)	915
		-	-	Speco	Lord	JCS - (1937)	1728
		500-1620	S,L	IR, Assign	Ingold	PBS 169 (1938)	149
		-	-	Freq, Struct	Simons	JAP 9 (1938)	781
		-	-	Vib, Product rule	Redlich	JCP 7 (1939)	856
		-	-	Vib anal	Sponer	JCP 7 (1939)	207
		-	-	Thermo, Freq	Pitzer	JACS 65 (1943)	803
		-	-	Product rule	Halverson	JCP 13 (1945)	533
		-	-	Struct anal	Bailey	JCS - (1946)	222
		470-520	G	Speco	Bailey	JCS - (1946)	252
		-	-	Inactive fundamentals	Herzfeld	JCS - (1946)	316
		-	-	Mol anal, Quant mech	Miller	JCP 14 (1946)	282
		-	-	Mol anal	Halverson	RMP 19 (1947)	87
		-	-	Assign, FC	Crawford	JCP 17 (1949)	249
		-	-	Assign	Mad r	JCP 17 (1949)	1236
		-	-	Freq, Thermo	Hornig	JACS 72 (1950)	5772
		-	-	I	Crawford	JCP 20 (1952)	977
		-	-	Sum rule	Bernstein	JCP 21 (1953)	2188
		-	-	vib	Duchesne	JCP 21 (1953)	2005
		700-3000	-	Spec	Dixon	JPC 58 (1954)	430
		-	-	Freq	Anderson	JCP 23 (1955)	1047
		300-3700	G,L	Speco, Assign	Miller	JCP 24 (1956)	996
		-	-	Assign	Danti	SA 13 (1958)	180

$C_6D_6Cl_6$	α -Benzene hexachloride -d ₆	1500-2000 G	Vib, I I	Kakiyachi Dunstan	MKZ JCS	80 (1959) - (1960)	21 5221
$C_6D_6Cl_6$	β -Benzene hexachloride -d ₆	3-15 μ S	Spec, Anal	Trenner	AC	21 (1949)	285
$C_6D_6Cl_6$	γ -Benzene hexachloride -d ₆	3-15 μ S	Spec, Anal	Trenner	AC	21 (1949)	285
$C_6D_6Cl_6$	γ -Benzene hexachloride -d ₆	3-15 μ S	Spec, Anal	Trenner	AC	21 (1949)	285
$C_6D_6N_{10}$	Melem-d ₆	2-15 μ S	Assign	Finkelstein	OS	6 (1959)	33
C_6D_6NOS	N-Methylthiofuramide -d ₇	600-1700 Sol, S	Spec, Freq assign	Hadzi	JCS	- (1957)	847
$C_6D_{10}O_4$	Adipic acid-d ₁₀	400-4000 S	Assign, Struct	Susi	SA	15 (1959)	1063
C_6D_{12}	Cyclohexane-d ₁₂	- 700-330 -	Struct, Assign Spec	Langseth Dixon	JCP JPC	8 (1940) 58 (1954)	403 430
$C_6D_{15}B$	Triethylborane-d ₁₅	2-15 μ G	Freq assign	Lehmann	JCP	31 (1959)	1071
$C_6Br_2F_8$	4,5-Dibromoocta- fluorocyclohex- 1-ene	- Sol	Band freq	Evans	JCS	- (1954)	3779
$C_6Br_4O_2$	2,3,5,6-Tetrabromo- p-benzoquinone	5-15 μ S, Sol	Table	Yates	JACS	78 (1956)	650
$C_6Cl_2F_{12}$	3,4-Dichlorododeca- fluorohexane	- -	Ident	Haszeldine	JCS	- (1953)	1592
$C_6Cl_4N_4$	2,4,6,7-Tetrachloro- pteridine	725-2000 S	Table, I	Mason	JCS	- (1955)	2336

$C_6Cl_4O_2$	1,2-Dichloro-4-dichloro-methylene-cyclopentene-3,5-dione	-	-	Band freq	Mobee	JACS	77 (1955)	4379
$C_6Cl_4O_2$	2,3,5,6-Tetrachloro-p-benzoquinone	-	5-15 μ	Band freq Table	Josien Yates	JCP JACS	21 (1953) 78 (1956)	331 650
C_6Cl_6	Hexachlorobenzene	-	-	Mech models	Murray	JCP	3 (1935)	180
		2-38 μ	-	Abstract paper	Plyler	JOSA	40 (1950)	801
		5-6 μ	Sol	Spec	Young	AC	23 (1951)	709
		2-38 μ	L	Spec, Freq	Plyler	JRNB	58 (1957)	255
		650-2250	S, Sol	Freq, Assign	Kopelman	JCP	30 (1959)	597
C_6Cl_8	1,2,3,3,5,5-Hexachloro-4-dichloro-methylene cyclopentene	-	-	Band freq	Mobee	JACS	77 (1955)	4379
C_6Cl_{10}	1,2,3,3,4,5,5-Heptachloro-4-(trichloromethyl) cyclopentene	-	-	Band freq	Mobee	JACS	77 (1955)	4379
C_6Cl_{10}	Perchloromethylene-cyclopentane	-	-	Band freq	Mobee	JACS	77 (1955)	4379
C_6F_6	Hexafluorobenzene	2-50 μ	G, L	IR, Assign, FC I	Delbouille Steele	JCP JCP	25 (1956) 29 (1958)	182 1194
		4000-300	G, L	Spec, Freq, Assign	Steele	TFS	55 (1959)	369
C_6F_8	Octafluorocyclohexa-1,3-diene	-	Sol	Band freq	Evans	JCS	- (1954)	3779
		-	Sol	Band freq	Evans	JCS	- (1955)	1184
		1500-1800	G	Stretch freq	Burdon	SA	12 (1958)	139
C_6F_8	Octafluorocyclohexa-1,4-diene	-	Sol	Band freq	Evans	JCS	- (1954)	3779
		-	-	Band freq	Roylance	JCS	- (1954)	4426
		-	Sol	Band freq	Evans	JCS	- (1955)	1184
		1500-1800	G	Stretch freq	Burdon	SA	12 (1958)	139

$C_6F_9O_2B$	Tris-(Trifluoroacetoxy) boron	1500-1800	S	Freq, Assign, Mol bond	Duncanson	JCS - (1958)	3652
C_6F_{10}	Decafluorocyclo- hexene	- 1500-1800	- G	Band freq Stretch freq	Roylance Burdon	JCS - (1954) SA 12 (1958)	4426 139
$C_6F_{10}O_3$	Pentafluoropropionic anhydride	- 2-15 μ	- L	Band freq Spec	Haszeldine Husted	JCS - (1953) JACS 75 (1953)	1548 1605
C_6F_{12}	Dodecafluorocyclo- hexane	500-1500	G	Spec, Assign	Thompson	JCS - (1948)	1432
C_6F_{12}	Dodecafluorohex- 1-ene	-	-	Band freq	Haszeldine	JCS - (1952)	4259
C_6F_{12}	Dodecafluorohex- 3-ene	- 1500-1800	- G	Ident Stretch freq	Haszeldine Burdon	JCS - (1953) SA 12 (1958)	1592 139
$C_6F_{13}N$	Perfluoro-N-methyl- piperidine	2-16 μ	L	Spec	Halpern	APS 11 (1957)	173
C_6F_{14}	Tetradecafluoro- hexane	9-13 μ 4-15 μ	- L	Iso Table	Szasz Kirschebaum	JCP 18 (1950) JACS 75 (1953)	1417 3141
$C_6F_{14}S_2$	Perfluoropropyl disulfide	2-16 μ	G	Spec	Hauptschein	JACS 73 (1951)	5461
$C_6F_{14}S_3$	Perfluoropropyl trisulfide	2-16 μ	G,L	Spec	Hauptschein	JACS 73 (1951)	5461
$C_6F_{16}NS$	β -Perfluoro-(diethyl- aminoethyl) sulphur hexafluoride	2-15 μ	L	Spec	Halpern	APS 11 (1957)	173

C ₇ HF ₁₃	1-CF ₃ /4H- π -tridecafluoro-methylohexane/e	2900-3100	G	Absorption freq	Steele	TE	3 (1958)	181
C ₇ HF ₁₃	1-CF ₃ /4H- π -tridecafluoromethylohexane/e	2900-3100	G	Absorption freq	Steele	TE	3 (1958)	181
C ₇ HF ₁₅	1-Hydroperfluoro-heptane	-	-	Bond freq, Pyrolysis study	Lazarte	JACS	75 (1953)	4525
C ₇ H ₂ Br ₃ N ₃	cis-2,4,6-Tribromo-benzenediazo cyanide	2-15 μ	Sol	Spec, Bond freq	Sheppard	JCS	- (1947)	453
C ₇ H ₂ Br ₃ N ₃	trans-2,4,6-Tribromo-benzenediazo cyanide	2-15 μ	Sol	Spec, Bond freq	Sheppard	JCS	- (1947)	453
C ₇ H ₂ Cl ₄ O	2,3,5,7-Tetrachloro-tropone	2-16 μ	Sol	Spec, Struct	Doering	JACS	74 (1952)	5683
C ₇ H ₂ F ₉ I	1,1,1,6,6,6-Hexafluoro-2-iodo-4-trifluoromethylhexa-2,4-diene	-	-	Group freq	Leedlam	JCS	- (1954)	1634
C ₇ H ₂ F ₁₄ O	Diheptafluoropropyl-carbinol	-	Sol L	OH freq, H bond Group freq, I	Haszeldine Henne	JCS JACS	- (1953) 75 (1953)	1757 991
C ₇ H ₃ Br ₃ O ₂	2,5,7-Tribromo-3-hydroxytropone	665-1605	S	Table	Johns	JCS	- (1954)	4605
C ₇ H ₃ Br ₃ O ₂	3,5,7-Tribromo-tropolone	2-16 μ 600-3400	Sol S, Sol	Spec, Struct Spec, H bond	Doering Kuratani	JACS BCSJ	74 (1952) 25 (1952)	5683 250
C ₇ H ₃ Cl ₂ N	2,6-Dichlorobenzonitrile	-	-	Bond freq	Kitson	AC	24 (1952)	334
C ₇ H ₃ Cl ₂ NO	2,4-Dichlorobenzonitrile-N-oxide	600-3000	Sol	Spec	Wiley	JOC	25 (1960)	546

$C_7H_3Cl_2NO_2$	3,5-Dichloro-2-hydroxy-benzonitrile-N-oxide	600-3000	Sol	Spec	Wiley	JOC	25 (1960)	546
$C_7H_3Cl_3O_2$	2-Methyl-3,5,6-trichloro-p-benzoquinone	1700-710	-	Bond freq	Adams	JACS	74 (1952)	2608
$C_7H_3Cl_3O_2$	2,4,5-Trichlorobenzoic acid	700-1400	Sol	Impurity	Whiffen	TFS	41 (1945)	200
$C_7H_3Cl_3O_2$	3,5,7-Trichlorotropolone	2-16 μ	Sol	Spec, Struct	Doering	JACS	74 (1952)	5683
$C_7H_3Cl_3O_2$	Methyl 2,3,4,4,5,6,6-heptachlorohexadiene-2,5-oate	2-25 μ	L	Spec, Group freq	Pennino	JOC	20 (1955)	530
$C_7H_3F_3O_4$	2-Furoyl trifluoroacetate	-	-	Ident Bond freq	Emmons Fearis	JACS JACS	75 (1953) 75 (1953)	6047 232
$C_7H_3F_5$	1-Trifluoromethyl-2,5-difluorobenzene	500-1700 -	G,L -	Spec Bond freq	Thompson Randle	JCS JCS	- (1948) - (1955)	1432 1311
$C_7H_3N_2O_5S$	2,4-Dinitrophenyl thiocyanate	2000-2300	Sol	Freq, Assign	Caldow	SA	13 (1958)	212
$C_7H_3N_2O_8$	2,4,6-Trinitrobenzoic acid	700-4000	S,L	Table, Association	Flett	JCS	- (1951)	962
C_7H_4DClO	p-Chlorobenzaldehyde-d ₁	2-15 μ -	L,S, Sol -	Bond vib CH freq	Eggers Pinchas	AC AC	28 (1956) 29 (1957)	1328 334
$C_7H_4DClO_2$	p-Chlorobenzoic acid -O-d ₁	650-900	L,Sol	CH out of plane	Yoshida	CPBT	8 (1960)	389
$C_7H_4DNS_2$	Mercaptobenzthiazole-d ₁	2500-3500	Sol	Spec, Freq	Bellamy	PRS	257 (1960)	98

$C_7H_4D_3NO_2$	Methyl nicotinate-d ₃	2-16 μ	Sol	Spec, Anal	Trenner	AC	23 (1951)	487
C_7H_4BrN	m-Bromobenzonitrile	-	L	Substitution effect	Cabana	JPC	64 (1960)	1941
C_7H_4BrN	o-Bromobenzonitrile	-	L	Substitution effect	Cabana	JPC	64 (1960)	1941
C_7H_4BrN	p-Bromobenzonitrile	-	L	Substitution effect	Cabana	JPC	64 (1960)	1941
C_7H_4BrNO	p-Bromophenyl isocyanate	-	Sol	Group freq	Caldow	SA	13 (1958)	212
$C_7H_4BrNO_3$	2-Nitro-5-bromobenzaldehyde	2750-2890	Sol	Bond freq, H bond	Pinchas	AC	29 (1957)	334
C_7H_4BrNS	p-Bromophenyl isothiocyanate	600-4000	S	Spec	Ham	SA	16 (1960)	279
$C_7H_4BrN_3$	o-is-p-Bromophenyl-diazo cyanide	4-14 μ 2-15 μ	Sol S	Spec, Bond freq Spec, Table, Freq	Anderson Sheppard	JCS JCS	- (1947) - (1947)	445 453
$C_7H_4BrN_3$	trans-p-Bromophenyl-diazo cyanide	4-14 μ 2-15 μ	Sol S	Spec, Bond freq Spec, Table, Freq	Anderson Sheppard	JCS JCS	- (1947) - (1947)	445 453
$C_7H_4Br_2O_2$	2,6-Dibromo-4-hydroxy-tropone	724-1626	S	Table	Johns	JCS	- (1955)	309
$C_7H_4Br_2O_2$	1,2-Dibromo-4,5-methylenedioxybenzene	-	Sol	Group freq	Briggs	AC	29 (1957)	904
$C_7H_4Br_2O_2$	O,O'-Dibromotropolone	600-3400	S,Sol	Spec, H bond	Kuratani	BCSJ	25 (1952)	250
$C_7H_4Br_4O_2$	Tetrabromoguaiacol	6600-7000 7000	Sol -	OH band Absorption band	Wulf Wulf	JACS JCP	58 (1936) 6 (1938)	2287 702
$C_7H_4ClF_3$	p-Chlorotrifluoromethylbenzene	22-39 μ	L	Absorption freq	Plyler	JCP	17 (1949)	218

$C_7H_4ClF_3$	m-Chlorotrifluoro- methylbenzene	3-15 μ	G, L	Spec	Park	JACS	73 (1951)	709
C_7H_4ClN	m-Chlorobenzonitrile	-	Sol	I, CN band, Solvent effect	Mander	TFS	53 (1957)	1402
		-	L	Substitution effect	Cabana	JPC	64 (1960)	1941
C_7H_4ClN	o-Chlorobenzonitrile	-	-	Substitution effect	Cabana	JPC	64 (1960)	1941
C_7H_4ClN	p-Chlorobenzonitrile	-	Sol	Band freq	Flett	TFS	44 (1948)	767
		-	-	Bond freq	Kitson	AC	24 (1952)	334
		-	Sol	Anal	Wiberg	JACS	77 (1955)	2519
		-	Sol	I, CN band	Mander	TFS	53 (1957)	1402
		700-2900	Sol	Spec, Freq	Speroni	JCP	26 (1957)	1777
		-	Sol	I, Activation constant	Brown	JACS	80 (1958)	794
		-	L	Substitution effect	Cabana	JPC	64 (1960)	1941
		-	Sol	Solvent effect, Freq	Gerrard	JCS	- (1960)	2182
C_7H_4ClNO	m-Chlorobenzonitrile- N-oxide	600-3000	Sol	Spec	Wiley	JOC	25 (1960)	546
C_7H_4ClNO	p-Chlorobenzonitrile- N-oxide	700-2900 600-3000	Sol Sol	Spec, Freq Spec	Speroni Wiley	JCP JOC	26 (1957) 25 (1960)	1777 546
C_7H_4ClNO	p-Chlorophenyl isocyanate	-	Sol	Freq	Caldow	SA	13 (1953)	212
$C_7H_4ClNO_3$	m-Nitrobenzoyl chloride	- 700-1700	Sol Sol	Bond freq I, Variation in position	Flett Katritzky	TFS JCS	44 (1948) - (1959)	767 2058
$C_7H_4ClNO_3$	p-Nitrobenzoyl chloride	-	Sol	Bond freq	Flett	TFS	44 (1948)	767
$C_7H_4ClNO_4$	2-Chloro-4-nitro- benzoic acid	3-15 μ	S, Sol	Spec	Ebert	JACS	74 (1952)	2806

$C_7H_4ClNO_4S$	p-Carboxy-2-nitrobenzenesulfonyl chloride	-	-	Bond freq	Havlik	JACS	77 (1955)	1150
$C_7H_4ClNO_6$	4-Chloro-2,3,5-tricarboxypyrrrole	-	S,Sol	Spec	Sorocco	AAN	20 (1956)	795
C_7H_4ClNS	o-Chlorophenyl isothiocyanate	600-4000	L	Speco	Ham	SA	16 (1960)	279
C_7H_4ClNS	p-Chlorophenyl isothiocyanate	2000-2300 - 600-4000	Sol Sol S	Spec, Freq NCS vib freq Speco	Caldow Rao Ham	SA CS SA	13 (1958) 27 (1958) 16 (1960)	212 474 279
$C_7H_4ClN_3$	o-Chlorobenzenediazo cyanide	600-1800	S	Spec, Assign	Lefevre	AJC	6 (1953)	341
$C_7H_4ClN_3$	p-Chlorobenzenediazo cyanide	600-1800	S	Speco, Assign	Lefevre	AJC	6 (1953)	341
$C_7H_4ClN_3$	cis-p-Chlorophenyl-diazo cyanide	4-14 μ	Sol	Spec, Bond freq	Anderson	JCS	- (1947)	445
$C_7H_4ClN_3$	trans-p-Chlorophenyl-diazo cyanide	4-14 μ	Sol	Spec, Bond freq	Anderson	JCS	- (1947)	445
$C_7H_4Cl_2O$	p-Chlorobenzoyl chloride	- 600-950	Sol L,Sol	Bond freq CH out of phase	Flett Yoshida	TFS CPBT	44 (1948) 8 (1960)	767 389
$C_7H_4Cl_2O$	2,4-Dichlorobenzaldehyde	2.8-12 μ	Sol	CH freq, H bond	Pinchas	AC	29 (1957)	334
$C_7H_4Cl_2O$	2,6-Dichlorobenzaldehyde	-	Sol	Group freq & H bond	Pinchas	AC	27 (1955)	2
$C_7H_4Cl_2O$	3,4-Dichlorobenzaldehyde	-	Sol	Substitution effect, I	Thompson	SA	9 (1957)	208

$C_7H_4Cl_2O_2$	2,4-Dichloro- benzoic acid	700-1400	Sol	Anal	Wiffen	TFS	41 (1945)	200
$C_7H_4Cl_2O_2$	2,2-Dichlorocyclo- hepta-4,6-diene -1,3-dione	726-1700	S	Struct, Table	Johnson	JCS	- (1955)	1841
$C_7H_4Cl_2N_2O_2$	p-Nitrobenzonitrile boron trichloride complex	-	Sol	Freq	Gerrard	JCS	- (1960)	2182
C_7H_4ClNB	p-Chlorobenzonitrile boron trichloride complex	-	Sol	Freq	Gerrard	JCS	- (1960)	2182
C_7H_4FN	m-Fluorobenzonitrile	-	L	Substitution effect	Cabana	JPC	64 (1960)	1941
C_7H_4FN	o-Fluorobenzonitrile	-	L	Substitution effect	Cabana	JPC	64 (1960)	1941
C_7H_4FN	p-Fluorobenzonitrile	-	Sol	Activity const	Brown	JACS	80 (1958)	794
		-	Sol	Solvent effect	Brown	SA	10 (1958)	149
		-	-	IR, I	Cabana	SA	16 (1960)	335
		-	L	Substitution effect	Cabana	JPC	64 (1960)	1941
$C_7H_4FNO_3$	2-Nitro-5-fluoro- benzaldehyde	2.8-12 μ	Sol	Bond freq, H bond	Pinchas	AC	29 (1957)	334
C_7H_4FNS	p-Fluorophenyl iso- thiocyanate	600-4000	L	Spec	Ham	SA	16 (1960)	279
$C_7H_4FNO_2$	m-Nitrotrifluoro- methylbenzene	-	-	Spec, Bond freq	Randle	JCS	- (1955)	1311
$C_7H_4FNO_2$	o-Nitrotrifluoro- methylbenzene	700-1800	L, S	Struct, I	Randle	JCS	- (1952)	4153
		-	-	Spec, Bond freq	Randle	JCS	- (1955)	1311
$C_7H_4FNO_2$	p-Nitrotrifluoro- methylbenzene	700-1800	L, S	I, Struct	Randle	JCS	- (1952)	4153
		-	-	Spec, Bond freq	Randle	JCS	- (1955)	1311

$C_7H_4F_4$	1-Fluoro-3-trifluoro-methylbenzene	500-1700	G,L	Spec	Thompson Randle	JCS - (1948) JCS - (1955)	1432 1311
$C_7H_4F_4$	1-Fluoro-4-trifluoro-methylbenzene	500-1700	G,L	Spec	Thompson Randle	JCS - (1948) JCS - (1955)	1432 1311
$C_7H_4F_{10}$	3,3,4,5,5,6,6,7,7,7-Decafluorohept-1-ene	-	-	Band freq	Lazerte	JACS 77 (1955)	910
$C_7H_4N_2O_2$	m-Nitrobenzonitrile	-	-	Band freq	Kitson	AC 24 (1952)	334
		-	Sol	I, Solvent effect	Mander	TFS 53 (1957)	1402
		700-1700	Sol	I, Position shift	Katritzky	JCS - (1959)	2058
		-	L	Substitution effect	Cabana	JPC 64 (1960)	1941
$C_7H_4N_2O_2$	o-Nitrobenzonitrile	-	L	Substitution effect	Cabana	JPC 64 (1960)	1941
$C_7H_4N_2O_2$	p-Nitrobenzonitrile	-	-	Band freq	Flett	TFS 44 (1948)	767
		-	Sol	Band freq	Kitson	AC 24 (1952)	334
		1300-1600	S,Sol	Struct	Kross	JACS 78 (1956)	4225
		-	Sol	I, Solvent effect	Mander	TFS 53 (1957)	1402
		-	Sol	Activity const, I	Brown	JACS 80 (1958)	794
		700-1700	Sol	Freq, Assign, I	Katritzky	JCS - (1959)	2051
		-	L	Substitution effect	Cabana	JPC 64 (1960)	1941
		-	Sol	Solvent effect, Ext coeff	Gerrard	JCS - (1960)	2182
$C_7H_4N_2O_2S$	p-Nitrophenyl iso-thiocyanate	2000-2300	Sol	Characteristic freq	Caldow	SA 13 (1958)	212
		-	Sol	NCS vib freq	Rao	CS 27 (1958)	474
$C_7H_4N_2O_2S$	p-Nitrophenyl thio-cyanate	2000-2300	Sol	Characteristic freq	Caldow	SA 13 (1958)	212
$C_7H_4N_2O_3$	m-Nitrobenzonitrile-N-oxide	600-3000	Sol	Spec	Wiley	JOC 25 (1960)	546
$C_7H_4N_2O_3$	o-Nitrobenzonitrile-N-oxide	600-3000	Sol	Spec	Wiley	JOC 25 (1960)	546

$C_7H_4N_2O_3$	m-Nitrophenyl isocyanate	-	Sol	Characteristic freq	Caldow	SA	13 (1958)	212
$C_7H_4N_2O_3$	o-Nitrophenyl isocyanate	-	Sol	Characteristic freq	Caldow	SA	13 (1958)	212
$C_7H_4N_2O_3$	p-Nitrophenyl isocyanate	-	Sol	Characteristic freq	Caldow	SA	13 (1958)	212
$C_7H_4N_2O_6$	3,5-Dinitrobenzoic acid	700-1000	S, Sol	Struct	Bellamy	JCS	- (1955)	2818
$C_7H_4N_2O_6$	3,5-Dinitrosalicylaldehyde	-	-	Spec, Iso	Hoyer	ZE	64 (1960)	958
$C_7H_4N_4O_2$	cis-p-Nitrophenyldiazo cyanide	4-14 μ	Sol	Spec, Bond freq	Anderson	JCS	- (1947)	445
$C_7H_4N_4O_2$	trans-p-Nitrophenyldiazo cyanide	4-14 μ	Sol	Spec, Bond freq	Anderson	JCS	- (1947)	445
$C_7H_4N_6O_{10}$	2,3,4,5-Tetranitrophenyl methyl nitramine	3-15 μ	S	Spec, Bond freq	Lothrop	JACS	73 (1951)	3581
$C_7H_4N_6O_{10}$	2,3,4,6-Tetranitrophenyl methyl nitramine	3-15 μ	S	Spec, Bond freq	Lothrop	JACS	73 (1951)	3581
$C_7H_4O_6$	Chelidonic acid	-	-	Exchange study	Lord	AC	26 (1954)	429
C_7H_5DO	Benzaldehyde-d ₁	-	Sol	Spec, Freq	Wiberg	JACS	76 (1954)	5371
		2-15 μ	L, S, Sol	Assign, Group freq	Eggers	AC	28 (1956)	1328
		-	-	Bond freq	Pinchas	AC	29 (1957)	334
$C_7H_5DO_2$	Benzoic acid-O-d ₁	2000-3800	Sol	Spec, H bond	Pushwell	JACS	60 (1938)	2239
		2.8-5.2 μ	Sol	Spec, H bond	Wall	JACS	61 (1939)	2812
		-	-	Absorption freq, Association	Wall	JCP	7 (1939)	87
		500-1500	S	Spec, Assign	Hadai	PRS	216 (1953)	247

	S	ν OH, ν OD Spec, Freq, Assign	Bratoz Hadzi	SA	8 (1956) 16 (1958)	249 162
	1500-700			SA		
$C_7H_5DO_2$	Sol	500-900	Tiers	JCP	20 (1952)	761
$C_7H_5DO_2$	Sol	500-900	Tiers	JCP	20 (1952)	761
$C_7H_5DO_2$	Sol	500-900	Tiers	JCP	20 (1952)	761
$C_7H_5DO_3$	L, Sol	650-900	Yoshida	CPBT	8 (1960)	389
p-Hydroxybenzoic acid -d ₁						
Toluene-d ₃	G, L	600-4800	Fuson	SA	16 (1960)	106
Toluene- α -d ₃	G, L	2.30 μ	Wilmschurst	CJC	35 (1957)	911
Methoxybenzene-d ₃	Sol	2800-3100	Dalton	JCS	- (1960)	2927
Benzoyl bromide	Sol	-	Horak	TEL	3 (1959)	19
m-Bromobenzaldehyde	Sol	2.8-12 μ	Pinchas	AC	29 (1957)	334
o-Bromobenzaldehyde	Sol	-	Pinchas	AC	29 (1957)	334
2-Bromotropone	Sol	2-16 μ	Doering	JACS	74 (1952)	5688
m-Bromobenzoic acid	-	-	Hazeldine Jackson	JCS JACS	- (1952) 77 (1955)	993 5625
o-Bromobenzoic acid	Sol	9.84-14 μ	Jackson Reeves	JACS CJC	77 (1955) 38 (1960)	5625 1259
$C_7H_5BrO_2$	S	6.28-8.08 μ	Goldman	JACS	76 (1954)	5789
$C_7H_5BrO_2$	Sol	-	Flett	TFS	44 (1948)	767

C_7H_5ClO	Benzoyl chloride	2000-3800 1050-1850	Sol - - Sol Sol - - - L Sol L,Sol	Speco, H bond Spec FC Bond freq Freq, Chem prop Absorption freq, IR freq shift Substitution effect CH out of plane Freq CH out of plane	Bushwell Barnes Linnett Flett Flett Rasmussen Bellamy Margoshes Kross Horak Yoshida	JACS IEC TFS JCS TFS JACS JCS SA JACS TEL CPBT	60 (1938) 15 (1943) 41 (1945) - (1948) 44 (1948) 71 (1949) - (1955) 7 (1955) 78 (1956) 3 (1959) 8 (1960)	2239 709 223 1441 767 1073 4221 14 1332 19 389
C_7H_5ClO	m-Chlorobenzaldehyde	2.8-12 μ 2-15 μ	Sol Sol	Bond freq, H bond Spec, Assign	Pinchas Padhye	AC JSIR	29 (1957) 19 (1960)	334 45
C_7H_5ClO	o-Chlorobenzaldehyde	- - 800-1600 2-15 μ	Sol Sol - Sol	Group & Bond freq, Ext coeff Bond freq, H bond Position & I of bands Speco, Assign	Pinchas Pinchas Katritzky Padhye	AC JCS JSIR	27 (1955) 29 (1957) - (1959) 19 (1960)	2 334 3670 45
C_7H_5ClO	p-Chlorobenzaldehyde	700-1000 2-15 μ 2.8-12 μ - 2-15 μ	S,Sol L,Sol Sol Sol Sol	CH out of phase Bond freq Bond freq, H bond Freq, I Speco, Assign	Bellamy Eggers Pinchas Thompson Padhye	JCS AC AC SA JSIR	- (1955) 28 (1956) 29 (1957) 9 (1957) 19 (1960)	2818 1328 334 208 45
C_7H_5ClO	2-Chlorotropone	2-16 μ -	Sol Sol	Spec, Struct Band freq	Doering Bryant	JACS JOC	74 (1952) 19 (1954)	5688 1889
C_7H_5ClOS	o-Chlorothiobenzoic acid	2.5-16 μ	Sol	Struct	Nyquist	SA	15 (1959)	514
$C_7H_5ClO_2$	m-Chlorobenzoic acid	1700 - -	Sol Sol Sol	Bond freq Dissociation const FC Peak value	Flett Goulden Bavin	TFS SA CJC	44 (1948) 6 (1954) 35 (1957)	767 129 1555

$C_7H_5ClO_2$	o-Chlorobenzoic acid	700-4000	L,S, Sol	Table, Ext coeff	Flett	JCS - (1951)	962
$C_7H_5ClO_2$	p-Chlorobenzoic acid	700-1400 1700-3500 700-4000	Sol Sol S,Sol	Impurity studies Bond freq Table, Ext coeff	Whiffen Flett Flett	TFS 41 (1945) TFS 44 (1948) JCS - (1951)	200 767 962
	-	12-15 μ	Sol	Dissociation const	Goulden	SA 6 (1954)	129
		650-900	S L,Sol	CH out of phase CH out of phase	Kross Yoshida	JACS 78 (1956) CPBT 8 (1960)	1332 389
$C_7H_5ClO_2$	2-Chloro-3-hydroxy- benzaldehyde	-	Sol	Bond freq, H bond	Pinchas	AC 29 (1957)	334
$C_7H_5ClO_2$	2-Chloro-5-hydroxy- benzaldehyde	-	Sol Sol	Bond freq, H bond Anal	Pinchas Powers	AC 29 (1957) AC 32 (1960)	334 1287
$C_7H_5ClO_2$	5-Chlorosalicylal- dehyde	-	Sol	Band freq	Bellamy	JCS - (1954)	4487
$C_7H_5Cl_3$	Benzotrichloride	625-900	-	Substitution effect	Margoshes	SA 7 (1955)	14
$C_7H_5Cl_3NB$	Benzonitrile boron trichloride complex	-	Sol	Freq	Gerrard	JCS - (1960)	2182
$C_7H_5Cl_3O_2$	2-Methyl-3,5,6-Trichloro- hydroquinone	3370-860	-	Band freq	Adams	JACS 74 (1952)	2608
$C_7H_5FO_2$	m-Fluorobenzoic acid	-	Sol	Spec, FC	Forbers	CJC 38 (1960)	728
$C_7H_5FO_2$	o-Fluorobenzoic acid	-	Sol	Spec, FC	Forbers	CJC 38 (1960)	728
$C_7H_5FO_2$	p-Fluorobenzoic acid	-	Sol	Spec, FC	Forbers	CJC 38 (1960)	728

$C_7H_5F_3$	Benzotrifluoride	500-1700	G,L	Spec Symmetry studies Spec, Assign	Thompson Randle Narasimhan	JCS - JCS - JCP 27	(1948) (1955) (1957)	1432 1311 740
$C_7H_5F_3N_2O_2$	2-Nitro-3-trifluoro- methylaniline	700-1800	L,S	Struot, I Symmetry studies	Randle Randle	JCS - JCS -	(1952) (1955)	4153 1311
$C_7H_5F_3N_2O_2$	4-Nitro-2-trifluoro- methylaniline	700-1800	L,S	Struot, I Symmetry studies	Randle Randle	JCS - JCS -	(1952) (1955)	4153 1311
$C_7H_5F_3N_2O_2$	4-Nitro-3-trifluoro- methylaniline	700-1800	L,S	Struot, I Symmetry studies	Randle Randle	JCS - JCS -	(1952) (1955)	4153 1311
$C_7H_5F_3O_2$	1,1,1,2,2,3,3-Heptafluoro- 4,6-heptaredione	-	-	Band freq, H bond	Park	JACS 75	(1953)	4753
$C_7H_5F_9$	1,1,1,6,6,6-Hexafluoro-4- trifluoromethyl-2-hexene	-	-	Group freq	Haszeldine	JCS -	(1952)	2504
C_7H_5IO	m-Iodobenzaldehyde	2.8-12 μ	Sol	Bond freq, H bond	Pinchas	AC 29	(1957)	334
C_7H_5IO	2-Iodotropone	2-16 μ	Sol	Spec, Struot	Doering	JACS 74	(1952)	5688
$C_7H_5IO_2$	3-Hydroxy-2-iodotropone	684-1637	S	Table	Johnson	JCS -	(1955)	1841
$C_7H_5IO_2$	m-Iodobenzoic acid	665-1755	S,Sol	I, Assign	Bell	JCS -	(1960)	1209
$C_7H_5IO_2$	o-Iodobenzoic acid	665-1755	S,Sol	I, Assign	Bell	JCS -	(1960)	1209
$C_7H_5IO_3$	m-Iodoxybenzoic acid	665-1755	S,Sol	I, Assign	Bell	JCS -	(1960)	1209
$C_7H_5IO_3$	o-Iodoxybenzoic acid	665-1755	S,Sol	I,Assign	Bell	JCS -	(1960)	1209
C_7H_5	Benzonitrile	1-12 μ 1-6.5 μ 1150-1700	L L -	Spec Spec Spec FC	Bell Gordy Barnes Linnett	JACS 57 JCP 4 IEC 15 TFS 41	(1935) (1936) (1943) (1945)	1023 85 659 223

C ₇ H ₅ NO	m-Hydroxybenzonitrile	- -	Sol L	I, Solvent effect Substitution effect	Mander Cabana	TFS JPC	53 (1957) 64 (1960)	1402 1941
C ₇ H ₅ NO	o-Hydroxybenzonitrile	6800-7200 3μ -	Sol Sol L	Speco, H bond Freq, H band Substitution effect	Hendricks Flett Cabana Puttnam	JACS SA JPC JCS	58 (1936) 10 (1958) 64 (1960) - (1960)	1991 21 1941 5100
C ₇ H ₅ NO	p-Hydroxybenzonitrile	- - -	Sol Sol Sol	Disociation onst I, Solvent effect Substitution effect	Goulden Mander Stone Cabana Puttnam	SA TFS SA JPC JCS	6 (1954) 53 (1957) 10 (1958) 64 (1960) - (1960)	129 1402 17 1941 5100
C ₇ H ₅ NO	Phenyl isocyanate	1050-1800 - 4-7.5μ -	Sol Sol G,L Sol	Speco Band freq, I Assign, Freq Ring substitution	Barnes Davison Barr Caldow	IEC JCS JCS SA	15 (1943) - (1953) - (1956) 13 (1958)	659 3712 3428 212
C ₇ H ₅ NOS	2-Benzoxazolethiol	2800-3500	S,Sol	Speco, Group, Freq, Struot	Flett	JCS	- (1953)	347
C ₇ H ₅ NOS	p-Hydroxyphenyl thio- cyanate	2000-2300	Sol	Freq, Ring substitution	Caldow	SA	13 (1958)	212
C ₇ H ₅ NO ₂	Benzoxazolone	650-1000 600-1700	- S	Freq Freq	Binder O'Sullivan	JACS JCS	81 (1959) - (1960)	3608 3278
C ₇ H ₅ NO ₂	2,6-Pyridinedi- carboxaldehyde	650-4000	Sol,L	Speco, Freq, H band	Heinert	JACS	81 (1959)	3933
C ₇ H ₅ NO ₃	m-Nitrobenzaldehyde	- 700-1700 -	Sol Sol Sol	Group & Band freq, Ext ocoeff I, Substitution effect Freq, Pinchas effect Anal	Pinchas Katritzky West Powers	AC JCS CIL AC	27 (1955) - (1959) - (1959) 32 (1960)	2 2058 333 1287

$C_7H_5NO_3$	o-Nitrobenzaldehyde	-	-	Sol	Spec Group & Band freq, Ext coeff	Bellamy Pinchas	JAC AC	3 (1953) 27 (1955)	421 2
		-	-	Sol	Bond freq, H bond I, Freq	Pinchas Conduit	AC JCS	89 (1957) - (1959)	334 3273
		6-8 μ	800-1600	Sol	I, Ext coeff	Katritzky West	JCS CIL	- (1959) - (1959)	3670 333
		-	-	Sol	Freq, Pinchas effect	Powers	AC	32 (1960)	1287
		-	-	Sol	Anal				
$C_7H_5NO_3$	p-Nitrobenzaldehyde	700-1000	-	Sol	OH out of phase	Bellamy Pinchas	JCS AC	- (1955) 27 (1955)	2818 2
		-	-	Sol	Group & Band freq, Ext coeff				
		1300-1600	-	S, Sol	Struct	Kross	JACS	78 (1956)	4224
		-	-	Sol	Freq, I	Thompson Conduit	SA JCS	9 (1957) - (1959)	208 3273
		6-8 μ	700-1700	Sol	Freq, I	Katritzky	JCS	- (1959)	2051
		-	-	Sol	Freq, Assign	West	CIL	- (1959)	333
		-	-	Sol	Freq, Pinchas effect	Powers	AC	32 (1960)	1287
		-	-	Sol	Anal				
$C_7H_5NO_3$	o-Benzic sulfimide	-	-	S, Sol	Group freq	Barter Binder	JCS JACS	- (1955) 81 (1959)	669 3608
		650-1000	-	-	Freq				
$C_7H_5NO_3$	Dihydrobenzo(d)isothia- zole-1,1-dioxide	600-1700	-	S	Freq	O'Sullivan	JCS	- (1960)	1841
$C_7H_5NO_4$	3-Hydroxy-2-nitro- tropone	651-1645	-	S	Table	Johnson	JCS	- (1955)	1841
$C_7H_5NO_4$	m-Nitrobenzoic acid	1700-3500	-	Sol	Bond freq	Flett Flett	TFS JCS	44 (1948) - (1951)	767 962
		700-4000	-	S, L, Sol	Table, Ext coeff				
		-	-	Sol	Dissociation const	Goulden	SA	6 (1954)	129
		-	-	Sol	Freq	Bavin	CJC	35 (1957)	1555
		1300-3500	-	-	Shift, H band	Jones	CIL	- (1959)	880
$C_7H_5NO_4$	o-Nitrobenzoic acid	700-1700	-	S, L, Sol	Table, Bond freq	Flett	JCS	- (1951)	962
		1300-3500	-	-	Shift, H bond	Jones	CIL	- (1959)	880

$C_7H_5NO_4$	p-Nitrobenzoic acid	- 700-1700 - 12-15 μ 1300-1600 - 1300-3500	Sol S,L Sol L S,Sol Sol -	Bond freq Table, Ext coeff Dissociation const CH out of phase Strut Freq Shift, H bond	Flett Flett Goulden Kross Kross Bavin Jones	TFS JCS SA JACS JACS CJC CIL	44 (1948) - (1951) 6 (1954) 78 (1956) 78 (1956) 35 (1957) - (1959)	767 962 129 1332 4225 1555 880
$C_7H_5NO_4$	2-Nitro-3-hydroxy- benzaldehyde	3.06-6.88 μ	Sol	Group & Band freq, I	Ek	JACS	76 (1954)	5579
$C_7H_5NO_4$	5-Nitrosalicylaldehyde	-	Sol,L	Shift, H bond, Freq	Reeves	CJC	38 (1960)	1249
$C_7H_5NO_4$	Pyridine-2,3-dicarbox- ylic acid	-	S	Bond freq	Witkop	JACS	75 (1953)	2572
$C_7H_5NO_4$	Pyridine-3,5-dicarboxylic acid	-	-	Ident	Elie1	JACS	75 (1953)	4291
$C_7H_5NO_5$	2-Nitro-3-hydroxybenzoic acid	-	-	Group & Band freq, I	Ek	JACS	76 (1954)	5579
$C_7H_5NO_6$	2,3,4-Tricarboxypyrrole	-	S,Sol	Speco	Sorocoo	AAN	20 (1956)	795
$C_7H_5NO_6$	2,3,5-Tricarboxypyrrole	-	S,Sol	Speco	Sorocoo	AAN	20 (1956)	795
C_7H_5NS	Phenyl isothiocyanate	1.0-6.5 μ 4.8-15 μ 2000-2300 - 600-2200 400-4000	L L,Sol Sol Sol - G,L	Speco Strut anal Speco, Freq Vib freq Characteristic freq Speco, Freq, Assign	Gordy Williams Caldow Rao Lieber Ham	JCP JCP SA CS SA SA	4 (1936) 8 (1940) 13 (1958) 27 (1958) 13 (1959) 16 (1960)	85 513 212 474 296 279
C_7H_5NS	Phenyl thiocyanate	750-4000	Sol	Speco	Ham	SA	16 (1960)	393

$C_7H_5NS_2$	2-Mercaptobenzothiazole	2800-3500 2500-3500	S, Sol Sol	Spec, Struct Spec, Freq	Flett Bellamy	JCS - PRS A 257	(1953) (1960)	347 98
$C_7H_5N_3O$	4-Hydroxy-1,3,5-triazanaphthalene	3650-1400	Sol	taut, Spec, Assign	Mason	JCS -	(1957)	4874
$C_7H_5N_3O$	5-Hydroxy-1,4,6-triazanaphthalene	3650-1400	Sol	taut, Spec, Assign	Mason	JCS -	(1957)	4874
$C_7H_5N_3O$	8-Hydroxy-1,4,5-triazanaphthalene	3650-1400	Sol	taut, Spec, Assign	Mason	JCS -	(1957)	4874
$C_7H_5N_3O_2$	5-Nitrobenzimidazole	650-1000 600-1700	- S	Freq Freq	Binder O'Sullivan	JACS 81 JCS -	(1959) (1960)	3608 3278
$C_7H_5N_3O_2$	5-Nitroindazole	600-1700 650-1000	S -	Freq Freq	O'Sullivan O'Sullivan	JCS - SA 16	(1960) (1960)	3278 762
$C_7H_5N_3O_2$	6-Nitroindazole	600-1700 650-1000	S -	Freq Freq	O'Sullivan O'Sullivan	JCS - SA 16	(1960) (1960)	3278 762
$C_7H_5N_3O_2$	5,4-Pyridyl-1,3,4-oxadiazol-2(3H)-one	2.5-14.5 μ	-	Spec, Ident	Yale	JACS 76	(1954)	2208
$C_7H_5N_3O_2S$	3-Nitro-4-aminophenyl thiocyanate	2000-2300	Sol	Freq, Substitution	Caldow	SA 13	(1958)	212
$C_7H_5N_3O_6$	2,3,4-Trinitrotoluene	2-15 μ 6-8 μ	Sol Sol	Spec, Anal Freq, I	Pristera Conduit	APS 7 JCS -	(1953) (1959)	115 3273
$C_7H_5N_3O_6$	2,3,5-Trinitrotoluene	6-8 μ	Sol	Freq, I	Conduit	JCS -	(1959)	3273
$C_7H_5N_3O_6$	2,3,6-Trinitrotoluene	6-8 μ	Sol	Freq, I	Conduit	JCS -	(1959)	3273
$C_7H_5N_3O_6$	2,4,5-Trinitrotoluene	2-15 μ 6-8 μ	Sol Sol	Spec, Anal Freq, I	Pristera Conduit	APS 7 JCS -	(1953) (1958)	115 3273

$C_7H_5N_3O_6$	2,4,6-Trinitrotoluene	750-1950 2-15 μ 6-8 μ	- Sol Sol	Spec Spec, Anal Freq, I	Barnes Pristera Condit	IEC APS JCS	15 (1943) 7 (1953) - (1959)	659 115 3273
$C_7H_5N_3O_8$	2,3,6-Trinitrophenyl- methylnitramine	3-15 μ	S	Spec, CH band freq	Lothrop	JACS	73 (1951)	3581
$C_7H_6DNO_2$	p-Aminobenzoic acid -O-d ₁	650-900	L,Sol	CH out of phase	Yoshida	CPBT	8 (1960)	389
$C_7H_6DNO_2$	N-Phenylhydroxamic acid-d ₁	700-4000	S,Sol	Spec, H bond	Hadzi	SA	10 (1958)	38
$C_7H_6D_3N$	N-Methylaniline-d ₃	2800-3100	Sol	Assign	Dalton	JCS	- (1960)	2927
$C_7H_6D_8O_2$	2,3,4,4,5,6,7,7- Enanthic acid-d ₈	-	-	Spec	Bunhol	BSCF	- (1960)	1586
$C_7H_6BrNO_2$	p-Nitrobenzyl bromide	1300-1600	S,Sol	Assign, Struct	Kross	JACS	78 (1956)	4225
$C_7H_6Br_2$	2,5-Dibromotoluene	5-6 μ	-	Spec	Young	AC	23 (1951)	709
$C_7H_6Br_2O$	2,6-Dibromo-4-methyl- phenol	3500-3800	Sol	Hammett const, FC	Puttnam	JCS	- (1960)	5100
C_7H_6ClNO	p-Aminobenzoyl chloride	650-900	Sol,L	CH out of phase	Yoshida	CPBT	8 (1960)	389
$C_7H_6ClNO_2$	m-Nitrobenzyl chloride	700-1700	Sol	I, Substitution effect	Katritzky	JCS	- (1959)	2058
$C_7H_6ClNO_2$	p-Nitrobenzyl chloride	1300-1600 650-4000 700-1700	S,Sol S Sol	Assign, Struct Chemical kinetics Freq, Assign	Kross Chatten Katritzky	JACS APS JCS	78 (1956) 11 (1957) - (1959)	4225 177 2051
$C_7H_6ClNO_3$	2- α -Chloromethyl-4- nitrophenol	2.7-3.0 μ	Sol	H bond	Baker	JACS	80 (1958)	5358

$C_7H_6ClNO_4S$	4-Methylsulfonyl-1-chloro-2-nitrobenzene	-	-	Spec	Merian	HCA 43 (1960)	1122
$C_7H_6ClN_5$	1-m-Chlorophenyl-5-aminotetrazole	2-6.6 μ	S	Band freq	Murphy	JOC 19 (1954)	1807
$C_7H_6ClN_5$	1-p-Chlorophenyl-5-aminotetrazole	2-6.6 μ	S	Band freq	Murphy	JOC 19 (1954)	1807
$C_7H_6Cl_2$	p-Chloro- α -chlorotoluene	2-15 μ	L, Sol	Spec, Anal	Freeman	AC 29 (1957)	63
$C_7H_6Cl_2$	1,6-Dichloro-2,4-heptadiyne	-	L, Sol	I, Group freq	Allan	JCS - (1955)	1874
$C_7H_6Cl_2$	α , α -Dichlorotoluene	2-15 μ	L, Sol	Spec, Anal	Freeman	AC 29 (1957)	63
$C_7H_6Cl_2$	α , 2-Dichlorotoluene	2-15 μ	L, Sol	Spec, Anal	Freeman	AC 29 (1957)	63
$C_7H_6Cl_2$	2,4-Dichlorotoluene	-	Sol	Anal	Kovacic Deb	JACS 76 (1954)	5491
		600-1800	L	Spec		IJP 34 (1960)	554
$C_7H_6Cl_2$	3,4-Dichlorotoluene	600-1800	L	Spec	Deb	IJP 34 (1960)	554
$C_7H_6F_2$	2,4-Difluorotoluene	500-1200	L	Spec	Thompson Cole	JCS - (1948)	1432
		9-14 μ	Sol	Freq, I, Dipole moment		TFS 46 (1950)	103
$C_7H_6F_3N$	m-Trifluoromethyl-aniline	-	Sol	Freq, FC	Krueger	PRS 243 (1957)	143
		2600-800	Sol	NH band freq, Struct	Whetzel	AC 30 (1958)	1298
		-	-	Absorption, Assign, Struct	Katritzky	JCS - (1959)	3674
$C_7H_6F_3O_3S$	Ethylthio hexafluoroglutarate	2-16 μ	L	Spec, Band freq	Hauptschein	JACS 74 (1952)	4005

$C_7H_6F_9I$	1,1,1,4,4,4-Hexafluoro-2'-(3',3',3' trifluoro 2'-iodopropyl)butane	-	-	Struct	Haszeldine	JCS	-	(1952)	2504
$C_7H_6N_2$	o-Aminobenzonitrile	-	-	Substitution effect	Cabana	JPC	64	(1960)	1941
$C_7H_6N_2$	p-Aminobenzonitrile	3427-3518	Sol	Band freq, Chem properties	Flett	TFS	44	(1948)	767
		-	-	Bond freq	Kitson	AC	24	(1952)	334
		-	Sol	Freq, FC	Krueger	PRS	243	(1957)	143
		-	Sol	I	Brown	JACS	80	(1958)	794
	2600-2800		Sol	Band freq, Struot	Whtsel	AC	30	(1958)	1598
	700-1700		Sol	Freq, Assign	Katritzky	JCS	-	(1959)	2051
	-		-	Freq, Struot	Katritzky	JCS	-	(1959)	3674
	-		L	Substitution effect	Cabana	JPC	64	(1960)	1941
$C_7H_6N_2$	m-Cyanoaniline	-	Sol	Freq, FC	Krueger	PRS	243	(1957)	143
		-	Sol	Freq	Bryson	JACS	82	(1960)	4858
		-	L	Substitution effect	Cabana	JPC	64	(1960)	1941
$C_7H_6N_2$	Indazole	650-1000	-	Freq	O'Sullivan	SA	16	(1960)	762
$C_7H_6N_2O$	2-Hydroxybenzimidazole	-	S,Sol	FC, Taut	Mason	JCS	-	(1957)	4874
$C_7H_6N_2O$	Indazole-3-one	600-1700 650-1000	S	Freq Freq	O'Sullivan O'Sullivan	JCS SA	- 16	(1960) (1960)	3278 762
$C_7H_6N_2O$	5-Methylbenzfurazan	6-7 μ	-	Spec, Freq	Gaughran	JACS	76	(1954)	2233
$C_7H_6N_2O_2$	5-Methoxybenzfurazan	6-7 μ	-	Spec, Freq	Gaughran	JACS	76	(1954)	2233
$C_7H_6N_2O_2$	5-Methylbenzfuroxan	6-7 μ	-	Spec, Freq	Gaughran	JACS	76	(1954)	2233
$C_7H_6N_2O_3$	5-Methoxybenzfuroxan	6-7 μ	-	Spec, Freq	Gaughran	JACS	76	(1954)	2233
$C_7H_6N_2O_3$	m-Nitrobenzamide	1300-1500	-	Shift, Stretching freq	Jones	CIL	-	(1959)	880
$C_7H_6N_2O_3$	o-Nitrobenzamide	1300-3500	-	Shift, Stretching freq	Jones	CIL	-	(1959)	880
$C_7H_6N_2O_3$	p-Nitrobenzamide	1300-3500	-	Shift, Stretching freq	Jones	CIL	-	(1959)	880

$C_7H_6N_2O_4$	2-Carboxy-3-methyl-carboxypyrazine	1500-2000 -	S Sol	Spec, Group freq Spec	Solomons Yoshida	JACS CPBF	75 (1953) 7 (1959)	679 162
$C_7H_6N_2O_4$	2,3-Dinitrotoluene	6-8 μ	Sol	Freq, I	Conduit	JCS	- (1959)	3273
$C_7H_6N_2O_4$	2,4-Dinitrotoluene	2-15 μ 2-15 μ	- Sol	Spec, Anal Spec, Anal, Group freq	Pristera Pristera	AC APS	25 (1953) 7 (1953)	844 115
		2-15 μ 6-8 μ	Sol Sol	Spec, Anal Freq, I	Pristera Conduit	AC JCS	27 (1955) - (1959)	217 3273
$C_7H_6N_2O_4$	2,5-Dinitrotoluene	6-8 μ	Sol	Freq, I	Conduit	JCS	- (1959)	3273
$C_7H_6N_2O_4$	2,6-Dinitrotoluene	2-15 μ 6-8 μ	Sol Sol	Spec, Anal Freq, I	Pristera Conduit	AC JCS	27 (1955) - (1959)	217 3273
$C_7H_6N_2O_4$	3,4-Dinitrotoluene	6-8 μ	Sol	Freq, I	Conduit	JCS	- (1959)	3273
$C_7H_6N_2O_4$	3,5-Dinitrotoluene	700-1000 6-8 μ	S, Sol Sol	Bending freq Freq, I	Bellamy Conduit	JCS JCS	- (1955) - (1959)	2818 3273
$C_7H_6N_2O_5$	1-Methyl-4,6-dinitro-phenol	300-3500	S, Sol	N bond	Bell	ACS	12 (1958)	1777
$C_7H_6N_2O_6$	3,5-Dinitrosaligenin	-	-	Spec	Hoyer	ZE	64 (1960)	958
$C_7H_6N_2S$	p-Aminophenyl isothio-cyanate	600-2200 2000-2300	- Sol	Characteristic freq Characteristic freq	Lieber Caldow	SA SA	13 (1959) 13 (1958)	296 212
$C_7H_6N_2S$	p-Aminophenyl thio-cyanate	2600-800	Sol	NH band freq, Struct	Whetsel	AC	30 (1958)	1598
$C_7H_6N_4$	2-Methylpteridine	689-2000	S	Table, I	Mason	JCS	- (1955)	2336
$C_7H_6N_4$	4-Methylpteridine	705-2000	S	Table, I	Mason	JCS	- (1955)	2336
$C_7H_6N_4$	7-Methylpteridine	678-1990	S	Table, I	Mason	JCS	- (1955)	2336

$C_7H_6N_4O$	1,2-Dihydro-1-hydroxy- iminobenzotriazine	3378-771	S	Wave number, Struot	Aron	CIL	- (1958)	1234
$C_7H_6N_4O$	2-Methoxypteridine	746-2050	S	Table, I	Mason	JCS	- (1955)	2336
$C_7H_6N_4O$	4-Methoxypteridine	715-1985	S	Table, I	Mason	JCS	- (1955)	2336
$C_7H_6N_4O$	6-Methoxypteridine	688-3500	S	Spec, Table, Assign, I	Mason	JCS	- (1955)	2336
$C_7H_6N_4O$	7-Methoxypteridine	720-1955	S	Spec, Table, I	Mason	JCS	- (1955)	2336
$C_7H_6N_4O$	Formaldehyde-2,4- dinitrophenylhydrazone	-	-	Ident	Flynn	JACS	75 (1953)	5867
$C_7H_6N_4O$		-	-	Ident	Grundon	JACS	75 (1953)	2537
		6-15 μ	S	Spec, Table	Ross	AC	25 (1953)	1288
		2-15 μ	S	Spec, Ident	Jaues	AC	28 (1956)	191
$C_7H_6N_4S$	2-Methylthiopteridine	712-1580	S	Table, I	Mason	JCS	- (1955)	2336
$C_7H_6N_4S$	4-Methylthiopteridine	834-1980	S	Table, I	Mason	JCS	- (1955)	2336
$C_7H_6N_4S$	7-Methylthiopteridine	686-3500	S	Spec, Table, Assign, I	Mason	JCS	- (1955)	2336
$C_7H_6N_4S$	5-Phenylamino-1,2,3,4- thiazizole	700-1700	S	Spec, Struot, Assign, Taut	Lieber	CJC	36 (1958)	801
$C_7H_6N_4S$	1-Phenyltetrazoline-5- thione	700-1700	S	Spec, Struot, Assign, Taut	Lieber	CJC	36 (1958)	801
$C_7H_6N_6O_2$	1-m-Nitrophenyl-5- aminotetrazole	2-6.6 μ	S	Band freq	Murphy	JOC	19 (1954)	1807
$C_7H_6N_6O_2$	1-p-Nitrophenyl-5- aminotetrazole	2-6.6 μ	S	Band freq	Murphy	JOC	19 (1954)	1807
C_7H_6O	Benzaldehyde	-	L	Beer's Law	Baly	JCS	- (1915)	1121
		7-2.5 μ	L	Carbonyl study	Ellis	JACS	51 (1929)	1384
		-	-	Solvent effect	Gordy	JCP	7 (1939)	93
		5.5-6.5 μ	L	Spec, H bond	Gordy	JCP	8 (1940)	516
		1050-2000	-	Spec, Absorption freq	Barnes	IEC	15 (1943)	659

			FC	Linnett	TFS	41	(1945)	223
			C ₆ H ₆ derivatives	Depaigne	JPR	7	(1946)	33
	5-8 μ		FC	Walsh	TFS	43	(1947)	1582
	-		Bond freq	Flett	JCS	-	(1948)	1441
	-		Bond freq, Chem properties	Flett	TFS	44	(1948)	767
	1600-3700	Sol	Spec	Hunsberger	JACS	72	(1950)	5626
	1800-1650	Sol	Ext coeff	Gross	TFS	47	(1951)	354
	-	L	Bond freq	Grove	JCS	-	(1952)	3345
	1702-1710	Sol	Bond freq, I	Barrow	JCP	21	(1953)	2008
	-	-	Struct	Garg	JCP	21	(1953)	1907
	1460-1000	Sol	Struct	Briner	CPR	238	(1954)	221
	-	Sol	I, Solvent effect	Hirota	BCSJ	27	(1954)	295
	-	Sol	Spec, Anal	Wiberg	JACS	74	(1954)	5371
	650-1740	Sol	IR, Freq shift	Bellamy	JCS	-	(1955)	4221
	625-900	-	Substitution effect	Margoshes	SA	7	(1955)	14
	-	Sol	Group & Band freq	Pinchas	AC	27	(1955)	2
	2-15 μ	L, S, Sol	Assign	Eggers	AC	28	(1956)	1328
	-	-	CH bond energy	Reed	TFS	52	(1956)	1195
	-	Sol	H bond, I, FC	Forbes	CJC	35	(1957)	488
	2690-2740	Sol	Bond freq, H bond	Pinchas	AC	29	(1957)	334
	-	-	FC	Rao	CS	26	(1957)	375
	-	Sol	Freq, I	Thompson	SA	9	(1957)	208
	-	Sol	Assign, Band freq	Katritzky	JCS	-	(1958)	2182
	600-4000	Sol	Group freq	Katritzky	JCS	-	(1958)	4155
	4000-600	Sol	Spec, Freq, H bond	Helmer	JACS	81	(1959)	3933
	-	Sol	Freq	West	CIL	-	(1959)	333
	4000-600	L	Spec, Freq	Herzert	JOC	25	(1960)	405
	-	Sol	Anal	Powers	AC	32	(1960)	1287
C ₇ H ₆ O	-	-	Band freq, Struct, Spec	Doering	JACS	73	(1951)	876
C ₇ H ₆ O	5-8 μ	L	Band freq	Dauben	JACS	73	(1951)	876
	1150-1650	L	Band freq	Johns	JCS	-	(1954)	4605
	-	Sol	Bond freq	Pauson	CR	55	(1955)	9
C ₇ H ₆ OS	-	Sol	Band freq	Bryant	JOC	19	(1954)	1889

C ₇ H ₆ OS	Phenylthio formate	2.5-16 μ	Sol	Chemical struct	Nyguist	SA	15 (1959)	514
C ₇ H ₆ OS	Thiobenzoic acid	-	Sol	Band freq	Plant	JACS	77 (1955)	1572
		2.5-16 μ	Sol	Chemical struct	Nyguist	SA	15 (1959)	514
C ₇ H ₆ O ₂	Benzoic acid	-	Sol	Speco	Plyler	JCP	2 (1934)	306
		2000-3800	Sol	Speco, H bond	Bushwell	JACS	60 (1938)	2239
		-	-	H bond	Davies	JCP	6 (1938)	755
		2.8-5.2 μ	Sol	Speco, H bond	Wall	JACS	61 (1939)	2812
		1697-3000	Sol	Freq	Flett	JCS	- (1948)	1441
		1700-3500	Sol	Freq, Chem properties	Flett	TFS	44 (1948)	767
		-	-	FC	Richards	TFS	44 (1948)	40
		-	Sol	Bond vib, I	Richards	TFS	45 (1949)	874
		700-4000	S, L, Sol	Table, Ext coeff	Flett	JCS	- (1951)	962
		-	S	Bond freq, Taut	Grove	JCS	- (1951)	877
		-	S	Bond freq	Grove	JCS	- (1952)	3345
		2-16 μ	S	Speco	Anderson	AC	25 (1953)	1906
		-	-	Anal	Emmors	JACS	75 (1953)	6047
		500-1500	S	Speco, Assign	Hadzi	PRS	216 (1953)	247
		-	-	Deuterium exchange	Bonner	JACS	76 (1954)	6350
		-	S	Transmission vs. Cono graph	French	JPC	58 (1954)	805
		-	Sol	Dissociation const	Goulden	SA	6 (1954)	129
		-	-	Band freq, I	Hales	JCS	- (1954)	3145
		650-1740	Sol	Freq shift, Struot	Bellamy	JCS	- (1955)	4221
		9.84-14 μ	Sol	Quant anal	Jackson	JACS	77 (1955)	5625
		625-900	-	CH out of phase	Margoshes	SA	7 (1955)	14
		-	L, S	ν OH, ν OD	Bratoz	SA	8 (1956)	249
		12-15 μ	S	CH out of phase	Kross	JACS	78 (1956)	1332
		3-15 μ	Sol	Speco, Struot	Farmer	SA	8 (1957)	374
		-	L, S	Speco	Karagounis	ZE	61 (1957)	1094
		-	-	FC	Rao	CS	26 (1957)	375
		3-6 μ	Sol	I, Band freq	Wenograd	JACS	79 (1957)	5844
		-	Sol	Carbony freq	Exner	CIL	- (1958)	1174
		2-15 μ	S	Speco, Freq, Assign	Gonzales	SA	12 (1958)	17
		1500-1700	G	Speco, Freq, Assign	Hadzi	SA	12 (1958)	162
		1500-3700	Sol	ν CO, ν OH	Cole	JCS	- (1959)	2005

$C_7H_6O_2$	m-Formylphenol	680-2500	-	Spec ν CO shift	Hadzi	NC	11 (1959)	715
$C_7H_6O_2$	o-Formylphenol	1300-3500	Sol	Shift, stretching freq	Horak	TEL	3 (1959)	19
$C_7H_6O_2$	p-Formylphenol	5.5-6.5 μ	Sol	Band freq, Ident	Jones	CIL	- (1959)	880
$C_7H_6O_2$	3- α -Furylacrolein	4000-600	Sol	Spec, Carbonyl freq	Sawicki	AC	31 (1959)	523
$C_7H_6O_2$	2,4-Heptadiynoic acid	5-15 μ	S	Spec, Freq	Forbers	CJC	38 (1960)	728
$C_7H_6O_2$	2,6-Heptadiynoic acid	5-15 μ	S	Pressure effect on freq, I	Herzert	JOC	25 (1960)	405
$C_7H_6O_2$	m-Hydroxybenzaldehyde	650-900	L, Sol	CH out of phase freq, I	Lippincott	SA	16 (1960)	58
$C_7H_6O_2$	o-Hydroxybenzaldehyde	2950-3700	Sol	H bond	Hilbert	JACS	58 (1936)	548
$C_7H_6O_2$	2,6-Heptadiynoic acid	2.6-3.2 μ	Sol	Spec	Errera	TFS	34 (1938)	728
$C_7H_6O_2$	2,6-Heptadiynoic acid	5.5-6.5 μ	L	Spec, H bond	Gordy	JCP	7 (1939)	167
$C_7H_6O_2$	2,6-Heptadiynoic acid	1050-1800	-	Spec, H bond	Gordy	JCP	8 (1940)	516
$C_7H_6O_2$	2,6-Heptadiynoic acid	2.2-3.6 μ	Sol	Spec, Absorption freq	Barnes	IEC	15 (1943)	659
$C_7H_6O_2$	2,6-Heptadiynoic acid	1600-3700	Sol	Bond freq	Flett	JCS	- (1948)	1441
$C_7H_6O_2$	2,6-Heptadiynoic acid	1600-3700	Sol	Spec	Hakins	JCS	- (1949)	898
$C_7H_6O_2$	2,6-Heptadiynoic acid	1600-3700	Sol	Spec	Hunsberger	JACS	72 (1950)	5626
$C_7H_6O_2$	2,6-Heptadiynoic acid	1600-3700	Sol	Band freq	Martin	N	166 (1950)	474

$C_7H_6O_2$	p-Hydroxybenzaldehyde	- - - 2-12 μ - - - - 2.8-12 μ 1600-3400 3 μ 650-4000 800-1600 700-3100 - -	Sol Sol Sol Sol - Sol Sol Sol Sol Sol Sol Sol, L - L Sol Sol	Band freq H bond Bond freq Spec, Struot Freq Chelation study Bond freq, I Freq Bond freq Spec, Iso Spec, H bond Speco, Freq, H bond Ext coeff Speco Anal Chemical shift, H bond	Amstutz Tsuboi Bellamy O'Connor Pinchas Puranik Tsubomura Bavin Pinohas Chiorboli Flett Heinert Katritzky Yamada Powers Reeves	JACS BCSJ JCS JACS AC JCP JCP CJC AC ANCR SA JACS JCS BCSJ AC CJC	73 25 - 76 27 23 24 35 29 48 10 81 - 32 32 38	(1951) (1952) (1954) (1954) (1955) (1955) (1956) (1957) (1957) (1958) (1959) (1959) (1959) (1960) (1960)	1220 60 4487 2368 2 761 927 1555 334 363 21 3933 3670 1051 1287 1249
$C_7H_6O_2$	3-Hydroxytropone	6900-7200 2.6-3.2 μ 3 μ - - 700-1000 1700 - 3500-3800	Sol Sol Sol Sol Sol Sol, S Sol Sol Sol	Spec, Group anal Spec, H bond Stretching freq Freq, I Dissociation oonst CH out of phase Group & Bard freq Freq, I Aromatic ring substituent Hammett oonst	Wulf Gordy Ingraham Barrow Goulden Bellamy Pinohas Thompson Stone Puttham	JACS JCP JACS JCP SA JCS AC SA SA JCS	57 7 74 21 6 - 27 9 10 -	(1935) (1939) (1952) (1953) (1954) (1955) (1955) (1957) (1958)	1464 167 2297 2008 129 2818 2 208 17 5100
$C_7H_6O_2$	2-Methyl-p-benzoquinone	1150-1650 - - 5-15 μ -	S Sol Sol S, Sol Sol	Band freq CO freq Shift, Freq assign Table, Substitution effect Shift, Freq assign	Johns Pauson Flaig Yates Flaig	JCS CR A JACS A	- 55 626 78 626	(1954) (1955) (1959) (1956) (1959)	4605 9 215 650 215

$C_7H_6O_2$	Methylenedioxybenzene	2-12 μ 700-5000	Sol l	Spec Spec, Group freq	Gensler Briggs	JOC AC	18 (1953) 29 (1957)	9 904
$C_7H_6O_2$	Methyl-2,4-hexadiynoate	-	Sol	Group freq, I	Allan	JCS	- (1955)	1874
$C_7H_6O_2$	Tropolone	700-4000 670-3500 600-3400	Sol S, Sol S, l, Sol	Spec, Struot Spec, H bond Spec, H bond	Doering Koch Kuratani	JACS JCS BCSJ	73 (1951) - (1951) 25 (1952)	828 614 250
		-	Sol	Band freq	Bryant	JOC	19 (1954)	1889
		1150-1650	S	Band freq	Johns	JCS	- (1954)	4605
		-	-	Ident	Johnson	JCS	- (1954)	1331
		-	Sol	Bond freq	Pauson	CR	55 (1955)	9
$C_7H_6O_2S_2$	2,4-Dihydroxydithio- benzoic acid	600-1900	Sol	Freq, Spec	Jones	JCS	- (1957)	614
$C_7H_6O_2S_3$	2-Thenylcarboxymethyl dithioacetate	400-4000	S	Spec, Freq	Bak	ACS	12 (1958)	1451
$C_7H_6O_3$	Desoxypatulic	5-6.6 μ	Sol	Spec, Quant anal	Woodward	JACS	71 (1949)	759
$C_7H_6O_3$	2,4-Dihydroxy- benzaldehyde	- 2.8-12 μ	Sol Sol	Chelate Bond freq, H bond	Bellamy Pinchas	JCS AC	- (1954) 29 (1957)	4487 334
$C_7H_6O_3$	3,4-Dihydroxy- benzaldehyde	3 μ 4000-600	Sol S	Stretch freq, Hammett const Spec, Freq	Ingraham Herzert	JACS JOC	74 (1952) 25 (1960)	2297 405
$C_7H_6O_3$	1-(2'-Furyl)propane-1,2- dione	-	Sol	Stretch freq	Consgrove	JCS	- (1952)	4821
$C_7H_6O_3$	m-Hydroxybenzoic acid	1050-1800 3 μ	- Sol	Spec, Absorption freq Stretch freq, Hammett const	Barnes Ingraham	IEC JACS	15 (1943) 74 (1952)	659 2297
		-	-	Absorbance calculation	Bomstein	AC	25 (1953)	512
		-	-	Dissociation const	Goulden	SA	6 (1954)	129
		-	Sol	Spec, Freq	Forbers	CJC	38 (1960)	728

$C_7H_6O_3$	o-Hydroxybenzoic acid	700-4000	L,S, Sol	Table, Ext ooeff, Freq	Flett	JCS - (1951)	962
		-	-	Absorbance	Bomstein	AC 25 (1953)	512
		-	Sol	caloulation	Bellamy	JCS - (1954)	4487
		-	-	Chelate	Hales	JCS - (1954)	3145
		-	-	Band freq, I	Margoshes	JCP 22 (1954)	381
		-	-	Bond length & Freq	Sawiki	AC 31 (1959)	523
		5.5-6.5 μ	Sol	Bond freq, Ident	Forbers	CJC 38 (1960)	728
		-	Sol	Spec, Freq			
$C_7H_6O_3$	p-Hydroxybenzoic acid	1050-1800	-	Spec, Freq	Barnes	IEC 15 (1943)	659
		700-4000	S,L, Sol	Table, Ext ooeff, Freq	Flett	JCS - (1951)	962
		3 μ	Sol	Stretch freq, Hammett const	Ingraham	JACS 74 (1952)	2297
		-	-	Absorbance caloulation	Bomstein	AC 25 (1953)	512
		-	Sol	Dissociation const	Gowlden	SA 6 (1954)	129
		12-15 μ	L	CH out of phase	Kross	JACS 78 (1956)	1332
		-	Sol	Spec, Freq	Forbers	CJC 38 (1960)	728
		650-900	L,Sol	CH out of phase	Yoshida	CPBT 8 (1960)	389
$C_7H_6O_3$	2-Hydroxy-3-methyl-p- benzoquinone	-	Sol	Shift, Freq assign	Flaig	A 626 (1959)	215
$C_7H_6O_3$	2-Hydroxy-5-methyl-p- benzoquinone	5-15 μ	S,Sol	Table, Substitution effect	Yates	JACS 78 (1956)	650
		-	Sol	Shift, Freq assign	Flaig	A 626 (1959)	215
$C_7H_6O_3$	2-Hydroxy-6-methyl-p- benzoquinone	-	Sol	Shift, Freq assign	Flaig	A 626 (1959)	215
$C_7H_6O_3$	5-Hydroxy-2-methyl-p- benzoquinone	5-15 μ	L	Freq position	Yates	JACS 78 (1956)	650
$C_7H_6O_3$	Hydroxytropolone	-	Sol	Band freq	Bryant	JOC 19 (1954)	1889
$C_7H_6O_3$	Methoxy-p-Benzoquinone	-	Sol	Struct, Bond freq	Cosgrove	JCS - (1952)	4821

				Shift, Freq assign	Flaig	A	626 (1959)	215
$C_7H_6O_3$	5-Methyl-2-furylgllyoxal	-	Sol	Struct, Bond freq	Josgrove	JCS	-	(1952) 4821
$C_7H_6O_3$	Perbenzoic acid	-	Sol	Table, Bond freq	Davison	JCS	-	(1951) 2456
		1460-1100	Sol	Oxidation studies	Briner	CPR	238	(1954) 2211
$C_7H_6O_3S$	3-Carbomethoxy-1,4-thiapyrone	753-1682	S	Table, Group freq, I	Tarbell	JACS	76	(1954) 2451
$C_7H_6O_3S_2$	2-Furyloarboxymethyl dithioacetate	400-4000	S	Spec, Freq	Bak	ACS	12	(1958) 1451
$C_7H_6O_3S_2$	2,4,6-Trihydroxydithio-benzoic acid	600-1900	S	Spec	Jones	JCS	-	(1957) 614
$C_7H_6O_4$	2,4-Dihydroxybenzoic acid	5.5-6.5 μ	Sol	Chelate Ident, Band freq	Bellamy Sawicki	JCS AC	- 31	(1954) (1959) 4481 523
$C_7H_6O_4$	Isoclavacin	-	S	Bond freq, Struct	Grove	JCS	-	(1951) 883
$C_7H_6O_4$	Patulin	5-6.6 μ	Sol	Spec, Quant anal Bond freq	Woodward Grove	JACS JCS	71 -	(1949) (1951) 759 883
$C_7H_6O_4$	2,4,6-Trihydroxy-tropone	667-3359	S	Table	Johns	JCS	-	(1954) 4605
$C_7H_6S_2$	Dithiobenzoic acid	2700-2000	L,Sol	Spec	Allen	JCS	-	(1957) 3912
C_7H_7	Benzyl radical	-	-	Resonance Energy	Szwarc	DPS	2	(1947) 39
C_7H_7	Tropylium ion	633-3080	S,Sol	Table, Group freq, assign, I	Fateley	JACS	77	(1955) 249
		400-3500	Sol	Spec, Assign, Struct, FC, NCA	Fateley	JCP	26	(1957) 1471

C_7H_7D	Toluene-m-d ₁	2-16 μ 3.27-17 μ 500-900	L, Sol Sol Sol	Spec, Table Quant anal Freq, I	Turkevich Tiers Tiers	JACS JCP JCP	71 (1949) 19 (1951) 20 (1952)	4045 1072 761
C_7H_7D	Toluene-o-d ₁	2-16 μ 3.27-17 μ 500-900	L, Sol Sol Sol	Spec, Table Quant anal Freq, I	Turkevich Tiers Tiers	JACS JCP JCP	71 (1949) 19 (1951) 20 (1952)	4045 1072 761
C_7H_7D	Toluene-p-d ₁	2-16 μ 3.27-17 μ 500-900	L, Sol Sol Sol	Spec, Table Quant anal Freq, I	Turkevich Tiers Tiers	JACS JCP JCP	71 (1949) 19 (1951) 20 (1952)	4045 1072 761
C_7H_7D	Toluene- α -d ₁	2-16 μ	L, Sol	Spec, Table	Turkevich	JACS	71 (1949)	4045
C_7H_7DCIN	p-Chloro-N-methyl-aniline-d ₁	-	L	Band freq	Hadzi	JCS	- (1957)	843
C_7H_7DO	Anisole-4-d ₁	500-900	Sol	Freq, I	Tiers	JCP	20 (1952)	761
$C_7H_7DO_2S$	p-Toluene-d ₁ -sulphinic acid	700-3000	S	Struct, Assign, H bond	Detoni	JCS	- (1955)	3163
C_7H_7Br	Benzyl bromide	- 13.5-19 μ 2-15 μ	- L Sol	Thermo Spec Spec, Photobromination	Brickwedde Mortimer Anderson	JCP JACS JCP	13 (1943) 69 (1947) 21 (1953)	547 822 1258
C_7H_7Br	m-Bromotoluene	5-8 μ 9-14 μ	- Sol	C_6H_6 derivatives Freq, I, Dipole moment	Depaigne Cole	JPR TFS	7 (1946) 46 (1950)	33 103
C_6H_6Br	o-Bromotoluene	2-15 μ 700-1000 - -	Sol S, Sol Sol Sol	Spec, Photobromination Binding Freq Anal Anal	Anderson Bellamy Brown Brown	JCP JCS JACS JACS	21 (1953) - (1955) 77 (1955) 77 (1955)	1258 2818 2300 2306
C_6H_6Br	o-Bromotoluene	5-8 μ 2-15 μ -	- Sol Sol	C_6H_6 derivatives Spec, Photo-bromination Anal	Depaigne Anderson Brown	JPR JCP JACS	7 (1946) 21 (1953) 77 (1955)	33 1258 2300

C_7H_7Br	p-Bromotoluene	- 800-1600	Sol -	Anal I, Position of Bands	Brown Katritzky	JACS 77 (1955) 2306 JCS - (1959) 3670
		5-8 μ	-	C_6H_6 derivatives	Depaigne	JPR 7 (1946) 33
		12-14 μ	Sol	Freq, I	Bell	PRS 192 (1948) 498
		9-14 μ	Sol	Freq, I, Dipole moment	Cole	TFS 46 (1950) 103
		-	-	Ident	Haszeldine	JCS - (1952) 993
		2-15 μ	Sol	Spec, Photo-bromination	Anderson	JCP 21 (1953) 1258
		-	Sol	Anal	Brown	JACS 77 (1955) 2300
		-	Sol	Anal	Brown	JACS 77 (1955) 2306
		900-1050	Sol	Rocking mode freq	Randle	JCS - (1955) 3497
		12-15 μ	L, Sol	CH out of phase	Kross	JACS 78 (1956) 1332
		-	Sol	Band I	Randle	TFS 52 (1956) 9
		3400-600	S, Sol	Spec	Sharp	JCS - (1957) 4804
		2700-3000	L, G	Assign	Fuson	BCSJ - (1959) 93
		700-1700	Sol	Freq assign, I	Katritzky	JCS - (1959) 2051
C_7H_7Br	Cycloheptatrienylium bromide	2.88-15.38 μ /S		Table, I	Doering	JACS 76 (1954) 3203
$C_7H_7BrN_2O_2$	N-Methyl-2-nitro-4-bromoaniline	3500-3200	Sol	Freq	Moritz	SA 15 (1959) 242
C_7H_7BrO	p-Bromoanisole	22-39 μ	L	Absorption freq	Plyler	JCP 17 (1949) 218
		-	-	Ident	Haszeldine	JCS - (1952) 993
		600-1700	L	Spec	Lecompte	CPR 249 (1959) 2443
C_7H_7BrO	o-Bromoanisole	1000-1900	-	Spec	Barnes	IEC 15 (1943) 659
		22-39 μ	L	Absorption freq	Plyler	JCP 17 (1949) 218
		800-1600	-	I, Ext coeff	Katritzky	JCS - (1959) 3670
$C_7H_7BrO_3S$	Methyl p-bromobenzenesulphonate	400-4000	S, Sol	Spec, Assign	Freeman	AJC 10 (1957) 239
$C_7H_7Br_3N$	p-Toluidinediazo perbromide	1350-3250	-	Band & Group freq	Aroney	JCS - (1955) 1630

C_7H_7Cl	Benzyl chloride	-	-	Thermo FC	JCP	13 (1945)	547
	-	-	-	Band freq	TFS	41 (1945)	223
	-	-	-	Anal	TFS	46 (1950)	429
	-	-	Sol	CH out of phase	JACS	76 (1954)	5491
625-900	-	-	-	Spec, Anal	SA	7 (1955)	14
2-15 μ	L, Sol	-	-		AC	29 (1957)	63
750-1950	-	-	-	Freq, Spec	IEC	15 (1943)	659
5-8 μ	-	-	-	C_6H_6 derivatives	JPR	7 (1949)	33
5-6 μ	-	-	-	Spec	AC	23 (1951)	709
-	-	-	-	Absorbance study	AC	25 (1953)	512
-	Sol	-	-	Anal	JACS	76 (1954)	5497
2-15 μ	L, Sol	-	-	Spec	AC	29 (1957)	63
700-1700	Sol	-	-	I, Substituent effect	JCS	- (1959)	2058
750-1050	-	-	-	Spec, Freq	IEC	15 (1943)	659
7-14 μ	Sol	-	-	Spec, Anal	IEC	18 (1946)	461
9-14 μ	Sol	-	-	Freq, I, Dipole moment	TFS	46 (1950)	103
-	Sol	-	-	Band freq, H bond	JACS	74 (1952)	3375
-	-	-	-	Absorbance study	AC	25 (1953)	512
-	Sol	-	-	Anal	JACS	76 (1954)	5491
2-15 μ	L, Sol	-	-	Spec, Anal	AC	29 (1957)	63
800-1600	-	-	-	I, Ext coeff	JCS	- (1959)	3670
750-1900	-	-	-	Spec, Freq	IEC	15 (1943)	659
5-8 μ	-	-	-	C_6H_6 derivatives	JPR	7 (1946)	33
7-14 μ	-	-	-	Spec, Anal	IEC	18 (1946)	461
12-14 μ	Sol	-	-	Freq, I	PRS	192 (1948)	498
9-14 μ	Sol	-	-	Freq, I, Dipole moment	TFS	46 (1950)	103
-	-	-	-	Band freq, Absorbance study	AC	25 (1953)	512
-	Sol	-	-	Anal	JACS	76 (1954)	5491
900-1050	Sol	-	-	Rocking mode freq	JCS	- (1955)	3497
12-15 μ	L, Sol	-	-	CH out of phase	JACS	78 (1956)	1332
-	Sol	-	-	Band I	TFS	52 (1956)	9

$C_7H_7ClF_4O$	1-Propoxy-2-chloro-3,3,4,4-tetrafluorocyclobutene-1	2-15 μ 2700-3000 700-1700	L, Sol L, G Sol	Spec, Anal Assign Freq, Assign	Freeman Fuson Katritzky	AC BCSJ JCS	29 (1957) - (1959) - (1959)	63 93 2051
$C_7H_7ClNO_2$	4-Methylsulfonyl-1-amino-2-chlorobenzene	3-15 μ	G, L	Spec, Struct	Park	JACS	73 (1951)	2342
$C_7H_7ClNO_2S$	4-Methylsulfonyl-1-amino-2-chlorobenzene	-	-	Spec	Merian	HCA	43 (1960)	1122
C_7H_7ClNO	2-Acetamido-5-chloropyridine	-	Sol	Spec	Bogomolor	IANS	23 (1959)	1199
$C_7H_7ClNO_2$	N-Methyl-2-nitro-4-chloroaniline	3500-3200	Sol	Freq	Moritz	SA	15 (1959)	242
$C_7H_7ClNO_2$	N-Methyl-N'-4-chlorophenyldiamide dioxide	1600-600	S, Sol	Freq, Assign	George	GJC	37 (1959)	679
$C_7H_7ClNO_2$	N-Methyl-2-nitro-5-chloroaniline	3500-3200	Sol	Freq	Moritz	SA	15 (1959)	242
$C_7H_7ClNO_4S$	1-Chloro-2-nitrobenzene-4-sulfonmethylaniline	-	-	Spec	Merian	HCA	43 (1960)	1122
C_7H_7ClO	m-Chlorobenzyl alcohol	-	-	Iso, Substitution effect	Ok1	BCSJ	32 (1959)	955
C_7H_7ClO	p-Chlorobenzyl alcohol	-	-	Iso, Substitution effect	Ok1	BCSJ	32 (1959)	955
C_7H_7ClO	4-Chloro-3-methylphenol	3500-3800	Sol	Hammett const, Freq	Puttnam	JCS	- (1960)	5100
C_7H_7ClO	Ethynylchloroethynylethylcarbinol	-	-	Band freq	Molamere	JOC	20 (1955)	109
C_7H_7ClO	o-Methoxychlorobenzene	5-8 μ 800-1600	-	C_6H_6 derivatives I, Ext coeff	Delpaigne Katritzky	JPR JCS	7 (1946) - (1959)	33 3670
C_7H_7ClO	p-Methoxychlorobenzene	5-8 μ	-	C_6H_6 derivatives	Delpaigne	JPR	2 (1946)	33

$C_7H_7Cl_3NO_2^B$	3-Carbomethoxyppyridine boron trichloride complex	- -	Sol Sol	Assign Freq, Assign	Katritzky Katritzky	JCS - JCS -	(1958) 2182 (1959) 2049
$C_7H_7Cl_3NO_2^B$	4-Carbomethoxyppyridine boron trichloride complex	- -	Sol Sol	Assign Freq, Assign	Katritzky Katritzky	JCS - JCS -	(1958) 2182 (1959) 2049
$C_7H_7Cl_3OSi$	Trichlorosilylmethyl phenyl ether	-	-	Induction effect	Josien	CPR 249	(1959) 826
C_7H_7F	Benzyl fluoride	3680-3460	Sol	H bond absent	Mcdonald	JCP 23	(1955) 1170
C_7H_7F	m-Fluorotoluene	12-14/ μ 500-1700	Sol L	Freq, I Spec	Bell Thompson	PRS 192 JCS -	(1948) 498 (1948) 1432
		9-14/ μ	Sol	Freq, I, Dipole moment	Cole	TFS 46	(1950) 103
		700-1400	S,Sol	Bending freq	Bellamy	JCS -	(1955) 2818
		-	-	UV anal, Freq	Suryanarayana	TFS 53	(1957) 1570
C_7H_7F	o-Fluorotoluene	12-14/ μ 500-1700	Sol L	Freq, I Spec	Bell Thompson	PRS 192 JCS -	(1948) 498 (1948) 1432
		9-14/ μ	Sol	Freq, I, Dipole moment	Cole	TFS 46	(1950) 103
		2700-3100	-	UV anal, Freq	Suryanarayana	TFS 53	(1957) 1570
C_7H_7F	p-Fluorotoluene	12-14/ μ 500-1700	Sol G,L	Freq, I Spec	Bell Thompson	PRS 192 JCS -	(1948) 498 (1948) 1432
		9-14/ μ	Sol	Freq, I, Dipole moment	Cole	TFS 46	(1950) 103
		-	-	Band freq	Bomstein	AC 25	(1953) 512
		2-38/ μ	L,G	IR, Assign	Ferguson	JCP 21	(1953) 1736
		900-1500	Sol	Rocking mode freq	Randle	JCS -	(1955) 3497
		12-15/ μ	L	Bending freq	Kross	JACS 78	(1956) 1532
		-	Sol	Band I	Randle	TFS 52	(1956) 9
		-	-	UV Anal, Freq	Suryanarayana	TFS 53	(1957) 1570
		2700-3000	G,L	Assign	Fuson	BCSJ -	(1959) 93
$C_7H_7F_7O$	Perfluoropropyl isopropyl ketone	650-500	Sol	Stretch freq	Griffin	SA 16	(1960) 1464
$C_7H_7F_7O$	Perfluoropropyl n- propyl ketone	650-500	Sol	Stretch freq	Griffin	SA 16	(1960) 1464

$C_7H_7F_7O_2$	Isopropyl heptafluoro -n-butyrate	1200-2000	Sol	Band freq	Bender	JACS	75 (1953)	5986
C_7H_7I	Benzyl iodide	-	-	Thermo	Brickwedde	JCP	13 (1945)	547
C_7H_7I	m-Iodotoluene	665-1755	S,Sol	Assign, I	Bell	JCS	- (1960)	1209
C_7H_7I	o-Iodotoluene	5-8 μ 9-14 μ	- Sol	C_6H_6 derivatives Freq, I, Dipole moment	Depaigne Cole	JPR TFS	7 (1946) 46 (1950)	33 103
		700-800	S,Sol	Assign, I	Bell	JCS	- (1960)	1209
C_7H_7I	p-Iodotoluene	5-8 μ 12-14 μ - 9-14 μ	- Sol - Sol	C_6H_6 derivatives Freq, I Spec Freq, I, Dipole moment	Depaigne Bell Richards Cole	JPR PRS PRS TFS	7 (1946) 192 (1948) 195 (1948) 46 (1950)	33 498 1 103
		900-1050 12-15 μ - 2700-3000 700-1700 665-1755	Sol L Sol G,L Sol S,Sol	Rotating mode freq CH out of phase Band I Assign Freq, Assign, I Assign, I	Randle Kross Randle Fuson Katritzky Bell	JCS JACS TFS BCSJ JCS JCS	- (1955) 78 (1956) 52 (1956) - (1959) - (1959) - (1960)	3497 1332 9 93 2051 1209
C_7H_7IO	o-Iodoanisole	665-1755	S,Sol	Assign, I	Bell	JCS	- (1960)	1209
C_7H_7IO	p-Iodoanisole	665-1755	S,Sol	Assign, I	Bell	JCS	- (1960)	1209
C_7H_7IO	m-Iodoxytoluene	665-1755	S,Sol	Assign, I	Bell	JCS	- (1960)	1209
C_7H_7IO	o-Iodoxytoluene	665-1755	S,Sol	Assign, I	Bell	JCS	- (1960)	1209
C_7H_7IO	p-Iodoxytoluene	665-1755	S,Sol	Assign, I	Bell	JCS	- (1960)	1209
$C_7H_7IO_2$	o-Iodoxyanisole	665-1755	S,Sol	Assign, I	Bell	JCS	- (1960)	1209

$C_7H_7IO_2$	p-Iodoxyanisole	665-1755	S, Sol	Assign, I	Bell	JCS - (1960)	1209
C_7H_7N	2,4,6-Heptatriene-nitrile	1-15 μ	-	Spec, Struct	Cairns	JACS 74 (1952)	5636
C_7H_7N	Vinylpyridine	-	-	Anal, Struct Ident	Foster Janz	JACS 75 (1953)	2910
C_7H_7NO	2-Acetylpyridine	-	Sol	Band characteristic, Assign	Katritzky	JACS 75 (1953)	5389
C_7H_7NO	3-Acetylpyridine	-	Sol	Band characteristic, Assign	Katritzky	JCS - (1958)	2182
C_7H_7NO	4-Acetylpyridine	600-3000	Sol	Band characteristic, Assign, Symmetry	Katritzky	JCS - (1958)	3165
C_7H_7NO	2-Aminotropone	-	Sol	Band characteristic, Assign	Katritzky	JCS - (1958)	2182
C_7H_7NO	Benzaldoxime	-	-	Band freq Spec, H bond	Bryant Kuratani	JOC 19 (1954)	1889
C_7H_7NO	Benzamide	3 μ 2.38 μ	Sol	Ident Freq, H bond H bond	Horning Flett Goddu	BCSJ 25 (1952)	250
C_7H_7NO	Benzamide	6400-7100 6500-7100 2700-3800 1050-1800 1750-3600 700-3400	Sol Sol Sol - S, Sol S	Spec, Group anal Spec, H bond Spec, H bond Spec Spec, Assign IR (polarized) FC	Wulf Hilbert Buswell Barnes Richards Mann Richards	JACS 57 (1935)	1464
C_7H_7NO	Benzamide	-	-	Ident	Horning	JACS 58 (1936)	548
C_7H_7NO	Benzamide	700-3500 650-1740 625-900 12-15 μ	S Sol - S	Struct, Vib mode IR freq shift CH out of phase CH out of phase IR carbony freq, K band	Buswell Barnes Richards Mann Richards Kuratani Bellamy Margoshes Kross Exner	JACS 60 (1938)	2444
C_7H_7NO	Benzamide	4000-420	-	Spec, Assign	Gray	IEC 15 (1943)	659
C_7H_7NO	Benzamide	-	Sol	Freq, I, Splitting	Brown	JCS - (1947)	1248
C_7H_7NO	Benzamide	-	Sol	Spec, Assign	Gray	PRS 192 (1948)	489
C_7H_7NO	Benzamide	-	Sol	Spec, Assign	Gray	TFS 44 (1948)	40
C_7H_7NO	Benzamide	-	Sol	Spec, Assign	Gray	JACS 74 (1952)	5151
C_7H_7NO	Benzamide	-	Sol	Spec, Assign	Gray	BCSJ 25 (1952)	258
C_7H_7NO	Benzamide	-	Sol	Spec, Assign	Gray	JCS - (1955)	4221
C_7H_7NO	Benzamide	-	Sol	Spec, Assign	Gray	SA 7 (1955)	14
C_7H_7NO	Benzamide	-	Sol	Spec, Assign	Gray	JACS 78 (1956)	1332
C_7H_7NO	Benzamide	-	Sol	Spec, Assign	Gray	CIL - (1958)	1174
C_7H_7NO	Benzamide	-	Sol	Spec, Assign	Gray	DA 19 (1958)	454
C_7H_7NO	Benzamide	-	Sol	Spec, Assign	Gray	JPC 63 (1959)	1324

$C_7H_7NO_2$	p-Aminobenzoic acid	-	Sol	Bond freq, Chem properties Table, Ext coeff	Flett	TFS	44 (1948)	767
		700-4000	S,L, Sol		Flett	JCS	- (1951)	962
		-	Sol	Dissociation const	Goulden	SA	6 (1954)	129
		-	S	IR & UV Spec	Stimson	AC	26 (1954)	434
		12-15 μ	S,Sol	Bending freq	Kross	JACS	78 (1956)	1332
		2600-800	Sol	NH Band study, Struct	Whetsel	AC	30 (1958)	1598
		600-900	L,Sol	CH out of phase	Yosida	CPBT	8 (1960)	389
$C_7H_7NO_2$	2-Amino-3-hydroxy-tropone	763-3448	S	Table	Johnson	JCS	- (1955)	1841
$C_7H_7NO_2$	Anthranilic acid	1300-3400	S,L	Spec, Struct	Isherwood	N	75 (1955)	419
$C_7H_7NO_2$	2-Methyl-p-benzoquinone -4-oxime	700-3500	S	Struct	Philbrook	JOC	24 (1959)	568
$C_7H_7NO_2$	α -Cyano- γ -vinyl- γ - butyrolactone	3.4-8.6 μ	-	Table, Ident	Zuidema	JACS	75 (1953)	294
$C_7H_7NO_2$	N-Hydroxybenzamide	-	Sol	Spec, Freq	Exner	CIL	- (1958)	1174
$C_7H_7NO_2$	3-Methoxy-2-pyridine- carboxaldehyde	650-4000	Sol,L	Spec, Freq, H bond	Heinert	JACS	81 (1959)	3933
$C_7H_7NO_2$	3-Methoxy-4-pyridine- carboxaldehyde	650-4000	Sol,L	Spec, Freq, H bond	Heinert	JACS	81 (1959)	3933
$C_7H_7NO_2$	Methyl piccolinate	-	Sol	Band characteristic, Assign	Katritzky	JCS	- (1958)	2182
$C_7H_7NO_2$	Methyl nicotinate	2-16 μ	Sol	Spec, Anal	Trenner	AC	23 (1951)	487
		-	-	Anal, Spec	Trenner	APS	7 (1953)	166
		600-3000	Sol	Assign, Symmetry	Katritzky	JCS	- (1958)	2182
		-	Sol	Band characteristic, Assign	Katritzky	JCS	- (1958)	3165

$C_7H_7NO_2$	Methyl isonicotinate	-	Sol	Band characteristic, Assign	Katritzky	JCS	-	(1958)	2182
$C_7H_7NO_2$	m-Nitrotoluene	1-8 μ 3-4 μ 5-8 μ 700-1000 2-15 μ 6-8 μ 700-1700	L L - S,Sol L Sol Sol	Spec, Assign Solvent effect CH derivatives Bending freq Spec, Anal Freq, I I, Substitution of effect	Plyler Williams Depaigne Bellamy Pristera Conduit Katritzky	PR PR JPR JCS AC JCS JCS	35 50 7 - 27 - -	(1930) (1936) (1946) (1955) (1955) (1959) (1959)	605 719 33 2818 217 3273 2058
$C_7H_7NO_2$	o-Nitrotoluene	1-8 μ 0-2 μ - - 5-8 μ 5-6 μ 2-15.4 μ 6-8 μ 800-1600	L - L - - L L L Sol -	Spec, Assign Spec Kerr effect in IR Solvent effect Solvent effect Dispersion study CH derivatives Spec Spec, Anal Freq, I I, Ext coeff	Plyler High Ingersoll Gordy Gordy Davis Depaigne Gordy Pristera Conduit Katritzky	PR PR PR JCP JCP JCSA JPR AC AC JCS JCS	35 38 44 7 7 30 7 23 27 - -	(1930) (1931) (1933) (1939) (1939) (1940) (1946) (1951) (1955) (1959) (1959)	605 1837 399 93 99 488 33 709 217 3273 3670
$C_7H_7NO_2$	p-Nitrotoluene	- 5-8 μ 3380 2-15.3 μ 1300-1600 6-8 μ 2700-3000 700-1700	- - - S S,Sol Sol G,L Sol	Spec CH derivatives Exchang rate Spec, Anal Struot Freq, I Assign Freq, Assign	High Depaigne Gore Pristera Kross Conduit Fuson Katritzky	PR JPR AC AC JACS JCS BSCF JCS	38 7 21 27 78 - - -	(1931) (1946) (1949) (1955) (1956) (1959) (1959) (1959)	1837 33 382 217 4225 3273 93 2051
$C_7H_7NO_2$	N-Phenylhydroxamic acid	700-4000	S,Sol	Spec, H bond	Hadzi	SA	10	(1958)	38
$C_7H_7NO_2$	Phenylnitromethane	-	-	FC	Linnett	TFS	41	(1945)	223

$C_7H_7NO_2$	Pyridinebetaine	2-15 μ	-	Freq, Struct anal	Rasmussen	JACS	71 (1949)	1073
$C_7H_7NO_2$	Salicylamide	6500-7100 1050-1800	Sol	Spec, H bond Spec	Hilbert Barnes	JACS IEC	58 (1936) 15 (1943)	548 659
$C_7H_7NO_2$	Salicylaldehyde oxime	6800-7200 1050-1700	-	Spec, H bond Spec	Hendricks Barnes	JACS IEC	58 (1936) 15 (1943)	1991 659
$C_7H_7NO_2 \cdot HCl$	p-Aminobenzoic acid hydrochloride	-	-	Ident	Flynn	JACS	75 (1953)	5867
$C_7H_7NO_2S$	2-(2'-Furyl)-4-thiazolidone	-	Sol	Bond freq	Pennington	JACS	75 (1953)	109
$C_7H_7NO_2S_2$	2-Pyrrylcarboxymethyl dithioacetate	400-4000	S,Sol	Spec, Freq	Bak	ACS	12 (1958)	1451
$C_7H_7NO_3$	3-Aminosalicylic acid	-	-	Ident	Tener	JACS	75 (1953)	3623
$C_7H_7NO_3$	2-Hydroxymethyl-1,4,5,6-tetrahydro-6-oxonicotinic acid lactone	2-16 μ	S	Spec, Band freq	Ramirez	JOC	19 (1954)	183
$C_7H_7NO_3$	2-Methoxycarbonyl- pyridine-N-oxide	-	Sol	Band characteristic, Assign	Katritzky	JCS	- (1958)	2182
$C_7H_7NO_3$	3-Methoxycarbonyl- pyridine-N-oxide	800-3000	Sol	I, Substitution effect	Katritzky	JCS	- (1958)	2195
$C_7H_7NO_3$	4-Methoxycarbonyl- pyridine-N-oxide	-	Sol	Band characteristic, Assign	Katritzky	JCS	- (1958)	2182
$C_7H_7NO_3$	m-Methoxynitrobenzene	800-3000	Sol	Spec, Freq, I	Katritzky	JCS	- (1959)	3080
$C_7H_7NO_3$	o-Methoxynitrobenzene	800-1600	-	Band characteristic, Assign	Katritzky	JCS	- (1958)	2182
$C_7H_7NO_3$	m-Methoxynitrobenzene	900-3000 700-1700	Sol	Group freq, Assign	Katritzky	JCS	- (1959)	2062
$C_7H_7NO_3$	o-Methoxynitrobenzene	800-1600	-	I, Substitution effect	Katritzky	JCS	- (1959)	2058
$C_7H_7NO_3$	o-Methoxynitrobenzene	800-1600	-	I, Ext coeff	Katritzky	JCS	- (1959)	3670

$C_7H_7NO_3$	2-Methyl-6-oxyni- cotic acid	2-16 μ	S	Spec, Ident	Ramirez	JOC	19 (1954)	183
$C_7H_7NO_3$	p-Nitroanisole	1300-1600 700-1700 900-3000	S, Sol Sol Sol	Struct Freq, Assign Group freq, Assign	Kross Katritzky Katritzky	JACS JCS JCS	78 (1956) - (1959) - (1959)	4225 2062 2062
$C_7H_7NO_3$	m-Nitrobenzyl alcohol	-	-	Substitution effect, Iso	Oki	BCSJ	32 (1959)	955
$C_7H_7NO_3$	p-Nitrobenzyl alcohol	-	-	Substitution effect, Iso	Oki	BCSJ	32 (1959)	955
$C_7H_7NO_5$	Methyl p-nitrobenzene- sulphonate	400-4000	Sol, S	Spec, Assign	Freeman	AJC	10 (1957)	239
C_7H_7NS	Thioformanilide	- 3100-3500	Sol Sol	Freq, Iso Struct	Suzuki Suzuki	NKZ SA	80 (1959) 16 (1960)	697 471
$C_7H_7N_3$	3-Aminoindazole	3448-747	S	Struct, Freq	Aron	CIL	- (1958)	1234
$C_7H_7N_3$	1-Methylbenzotriazole	600-1800	S	Spec, Assign	Lefevre	AJC	6 (1953)	341
$C_7H_7N_3$	5-Methylbenzotriazole	650-1000 -	- S	Freq Freq, H bond	Binder O'Sullivan	JACS JCS	81 (1959) - (1960)	3608 3653
$C_7H_7N_3$	1-Phenyl-1-cyano- hydrazine	-	S	Band freq	Mautner	JACS	77 (1955)	4076
$C_7H_7N_5O$	Benzenediazocarbony- amide	600-1800	S	Spec, Assign	Lefevre	AJC	6 (1953)	341
$C_7H_7N_5O$	5-Methoxybenzotria- zole	650-1000 -	- S	Freq Band freq, H bond	Binder O'Sullivan	JACS JCS	81 (1959) - (1960)	3608 3653
$C_7H_7N_5O_3$	2-Acetamido-5-nitro- pyridine	-	L	Spec	Bogomolv	IANS	23 (1959)	1199

-	-	Thermo	Kassel	JCP	4	(1936)	276
3.2-3.5 μ	Sol	Band freq	Wall	JACS	61	(1939)	1053
-	L	Magnetic double refraction	Davis	JOSA	30	(1940)	488
-	-	Hindered rotation	Langseth	JCP	8	(1940)	415
-	-	Spec, Anal	Gore	IEC	13	(1941)	768
850-1950	-	Absorption freq, Spec	Barnes	IEC	15	(1943)	659
-	-	Thermo, Freq	Pitzer	JACS	65	(1943)	803
-	-	Thermo	Brickwedde	JCP	13	(1945)	547
-	L	Anal	Fuoss	RSI	16	(1945)	53
-	-	FC	Linnett	TFS	41	(1945)	223
5-8 μ	-	Benzene derivatives	Depaigne	JPR	7	(1946)	33
-	-	Anal	Fred	AC	18	(1946)	603
-	-	Vib freq	Taylor	JRNB	38	(1947)	1
12-14 μ	Sol	Freq, I	Bell	PRS	192	(1948)	498
-	-	Anal,	Choppin	JACS	70	(1948)	2520
-	L	Absorption freq	Chulanovskii	IANS	12	(1948)	628
24-40 μ	-	Absorption freq	Plyler	JCP	16	(1948)	1008
-	-	Anal	Saier	AC	28	(1948)	812
800-9000	Sol	Anal	Hibbard	AC	21	(1949)	486
-	-	Anal	Ipattieff	JACS	71	(1949)	2685
2-16 μ	L, Sol	Spec, Table	Turkeerich	JACS	71	(1949)	4045
9-14 μ	Sol	Freq, I, Dipole moment	Cole	TFS	46	(1950)	103
2-15 μ	L	Spectrometer performance	Tetlow	JSI	28	(1951)	161
3.27-17 μ	L	Quat anal	Tiers	JCP	19	(1951)	1072
2-6 μ	L	Spec	Young	AC	23	(1951)	709
3.32-3.56 μ	-	Group Anal	Hastings	AC	24	(1952)	612
-	Sol	IR, Chem, Binding	Mecke	JCP	20	(1952)	1935
-	Sol	Band freq, H bond	Tamres	JACS	74	(1952)	3375
700-900	-	Freq	Tiers	JCP	20	(1952)	761
-	-	Anal, Spec	Werber	JACS	74	(1952)	532
-	Sol	Anal	Williams	AC	24	(1952)	1911
200-275	Sol	Spec	Acquista	JOSA	43	(1953)	977
2-15 μ	L	Spec	Anderson	JCP	21	(1953)	1258
-	-	Struct	Garg	JCP	21	(1953)	1907

				Ident	Doering	JACS	76	(1954)	6162
				Spec	Haller	JCP	22	(1954)	720
				Absorption coeff, Anal	Kovacic	JACS	76	(1954)	5491
				Anal, I	Martin	AC	26	(1954)	1886
				Ident	Moore	JCS	-	(1954)	2089
				Ident	Noyce	JACS	76	(1954)	3630
				Anal	Hawkins	JCS	-	(1955)	1462
				Substituent effect	Margoshes	SA	7	(1955)	14
				Rocking mode freq	Randle	JCS	-	(1955)	3497
				CH out of phase	Kross	JACS	78	(1956)	1332
				Band I	Handle	TFS	52	(1956)	9
				Stretch freq	Tallent	AC	28	(1956)	953
				Solvent effect	Goddu	AC	29	(1957)	1790
				Freq	Podall	AC	29	(1957)	1423
				Spec, Assign	Wilmshurst	CJC	35	(1957)	911
				Group freq	Katritzky	JCS	-	(1958)	4155
				Solvent effect	Matheson	AC	30	(1958)	63
				Spec, Steric effect	Badger	SA	15	(1959)	672
				Spec, Struct	Bentley	SA	15	(1959)	165
				Assign	Fuson	BSCF	-	(1959)	93
				Anal	Jakobsen	AC	31	(1959)	1600
				CH out of phase	Kakiyuchi	NKZ	80	(1959)	28
				Spec	Iecompte	CPR	249	(1959)	2443
				H bond	West	JACS	81	(1959)	1614
				Assign, I	Fuson	SA	16	(1960)	106
				Spec, Struct	Hawkes	SA	16	(1960)	633
				Struct, Ext coeff	Moritz	SA	16	(1960)	74
				Freq, Ext coeff, Assign	Katritzky	JCS	-	(1960)	4497
				FC, Freq	Hadzi	JCS	-	(1957)	843
				Freq	Bryson	JACS	82	(1960)	4858

$C_7H_8ClNO_2S$	p-Chlorophenylmethane-sulfonamide	900-3350	Sol	Freq, Ext coeff, Assign	Katritzky	JCS	-	(1960)	4497
$C_7H_8ClNO_2S$	4-Methylsulfonyl-1-amino-2-chlorobenzene	-	-	Spec	Meriam	HCA	43	(1960)	1122
$C_7H_8ClN_3S$	4-p-Chlorophenylthiosemicarbazide	700-1700	S	Spec, Struct, Assign, Taut	Lieber	CJC	36	(1958)	801
$C_7H_8Cl_2Si$	Methylphenyldichlorosilane	400-5000	Sol	Ident	Smith	AC	31	(1959)	1174
		2-30 μ	Sol	Spec, Struct, Anal	Grenoble	AFS	14	(1960)	85
$C_7H_8F_3I$	6,6,6-Trifluoro-2-iodo-4-methylhexa-2,4-diene	-	-	Group freq	Needham	JCS	-	(1954)	1634
$C_7H_8F_6O$	1,1,2,3,3,3-Hexafluoropropyl n-propyl Ketone	-	-	Bond freq	Lazerte	JACS	77	(1955)	910
$C_7H_8I_2O_2$	Dimethyl-4-pyrone-iodine	-	Sol	Band freq	Glusker	JCS	-	(1955)	471
$C_7H_8N_2$	1,4-Dicyano-2-methyl-2-butene	-	-	Bond freq	Kitson	AC	24	(1952)	334
$C_7H_8N_2$	1,4-Dicyano-3-methyl-1-butene	-	-	Bond freq	Kitson	AC	24	(1952)	334
$C_7H_8N_2$	2,5-Dimethyl-4-cyano-pyrrole	500-4000	Sol	Spec, Struct, Stretch freq	Eisner	JCS	-	(1958)	971
$C_7H_8N_2$	5-Methylbenzimidazole	650-1000	-	Freq	Binder	JACS	81	(1959)	3608
$C_7H_8N_2O$	2-Acetylaminopyridine	-	Sol	I, Assign, Struct	Katritzky	JCS	-	(1959)	2067
$C_7H_8N_2O$	3-Acetylaminopyridine	600-3000	Sol	Vib assign, Symmetry	Katritzky	JCS	-	(1958)	3165
		-	Sol	I assign, Struct	Katritzky	JCS	-	(1959)	2067

$C_7H_8N_2O$	4-Acetylaminopyridine	-	Sol	I Assign, Struct	Katritzky	JCS	-	(1959)	2067
$C_7H_8N_2O$	N-Aminobenzamide	-	Sol	IR Carbon-1 freq, K Band freq	Exner	CIL	-	(1958)	1174
$C_7H_8N_2O$	2-Hydrazinotropone	-	Sol	Band freq	Bryant	JOC	19	(1954)	1889
$C_7H_8N_2O$	N-Methyl-N'-phenyl-diimide-N'-monoxide	1800-800	L,S, Sol	Freq, Assign	George	CJC	37	(1959)	679
$C_7H_8N_2O$	N-Nitroso-N-methyl aniline	2-15 μ	L	Spec	Earl	JCS	-	(1951)	2207
$C_7H_8N_2O$	N-Phenylurea	1250-17000	-	Spec	Barnes	IEC	15	(1943)	659
$C_7H_8N_2O$	Salicylaldehydehydrazone	6200-6900	Sol	Spec, H bond	Hendrioks	JACS	58	(1936)	1991
$C_7H_8N_2O_2$	α -Acetamidopyridine -N-Oxide	800-3000	Sol	Substituent effect, I	Katritzky	JCS	-	(1958)	2195
$C_7H_8N_2O_2$	α -Acetoxylutaronitrile	-	Sol	I, Assign, Struct	Katritzky	JCS	-	(1959)	2067
$C_7H_8N_2O_2$	3-Acetylaminopyridine -N-Oxide	-	-	Ident, Band study	Smith	JACS	73	(1951)	5282
$C_7H_8N_2O_2$	4-Acetylaminopyridine -N-Oxide	-	Sol	I assign, Struct	Katritzky	JCS	-	(1959)	2067
$C_7H_8N_2O_2$	4-Acetylaminopyridine -N-Oxide	-	Sol	I assign, Struct	Katritzky	JCS	-	(1959)	2067
$C_7H_8N_2O_2$	o-Anthranoylhydroxylamine	-	S	Freq	Freeman	JACS	80	(1958)	5954
$C_7H_8N_2O_2$	N-Methyl-o-nitroaniline	3500-3200	Sol	Freq	Moritz	SA	15	(1959)	242
$C_7H_8N_2O_2$	N-Methyl-p-nitroaniline	1300-1600 700-1700	S,Sol Sol	Struct Freq assign, Substituent effect	Kross Katritzky	JACS JCS	78 -	(1956) (1959)	4225 2051
$C_7H_8N_2O_2$	N-Methyl-N'-phenyl diimide dioxide	1600-600	L,S, Sol	Freq, Assign	George	CJC	37	(1959)	679

$C_7H_8N_2O_2$	2-Nitro-3-methyl-aniline	3600-1250 - 3000-3600	Sol Sol Sol	Freq , H bond Freq , H bond Freq	Dyall Dyall Hamblly	AJC 11 (1958) CIL - (1958) AJC 11 (1958)	513 262 529
$C_7H_8N_2O_2$	2-Nitro-6-methyl-aniline	3600-1250 - 3000-3600	Sol Sol Sol	Freq, H bond Freq , H bond Freq	Dyall Dyall Hamblly	AJC 11 (1958) CIL - (1958) AJC 11 (1958)	513 262 529
$C_7H_8N_2O_2$	5-Nitro-o-toluidine	700-1800	L,S	Struot freq, I	Randle	JCS - (1952)	4153
$C_7H_8N_2O_3$	2-Nitro-3-methoxy-aniline	3600-1250 - 3000-3600	Sol Sol Sol	Freq , H bond Freq , H bond Freq	Dyall Dyall Hamblly	AJC 11 (1958) CIL - (1958) AJC 11 (1958)	513 262 529
$C_7H_8N_2O_3$	2-Nitro-4-methoxy-aniline	3600-1250 3000-3600	Sol Sol	Freq , H bond Freq	Dyall Hamblly	AJC 11 (1958) AJC 11 (1958)	513 529
$C_7H_8N_2O_3$	2-Nitro-6-methoxy-aniline	3600-1250 - 3000-3600	Sol Sol Sol	Freq , H bond Freq , H bond Freq	Dyall Dyall Hamblly	AJC 11 (1958) CIL - (1958) AJC 11 (1958)	513 262 529
$C_7H_8N_2O_3$	3-Methoxy-5-nitroaniline	-	Sol	Freq	Bryson	JACS 82 (1960)	4858
$C_7H_8N_2O_3$	2,5-Dimethyl-4-cyano-pyrrole-3-oxime	500-4000	S	Spec, Freq , Struot	Eisner	JCS - (1958)	971
$C_7H_8N_4$	1- α -Pyridyl-2-azido-ethane	2-16 μ	Sol	Spec	Boyer	JACS 73 (1951)	5248
$C_7H_8N_4O$	1,6-Dihydro-1,7-dimethyl-6-oxopurine	-	Sol	Freq , Spec, Struot	Brown	JCS - (1957)	682
$C_7H_8N_4O$	7,8-Dihydro-7,9-dimethyl-8-oxopurine	-	Sol	Freq , Spec, Struot	Brown	JCS - (1957)	682
$C_7H_8N_4O_2$	N-Phenyl-N'-nitroguanidine	2-15 μ	-	Spec, Freq	Lieber	AC 23 (1951)	1594

$C_7H_8N_4O_2$	Theobromine	2-15 μ	S	Spec	Blout	JACS	72 (1950)	479
$C_7H_8N_4O_2$	Theophylline	2-15 μ	S	Spec	Blout	JACS	72 (1950)	479
$C_7H_8N_4O_7$	Methylamine picrate	-	-	Ident	Snyder	JACS	76 (1954)	2819
$C_7H_8N_6O_7$	Guanidine picrate	-	S	IR	Mitchell	JACS	65 (1943)	128
C_7H_8O	Anisole	850-2000 3-20 μ 5-8 μ 5-6 μ 2-12 μ - 625-900 12-15 μ 700-5000 - - 400-600 - - 900-3000 1000-1700 700-4000	- - L - L Sol Sol - L, Sol L, Sol - - Sol Sol - Sol Sol Sol, L	Bond freq Absorption freq, Spec Spec Benzene derivatives Spec Spec, Struot Anal Substitution effect Bending freq shift Group freq Group study Solvent effect Substitution effect Assign, Freq shift Vib, Freq assign Group freq, Assign Band study, Ident Freq, Extinction coeff	Bonino Barnes Torkington Depaigne Young O'Connor Detar Margoshes Kross Briggs Henbest Pinchas Katritzky Flaig Kakiyuchi Katritzky Buckles Maine	TFS IEC TFS JPR AC JACS JACS SA JACS AC JCS AC JCS A NKZ JCS JACS CJC	25 (1929) 15 (1943) 41 (1945) 7 (1946) 23 (1951) 76 (1954) 77 (1955) 7 (1955) 78 (1956) 29 (1957) - (1957) 29 (1957) - (1958) 626 (1959) 80 (1959) - (1959) 82 (1960) 38 (1960)	876 659 184 33 709 2368 1745 14 1332 904 1462 334 4155 215 28 2062 2444 1921
C_7H_8O	Benzyl alcohol	2800-3800 2.5-3.9 μ 2837-3175 2990-2830 2.7-2.9 μ 2.66-3.3 μ 2400-3800 2400-3600 - 2.65-2.9 μ	L, Sol Sol Sol Sol Sol L, Sol Sol L, Sol - Sol	Spec, H bond Spec, I Band freq Spec, Ext coeff Spec, Anal Spec, H bond Spec Spec FC Spec	Bushwell Fox Errera Fox Davies Fox Muller Barnes Linnett Bushwell	JCP PRS TFS PRS JCP TFS IEC IEC TFS JACS	5 (1937) 162 (1937) 34 (1938) 167 (1938) 8 (1940) 36 (1940) 13 (1941) 15 (1943) 41 (1945) 69 (1947)	501 419 728 257 577 897 667 659 223 770

C_7H_8O	Bicyclo-[3,2,0]-2-hepten-6-one	700-1500	L	Spec, Assign	Richards	JCS	-	(1947)	1260
		-	L	Band diagram	Thompson	JCS	-	(1947)	289
		97-1.93 μ	-	Spec	Ciccone	NC	6	(1948)	489
		-	-	FC	Richards	TFS	44	(1948)	40
		3.2-3.6 μ	-	Spec anal	Saier	AC	20	(1948)	812
		-	-	H bond	Coggeshall	JCP	18	(1950)	978
		3.2-2.7 μ	Sol	H bond, Spec, Equil const	Coggeshall	JACS	73	(1951)	5414
		665-5000	L	Bond freq	Zeiss	JACS	75	(1953)	897
		2-12 μ	Sol	Spec, Struct	O'Connor	JACS	76	(1954)	2368
		-	Sol	Anal	Deyar	JACS	77	(1955)	1745
C_7H_8O	m-Cresol	625-900	-	Substituent effect	Margoshes	SA	7	(1955)	14
		3680-3460	Sol	H bond absent	McDonald	JCP	23	(1955)	117
		12-15 μ	L,Sol	Bend freq shift	Kross	JACS	78	(1956)	1332
		3 μ	Sol	H bond, Freq	Flett	SA	10	(1958)	21
		1.4 μ	Sol	H bond, I	Goldman	JOC	23	(1958)	751
		4000-600	Sol	Substitution effect	Katritzky	JCS	-	(1958)	4155
		3570-3700	Sol	H bond, Freq, I	Flynn	AJC	12	(1959)	575
		-	-	Band assign	Michinori	BCSJ	32	(1959)	950
		700-4000	L,Sol	Freq, Ext coeff	DeMaine	CJC	38	(1960)	1921
		2-16 μ	Sol	Spec, Carbonyl band	Roberts	JACS	74	(1952)	2278
C_7H_8O	m-Cresol	700-1300	Sol	Spec, Anal, Assign	Whiffen	JCS	-	(1945)	268
		700-1200	Sol	Spec	Whiffen	TFS	41	(1945)	200
		5-8 μ	-	Benzene derivatives	Depaigne	JPR	7	(1946)	33
		-	Sol	Anal, Beer's Law	Friedel	AC	22	(1950)	418
		-	Sol	Anal, Iso	Knapp	AC	22	(1950)	1408
		2.5-15 μ	Sol	Spec, Band freq, Table, I	Friedel	JACS	73	(1951)	2881
		2.84 μ	Sol	Anal	Simard	AC	23	(1951)	1384
		3 μ	Sol	Stretch freq, Hammeth const	Ingraham	JACS	74	(1952)	2297
		-	-	Anal	Meissner	JACS	74	(1952)	1000
		-	-	Ident	Vanmeter	AC	24	(1952)	1758
C_7H_8O	m-Cresol	-	-	Absorption study	Bomstein	AC	25	(1952)	512
		11-14 μ	Sol	Spec, Anal	Fair	AC	27	(1955)	1886
		-	Sol	Bending freq	Bellamy	JCS	-	(1955)	2818
		-	Sol						



o-Cresol

-	Sol	Impurity study	Kamada	JA	4	(1955)	545
1650-2000	-	Bending freq, Assign	Whiffen	SA	7	(1955)	253
-	Sol	Freq	Bavin	CJC	35	(1957)	1555
-	Sol	Stretch freq, Hammeth const	Baker	JPC	62	(1958)	744
3570-3700	Sol	Freq, H bond, I	Flynn	AJC	12	(1959)	575
700-1700	Sol	Position shift, I	Katritzky	JCS	-	(1959)	2058
3500-3000	Sol	Freq, Hammeth const	Puttnam	JCS	-	(1960)	5100
640-1400	Sol	Spec	Shrewsbury	SA	16	(1960)	1294
6900-7200	Sol	Band freq	Wulf	JACS	58	(1936)	2287
700-1300	Sol	Spec, Anal, Assign	Whiffen	JCS	-	(1945)	268
700-1200	Sol	Spec	Whiffen	TFS	41	(1945)	200
5-8 μ	-	CH derivatives	Depaigne	JPR	7	(1946)	33
5-15 μ	L,S	Spec	Kletz	JCS	-	(1947)	644
-	-	Anal	Ciccone	NC	6	(1950)	500
-	Sol	Anal, Beer's Law	Friedel	AC	22	(1950)	418
-	Sol	Anal, Iso	Knapp	AC	22	(1950)	1408
2.5-15 μ	Sol	Spec, Band freq, Table, I	Friedel	JACS	73	(1951)	2881
2.84 μ	Sol	Anal	Simard	AC	23	(1951)	1384
-	-	Anal	Meissner	JACS	74	(1952)	1000
8-15 μ	Sol	Spec, Anal	Vanmeter	AC	24	(1952)	1758
-	-	Absorbance study	Bomstein	AC	25	(1953)	512
11-14 μ	Sol	Spec, Anal	Fair	AC	27	(1955)	1886
-	Sol	Impurity determination	Kamada	JA	4	(1955)	545
1650-2000	-	CH bending vib, Freq assign	Whiffen	SA	7	(1955)	253
-	Sol	Freq	Bavin	CJC	35	(1957)	1555
3100-3550	Sol	H bond	Lund	ACS	12	(1958)	298
3570-3700	Sol	Freq, I, H bond	Flynn	AJC	12	(1959)	575
800-1600	-	I, Ext coeff	Katritzky	JCS	-	(1959)	3670
-	Sol	Spec	Goddu	JACS	82	(1960)	4533
900-1300	Sol	Freq	Puttnam	JCS	-	(1960)	2934
3500-3800	Sol	Freq, Hammeth const	Puttnam	JCS	-	(1960)	5100
-	Sol	Chemical shift, H bond	Reeves	CJC	38	(1960)	1249
650-1400	Sol	Spec	Shrewsbury	SA	16	(1960)	1294

C ₇ H ₈ ⁰	p-Cresol		Electric moment	Williams	CR		
-	-	-	Spec, Anal, Assign	Williams	CR	6	(1929)
700-1300	Sol	-	Spec	Wifien	JCS	-	(1945)
700-1200	Sol	-	Spec	Wifien	TFS	41	(1945)
5-8 μ	-	-	CH derivatives	Depaigne	JPR	7	(1946)
5-15 μ	L, Sol	-	Freq shift	Coggeshall	JACS	69	(1947)
2.2-3.6 μ	Sol	-	Spec, Table	Kletz	JCS	-	(1947)
3 μ	L, S, Sol	-	H bond	Hukins	JCS	-	(1949)
-	-	-	Anal	Sears	JACS	71	(1949)
-	-	-	Anal, Beer's Law	Giocone	NC	6	(1950)
-	Sol	-	Anal, Iso	Friedel	AC	22	(1950)
2.5-15 μ	Sol	-	Spec, Table, I, Band freq	Knapp	AC	22	(1950)
2-14 μ	Sol	-	Spec	Friedel	JACS	73	(1951)
2.84 μ	Sol	-	Anal	Robinson	AC	23	(1951)
-	G	-	Freq	Simard	AC	23	(1951)
3 μ	Sol	-	Stretch freq, Hammett const	Imanishi	JCP	20	(1952)
-	-	-	Anal	Ingraham	JACS	74	(1952)
-	-	-	Ident	Meissner	JACS	74	(1952)
-	-	-	Band freq, Absorbance	Vanneter	AC	24	(1952)
-	Sol	-	Dissociation const	Bomstein	AC	25	(1953)
11-14 μ	Sol	-	Spec, Anal	Goulden	SA	6	(1954)
-	Sol	-	Impurity determination	Fair	AC	27	(1955)
1650-2000	-	-	C-H bending vib, Freq assign	Kamada	JA	4	(1955)
-	Sol	-	Stretch freq	Whiffen	SA	7	(1955)
3 μ	Sol	-	Freq, H bond	Baker	JPC	62	(1958)
3100-3550	Sol	-	H bond	Flett	SA	10	(1958)
3 μ	Sol	-	Bond dipole and length, I	Lund	ACS	12	(1958)
-	Sol	-	Substitution effect	Moccia	PRS	243	(1958)
3570-3700	Sol	-	Freq, I, H bond	Stone	SA	10	(1958)
2700-3000	G, L	-	Assign	Flynn	AJC	12	(1959)
3500-3800	Sol	-	Freq, Hammett const	Fuson	BSCF	-	(1959)
650-1400	Sol	-	Spec	Putnam	JCS	-	(1960)
				Shrewsbury	SA	16	(1960)

C_7H_8O	Cycloheptadien-2,4-one	-	L	Ident	Meinwald	JACS	77 (1955)	4401
C_7H_8O	Cycloheptadien-3,5-one	2-15 μ	S	Spec	Meinwald	JACS	77 (1955)	4401
C_7H_8O	Hept-2-en-6-ynal	-	-	Bond freq	Shaw	JCS	- (1954)	3217
C_7H_8OS	5-Methyl-2-acetyl-thiophene	-	-	Spec	Otsuji	NKZ	80 (1959)	1199
C_7H_8OS	Methyl phenyl sulfoxide	7-10 μ	Sol	Freq assign	Haszeldine	JCS	- (1955)	2901
$C_7H_8O_2$	2,6-Dimethylpyrone	1400-1700	-	Interchange study Assign	Lord Tsubomura	AC JCP	26 (1954) 28 (1958)	429 355
$C_7H_8O_2$	Hept-2-en-6-ynoic acid	-	-	Group freq	Shaw	JCS	- (1954)	3217
$C_7H_8O_2$	trans-5-Hepten-3-ynoic acid	-	Sol	Group freq, I	Allan	JCS	- (1954)	1874
$C_7H_8O_2$	o-Hydroxybenzyl alcohol	2.7-3.1 μ 3100-3700	Sol S, Sol	Spec Spec, Assign	Davies Richards	TFS JCS	36 (1940) - (1947)	1114 1260
		-	Sol	Spec	Martin	N	166 (1950)	474
		-	Sol	Anal	Smith	AC	24 (1952)	497
$C_7H_8O_2$	p-Hydroxybenzyl alcohol	-	-	Ident	Martin	JACS	74 (1952)	4208
		-	-	Ident	Martin	JACS	74 (1952)	3024
$C_7H_8O_2$	m-Methoxyphenol	-	Sol	Stretch freq, Hammett o onst	Baker	JPC	62 (1958)	744
		-	Sol	Substitution effect	Stone	SA	10 (1958)	17
		3570-3700	Sol	H bond, Freq, I	Flynn	AJC	12 (1959)	575
		700-1700	Sol	Position shift, I	Katritzky	JCS	- (1959)	2058
		900-3000	Sol	Group freq, Assign	Katritzky	JCS	- (1959)	2062
		3500-3800	Sol	Freq, Hammett o onst	Puttnam	JCS	- (1960)	5100
$C_7H_8O_2$	o-Methoxyphenol	6000-1700	Sol	Band freq	Wulf	JACS	58 (1936)	2287
		-	-	Absorption band	Wulf	JCP	6 (1938)	702
		750-1950	-	Absorption freq, Spec	Barnes	IEC	15 (1943)	659
		600-1400	Sol	Spec, Anal	Rosenwald	JACS	74 (1952)	4602

$C_7H_8O_2S$	Ethyl 2-theonate	800-2000 800-1500 -	L Sol -	Position & I of bands Band assign Band characteristics, Assign	Katritzky Katritzky Katritzky	JCS SA SA	- 16 16	(1959) (1960) (1960)	3500 954 964
$C_7H_8O_2S$	Phenyl methyl sulfone	1080-1350	$L, S,$ Sol	Spec, Table, H bond	Barnard	JCS	-	(1949)	2442
		700-3000 - -	L Sol S, Sol	Spec, Struct, H bond Freq Substituent effect	Detoni Rogers Momose	JCS JACS CPBT	- 78 6	(1955) (1956) (1958)	3163 1790 412
$C_7H_8O_2S$	Toluene-p-sulphinic acid	700-3300	S, Sol	Spec, Struct assign, H bond	Detoni	JCS	-	(1955)	3163
		600-4000	S	Group study	Braunholtz	JCS	-	(1959)	868
$C_7H_8O_2Se$	p-Totylselenous acid	600-4000	S, Sol	Group presence study	Braunholtz	JCS	-	(1959)	868
$C_7H_8O_3$	Ethyl 2-furoate	800-1700 800-1500 -	Sol Sol -	Freq assign Band assign Band study, Assign	Katritzky Katritzky Katritzky	JCS SA SA	- 16 16	(1959) (1960) (1960)	657 954 964
$C_7H_8O_3$	2-Formylcyclohexane-1, 3-dione	-	L, S	Band freq	Rogers	JCS	-	(1955)	341
$C_7H_8O_3$	4-Keto-2-methylcyclo- pent-2-ene-1-carboxylic acid	-	-	Group freq, Struct	Acheson	JCS	-	(1952)	1127
$C_7H_8O_3$	4-Methoxycatechol	3μ	Sol	Stretch freq, Hammett const	Ingraham	JACS	74	(1952)	2297
$C_7H_8O_3$	Methyl m-hydroxy- benzoate	-	L, Sol	Group freq	Duncanson	JCS	-	(1953)	1331
$C_7H_8O_3$	Methyl salicylate	-	Sol	H bond	Tsuboi	BSCJ	25	(1952)	60
$C_7H_8O_3S$	p-Hydroxyphenyl methyl sulfone	-	S, Sol	Substituent effect	Momose	CPBT	6	(1958)	412

$C_7H_8O_3S$	o-Methoxybenzene-sulphinic acid	700-3000	S, Sol	Spec, Struct assign, H bond	Detoni	JCS - (1955)	3163
$C_7H_8O_3S$	Methyl benzene-sulphonate	400-3500 400-4000	L L	Freq, Assign Spec, Assign	Ham Freeman	AJC 6 (1953) AJC 10 (1957)	135 239
$C_7H_8O_3S$	p-Toluenesulfonic acid	1000-1500 2-11 μ	Sol S	Spec Spec	Schreiber Waldock	AC 21 (1949) JPC 56 (1952)	1168 654
$C_7H_8O_3S \cdot H_2O$	p-Toluenesulfonic acid hydrate	800-1620	S	Band freq	Trpson	JACS 74 (1952)	1354
$C_7H_8O_4$	Allyl fumarate	2-15 μ	L	Assign, Generalisation	Walton	JACS 79 (1957)	3985
$C_7H_8O_4$	β -Acetyl- α -methoxy- $\Delta^{\alpha,\beta}$ butenolide	-	L	Band freq	Grove	JCS - (1951)	883
$C_7H_8O_4$	4-Carboxy-4-hydroxy-2,3-dimethylbut-2-enoic lactone	732-2747	S	Table, Group freq	Ames	JCS - (1954)	375
$C_7H_8O_4$	Isopropylacetylene-dicarboxylate	2-15 μ	L	Spec, Assign, Generalisation	Walton	JACS 79 (1957)	3985
$C_7H_8O_5$	5-Dehydroshikimic acid	700-5000	S	Spec	Weiss	JACS 75 (1953)	5572
$C_7H_8O_6$	Diacetoxycrylic acid	2.84-12.5 μ	Sol	Table, Group freq, I	Goodwin	JACS 76 (1954)	5599
C_7H_8S	Benzylmercaptan	6-2.8 μ 2.75-4.25 μ 3.5-4.5 μ - -	L L Sol - -	Bond study Bond freq H bond Thermo Bond freq	Ellis Williams Gordy Brickwedde Sheppard	JACS 50 (1928) PR 54 (1938) JACS 62 (1940) JCP 13 (1945) TFS 46 (1950)	2113 504 497 547 429
C_7H_8S	p-Mercaptotoluene	2700-3000	G, L	Assign	Fuson	BSCF - (1959)	93

C_7H_9Br	2-Bromobicyclo[2,2,1]heptene-2	3.2-15.9 μ	-	Table, I	Kwart	JACS	76 (1954)	4072
C_7H_9Br	5-Bromobicyclo[2,2,1]heptene-2	-	-	Group freq	Mcbee	JACS	77 (1955)	915
C_7H_9Br	7-Bromobicyclo[2,2,1]heptene-2	3.2-14.6 μ	-	Table, I	Kwart	JACS	76 (1954)	4072
C_7H_9Br	3-Bromotricyclo[2,2,1 ⁰ 2,6]-heptane	2.5-15 μ	Sol	Spec	Roberts	JACS	72 (1950)	3116
C_7H_9Br	7-Bromotricyclo[2,2,1 ⁰ 2,6]-heptane	-	-	Solvolysis rate	Roberts	JACS	72 (1950)	3329
C_7H_9Br	endo-Dehydronorbornyl bromide	3.3-15 μ	-	Table I	Kwart	JACS	76 (1954)	4072
C_7H_9Br	endo-Dehydronorbornyl bromide	-	-	Solvolysis rate	Roberts	JACS	72 (1950)	3329
C_7H_9BrO	Cyclopropylmethyl-bromoethynylcarbinol	-	-	Weak band	McLamore	JOC	20 (1955)	109
C_7H_9BrO	Ethylvinylbromoethynyl-carbinol	-	-	Weak band	McLamore	JOC	20 (1955)	109
C_7H_9BrO	Methyl α -methylvinyl-bromoethynylcarbinol	-	-	Weak band	McLamore	JOC	20 (1955)	109
C_7H_9Cl	5-Chlorobicyclo[2,2,1]-2-heptene	-	-	Group freq	Mcbee	JACS	77 (1955)	915
C_7H_9Cl	anti-7-Chloronorbornene	2-16 μ	Sol	Spec	Roberts	JACS	76 (1954)	5692
C_7H_9Cl	syn-7-Chloronorbornene	2-16 μ	Sol	Spec	Roberts	JACS	76 (1954)	5692
C_7H_9Cl	endo-Dehydronorbornyl chloride	2.5-15 μ	Sol	Spec, Solvolysis rate	Roberts	JACS	72 (1950)	3329

C_7H_9Cl	exo-Dehydronorbornyl chloride	2.5-15 μ	Sol	Spec, Solvolysis rate	Roberts	JACS	72 (1950)	3329
C_7H_9Cl	Nortriocyl chloride	2-16 μ	Sol	Spec, Characteristic freq Ident	Roberts	JACS	76 (1954)	4623
C_7H_9ClO	Cyclopropylmethyl-chloroethynylcarbinol	-	-	Weak band	Roberts	JACS	76 (1954)	5692
C_7H_9ClO	Ethylvinylchloro-ethynylcarbinol	-	-	Weak band	McLamore	JOC	20 (1955)	109
$C_7H_9ClF_2O_3$	1,3,3-Trimethoxy-2-chloro-4,4-difluorocyclobutene-1	2.5-15 μ	L, Sol	Spec, Struct	Park	JACS	73 (1951)	2342
C_7H_9ClSi	o-Chlorobenzylsilane	2-16 μ	Sol	Freq, Vib	Kniseley	SA	15 (1959)	651
C_7H_9ClSi	m-Chlorophenylmethylsilane	2050-2250	Sol	Struct, Freq	Smith	SA	1 (1959)	412
C_7H_9ClSi	p-Chlorophenylmethylsilane	2050-2250	Sol	Struct, Freq	Smith	SA	15 (1959)	412
C_7H_9ClSi	Methylphenylchlorosilane	2050-2250 400-4000	Sol	Struct, Freq Freq, Spec, Struct	Smith Smith	SA SA	15 (1959) 16 (1960)	412 87
$C_7H_9Cl_2F_3O$	1-n-Butoxy-1,2-dichloro-3,3,3-trifluoro-1-propene	2-15 μ	L	Spec, Struct	Park	JACS	74 (1952)	4104
$C_7H_9Cl_3F_4Si$	2,2,3,3-Tetrafluorocyclobutylpropyltrichlorosilane	10.85-11.1 μ	-	Freq	Park	JOC	25 (1960)	1628
$C_7H_9Cl_3NB$	4-Ethylpyridine-boron trichloride	-	Sol	Freq, Assign	Katritzky	JCS	- (1959)	2049

$C_7H_9Cl_5F_2Si$	2,2-Dichloro-3,3-difluorocyclobutyl-propyltrichlorosilane	10.85-11.1 μ	-	Freq	Park	JOC	25 (1960)	1628
$C_7H_9F_3NO_3P$	Anilinium trifluoromethyl acid phosphonate	-	-	Band freq	Emeleus	JCS	- (1955)	563
$C_7H_9F_5O$	Pentafluoroethyl n-butyl ketone	650-5000	Sol	Stretch freq	Griffin	SA	16 (1960)	1464
$C_7H_9F_7O$	1,1,1,2,2,3,3-Heptafluoroheptanol-4	-	Sol	Band freq, H bond	Haszeldine	JCS	- (1953)	1757
		-	L	Group freq, I, Acidity	Henne	JACS	75 (1953)	991
C_7H_9N	Benzylamine	2-12 μ	L	Spec	Bell	JACS	48 (1926)	818
		6-2.4 μ	L	Bond study	Ellis	JACS	50 (1928)	685
		6400-6800	Sol	Band study	Liddel	JACS	55 (1933)	3574
		-	-	FC	Linnett	TFS	41 (1945)	223
C_7H_9N	3-Cyanocyclohexene	-	L	Ident	Janz	JACS	75 (1953)	5389
C_7H_9N	2,3-Dimethylpyridine	750-2000	-	Spec	Barnes	IEC	15 (1943)	659
		-	-	Ident	VanMeter	AC	24 (1952)	1758
		-	-	Impurity determination	Cox	JCS	- (1954)	3183
		-	L	Absorbance, Anal	Cook	AC	28 (1956)	993
		2-15 μ	Sol	Characteristic freq	Podall	AC	29 (1957)	1423
		700-1300	-	Characteristic freq	Bohon	AC	30 (1958)	245
C_7H_9N	2,4-Dimethylpyridine	800-1950	-	Spec	Barnes	IEC	15 (1943)	659
		-	-	Ident	Vanmeter	AC	24 (1952)	1758
		-	-	Impurity determination	Cox	JCS	- (1954)	3183
		-	L	Absorbance, Anal	Cook	AC	28 (1956)	993
		2-15 μ	L	Characteristic freq	Podall	AC	29 (1957)	1423
		675-1700	-	Characteristic freq	Bohon	AC	30 (1958)	245
C_7H_9N	2,5-Dimethylpyridine	-	L	Absorbance, Anal	Cook	AC	28 (1956)	993
		2-15 μ	Sol	Characteristic freq	Podall	AC	29 (1957)	1423
		675-1700	-	Characteristic freq	Bohon	AC	30 (1958)	245

C_7H_9N	2,6-Dimethylpyridine	-	750-1700	-	Spec	Barnes	IEC	15	(1943)	659
		L	650-2040	-	Spec	Cannon	SA	4	(1951)	373
		L	2800-4200	-	Spec, Band anal	Coulson	JCS	-	(1951)	2125
		L, Sol	-	-	Anal, Ext coeff	Densham	JCS	-	(1952)	2433
		-	-	-	Ident	VanMeter	AC	24	(1952)	1758
		G, L	716-4330	-	Table, I	Biddiscoube	JCS	-	(1954)	1957
		-	-	-	Review	Brown	JACS	76	(1954)	5556
		L	-	-	Absorbance, Anal	Cook	AC	28	(1956)	993
		L	2-15 μ	-	Characteristic freq	Podall	AC	29	(1957)	1423
		-	400-1700	-	Characteristic freq	Bohon	AC	30	(1958)	245
C_7H_9N	3,4-Dimethylpyridine	-	-	-	Ident	VanMeter	AC	24	(1952)	1758
		-	-	-	Ident	Cox	JCS	-	(1954)	3183
		L	-	-	Absorbance, Anal	Cook	AC	28	(1956)	993
		-	-	-	Impurity determination	Brown	JACS	76	(1954)	5556
C_7H_9N	3,5-Dimethylpyridine	-	-	-	Ident	Cox	JCS	-	(1954)	3183
		Sol	400-1700	-	Characteristic freq	Bohon	AC	30	(1958)	245
		L, Sol	-	-	Band freq, Ident, Anal	Deusham	JCS	-	(1952)	5044
		L	-	-	Ident	Cox	JCS	-	(1954)	3183
C_7H_9N	2-Ethylpyridine	L	-	-	Absorbance, Anal	Cook	AC	28	(1956)	993
		L	2-15 μ	-	Table	Podall	AC	29	(1957)	1423
		-	400-1700	-	Characteristic freq	Bohon	AC	30	(1958)	245
		-	-	-	Ident	Cox	JCS	-	(1954)	3183
C_7H_9N	3-Ethylpyridine	L	2-15 μ	-	Table	Podall	AC	29	(1957)	1423
		-	400-1700	-	Characteristic freq	Bohon	AC	30	(1958)	245
		-	-	-	Ident	Cox	JCS	-	(1954)	3183
		L	-	-	Absorbance, Anal	Cook	AC	28	(1956)	993
C_7H_9N	4-Ethylpyridine	L	-	-	Table	Podall	AC	29	(1957)	1423
		-	400-1700	-	Characteristic freq	Bohon	AC	30	(1958)	245
		-	-	-	Ident	Cox	JCS	-	(1954)	3183
		L	-	-	Absorbance, Anal	Cook	AC	28	(1956)	993
C_7H_9N	N-Methylaniline	L	1-12 μ	-	Spec	Bell	JACS	47	(1925)	2192
		L	0.8-2.8 μ	-	Spec, Band study	Ellis	JACS	49	(1927)	347
		-	-	-	Band freq	Bonino	TFS	25	(1929)	876
		Sol	6500-6800	-	Band study	Liddel	JACS	55	(1933)	3574
		-	1050-1850	-	Spec	Barnes	IEC	15	(1943)	659
		L	700-1400	-	Spec	Whiffen	TFS	41	(1945)	200

C_7H_9N	m-Toluidine	-	L	Band freq	Flett	JCS	-	(1948)	1441
		-	Sol	Vib, I	Richards	TFS	45	(1949)	874
		3500-650	L	Spec	Lothrop	JACS	73	(1951)	3581
		-	-	Purity check, Anal	Dannley	JOC	20	(1955)	92
		-	-	Band freq, Ext ooeff, I	Russell	JCS	-	(1955)	483
		-	L	Freq	Hadzi	JCS	-	(1957)	843
		-	-	Substituent effect	Whetsel	AC	29	(1957)	1006
		2800-3000	L,S	Group determination	Braunholtz	JCS	-	(1958)	2780
		2900-3100	Sol	Band freq	Hill	JCS	-	(1958)	760
		4000-600	Sol	Group freq, substituent effect	Katritzky	JCS	-	(1958)	4155
		3100-3550	Sol	H bond	Lund	ACS	12	(1958)	298
		-	-	Absorbance, Freq, Struct	Katritzky	JCS	-	(1959)	3674
		3500-3200	Sol	Freq	Moritz	SA	15	(1959)	242
		6500-6800	Sol	Spec	Liddel	JACS	55	(1933)	3574
		1050-1750	-	Spec	Barnes	IEC	15	(1943)	659
		5-8 μ	-	C ₆ H ₆ derivatives	Depaigne	JPR	7	(1946)	33
		-	-	Absorbance	Bomstein	AC	25	(1953)	512
		-	-	Anal, I	Kaye	AC	26	(1954)	428
		7-3.0 μ	L,Sol	Spec	Kaye	SA	6	(1954)	257
		-	-	Freq	Califano	GCI	86	(1956)	1014
		2000-4000	S,L, Sol	Spec	Califano	GCI	87	(1957)	805
C_7H_9N	o-Toluidine	3000-3700	Sol	Freq	Soda	BCSJ	30	(1957)	499
		21-14 μ	Sol	Anal	Whetsel	AC	30	(1958)	1594
		26-8 μ	Sol	Band freq, Struct, Anal	Whetsel	AC	30	(1958)	1598
		700-1700	Sol	Position shift, I	Katritzky	JCS	-	(1959)	2058
		-	-	Absorbance, Freq, Struct	Katritzky	JCS	-	(1959)	3674
		-	Sol	Band freq	Bryson	JACS	82	(1960)	4858
		450-3800	Sol,L, S,G	Spec	Evans	SA	16	(1960)	352
		1.4-1.6 μ	Sol	Solvent effect	Whetsel	AC	32	(1960)	1281
		6500-6800	Sol	Band freq	Liddel	JACS	55	(1933)	3574
		2.6-3.1 μ	L	H bond	Gordy	JACS	62	(1940)	497

C_7H_9N	p-Toluidine	1100-1800	-	Spec	Barnes	IEC	15	(1943)	659
		5-8 μ	-	C_6H_6 derivatives	Depaigne	JPR	7	(1946)	33
		2-15 μ	S	Spec	White	AC	22	(1950)	768
		-	-	Absorbance	Bomstein	AC	25	(1953)	512
		3000-3700	Sol	Freq	Soda	BCSJ	30	(1957)	499
		2600-800	Sol	Struct	Whetzel	AC	30	(1958)	1598
		800-1600	-	I, Ext coeff	Katritzky	JCS	-	(1959)	3670
		-	-	Absorbance, Freq, Struct	Katritzky	JCS	-	(1959)	3674
		6-2.0 μ	L	Band study	Ellis	JACS	50	(1928)	685
		6500-6800	Sol	Band study	Liddel	JACS	55	(1933)	3574
		2.6-3.1 μ	Sol	H bond	Gordy	JACS	62	(1940)	497
		1050-1950	-	Spec	Barnes	IEC	15	(1943)	659
		700-1400	L	Spec	Whiffen	TFS	41	(1945)	200
C_7H_9N	p-Toluidine	5-8 μ	-	C_6H_6 derivatives	Depaigne	JPR	7	(1946)	33
		3405-3487	Sol	Band freq, Chem properties	Flett	TFS	44	(1948)	40
		-	-	FC	Richards	TFS	44	(1948)	767
		-	-	Band freq, Absorbance	Bomstein	AC	25	(1953)	512
		-	Sol	Freq	Chatt	JCS	-	(1955)	4461
		-	-	Group freq	Califano	GCI	86	(1956)	1014
		2000-4000	L,S, Sol	Spec	Califano	GCI	87	(1957)	805
		-	Sol	Freq, Solvent effect	Krueger	PRS	243	(1957)	143
		3000-3700	Sol	FC	Soda	BCSJ	30	(1957)	499
		2600-1400	-	Band study, Struct	Whetzel	AC	30	(1958)	1598
		2700-3000	L,G	Assign	Fuson	BSCF	-	(1959)	93
		700-1700	Sol	Freq assign	Katritzky	JCS	-	(1959)	2051
		-	-	Absorbance, Freq, Struct	Katritzky	JCS	-	(1959)	3674
C_7H_9N	2-Propenylpyrrole	-	-	Spec	Chizhovak	ZOK	30	(1960)	3695
		-	-	Group freq	Herz	JACS	76	(1954)	576
C_7H_9NBr	N-Methylaniline hydrobromide	1000-3500	Sol,S	Band study	Chenon	CJC	36	(1958)	1181

C_7H_9NHC1	4-Ethylpyridine hydrochloride	-	-	Group freq	Witkop	JACS	76 (1954)	5597
C_7H_9NHC1	N-Methylaniline hydrochloride	1000-3500	Sol,S	Freq	Chenon	CJC	36 (1958)	1181
C_7H_9NHI	N-Methylaniline hydriodide	1000-3500	S,Sol	Band study	Chenon	CJC	36 (1958)	1181
C_7H_9NO	2-Cyanocyclohexanone	-	Sol	Shift on chelation	Bellamy	JCS	- (1954)	4487
C_7H_9NO	2,4-Dimethyl-3-pyrrole- carboxaldehyde	-	S,Sol	Freq	Mirone	ANCR	48 (1958)	72
C_7H_9NO	2,5-Dimethyl-3-pyrrole- carboxaldehyde	-	S,Sol	Freq	Mirone	ANCR	48 (1958)	72
C_7H_9NO	3,5-Dimethyl-3-pyrrole- carboxaldehyde	-	S,Sol	Freq	Mirone	ANCR	48 (1958)	72
C_7H_9NO	α -Ethoxypyridine	900-3000	Sol	Freq, Assign	Katritzky	JCS	- (1959)	2062
C_7H_9NO	β -Ethoxypyridine	600-3000 900-3000	Sol Sol	Vib assign, Symmetry Freq, Assign	Katritzky Katritzky	JCS JCS	- (1958) - (1959)	3165 2062
C_7H_9NO	γ -Ethoxypyridine	900-3000	Sol	Freq, Assign	Katritzky	JCS	- (1959)	2062
C_7H_9NO	p-Ethylpyridine-1-oxide	600-3000	Sol	Substituent effect, I	Katritzky	JCS	- (1958)	2192
C_7H_9NO	m-Methoxyaniline	- 700-1700 900-3000	Sol Sol Sol	Freq Substituent effect, I Freq, Assign	Krueger Katritzky Katritzky	PRS JCS JCS	243 (1957) - (1959) - (1959)	143 2058 2062
		-	-	Absorbance, Freq, Struet	Katritzky	JCS	- (1959)	3674
		-	Sol	Freq	Bryson	JACS	82 (1960)	4858

C_7H_9NO	o-Methoxyaniline	- 2600-800 800-1600 -	Sol Sol - -	Band freq Struct I, Ext coeff Absorbance, Freq, Struct	Witkop Whetsel Katritzky Katritzky	JACS AC JCS JCS	74 (1952) 30 (1958) - (1959) - (1959)	3861 1598 3670 3674
C_7H_9NO	p-Methoxyaniline	3400-3473 - 2600-800 700-1700 900-3000 -	Sol - Sol Sol Sol -	Freq, Chem properties FC FC, Solvent effect Band study, Struct Freq, Assign, I Group freq, Assign Absorbance, Freq, Struct	Flett Richards Krueger Whetsel Katritzky Katritzky Katritzky	TFS TFS PRS AC JCS JCS JCS	44 (1948) 44 (1948) 243 (1957) 30 (1958) - (1959) - (1959) - (1959)	767 40 143 1598 2051 2062 3674
C_7H_9NO	3-Methyl-4,2-isopropenyl -isoxazole	2-16/ μ	L	Spec, Group freq	Shechter	JACS	76 (1954)	2716
C_7H_9NO	1,(2-Pyridyl)ethanol	-	-	Group freq	Bullitt	JACS	76 (1954)	1370
$C_7H_9NO_2$	2,6-Dihydroxy-3,4- dimethylpyridine	996-1626	S	Band freq, Table	Ames	JCS	- (1953)	3008
$C_7H_9NO_2$	2,6-Dihydroxymethyl- pyridine	-	-	Ident	Boekelheide	JACS	76 (1954)	1286
$C_7H_9NO_2$	α -Ethoxypyridine-N- oxide	900-3000	Sol	Group freq, Assign	Katritzky	JCS	- (1959)	2062
$C_7H_9NO_2$	β -Ethoxypyridine-N- oxide	900-3000	Sol	Group freq, Assign	Katritzky	JCS	- (1959)	2062
$C_7H_9NO_2$	γ -Ethoxypyridine-N- oxide	600-3000 800-3000 900-3000	Sol Sol Sol	Substituent effect, I Spec, Freq, I Group freq, Assign	Katritzky Katritzky Katritzky	JCS JCS JCS	- (1958) - (1959) - (1959)	2192 3680 2062
$C_7H_9NO_2$	Ethyl cis- β -cyanocro- tonate	-	Sol	Band freq, I	Felton	JCS	- (1955)	2170

$C_7H_9NO_2$	Ethyl trans- β -cyano- crotonate	-	Sol	Group freq, I	Felton	JCS - (1955)	2170
$C_7H_9NO_2$	γ -Methoxy- β -methyl- pyridine-N-oxide	900-3000	Sol	Group freq, Assign	Katritzky	JCS - (1959)	2062
$C_7H_9NO_2$	6-Methoxy-4-methyl- pyrid-2-one	775-2688	S	Band freq, Table	Ames	JCS - (1953)	3008
$C_7H_9NO_2$	Methylethylmaleimide	2-13 μ	S	Spec, Group Freq, Struct	Richmond	JACS 74 (1952)	4368
$C_7H_9NO_2$	α,β , N-Trimethyl- maleinimide	-	-	Group freq	Ames	JCS - (1955)	631
$C_7H_9NO_2 \cdot HCl \cdot H_2O$	2,6-Dihydroxy-3,4- dimethylpyridine hydrochloride hydrate	1003-3348	S	Table, Band freq	Ames	JCS - (1953)	3008
$C_7H_9NO_2S$	p-Aminophenyl methyl sulfone	-	S, Sol	Substituent effect	Momose	CPBT 6 (1958)	412
$C_7H_9NO_2S$	Methane sulfonanilide	-	S, Sol	Group freq	Baxter	JCS - (1955)	669
		4000-600	Sol	Substitution effect	Katritzky	JCS - (1958)	4155
		900-3350	Sol	Freq, Assign, Ext coeff	Katritzky	JCS - (1960)	4497
$C_7H_9NO_2S$	o-Methylsulphonyl- aniline	2600-800	Sol	Band study, Struct	Whetsel	AC 30 (1958)	159B
$C_7H_9NO_2S$	p-Methylsulphonyl- aniline	2600-800	Sol	Band study, Struct	Whetsel	AC 30 (1958)	159B
$C_7H_9NO_2S$	o-Toluenesulfonamide	1000-1500	Sol	Spec	Schreiber	AC 21 (1949)	1168
$C_7H_9NO_2S$	p-Toluenesulfonamide	1000-1500	Sol	Spec	Schreiber	AC 21 (1949)	1168
		-	-	Ident	Doering	JACS 75 (1953)	5955
		2-15 μ	S	Spec	Kendall	AFS 7 (1953)	179
		-	S, Sol	Group freq	Baxter	JCS - (1955)	669

$C_7H_9NO_3$	4-Carbamylhydroxy-2,3-dimethylbut-2-enoic lactone	762-3436	S	Table, Band freq	Ames	JCS - (1954)	375
$C_7H_9NO_3 \cdot H_2O$	2,5,6-Trihydroxy-3,4-dimethylpyridine hydrochloride hydrate	894-3356	S	Table, Band freq	Ames	JCS - (1953)	3008
$C_7H_9NO_5$	2-Acetoxyacetyl-5-acetoxypyrrole	500-4000	S	Spec, Bond stretch freq	Eisner	JCS - (1958)	971
$C_7H_9NO_5$	Methylethylmaleimide ozonide	2-13 μ	S	Spec, Group freq, Struct	Richmond	JACS 74 (1952)	4368
C_7H_9NS	o-Methylmarcaptoaniline	2600-800	Sol	Band study, Struct	Whetsel	AC 30 (1958)	1598
C_7H_9NS	p-Methylmarcaptoaniline	2600-800	Sol	Band study, Struct	Whetsel	AC 30 (1958)	1598
C_7H_9NS	2-(2-Thenyl) pyrroline	6.20 μ	Sol	Substituent effect	Meyers	JOC 24 (1959)	1233
$C_7H_9N_2O_2$	o-Nitro-N-methylaniline	3000-3500	Sol	H bond	Farmer	SA 16 (1960)	559
$C_7H_9N_2O$	2,5-Dimethyl-4-cyano-pyrrole-3-oxime	500-4000	S	Spec, Stretch freq, Struct	Eisner	JCS - (1958)	971
$C_7H_9N_3O$	1-Phenylsemicarbazide	-	S	Ident	Mautner	JACS 77 (1955)	4076
$C_7H_9N_3OS$	Pyrrolidino-(1':2'-1:5)-2-thiodydantoin	2500-800	S	Band assign	Elmore	JCS - (1958)	3489
$C_7H_9N_3O_4$	2-Methyl-4,6-dimethoxy-5-nitropyrimidine	2-25 μ	S	Spec, Group freq	Short	JCS - (1952)	168
$C_7H_9N_3S$	4-Phenylthiosemi-carbazide	700-1700	S	Spec, Struct, Assign, Taut	Lieber	CJC 36 (1958)	801
$C_7H_9N_5$	6-Dimethylaminopurine	-	-	Ident	Waller	JACS 75 (1953)	2025

$C_7H_9N_5O_{10}$	1-Carboxymethyl-3,3,5,5-tetranitropiperidine	-	-	Band freq	Feuer	JACS	76 (1954)	5124
$C_7H_9N_7O_2$	Anilinium-5-nitro-aminotetrazole	2-15/ μ	S	Spec, Group freq	Lieber	AC	23 (1951)	1594
$C_7H_9O_2P$	p-Toluenephosphinic acid	2-12/ μ 600-4000	S S,Sol	Spec, Struct anal Group study	Daesch Braunholtz	AC JCS	23 (1951) - (1959)	853 868
$C_7H_9O_2As$	Methylphenylarsinic acid	1500-4000	S,Sol	Spec	Braunholtz	JCS	- (1959)	868
$C_7H_9O_3$	2-Acetoxyethylfuran	800-1700	Sol	Freq, Assign	Katritzky	JCS	- (1959)	657
$C_7H_9O_3As$	o-Tolylarsonic acid	600-4000	S,Sol	Group presence confirmed	Braunholtz	JCS	- (1959)	868
$C_7H_9O_3As$	p-Tolylarsonic acid	600-4000	S,Sol	Group presence confirmed	Braunholtz	JCS	- (1959)	868
C_7H_{10}	Norbornylene	2.5-15/ μ -	Sol Sol -	Spec Ident Group freq	Roberts Roberts MeBee	JACS JACS JACS	72 (1950) 76 (1954) 77 (1955)	3116 5692 915
C_7H_{10}	Nortricyclene	2.5-15/ μ 400-4000	Sol G,L,S, Sol	Spec Spec, Struct	Roberts Lippincott	JACS JACS	72 (1950) 73 (1951)	3116 2001
C_7H_{10}	4-Propyl-1-butene-3-yne	-	-	Spec, Group characteristio	Petrov	ZOK	27 (1957)	1167
$C_7H_{10}D_2N_2O_2$	1,2-Cycloheptanedione dioxime-d ₂	2-16/ μ	S	Spec, H bond	Voter	AC	23 (1951)	1730
$C_7H_{10}D_2O_2$	Cyclohexanecarboxylic acid- α ,O-d ₂	8-13/ μ	-	Spec	Eliehl	SA	10 (1958)	423

$C_7H_{10}Br_2$	trans-2,3-Dibromobicyclo [2.2.1]heptane	5.7-15.7 μ -	Table, Ident, I	Kwart	JACS	76 (1954)	4072
$C_7H_{10}Br_2$	2-exo-7-cis-Dibromo- bicyclo[2.2.1]heptane	6.8-15.5 μ -	Table, I	Kwart	JACS	76 (1954)	4072
$C_7H_{10}Br_2$	7,7-Dibromobicyclo [4.1.0]heptane	670-4000 L	Spec	Doering	JACS	76 (1954)	6162
$C_7H_{10}Br_2O_4$	Diethyl dibromomalonate	2-15 μ L 1700-1800 L, Sol	Spec, Freq Rotational Iso	Abramovitch Abramovitch	CJC CJC	36 (1958) 37 (1959)	151 1146
$C_7H_{10}Cl_2$	7,7-Dichlorobicyclo [4.1.0]heptane	670-4000 L	Spec	Doering	JACS	76 (1954)	6162
$C_7H_{10}Cl_2$	endo-cis-2,3-Dichloronor- bornane	2-16 μ Sol	Spec	Roberts	JACS	76 (1954)	5692
$C_7H_{10}Cl_2$	trans-2,3-Dichloronor- bornane	2-16 μ Sol	Spec	Roberts	JACS	76 (1954)	5692
$C_7H_{10}Cl_2$	Syn-exo-2,7-Dichloronor- bornane	2-16 μ Sol	Spec	Roberts	JACS	76 (1954)	5692
$C_7H_{10}Cl_2N_4$	2-t-Butylamino-4,6- dichloro-1,3,5-triazine	2-16 μ S	Spec, Struct	Padgett	JACS	80 (1958)	803
$C_7H_{10}Cl_2O_2$	2-Chlorocyclohexyl chloroformate	- L	Freq	Hales	JCS	- (1957)	618
$C_7H_{10}Cl_2O_2$	Ethyl 2,5-dichloro-4- pentenoate	- -	Band freq, Ident	Phillips	JACS	76 (1954)	5385
$C_7H_{10}Cl_2O_4$	Bis- β -chloroethyl malonate	- -	Ident	Hart	JACS	77 (1955)	3138
$C_7H_{10}Cl_2O_4$	Bis-1,3-Dichloroisopropyl carbonate	- Sol	Freq, Struct	Hales	JCS	- (1957)	618

$C_7H_7F_4N_2O_4$	p-Tolylammoniumfluoroborate	-	S	H bond, Freq	Nuttall	JCS	-	(1960)	4965
$C_7H_{10}N_2$	2-N,N-Dimethylaminopyridine	-	-	Absorption, Freq, Struct	Katritzky	JCS	-	(1959)	3674
$C_7H_{10}N_2$	3-N,N-Dimethylaminopyridine	-	-	Absorption, Freq, Struct	Katritzky	JCS	-	(1959)	3674
$C_7H_{10}N_2$	4-N,N-Dimethylaminopyridine	-	-	Absorption, Freq, Struct	Katritzky	JCS	-	(1959)	3674
$C_7H_{10}N_2$	1-Ethyl-1,2-dihydro-2-iminopyridine	3 μ	Sol	Freq, I	Mason	JCS	-	(1959)	1281
$C_7H_{10}N_2$	1-Ethyl-1,4-dihydro-2-iminopyridine	3 μ	Sol	Freq, I	Mason	JCS	-	(1959)	1281
$C_7H_{10}N_2$	3-Isopropenyl-5-methylpyrazole	670-3800	Sol	Spec, Struct	Charette	SA	15	(1959)	70
$C_7H_{10}N_2$	β -Methyladiponitrile	-	-	Band freq	Kitson	AC	24	(1952)	334
$C_7H_{10}N_2$	1-Methyl-1-phenylhydrazine	300-6900	Sol	Spec, Group anal	Wulf	JACS	57	(1935)	1464
$C_7H_{10}N_2$	Pimelonitrile	2200-2300	Sol	Band freq Freq, Struct	Kitson Jesson	AC SA	24 13	(1952) (1958)	334 217
$C_7H_{10}N_2O$	2,4-Diazobicyclo[3,3,1]nonan-3-one	1600-1800	Sol	Freq	Hall	JACS	80	(1958)	6428
$C_7H_{10}N_2O$	2-N,N-Dimethylaminopyridine-N-oxide	-	-	Absorption, Freq, Struct	Katritzky	JCS	-	(1959)	3674
		800-3000	Sol	Substituent effect	Katritzky	JCS	-	(1958)	2195

$C_7H_{10}N_2O$	4-N,N-Dimethylamino-pyridine-N-oxide	600-3000	Sol	Substituent effect, I Absorption, Freq, Struct	Katritzky Katritzky	JCS - JCS -	(1958) 2195 (1959) 3674
$C_7H_{10}N_2OS$	1,4-Dimethyl-2-methyl-thio-6-ketopyrimidine	2-25 μ	S	Spec, Group freq	Short	JCS -	(1952) 168
$C_7H_{10}N_2OS$	6-Propyl-2-thiouracil	2-12 μ	Sol	Spec, Group freq, Assign	Lecher	JPC 59	(1955) 615
$C_7H_{10}N_2O_2$	α -N-Ethoxyamino-pyridine-N-oxide	800-3000	Sol	Substituent effect	Katritzky	JCS -	(1958) 2195
$C_7H_{10}N_2O_2S$	N-(2-Pyridine)-N-methyl-methanesulfonamide	874-1470	Sol	Freq, Assign, Ext coeff	Katritzky	JCS -	(1960) 4497
$C_7H_{10}N_2O_2S$	N-(3-Pyridine)-N-methyl-methanesulfonamide	874-1470	Sol	Freq, Assign, Ext coeff	Katritzky	JCS -	(1960) 4497
$C_7H_{10}N_2O_2S$	N-(4-Pyridine)-N-methyl-methanesulfonamide	874-1470	Sol	Freq, Assign, Ext coeff	Katritzky	JCS -	(1960) 4497
$C_7H_{10}N_2O_3$	6-Ethoxy-1-methyluracil	2-12 μ	Sol	Spec, Group freq, Assign	Lacher	JPC 59	(1955) 615
$C_7H_{10}N_2O_3$	2-Nitro-2-nitrosonorcamphane	-	-	Ident	Wildman	JOC 17	(1952) 1641
$C_7H_{10}N_2O_7$	1-Nitro-1-(α -hydroxy- γ -nitropropyl)-2-carboxycyclopropane	-	-	Spec	Boer	RTC 79	(1960) 231
$C_7H_{10}N_4OS$	6-Amino-4-acetamido-2-methylthiopyrimidine	2-15 μ	S	Spect, Group freq, Assign	Brownlie	JCS -	(1950) 3062
$C_7H_{10}O$	Bicyclo[2,2,1]-heptan-2-one	1600-1800	Sol	Freq	Hall	JACS 80	(1958) 6428

$C_7H_{10}O$	Bicyclo[2,2,1]-heptan-7-one	1600-1800	Sol	Freq	Hall	JACS	80 (1958)	6428
$C_7H_{10}O$	Cycloheptadiene-3,5-ol	-	L	Group freq	Meinwald	JACS	77 (1955)	4401
$C_7H_{10}O$	Cyclopropylethynyl-methylcarbinol	1.1-2.7 μ	Sol	Group confirmation	Washburn	JACS	80 (1958)	504
$C_7H_{10}O$	endo-Dehydronorborneol	2.5-15 μ	Sol	Spec	Roberts	JACS	72 (1950)	3116
$C_7H_{10}O$	exo-Dehydronorborneol	2.5-15 μ	Sol	Spec	Roberts	JACS	72 (1950)	3116
$C_7H_{10}O$	Dicyclopropyl ketone	3-11 μ	L,S	Spec, Struct	Allen	JOC	22 (1957)	1291
$C_7H_{10}O$	3,3-Dimethylpentyn-1-one-4	-	-	Band & Group freq	Davis	JACS	76 (1954)	3477
$C_7H_{10}O$	trans-Hept-2-en-6-yn-1-ol	-	-	Group freq	Shaw	JCS	- (1954)	3217
$C_7H_{10}O$	3-Hydroxynortricyclene	2.5-15 μ	Sol	Spec	Roberts	JACS	72 (1950)	3116
$C_7H_{10}O$	2-Methoxy-1-hexene-3-yne	-	-	Spec, Freq	Petrov	ZOK	28 (1958)	71
$C_7H_{10}O$	2-Methylcyclohex-5-en-1-one	1600-1750	L	Spec, Stretch freq	Braude	JCS	- (1955)	3766
$C_7H_{10}O$	5-Methyl-2-cyclohexenone	-	Sol	Band freq, Ident	Goering	JACS	76 (1954)	5405
$C_7H_{10}O$	Norcamphor	-	-	Ident	Roberts	JACS	76 (1954)	5692
$C_7H_{10}OS$	3-Oxocyclohexenyl methyl sulfide	-	-	Ident	Bateman	JCS	- (1955)	1996
$C_7H_{10}OS_1$	p-Anisylsilane	2-16 μ	Sol	Freq, Vib. modes	Kniseley	SA	15 (1959)	651
$C_7H_{10}O_2$	α -Allyl- γ -butyrolactone	-	-	Band freq	Wiesner	JACS	77 (1955)	675

$C_7H_{10}O_2$	Allyl methacrylate	-	Sol	Group freq, Absorbance	Davison	JCS - (1953)	2607
$C_7H_{10}O_2$	1,2-Cycloheptanedione	-	-	Band study	Goldman	JACS 76 (1954)	5789
$C_7H_{10}O_2$	Cyclohexene-1-carboxylic acid	5.82-6.12 μ	-	Ident	Vaughan	JACS 77 (1955)	4629
$C_7H_{10}O_2$	Cyclohexene-3-carboxylic acid	5.82-6.12 μ	-	Ident	Vaughan	JACS 77 (1955)	4629
$C_7H_{10}O_2$	2-Formylcyclohexanone	-	Sol	Group freq	Bellamy	JCS - (1954)	4487
$C_7H_{10}O_2$	1,2-Hexadiene-3-carboxylic acid	-	S	Band study	Wotiz	JACS 74 (1952)	1860
$C_7H_{10}O_2$	1,5-Hexadiene-3-carboxylic acid	-	-	Struct	Bateman	JCS - (1950)	936
$C_7H_{10}O_2$	Methacroylacetone	1200-1800	S	IR shift, Stability const	Charette	SA 16 (1960)	689
$C_7H_{10}O_2$	2-Methylcyclohexane-1,3- dione	- 1550-1750	S, L Sol	Band freq Spec, Assign	Rogers Anachenko	JCS - (1955) IANS - (1960)	341 1644
$C_7H_{10}O_2$	4-Methylcyclohexane-1, 3-dione	1800-1500	Sol	Solvent effect	Delvaux	SA 12 (1958)	289
$C_7H_{10}O_2$	Methyl cis-2,cis-4-hexa- dienoate	-	Sol	Group freq, I	Allan	JCS - (1955)	1874
$C_7H_{10}O_2$	Methyl cis-2,trans-4- hexadienoate	-	Sol	Group freq, I	Allan	JCS - (1955)	1874
$C_7H_{10}O_2$	Methyl trans-2,cis-4- hexadienoate	-	Sol	Group freq, I	Allan	JCS - (1955)	1874
$C_7H_{10}O_2$	Methyl trans-2,trans-4- hexadienoate	-	Sol	Group freq, I	Allan	JCS - (1955)	1874

$C_7H_{10}O_2$	Methyl sorbate	1050-1800	-	Spec	Barnes	IEC	15 (1943)	659
$C_7H_{10}O_2$	2-Oxabicyclo[2,2,2]octan-3-one	1600-1800	Sol	Freq	Hall	JACS	80 (1958)	6428
$C_7H_{10}O_2$	6-Oxabicyclo[3,2,1]octan-7-one	1600-1800	Sol	Freq	Hall	JACS	80 (1958)	6428
$C_7H_{10}O_3$	2-Acetoxy-3,4-dihydro-2H-pyran	-	-	Band study	Smith	JACS	73 (1951)	5270
$C_7H_{10}O_3$	Acetylacetone acetate	-	-	Absorption freq, Struct anal	Rasmussen	JACS	71 (1949)	1068
		-	S	Band freq	Bellamy	JCS	- (1952)	4653
		-	Sol	Shift on chelateon	Bellamy	JCS	- (1954)	4487
$C_7H_{10}O_3$	2-Carbomethoxy-3,4-dihydro-2H-pyran	-	-	Band study	Smith	JACS	73 (1951)	5270
$C_7H_{10}O_3$	2,4-Dioxabicyclo[3,3,1]nonan-3-one	1600-1800	Sol	Freq	Hall	JACS	80 (1958)	6428
$C_7H_{10}O_3$	2,4-Dioxabicyclo[3,2,2]nonan-3-one	1600-1800	Sol	Freq	Hall	JACS	80 (1958)	6428
$C_7H_{10}O_3$	Ethyl β -formylcrotonate	-	-	Group freq	Wiley	JACS	77 (1955)	3422
$C_7H_{10}O_3$	Glycidyl crotonate	2-15 μ	S,Sol	Spec, Group freq	Patterson	AC	26 (1954)	823
$C_7H_{10}O_3$	Glycidyl methacrylate	2-15 μ	L,Sol	Spec, Group freq	Patterson	AC	26 (1954)	823
$C_7H_{10}O_3$	2,2,4-Trimethyl-6-keto-1,3-dioxene	2-16 μ	Sol	Spec	Carroll	JACS	75 (1953)	5400
$C_7H_{10}O_4$	γ -Acetoxy- γ -valerolactone	2-15 μ	-	Spec, Struct anal	Rasmussen	JACS	71 (1949)	1073

$C_7H_{10}O_4$	4-Carboxy-4-hydroxy-2,3-dimethylbutanoic lactone	686-3279	S	Group freq, Table	Ames	JCS	(1954)	375
$C_7H_{10}O_4$	cis-Caronic acid	-	-	Band freq	Corey	JACS	76 (1954)	5257
$C_7H_{10}O_4$	cis-Cyclopentane-1,3-dicarboxylic acid	-	S	Ident	Roberts	JACS	77 (1955)	3034
$C_7H_{10}O_4$	1,3-Diacetoxypentene	-	-	Band study	Smith	JACS	73 (1951)	5282
$C_7H_{10}O_4$	3,3-Diacetoxypentene	-	-	Band study	Smith	JACS	73 (1951)	5282
$C_7H_{10}O_4$	Dimethyl itaconate	1050-1800	-	Spec, Freq	Barnes	IEC	15 (1943)	659
$C_7H_{10}O_4$	Isopropyl fumarate	2-15 μ	L	Assign, Generalisation	Walton	JACS	79 (1957)	3985
$C_7H_{10}O_4$	2-Methylene-1,6-hexanedioic acid	-	S	Band freq	Jones	JCS	- (1954)	1865
$C_7H_{10}O_4$	Propyl fumarate	2-15 μ 600-4000	L S,Sol	Assign, Generalisation Spec, Assign	Walton Lefevre	JACS AJC	79 (1957) 11 (1958)	3985 92
$C_7H_{10}O_4$	n-Propyl maleate	600-4000	S,Sol	Spec, Assign	Lefevre	AJC	11 (1958)	92
$C_7H_{10}O_5$	β -Methoxyethyl fumarate	2-15 μ	L	Assign, Generalisation	Walton	JACS	79 (1957)	3985
$C_7H_{10}O_5$	Shikimic acid	700-5000	S	Spec	Weiss	JACS	75 (1953)	5572
$C_7H_{10}O_5$	Acetylthioilamalic acid	-	-	Band freq	Knuth	JOC	19 (1954)	845
$C_7H_{10}O_6$	5-Dehydroquinic acid	700-5000	S	Spec	Weiss	JACS	75 (1953)	5572
$C_7H_{10}O_6$	Methyl α -D-glucosufuranoside	-	S	Band freq	Phillips	JACS	76 (1954)	3598

$C_7H_{10}O_6$	Methyl β -D-glucoside	-	S	Band freq	Phillips	JACS	76 (1954)	3598
$C_7H_{10}S$	2-n-Propylthiophene	7-14 μ	-	Spec, Anal	Pines	JACS	72 (1950)	1568
$C_7H_{10}Si$	Benzylsilane	2-16 μ	Sol	Freq, Vib modes	Kniseley	SA	15 (1959)	651
$C_7H_{10}Si$	Methylphenylsilane	-	L, Sol	Group freq, I	Harvey	JACS	76 (1954)	4555
		2-16 μ	Sol	Freq, Vib mode	Kniseley	SA	15 (1959)	651
		2050-2250	Sol	Freq, Struct	Smith	SA	15 (1959)	412
		2-15 μ	Sol	Spec, Struct, Freq	Smith	SA	16 (1960)	87
$C_7H_{10}Si$	p-Tolylsilane	2-16 μ	Sol	Freq, Vib mode	Kniseley	SA	15 (1959)	651
$C_7H_{11}DO_2$	Cyclohexanecarboxylic acid-d ₁	700-1500	S	Spec, Assign ν_{OH}, ν_{OD}	Hadzi Bratoz	PRS SA	216 (1953) 8 (1956)	247 249
		8-13 μ	-	Spec	Elie	SA	10 (1958)	423
$C_7H_{11}D_3O$	Methoxyoxolohexane-d ₃	2100-3000	Sol	Assign confirmed	Dalton	JCS	- (1960)	2927
$C_7H_{11}Br$	7-Bromobicyclo[2.2.1]-heptane	3.5-14 μ	-	Table, I	Kwart	JACS	76 (1954)	4072
$C_7H_{11}Br$	1-Bromo-1-heptyne	2-15 μ	L	Spec	Wotiz	JACS	71 (1949)	3441
$C_7H_{11}Br$	1-Bromo-2-heptyne	2-18 μ	L	Spec	Wotiz	JACS	71 (1949)	3441
		-	L	New bands studied	Wotiz	JACS	72 (1950)	5055
		-	-	Ident	Sammul	JACS	75 (1953)	4856
$C_7H_{11}Br$	1-Bromo-3-heptyne	2-15 μ	L	Spec	Wotiz	JACS	71 (1949)	3441
$C_7H_{11}Br$	1-Bromo-5-heptyne	2-15 μ	L	Spec	Wotiz	JACS	71 (1949)	3441
$C_7H_{11}Br$	1-Bromo-6-heptyne	2-15 μ	L	Spec	Wotiz	JACS	74 (1949)	3441
$C_7H_{11}Br$	3-Bromo-1-heptyne	2-16 μ	L	Spec, Table	Wotiz	JACS	72 (1950)	5055

$C_{7H_{11}}Br$	endo-Norbornyl bromide	2.5-15 μ	L	Spec, Solvolysis rate	Roberts	JACS	72 (1950)	3329
$C_{7H_{11}}Br$	exo-Norbornyl bromide	2.5-15 μ 3.4-15.5 μ	L -	Spec, Solvolysis rate Table, I	Roberts Kwart	JACS JACS	72 (1950) 76 (1954)	3329 4072
$C_{7H_{11}}BrO$	α -Bromocycloheptanone	-	Sol	Band freq, Shift, Table	Corey	JACS	75 (1953)	2301
		-	Sol	IR shift	Leonard	JACS	80 (1958)	6039
$C_{7H_{11}}BrO_2$	cis-2-Bromocyclohexane-carboxylic acid	-	-	Group freq	Vaughan	JACS	77 (1955)	4629
$C_{7H_{11}}BrO_2$	trans-2-Bromocyclohexane-carboxylic acid	-	-	Group freq	Vaughan	JACS	77 (1955)	4629
$C_{7H_{11}}BrO_4$	Diethyl bromomalonate	2-15 μ 1700-1800	Sol L, Sol	Freq, Splitting Iso, Vib coupling	Abramovitch Abramovitch	CJC CJC	36 (1958) 37 (1959)	151 1146
$C_{7H_{11}}Cl$	1-Chloro-1-heptyne	-	-	Assign	Cleveland	JCP	10 (1942)	172
$C_{7H_{11}}Cl$	1-Chloro-2-heptyne	2-15 μ	L	Spec	Wotiz	JACS	71 (1949)	3441
$C_{7H_{11}}Cl$	1-Chloro-4-heptyne	2-15 μ	L	Spec	Wotiz	JACS	71 (1949)	3441
$C_{7H_{11}}Cl$	1-Chloro-5-heptyne	2-15 μ	L	Spec	Wotiz	JACS	71 (1949)	3441
$C_{7H_{11}}Cl$	1-Chloromethylcyclohexene	-	-	Band freq	Arnold	JACS	75 (1953)	5396
$C_{7H_{11}}Cl$	2-Chloromethylcyclohexene	-	-	Band freq	Arnold	JACS	75 (1953)	5396
$C_{7H_{11}}Cl$	7-Chloronorbornane	2-16 μ	Sol	Spec	Roberts	JACS	76 (1954)	5692
$C_{7H_{11}}Cl$	cis-5-Methyl-2-cyclohexenyl chloride	-	L	Band anal	Goering	JACS	77 (1955)	4042
$C_{7H_{11}}Cl$	trans-5-Methyl-2-cyclohexenyl chloride	-	L	Band freq	Goering	JACS	77 (1955)	4042

$C_{7H_{11}Cl}$	Norbornyl chloride	1600-2800	-	Spec	Roberts	JACS	71 (1949)	3049
$C_{7H_{11}Cl}$	endo-Norbornyl chloride	2.5-15 μ	Sol	Spec, Solvolysis rate	Roberts	JACS	72 (1950)	3329
$C_{7H_{11}Cl}$	exo-Norbornyl chloride	2.5-15 μ	Sol	Spec, Solvolysis rate	Roberts	JACS	72 (1950)	3329
$C_{7H_{11}ClO}$	2-Chlorocycloheptanone	-	L	Band freq, Strout	Scott	JACS	72 (1950)	240
		-	Sol	Band freq, Shift, Table	Corey	JACS	75 (1953)	2301
$C_{7H_{11}ClO}$	Diethylchloroethynyl carbinol	-	-	Weak band	McLamore	JOC	20 (1955)	109
$C_{7H_{11}ClO_4}$	Diethyl chloromalonate	2-15 μ	L	Speco, Freq, Splitting	Abramovitch	CJC	36 (1958)	151
$C_{7H_{11}ClO_4}$	Ethyl β -chloroethyl malonate	-	-	Ident	Hart	JACS	17 (1955)	3138
$C_{7H_{11}Cl_2NO}$	4,5-Dichloro-2,2-dimethylpentanonitrile-N-oxide	600-3000	Sol	Spec	Wiley	JOC	25 (1960)	546
$C_{7H_{11}I}$	1-Iodo-2-heptyne	-	L	Group freq, I	Allan	JCS	- (1955)	1874
$C_{7H_{11}IO}$	Diethyliodoethynyl-carbinol	-	-	Weak band	McLamore	JOC	20 (1955)	109
$C_{7H_{11}N}$	trans-t-Butylacrylonitrile	-	-	Band freq	Corey	JACS	75 (1953)	1163
$C_{7H_{11}N}$	2-Propylpyrrole	-	-	Ident	Herz	JACS	76 (1954)	576
$C_{7H_{11}N}$	3-Carbamyl-1,2-hexadiene	-	S	Band freq	Wotiz	JACS	74 (1952)	1860
$C_{7H_{11}NO}$	2-Azabicyclo[2,2,2]octan-3-one	1600-1800	Sol	Freq	Hall	JACS	80 (1958)	6428
$C_{7H_{11}NO}$	6-Azabicyclo[3,2,1]octan-7-one	1600-1800	Sol	Freq	Hall	JACS	80 (1958)	6428

$C_7H_{11}NO$	Cyclohexanone cyanohydrin	3μ	Sol	Freq, H bond	Flett	SA	10 (1958)	21
$C_7H_{11}NO$	1,6-Dimethyl-5,6- dihydro-2-pyridone	3600-600	L	Spec, Table, Absorption bands	Edwards	CJC	32 (1954)	683
$C_7H_{11}NO.HCl$	6-keto-1-azabicyclo [3.2.1] octane hydrochloride	-	-	Band freq	Leonard	JACS	75 (1953)	6249
$C_7H_{11}NOS$	trans-2-Hydroxycyclo- hexylthiocyanate	-	-	Absorbance	Vantamelen	JACS	73 (1951)	3444
$C_7H_{11}NO_2$	α -Ethylglutarimide	2-15 μ	Sol	Spec, Struct anal	Kornfeld	JACS	71 (1949)	150
$C_7H_{11}NO_2$	β -Ethylglutarimide	2-15 μ	Sol	Spec, Struct anal	Kornfeld	JACS	71 (1949)	150
$C_7H_{11}NO_2$	N-Acetyl-2-piperidone	1600-1800	Sol	Freq	Hall	JACS	80 (1958)	6428
$C_7H_{11}NO_2$	5-Methyl-2-nitro-2,4- hexadiene	-	-	Group freq	Shechter	JACS	76 (1954)	2716
$C_7H_{11}NO_2$	2-Oxa-4-azabicyclo [3,3,1] -nonan-3-one	1600-1800	Sol	Freq	Hall	JACS	80 (1958)	6428
$C_7H_{11}NO_2$	2-Oxa-4-azabicyclo [3,2,2]-nonan-3-one	1600-1800	Sol	Freq	Hall	JACS	80 (1958)	6428
$C_7H_{11}NO_3$	Methylisopropenyl- malonic acid	-	-	Anal	Corey	JACS	75 (1953)	1163
$C_7H_{11}NO_3$	3-Butyloxazolid-2,4- dione	650-4000	Sol	Spec	Pianka	JCS	- (1960)	983
$C_7H_{11}NO_3$	4-Carbamyl-4-hydroxy- 2,3-dimethylbutanoic lactone	696-3448	S	Table, Group freq	Ames	JCS	- (1954)	375

$C_7H_{11}NO_3^S$	2,2-Carboxyethyl-4-thiazolidone methyl ester	-	Sol	Band freq	Pennington	JACS	75 (1953)	109
$C_7H_{11}NO_4$	3-N-Acetoxyiminopentanoic acid	-	S	Freq	Freeman	JACS	80 (1958)	5954
$C_7H_{11}NO_4$	Ethyl α -nitro Δ^4 -pentenoate	-	-	Group freq	Emmons	JACS	77 (1955)	4391
$C_7H_{11}NS$	5,5-Dimethyl-2-vinyl-3-thiopyrroline	6.30/ μ	Sol	Substituent effect	Meyers	JOC	24 (1959)	1233
$C_7H_{11}N_2O$	2-Amino-3-ethyl-4-methyl-6-ketopyrimidine	2-25/ μ	S	Spec, Group freq	Short	JCS	- (1952)	168
$C_7H_{11}N_2O$	2-Amino-4-methyl-6-ethoxypyrimidine	2-25/ μ	S	Spec, Group freq	Short	JCS	- (1952)	168
$C_7H_{11}N_2O$	2-Dimethylamino-4-hydroxy-6-methylpyrimidine	2-25/ μ	S	Spec, Group freq	Short	JCS	- (1952)	168
$C_7H_{11}N_2O$	1-Ethyl-2-amino-4-methyl-6-ketopyrimidine	2-25/ μ	S	Spec, Group freq	Short	JCS	- (1952)	168
$C_7H_{11}N_2O_2$	2-Methyl-4,6-dimethoxy-5-aminopyrimidine	2-25/ μ	S	Spec, Group freq	Short	JCS	- (1952)	168
$C_7H_{11}N_3^S$	4-Methylamino-2-methylthio-6-methylpyrimidine	2-15/ μ	S	Spec, Group freq, Assign	Brownlie	JCS	- (1950)	3062
C_7H_{12}	Bicyclo[2.2.1]heptane	-	-	Spec Ident	Roberts Hine	JACS	71 (1949)	3049
C_7H_{12}	Bicyclo[4.1.0]heptane	-	-	Ident	Doering	JACS	77 (1955)	594
		-	-			JACS	76 (1954)	6162

C_7H_{12}	cis-Cycloheptene	-	-	Anal, Ident	Cope	JACS 75 (1953)	3212
C_7H_{12}	2-Cyclopropyl-1-butene	-	L, Sol	Band freq	Slabey	JACS 76 (1954)	3604
C_7H_{12}	2-Cyclopropyl-2-butene H.B.	-	L, Sol	Band freq	Slabey	JACS 76 (1954)	3604
C_7H_{12}	2-Cyclopropyl-2-butene H.B.	-	L, Sol	Band freq	Slabey	JACS 76 (1954)	3604
C_7H_{12}	4,4-Dimethylcyclopentene	-	-	NCA, Assign	Beachell	JCP 30 (1959)	1489
C_7H_{12}	3-Ethylpent-1-en-3-yne	-	-	Band freq	Bergmann	JAPC 3 (1954)	97
C_7H_{12}	1,2-Heptadiene	-	L	Spec, Anal Strong band	Wotiz Wotiz	JACS 73 (1951) JACS 74 (1952)	693 1860
C_7H_{12}	2,4-Heptadiene	-	L	Spec, Anal	Wotiz	JACS 73 (1951)	693
C_7H_{12}	n-1-Heptyne	2-15 μ -	L L	Spec Speco, Anal	Wotiz Wotiz	JACS 71 (1949) JACS 73 (1951)	3441 693
C_7H_{12}	n-2-Heptyne	2-15 μ -	L L	Spec Spec, Anal	Wotiz Wotiz	JACS 71 (1949) JACS 73 (1951)	3441 693
C_7H_{12}	n-3-Heptyne	1-30 μ 2-15 μ -	G L L	Spec Spec Speco, Anal	Kettering Wotiz Wotiz	P 4 (1933) JACS 71 (1949) JACS 73 (1951)	39 3441 693
C_7H_{12}	2-Isopropyl-1,3-butadiene	650-3900	-	Spec	Marvel	JACS 70 (1948)	3842
C_7H_{12}	Isopropylidene-cyclobutane	2-15 μ 2-15 μ	L L	Synthesis Synthesis	Dertter Dertter	JACS 71 (1949) JACS 71 (1949)	2482 175
C_7H_{12}	1-Methyl-1-cyclohexene	2.6-3.8 μ	Sol	Speco, Assign	Fox	PES 175 (1940)	208

C_7H_{12}	3-Methyl-1-cyclohexene	-	L	Anal Anal, Ident Band freq	Arnold Goering Arnold Nevitt Hawkins Pinchas West	JOC JACS JACS JACS JCS AC JACS	15 (1950) 74 (1952) 75 (1953) 76 (1954) - (1955) 30 (1958) 81 (1959)	1256 3588 5396 4124 1462 1863 1614
C_7H_{12}	4-Methyl-1-cyclohexene	-	Sol	Anal Quant anal	Arnold Pinchas	JOC AC	15 (1950) 30 (1958)	1256 1863
C_7H_{12}	Methylenecyclohexane	-	L Sol	Anal Quant anal	Arnold Pinchas	JOC AC	15 (1950) 30 (1958)	1256 1863
C_7H_{12}	2-Methyl-3-ethyl-1,3-butadiene	-	-	Band freq Band freq, Anal Ident	Arnold Nevitt Bailey	JACS JACS JACS	75 (1953) 76 (1954) 77 (1955)	5396 4124 357
$C_7H_{12}D_2O$	2,4-Dimethyl-3-pentanone-2,4-d ₂	-	Sol	Band freq	Marvel	JACS	74 (1952)	1506
$C_7H_{12}ClNO_3$	Butyl N-chloroacetylcarbamate	800-5000	Sol	Freq, Assign	Karabatasos	JOC	25 (1960)	315
$C_7H_{12}ClNO_3$	Ethyl N-chloroacetyl-N-ethylcarbamate	650-4000	Sol	Spec	Pianka	JCS	- (1960)	983
$C_7H_{12}ClNO_4$	Ethyl δ -chloro- α -nitropentanoate	650-4000	Sol	Spec	Pianka	JCS	- (1960)	983
$C_7H_{12}Cl_2F_2O$	1,1-Difluoro-2,2-dichloroethyl n-ethyl ether	-	-	Band freq	Emmons	JACS	77 (1955)	4391
$C_7H_{12}Cl_2F_2Si$	2,2-Dichloro-3,3-difluorocyclobutyltrimethylsilane	3-15 μ	G, L	Spec	Park	JACS	73 (1951)	861
$C_7H_{12}Cl_2F_2Si$	2,2-Dichloro-3,3-difluorocyclobutyltrimethylsilane	10.85-11.1 μ	-	Freq	Park	JOC	25 (1960)	1628

$C_7H_{12}Cl_2O_3$	Bis-1-Chloroisopropyl carbonate	-	L	Freq, Struct	Hales	JCS - (1957)	618
$C_7H_{12}F_4O$	1,1,2,2-Tetrafluoroethyl n-amyl ether	2-15 μ	G, L	Spec	Park	JACS 73 (1951)	1329
$C_7H_{12}F_4Si$	2,3-Tetrafluorocyclobutyl-trimethylsilane	10.85-11.1 μ	-	Freq	Park	JOC 25 (1960)	1628
$C_7H_{12}N_2O$	1,3-Dimethyl-5-ethoxy-pyrazole	2.4-4.5 μ	-	Spec	Bogunets	OS 5 (1958)	707
$C_7H_{12}N_2O$	2,4-Dimethyl-5-ethoxy-pyrazole	2.4-4.5 μ	-	Spec	Bogunets	OS 5 (1958)	707
$C_7H_{12}N_2OS$	1,3-Diethyl-2-thiohydantoin	2500-800	S	Band assign	Elmore	JCS - (1958)	3489
$C_7H_{12}N_2O_2$	1,2-Cycloheptanedione dioxime	2-16 μ	S	Spec, H bond	Voter	AC 23 (1951)	1730
$C_7H_{12}N_2O_4$	N,O-Diacetylserinamide	2-0 μ	Sol	Spec, Freq	Jencks	ABB 88 (1960)	193
$C_7H_{12}N_2O_4$	3-Methyl-4-(2-nitro-2-propyl)-isoxazoline oxide	2-16 μ	Sol	Spec, Group freq	Shechter	JACS 76 (1954)	2716
$C_7H_{12}O$	Cycloheptanone	-	L	Band freq, Struct	Scott	JACS 72 (1950)	240
		-	Sol	Band freq, Table, Struct	Corey	JACS 75 (1953)	2301
		-	-	Band study	Goldman	JACS 76 (1954)	5789
		-	L	Ident	Meinwald	JACS 77 (1955)	4401
		-	Sol	Band freq	Pauson	CR 55 (1955)	9
		-	L	Band freq	Schubert	JACS 77 (1955)	4172
		1500-1800	Sol	Freq	Hall	JACS 80 (1958)	6428
		-	Sol	Carbonyl maximum	Leonard	JACS 80 (1958)	6039
		-	Sol	I, Freq	Thompson	SA 13 (1958)	236
		-	Sol	H bond	Thamres	JACS 81 (1959)	2100

$C_7H_{12}O$	1-Cyclohexenylcarbinol	-	Sol	Stretch freq	Burer	HCA	43 (1960)	1487
		-	-	Band freq	Arnold	JACS	75 (1953)	5396
		-	-	Group freq, Struot	Dreiding	JACS	75 (1953)	939
$C_7H_{12}O$	Cyclopentyl methyl ketone	5-7 μ	L	Band freq, Rate study	Friess	JACS	74 (1952)	1302
$C_7H_{12}O$	Cyclopropyl isopropyl ketone	2-14.5 μ	L	Spec, Table, Band freq	Wiberley	AC	24 (1952)	623
		-	L, Sol	Band freq	Slabey	JACS	76 (1954)	3604
$C_7H_{12}O$	2-Ethoxy-1,3-pentadiene	-	-	Spec, Freq	Petrov	ZOK	28 (1956)	71
$C_7H_{12}O$	Ethylcyclopentanone	-	Sol	Band assign, Taut	Movsesyan	IAS	22 (1958)	1126
$C_7H_{12}O$	1,2-Heptadien-4-ol	2-5.5 μ	Sol	Spec	Celmer	JACS	75 (1953)	3430
$C_7H_{12}O$	1-Heptynol-3	2-16 μ	L	Spec, Table	Wotiz	JACS	72 (1950)	5055
$C_7H_{12}O$	1-Heptynol-4	-	-	Group freq	Clemer	JACS	75 (1953)	3430
$C_7H_{12}O$	2-Heptynol-1	2-15 μ	L	Spec	Wotiz	JACS	71 (1949)	3441
		-	L	New bands studied	Wotiz	JACS	72 (1950)	5055
$C_7H_{12}O$	3-Heptynol-1	2-15 μ	L	Spec	Wotiz	JACS	71 (1949)	3441
		-	-	Group freq	Crombie	JCS	- (1952)	4338
$C_7H_{12}O$	4-Heptynol-1	2-15 μ	L	Spec	Wotiz	JACS	71 (1949)	3441
$C_7H_{12}O$	5-Heptynol-1	2-15 μ	L	Spec	Wotiz	JACS	71 (1949)	3441
$C_7H_{12}O$	6-Heptynol-1	2-15 μ	L	Spec	Wotiz	JACS	71 (1949)	3441
$C_7H_{12}O$	1-Methoxycyclohex-2-ene	6.5-3.100 μ	Sol	Spec	Henbest	JCS	- (1957)	997
		-	-	Methoxyl group detection	Henbest	JCS	- (1957)	1462

$C_7H_{12}O$	1-Methoxycyclohex-3-ene	650-3100 -	Sol -	Spec Methoxyl group detection	Henbest Henbest	JCS JCS	- -	(1957) (1957)	997 1462
$C_7H_{12}O$	m-Methylcyclohexanone	4000-400 -	- Sol	Ident Spec, Substitution	Eisenbraun Cummins	JACS JCS	77 -	(1955) (1957)	3383 3847
$C_7H_{12}O$	o-Methylcyclohexanone	400-4000 5-7 μ	Sol Sol	Spec, Ext coeff, Struct Spec, Taut	Cummins Campbell	JCS JACS	- 82	(1957) (1960)	3847 5426
$C_7H_{12}O$	p-Methylcyclohexanone	1800-1650 400-4000 5-7 μ	Sol Sol Sol	Ext coeff Spec, Ext coeff, Struct Spec, Taut	Cross Cummins Campbell	TFS JCS JACS	47 - 82	(1951) (1957) (1960)	354 3847 5426
$C_7H_{12}O$	cis-5-Methyl-2-cyclohexenol	- -	Sol Sol	Band freq & Anal Anal, Ident	Goering Goering	JACS JACS	76 77	(1954) (1955)	5405 1129
$C_7H_{12}O$	trans-5-Methyl-2-cyclohexenol	- -	Sol Sol	Band freq & Anal Anal, Ident	Goering Goering	JACS JACS	76 77	(1954) (1955)	5405 1129
$C_7H_{12}O$	2-Methylenecyclohexanol	-	-	Group freq, Struct	Dreiding	JACS	75	(1953)	939
$C_7H_{12}O$	n-Propyl cyclopropyl ketone	-	L, Sol	Band freq	Slabey	JACS	76	(1954)	3604
$C_7H_{12}OS$	1-Ethylthio-1-penten-3-one	1500-1800	Sol	Freq, Struct	Leonard	JACS	81	(1959)	595
$C_7H_{12}OS$	6-Methylthiocyclohex-2-enol	-	-	Strong band	Bateman	JCS	-	(1955)	1996
$C_7H_{12}O_2$	n-Butyl acrylate	800-2000 2-15 μ -	- L Sol	Spec, Anal Spec, Assign Freq, I	Barnes Walton Thompson	IEC JACS SA	15 79 13	(1943) (1957) (1958)	659 3985 236
		800-1800	-	Band characteristics, Assign	Katritzky	SA	16	(1960)	954
		-	-	Band characteristics, Assign	Katritzky	SA	16	(1960)	964

$C_7H_{12}O_2$	Cyclohexanoic acid	700-1500 -	S Sol	Spec, Assign Freq, Dissociation const Table, Ident ν_{OH}, ν_{OD} Spec	Hadzi Goulden	PRS SA	216 (1953) 6 (1954)	247 129
		892-1307 - 8-13 μ	- - -		Loftfield Bratoz Eliel	JACS SA SA	76 (1954) 8 (1956) 10 (1958)	35 249 423
$C_7H_{12}O_2$	Cyclohexyl formate	-	Sol	Freq, I	Thompson	SA	13 (1958)	236
$C_7H_{12}O_2$	Diallylformal	-	Sol	Band freq, Ext coeff	Davison	JCS	- (1953)	2607
$C_7H_{12}O_2$	cis-2,7-Dihydroxybicyclo [2.2.1]heptane	-	Sol	Band freq	Kwart	JACS	76 (1954)	5400
$C_7H_{12}O_2$	endo-cis-2,3-Dihydroxy- bicyclo[2.2.1]heptane	-	Sol	Band freq	Kwart	JACS	76 (1954)	5400
$C_7H_{12}O_2$	exo-cis-2,3-Dihydroxy- bicyclo[2.2.1]heptane	-	Sol	Band freq	Kwart	JACS	76 (1954)	5400
$C_7H_{12}O_2$	Ethyl 3-methylbut-2- enoate	-	Sol	Band freq	Felton	JCS	- (1955)	2170
$C_7H_{12}O_2$	Ethyl 2-methylcyclo- propanecarboxylate	-	-	Correlation	Washburn	JACS	80 (1958)	504
$C_7H_{12}O_2$	cis- Δ^2 -Heptenoic acid	-	-	Band freq, Struct	Crombie	JCS	- (1952)	2997
$C_7H_{12}O_2$	trans- Δ^2 -Heptenoic acid	-	-	Band freq, Struct	Crombie	JCS	- (1952)	2997
$C_7H_{12}O_2$	cis- Δ^4 -Heptenoic acid	-	-	Struct freq	Crombie	JCS	- (1952)	2997
$C_7H_{12}O_2$	trans- Δ^4 -Heptenoic acid	-	-	Band freq, Struct	Crombie	JCS	- (1952)	2997
$C_7H_{12}O_2$	p-Methoxycyclohexanone	-	-	Methoxyl group detection	Henbest	JCS	- (1957)	1462
	5-17 μ	-	Sol	Spec, Taut	Compbell	JACS	82 (1960)	5426

$C_7H_{12}O_2$	3-Methyl-3-buten-1-ol acetate	-	-	Band freq	Blomquist	JACS 77 (1955)	78
$C_7H_{12}O_2$	2-Methylenhexanoic acid	600-1900	Sol	Spec, Table, I	Cason	JOC 19 (1954)	1947
$C_7H_{12}O_2$	Methyl 2-hexenoate	200-3200	-	Spec, Assign	Hidalgo	ARS 52B (1956)	627
$C_7H_{12}O_2$	Methyl 3-hexenoate	200-3200	-	Spec, Assign	Hidalgo	ARS 52B (1956)	627
$C_7H_{12}O_2$	Methyl trans-4-hexenoate	-	L	Bending freq	Crombie	JCS - (1955)	1007
$C_7H_{12}O_2$	Methyl 5-hexenoate	200-3200	-	Spec, Assign	Hidalgo	ARS 52B (1956)	627
$C_7H_{12}O_2$	cis-2-Methyl-2-hexenoic acid	600-1900	Sol	Spec, Table, I	Cason	JOC 19 (1954)	1947
$C_7H_{12}O_2$	trans-2-Methyl-2-hexenoic acid	600-1900	Sol	Spec, Table, I	Cason	JOC 19 (1954)	1947
$C_7H_{12}O_2$	2,2,4,4-Tetramethyl-3-oxetanone	-	-	Struct	Murr	JACS 77 (1955)	4430
$C_7H_{12}O_2$	Vinyl trimethylacetate	2.8-4.5 μ	G,L	Spec, Band freq	Adelman	JOC 14 (1949)	1057
$C_7H_{12}O_3$	3,5-Dihydroxy-2,4-dimethylpentanoic acid - δ -lactone	-	-	Band freq	Wiley	JACS 77 (1955)	3677
$C_7H_{12}O_3$	2,2-Dimethoxy-2,3-dihydropyran	-	-	Band freq	McElvain	JACS 76 (1954)	5736
$C_7H_{12}O_3$	Ethyl β -acetylpropionate	1200-2000	Sol	Band freq	Bender	JACS 75 (1953)	6304
$C_7H_{12}O_3$	Ethyl α -methylacetate	2-15 μ	-	Absorption freq, Struct, Anal	Rasmussen	JACS 71 (1949)	1073
$C_7H_{12}O_3$	Ethyl tetrahydrofuroate	1600-1800	Sol	Rotation Iso, Assign, Struct	House	JACS 80 (1958)	6389

$C_7H_{12}O_3$	Glycidyl butyrate	2-15 μ	L, Sol	Spec, Group freq	Patterson	AC	26 (1954)	823
$C_7H_{12}O_3$	ois-2-Hydroxyoyclo-hexaneocarboxylic acid	-	Sol	Group & Band freq	Zimmerman	JACS	75 (1953)	2367
$C_7H_{12}O_3$	trans-2-Hydroxyoyclo-hexaneocarboxylic acid	-	Sol	Group & Band freq	Zimmerman	JACS	75 (1953)	2367
$C_7H_{12}O_4$	4-t-Butoxy-1,3-dioxol-2-one	-	-	Band freq	Newman	JACS	77 (1955)	3789
$C_7H_{12}O_4$	1,3-Diaetoxopropane	-	-	Band study	Smith	JACS	73 (1951)	5282
$C_7H_{12}O_4$	Diethyl malonate	7-2.5 μ 5.5-6.5 μ 1200-2000	L L Sol	Band study Spec, H bond Band freq	Ellis Gordy Bender	JACS JCP JACS	51 (1929) 8 (1940) 75 (1953)	1384 516 6304
		-	Sol	Band freq	Felton	JCS	- (1955)	2170
		-	-	Ident	Hart	JACS	77 (1955)	3138
		2-15 μ	Sol	Spec	Washburn	AC	27 (1955)	1812
		2-15 μ	Sol	Spec, Freq, Splitting	Abramovitch	CJC	36 (1958)	151
		3-6 μ 1700-1800	S, Sol Sol	Spec Rotation, Iso, Coupling	Abramovitch Abramovitch	CJC CJC	37 (1959) 37 (1959)	361 1146
$C_7H_{12}O_4$	Diethylmalonic acid	2.8-4.1 μ	Sol	Spec, H bond	Wall	JACS	61 (1939)	2812
$C_7H_{12}O_4$	Dimethyl glutarate	670-3500	L, S	Spec, Struct	Corish	JCS	- (1958)	927
$C_7H_{12}O_4$	α -Ethylglutaric acid	-	-	Ident, Table	Mislow	JACS	77 (1955)	3807
$C_7H_{12}O_4$	Heptanedioic acid	670-2000	S, L	Spec	Corish	JCS	- (1955)	2431
$C_7H_{12}O_4$	Methyl 3:6-anhydro-2-deoxy- α -D-galactopyranoside	700-1000	S	Group & Band freq, I	Barker	JCS	- (1954)	4550
$C_7H_{12}O_4$	Methyl 3:6 anhydro-2-deoxy- α -D-Glucopyranoside	700-1000	S	Group & Band freq, I	Barker	JCS	- (1954)	4550

$C_7H_{12}O_4$	Propionaldehyde diacetate	2-15 μ	-	Absorption freq, Struct anal Band study Group freq	Rasmussen Smith Goodwin	JACS JACS JACS	71 (1949) 73 (1951) 76 (1954)	1073 5282 5599
$C_7H_{12}O_5$	2:5-Di-O-methyl-L-arabono- γ -Lactone	1700-1800	S	Freq	Barker	CIL	- (1958)	658
$C_7H_{12}O_5$	3:4-Di-O-methyl-D-xyloono- δ -Lactone	1700-1800	S	Freq	Barker	CIL	- (1958)	658
$C_7H_{12}O_5$	1- α -Methoxyadipic acid	-	S	Ident	Noyce	JACS	76 (1954)	3630
$C_7H_{12}O_5$	Methyl 3:6-anhydro- α -D-galactopyranoside	700-1000	S	Group & Band freq, I	Barker	JCS	- (1954)	4550
$C_7H_{12}O_5$	Methyl 3:6-anhydro- α -D-glucopyranoside	700-1000	S	Group & Band freq, I	Barker	JCS	- (1954)	4550
$C_7H_{12}O_5$	Methyl 3:6-anhydro-D-mannofuranoside	700-1000	S	Group & Band freq, I	Barker	JCS	- (1954)	4550
$C_7H_{12}O_5$	Methyl 3:6-anhydro- α -D-mannopyranoside	700-1000	S	Group & Band freq, I	Barker	JCS	- (1954)	4550
$C_7H_{12}O_5$	Methyl 3:6-anhydro- β -D-mannopyranoside	700-1000	S	Group & Band freq, I	Barker	JCS	- (1954)	4550
$C_7H_{12}O_5$	Methyl glycolate acetoxyl acetal	-	-	Group study	Adelman	JACS	75 (1953)	2678
$C_7H_{12}O_6$	Quinic acid	700-5000	S	Spec	Weiss	JACS	75 (1953)	5572
$C_7H_{12}O_6Si$	Methyltriacetoxysilane	0-8 μ	Sol	Spec, Freq	Okawara	JACS	82 (1960)	3287
$C_7H_{12}O_7$	D-Gluco- α -hepton Lactone	8-15 μ	S	Spec	Kuhn	AC	22 (1950)	276

$C_7H_{12}S$	Cyclohexenyl methyl sulfide	-	-	Ident	Bateman	JCS	-	(1955)	1996
$C_7H_{13}^D$	1-Heptene- d_1	3300	Sol	Mol association	Josien	CPR	251	(1960)	1379
$C_7H_{13}^{Br}$	4-Bromo-2-heptene	-	-	Band freq	Greenwood	JACS	75	(1953)	4842
$C_7H_{13}^{Br}$	1-Bromo-4-methyl-3-hexene	6-13/11	-	Ident	Slabey	JACS	74	(1952)	1473
$C_7H_{13}^{Br}$	6-Bromo-2-methyl-1-hexene	-	-	Ident	Smith	JACS	73	(1951)	5273
$C_7H_{13}^{Br}$	6-Bromo-2-methyl-2-hexene	-	-	Ident	Smith	JACS	73	(1951)	5273
$C_7H_{13}^{Br}N_2O_2$	Carbromal	2-16/11	Sol	Spec, Table	Umberger	AC	24	(1952)	1309
$C_7H_{13}^{ClO_3}$	n-Hexyl chloro-carbonate	-	S	Band freq	Ory	SA	16	(1960)	1488
$C_7H_{13}^{Cl_3}N_2$	N-n-Amyltrichloro-acetamide	1000-3500	L, Sol	Assign, Struct, H bond	Grivas	CJC	37	(1959)	795
$C_7H_{13}^{IO}$	3-Iodoheptanone-2	-	-	Ident	Djerassi	JACS	75	(1953)	3493
$C_7H_{13}^N$	1-Allylpyrrolidine	-	L	Band freq	Leonard	JACS	76	(1954)	2781
$C_7H_{13}^N$	1,2-Dimethyl- Δ^2 -tetrahydropyridine	-	L	Band freq	Leonard	JACS	76	(1954)	2781
$C_7H_{13}^N$	1-Ethyl- Δ^3 -tetrahydropyridine	-	L	Group freq	Leonard	JACS	76	(1954)	2781
$C_7H_{13}^N$	Heptanenitrile	-	-	Band freq, I	Kitson	AC	24	(1952)	334

$C_7H_{13}N$	1-Pyrrolidino-1-propene	-	Sol	Spec	Opitz	A	23 (1959)	112
$C_7H_{13}N$	Quinuclidine	-	G	Micro spec	Johnson	JCP	33 (1960)	949
$C_7H_{13}N.HBr$	1-Allylpyrrolidine hydrobromide	-	S	Band freq	Leonard	JACS	76 (1954)	2781
$C_7H_{13}NO$	N-Acetylpyrrolidine	-	L	Ident	Snyder	JACS	76 (1954)	118
$C_7H_{13}NO$	3-Acetylpyrrolidine	-	L	Band freq	Leonard	JACS	75 (1953)	6249
$C_7H_{13}NO$	β -t-Butoxypropionitrile	665-5000	L	Freq	Ory	AC	32 (1960)	509
$C_7H_{13}NO$	N-t-Butylacrylamide	946-3450	-	Table, I	Roe	JACS	75 (1953)	5479
$C_7H_{13}NO$	N,N-Dimethyl-3-methyl-2-butenamide	-	-	Anal	Corey	JACS	75 (1953)	1163
$C_7H_{13}NO$	N,N-Dimethyl-3-methyl-3-butenamide	-	-	Anal	Corey	JACS	75 (1953)	1163
$C_7H_{13}NO$	1,6-Dimethyl-2-piperidone	3600-600	L	Spec, Table, Absorption bands	Edwards	CJC	32 (1954)	683
$C_7H_{13}NO$	N-Methyleprolactum	1600-1800	L, Sol	Freq	Hall	JACS	80 (1958)	6428
$C_7H_{13}NO$	Norpseudotropine	-	Sol	Ident	Nickon	JACS	74 (1952)	5566
$C_7H_{13}NO$	2-Oxoheptamethyl-lemimine	1600-1800	Sol, S	Freq, Assign	Hall	JACS	80 (1958)	6428
$C_7H_{13}NO_2$	N-Acetoxypiperidine	-	-	Freq shift	Freeman	JACS	80 (1958)	5954
$C_7H_{13}NO_3S$	β, β -Dimethylacetyl-cysteine	2-15 μ	S	Spec, Anal, Struct	Fuson	JACS	74 (1952)	1

$C_7H_{13}NO_4$	Ethyl α -nitropentanoate	-	-	Band freq	Emmons	JACS	77 (1955)	4391
$C_7H_{13}NO_4$	4-Methyl-5-hydroxy-6-nitro-3-hexanone	-	-	Group & Band freq	Leonard	JOC	17 (1952)	1262
$C_7H_{13}NO_5$	Ethyl β -hydroxy- γ -nitrovalerate	-	-	Group & Band freq	Leonard	JOC	17 (1952)	1262
$C_7H_{13}NO_5$	Ethyl α -methyl- β -hydroxy- γ -nitrobutyrate	-	-	Group & Band freq	Leonard	JOC	17 (1952)	1262
$C_7H_{13}NO_5$	Isoamylglycolate nitrate	-	L	Group freq	Kumler	JACS	75 (1953)	4346
$C_7H_{13}NS$	t-Butyl-2-thiazoline	-	-	Spec freq	Roggers	CPR	249 (1959)	2529
$C_7H_{13}NS$	N-Thioacetyl piperidine	856-2930	S	Freq, Table	Marvel	JACS	77 (1955)	5997
$C_7H_{13}N_2O$	Cyclohexanone semi-carbazone	700-3500	S	Assign, Ident	Davison	JCS	- (1955)	3389
$C_7H_{13}N_2O_3$	Acetylglucylglycin-N-methylamide	2-16 μ	S	Spec, Group assign, I	Asai	JPC	59 (1955)	322
$C_7H_{13}N_2O_4$	Glycylalanyl glycine (L,D)	625-5000	S	Freq, Assign	Ellenbogen	JACS	78 (1956)	363
$C_7H_{13}N_2O_4$	Triglycine methylester	4000-650	S	Spec, Struct	Blout	JACS	74 (1952)	1946
$C_7H_{13}N_2O_5$	2-Butoxy-4,6-diamino-1,3,5-triazine	2-16 μ	S	Spec, Struct	Padgett	JACS	80 (1958)	803
C_7H_{14}	n-Butylcyclopropane	-	-	Ident	Gragson	JOC	20 (1955)	275
C_7H_{14}	Cycloheptane	-	-	Anal	Pines	JACS	74 (1952)	5544
		-	-	Ident	Doering	JACS	76 (1954)	3203
C_7H_{14}	2-Cyclopropylbutane	-	L, Sol	Band freq	Slabey	JACS	76 (1954)	3604
		15-35 μ	S	Spec, Struct	Bentley	SA	15 (1959)	165

C_7H_{14}	1,1-Diethylcyclopropane	2-15 μ	L	Spec, Assign	Derfer	JACS	71	(1949)	2482
C_7H_{14}	1,1-Dimethylcyclopentane	2-15 μ	L	Spec	Plyler	JRNB	38	(1947)	211
		-	-	Thermo	Epstein	JRNB	43	(1949)	245
		-	G	Anal	Bell	AC	22	(1950)	1005
		7-11 μ	-	Band freq	Pines	JACS	73	(1951)	5738
		-	-	Group anal & absorption	Hastings	AC	24	(1952)	612
C_7H_{14}	1-cis-2-Dimethylcyclopentane	1.1-1.8 μ	L	Spec	Liddel	JRNB	11	(1933)	599
		2-15 μ	L	Spec	Plyler	JRNB	38	(1947)	211
		-	L	Anal	Anderson	AC	21	(1949)	911
		-	-	Thermo	Epstein	JRNB	43	(1949)	245
		2-4.2 μ	Sol	Spec, Assign	Plyler	JRNB	43	(1949)	37
		-	G	Anal	Bell	AC	22	(1950)	1005
		-	-	Group anal & absorbance	Hastings	AC	24	(1952)	612
C_7H_{14}	1-trans-2-Dimethylcyclopentane	1.1-1.8 μ	L	Spec	Liddle	JRNB	11	(1933)	599
		2-15 μ	L	Spec	Plyler	JRNB	38	(1947)	211
		-	L	Anal	Anderson	AC	21	(1949)	911
		-	-	Thermo	Epstein	JRNB	43	(1949)	245
		2-4.2 μ	Sol	Spec, Assign	Plyler	JRNB	43	(1949)	37
		-	G	Anal	Bell	AC	22	(1950)	1005
		-	-	Group anal & absorbance	Clark	JACS	74	(1952)	1030
		-	-	Group anal & absorbance	Hastings	AC	24	(1952)	612
C_7H_{14}	1,3-Dimethylcyclopentane	-	-	Anal	Pines	JACS	76	(1954)	2740
		-	-	Ident	Pines	JACS	76	(1954)	4417
C_7H_{14}	1,3-Dimethylcyclopentane	8-11 μ	-	Band freq	Pines	JACS	73	(1951)	5738
C_7H_{14}	1-cis-3-Dimethylcyclopentane	-	-	Thermo	Epstein	JRNB	43	(1949)	245
		22-39 μ	L	Absorption freq	Plyler	JCP	17	(1949)	218
		-	G	Anal	Bell	AC	22	(1950)	1005
		-	-	Group anal & Absorbance	Hastings	AC	24	(1952)	612

		-	-	Ident Anal	Birch Pines	JCS JACS	- 76	(1953) (1954)	2477 2740
C_7H_{14}	1-trans-3-Dimethyl- cyclopentane	2-15 μ	L	Spec Anal Thermo Anal Anal Group anal & Absorbance	Plyler Anderson Epstein Bell Clark Hastings	JRNB AC JRNB AC JACS AC	38 21 43 22 74 24	(1947) (1949) (1949) (1950) (1952) (1952)	211 911 245 1005 1030 612
C_7H_{14}	1,2-Dimethyl-3-ethyl- cyclopropane	15-35 μ	S	Anal Spec, Struot	Pines Bentley	JACS SA	76 15	(1954) (1959)	2740 165
C_7H_{14}	1-cis-2-Dimethyl-ois-3 ethylcyclopropane	3-14 μ	G	Spec	Bartleson	JACS	68	(1946)	2513
C_7H_{14}	2,4-Dimethyl-1-pentene	2-15 μ	L	Spec, Assign	Derfer	JACS	71	(1949)	2482
C_7H_{14}	4,4-Dimethyl-1-pentene	-	-	Anal	Anderson	AC	20	(1948)	998
C_7H_{14}	Ethylocyclopentane	15-24 μ	L	Spec Anal Anal Absorption freq Spec, Assign Anal Table, Anal Freq Group anal & Absorbance Anal	Plyler Anderson Hibbard Plyler Plyler Bell Ipatieff Pines Hastings Pines	JOSA AC AC JCP JRNB AC JACS JACS AC JACS	37 21 21 17 43 22 73 73 24 76	(1947) (1949) (1949) (1949) (1949) (1950) (1951) (1951) (1952) (1954)	746 911 486 218 37 1005 553 5738 612 2740
C_7H_{14}	3-Ethyl-2-pentene	700-1500	-	Spec, Assign	Sheppard	PRS	196	(1949)	195
C_7H_{14}	1-Heptene	-	-	Anal Spec, Anal	Hampton Wotiz	AC JACS	21 73	(1949) (1951)	923 693

C_7H_{14}	-	-	Group freq, Shift	Bellamy	JCS	-	(1958)	2463
	-	-	Band assign	Harrah	JCP	33	(1960)	298
	-	Sol	Mol association	Josien	CPR	251	(1960)	1379
2-Heptene	-	-	Ident	Greenwood	JACS	75	(1953)	4842
cis-2-Heptene	-	L	Spec, Anal	Wotiz	JACS	73	(1951)	693
trans-2-Heptene	-	L	Spec, Anal	Wotiz	JACS	73	(1951)	693
trans-3-Heptene	1-30 μ	G	Spec	Kettering	P	4	(1933)	39
	-	-	Optical density	Johnston	AC	20	(1948)	805
Isopropylcyclobutane	2-15 μ	L	Spec, Struct anal	Derfer	JACS	71	(1949)	175
	2-15 μ	L	Spec	Derfer	JACS	71	(1949)	2482
	-	-	Ident	Pines	JACS	75	(1953)	2315
Methylcyclohexane	1-1.9 μ	L	Spec	Hicks Bruun	JRNB	8	(1932)	525
	1-16 μ	G	Spec	Kettering	P	4	(1933)	39
	1.1-1.8 μ	Sol	Spec	Liddel	JRNB	11	(1933)	559
	1150-1800	-	Spec	Barnes	IEC	15	(1943)	659
	-	-	Thermo, Struct	Beckett	JACS	69	(1947)	2488
	15-24 μ	L	Spec	Plyler	JOSA	37	(1947)	746
	2-15 μ	L	Spec	Plyler	JRNB	38	(1947)	211
	-	-	Spec	Barnes	AC	20	(1948)	402
	-	-	Anal	Saier	AC	20	(1948)	812
	-	L	Anal	Anderson	AC	21	(1949)	911
	9-14 μ	L	Spec	Feed	AC	21	(1949)	900
	8000-9000	Sol	Anal	Hibbard	AC	21	(1949)	486
	-	L	Anal	Ipatieff	JACS	71	(1949)	2685
	22-39 μ	L	Absorption freq	Plyler	JCP	17	(1949)	218
	2-4.2 μ	Sol	Spec, Assign	Plyler	JRNB	43	(1949)	37
	-	G	Anal	Bell	AC	22	(1950)	1005
	-	G	Anal	Coggeshall	AC	22	(1950)	381
	-	L	Table, Anal	Ipatieff	JACS	73	(1951)	553
	7-11 μ	-	Group freq	Pines	JACS	73	(1951)	5738
	3.3-3.55 μ	-	Group anal & Absorbance	Hastings	JACS	24	(1952)	612

C_7H_{14}	2-Methylhexene-1	-	-	Group freq	Sutherland	JACS	75	(1953)	5944
C_7H_{14}	1-Methyl-1-isopropyl- cyclopropane	2-15 μ 2-15 μ	L L	Spec Spec	Derfer Derfer	JACS JACS	71 71	(1949) (1949)	2482 175
C_7H_{14}	1-Methyl-trans-2-propyl- cyclopropane	2-15 μ	L	Spec	Derfer	JACS	71	(1949)	2482
C_7H_{14}	1,1,2,2-Tetramethyloxylo- propane	2-15 μ	G	Spec	Derfer	JACS	71	(1949)	2482
C_7H_{14}	1,1,2,3-Tetramethyloxylo- propane	3-14 μ	L	Spec	Bridson	JCS	-	(1951)	3009
C_7H_{14}	2,3,3-Trimethyl-1-butene	- - -	L - Sol	Quant anal Anal Ext coeff	Fry Anderson Barnard	JAP AC JCS	17 20 -	(1946) (1948) (1950)	150 998 915
$C_7H_{14}^{DNO}$	2,4-Dimethyl-3-pentanone oxime-O-d ₁	800-4000	Sol	Spec, Freq	Karabotsos	JOC	25	(1960)	1409
$C_7H_{14}^{D_2O}$	2,4-Dimethyl-3-pentanol- 2,4-d ₂	800-4000	Sol	Spec, Freq	Karabotsos	JOC	25	(1960)	1409
$C_7H_{14}^{ClNO}$	Ethyl α -chloro-N-methyl- iminoisobutyrate	2-16 μ	-	Spec, Struct	Goering	JACS	73	(1951)	4737

$C_7H_{14}ClNO$	1,2-Dimethyl- Δ^2 -tetrahydro- pyridine perchlorate	-	S	Band freq	Leonard	JACS 76 (1954) 2781
$C_7H_{14}ClNO_4$	1-Ethyl- Δ^3 -tetrahydro- pyridine perchlorate	-	S	Band freq	Leonard	JACS 76 (1954) 2781
$C_7H_{14}ClOPS$	Cyclohexylmethyl- phosphonochlorido- thionate	740-1500	L	Band assign	McIvor	CJC 37 (1959) 869
$C_7H_{14}INOS$	N-(1-Methylthio-1- ethylidenemorpholine iodide	-	Sol	Band freq	Goulden	JCS - (1953) 997
$C_7H_{14}N_2$	Diisopropyl carbodi- imide	2300-2000	Sol	I, Stretch freq	Meakins	JCS - (1957) 997
$C_7H_{14}N_2O_4$	1,1-Dinitroheptane	-	-	Spec, FC	Novikov	IANS - (1959) 1855
$C_7H_{14}N_6$	N-n-Butylmelamine	12-16 μ	S	Spec, Struct	Padgett	JACS 80 (1958) 803
$C_7H_{14}N_6$	N-t-Butylmelamine	2-16 μ	S	Spec, Struct	Padgett	JACS 80 (1958) 803
$C_7H_{14}O$	t-Amyl methyl ketone	2-13 μ	-	Anal	Zook	JACS 77 (1955) 2501
$C_7H_{14}O$	t-Butyl ethyl ketone	2-13 μ	-	Anal	Zook	JACS 77 (1955) 2501
$C_7H_{14}O$	Cycloheptanol	2-16 μ 665-5000	L L	Spec, Ident Band freq	Smith Zeiss	JACS 74 (1952) 6135 JACS 75 (1953) 897
$C_7H_{14}O$	Cyclohexylmethanol	2-16 μ	L	Spec, Ident	Smith	JACS 74 (1952) 6135
$C_7H_{14}O$	α -Cyclopentylethanol	8.35-12.05 μ	L	Table, I, Anal	Smith	JACS 76 (1954) 4564
$C_7H_{14}O$	1,1-Diethyltrimethylene oxide	2564-2689	Sol	H Bond, Band freq	Searles	JACS 73 (1951) 3704

$C_7H_{14}O$ Diisopropyl ketone 1600-1800 Sol JACS 76 (1954) 2526

$C_7H_{14}O$	Dipropyl ketone	2-3.2/ μ 1600-1800	- Sol	Speo Band freq Anal, FC Freq, FC	Sharp Fuson Wheller Bottreau Rao	JACS JACS AC JPR JPC	74 (1952) 76 (1954) 29 (1957) 19 (1958) 63 (1959)	1802 2526 538 552 1311
$C_7H_{14}O$	Di-isopropyl ketone	2-15/ μ 1600-1800	- Sol	Speo, Ident Band freq Solvent effect	Sharp Fuson Bayliss	JACS JACS AJC	73 (1951) 76 (1954) 8 (1955)	5600 2526 26
$C_7H_{14}O$	1-Ethylcyclopentanol	8.35-12.05/ μ L	- Sol	Anal, Freq, FC	Wheeler Rao	AC JPC	29 (1957) 63 (1959)	538 1311
$C_7H_{14}O$	n-Heptaldehyde	1800-1650 2700-3000	Sol Sol	Ext ooeff Spec, Stretch freq Group & Band freq	Smith	JACS	76 (1954)	4564
$C_7H_{14}O$	3-Heptanone	1600-1800	Sol	Band freq Band freq	Cross Pozefsky Pinchas	TFS AC AC	47 (1951) 23 (1951) 27 (1955)	354 1611 2
$C_7H_{14}O$	trans-3-n-Heptenol	-	-	Bending freq	Fuson Pinkard	JACS JACS	76 (1954) 76 (1954)	2526 5169
$C_7H_{14}O$	trans-4-n-Heptenol-1	8-12/ μ	L	Speo, Struct	Crombie	JCS	- (1955)	1007
$C_7H_{14}O$	trans-Hex-3-en-1-yl methyl ether	-	-	Group study	Crombie	JCS	- (1950)	1707
$C_7H_{14}O$	Isobutyl cyclopropyl ether	-	-	Group study	Henbest	JCS	- (1957)	1462
$C_7H_{14}O$	Methoxycyclohexane	3-14/ μ	L	Spec	Bridson	JCS	- (1951)	2999
$C_7H_{14}O$	Methoxy-2-methylpentene-2	-	-	Group study	Crombie	JCS	- (1955)	1007
$C_7H_{14}O$	Methoxy-2-methylpentene-2	700-1700	L	Spec, Ext coeff, Iso	Henbest	JCS	- (1957)	1462
$C_7H_{14}O$	Methyl amyl ketone	7-2.5/ μ 500-1750	L L	Band study Assign	Bateman	JCS	- (1950)	3045
$C_7H_{14}O$					Ellis Thompson	JACS JCS	51 (1929) - (1945)	1384 640

$C_7H_{14}O$	1-Methylcyclohexanol	2-16 μ 665-5000	G Sol Sol -	Band freq Spec, Stretch freq Band freq Band freq, Ident	Hartwell Pozefsky Fuson Williams	JCS AC JACS JACS	- 23 76 76	(1948) (1951) (1954) (1954)	1436 1611 2526 3495
$C_7H_{14}O$	2-Methylcyclohexanol	400-4000	Sol	Spec, Ext coeff, Band study	Cummins	JCS	-	(1957)	3847
$C_7H_{14}O$	cis-2-Methylcyclohexanol	1300-3650	Sol	Ident, Struct	Cole	JCS	-	(1959)	1222
$C_7H_{14}O$	trans-2-Methylcyclohexanol	8.35-12.05 μ 1300-3650	L Sol	Table, Anal, I Struct	Smith Cole	JACS JCS	76 -	(1954) (1959)	4564 1222
$C_7H_{14}O$	cis-3-Methylcyclohexanol	1300-3650	Sol	Ident I, Struct	Noyce Cole	JACS JCS	74 -	(1952) (1959)	5912 1222
$C_7H_{14}O$	trans-3-Methylcyclohexanol	1300-3650	Sol	Ident I, Struct	Noyce Cole	JACS JCS	74 -	(1952) (1959)	5912 1222
$C_7H_{14}O$	4-Methylcyclohexanol	1050-1750	-	Spec	Barnes	IEC	15	(1943)	659
$C_7H_{14}O$	cis-4-Methylcyclohexanol	1300-3650	Sol	Struct	Cole	JCS	-	(1959)	1222
$C_7H_{14}O$	trans-4-Methylcyclohexanol	1300-3650	Sol	Struct	Cole	JCS	-	(1959)	1222
$C_7H_{14}O$	Methylcyclopropylcarbinylethyl ether	-	-	Ident	Pearson	JACS	75	(1953)	1065
$C_7H_{14}O$	Methylethylcyclopropylcarbinol	1-2.7 μ	L, Sol Sol	Band freq Struct	Slabey Washburn	JACS JACS	76 80	(1954) (1958)	3604 504

$C_7H_{14}^O$	Methyl neopentyl ketone	-	-	Reference	Zook	JACS	77 (1955)	2501
$C_7H_{14}^O$	2,4-Dimethyl-3-pentanone - ^{13}C (isotopic)	800-5000	Sol	Freq, Assign	Karabatasos	JOC	25 (1960)	315
$C_7H_{14}^{18}$	2,4-Dimethyl-3-pentanone - O^{18} (isotopic)	800-5000	Sol	Freq, Assign	Karabatasos	JOC	25 (1960)	315
$C_7H_{14}^{OS}$	Butylthio propionate	2.5-16 μ	Sol	Struct, Freq	Nyquist	SA	15 (1959)	514
$C_7H_{14}^{OS}$	Cyclohexyl methyl sulfoxide	970-1100 7-10 μ	Sol Sol	Spec, Table, H bond Assign	Barnard Haszeldine	JCS JCS	- (1949) - (1955)	2442 2901
$C_7H_{14}^{OS}$	Formyl hexyl sulphide	25-16 μ	Sol	Chemical struct	Nyquist	SA	15 (1959)	514
$C_7H_{14}^{O_2}$	Butyl glycidyl ether	2-15 μ	L, Sol	Spec, Group freq	Patterson	AC	26 (1954)	823
$C_7H_{14}^{O_2}$	Isobutyl propionate	500-1750 - - 800-1500	L G Sol Sol	Assign Band freq Band freq Band characteristic, Assign	Thompson Hartwell Russell Katritzky	JCS JCS JCS SA	- (1945) - (1948) - (1955) 16 (1960)	640 1436 479 954
$C_7H_{12}^{O_2}$	n-Butyl propionate	500-1750 - 720-750 2-15 μ	L G L Sol Sol	Assign Band freq Band freq Band freq Assign, Generalization	Thompson Hartwell Wiberly Russell Walton	JCS JCS AC JCS JACS	- (1945) - (1948) 22 (1950) - (1955) 79 (1957)	640 1436 841 479 3985
$C_7H_{14}^{O_2}$	t-Butyl propionate	665-5000	L	Freq	Ory	AC	32 (1960)	509
$C_7H_{14}^O$	cis-Cycloheptane-1,2- diol	- 3500-3600	Sol Sol	Band freq H bond	Kuhn Brimacombe	JACS TE	76 (1954) 4 (1958)	4323 351
$C_7H_{14}^{O_2}$	trans-Cycloheptane-1,2- diol	- 3500-3600	Sol Sol	Band freq H bond	Kuhn Brimacombe	JACS TE	76 (1954) 4 (1958)	4323 351

$C_7H_{14}O_2$	3,3-Diethoxyprop-1-ene	-	Sol	Band freq, Absorbance	Davidson	JCS	-	(1953)	2607
$C_7H_{14}O_2$	Ethyl isovalerate	500-1750	L	Assign	Thompson	JCS	-	(1945)	640
		-	G	Band freq	Hartwell	JCS	-	(1948)	1436
$C_7H_{14}O_2$	n-Heptanoic acid	-	-	Ident	Cairns	JACS	74	(1952)	5636
		6.78-13.70/ μ	L	Band freq, I, Spec	Fowler	JOSA	43	(1953)	1054
		3500-670	L,S	Spec	Corish	JCS	-	(1957)	1746
$C_7H_{14}O_2$	cis and trans-4-Methoxy-cyclohexanol	-	-	Group study	Henbest	JCS	-	(1957)	1462
$C_7H_{14}O_2$	Methyl caproate	-	G	Band freq	Hartwell	JCS	-	(1948)	1436
		1-12/ μ	Sol	Spec, Table, Ext coeff	O'Connor	JAC	28	(1951)	154
		6.84-13.61/ μ	L	Table, Band freq, I	Fowler	JOSA	43	(1953)	1054
$C_7H_{14}O_2$	2-Methylhexanoic acid	6.5-8.5/ μ	L	Ident	Guertin	AC	28	(1956)	1194
$C_7H_{14}O_2$	3-Methylhexanoic acid	6.5-8.5/ μ	L	Ident	Guertin	AC	28	(1956)	1194
$C_7H_{14}O_2$	4-Methylhexanoic acid	6.5-8.5/ μ	L	Ident	Guertin	AC	28	(1956)	1194
$C_7H_{14}O_2$	5-Methylhexanoic acid	6.5-8.5/ μ	L	Ident	Guertin	AC	28	(1956)	1194
$C_7H_{14}O_2$	1-Pentanol-5-vinyl ether	-	-	Ident	Adelman	JACS	75	(1953)	2678
$C_7H_{14}O_2$	Pentyl acetate	1-2.5/ μ	-	Spec	Smith	JACS	48	(1926)	1512
		1800-1650	Sol	Ext coeff	Cartwright	PRS	154	(1936)	138
		-	-	Solvent effect	Gordy	JCP	7	(1939)	93
		-	-	Solvent effect	Gordy	JCP	7	(1939)	163
		720-750	L	Band freq	Wiberly	AC	22	(1950)	841
		1800-1650	Sol	Ext coeff	Cross	TFS	47	(1951)	354
		-	Sol	I	Russell	JCS	-	(1955)	479
$C_7H_{14}O_2$	Isopentyl acetate	-	G	Band freq	Hartwell	JCS	-	(1948)	1436
		-	Sol	Band freq	Hampton	AC	21	(1949)	914
		-	-	Ident	Blomquist	JACS	77	(1955)	78

$C_7H_{14}O_2$	2-Pentyl acetate	2-15 μ	-	Spec, Anal	Brown	JACS	77 (1955)	3614
$C_7H_{14}O_2$	3-Pentyl acetate	2-15 μ	-	Spec, Anal	Brown	JACS	77 (1955)	3614
$C_7H_{14}O_2$	Isopropyl isobutyrate	500-1700	L G	Assign Band freq	Thompson Hartwell	JCS	- (1945)	640
		-				JCS	- (1948)	1436
$C_7H_{14}O_2$	Isopropyl n-butyrate	500-1750	L G	Assign Band freq	Thompson Hartwell	JCS	- (1945)	640
		-				JCS	- (1948)	1436
		-	L	Band freq	Edwards	JCS	- (1953)	3427
		800-1500	Sol	Band characteristics, Assign	Katritzky	SA	16 (1960)	954
		-	-	Band characteristics, Assign	Katritzky	SA	16 (1960)	964
$C_7H_{14}O_2$	n-Propyl isobutyrate	500-1750	L G	Assign Band freq	Thompson Hartwell	JCS	- (1945)	640
		-				JCS	- (1948)	1436
$C_7H_{14}O_2$	n-Propyl n-butyrate	1800-1650 2800-3000	Sol Sol	Ext coeff Spec, Stretch freq	Cross Pozefsky	TFS AC	47 (1951) 23 (1951)	354 1611
		-	L	Band freq	Edwards	JCS	- (1953)	3427
		600-4000	L	Spec, Assign	LeFevre	AJC	11 (1958)	92
		800-1500	S	Band characteristics, Assign	Katritzky	SA	16 (1960)	954
		-	-	Band characteristics, Assign	Katritzky	SA	16 (1960)	964
$C_7H_{14}O_2S$	Cyclohexyl methyl sulfone	1100-1350	Sol	Spec, H bond, Table, Freq	Barnard	JCS	- (1949)	2442
$C_7H_{14}O_2S$	1-(Tetrahydrothiapyran)- 4-ethane-1,2-diol	-	S	Band freq	Cockburn	JACS	76 (1954)	5703
$C_7H_{14}O_3$	n-Butyl lactate	720-750	L	Band freq	Wiberly	AC	22 (1950)	841
$C_7H_{14}O_3$	2-(2,4-Dimethylpentanone- 3-yl)hydroperoxide	2-15 μ	-	Spec, Ident	Sharp	JACS	73 (1951)	5600

$C_7H_{14}O_3$	Dipropyl carbonate	1-12 μ	L	Spec, Group anal Band freq, Absorption coeff	Bell Bonino	JACS TFS	50 (1928) 25 (1929)	2940 876
$C_7H_{14}O_3$	Ethyl β -ethoxypropionate	800-2000	-	Spec	Barnes	IEC	15 (1943)	659
$C_7H_{14}O_3$	2-Isopropyl-1,3-dioxan-5-ol	3500-3700	Sol	H bond, Struct	Barker	TE	7 (1959)	10
$C_7H_{14}O_3$	4-Methoxymethyl-2,2-dimethyl-1,3-dioxolan	400-3100	G	Freq, Assign	Barker	JCS	- (1959)	802
$C_7H_{14}O_3$	2-(4-Methoxy-2-thiabutyl)-1,3-dioxolane	-	-	Band freq	Smith	JOC	- (1951)	16
$C_7H_{14}O_4$	Methoxymethoxyethyl glycidyl ether	2-15 μ	S, Sol	Spec, Group freq	Patterson	AC	26 (1954)	823
$C_7H_{14}O_5$	Methyl 2-deoxy- α ,D-galactopyranoside	-	S	Group & Band freq, I	Barker	JCS	- (1954)	4211
$C_7H_{14}O_5$	Methyl 2-deoxy- α ,D-glucopyranoside	-	S	Group & Band freq, I	Barker	JCS	- (1954)	4211
$C_7H_{14}O_5$	Methyl 3-deoxy- α ,D-mannopyranoside	700-1000	S	Group & Band freq, I	Barker	JCS	- (1954)	4550
$C_7H_{14}O_5$	Methyl 6-deoxy- α ,L-mannopyranoside	-	S	Group & Band freq, I	Barker	JCS	- (1954)	4211
$C_7H_{14}O_5$	Methyl- α ,D-Fucose	-	S	Band freq, I	Barker	JCS	- (1954)	3468
$C_7H_{14}O_5$	Methyl- β ,D-fucose	-	S	Anal, Band freq, I	Whistler	AC	25 (1953)	1463
$C_7H_{14}O_6$	Isomylitol	-	S	Anal, Band freq, I	Whistler	AC	25 (1953)	1463
$C_7H_{14}O_6$	Methyl α ,D-altroside	-	S	Group and Band freq	Barker	JCS	- (1954)	4211
$C_7H_{14}O_6$	Methyl α ,D-altroside	-	S	Anal, Band freq, I	Whistler	AC	25 (1953)	1463

$C_7H_{14}O_6$	Methyl β , D-altroside	-	S	Anal, Band freq, I	Whistler	AC	25 (1953)	1463
$C_7H_{14}O_6$	Methyl α , D-galactoside	8-15 μ	S	Spec	Kuhn	AC	22 (1950)	276
		-	S	Anal, Band freq, I	Whistler	AC	25 (1953)	1463
		-	S	Band freq, I	Barker	JCS	- (1954)	3468
		-	S	Group & Band freq, I	Barker	JCS	- (1954)	4211
		700-1000	S	Group & Band freq, I	Barker	JCS	- (1954)	4550
$C_7H_{14}O_6$	Methyl β , D-galactoside	8-15 μ	S	Spec	Kuhn	AC	22 (1950)	276
		-	S	Anal, Band freq, I	Whistler	AC	25 (1953)	1463
		-	S	Band freq, I	Barker	JCS	- (1954)	3468
		-	S	Group & Band freq, I	Barker	JCS	- (1954)	4211
		700-1000	S	Group & Band freq, I	Barker	JCS	- (1954)	4550
$C_7H_{14}O_6$	2-O-Methyl- β , D-glucopyranose	-	S	Group & Band freq, I	Barker	JCS	- (1954)	171
$C_7H_{14}O_6$	3-O-Methyl- α , D-glucopyranose	-	S	Group & Band freq, I	Barker	JCS	- (1954)	171
$C_7H_{14}O_6$	6-O-Methyl- α , D-glucopyranose	-	S	Group & Band freq, I	Barker	JCS	- (1954)	171
$C_7H_{14}O_6$	Methyl α , D-glucoside	8-15 μ	S	Spec	Kuhn	AC	22 (1950)	276
		-	S	Anal, Band freq, I	Whistler	AC	25 (1953)	1463
		-	S	Band freq, I	Barker	JCS	- (1954)	171
		-	S	Group & Band freq, I	Barker	JCS	- (1954)	3468
		-	S	Group & Band freq, I	Barker	JCS	- (1954)	4211
		700-1000	S	Group & Band freq, I	Barker	JCS	- (1954)	4550
		800-3000	S	Stretch & Bending freq	Barker	N	186 (1960)	307
$C_7H_{14}O_6$	Methyl β , D-glucopyranoside	8-15 μ	Sol	Spec	Kuhn	AC	22 (1950)	276
		-	S	Anal, Band freq, I	Whistler	AC	25 (1953)	1463
		-	S	Group & Band freq, I	Barker	JCS	- (1954)	171
		-	S	Band freq, I	Barker	JCS	- (1954)	3468
		800-3000	S	Stretch & Bending freq	Barker	N	186 (1960)	307

$C_7H_{14}O_6$	3-Methyl-D-glucose	8-15 μ	S	Spec	Kuhn	AC	22 (1950)	276
$C_7H_{14}O_6$	Methyl α , D-mannofuranoside	700-1000	S	Group & Band freq, I	Barker	JCS	- (1954)	4550
$C_7H_{14}O_6$	Methyl α , D-mannopyranoside	8-15 μ	S	Spec	Kuhn	AC	22 (1950)	276
		-	S	Anal, Band freq, I	Whistler	AC	25 (1953)	1463
		-	S	Band freq, I	Barker	JCS	- (1954)	3468
		-	S	Group & Band freq, I	Barker	JCS	- (1954)	4211
		700-1000	S	Group & Band freq, I	Barker	JCS	- (1954)	4550
$C_7H_{14}O_6$	Methyl β , D-mannopyranoside	-	S	Band freq, I	Barker	JCS	- (1954)	3468
		700-1000	S	Group freq, I	Barker	JCS	- (1954)	4550
$C_7H_{14}O_6$	Methyl α , L-mannopyranoside	-	S	Band freq, I	Barker	JCS	- (1954)	3468
$C_7H_{14}O_6$	Mytilitol	-	S	Group & Band freq	Barker	JCS	- (1954)	4211
$C_7H_{14}O_7$	Hydroxymytilitol	-	S	Group & Band freq	Barker	JCS	- (1954)	4211
$C_7H_{14}O_7$	Hydroxy-isomytilitol	-	S	Group & Band freq	Barker	JCS	- (1954)	4211
$C_7H_{14}S$	1-Methylcyclohexane-1-thiol	-	-	Ident	Moore	JCS	- (1954)	2089
$C_7H_{14}S$	2-Methylcyclohexane-1-thiol	-	-	Ident	Moore	JCS	- (1954)	2089
$C_7H_{14}S_2$	1,3-Bis-Ethylmercapto-propene-1	-	-	Struct	Parham	JACS	77 (1955)	1169
$C_7H_{14}S_2$	t-Butyldithiopropionate	897-2955	L	Freq, Table	Marvel	JACS	77 (1955)	5997
$C_7H_{15}DO$	2,4-Dimethyl-n-pentanol-3-d ₁	800-4000	Sol	Spec, Freq	Karabotsos	JOC	25 (1960)	1409
$C_7H_{15}DO$	2,4-Dimethyl-3-pentanol	800-4000	Sol	Spec, Freq	Karabotsos	JOC	25 (1960)	1409

$C_7H_{15}D_2N$	2,4-Dimethyl-3-pentyl-amine-N,N-d ₂	800-1700	Sol	Spec, Freq	Karabotsos	JOC	25 (1960)	1409
$C_7H_{15}Br$	1-Bromoheptane	2-15 μ 500-1500 -	L L,S L	Spec Spec, Rotational, Iso Mole ratio	Wotiz Brown Yoshino	JACS TFS CJC	71 (1949) 50 (1954) 35 (1957)	3441 535 339
$C_7H_{15}Cl$	1-Chloro-3,3-dimethyl-pentane	-	-	Absorption freq, Quant anal	Schmerling	JACS	71 (1949)	753
$C_7H_{15}Cl$	2-Chloro-2,3-dimethyl-pentane	-	-	Ident, Anal	Schmerling	JACS	75 (1953)	6217
$C_7H_{15}Cl$	3-Chloro-2,3-dimethyl-pentane	-	-	Ident, Anal	Schmerling	JACS	75 (1953)	6217
$C_7H_{15}Cl$	n-Heptyl chloride	16-25 μ	L	Solvent effect	Marrison	JSI	29 (1952)	233
$C_7H_{15}ClO_2S$	n-Heptanesulfonyl chloride	-	-	Spec, Assign	Geiseler	ZE	63 (1959)	1140
$C_7H_{15}Cl_3OSi$	Trichlorosilylhexyl methyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_7H_{15}Cl_3OSi$	Trichlorosilylpentyl ethyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_7H_{15}Cl_3OSi$	Trichlorosilylpropyl ethyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_7H_{15}N$	Cyclohexylmethylaniline	3.38-3.60 μ	S	Freq	Wright	JOC	24 (1959)	1362
$C_7H_{15}N$	2,6-Dimethylpiperidine	2-15 μ	-	Band study	Overberger	JACS	77 (1955)	4100
$C_7H_{15}N$	Di-n-propylketimine	-	-	Band study	Pickard	JACS	76 (1954)	5169
$C_7H_{15}N$	Ethyl-n-butylketimine	-	-	Band study	Pickard	JACS	76 (1954)	5169

$C_7H_{15}N$	N-Ethylpiperidine	2-8 μ 2900-3100 Sol 3.38-3.60 μ S	Spec Freq Freq	Nakanishi Hill Wright	BCSJ JCS JOC	30 (1957) - (1958) 24 (1959)	403 760 1362
$C_7H_{15}N.HI$	N-Ethylpiperidine hydriodide	2-8 μ -	Spec	Nakanishi	BCSJ	30 (1957)	403
$C_7H_{15}NO$	cis-2-Aminocycloheptanol	-	Freq, Assign, Shift	Sicher	CCCC	24 (1959)	950
$C_7H_{15}NO$	trans-2-Aminocyclo- heptanol	-	Freq, Assign, Shift	Sicher	CCCC	24 (1959)	950
$C_7H_{15}NO$	N-Butylpropionamide	1200-1800 Sol	Band Assign, Freq, Assign	Hecht	PRS	235 (1956)	174
$C_7H_{15}NO$	α -Diethylaminoacetone	600-3400 L,Sol	Spec, Freq assign	Beer	JCP	29 (1958)	1097
$C_7H_{15}NO$	2,4-Dimethyl-3-pentanone oxime	3.38-3.60 μ S	Freq	Wright	JOC	24 (1959)	1362
$C_7H_{15}NO$	2,4-Dimethyl-3-pentanone ¹³ -C-3-oxime	800-4000 Sol	Spec, Freq	Karabotsos	JOC	25 (1960)	1409
$C_7H_{15}NO$	2,4-Dimethyl-3-pentanone ¹³ -C-3-oxime	800-4000 Sol	Spec, Freq	Karabotsos	JOC	25 (1960)	1409
$C_7H_{15}NO$	N,N-Diisopropyl- formamide	-	I	Robson	JACS	77 (1955)	498
$C_7H_{15}NO$	N,N-Di-n-propylformamide	-	I	Robson	JACS	77 (1955)	498
$C_7H_{15}NO$	n-Heptaldehyde oxime	3 μ	H bond, Freq	Flett	SA	10 (1958)	21
$C_7H_{15}NO$	n-Heptamide	-	Ident	Horning	JACS	74 (1952)	5151
$C_7H_{15}NO$	1-(2-Hydroxyethyl)- piperidine	3.38-3.60 μ S	Freq	Wright	JOC	24 (1959)	1362
$C_7H_{15}NO$	N-(2-Hydroxyethyl)- piperidine	3 μ	H bond, Freq	Flett	SA	10 (1958)	21

$C_7H_{15}NO$	N-1-Methylbutylidene-ethanolamine	2-15 μ	-	Spec, Struct	Daasoh	JACS	73 (1951)	4523
$C_7H_{15}NO$	2-Methyl-2-n-propyl-oxazolidine	-	Sol	Group freq, Ext coeff	Bergmann	JACS	75 (1953)	358
$C_7H_{15}NO_2$	N,N-Diethyl- β -amino-propionic acid	-	Sol	H bond freq	Barrow	JACS	80 (1958)	86
$C_7H_{15}NO_2$	Ethyl N-n-butyl-carbamate	-	-	Band study	Robson	JACS	77 (1955)	2453
$C_7H_{15}NO_3$	n-Heptyl nitrate	2-15 μ	Sol	Spec, Struct, Ext coeff	Carrington	SA	16 (1960)	1279
$C_7H_{15}NO_3$	1-Propylbutyl nitrate	2-15 μ	Sol	Spec, Struct, Ext coeff	Carrington	SA	16 (1960)	1279
$C_7H_{15}NO_3.HCl$	DL-Carnitine hydrochloride	1350-1550	S	Spec, Ident	Satson	SA	16 (1960)	1322
$C_7H_{15}NO_5.HCl$	2-Amino-2-deoxy-3-O-methyl α , D-glucopyranosehydrochloride	-	S	Group & Band freq, I	Barker	JCS	- (1954)	171
$C_7H_{15}N_2O_5SP$	S-Acetylurea-O,O-diethylthiophosphate	-	-	Struct	Hoegberg	JACS	73 (1951)	557
$C_7H_{15}N_3O$	t-Butyl methyl ketone semicarbazone	700-3500	S	Spec, Assign, Ident	Davison	JCS	- (1955)	3389
$C_7H_{15}N_3O$	Isobutyl methyl ketone semicarbazone	700-1800	S	Assign, Ident	Davison	JCS	- (1955)	3389
$C_7H_{15}O_3P$	Diethylallylphosphate	600-3000	L	Spec, Assign	Gillis	JACS	80 (1958)	2999
$C_7H_{15}O_3S$	n-Heptane-1-sulfonate	500-4000	S	Band freq	Fujimori	BCSJ	32 (1959)	850

$C_7H_{15}O_3B$	Ethylene-n-pentyl borate	6-14 μ	L, S	Assign, Struct	Blau	JCS	-	(1960)	380
C_7H_{16}	2,2-Dimethylpentane	1.1-1.8 μ	L	Spec	Bruun	JRNB	9	(1932)	53
		1.1-1.8 μ	L	Spec	Liddel	JRNB	11	(1933)	599
		-	-	Thermo	Pitzer	CR	27	(1940)	39
		1100-1800	-	Spec	Barnes	IEC	15	(1943)	659
		-	L	Anal	Glasgow	JRNB	38	(1947)	537
		-	-	Anal	Heigl	IEC	19	(1947)	243
		-	-	Anal	Kent	AC	19	(1947)	290
		-	-	Freq	Sutherland	JCP	15	(1947)	3
		-	-	IR, Assign	Sheppard	JCP	16	(1948)	690
		-	-	Skeletal freq	Simpson	PRS	199	(1949)	169
		-	G	Anal	Bell	AC	22	(1950)	1005
		-	-	Group anal & absorption	Hastings	AC	24	(1952)	612
		-	-	Ident, Anal	Schmerling	JACS	75	(1953)	6217
C_7H_{16}	2,3-Dimethylpentane	1.1-1.8 μ	L	Spec	Liddel	JRNB	11	(1933)	599
		-	-	Thermo	Pitzer	CR	27	(1940)	39
		-	-	Anal	Sweeney	IEC	16	(1944)	723
		-	L	Anal	Glasgow	JRNB	38	(1947)	537
		-	-	Anal	Heigl	IEC	18	(1947)	293
		-	-	Anal	Kent	AC	19	(1947)	290
		-	-	Anal	Anderson	AC	20	(1948)	801
		2-15 μ	G	Spec, Struct anal	Derfer	JACS	71	(1949)	175
		-	G	Anal	Bell	AC	22	(1950)	1005
		2900-1370	L	Absorption I	Francis	JCP	18	(1950)	861
		-	-	Anal, Absorption coeff	Schneider	JACS	73	(1951)	5013
		-	-	Group anal & absorbance	Hastings	AC	24	(1952)	612
		7910-8810	L	Spec, I	Lauer	APS	6	(1952)	29
		-	-	Anal	Schmerling	JACS	75	(1953)	4275
		-	-	Ident, Anal	Schmerling	JACS	75	(1953)	6217
		-	L	Anal	Maury	JACS	76	(1954)	5831
		-	-	Anal	Pines	JACS	76	(1954)	2740
		15-35 μ	S	Spec, Struct	Bentley	SA	15	(1959)	165

C ₇ H ₁₆	2,4-Dimethylpentane	1.1-1.8 μ	L	Spec Thermo	Liddel	JRNB	11 (1933)	599
		-	-	Anal	Pitzer	CR	27 (1940)	39
		-	L	Anal	Glasgow	JRNB	38 (1947)	537
		-	-	Anal	Heigl	IEC	19 (1947)	293
		-	-	Anal	Kent	AC	19 (1947)	290
		-	G	Anal	Bell	AC	22 (1950)	1005
		2900-1370	L	Absorption I	Francois	JCP	18 (1950)	861
		-	-	Anal, Absorption	Schneider	JACS	73 (1951)	5013
		-	-	coef				
		-	-	Group anal & absorbance	Hastings	AC	24 (1952)	612
C ₇ H ₁₆	3,3-Dimethylpentane	7910-8810	L	Spec, Group freq, I	Lauer	APS	6 (1952)	29
		-	-	Anal	Schmerling	JACS	75 (1953)	4275
		-	-	Ident, Anal	Schmerling	JACS	75 (1953)	6217
		700-350	L	Table, Freq	Donnaud	CPR	239 (1954)	1480
		-	L	Anal	Maury	JACS	76 (1954)	5831
		800-1200	Sol	Spec, Freq	Karabotsos	JOC	25 (1960)	1409
		1.1-1.8 μ	L	Spec	Liddel	JRNB	11 (1933)	599
		-	-	Thermo	Pitzer	CR	27 (1940)	39
		-	-	Anal	Kent	AC	19 (1947)	290
		-	-	IR, Assign	Sheppard	JCP	16 (1948)	690
C ₇ H ₁₆	3-Ethylpentane	-	G	Anal	Bell	AC	22 (1950)	1005
		2900-1370	L	Absorption I	Francois	JCP	18 (1950)	861
		-	-	Group anal	Hastings	AC	24 (1952)	612
		7910-8810	L	Spec, Group freq, I	Lauer	APS	6 (1952)	29
		1.1-1.8 μ	L	Spec	Liddel	JRNB	11 (1933)	599
		-	-	Thermo	Pitzer	CR	27 (1940)	39
		-	-	Anal	Kent	AC	19 (1947)	290
		-	-	IR, Assign	Sheppard	JCP	16 (1948)	690
		-	L	Anal	Anderson	AC	21 (1949)	911
		-	G	Anal	Bell	AC	22 (1950)	1005

C ₇ H ₁₆	n-Heptane	8-2.0/ μ	L	Magnetic Rotation	Ingersoll	JOSA	6 (1922)	663
		-	L	Harmonic Freq ratio	Ellis	JOSA	8 (1924)	1
		0-2.5/ μ	L	Spec	Ellis	PR	23 (1924)	48
		589-2.5/ μ	L	Band absorption, Spec	Ellis	PR	27 (1926)	298
		-	-	Band freq	Bonino	TFS	25 (1929)	876
		-	L	Spectrum	Lecomte	TFS	25 (1929)	864
		-	-	Thermo	Pitzer	CR	27 (1940)	39
		1.1-1.9/ μ	L	Spec	Hicks	JRNB	8 (1932)	525
		1.1-1.8/ μ	Sol	Spec	Liddel	JRNB	11 (1933)	599
		-	-	Freq	Kirkwood	JCP	7 (1937)	506
		-	-	Thermo	Pitzer	CR	27 (1940)	39
		1100-1800	-	Spec	Barnes	IEC	15 (1943)	659
		-	-	Thermo	Aston	JCP	12 (1944)	336
		-	-	Freq	Kellner	TFS	41 (1945)	217
		6.5-14/ μ	L	Spec	Thompson	PRS	184 (1945)	3
		-	-	Anal	Kent	AC	19 (1947)	290
		3.2-3.6/ μ	-	Spec, Anal	Saler	AC	20 (1948)	812
		-	-	IR, Assign	Sheppard	JCP	16 (1948)	690
		-	L	Anal	Anderson	AC	21 (1949)	911
		-	-	IR, Vib anal	Gates	JCP	17 (1949)	393
		8000-9000	Sol	Spec, Group anal	Hibbard	AC	21 (1949)	486
		-	-	Vib freq	Mizushima	JACS	71 (1949)	1320
		-	-	Band width	Rank	JCP	17 (1949)	1339
		-	-	Assign, Thermo	Sheppard	JCP	17 (1949)	86
		-	-	Selection rule	Simanouti	JCP	17 (1949)	1102
		11650-650	L, Sol	Rotational Iso	Axford	JCP	18 (1950)	51
		-	G	Anal	Bell	AC	22 (1950)	1005
		-	G	Anal	Coggeshall	AC	22 (1950)	381
		3.4/ μ	Sol	Anal	Simard	AC	23 (1951)	1384
		-	L	Spec	Wotiz	JACS	73 (1951)	693
		-	-	Group anal & absorption	Hastings	AC	24 (1952)	612
		15-25/ μ	L	Solvent effect	Marrison	JSI	29 (1952)	233
		-	G, S	Thermo, Group Assign	Person	JACS	75 (1953)	532
		700-350	L	Table, Freq	Domeneud	CPR	239 (1954)	1480
		-	-	Anal	Pines	JACS	71 (1954)	2740

C ₇ H ₁₆	1450-650	S	Freq, Assign	Tschamler	JCP	22	(1954)	1845
	-	-	Freq	Corish	JCS	-	(1955)	2431
	2928-2960	Sol	I, Temp effect	Liddel	JCP	25	(1956)	173
	1.0-2.8 μ	L	Spec	Goddu	AC	29	(1957)	1790
	1-6 μ	L	Refractive index, Table	Jaffe	JOSA	47	(1957)	782
	700-1300	Sol	Ext coeff, Struct	Jones	SA	9	(1957)	235
	-	-	Vib anal, Dipole moment	Theimer	JCP	27	(1957)	1041
	15-35 μ	S	Spec, Struct	Bentley	SA	15	(1959)	165
	1.1-1.8 μ	Sol	Spec	Liddel	JRNB	11	(1933)	599
	-	-	Thermo	Pitzer	CR	27	(1940)	39
2-Methylhexane	-	L	Anal	Glasgow	JRNB	38	(1947)	537
	-	-	Anal	Heigl	IEC	19	(1947)	293
	-	-	Anal	Kent	AC	19	(1947)	290
	-	-	Freq	Sutherland	JCP	15	(1947)	153
	-	-	Anal	Anderson	AC	20	(1948)	801
	-	-	IR, Assign	Sheppard	JCP	16	(1948)	690
	-	L	Anal	Anderson	AC	21	(1949)	911
	-	-	Skeletal freq	Simpson	PRS	199	(1949)	169
	-	G	Anal	Bell	AC	22	(1950)	1005
	-	-	Anal, Absorption	Schneider	JACS	73	(1951)	5013
3-Methylhexane	-	-	coef	Hastings	AC	24	(1952)	612
	-	-	Group anal & absorption	Schmerling	JACS	75	(1953)	6217
	-	-	Ident, Anal	Maury	JACS	76	(1954)	5831
	-	-	Anal	O'Connor	JACS	76	(1954)	2368
	2-12 μ	Sol	Struct, Band freq	Pines	JACS	76	(1954)	2740
	-	-	Anal	Liddel	JRNB	11	(1933)	599
	1.1-1.8 μ	L	Spec	Pitzer	CR	27	(1940)	39
	-	L	Thermo	Glasgow	JRNB	38	(1947)	537
	-	-	Anal	Heigl	IEC	19	(1947)	293
	-	-	Anal	Kent	AC	19	(1947)	290
C ₇ H ₁₆	-	-	Anal	Anderson	AC	20	(1948)	801

C_7H_{16}		-	-	IR, Assign	Sheppard	JCP	16 (1948)	690
		-	L	Anal	Anderson	AC	21 (1949)	911
		8000-9000	Sol	Anal	Hibbard	AC	21 (1949)	486
		-	G	Anal	Bell	AC	22 (1950)	1005
		-	-	Anal, Absorption	Schneider	JACS	73 (1951)	5013
		-	-	coeff				
		-	-	Group anal &	Hastings	AC	24 (1952)	612
		-	-	absorption				
		-	-	Anal, Ident	Schmerling	JACS	75 (1953)	6217
		-	L	Anal	Maury	JACS	76 (1954)	5831
Trimethylbutane		-	-	Anal	Pines	JACS	76 (1954)	2740
		1.1-1.8 μ	L	Spec	Liddel	JRNB	11 (1933)	399
		2.6-3.8 μ	Sol	Spec, Assign	Fox	PRS	175 (1940)	208
		-	-	Thermo	Pitzer	CR	27 (1940)	39
		-	L	Anal	Glasgow	JRNB	38 (1947)	537
		-	-	Anal	Heigl	IEC	19 (1947)	293
		-	-	Anal	Kent	AC	19 (1947)	290
		6.4-14.5 μ	-	Spec, Ident	Ford	JACS	70 (1948)	3793
		2-15 μ	G	Spec, Struct anal	Derfer	JACS	71 (1949)	175
		-	-	Freq, Struct anal	Fry	JOSA	39 (1949)	402
$C_7H_{16}DN$		-	G	Anal	Bell	AC	22 (1950)	1005
		2900-1370	L	Absorption I	Francis	JCP	18 (1950)	861
		-	-	Group anal &	Hastings	AC	24 (1952)	612
		-	-	absorption				
		7910-8810	L	Spec, Group freq, I	Lauer	APS	6 (1952)	29
		-	-	Thermo, IR	Scott	JACS	75 (1953)	2006
		-	-	Group freq	Bartlett	JACS	77 (1955)	2806
		800-1700	Sol	Spec, Freq	Karabotsos	JOC	25 (1960)	1409
	2,4-Dimethyl-3-pentyl-amine-3-d ₁							
$C_7H_{16}ClN$	Trimethyl- α -methylallyl-ammonium chloride	-	Sol	Anal	Young	JACS	77 (1955)	3061
	Trimethyl-cis- γ -methyl allylammonium chloride	-	Sol	Anal	Young	JACS	77 (1955)	3061

$C_7H_{16}ClN$	Trimethyl-trans- γ -methyl-allyl ammonium chloride	-	Sol	Anal	Young	JACS	77 (1955)	3061
$C_7H_{16}ClNO_2$	Acetylcholine chloride	2-9 μ	Sol	Spec, Freq	Jenoks	ABB	88 (1960)	193
$C_7H_{16}NO_4P$	Diethyl ethyl carbamoyl phosphonate	2-16 μ	L,S	Group freq	Reetz	JACS	77 (1955)	3813
$C_7H_{16}N_2$	1-Amino-2,6-dimethylpiperidine	2-15 μ 2-15 μ	- -	Ident, Band freq Band freq	Overberger Overberger	JACS JACS	77 (1955) 77 (1955)	4097 4100
$C_7H_{16}N_2O$	Dimethyldiethylurea	-	Sol	Solvent effect	Beguin	HCA	42 (1959)	2262
$C_7H_{16}N_2O$	N-Isopropylglycine dimethylamide	3 μ	L,Sol	Association	Waley	PRS	199 (1949)	499
$C_7H_{16}O$	2,4-Dimethylpentanol-3	665-5000 800-4000	L Sol	Band freq Spec, Freq	Zeiss Karabotsos	JACS JOC	75 (1953) 25 (1960)	897 1409
$C_7H_{16}O$	4,4-Dimethylpentanol-2	-	-	Anal	Gasson	JCS	- (1954)	2170
$C_7H_{16}O$	n-Heptyl alcohol	-	-	Band freq, Absorption coeff	Bonino	TFS	25 (1929)	876
		9-4 μ 2-15 μ 2800-3000	L,Sol L Sol	Spec, H bond Spec Stretch freq, Spec	Kinsey Wotiz Posefsky	JCP JACS AC	5 (1937) 71 (1949) 23 (1951)	399 3441 1611
		-	L	Band freq	Mosher	AC	27 (1955)	517
		2.75-2.28 μ	Sol	I, Temp dependence	Hughes	JCP	24 (1956)	489
		350-4000	L,Sol	Band study	Stuart	JCP	24 (1956)	559
		3570-3700	Sol	Freq, I	Flynn	AJC	12 (1959)	575
$C_7H_{16}O$	Heptanol-2	665-5000	L	Band freq	Zeiss	JACS	75 (1953)	897
		-	-	Ident	Williams	JACS	76 (1954)	3495
		-	L	Band freq	Mosher	AC	27 (1955)	517
		350-4000	L,Sol	Band study	Stuart	JCP	24 (1956)	559
$C_7H_{16}O$	Heptanol-3	665-5000	L	Band freq	Zeiss	JACS	75 (1953)	897

$C_7H_{16}O$	Heptanol-4	665-5000 2.76 μ	L Sol	Band freq I, Temp dependence	Zeiss Hughes	JACS JCP	75 (1953) 24 (1956)	897 489
$C_7H_{16}O$	n-Hexyl methyl ether	3100-2800	Sol	Band study	Henbest	JCS	-	(1957) 1462
$C_7H_{16}O$	2-Methoxyhexane	-	-	Ident	Noyce	JACS	76 (1954)	3630
$C_7H_{16}O$	d-2-Methoxyhexane	-	-	Ident	Noyce	JACS	76 (1954)	3630
$C_7H_{16}O$	2-Methyl-2-hexanol	350-4000	L, Sol	Band freq	Stuart	JCP	24 (1956)	559
$C_7H_{16}O$	5-Methyl-1-hexanol	350-4000	L, Sol	Band freq	Stuart	JCP	24 (1956)	559
$C_7H_{16}O$	n-Propyl t-butyl ether	665-5000	L	Freq	Ory	AC	32 (1960)	509
$C_7H_{16}O$	Triethylmethanol	3300-3700	Sol	H bond	West	JACS	81 (1959)	6145
$C_7H_{16}O_2$	5-Ethoxypentanol-1	2.3-3.2 μ	Sol	H bond	Wall	JACS	61 (1939)	2679
$C_7H_{16}O_2$	n-Heptylhydroperoxide	5.5-14.5 μ	L	Spec, Group freq	Mosher	AC	27 (1955)	517
$C_7H_{16}O_2$	2-Heptyl hydroperoxide	-	-	Ident	Williams	JACS	76 (1954)	3495
		5.5-14.5 μ	L	Spec, Group freq	Mosher	AC	27 (1955)	517
$C_7H_{16}O_2$	Propylal	1500-3000	Sol	Group freq	Briggs	AC	29 (1957)	904
$C_7H_{16}O_3$	Ethyl orthoformate	1010-1195	Sol	Spec, Struct Spec, Freq	Bergmann Nukada	JACS NKZ	73 (1951) 81 (1960)	2352 1028
$C_7H_{16}O_6S_3$	Triethylsulfonyl- methane	1000-1500	Sol	Spec	Schreiber	AC	21 (1949)	1168
$C_7H_{16}S$	n-Heptyl mercaptan	2800-3000	Sol	Spec, Stretch freq	Pozefsky	AC	23 (1951)	1611
$C_7H_{16}S_2$	1,1-Bis-ethylmercapto- propane	2.5-15 μ	L	Spec	Cairns	JACS	74 (1952)	3982

$C_7H_{16}S_3$	Triethyltrithio orthoformate	-	-	Ident	Cairns	JOC	18 (1953)	748
$C_7H_{16}Si$	Cyclopentamethylene dimethylsilane	2-35 μ	L	Spec, Assign	Oshesky	JACS	79 (1957)	2057
$C_7H_{17}^N$	2,4-Dimethyl-3-pentylamine-3-C ₁₃	800-1700	Sol	Spec, Freq	Karabotsos	JOC	25 (1960)	1409
$C_7H_{17}^N$	n-Heptylamine	1050-1750 2-15 μ	- L,Sol	Spec NCA, Freq, Assign	Barnes Stewart	IEC JCP	15 (1943) 30 (1959)	659 1259
$C_7H_{17}^{NO}$	5-Amino-5-methylhexanol	-	L	Ident	Moffett	JOC	17 (1952)	407
$C_7H_{17}^{NO}$	1-Diethylaminopropan-2-ol	3 μ	Sol	Freq, H bond	Flett	SA	10 (1958)	21
$C_7H_{17}^{NO}$	2-Diethylaminopropan-1-ol	3 μ	Sol	Freq, H bond	Flett	SA	10 (1958)	21
$C_7H_{17}^{NO}$	N-Methyl-N-n-butyl-2-aminoethanol	-	-	Band study Group freq, H bond	Gil Bergmann	JACS JACS	74 (1952) 75 (1953)	1346 68
$C_7H_{17}^{NOSi_2}$	Cyanomethylpentamethyl-disiloxane	-	-	Band freq	Prober	JACS	77 (1955)	3224
$C_7H_{17}^{NS}$	3-Diethylaminopropanethiol	-	L,Sol	Band freq	Plant	JACS	77 (1955)	1572
$C_7H_{17}^{O,PS}$	Di-isopropylmethylphosphonothionate	600-900	S	Band assign	McIvor	CJC	37 (1959)	869
$C_7H_{17}^{O,P}$	Di-isopropylmethylphosphonate	2-25 μ - -	L - -	Spec, Table, Struct Band shift Spec freq	Meyrick Bell Maarsen	JCS JACS RTC	- (1950) 76 (1954) 76 (1957)	225 5185 713
$C_7H_{17}^{O,P}$	Diethyl-dimethoxymethyl phosphite	-	-	Freq, Assign	Ketelaar	RTC	78 (1959)	190

$C_7H_{17}PS_4$	Di-isopropylmethyl-tetrathio-phosphate	2-25 μ	-	Spec struct	Menefee	JOC	22 (1957)	792
$C_7H_{18}OSi$	Triethylmethoxysilane	-	-	Spec	Riskin	CCCC	24 (1959)	3816
$C_7H_{18}NO_2PS$	Di-isopropylmethylphosphoramidothionate	-	-	Spec freq	Popov	ZOK	29 (1959)	1998
$C_7H_{18}NO_2PS$	Di-n-propylmethylphosphoramidothionate	-	-	Spec, Freq	Popov	ZOK	29 (1959)	1998
$C_7H_{18}NO_2P$	Di-isopropylmethylphosphoramidate	-	-	Spec, freq	Maarsen	RTC	76 (1957)	713
$C_7H_{18}OSi$	Trimethylsilylethyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_7H_{18}OSi$	Trimethylsilylpropyl methyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_7H_{18}O_3Si$	Methyltriethoxysilane	700-3000	L	Spec, Table, Group assign	Richards	JOS	- (1949)	124
		600-3500	L	Spec	Okawara	BCSJ	31 (1958)	154
$C_7H_{19}NO_3Si$	Triethoxysilylmethylamine	-	-	Band study	Noll	JACS	73 (1951)	3871
$C_7H_{19}NSi$	N-(Trimethylsilylmethyl)isopropylamine	-	-	Band study	Noll	JACS	73 (1951)	3871
$C_7H_{20}Si$	Di-trimethylsilylmethane	-	-	Band, Study, Assign	Kriegsmann	ZE	61 (1957)	1088
$C_7H_{20}Si_2$	Hexamethyldisilylmethylene	24 μ	L, Sol	IR	Cerato	JCP	22 (1954)	1
$C_7H_{21}NSi_2$	Bis-trimethylsilylmethylamine	-	-	Spec, Assign	Goubeau	ZAUA	303 (1960)	217

$C_7H_{22}O_2Si_3$	Heptamethyltrisiloxane	600-3500	L	Spec, Assign	Sakiyama	BCSJ	31 (1958)	67
$C_7H_{22}O_4Si_4$	Heptamethylcyclotetrasiloxane	600-3500	Sol	Spec, Assign	Sakiyama	BCSJ	31 (1958)	67
$C_7H_{24}O_3Si_4$	Heptamethyltetrasiloxane	600-3500	Sol	Spec, Assign	Sakiyama	BCSJ	31 (1958)	67
$C_7H_{24}O_3Si_4$	Heptamethyltrisiloxymethylsilane	600-3500	Sol	Spec, Assign	Sakiyama	BCSJ	31 (1958)	67
$C_7H_{26}O_4Si_5$	Heptamethylpentasiloxane	600-3500	Sol	Spec, Assign	Sakiyama	BCSJ	31 (1958)	67
$C_7H_{28}O_7Si_7$	Cycloheptamethylsiloxane	2050-2250	Sol	Freq, Struct	Smith	SA	15 (1959)	412
C_7D_5N	Benzonitrile-d ₅	-	-	Spec, Assign	Bak	ZE	64 (1960)	560
C_7D_8	Toluene-d ₈	2.5-15 μ 600-4800	- G, L	Assign Assign, I	Kovner Fuson	OS SA	5 (1958) 16 (1960)	134 106
$C_7Cl_5F_{12}I$	1,3,5-Trichlorododecafluoro-1-iodoheptane	-	-	Ident	Haszeldine	JCS	- (1953)	1592
C_7F_{14}	Tetradecafluorohept-1-ene	-	-	Band freq Pyrolysis study	Haszeldine Lazerte	JCS JACS	- (1952) 75 (1953)	4259 4525
C_7H_{14}	Tetradecafluoromethylcyclohexane	500-1500	G	Spec, Assign	Thompson	JCS	- (1948)	1432
$C_7F_{14}O$	Di-heptafluoropropyl ketone	-	-	Spec, Group freq	Henne	JACS	75 (1953)	992
C_7F_{16}	Hexadecafluoro-2,3-dimethylpentane	500-1500	G	Assign, Spec	Thompson	JCS	- (1948)	1432

C_7F_{16}	Hexadecafluoroheptane	500-1500 9-13 μ 1-39 μ -	G G,L,S G,L -	Spec, Assign Iso Spec Ident, Anal	Thompson Szasz Oliver Rotariu	JCS JCP JACS JACS	- 18 73 74	(1948) (1950) (1951) (1952)	1432 1417 5722 5783
C_8H_2	Tetracetylene	-	-	FG, Bond length	Longuet	TFS	48	(1952)	1077
$C_8H_2F_{14}O_2$	2,2,3,3,4,4,4-Heptafluorobutyl heptafluorobutyrate	-	L	Band freq	Rappaport	JACS	75	(1953)	2695
$C_8H_3Cl_4F_3$	3,4-Dichloro- α , α -dichloro- β , β -trifluoroethylbenzene	3-15 μ	L	Spec	Park	JACS	73	(1951)	709
$C_8H_3Cl_5S$	1-Pentachlorophenylmercaptoethylene	-	Sol	Group freq, Spec	Potts	SA	15	(1959)	679
$C_8H_3NO_5$	3-Nitrophthalic anhydride	1300-1500	-	Shift, Stretch freq	Jones	CIL	-	(1959)	880
$C_8H_4DNO_2$	p-Cyanobenzoic acid O-d ₁	650-900	L,Sol	Bending freq	Yoshida	CPBT	8	(1960)	389
$C_8H_4D_6$	m-Xylene- α , α , α , α , α' , α' , α' -d ₆	2-30 μ	G,L	Spec, Vib assign	Wilmshurst	CJC	35	(1957)	911
$C_8H_4BrNO_2$	4-Bromoisatin	1300-3500	Sol	H bond, Struct	O'sullivan	JCS	-	(1957)	2202
$C_8H_4BrNO_2$	6-Bromoisatin	1300-1600	Sol	H bond, Struct, Freq	O'sullivan	JCS	-	(1957)	2202
$C_8H_4BrNO_2$	7-Bromoisatin	1300-3500	Sol	H bond, Struct, Freq	O'sullivan	JCS	-	(1957)	2202

C₈ COMPOUNDS

$C_8H_4ClF_3O$	m-Chloro- ω , ω , ω -tri-fluoroacetophenone	3-15 μ	G, L	Spec	Park	JACS	73 (1951)	709
C_8H_4ClNO	p-Cyanobenzoyl-chloride	650-900	Sol, L	Bending freq	Yoshida	CBT	8 (1960)	389
$C_8H_4ClNO_2$	4-Chloroisatin	1300-3500	Sol	H bond, Struct, Freq	O'Sullivan	JCS	- (1957)	2202
$C_8H_4ClNO_2$	6-Chloroisatin	1300-3500	Sol	H bond, Struct, Freq	O'Sullivan	JCS	- (1957)	2202
$C_8H_4ClNO_2$	7-Chloroisatin	1300-3500	Sol	H bond, Struct, Freq	O'Sullivan	JCS	- (1957)	2202
$C_8H_4Cl_2O_2$	5,7-Dichloro-3(2H)-benzofuranone	2-14 μ	S	Spec	Stefanye	JOC	20 (1955)	813
$C_8H_4Cl_2F_3$	m-Chloro- α , α -dichloro- β , β , β -trifluoroethylbenzene	3-15 μ	L	Spec	Park	JACS	73 (1951)	709
$C_8H_4Cl_4O$	ω :2:4:6-Tetrachloro-acetophenone	-	L, Sol S, L, G, Sol	Rotational Iso Freq, Dipole effect	Bellamy Bellamy	JCS JCS	- (1956) - (1957)	3704 4249
$C_8H_4FNO_2$	5-Fluoroisatin	1300-3500	Sol	H bond, Struct, Freq	O'Sullivan	JCS	- (1957)	2202
$C_8H_4FNO_2$	6-Fluoroisatin	1300-3500	Sol	H bond, Struct, Freq	O'Sullivan	JCS	- (1957)	2202
$C_8H_4FNO_2$	7-Fluoroisatin	1300-3500	Sol	H bond, Struct, Freq	O'Sullivan	JCS	- (1957)	2202
$C_8H_4F_6$	1,4-Bis-trifluoromethylbenzene	2-22 μ -	L -	IR, Assign Struct	Ferguson Randle	JCP JCS	21 (1953) - (1955)	1731 1311
$C_8H_4F_{10}O_2$	2,2,2-Trifluoroethyl 4,4,5,5,6,6,6-heptafluoro-2-hexenoate	-	L	Band freq	Filler	JACS	76 (1954)	1376
$C_8H_4INO_2$	4-Iodoisatin	1300-3500	Sol	H bond, Struct, Freq	O'Sullivan	JCS	- (1957)	2202

$C_8H_4INO_2$	6-Iodoisatin	1300-3500	Sol	H bond, Struct, Freq	O'Sullivan	JCS	-	(1957)	2202
$C_8H_4INO_2$	7-Iodoisatin	1300-3500	Sol	H bond, Struct, Freq	O'Sullivan	JCS	-	(1957)	2202
$C_8H_4N_2$	m-Dicyanobenzene	625-5000	S	IR anal, Spec	Hadden	AC	31	(1959)	1052
		-	L	Substitution effect	Cabana	JPC	64	(1960)	1941
$C_8H_4N_2$	Phthalonitrile	-	Sol	Solvent effect, Freq, I	Bayliss	SA	15	(1959)	12
		625-5000	S	IR anal, Spec	Hadden	AC	31	(1959)	1052
		-	L	Substitution effect	Cabana	JPC	64	(1960)	1941
$C_8H_4N_2$	Terephthalonitrile	-	-	Band freq	Kitson	AC	24	(1952)	334
		625-5000	S	IR anal, Spec	Hadden	AC	31	(1959)	1052
		-	L	Substitution effect	Cabana	JPC	64	(1960)	1941
$C_8H_4N_2O_4$	7-Nitroisatin	1300-3500	Sol	H bond, Struct, Freq	O'Sullivan	JCS	-	(1957)	2202
$C_8H_4N_2O_4$	3-Nitrophthalimide	1290-4000	Sol	H bond, Struct, Spec	Kellie	JCS	-	(1956)	3809
$C_8H_4N_2O_4$	4-Nitrophthalimide	1290-4000	Sol	H bond, Struct, Spec	Kellie	JCS	-	(1956)	3809
$C_8H_4N_2O_4$	2,4,5,7-Tetrahydroxy- pyrimido (5,4-g) pteridine (Bis- alloxazine)	-	S	Ident	Taylor	JACS	76	(1954)	1874
		-	-	Ident	Taylor	JACS	77	(1955)	2243
$C_8H_4N_2O_4$	2,4,6,8-Tetrahydroxy- pyrimido (5,4-g) pteridine	-	-	Ident	Taylor	JACS	77	(1955)	2243
$C_8H_4O_2$	2,4,6-Octatriynoic acid	-	Sol	Group freq, I	Allan	JCS	-	(1955)	1874
$C_8H_4O_3$	Coumaran-2,3-dione	-	S	Band freq	Grove	JCS	-	(1951)	883
$C_8H_4O_3$	Phthalic anhydride	1050-2000	-	Spec, Absorption freq	Barnes	IEC	15	(1943)	659
		2-16 μ	S	Spec	Ingebrigtsen	AC	26	(1954)	1765
		330-2000	S	Freq	Jakobson	APS	14	(1960)	61

$C_8H_8O_4$	Phthaloyl peroxide	-	S, Sol	Table, Band freq	Davison	JCS - (1951)	2456
$C_8H_4O_5$	3,6-Dihydroxyphthalic anhydride	-	Sol	H bond	Farmer	JCS - (1956)	3600
C_8H_5D	Phenylacetylene- d_1	-	Sol	H bond	Murshashi	BCSJ 32 (1959)	1001
$C_8H_5DO_3$	Piperonal- d_1	2-15 μ	L, S, Sol	Band freq	Eggers	AC 28 (1956)	1328
		-	-	Band freq	Pinchas	AC 29 (1957)	334
C_8H_5Br	p-Bromophenyl-acetylene	-	Sol	Band freq, I	Jacobs	JOC 17 (1952)	475
$C_8H_5BrCl_4O$	5-Bromomethyl-1,2,3,4-tetrachlorobicyclo[2.2.1]-2-hepten-7-one	-	Sol	Band freq	Mcbee	JACS 77 (1955)	559
$C_8H_5BrN_2O_2$	6-Bromoisatin- β -oxime	650-1000	-	Freq	O'Sullivan	SA 16 (1960)	762
$C_8H_5BrN_2O_2$	C-Bromo-N-phenylsydnone	2-15 μ	S	Spec Band freq	Earl Fugger	JCS - (1951) JACS 77 (1955)	2207 1843
$C_8H_5BrO_4$	4-Bromo-3-hydroxy-5-oxocycloheptatriene-carboxylic acid	669-3165	S	Table	Johns	JCS - (1954)	4605
$C_8H_5BrO_4$	6-Bromopiperonylic acid	700-1500	S	Freq	Briggs	AC 29 (1957)	904
$C_8H_5BrO_5$	Bromostipitatic acid	685-3268	S	Table, I	Johns	JCS - (1954)	198
$C_8H_5Br_2Cl_3O$	2,6-Dibromo-4-methyl-4-trichloromethyl-2,5-cyclohexadienone	-	S	Band freq	Newman	JOC 19 (1954)	978

$C_8H_5Br_3O$	ω, ω, ω -Tribromoaceto-phenone	-	Sol	Substitution effect	Jones	CJC	36 (1958)	1020
$C_8H_5Br_3O_2$	2,5,7-Tribromo-3-methoxytropone	666-1610	S	Table	Johns	JCS	- (1954)	4605
$C_8H_5ClN_2O$	6-Chloro-4-quin-azolone	-	-	Struct	Sherrill	JOC	19 (1954)	699
$C_8H_5ClO_3$	Phenyl chloro-glyoxylate	1740-1800	Sol	Freq	Simon	JOC	23 (1958)	1078
$C_8H_5Cl_2F_3$	α, α -Dichloro- β, β, β -trifluoroethyl-benzene	3-15 μ	L	Spec	Park	JACS	73 (1951)	709
$C_8H_5Cl_2I^{131}O_3$	2,4-Dichloro-5-iodo ¹³¹ phenoxyacetic acid	2-15 μ	-	Spec	Ard	AC	23 (1951)	133
$C_8H_5Cl_2NO$	3,3-Dichlorooxindole	1290-4000	Sol	Struct, Spec, H bond	Kellie	JCS	- (1956)	3809
$C_8H_5Cl_3O$	$\omega, 2, 4$ -Trichloroaceto-phenone	-	L, Sol G, L, Sol	Rotational iso C = O freq	Bellamy Bellamy	JCS JCS	- (1956) - (1957)	3704 4294
$C_8H_5Cl_3O$	$\omega, 2, 5$ -Trichloroaceto-phenone	-	L, Sol G, L, Sol	Rotational iso CO freq	Bellamy Bellamy	JCS JCS	- (1956) - (1957)	3704 4294
$C_8H_5Cl_3O$	$\omega, 3, 4$ -Trichloroaceto-phenone	-	L, Sol G, L, Sol	Rotational iso CO freq	Bellamy Bellamy	JCS JCS	- (1956) - (1957)	3704 4294
$C_8H_5Cl_3O$	ω, ω, ω -Trichloroaceto-phenone	-	Sol	Substitution effect	Jones	CJC	36 (1958)	1020
$C_8H_5Cl_3OS$	Phenylthio trichloro-acetate	2.5-6.5 μ	Sol	Effect of structure on frequency	Nyquist	SA	15 (1959)	514

$C_8H_5Cl_5O$	2,6-Dichloro-4-methyl-4-trichloromethyl-2,5-cyclohexadienone	-	S	Band freq	Newman	JOC	19 (1954)	978
$C_8H_5FN_2O_2$	5-Fluoroisatin- β -oxime	650-1000	-	Freq	O'Sullivan	SA	16 (1960)	762
$C_8H_5F_3O$	ω, ω, ω -Trifluoroacetophenone	3-15 μ 650-5000	G,L Sol	Speo Stretch freq	Park Griffin	JACS SA	73 (1951) 16 (1960)	709 1464
$C_8H_5F_3OS$	Phenylthio trifluoroacetate	2.5-16 μ	Sol	Structure effect on freq	Nyquist	SA	15 (1958)	514
$C_8H_5F_3O_2S$	α -Thenoyltrifluoroacetone	-	Sol	Group freq	Bellamy	JCS	- (1954)	4487
$C_8H_5F_3O$	Ethyl pentafluoro-phenyl ether	900-1550	L	Characteristic freq	Birchall	JCS	- (1959)	13
$C_8H_5F_3O_2$	1,1,1,2,2,3,3,4,4-Nonafluoro-5,7-octanedione	-	-	H bond, Band freq	Park	JACS	75 (1953)	4753
$C_8H_5IN_2O_2$	6-Iodoisatin- β -oxime	650-1000	-	Freq	O'Sullivan	SA	16 (1960)	762
C_8H_5NO	Agrocybin	-	S	Group freq, I	Jones	JCS	- (1953)	3719
C_8H_5NO	Benzoyl cyanide	700-4000	L Sol,L	Speo, Struct anal Freq, I	Marvel Foffani	JACS NC	71 (1949) 13 (1959)	34 213
C_8H_5NO	4-Cyanobenzaldehyde	-	Sol	Group & band freq	Pinchas	AC	27 (1955)	2
C_8H_5NOS	Benzoyl isothiocyanate	2000-2300 4000-750	Sol L	Freq Spec	Caldow Ham	SA SA	13 (1958) 16 (1960)	212 393
$C_8H_5NO_2$	o-Cyanobenzoic acid	700-4000	S,L	Table, Band freq	Flett	JCS	- (1951)	962
$C_8H_5NO_2$	p-Cyanobenzoic acid	850-900	L,Sol	Bending freq	Yoshida	CPBT	8 (1960)	389

$C_8H_5NO_2$	Isatin	2000-700 3 μ	S Sol	Spec, Group freq Spec, Struct	Bergmann Russell	JACS SA	77 (1955) 8 (1956)	1549 138
		1300-3500	Sol	H bond, Struct, Freq	O'Sullivan	JCS	- (1957)	2202
		650-1000	-	Freq	Binder	JACS	81 (1959)	3608
		1500-3500	Sol	Freq assign, Struct	Sadler	JCS	- (1959)	667
$C_8H_5NO_2$	Phthalimide	1290-4000 3 μ	Sol	Struct, H bond, Spec	Kellie	JCS	- (1956)	3809
		3650-1400	Sol	Spec	Russell	SA	8 (1956)	138
			Sol	Spec, Assign	Mason	JCS	- (1957)	4874
$C_8H_5NO_2S$	m-Carboxyphenyl thio- cyanate	2000-2300	Sol	Group freq, Assign	Caldow	SA	13 (1958)	212
$C_8H_5NO_2S$	p-Carboxyphenyl thio- cyanate	2000-2300	Sol	Group freq, Assign	Caldow	SA	13 (1958)	212
$C_8H_5NO_3$	3-Carboxy-4-hydroxy- phenyl isothio- cyanate	2000-3000	Sol	Group freq, Assign	Caldow	SA	13 (1958)	212
$C_8H_5NO_5$	6-Nitropiperonal	725-1500	S	Group freq	Briggs	AC	29 (1957)	904
$C_8H_5NO_8$	2,3,4,5-Tetracarboxy- pyrrole	-	S, Sol	Spec	Scrocco	AAN	20 (1956)	795
$C_8H_5NO_7$	2-Amino-4,5,7-trihydroxy- pyrimido(5,4-g) pteridine	-	S	Ident	Taylor	JACS	76 (1954)	1874
		-	-	Ident	Taylor	JACS	77 (1955)	2243
C_8H_6	Dimethyltriacetylene	443-3283	Sol	Freq	Weber	JCP	21 (1953)	1613
C_8H_6	Phenylacetylene	2.9-3.15 μ	L	Spec	Stanford	JACS	63 (1941)	1094
		2.5-15 μ	L	Spec	Wright	IEC	13 (1941)	1
		2-20 μ	L	Spec	Thompson	JCS	- (1944)	595
		-	-	FC	Linnett	TFS	41 (1945)	223
		-	Sol	H bond	Murhashi	BCSJ	32 (1959)	1001
		300-3800	G, Sol	Freq	Nyquist	SA	16 (1960)	417
		-	G	Spec	Zeil	ZN	15 (1960)	1011

$C_8H_6D_3NO$	Acetanilide-d ₃	750-5000	S, l	IR, I	Abbott	PRS 234 (1956)	247
$C_8H_6D_3NO$	Acetanilide-C-d ₃	1200-1500	S	Spectro, Freq	Abbott	PRS 234 (1956)	247
C_8H_6BrClO	p-Chlorophenacyl bromide	-	Sol	Substitution effect	Thompson	SA 9 (1957)	208
C_8H_6BrNO	5-Bromoindole	1290-4000	Sol	Spec, H bond, Struct	Kellie	JCS - (1956)	3809
$C_8H_6Br_2O$	p-Bromophenacyl bromide	-	Sol	Substitution effect	Thompson	SA 9 (1957)	208
$C_8H_6Br_2O$	o, o-Dibromoacetophenone	-	Sol	Substitution effect	Jones	CJC 36 (1958)	1020
$C_8H_6Br_2O_2$	6-Bromopiperonyl bromide	700-5000	Sol	Group freq	Briggs	AC 29 (1957)	904
$C_8H_6Br_2O_2$	Methyl 2,4-dibromobenzoate	656-3060	Sol	Table, Anal, I	Doering	JACS 76 (1954)	39
$C_8H_6Br_2O_2$	Methyl 2,5-dibromobenzoate	657-3055	Sol	Table, Anal, I	Doering	JACS 76 (1954)	39
$C_8H_6Br_2O_2$	Methyl 3,5-dibromobenzoate	662-3050	Sol	Table, Anal, I	Doering	JACS 76 (1954)	39
$C_8H_6Br_2O_3$	Methyl 3,5-dibromosalicylate	-	-	H bond	Hilbert	JACS 58 (1936)	548
$C_8H_6Br_2O_4$	1-exo-trans-4,5-Dibromo-cis-3,6-endoxo-tetrahydrophthalic anhydride	-	-	Spec, Ident	Berson	JACS 75 (1953)	4366
$C_8H_6Br_2O_4$	exo-trans-4,5-Dibromo-3,6-endoxo-tetrahydrophthalic anhydride	-	S, Sol	Ident, Spec	Berson	JACS 76 (1954)	4060

C_8H_6ClN	O-Chlorophenyl-acetonitrile	-	-	Ident	Shapiro	JACS	75 (1953)	4769
C_8H_6ClN	O-Cyanobenzyl chloride	800-1600	-	Band study, Ext coeff	Katritzky	JCS	- (1959)	3670
C_8H_6ClNO	5-Chlorooxindole	1290-4000	Sol	Spec, Struct, H bond	Kellie	JCS	- (1956)	3809
$C_8H_6ClNO_2$	5-Chloro-2-methoxy-benzonitrile-N-oxide	600-3000	Sol	Spec	Wiley	JOC	25 (1960)	546
$C_8H_6ClN_3$	5-Chloro-1-phenyl-1,2,3-triazole	900-1310	S	Vib, Assign, I	Lieber	CJC	36 (1958)	1441
$C_8H_6Cl_2$	2,6-Dichlorophenyl-ethylene	-	Sol	Group freq, Spec	Potts	SA	15 (1959)	679
$C_8H_6Cl_2O$	ω ,4-Dichloroaceto-phenone	-	S, I, G, Sol	Rotational iso	Bellamy	JCS	- (1956)	3704
		-	S, I, G, Sol	Freq, Dipolar effect	Bellamy	JCS	- (1957)	4294
$C_8H_6Cl_2O$	ω , ω -Dichloroaceto-phenone	-	L, S, Sol	Rotational iso	Bellamy	JCS	- (1956)	3704
		-	S, I, G, Sol	Freq, Dipolar effect	Bellamy	JCS	- (1957)	4294
		-	Sol	Substitution effect	Jones	CJC	36 (1958)	1020
$C_8H_6Cl_2OS$	Phenylthio dichloro-acetate	2.5-16 μ	Sol	Structure effect on freq	Nyquist	SA	15 (1959)	514
$C_8H_6Cl_2O_3$	2,4-Dichlorophenoxy-acetic acid	2-15 μ	Sol	Spec	Ard	AC	23 (1951)	133
$C_8H_6Cl_2O_4$	2,5-Dichloro-3,6-dimethoxy-p-benzoquinone	2200-8000	Sol	Band study	Buckley	JCS	- (1957)	4891

$C_8H_6Cl_2O_4$	3,5-Dichloro-2,6-dimethoxy-p-benzoquinone	2200-8000	Sol	Band study	Buckley	JCS - (1957)	4891
$C_8H_6Cl_3NO_2$	2,3,5-Trichloro-6-dimethylamino-p-benzoquinone	2200-8000	Sol	Band study	Buckley	JCS - (1957)	4891
$C_8H_6Cl_4$	Ethyl-1,3,4,5-tetra-chlorobenzene	9-14 μ	Sol	Freq, I, Dipole moment	Cole	TFS 46 (1950)	103
$C_8H_6Cl_4O$	Trichloromethyl-m-chlorophenylcarbinol	690-3600	Sol	H bond, Band freq	Bergmann	JACS 74 (1952)	1263
$C_8H_6Cl_4O$	Trichloromethyl-o-chlorophenylcarbinol	700-3620	Sol	H bond, Band freq	Bergmann	JACS 74 (1952)	1263
$C_8H_6F_3NO$	Trifluoroacetanilide	-	Sol L,S	Band freq Band freq	Boarne Robson	JCS - (1952) JACS 77 (1955)	4014 498
$C_8H_6F_{10}$	3,3,4,5,5,6,6,7,7-Decafluoro-2-methyl-hept-1-ene	-	-	Band study	Lazerte	JACS 77 (1955)	910
$C_8H_6N_2$	Quinazoline	700-3500	S	Spec, Table, Assign	Culbertson	JACS 74 (1952)	4834
$C_8H_6N_2 \cdot H_2O$	1,3-Diazazulene hydrate	-	S	Band freq, I	Nozoe	JACS 76 (1954)	3352
$C_8H_6N_2O$	3-Hydroxycinnoline	3650-1400	Sol	Spec, Assign	Mason	JCS - (1957)	4874
$C_8H_6N_2O$	4-Hydroxycinnoline	3650-1400	Sol	Spec, Assign	Mason	JCS - (1957)	4874
$C_8H_6N_2O$	5-Hydroxycinnoline	3650-1400	Sol	Spec, Assign	Mason	JCS - (1957)	4874
$C_8H_6N_2O$	6-Hydroxycinnoline	3650-1400	Sol	Spec, Assign	Mason	JCS - (1957)	4874
$C_8H_6N_2O$	7-Hydroxycinnoline	3650-1400	Sol	Spec, Assign	Mason	JCS - (1957)	4874

$C_8H_6N_2O$	8-Hydroxycinnoline	3650-1400	Sol	Spec, Assign	Mason	JCS	-	(1957)	4874
$C_8H_6N_2O$	1-Hydroxyphthalazine	3650-1400	Sol	Spec, Assign	Mason	JCS	-	(1957)	4874
$C_8H_6N_2O$	6-Hydroxyphthalazine	3650-1400	Sol	Spec, Assign	Mason	JCS	-	(1957)	4874
$C_8H_6N_2O$	2-Hydroxyquinazoline	3650-1400	Sol	Spec, Assign	Mason	JCS	-	(1957)	4874
$C_8H_6N_2O$	4-Hydroxyquinazoline	3650-1400	Sol	Spec, Assign	Mason	JCS	-	(1957)	4874
$C_8H_6N_2O$	6-Hydroxyquinazoline	3650-1400	Sol	Spec, Assign	Mason	JCS	-	(1957)	4874
$C_8H_6N_2O$	8-Hydroxyquinazoline	3650-1400	Sol	Spec, Assign	Mason	JCS	-	(1957)	4874
$C_8H_6N_2O$	2-Hydroxyquinoxaline	3650-1400	Sol	Spec, Assign	Mason	JCS	-	(1957)	4874
$C_8H_6N_2O$	5-Hydroxyquinoxaline	3650-1400	Sol	Spec, Assign	Mason	JCS	-	(1957)	4874
$C_8H_6N_2O$	6-Hydroxyquinoxaline	3650-1400	Sol	Spec, Assign	Mason	JCS	-	(1957)	4874
$C_8H_6N_2O$	2-Quinazalone	700-3500	S	Spec, Table, Assign	Culbertson	JACS	74	(1952)	4834
$C_8H_7N_2O$	4-Quinazalone	700-3500	S	Spec, Table, Assign	Culbertson	JACS	74	(1952)	4834
$C_8H_6N_2O$	Quinoxaline-N-oxide	800-1600	-	Spec, Ident	Clemo	JCS	-	(1950)	1481
$C_8H_6N_2O_2$	Isatin- α -oxime	900-4000	S	Comparison	O'Sullivan	JCS	-	(1959)	876
$C_8H_6N_2O_2$	Isatin- β -oxime	900-4000 650-1000	S -	Comparison Freq	O'Sullivan O'Sullivan	JCS SA	- 16	(1959) (1960)	876 762
$C_8H_6N_2O_2$	Malonyl- α -amino- pyridine	700-3400	S	Spec	Snyder	JACS	74	(1952)	4910
$C_8H_6N_2O_2$	p-Nitrophenylaceto- nitrile	1300-1600	S, Sol	Assign, Struct	Kross	JACS	78	(1956)	4225

$C_8H_6N_2O_2$	3-Phenyl-5-hydroxy-1,2,4-oxadiazole	-	-	Ident	Adams	JOC	18 (1953)	934
$C_8H_6N_2O_2$	2,4-Quinoxalinedione	700-3500	S	Spec, Table, Assign	Culbertson	JACS	74 (1952)	4834
		2-16 μ	S	Spec, Group freq	Staiger	JOC	18 (1953)	1427
$C_8H_6N_2O_2$	Quinoxaline-di-N-oxide	800-1600	-	Spec, Ident	Clemo	JCS	- (1950)	1481
$C_8H_6N_2O_3$	5-Nitrooxindole	1290-4000	Sol	Spec, Struct, H bond	Kellie	JCS	- (1956)	3809
$C_8H_6N_2O_3$	4-Mercaptoquinazoline	700-3500	S	Spec, Table, Assign	Culbertson	JACS	74 (1952)	4834
$C_8H_6N_2S$	2-Mercaptoquinoxaline	700-3800	S, Sol	Freq assign	Spinner	JCS	- (1960)	1237
$C_8H_6N_2S$	2-Phenyl-1,3,4-thiadiazole	-	-	Ident	Ainsworth	JACS	77 (1955)	1148
$C_8H_6N_2O_4$	2,4-Diamino-5,6-dihydroxypyrimido-[5,4,g]pteridine	-	S	Ident	Taylor	JACS	76 (1954)	1874
$C_8H_6N_4O_4S_2$	5-Uracilyl disulfide	-	S	Spec	Bardos	JACS	77 (1955)	960
$C_8H_6N_4O_5 \cdot 2H_2O$	Di-2,4,6-trihydroxy-pyrimidin-5-yl disulfide	-	S	Ident, Band freq	Barker	JCS	- (1954)	4206
C_8H_6O	Benzofuran	2-16 μ	L	Spec Ident	Entel Vanmeter	JACS AC	73 (1951) 24 (1952)	4152 1758
C_8H_6OS	Benzo-1,4-oxathiadene	-	-	Ident	Parham	JACS	76 (1954)	1068
$C_8H_6O_2$	Coumaranone	2-13 μ	Sol	Spec	Bose	JACS	74 (1952)	4703
$C_8H_6O_2$	4-Formylbenzaldehyde	-	Sol	Group freq	Pinchas	AC	27 (1955)	2
$C_8H_6O_2$	Phenylglyoxal	-	Sol	Band freq	Cosgrove	JCS	- (1952)	4821

$C_8H_6O_2$	Phthalaldehyde	- 2.8-12 μ	S Sol	Band freq H bond, Band freq	Grove Pinchas	JCS AC	- 29	(1952) (1957)	3345 334
$C_8H_6O_2$	Phthalide	- - 2-15 μ - 1550-1850 330-2000	S S S, Sol Sol - Sol S	Band freq, Taut Band freq Group freq Spec, Anal, Group freq Band freq Freq Freq	Grove Grove Duncanson Pristera Hight Jones Jakobsen	JCS JCS JCS AC JACS CJC APS	- - - 25 77 37 14	(1951) (1952) (1953) (1953) (1955) (1959) (1960)	877 3345 1331 844 4399 2007 61
$C_8H_6O_2S$	4-Hydroxy-4-(2-thienyl)- 2-butenic acid lactone	-	-	Band freq	Vaitiekunas	JACS	76	(1954)	2737
$C_8H_6O_2S_2$	Dithiolisophthalic acid	-	S	Spec, Group freq	Marvel	JOC	18	(1953)	707
$C_8H_6O_3$	Benzoylformic acid	-	Sol	H bond	Okii	BCSJ	33	(1960)	119
$C_8H_6O_3$	2-Formylbenzoic acid	- -	S S	Band freq, Taut Band freq	Grove Grove	JCS JCS	- -	(1951) (1952)	877 3345
$C_8H_6O_3$	4-Hydroxycoumarone	-	Sol	H bond	Farmer	JCS	-	(1956)	3600
$C_8H_6O_3$	4-Hydroxyphthalide	-	S, Sol	Group freq	Duncanson	JCS	-	(1953)	1331
$C_8H_6O_3$	7-Hydroxyphthalide	-	S, Sol	H bond, Group freq	Duncanson	JCS	-	(1953)	1331
$C_8H_6O_3$	4-Ketocycloheptatriene- carboxylic acid	735-1709	S	Table, Band freq	Bartels	JCS	-	(1952)	4461
$C_8H_6O_3$	Piperonal	- 2-15 μ	S L, S, Sol	Band freq Band freq	Wildman Eggers	JACS AC	77 28	(1955) (1956)	1248 1328
$C_8H_6O_3$	Tropone-4-carboxylic acid	700-5000 2-21 μ	S, Sol Sol	Group freq Anal	Briggs Powers	AC AC	29 32	(1957) (1960)	904 1287
$C_8H_6O_3$	Tropone-4-carboxylic acid	-	S	Band freq	Johns	JCS	-	(1955)	309

$C_8H_6O_4$	4,6-Dihydroxycoumarone	-	Sol	H bond	Farmer	JCS	-	(1956)	3600
	none	-	Sol	Spec, Struct	Duncanson	JCS	-	(1957)	3555
$C_8H_6O_4$	3-Hydroxy-5-oxocycloheptatrienecarboxylic acid	680-3390	S	Table	Johns	JCS	-	(1954)	4605
$C_8H_6O_4$	3-Hydroxytropone-2-carboxylic acid	778-1666	S	Table	Johns	JCS	-	(1954)	4605
$C_8H_6O_4$	5-Hydroxytropone-3-carboxylic acid	706-2941	S	Table	Johns	JCS	-	(1955)	309
$C_8H_6O_4$	Isophthalic acid	2-15 μ	S	Spec, Freq, Assign	Gonzales	SA	12	(1958)	17
$C_8H_6O_4$	trans-2-trans-4-Octadiene-6-yne-1,8-dioic acid	-	-	Group freq, I	Allan	JCS	-	(1955)	1874
$C_8H_6O_4$	Octa-4,6-diene-2-yndioic acid	-	-	I, Struct	Jones	JCS	-	(1954)	3212
$C_8H_6O_4$	2,6-Octadiyne-1,8-dioic acid	-	S	Group freq, I	Allan	JCS	-	(1955)	1874
$C_8H_6O_4$	Piperonylic acid	700-5000 5.5-6.5 μ	S Sol	Group freq Band study, Ident	Briggs Sawicki	AC AC	29 31	(1957) (1959)	904 523
$C_8H_6O_4$	Phthalic acid	700-4000 2-8.5 μ - 2.5-15.5 μ 2-15 μ	S,L S S S S	Table, Band freq Spec, H bond Spec, Ident Spec, Anal, I Spec, Freq, Assign	Flett Cardwell Kalkwarf Wright Gonzalez	JCS JCS AC APS SA	- - 26 9 12	(1951) (1953) (1954) (1955) (1958)	962 3740 191 105 17
$C_8H_6O_4$	Terephthalic acid	700-4000 - 2.5-15.5 μ 12-15 μ 2-15 μ -	S,L - S L S -	Table, Band freq Ident Spec, Anal, I Bending freq Spec, Freq, Assign Spec, Freq	Flett Schubert Wright Kross Gonzalez Seidel	JCS JACS APS JACS SA ZE	- 76 9 78 12 62	(1951) (1954) (1955) (1956) (1958) (1958)	962 5462 105 1332 17 214

$C_8H_6O_4$	Tropolone-4-carboxylic acid	-	S	Band freq Band freq	Bartels Johns	JCS - JCS -	(1951) 2352 (1954) 4605
$C_8H_6O_4$	Tropolone-5-carboxylic acid	691-3125	S	Table	Johns	JCS -	(1955) 309
$C_8H_6O_5$	2,3-Dicarboxy-5,6-dihydroxy-1,4-oxo-cyclohexane dilactone	-	-	Band freq	Berson	JACS 76	(1954) 4975
$C_8H_6O_5$	5-Hydroxyisophthalic acid	-	S	Ident	Johns	JCS -	(1954) 198
$C_8H_6O_5$	Isostipitatic acid	664-3448	S	Table, I Band freq	Johns Johns	JCS - JCS -	(1954) 198 (1954) 4605
$C_8H_6O_5$	Stipitatic acid	-	-	Band freq, Struct Band freq	Johnson Johns	JCS - JCS -	(1951) 1139 (1954) 4605
$C_8H_6O_6$	Puberulic acid	-	-	Band freq, Struct Ident	Johnson Johns	JCS - JCS -	(1951) 1139 (1951) 198
$C_8H_6O_7$	Diacetoxymaleic anhydride	5.35-11.75 μ Sol	Sol	Table, Group freq, I	Goodwin	JACS 76	(1954) 5599
C_8H_6S	Thianaphthene	9-14 μ - 14.5 μ 800-1725	Sol - Sol Sol	Spec, Anal Spec Anal Freq	Armstrong Haines Seeber O'Sullivan	JCS - JPC 60 AC 31 JCS -	(1950) 3359 (1956) 549 (1959) 621 (1960) 3278
$C_8H_7DO_2$	p-Methylbenzoic acid-O-d ₁	650-900	L,Sol	Pending freq	Yoshida	CPBT 8	(1960) 389
$C_8H_7DO_3$	p-Methoxybenzoic acid-O-d ₁	650-900	L,Sol	Pending freq	Yoshida	CPBT 8	(1960) 389
$C_8H_7D_2NO$	Phenylacetamide-d ₂	-	-	Deuterium exchange	Bonner	JACS 76	(1954) 6350

C_8H_7Br	Bromocycloocta- tetraene	2-16 μ	Sol	Spec	Cope	JACS	74 (1952)	168
C_8H_7Br	o-is- β -Bromostyrene	10-14 μ	Sol	Spec, Anal	Grovenstein	JACS	75 (1953)	2639
C_8H_7Br	o-Bromostyrene	-	Sol	Spec, Group freq	Potts	SA	15 (1959)	679
C_8H_7Br	trans- β -Bromostyrene	10-14 μ	Sol	Spec, Anal	Grovenstein	JACS	75 (1953)	2639
$C_8H_7BrClNO$	4-Chloro-5-bromo- acetanilide	700-1400	Sol	Assign, Substitution effect	Holt	JCS	- (1958)	1217
C_8H_7BrO	m-Bromoacetophenone	5-7 μ	L	Band freq	Soloway	JACS	73 (1951)	5000
C_8H_7BrO	o-Bromoacetophenone	-	Sol	H bond, Freq, I	Forbes Jones	CJC CJC	35 (1957) 35 (1957)	488 504
C_8H_7BrO	p-Bromoacetophenone	5-7 μ 1600-1800	S	Band freq Band freq	Soloway Fuson	JACS JACS	73 (1951) 76 (1954)	5000 2526
		-	Sol	Band freq, I	Tanaka	JCP	24 (1956)	311
		-	Sol	H bond, Freq, I	Forbes	CJC	35 (1957)	488
		-	Sol	I	Jones	CJC	35 (1957)	504
		-	Sol	Substitution effect	Thompson	SA	9 (1957)	208
C_8H_7BrO	ω -Bromoacetophenone	-	Sol	Substitution effect	Thompson	SA	9 (1957)	208
		-	Sol	Substitution effect	Jones	CJC	36 (1958)	1020
C_8H_7BrOS	Phenylthio monobromo- acetate	2.5-16 μ	Sol	Structure effect on freq	Nyquist	SA	15 (1959)	514
$C_8H_7BrO_2$	2-Bromo-3-methoxy- tropone	669-1639	S	Table	Johns	JCS	- (1954)	4605
$C_8H_7BrO_2$	p-Bromophenacyl alcohol	-	-	Group freq, Ident	Grove	JCS	- (1950)	3350
$C_8H_7BrO_2$	m-Bromophenyl acetate	-	Sol	Freq	Freeman	JACS	82 (1960)	2454

$C_8H_7BrO_2$	p-Bromophenyl acetate	-	Sol	Freq	Freeman	JACS	82 (1960)	2454
$C_8H_7BrO_2$	Carboxycyclohepta- trienylium bromide	686-3279	S	Table	Johnson	JCS	- (1955)	1622
$C_8H_7BrO_2$	Methyl o-bromobenzoate	800-1600 800-1500	- Sol	I, Ext coeff Group assign Band study, Assign	Katritzky Katritzky Katritzky	JCS SA SA	- 16 (1960) 16 (1960)	3670 954 964
$C_8H_7BrO_2$	Methyl m-bromo- benzoate	1500-5000	Sol	Group freq	Briggs	AC	29 (1957)	904
$C_8H_7BrO_2$	Piperonyl bromide	718-1490	Sol	Group freq	Briggs	AC	29 (1957)	904
$C_8H_7BrO_3$	6-Bromopiperonyl alcohol	700-5000	S,Sol	Group freq	Briggs	AC	29 (1957)	904
$C_8H_7BrO_5$	endo-cis-6-Bromo-2,3- dicarboxy-5-hydroxy- 1,4-oxocyclohexane- 3,5-lactone	-	-	Group freq	Berson	JACS	76 (1954)	4975
$C_8H_7BrO_5$	6-Bromo-trans-2,3- dicarboxy-5-hydroxy- 1,4-oxocyclohexane- 3,5-lactone	-	-	Group freq	Berson	JACS	76 (1954)	4975
$C_8H_7BrO_5$	exo-Bromolactonic acid	-	S	Ident Group freq	Berson Berson	JACS JACS	75 (1953) 76 (1954)	1721 4975
C_8H_7Cl	Chlorocycloocta- tetraene	2-16 μ	Sol	Spec	Cope	JACS	74 (1952)	168
C_8H_7Cl	1-Chloro-1-phenyl- ethylene	-	Sol	Group freq, Spec	Potts	SA	15 (1959)	679
C_8H_7Cl	β -Chlorostyrene	2-16 μ	Sol	Spec, Iso	Cope	JACS	74 (1952)	168

C ₈ H ₇ Cl	O-Chlorostyrene	-	Sol	Spec, Group freq	Potts	SA	15 (1959)	679
C ₈ H ₇ Cl	cis-β-Chlorostyrene	2-16 μ	Sol	Spec	Cope	JACS	74 (1952)	168
C ₈ H ₇ ClO	m-Chloroacetophenone	-	Sol	H bond, Freq, I	Forbes	CJC	35 (1957)	488
		-	Sol	I	Jones	CJC	35 (1957)	504
C ₈ H ₇ ClO	o-Chloroacetophenone	2.5-15 μ	-	Spec	Wright	APS	9 (1955)	105
		-	Sol	H bond, Freq, I	Forbes	CJC	35 (1957)	488
		-	Sol	I	Jones	CJC	35 (1957)	504
C ₈ H ₇ ClO	p-Chloroacetophenone	5-7 μ	L	Band freq	Soloway	JACS	73 (1951)	5000
		1600-1800	Sol	Band freq	Fuson	JACS	76 (1954)	2526
		-	Sol	Band freq, I	Tanaka	JCP	24 (1956)	311
		-	Sol	H bond, Freq, I	Forbes	CJC	35 (1957)	488
		-	Sol	I	Jones	CJC	35 (1957)	504
		-	Sol	Substitution effect	Thompson	SA	9 (1957)	208
C ₈ H ₇ ClO	ω-Chloroacetophenone	-	S, L, Sol	Rotation iso	Bellamy	JCS	- (1956)	3704
		-	S, L, G, Sol	Freq, Dipolar effect	Bellamy	JCS	- (1957)	4294
		-	Sol	Substitution effect	Jones	CJC	36 (1958)	1020
C ₈ H ₇ ClO	α-Cycloheptatriene-carboxylic acid chloride	706-3322	S	Table	Johnson	JCS	- (1955)	1622
C ₈ H ₇ ClO	p-Methylbenzoyl chloride	1777-1748 650-900	Sol L, Sol	Freq, Chem properties Bending freq	Flett Yoshida	TFS CPBT	44 (1948) 8 (1960)	767 389
C ₈ H ₇ ClO	Phenylacetyl chloride	2-15 μ	-	Absorption freq, Struct anal	Rasmussen	JACS	71 (1949)	1073
C ₈ H ₇ ClOS	Phenylthio monochloroacetate	2.5-16 μ	Sol	Structure effect on freq	Nyquist	SA	15 (1959)	514
C ₈ H ₇ ClO ₂	2-Chloro-3-methoxytropone	789-1642	S	Table	Johnson	JCS	- (1955)	1841

$C_8H_7ClO_2$	m-Chlorophenyl acetate	-	Sol	Freq	Freeman	JACS	82 (1960)	2454
$C_8H_7ClO_2$	p-Methoxybenzoyl chloride	1775-1747 650-900	Sol l,Sol	Freq, Chem properties Bending freq	Flett Yoshida	TFS CPBT	44 (1948) 8 (1960)	767 389
$C_8H_7ClO_2$	Methyl O-chloro-benzoate	800-1600 800-1500	- Sol	Ext coeff, I Group assign	Katritzky Katritzky Katritzky	JCS SA SA	- 16 (1960) 16 (1960)	3670 954 964
$C_8H_7ClO_2S$	2-Phenylethene-sulphonyl chloride	400-4000	L	Freq, Assign	Freeman	AJC	10 (1957)	227
$C_8H_7ClO_3$	Benzyl chlorocarbonate	-	S	Band freq	Ory	SA	16 (1960)	1488
$C_8H_7ClO_3$	4-Chlorophenoxy-acetic acid	2-15/ μ -	Sol Sol	Spec H bond	Ard Ok1	AC BCSJ	23 (1951) 33 (1960)	133 119
$C_8H_7ClO_3S$	4-Formyl-3-chloro-phenyl methyl sulfone	-	S	Substitution effect	Momose	CPBT	6 (1958)	412
$C_8H_7Cl_3NOB$	p-Methoxybenzonitrile boron trichloride complex	-	Sol	Freq	Gerrard	JCS	- (1960)	2182
$C_8H_7Cl_3NB$	Benzyltrichloride boron trichloride complex	-	Sol	Freq	Gerrard	JCS	- (1960)	2182
$C_8H_7Cl_3NB$	p-Methylbenzonitrile boron trichloride complex	-	Sol	Freq	Gerrard	JCS	- (1960)	2182
$C_8H_7Cl_3N_2$	N-Phenyltrichloroacetamide	1000-3500	S,Sol	H bond, Struct, Assign	Grivas	CJC	37 (1959)	795
$C_8H_7Cl_3N \cdot HCl$	N-Phenyltrichloroacetamide hydrochloride	1350-4000	S	Struct	Grivas	CJC	37 (1959)	1260

$C_8H_7Cl_3O$	4-Methyl-4-trichloro- methyl-2,5-cyclo- hexadienone	-	S	Band freq	Newman	JOC	19 (1954)	978
$C_8H_7Cl_3O$	Trichloromethyl- phenylcarbinol	740-3600	Sol	H bond, Band freq	Bergmann	JACS	74 (1952)	1263
C_8H_7FO	m-Fluoroaceto- phenone	-	Sol	H bond, Freq, I	Forbes Jones	CJC	35 (1957)	488
C_8H_7FO	o-Fluoroaceto- phenone	-	Sol	H bond, Freq, I	Forbes Jones	CJC	35 (1957)	504
C_8H_7FO	p-Fluoroaceto- phenone	-	Sol	H bond, Freq, I	Forbes Jones	CJC	35 (1957)	488
$C_8H_7F_3N.HCl$	N-Phenyltrifluoro- acetamide hydro- chloride	-	-	Struct	Grivas	CJC	37 (1959)	1260
$C_8H_7F_2O$	Ethyl 4,4,5,5,6,6,6- heptafluoro-2- hexenoate	-	L	Band freq	Filler	JACS	76 (1954)	1376
C_8H_7I	β -Iodostyrene	-	-	Spec, Ident	Cope	JACS	74 (1952)	168
C_8H_7IO	p-Iodoacetophenone	-	Sol	Band freq, I	Tanaka	JCP	24 (1956)	311
		-	Sol	H bond, Freq, I	Forbes	CJC	35 (1957)	488
		-	Sol	I	Jones	CJC	35 (1957)	504
C_8H_7IO	ω -Iodoacetophenone	-	Sol	Substitution effect	Jones	CJC	36 (1958)	1020
C_8H_7N	Indole	6600-7000	Sol	Spec, Group anal	Wulf	JACS	57 (1935)	1464
		2.5-3.2 μ	Sol	H bond	Gordy	JACS	62 (1940)	497
		770-3050	L	Table, Band & group freq	Brown	JCS	- (1952)	3172
		3 μ	S,L	H bond, Band study	Fuson	JCP	20 (1952)	145

C_8H_7N	Phenylacetoneitrile	-	-	Comparison	Neuss	JACS	75	(1953)	4870
		-	Sol	Band freq	Pozefsky	AC	27	(1955)	1466
		-	Sol	Band freq, Ext coeff, I	Russell	JCS	-	(1955)	483
		3000-3700	Sol	Freq	Soda	BCSJ	30	(1957)	499
		2900-3100	Sol	Band freq	Hill	JCS	-	(1958)	760
		3100-3350	Sol	H bond	Lund	ACS	12	(1958)	298
		3200-3600	Sol	Spec, Solvent effect	Price	PRS	255	(1960)	5
		1-12 μ	L	Spec	Bell	JACS	57	(1935)	1023
		2.8-5.0 μ	L	Spec	Gordy	JCP	3	(1935)	664
		-	-	Solvent effect	Gordy	JCP	7	(1939)	93
C_8H_7N	m-Tolunitrile	-	-	FC	Idinnett	TFS	41	(1945)	223
		-	-	Band freq	Kitson	AC	24	(1952)	334
		-	Sol	Band freq, Ext coeff, I	Skinner	JCS	-	(1955)	487
		2200-2300	Sol	Freq, Struct	Jesson	SA	13	(1958)	217
		-	Sol	Freq	Gerrard	JCS	-	(1960)	2182
		5-8 μ	-	C_6H_6 derivatives	Depaigne	JPR	7	(1946)	33
		4-14 μ	Sol	Spec, Group freq	Anderson	JCS	-	(1947)	445
		-	-	Band freq	Kitson	AC	24	(1952)	334
		-	-	Ident	Vanmeter	AC	24	(1952)	1758
		-	-	Absorption study	Bomstein	AC	25	(1953)	512
C_8H_7N	o-Tolunitrile	-	Sol	Band freq, Ext coeff, I	Skinner	JCS	-	(1955)	487
		1650-2000	-	Bending freq, Assign	Whiffen	SA	7	(1955)	253
		-	Sol	I	Brown	JACS	80	(1958)	794
		-	-	Band freq	Kitson	AC	24	(1952)	334
		-	-	Freq	Vanmeter	AC	24	(1952)	1758
		-	-	Absorption study	Bomstein	AC	25	(1953)	512
		-	Sol	Band freq, Ext coeff, I	Skinner	JCS	-	(1955)	487
		1650-2000	-	Bending freq, Assign	Whiffen	SA	7	(1955)	253
		800-1600	-	I, Ext coeff	Katritzky	JCS	-	(1959)	3670
		-	-	-	-	-	-	-	-
C_8H_7N	p-Tolunitrile	5-8 μ	-	C_6H_6 derivatives	Depaigne	JPR	7	(1946)	33
		-	Sol	Band freq, Chem properties	Flett	TFS	44	(1948)	767
		-	-	Band freq	Kitson	AC	24	(1952)	334

C_8H_7NO	m-Cyanobenzyl alcohol	-	-	-	Sol	Band freq Band freq, Ext coeff, I Bending freq, Assign Bending freq I Solvent effect, I Assign Freq, Assign Solvent effect, Ext coeff	Bomstein AC JCS SA JACS JACS SA BSCF JCS Katritzky Gerrard	25 (1953) - (1955) 7 (1955) 78 (1956) 80 (1958) 10 (1958) - (1959) - (1959) - (1960)	512 487 253 1332 794 149 93 2051 2182	
C_8H_7NO	p-Cyanobenzyl alcohol	-	-	-	-	Substitution effect, Rot iso	Ok1	BCSJ	32 (1959)	955
C_8H_7NO	7-Hydroxyindole	-	-	2.76-9.38 μ	Sol	Substitution effect, Rot iso	Ok1	BCSJ	32 (1959)	955
C_8H_7NO	p-Methoxybenzonitrile	-	-	1500-5000	Sol	Table, Group & band freq, I	Ek	JACS	76 (1954)	5579
C_8H_7NO	p-Methylphenyl isocyanate	-	-	-	Sol	Band freq, Ext coeff, I	Skinner	JCS	- (1955)	487
C_8H_7NO	2-Methylbenzoxazole	-	-	-	Sol	Group freq	Briggs	AC	29 (1957)	904
C_8H_7NO	m-Methylphenyl isocyanate	-	-	-	Sol	I	Brown	JACS	80 (1958)	794
C_8H_7NO	o-Methylphenyl isocyanate	-	-	-	Sol	Solvent effect, Ext coeff	Gerrard	JCS	- (1960)	2182
C_8H_7NO	p-Methylphenyl isocyanate	-	-	600-3000	Sol	Spec	Wiley	JOC	25 (1960)	546
C_8H_7NO	2-Methylbenzoxazole	-	-	800-1725	Sol	Freq	O'Sullivan	JCS	- (1960)	3278
C_8H_7NO	m-Methylphenyl isocyanate	-	-	-	Sol	Group freq	Caldow	SA	13 (1958)	212
C_8H_7NO	o-Methylphenyl isocyanate	-	-	-	Sol	Group freq	Caldow	SA	13 (1958)	212
C_8H_7NO	p-Methylphenyl isocyanate	-	-	-	Sol	Group freq	Caldow	SA	13 (1958)	212

C_8H_7NO	Oxindole	-	Sol	Table, Major peaks Band freq H bond, Struct, Spec	Witkop Bergmann Kellie	JACS JACS JCS	72 (1950) 77 (1955) - (1956)	614 1549 3809
C_8H_7NOS	p-Methoxyphenyl isothiocyanate	1290-4000	Sol	Group freq Vib freq, NCA Spec	Caldow Rao Ham	SA CS SA	13 (1958) 27 (1958) 16 (1960)	212 474 279
$C_8H_7NO_2$	Dioxindole	-	S	Band freq	Bergmann	JACS	77 (1955)	1549
$C_8H_7NO_2$	o-Hydroxyiminoacetophenone	650-1740	Sol	IR freq shift	Bellamy	JCS	- (1955)	4221
$C_8H_7NO_2$	2-Hydroxy-5-oxo-6,7-dihydro-1,5H-pyridine	-	S	Band freq	Ramirey	JACS	77 (1955)	1035
$C_8H_7NO_2$	5-Hydroxyoxindole	1290-4000	Sol	Spec, Struct, H bond	Kellie	JCS	- (1956)	3809
$C_8H_7NO_2$	O-Methoxyphenyl isocyanate	-	Sol	Group freq	Caldow	SA	13 (1958)	212
$C_8H_7NO_2$	O-Methoxy-p-cyanophenol	3500-3800	Sol	Hammett const, ν_{OH}	Puttnam	JCS	- (1960)	5100
$C_8H_7NO_2$	Vanillinonitrile	3μ	Sol	Freq, H bond	Flett	SA	10 (1958)	21
$C_8H_7NO_2S$	p-Cyanophenyl methyl sulfone	-	-	Substitution effect	Momose	CPBT	6 (1958)	412
$C_8H_7NO_3$	2-Aminotropone-5-carboxylic acid	745-3279	S	Table	Johns	JCS	- (1955)	309
$C_8H_7NO_3$	m-Nitroacetophenone	5-7 μ 1600-1800	Sol	Band freq Band freq Band freq, I Freq, H bond, I I Substitution effect Substitution effect	Soloway Fuson Tanaka Forbes Jones Thompson Katritzky	JACS JACS JCP CJC CJC JCS	73 (1951) 76 (1954) 24 (1956) 35 (1957) 35 (1957) 9 (1957) -	5000 2526 311 488 504 208 2058

$C_8H_7NO_3$	o-Nitroacetophenone	-	Sol	Freq, H bond, I	Forbes Jones	CJC CJC	35 35	(1957) (1957)	488 504
$C_8H_7NO_3$	p-Nitroacetophenone	5-7 μ 1600-1800	S Sol	Band freq Band freq	Soloway Fuson	JACS JACS	73 76	(1951) (1954)	5000 2526
		-	Sol	Band freq, I	Tanaka	JCP	24	(1956)	311
		-	Sol	Freq, H bond, I	Forbes	CJC	35	(1957)	488
		-	Sol	I	Jones	CJC	35	(1957)	504
		700-1700	Sol	Freq, Assign	Katritzky	JCS	-	(1959)	2051
$C_8H_7NO_4$	2-Aminoisophthalic acid	-	-	Ident	Grundon	JACS	74	(1952)	2637
		-	-	Ident	Boekelheide	JACS	75	(1953)	2550
$C_8H_7NO_4$	Methyl m-nitrobenzoate	700-1700	Sol	Substitution effect	Katritzky	JCS	-	(1959)	2058
		-	Sol	Freq	Freeman	JACS	82	(1960)	2454
		800-1500	Sol	Group assign, Band study	Katritzky	SA	16	(1960)	954
		-	-	Assign, Band study	Katritzky	SA	16	(1960)	964
$C_8H_7NO_4$	Methyl o-nitrobenzoate	800-1600	-	Ext coeff, I	Katritzky	JCS	-	(1959)	3670
		800-1500	Sol	Group assign, Band study	Katritzky	SA	16	(1960)	954
		-	-	Assign, Band study	Katritzky	SA	16	(1960)	964
$C_8H_7NO_4$	Methyl p-nitrobenzoate	1300-1600	S, Sol	Struct	Kross	JACS	78	(1956)	4225
		-	G, L	Assign, Fermi resonance	Deschamps	BSCF	-	(1959)	88
		700-1700	Sol	Substitution effect	Katritzky	JCS	-	(1959)	2051
		-	-	Assign, Band study	Katritzky	SA	16	(1960)	964
		800-1500	Sol	Group assign, Band study	Katritzky	SA	16	(1960)	954
		650-900	L, Sol	Bending freq	Yoshida	CPBT	8	(1960)	389
$C_8H_7NO_4$	o-Nitrophenyl acetate	2-15 μ	-	Absorption freq, Struct anal	Rasmussen	JACS	71	(1949)	1073
$C_8H_7NO_4$	p-Nitrophenyl acetate	700-1800	Sol	Struct freq	Short	JCS	-	(1952)	206
		-	Sol	freq	Freeman	JACS	82	(1960)	2454

$C_8H_7NO_4$	p-Nitrophenyl-acetic acid	-	Sol	Freq, Dissociation const Struct	Goulden	SA	6 (1954)	129
		1300-1600	S, Sol		Kross	JACS	78 (1956)	4225
$C_8H_7NO_5$	5-Hydroxy-6-methyl-3,4-pyridinedicarboxylic acid	-	-	Ident	Jones	JACS	73 (1951)	5610
$C_8H_7NO_5$	3-Methoxy-4-nitrobenzoic acid	-	-	Ident	MacMellan	JCS	- (1952)	4019
$C_8H_7NO_5$	O-Nitromandelic acid	2-15 μ	S	Ident	Meinwald	JACS	75 (1953)	485
$C_8H_7NO_5$	p-Nitrophenoxy-acetic acid	-	Sol	Freq, Dissociation const H bond	Goulden	SA	6 (1954)	129
		-	Sol		Okai	BCSJ	33 (1960)	119
$C_8H_7NO_6$	4-Methyl-2,3,5-tricarboxypyrrrole	-	Sol, S	Spec	Scrocco	AAN	20 (1956)	795
C_8H_7NS	Benzyl thiocyanate	600-2200	-	NCA	Lieber	SA	13 (1959)	296
C_8H_7NS	Benzyl isothiocyanate	600-4000	L	Spec	Ham	SA	16 (1960)	279
C_8H_7NS	2-Methylbenzothiazole	800-1725	Sol	Freq	O'Sullivan	JCS	- (1960)	3278
C_8H_7NS	p-Methylphenyl isothiocyanate	-	Sol	NCA	Rao	CS	27 (1958)	474
C_8H_7NS	Thioindoxyl	700-4000	S, Sol	Struct, H bond, Assign	Holt	JCS	- (1958)	1217
$C_8H_7NS_2$	2-Methylthiobenzothiazole	2800-3500	Sol	Spec, Struct, Group freq	Flett	JCS	- (1953)	347
C_8H_7NSe	2-Methylbenzosenazoles	800-1725	Sol	Freq	O'Sullivan	JCS	- (1960)	3278

$C_8H_7N_3O_2$	N-Phenylsydnone	2-15 μ -	S	Spec Freq	Earl Fugger	JCS JACS	- 77	(1951) (1955)	2207 1843
$C_8H_7N_3$	3-Aminocinnoline	3300-3500	Sol	Freq, FC	Short	JCS	-	(1956)	4191
$C_8H_7N_3$	4-Aminocinnoline	3300-3500	Sol	Freq, FC	Short	JCS	-	(1956)	4191
$C_8H_7N_3$	5-Aminocinnoline	3300-3500	Sol	Freq, FC	Short	JCS	-	(1956)	4191
$C_8H_7N_3$	6-Aminocinnoline	3300-3500	Sol	Freq, FC	Short	JCS	-	(1956)	4191
$C_8H_7N_3$	7-Aminocinnoline	3300-3500	Sol	Freq, FC	Short	JCS	-	(1956)	4191
$C_8H_7N_3$	8-Aminocinnoline	3300-3500	Sol	Freq, FC	Short	JCS	-	(1956)	4191
$C_8H_7N_3$	2-Aminoquinazoline	3300-3500	Sol	Freq, FC	Short	JCS	-	(1956)	4191
$C_8H_7N_3$	4-Aminoquinazoline	3300-3500	Sol	Freq, FC	Short	JCS	-	(1956)	4191
$C_8H_7N_3$	5-Aminoquinazoline	3300-3500	Sol	Freq, FC	Short	JCS	-	(1956)	4191
$C_8H_7N_3$	6-Aminoquinazoline	3300-3500	Sol	Freq, FC	Short	JCS	-	(1956)	4191
$C_8H_7N_3$	7-Aminoquinazoline	3300-3500	Sol	Freq, FC	Short	JCS	-	(1956)	4191
$C_8H_7N_3$	8-Aminoquinazoline	3300-3500	Sol	Freq, FC	Short	JCS	-	(1956)	4191
$C_8H_7N_3$	2,5-Dimethyl-3,4-dicyanopyrrole	500-4000	Sol	Spec, Struct, Freq	Eisner	JCS	-	(1958)	971
$C_8H_7N_3$	4-Phenyl-v-triazole	2-16 μ	-	Spec, Group freq	Hartzel	JACS	76	(1954)	667
$C_8H_7N_3O$	3-Amino-5-phenyl-1,2,4-oxadiazole	-	-	Ident	Adams	JOC	18	(1953)	934
$C_8H_7N_3O$	5-Hydroxy-1-phenyl-1,2,3-triazole	900-1310	S, Sol	Vib, Assign	Lieber	CJC	36	(1958)	1441

$C_8H_7N_3O$	5-Phenyl-1,2,4- Δ^4 -triazolone	2-7 μ	S	Spec, Struct	Mautner	JACS	77 (1955)	4076
$C_8H_7N_3O_6$	DNP-Glycine	625-5000	S	Spec, Ident	Friedberg	CJC	37 (1959)	1469
$C_8H_7N_4$	1-m-Chlorophenyl-5-methyltetrazole	8-14 μ	S	Band assign	Roberts	JOC	24 (1959)	654
$C_8H_7N_4$	1-O-Chlorophenyl-5-methyltetrazole	8-14 μ	S	Band assign	Roberts	JOC	24 (1959)	654
$C_8H_7N_4$	1-p-Chlorophenyl-5-methyltetrazole	8-14 μ	S	Band assign	Roberts	JOC	24 (1959)	654
$C_8H_7N_4$	1-Methyl-5-m-chloro-phenyltetrazole	8-14 μ	S	Band assign	Roberts	JOC	24 (1959)	654
$C_8H_7N_4$	1-Methyl-5-O-chloro-phenyltetrazole	8-14 μ	S	Band assign	Roberts	JOC	24 (1959)	654
$C_8H_7N_4$	1-Methyl-5-p-chloro-phenyltetrazole	8-14 μ	S	Band assign	Roberts	JOC	24 (1959)	654
C_8H_8	Cyclooctatetraene	600-4000 9-14 μ 2-15 μ	- L,G L L,Sol	Ident Spec IR freq Spec Spec, Phy. properties Struct Struct Spec, I, Struct Thermo IR, Chem binding Band freq, Struct Band freq, Struct	Cope Flett Lippincott Fliess Eccleston Lippincott Craig Lippincott Lippincott Mecke Person Daasch	JACS N JCP JACS JACS N CR JACS JACS JCP JACS JACS	69 (1947) 159 (1947) 16 (1948) 71 (1949) 72 (1950) 166 (1950) 49 (1951) 73 (1951) 73 (1951) 20 (1952) 74 (1952) 76 (1954)	976 739 548 4145 3866 227 103 3370 3889 1935 3437 3403
C_8H_8	1,3,7-Octatrien-5-ene	781-3103	L,Sol	Spec, Group freq	Assign Georgieff	JACS	76 (1954)	5494

C ₈ H ₈	Styrene	1-14 μ	-	Spec	Stair	JRNB	15 (1935)	295
		-	-	Absorption bands	Williams	JCP	4 (1936)	460
		2.5-9 μ	S	Spec, Freq assign	Williams	P	7 (1936)	399
		1000-2000	Sol	Spec	Muller	IEC	13 (1941)	667
		900-1900	-	Spec, Anal	Barnes	IEC	15 (1943)	83
		850-1950	-	Absorption freq, Spec	Barnes	IEC	15 (1943)	659
		500-2000	-	Spec	Thompson	PRS	184 (1945)	3
		600-1800	-	Spec	Thompson	TFS	41 (1945)	246
		-	-	Thermo, Vib assign	Pitzer	JACS	68 (1946)	2209
		700-1900	L	Spec	Bryant	JCS	- (1949)	2389
		-	-	Thermo	Kilpatrick	JRNB	42 (1949)	225
		-	-	Anal	Hauser	JPC	54 (1950)	256
		2-15 μ	L	Spec	White	AC	22 (1950)	768
		1.1-1.25 μ	L	Absorption coeff, Anal, Spec	Evans	AC	23 (1951)	1604
		800-1000	Sol	Spec	Lippincott	JACS	73 (1951)	3370
		5-6 μ	-	Spec	Young	AC	23 (1951)	709
		-	-	Anal, Struct	Foster	JACS	75 (1953)	2910
		-	L	Anal, Ext coeff	Binder	AC	26 (1954)	1877
		9-15 μ	-	Spec	Patterson	AC	26 (1954)	823
		-	-	Band freq	Reed	JCS	- (1954)	1931
		5.70-5.9 μ	Sol	Struct	Chang	JPC	60 (1956)	782
		-	Sol	Ext coeff	Goddu	AC	29 (1957)	1790
		-	Sol	Quant anal	Kiley	AC	29 (1957)	1553
		-	Sol	Spec, Group freq	Potts	SA	15 (1959)	679
		3-2 μ	Sol	Struct, Reactivity	Kuwata	BCSJ	33 (1960)	1091
C ₈ H ₈ DNO	Acetanilide-d ₁	750-5000	S, L	Spec	Abbott	PRS	234 (1956)	247
C ₈ H ₈ DNO	Acetanilide-N-d ₁	1200-5000	S	Spec, Struct, Dichromism	Abbott	PRS	234 (1956)	247
C ₈ H ₈ D ₈ O ₂	Caprylic acid-2,3,4,4,5,6,7,7-d ₈	-	-	Spec	Bunhof	BSCF	- (1960)	1586
C ₈ H ₈ BrNO	m-Bromoacetanilide	700-4000	Sol	Substitution effect	Holt	JCS	- (1958)	1217
		-	Sol	Freq	Freeman	JACS	82 (1960)	2454
C ₈ H ₈ BrNO	o-Bromoacetanilide	700-4000	Sol	Substitution effect	Holt	JCS	- (1958)	1217

C_8H_8BrNO	p-Bromoacetanilide	1500-1750 - 1600-1725 -	S, Sol Sol Sol Sol	Spec, Assing Band freq, Ext coeff, I Freq Freq	Richards Russell Thompson Freeman	JCS - JCS - SA 13 JACS 82	(1947) 1248 (1955) 483 (1958) 236 (1960) 2454
C_8H_8BrNO	N-p-Bromophenyl- acetamide	3μ	Ba	Band study	Russell	SA 8	(1956) 138
C_8H_8BrNO	p-Bromo-N-methyl- benzamide	1600-3500	Sol	Freq	Thompson	SA 13	(1958) 236
$C_8H_8Br_2$	Cyclooctatetraene dibromide	9-14 μ 2-16 μ	- Sol	Spec Spec	Friess Cope	JACS 71 JACS 74	(1949) 4145 (1949) 168
$C_8H_8Br_2$	α,β -Dibromoethyl- benzene	-	Sol	Band freq	Potts	AC 27	(1955) 1027
$C_8H_8Br_2O_5$	exo-trans-4,5-dibromo- 3,6-endoxo-tetra- hydrophthalic acid	-	S	Optical iso	Berson	JACS 76	(1954) 4060
C_8H_8ClNO	m-Chloroacetanilide	700-4000 -	Sol Sol	Substitution effect Freq	Holt Freeman	JCS - JACS 82	(1958) 1217 (1960) 2454
C_8H_8ClNO	o-Chloroacetanilide	700-4000	Sol	Substitution effect	Holt	JCS -	(1958) 1217
C_8H_8ClNO	p-Chloroacetanilide	1500-1750 1290-4000 3μ 700-4000 1600-1720	S, Sol Sol Sol Sol Sol	Spec, Assign Spec, Struct, H bond Band study Substitution effect Freq	Richards Kellie Russell Holt Thompson	JCS - JCS - SA 8 JCS - SA 13	(1947) 1248 (1956) 3809 (1956) 138 (1958) 1217 (1958) 236
C_8H_8ClNO	N-5-Chlorosalicylidene- methylamine	-	Sol, L	H bond, Shift	Reeves	CJC 38	(1960) 1249
$C_8H_8ClNO_2$	p-Chloroacetamido- phenol	1800-1500	Sol	Freq	Kellie	JCS -	(1956) 3809

$C_8H_8ClNO_3S$	4-Formyl-3-chloro-phenyl-4-methyl sulfone oxime	-	-	Substitution effect	Momose	CPBT	6 (1958)	412
$C_8H_8Cl_2$	Cyclooctatetraene dichloride	2-16 μ	Sol	Spec	Cope	JACS	74 (1952)	168
$C_8H_8Cl_2$	α,β -Dichloroethylbenzene	-	Sol	Group freq	Potts	AC	27 (1955)	1027
$C_8H_8Cl_2$	1,6-Dichloro-2,4-octadiene	-	L	Group freq, I	Allan	JCS	- (1955)	1874
$C_8H_8Cl_2$	3,6-Dichloro-o-xylene	-	L,S	Band study	Boyers	JACS	75 (1958)	1989
$C_8H_8Cl_2$	1-Ethyl-2,3-dichlorobenzene	5-6 μ	-	Spec	Young	AC	23 (1951)	709
$C_8H_8Cl_2O$	2-Dichloromethyl-2-methylcyclohexa-3,5-dienone	5.7-6.2 μ	Sol	Spec	Bickel	JCS	- (1953)	3211
$C_8H_8Cl_2O$	4-Dichloromethyl-4-methylcyclohexa-2,5-dienone	5.7-6.2 μ	Sol	Spec	Bickel	JCS	- (1953)	3211
C_8H_8FNO	5-Fluoroacetanilide	700-4000	Sol	Freq, Assign	Holt	JCS	- (1958)	1217
$C_8H_8F_6NO_2F$	Anilinium bis(trifluoromethylphosphinate)	-	-	Freq	Emeleus	JCS	- (1955)	563
C_8H_8INO	m-Iodoacetanilide	700-4000	Sol	Substitution effect	Holt	JCS	- (1958)	1217
C_8H_8INO	o-Iodoacetanilide	700-4000	Sol	Substitution effect	Holt	JCS	- (1958)	1217
$C_8H_8N_2$	m-Aminoaniline	700-1700	Sol	I, Substitution effect	Katritzky	JCS	- (1959)	2058

$C_8H_8N_2$	1,6-Dicyano-2,4-hexadiene	-	-	Band freq	Kitson	AC	24 (1952)	334
$C_8H_8N_2$	2-Methylbenzimidazole	650-1000 600-1700	Sol S	Freq Freq	Binder O'Sullivan	JACS JCS	81 (1959) - (1960)	3608 3278
$C_8H_8N_2$	5-Methylbenzimidazole	600-1700	S	Freq	O'Sullivan	JCS	- (1960)	3278
$C_8H_8N_2$	Methylphenyl cyanamide	1050-2000	-	Spec	Barnes	IEC	15 (1943)	659
$C_8H_8N_2$	3,4,5,6-Tetrahydro- <i>o</i> -phthalodinitrile	-	Sol	Band freq, I	Felton	JCS	- (1955)	2170
$C_8H_8N_2O$	4,6-Dimethylbenzofurazan	6-7 μ	-	Spec, Freq	Gaughran	JACS	76 (1954)	2233
$C_8H_8N_2O$	2,5-Dimethyl-4-cyanopyrrole-3-aldehyde	5000-400	Sol	Spec, Freq, Struct	Eisner	JCS	- (1958)	971
$C_8H_8N_2O_2$	4-Carbamidobenzaldehyde	-	Sol	Group & band freq	Pinchas	AC	27 (1955)	2
$C_8H_8N_2O_2$	4,6-Dimethylbenzofuroxan	6-7 μ	-	Spec, Freq	Gaughran	JACS	76 (1954)	2233
$C_8H_8N_2O_2, HBr$	3,4-Dihydro-3-hydroxy-2H-pyrido[1,2-a]-pyrimidin-2-one hydrobromide	-	-	Band freq	Adams	JACS	74 (1952)	4906
$C_8H_8N_2O_2S_2$	Thiolutin	- 2-16 μ	S S	Band freq Spec, Group freq	Celrner Celrner	JACS JACS	74 (1952) 77 (1955)	6304 2861
$C_8H_8N_2O_3$	m-Nitroacetanilide	700-1800 1290-4000 700-4000	L,S Sol Sol	Struct freq, I Spec, Struct, H bond Substitution effect	Randle Kellie Holt	JCS JCS JCS	- (1952) - (1956) - (1958)	4153 3809 1217
		-	Sol	Freq	Freeman	JACS	82 (1960)	2454

$C_8H_8N_2O_3$	o-Nitroacetanilide	2700-3700 700-1800 3600-1250 3000-3600 700-4000 800-1600	Sol L,S Sol Sol Sol Sol	Spec, H bond Struct freq, I H bond, Freq, Assign Freq Substitution effect I, Ext coeff	Buswell Randle Dyall Hamblly Holt Katritzky	JCS JCS AJC AJC JCS JCS	61 - 11 11 - -	(1939) (1952) (1958) (1958) (1958) (1959)	3252 4153 513 529 1217 3670
$C_8H_8N_2O_3$	p-Nitroacetanilide	1500-1750 700-1800 1300-1600 3600-1250 3000-3600 1600-1725	S,Sol L,S Sol,S Sol Sol Sol	Spec, Assign Struct freq, I Freq, Struct Freq, H bond, Assign Freq Freq Freq	Richards Randle Kross Dyall Hamblly Thompson Freeman	JCS JCS JACS AJC AJC SA JACS	- - 78 11 11 13 82	(1947) (1952) (1956) (1958) (1958) (1958) (1960)	1248 4153 4225 513 529 236 2454
$C_8H_8N_2O_3$	m-Nitro-N-methyl- benzamide	1600-3500	Sol	Freq	Thompson	SA	13	(1958)	236
$C_8H_8N_2O_3$	p-Nitro-N-methyl- benzamide	1600-3500	Sol	Freq	Thompson	SA	13	(1958)	236
$C_8H_8N_2O_3$	p-Nitrophenyl- acetamide	1800-1550	Sol	Freq	Kellie	JCS	-	(1956)	3809
$C_8H_8N_2O_3$	N-Nitrosophenyl- glycine	2-15 μ	S	Spec	Earl	JCS	-	(1951)	2207
$C_8H_8N_2O_4$	p-Nitrophenyl- glycine	-	S,Sol	Struct	Kross	JACS	78	(1956)	4225
$C_8H_8N_2O_4$	Pyrazine-2,3-di- carboxylic acid dimethyl ester	1500-2000	Sol	Spec, Group freq	Solomons	JACS	75	(1953)	679
$C_8H_8N_2O_5$	2,6-Dinitro-3,4- xylenol	600-4000	S	Spec, H bond, Band	Pickering	JACS	80	(1958)	680

$C_8H_8N_2O_5$	5-Methoxy-3-nitro-anthranilic acid	-	-	Ident	Macmillan	JCS - (1952)	4019
$C_8H_8N_2O_8$	2,1'-Dinitro-2,2'-dicarboxy-1,1'-bicyclop propane	-	-	IR	Boer	HTC 79 (1960)	231
$C_8H_8N_4$	5-Anilino-1,2,3-triazole	900-1310	S	Assign, Vib	Lieber	CJC 36 (1958)	1441
$C_8H_8N_4OS$	5(o-Methoxyphenyl-amino)-1,2,3,4-thiazizole	700-1700	S	Spec, Struct, Assign, Taut	Lieber	CJC 36 (1958)	801
$C_8H_8N_4OS$	5(p-Methoxyphenyl-amino)-1,2,3,4-thiazizole	700-1700	S	Spec, Struct, Assign, Taut	Lieber	CJC 36 (1958)	801
$C_8H_8N_4OS$	1-o-Methoxyphenyl-tetrazoline-5-thione	700-1700	S	Spec, Struct, Assign, Taut	Lieber	CJC 36 (1958)	801
$C_8H_8N_4OS$	1-p-Methoxyphenyl-tetrazoline-5-thione	700-1700	S	Spec, Struct, Assign, Taut	Lieber	CJC 36 (1958)	801
$C_8H_8N_4O_2$	1-Phenyl-1-azido-2-nitroethane	2-16 μ	Sol	Spec, Band freq	Boyer	JACS 73 (1951)	5248
$C_8H_8N_4O_3$	O-Nitrobenzaldehyde semicarbazone	700-3500	S	Ident, Assign	Davison	JCS - (1955)	3389
$C_8H_8N_4O_4$	Acetaldehyde-2,4-dinitrophenylhydrazone (Form I)	- 6-15 μ 1300-3400 2-15 μ	S S S S	Band freq Spec, Table Spec, Struct Spec, Ident	Newman Ross Isherwood Jones	JACS 75 (1953) AC 25 (1953) N 175 (1955) AC 28 (1956)	4740 1288 419 191

$C_8H_8N_4O$	Acetaldehyde-2,4-dinitrophenylhydrazine (Form II)	6-15 μ -	S -	Spec, Table Ident	Ross Hochstein	AC JACS	25 (1953) 77 (1955)	1288 3353
$C_8H_8N_4O$	2-Carboethoxycyanomethyl-4,6-dihydroxy-5-triazine	2-15 μ	S	Assign	Reimsohuessel	JACS	82 (1960)	3756
$C_8H_8N_4S$	5-Benzylamino-1,2,3,4-thiazizole	700-1700	S	Spect, Struct, Assign, Taut	Lieber	CJC	36 (1958)	801
$C_8H_8N_4S$	1-Benzyltetrazoline-5-thione	700-1700	S	Spec, Struct, Assign, Taut	Lieber	CJC	36 (1958)	801
$C_8H_8N_4S$	5(0-Methylphenyl-amino)-1,2,3,4-thiazizole	700-1700	S	Spec, Struct, Assign, Taut	Lieber	CJC	36 (1958)	801
$C_8H_8N_4S$	5(p-Methylphenyl-amino)-1,2,3,4-thiazizole	700-1700	S	Spec, Struct, Assign, Taut	Lieber	CJC	36 (1958)	801
$C_8H_8N_4S$	1-p-Methylphenyl-tetrazoline-5-thione	700-1700	S	Spec, Struct, Assign, Taut	Lieber	CJC	36 (1958)	801
C_8H_8O	Acetophenone	7-2.5 μ 5.5-6.5 μ 1050-1800 - 500-1750 - - -	L L - - L - Sol -	Band study Spec, H bond Spec, Absorption freq FC Assign FC Band freq Absorption freq, Struct anal Band vib, I Spec Ext ooeff Optical density	Ellis Gordy Barnes Linnett Thompson Walsh Flett Rasmussen	JACS JCP IEC TFS JCS TFS JCS JACS	51 (1929) 8 (1940) 15 (1943) 41 (1945) - (1945) 43 (1947) - (1948) 71 (1949)	1384 516 659 223 640 158 1441 1068
		-	Sol		Richards	TFS	45 (1949)	879
		1600-3700	Sol		Hunsberger	JACS	72 (1950)	5626
		1800-1650	Sol		Cross	TFS	47 (1951)	354
		-	L		Cram	JACS	74 (1952)	2137

5.93 μ	-	Band freq	Woodward	JACS	74	(1952)	3458
1685-1692	Sol	Band freq, I	Barrow	JCP	21	(1953)	2008
1550-4000	S	Band freq	Hergert	JACS	75	(1953)	1622
-	-	Anal	Spivy	JCS	-	(1953)	1647
1600-1800	Sol	Band freq	Fuson	JACS	76	(1954)	2526
-	Sol	Solvent effect, I	Hirota	BCSJ	27	(1954)	295
650-1740	Sol	IR freq shift	Bellamy	JCS	-	(1955)	4221
625-900	-	Substitution effect	Margoshes	SA	7	(1955)	14
-	L	Band freq	Schubert	JACS	77	(1955)	4172
12-15 μ	L, Sol	Bending freq	Kross	JACS	78	(1956)	1332
-	Sol	Band freq, I	Tanaka	JCP	24	(1956)	311
-	G, L, Sol, S	Carbonyl freq	Bellamy	JCS	-	(1957)	4294
-	Sol	Freq, H bond, I	Forbes	CJC	35	(1957)	488
-	Sol	Freq, I	Jones	CJC	35	(1957)	504
-	G, Sol	FC	O'Sullivan	JCS	-	(1957)	4144
-	-	Freq, FC	Rao	CS	26	(1957)	375
-	Sol	Substitution effect	Thompson	SA	9	(1957)	208
-	-	Freq	Bottreau	JPR	19	(1958)	552
-	Sol	Substitution effect	Jones	CJC	36	(1958)	1020
-	Sol	Assign, Band study	Katritzky	JCS	-	(1958)	2182
4000-600	Sol	Group freq	Katritzky	JCS	-	(1958)	4155
-	Sol	Freq, Struct	Mirone	AAN	24	(1958)	54
-	Sol	Freq, I	Thompson	SA	13	(1958)	236
1650-1850	Sol, L, G	Solvent effect, Freq	Bellamy	TFS	55	(1959)	14
-	Sol	Assign, Shift	Flaig	A	626	(1959)	215
-	Sol	Solvent effect, Freq	Ito	JCP	31	(1959)	1694
-	Sol	I, Freq	Mirone	ANCR	49	(1959)	52
-	Sol	Band study	Morillo	SA	15	(1959)	497
-	Sol	Band freq	Baker	JACS	82	(1960)	1923
-	Sol	Freq	Brook	JACS	82	(1960)	5102
4000-600	L	Spec, Group freq	Hersert	JOC	25	(1960)	405
9-14 μ	-	Spec	Frless	JACS	71	(1949)	4145



Cyclooctatetraene
oxide

C_8H_8O	1,3,5-Cyclooctatrien-7-one	2-16 μ 5-6 μ	Sol S	Spec, Band freq Band freq	Cope Cope	JACS JACS	73 (1951) 76 (1954)	4158 1096
C_8H_8O	2,3-Dihydrobenzofuran	2-16 μ	L	Spec, Anal	Entel	JACS	73 (1951)	4152
C_8H_8O	Phenylacetaldehyde	-	-	Ident	Cope	JACS	76 (1954)	1100
C_8H_8O	Phenyl vinyl ether	600-4000 -	G,Sol Sol	Spec, Freq Group freq	Mikawa Potts	BCSJ SA	29 (1956) 15 (1959)	110 679
C_8H_8O	Phthalan	2-16 μ 11 μ	- S,Sol	Spec Spec, Band assign	Entel Allison	JACS JCS	74 (1952) - (1958)	441 4311
C_8H_8O	Styrene oxide	- 2604-2689 2-15 μ 2-15 μ - 1-3.1 μ	- Sol L L Sol Sol	Struct H bond Spec, Struct anal Spec, Group freq Group freq Terminal epoxides	Field Searles Shreve Patterson Potts Goddu	JCP JACS AC AC AC AC	18 (1950) 73 (1951) 23 (1951) 26 (1954) 27 (1955) 30 (1958)	1298 3704 277 823 1027 2013
C_8H_8O	O-Tolualdehyde	- - -	Sol Sol -	Group & band freq Freq, H bond, I Steric hindrance	Pinchas Forbes Pinchas	AC CJC AC	27 (1955) 35 (1957) 29 (1957)	2 288 334
C_8H_8O	m-Tolualdehyde	1050-1800 2.21 μ	- Sol	Absorption freq, Spec Anal	Barnes Powers	IEC AC	15 (1943) 32 (1960)	659 1287
C_8H_8O	p-Tolualdehyde	7-2.5 μ - 2.21 μ	L Sol Sol	Band study Freq, H bond, I Anal	Ellis Forbes Powers	JACS CJC AC	51 (1929) 35 (1957) 32 (1960)	1384 488 1287
C_8H_8OS	Benzyl formyl sulphide	25-16 μ	Sol	Chemical struct	Nyquist	SA	15 (1959)	514
C_8H_8OS	Phenylthio acetate	2.5-16 μ -	Sol Sol	Structure effect on freq Band freq	Nyquist Baker	SA JACS	15 (1959) 82 (1960)	514 1923

$C_8H_8O_8$	Phenylthioacetic acid	5.5-6.5 μ	Sol	Band study, I	Sawicki	AC 31 (1959)	523
$C_8H_8O_2$	Bicyclo-[2:2:1]-hepta-2,5-diene-2-carboxylic acid	680-1000	Sol	Struct	Jones	JCS - (1956)	4073
$C_8H_8O_2$	α -Cycloheptatriene-carboxylic acid	672-2632	S	Table	Johnson	JCS - (1955)	1622
$C_8H_8O_2$	β -Cycloheptatriene-carboxylic acid	658-2653	S	Table	Johnson	JCS - (1955)	1622
$C_8H_8O_2$	2,3-Dimethyl-p-benzoquinone	2-15 μ	S, Sol Sol	Freq position Assign, Shift	Yates Flaig	JACS 78 (1956) A 626 (1959)	650 215
$C_8H_8O_2$	2,5-Dimethyl-p-benzoquinone	5-15 μ	S, Sol Sol	Freq position Assign, Shift	Yates Flaig	JACS 78 (1956) A 626 (1959)	650 215
$C_8H_8O_2$	2,6-Dimethyl-p-benzoquinone	-	Sol	Struct freq	Cosgrove	JCS - (1952)	4821
		5-15 μ	S, Sol Sol	Freq position Assign, Shift	Yates Flaig	JACS 78 (1956) A 626 (1959)	650 215
$C_8H_8O_2$	Ethylbenzoquinone	-	-	Substitution effect	Flagg	NWS 43 (1956)	467
		5-15 μ	Sol	Substitution effect	Yates	JACS 78 (1956)	650
$C_8H_8O_2$	p-Homosalicylaldehyde	-	Sol	H bond	Hilbert	JACS 58 (1936)	548
$C_8H_8O_2$	m-Hydroxyacetophenone	1684	Sol	Freq, I	Barrow	JCP 21 (1953)	2008
$C_8H_8O_2$	o-Hydroxyacetophenone	-	Sol	H bond	Hilbert	JACS 58 (1936)	548
		5.5-6.5 μ	L	Spec, H bond	Gordy	JCP 8 (1940)	516
		1600-3700	Sol	Spec, Chelation study	Hunsberger	JACS 72 (1950)	5626
		1550-4000	L	Band freq	Hergert	JACS 75 (1953)	1622
		-	-	Absorption study	Snyder	JACS 76 (1954)	4601
		3 μ	Sol	H bond, Freq	Flett	SA 10 (1958)	21
		-	-	Ext coeff, Band study	Katritzky	JCS - (1959)	3670

$C_8H_8O_2$	p-Hydroxyacetophenone	6900-7200 5-7 μ 1550-4000 1600-1800 700-1000 - 4000-600	Sol S S Sol S,Sol Sol S,Sol	Spec, Group anal Band freq Band freq, H bond Band freq Bending freq Freq Spec, Group freq	Wulf Solway Hergert Fuson Bellamy Bavin Herzert	JACS JACS JACS JACS JCS CJC JOC	57 (1935) 73 (1951) 75 (1953) 76 (1954) - (1955) 35 (1957) 25 (1960)	1464 5000 1622 2526 2818 1555 405
$C_8H_8O_2$	ω -Hydroxyacetophenone	-	Sol	Substitution effect	Jones	CJC	36 (1958)	1020
$C_8H_8O_2$	o-Methoxybenzaldehyde	- 650-4000 800-1600 2.21 μ	Sol Sol - Sol	Group & band freq, Ext coef Spec, H bond, Freq Band study, Ext coef Anal	Pinchas Heinert Katritzky Powers	AC JACS JCS AC	27 (1955) 81 (1959) - (1959) 32 (1960)	2 3933 3670 1287
$C_8H_8O_2$	p-Methoxybenzaldehyde	- 2724-2835 - 2.21 μ	Sol Sol Sol Sol	Group & band freq, Ext coef Band freq, H bond Substitution effect Anal	Pinchas Pinchas Thompson Powers	AC AC SA AC	27 (1955) 29 (1957) 9 (1957) 32 (1960)	2 334 208 1287
$C_8H_8O_2$	Methyl benzoate	1-2.5 μ 5.5-6.5 μ - - 2-15 μ 1600-3700 - 5.81 μ 650-1740 1500-1700 - - -	L L - Sol - Sol L - Sol Sol Sol - - Sol	Spec Spec, H bond FC Band freq Absorption freq, Struct anal Spec, Chelation study Band freq, Taut Band freq IR freq shift Group freq Carbonyl & K-band freq Group assign Assign, Band study	Smith Gordy Linnett Flett Rasmussen Hunsberger Grove Woodward Bellamy Briggs Exner Josien Katritzky	JACS JCP TFS JCS JACS JACS JCS JACS JCS JCS CIL CPR JCS	48 (1926) 8 (1940) 41 (1945) - (1948) 71 (1949) 72 (1950) - (1951) 74 (1952) - (1955) 29 (1957) 29 (1957) - (1958) 246 (1958) - (1958)	1512 516 223 1441 1073 5626 877 3458 4221 904 1174 1992 2182

	4000-600	Sol	Group freq	Katritzky	JCS	-	(1958)	4155
	-	Sol	Freq, I	Thompson	SA	13	(1958)	236
	-	Sol	Assign, Fermi resonance	Deschamps	BSCF	-	(1959)	88
	-	Sol	Freq	Horak	TEL	3	(1959)	19
	-	Sol	Band freq	Baker	JACS	82	(1960)	1923
	600-900	L,Sol	Bending freq	Yoshida	CPBT	8	(1960)	389
$C_8H_8O_2$	-	L	Group freq, I	Allan	JCS	-	(1955)	1874
Methyl 2,4-hepta- dienoate	-	L	Group freq, I	Allen	JCS	-	(1955)	1874
m-Methyltropolone	1250-1800	Sol	Spec, Struct	Scott	JACS	72	(1950)	240
	600-3400	S,Sol	Spec, H bond	Kuratani	BCSJ	25	(1952)	250
	-	Sol	Band freq	Bryant	JOC	19	(1954)	1889
o-Methyltropolone	600-3400	S,Sol	Spec, H bond	Kuratani	BCSJ	25	(1952)	250
	-	Sol	Band freq	Bryant	JOC	19	(1954)	1889
p-Methyltropolone	600-3400	Sol,S	Spec, H bond	Kuratani	BCSJ	25	(1952)	250
Phenyl acetate	2-15 μ	-	Absorption freq, Struct anal	Rasmussen	JACS	71	(1949)	1073
	1700-1800	Sol	Struct freq	Short	JCS	-	(1952)	206
	1700-1780	Sol	Band freq, I	Barrow	JCP	21	(1953)	2008
	-	Sol	I, Solvent effect	Hirota	BCSJ	27	(1954)	295
	-	Sol	Anal	Defar	JACS	77	(1955)	1745
	625-900	-	Substitution effect	Margoshes	SA	7	(1955)	14
	12-15 μ	L	Bending freq	Kross	JACS	78	(1956)	1332
	-	Sol	Freq, I	Thompson	SA	13	(1958)	236
	-	Sol	Freq	Horak	TEL	3	(1953)	19
	-	-	Bending freq, Assing	Kakiyuchi	NKZ	80	(1959)	28
	-	Sol	Band freq	Baker	JACS	82	(1960)	1923
	-	Sol	Freq	Freeman	JACS	82	(1960)	2454
$C_8H_8O_2$	-	Sol	Band freq, I	Richards	TFS	45	(1949)	874
Phenylacetic acid	650-3500	S	Spec, H bond, Struct	Davies	JCS	-	(1951)	2858

	700-4000	S, L, Sol	Table, Ext coeff	Flett	JCS	-	(1951)	962
	-	S	Spec, Stretch freq	Weigl	AC	24	(1952)	1483
	-	-	Spec, Anal	Trenner	APS	7	(1953)	166
	-	Sol	Dissociation const, Freq	Goulden	SA	6	(1954)	129
	-	Sol	Freq	Bavin	CJC	35	(1957)	1555
	-	Sol	I, Band study	Wenograd	JACS	79	(1957)	5844
	680-2500	-	Spec	Hadzi	NC	11	(1959)	715
	1050-1800	-	Spec, Absorption freq	Barnes	IEC	15	(1943)	659
	-	-	Absorption	Bomstein	AC	25	(1953)	512
	5.5-6.5 μ	Sol	Ident, Band study	Sawicki	AC	31	(1959)	523
	-	Sol	Spec, Freq	Forbers	CJC	38	(1960)	728
	1050-1750	-	Spec, Absorption freq	Barnes	IEC	15	(1943)	659
	-	-	Absorption	Bomstein	AC	25	(1953)	512
	3-6 μ	Sol	I, Band study	Wenograd	JACS	79	(1957)	5844
	5.5-6.5 μ	Sol	Ident, Freq	Sawicki	AC	31	(1959)	523
	-	Sol	Spec, Freq	Forbers	CJC	38	(1960)	728
	1050-1800	-	Spec, Absorption freq	Barnes	IEC	15	(1943)	659
	1700-3500	Sol	Band freq, Chem properties	Flett	TFS	44	(1948)	767
	-	-	Absorption	Bomstein	AC	25	(1953)	512
	12-15 μ	L	Bending freq	Kross	JACS	78	(1956)	1332
	5.5-6.5 μ	Sol	Ident, Freq	Sawicki	AC	31	(1959)	523
	-	Sol	Spec, Freq	Forbers	CJC	38	(1960)	728
	650-900	L, Sol	Bending freq	Yoshida	CPBT	8	(1960)	389
	770-4000	L	Spec, Struct	Doering	JACS	73	(1951)	828
	600-3400	Sol	Spec, H bond	Kuratani	BCSJ	25	(1952)	250
	-	Sol	Band freq	Bryant	JOC	19	(1954)	1889
	-	-	Band freq	Pauson	CR	55	(1955)	9
	-	-	Struct	Parham	JACS	76	(1954)	1068

$C_8H_8O_2$ m-Toluio acid

$C_8H_8O_2$ o-Toluio acid

$C_8H_8O_2$ p-Toluio acid

$C_8H_8O_2$ Tropolone methyl ether

$C_8H_8O_2S$ 2-Hydroxybenzo-1,4-oxathiene

$C_8H_8O_2S$	Methylthiobenzoate	-	Sol	Band freq	Baker	JACS	82 (1960)	1923
$C_8H_8O_2S$	Phenyl vinyl sulfone	6.15-15.6 μ	L, Sol	Table, Band freq, I	Price	JACS	75 (1953)	4747
$C_8H_8O_2S$	Methyl β -2'-thienyl acrylate	800-2000 800-1500	L Sol	Band I Band study, Assign Band study, Assign	Katritzky Katritzky Katritzky	JCS SA SA	- 16 (1960) 16 (1960)	3500 954 964
$C_8H_8O_3$	4-Acetylcatechol	3 μ	Sol	Stretch freq, Hammett const	Ingraham	JACS	74 (1952)	2297
$C_8H_8O_3$	2,3-Dihydroxyacetophenone	-	L	H bond, Freq, Struct	Awad	JACS	80 (1958)	6057
$C_8H_8O_3$	2,4-Dihydroxyacetophenone	1550-4000	S	Band freq	Hergert	JACS	75 (1953)	1622
$C_8H_8O_3$	2,3-Dimethyl-5-hydroxy-1,4-benzoquinone	5-15 μ	S	Substitution effect	Yates	JACS	78 (1956)	650
$C_8H_8O_3$	2,5-Dimethyl-3-hydroxy-1,4-benzoquinone	5-15 μ	S	Substitution effect	Yates	JACS	78 (1956)	650
$C_8H_8O_3$	2-Hydroxy-3,5-dimethyl-p-benzoquinone	-	Sol	Assign, Shift	Flaig	A	626 (1959)	215
$C_8H_8O_3$	2-Hydroxy-3,6-dimethyl-p-benzoquinone	-	Sol	Assign, Shift	Flaig	A	626 (1959)	215
$C_8H_8O_3$	2-Hydroxy-3-methoxybenzaldehyde	- 900-1500	Sol -	Chelate study Group & band study Spec, H bond	Bellamy Pinchas Lindberg	JCS AC SK	- 27 (1955) 32B (1959)	4487 2 193
$C_8H_8O_3$	4-Hydroxy-3-methoxybenzaldehyde	2-15 μ 3 μ 4000-600 3500-3800	S, Sol Sol S Sol	Group freq Freq, H bond Spec, Freq Freq, Hammett const	Briggs Flett Herzert Puttnam	AC SA JOC JCS	29 (1957) 10 (1958) 25 (1960) - (1960)	904 21 405 5100

$C_8H_8O_3$	m-Hydroxyphenyl acetate	-	Sol	Freq	Freeman	JACS	82 (1960)	2454
$C_8H_8O_3$	p-Hydroxyphenyl acetate	-	Sol	Freq	Freeman	JACS	82 (1960)	2454
$C_8H_8O_3$	DL- α -Hydroxyphenyl-acetic acid	2-15 μ 700-4000	Sol I,S	Spec Table, Association	Ard Flett	AC JCS	23 (1951) - (1951)	133 962
$C_8H_8O_3$	m-Methoxybenzoic acid	-	Sol	Spec, Freq	Forbers	CJC	38 (1960)	728
$C_8H_8O_3$	o-Methoxybenzoic acid	-	-	Band freq, I	Hales	JCS	- (1954)	3146
$C_8H_8O_3$		-	Sol	Band freq	Davies	JCS	- (1955)	132
		-	Sol	Spec, Freq	Forbers	CJC	38 (1960)	728
$C_8H_8O_3$	p-Methoxybenzoic acid	1700-3500	Sol	Band freq, Chem properties	Flett	TFS	44 (1948)	767
		700-4000	S,Sol	Table, Association, Ext coeff	Flett	JCS	- (1951)	962
		-	Sol	Freq, Dissociation const	Goulden	SA	6 (1954)	129
		-	Sol	Spec, Freq	Forbers	CJC	38 (1960)	728
		650-900	I,Sol	Bending freq	Yoshida	CPBT	8 (1960)	389
$C_8H_8O_3$	1-Methoxy-2,3-methylenedioxybenzene	700-5000	Sol	Group freq	Briggs	AC	29 (1957)	904
$C_8H_8O_3$	2-Methoxy-3-methyl-p-benzoquinone	-	Sol	Assign, Shifts discuss	Flaig	A	626 (1959)	215
$C_8H_8O_3$	2-Methoxy-5-methyl-p-benzoquinone	2-12 μ 5-15 μ -	Sol S,Sol Sol	Synthesis Substitution effect Assign, Shifts discussed	Woodward Yates Flaig	JACS JACS A	74 (1952) 78 (1956) 626 (1959)	4223 650 215
$C_8H_8O_3$	2-Methoxy-6-methyl-p-benzoquinone	-	Sol	Assign, Shifts discussed	Flaig	A	626 (1959)	215

$C_8H_8O_3$	5-Methoxy-2-methyl- benzoquinone	5-15 μ	S, Sol	Substitution effect	Yates	JACS	78	(1956)	650
$C_8H_8O_3$	Methyl β (-2'-furyl) acrylate	800-1700 800-1500 -	Sol Sol -	Freq assign Group assign Band study, Assign	Katritzky Katritzky Katritzky	JCS SA SA	- 16 16	(1959) (1960) (1960)	657 954 964
$C_8H_8O_3$	Methyl p-hydroxybenzoate	3 μ - - - - 3500-3800 650-900	Sol Sol Sol Sol Sol Sol L, Sol	Freq, Hammett const H bond Band freq Freq Freq, Hammett const Substitution effect Freq, Hammett const Freq	Ingraham Tsuboi Smith Bavin Baker Stone Puttnam Yoshida	JACS BOSJ JCS JCS JPC SA JCS CPBT	74 25 - 35 62 10 - -	(1952) (1952) (1955) (1957) (1958) (1958) (1960) (1960)	2297 60 2347 1555 744 17 5100 389
$C_8H_8O_3$	Methyl o-hydroxybenzoate	800-1500 -	Sol -	Assign Assign	Katritzky Katritzky	SA SA	16 16	(1960) (1960)	954 964
$C_8H_8O_3$	Methyl phenyl- carbonate	- - -	- - L	Band freq Freq, Struct	Hales Hales	JCS JCS	- -	(1954) (1957)	3145 618
$C_8H_8O_3$	Methyl salicylate	2400-4000 - 2.6-3.2 μ 2.6-3.8 μ 5.5-6.5 μ - - 1600-3700 - - - 3 μ 700-3100 800-1500 - -	- Sol Sol Sol L - Sol Sol Sol L, Sol Sol Sol Sol L Sol S Sol	Spec, H bond H bond Spec, H bond Spec, H bond Spec, H bond Band freq Absorption band freq Spec, Chelation study Band freq Group freq Chelation study Band freq, I Band freq, I Spec Band study, Group assign Band study, Assign Chem shift, H bond	Barnes Hilbert Gordy Fox Gordy Flett Hampton Hunsberger Amstutz Duncanson Bellamy Hales Tsubomura Yamada Katritzky Katritzky Reeves	JCP JACS JCP TFS JCP JCS AC JACS JACS JCS JCS JCS JCP BOSJ SA SA CJC	4 58 7 36 8 - 21 72 73 - - - 21 72 73 - - 24 32 16 16 38	(1936) (1936) (1939) (1940) (1940) (1948) (1949) (1950) (1951) (1953) (1954) (1954) (1956) (1959) (1960) (1960) (1960)	722 548 167 897 516 1441 914 5626 1220 1331 4487 3145 927 1051 954 964 1249

$C_8H_8O_3$	Phenoxyacetic acid	700-4000 688-2866	S, L S	Table, Band freq Table, Band freq Freq, Dissociation H bond	Flett Bartels Goulden Oki	JCS - JCS - SA 6 BCSJ 33	(1951) (1952) (1954) (1960)	962 4461 129 119
$C_8H_8O_3$	Piperonyl alcohol	700-5000	S, Sol	Group freq	Briggs	AC	(1957)	904
$C_8H_8O_4$	Bicyclo[3,1,0] hex-2-ene-6,6-dicarboxylic acid 6:2- γ -lactone	-	-	Group freq, Struct	Kierstead	JCS	(1953)	1803
$C_8H_8O_4$	2,5-Dimethoxy-1,4-benzoquinone	-	S	Band freq	Bullock	JCS	(1955)	575
$C_8H_8O_4$	2,6-Dimethoxy-1,4-benzoquinone	2200-8000	S Sol	Band freq Band study	Bullock Buckley	JCS - JCS -	(1955) (1957)	575 4891
$C_8H_8O_4$	3,6-Dimethoxy-1,4-benzoquinone	2200-8000	Sol	Band study	Buckley	JCS	(1957)	4891
$C_8H_8O_4$	Vanillic acid	4000-600	- S	Ident Spec, Freq	Keepchan Herzert	JACS JOC	(1953) (1960)	1025 405
$C_8H_8O_5$	6-Acetylkajic acid	-	S	Group freq	Woods	JACS	(1953)	3608
$C_8H_8O_8$	1,2,3,4-Cyclobutane-tetracarboxylic acid	2-13 μ	S	Spec, Band freq, Struct	Reid	JACS	(1951)	1985
C_8H_8S	Phenyl vinyl sulfide	5.8-14.5 μ	L, Sol	Table, Band freq, I	Price	JACS	(1953)	4747
C_8H_9DO	β -Phenylethanol- α -d ₁	8-13 μ	-	Spec	Ellel	SA	(1958)	423
C_8H_9Br	α -Bromoethylbenzene	-	Sol Sol	Ident Freq	Overberger Potts	JACS AC	(1953) (1955)	3186 1027
C_8H_9Br	β -Phenylethyl bromide	13.5-19 μ	L Sol	Spec Freq	Mortimer Potts	JACS AC	(1947) (1955)	822 1027

$C_8H_9BrN_2O_2$	N-(5-Bromo-2-pyridyl)- β -alanine	3.17-15.5 μ S	Table, Group freq	Hurd	JACS	77 (1955)	117
C_8H_9BrO	1(4-Bromophenyl)-ethanol	-	Anal, Band freq	Fuchs	JACS	76 (1954)	1631
C_8H_9BrO	2(4-Bromophenyl)-ethanol	-	Anal, Band freq	Fuchs	JACS	76 (1954)	1631
C_8H_9BrO	α -Hydroxy- β -bromoethylbenzene	- Sol	Substitution effect	Potts	AC	27 (1955)	1027
$C_8H_9Br_2NO_2$	3-Carbethoxypyridine boron tribromide	- Sol	Freq assign	Katritzky	JCS	- (1959)	2049
$C_8H_9Br_2NO_2$	4-Carbethoxypyridine boron tribromide	- Sol	Freq assign	Katritzky	JCS	- (1959)	2049
C_8H_9Cl	m-Chloroethylbenzene	- Sol 2-14 μ 5-6 μ	Thermo Spec Spec	Pitzer Wright Young	JCP JOSA AC	14 (1946) 37 (1947) 23 (1951)	239 211 709
C_8H_9Cl	o-Chloroethylbenzene	- Sol 2-14 μ	Spec Ident	Wright Baker	JOSA AC	37 (1947) 25 (1953)	211 1457
C_8H_9Cl	p-Chloroethylbenzene	- Sol 2-14 μ	Spec	Wright	JOSA	37 (1947)	211
C_8H_9Cl	α -Phenethyl chloride	- Sol	Ident Substitution effect	Mayo Potts	JACS AC	76 (1954) 27 (1955)	5392 1027
C_8H_9Cl	β -Phenethyl chloride	- Sol	Band freq Substitution effect	Mayo Potts	JACS AC	76 (1954) 27 (1955)	5392 1027
$C_8H_9ClN_2O_4S$	1-Chloro-2-nitrobenzene-4-sulfone ethylamide	-	Spec	Merian	HCA	43 (1960)	1122
C_8H_9ClO	α -Hydroxy- β -chloroethylbenzene	- Sol	Substitution effect	Potts	AC	27 (1955)	1027

C ₈ H ₉ ClO ₂ S	2-Phenylethane- sulphonyl chloride	400-4000	L	Freq, Spec	Freeman	AJC	10 (1957)	227
C ₈ H ₉ ClO ₂ S	β-Chloroethyl phenyl sulfone	6.25-14.62 μ	L, Sol	Table, Band freq, I	Price	JACS	75 (1953)	4747
C ₈ H ₉ ClSi	Chlorophenylvinyl- silane	2050-2250	Sol	Freq, Struct	Smith	SA	15 (1959)	412
C ₈ H ₉ Cl ₃ NO ₂ B	3-Carbethoxypyridine boron trichloride	-	Sol	Assign	Katritzky	JCS	- (1958)	2182
		-	Sol	Freq assign	Katritzky	JCS	- (1959)	2049
C ₈ H ₉ Cl ₃ NO ₂ B	4-Carbethoxypyridine boron trichloride	-	Sol	Freq assign	Katritzky	JCS	- (1959)	2049
C ₈ H ₉ Cl ₃ OSi	Trichlorosilyl- ethyl phenyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
C ₈ H ₉ F	1,2,3-Fluoroxylene	2-15 μ	L	Spec, Freq	Padhye	PIAS	50 (1959)	51
C ₈ H ₉ F	1,2,5-Fluoroxylene	2-15 μ	L	Spec, Freq	Padhye	PIAS	50 (1959)	51
C ₈ H ₉ F	1,2,6-Fluoroxylene	2-15 μ	L	Spec, Freq	Padhye	PIAS	50 (1959)	51
C ₈ H ₉ F	1,3,4-Fluoroxylene	2-15 μ	L	Spec, Freq	Padhye	PIAS	50 (1959)	51
C ₈ H ₉ F ₃ O ₄	Ethyl (α-trifluoro- acetoxymethyl)- acrylate	-	-	Band freq	Ferris	JOC	20 (1955)	780
C ₈ H ₉ F ₇ O	2,2-Dimethyl-4,4,5,5, 6,6,6-heptafluoro- 3-hexanone	-	L	Anal	Mcbee	JACS	77 (1955)	917
C ₈ H ₉ F ₇ O	Perfluoropropyl n- butyl ketone	650-5000	Sol	Stretch freq	Griffin	SA	16 (1960)	1464

C ₈ H ₉ IO	α-Hydroxy-β-iodo-ethylbenzene	-	Sol	Substitution effect	Potts	AC	27 (1955)	1027
C ₈ H ₉ N	Benzylidenemethylamine	-	-	Spec	Ban	CPBT	8 (1960)	194
C ₈ H ₉ N	2,3-Cyclopentenopyridine	722-1929	-	Table, Ident, I	Arnall	JCS	- (1954)	4040
C ₈ H ₉ N	Indoline	800-1725	Sol	Freq	O'Sullivan	JCS	- (1960)	3278
C ₈ H ₉ N	N-Phenylethyl enimine	-	-	Band freq	Haine	JACS	76 (1954)	1173
C ₈ H ₉ NO	Acetanilide	6600-6900 1200-1700 1500-3600 - 700-3400 - - 2-9 μ - 700-3400 1695-1705 - - - - 7500-5000 1290-4000 - 3 μ 4000-420 700-4000	Sol - S,Sol - S - - Sol Sol S Sol S,Sol - Sol L,Sol S,L Sol S Sol - Sol Sol	Spec, Group anal Spec Spec, Assign Crystal structure IR FC Band freq, I Absorption coeff Stretch freq IR, Vib anal Band freq, I Solvent effect Group freq Band freq, Bond angle Band freq, Ext coeff, I Band freq IR Spec, Struct, H bond H bond Band study Spec, Assign Freq, Substitution effect Substitution effect Freq Assign, I, Struct	Wulf Barnes Richards Brown Mann Richards Richards Mizushima Bourne Mann Barrow Hirota Boxter Krimm Russell Robson Abbott Kellie Pimentel Russell Gray Holt Katritzky Thompson Katritzky	JACS IEC JCS N PRS TFS TFS JACS JCS PRS JCP BCSJ JCS JCP JCS JACS PRS JCS JCP SA DA JCS JCS SA JCS	57 (1935) 15 (1943) - (1947) 162 (1948) 192 (1948) 44 (1948) 40 (1948) 45 (1949) 73 (1951) - (1952) 211 (1952) 21 (1953) 27 (1954) - (1955) 23 (1955) 1371 (1955) 483 (1955) 77 (1955) 247 (1956) - (1956) 3809 (1956) 24 (1956) 639 (1956) 138 (1956) 19 (1958) 454 (1958) 1958 (1958) - (1958) 4155 (1958) 13 (1958) - (1959) 2067 (1959)	

C_8H_9NO	Acetophenone oxime	- 3100-3500	Sol Sol	Freq Config	Freeman Suzuki	JACS SA	82 16	(1960) (1960)	2454 471
		3μ 2.78 μ	Sol -	Freq, H bond H bond	Flett Goddu	SA AC	10 30	(1958) (1958)	21 1707
C_8H_9NO	m-Aminoaceto-phenone	-	-	Group freq	Califano	GCI	86	(1956)	1014
		-	Sol	Freq, H bond, I	Forbes	CJC	35	(1957)	488
		-	Sol	Freq, I	Jones	CJC	35	(1957)	504
		-	Sol	Freq, FC	Krueger	PRS	243	(1957)	143
		-	Sol	Substitution effect	Thompson	SA	9	(1957)	208
		800-2800	Sol	Electronic structure	Whetsel	AC	30	(1958)	1598
		-	Sol	Band freq	Bryson	JACS	82	(1960)	4858
C_8H_9NO	o-Aminoaceto-phenone	-	Sol	H bond, Freq, I	Forbes	CJC	35	(1957)	488
		-	Sol	Freq, I	Jones	CJC	35	(1957)	504
C_8H_9NO	p-Aminoaceto-phenone	5-7 μ 1600-1800	S Sol	Substitution effect Band freq	Soloway Fuson	JACS JACS	73 76	(1951) (1954)	5000 2526
		-	Sol	Freq, H bond, I	Forbers	CJC	35	(1957)	488
		-	Sol	Freq, I	Jones	CJC	35	(1957)	504
		-	Sol	Freq, FC	Krueger	PRS	243	(1957)	143
		-	Sol	Substitution effect	Thompson	SA	9	(1957)	208
		2600-800	-	Electronic struct	Whetsel	AC	30	(1958)	1598
		700-1700	Sol	Freq assign, I	Katritzky	JCS	-	(1959)	2051
		-	-	Absorption freq, Assign, Struct	Katritzky	JCS	-	(1959)	3674
C_8H_9NO	Syn-Benzaloxime-o-methyl ether	1600-600	L,S, Sol	Freq, Assign	George	CJC	37	(1959)	679
C_8H_9NO	N-Benzylformamide	-	L,Sol	Freq	Robson	JACS	77	(1955)	498
C_8H_9NO	5-Hydroxyindole	2.75-10.57 μ	Sol	Table, Group & band freq, I	Er	JACS	76	(1954)	5579
C_8H_9NO	N-Methylbenzamide	650-1700 1600-3500 -	Sol Sol Sol	IR freq shift Freq Freq	Bellamy Thompson Horak	JCS SA TEL	- 13 3	(1955) (1958) (1959)	4221 236 19

C_8H_9NO	Phenylacetamide	1500-3600 2-8 μ	S, Sol Sol	Spec, Assign Spec Deuterium exchange Freq	Richards Sheehan Bonner Kellie	JCS - (1947) 1248 JACS 74 (1952) 4555 JACS 76 (1954) 6350 JCS - (1956) 3809
$C_8H_9NO_2$	m-Aminophenyl acetate	-	Sol	Freq	Freeman	JACS 82 (1960) 2454
$C_8H_9NO_2$	2,5-Diacetylpyrrole	500-4000 - -	Sol S, Sol Sol	Spec, Stretch freq Struct, H bond I, Freq, Struct	Eisner Mirone Mirone	JCS - (1958) 971 ANCR 48 (1958) 881 ANCR 49 (1959) 59
$C_8H_9NO_2$	2,6-Dimethyl-p- benzoquinone-4- oxime	700-3500	S	Band struct	Philbrook	JOC 24 (1959) 568
$C_8H_9NO_2$	1,3-Dimethyl-5- nitrobenzene	700-1000	S, Sol	Bending freq	Bellamy	JCS - (1955) 2818
$C_8H_9NO_2$	2,6-Dimethyl-1-nitro- benzene	1650-1200 1600-1200	Sol Sol	H bond, Freq Vib freq, Ext coeff	Dyall Hamby	AJC 11 (1958) 513 AJC 11 (1958) 529
$C_8H_9NO_2$	3,5-Dimethyl-2,4- pyrroledicarbox- aldehyde	-	S, Sol	Freq	Mirone	ANCR 48 (1958) 72
$C_8H_9NO_2$	2-Carboethoxy- pyridine	-	Sol	Band study, Assign	Katritzky	JCS - (1958) 2182
$C_8H_9NO_2$	3-Carboethoxy- pyridine	- 600-3000	Sol Sol	Band study, Assign Assign	Katritzky Katritzky	JCS - (1958) 2182 JCS - (1958) 3165
$C_8H_9NO_2$	4-Carboethoxy- pyridine	-	Sol	Band study, Assign	Katritzky	JCS - (1958) 2182
$C_8H_9NO_2$	o-Ethyl nitrobenzene	6-8 μ	Sol	Freq, I	Conduit	JCS - (1959) 3273

$C_8H_9NO_2$	p-Ethylnitrobenzene	6-8 μ	Sol	Freq, I	Conduit	JCS	-	(1959)	3273
$C_8H_9NO_2$	m-Hydroxyacetanilide	-	Sol	Freq	Freeman	JACS	82	(1960)	2454
$C_8H_9NO_2$	p-Hydroxyacetanilide	-	Sol	Freq	Freeman	JACS	82	(1960)	2454
$C_8H_9NO_2$	Methyl m-aminobenzoate	-	Sol	Freq	Bryson	JACS	82	(1960)	4858
$C_8H_9NO_2$	Methyl o-aminobenzoate	6500-7000 2.5-3.1 μ 5.5-6.5 μ 1800-1600	Sol Sol L -	Spec, Group anal H bond Spec, H bond I, Ext coeff	Wulf Gordy Gordy Katritzky	JACS JACS JCP JCS	57 62 8 -	(1935) (1940) (1940) (1959)	1464 497 516 3670
		-	-	Freq assign, Struct	Katritzky	JCS	-	(1959)	3674
		800-1500	Sol	Band study, Assign	Katritzky	SA	16	(1960)	954
		-	-	Band study, Assign	Katritzky	SA	16	(1960)	964
$C_8H_9NO_2$	Methyl p-aminobenzoate	650-900	L,Sol	Bending freq	Yoshida	CPBT	8	(1960)	389
$C_8H_9NO_2$	N-Methylanthranilic acid	600-4000	S	Spec, Band study	Heacock	CJC	34	(1956)	1782
$C_8H_9NO_2$	N-Phenylglycine	600-4000	S	Spec, Band study	Heacock	CJC	34	(1956)	1782
$C_8H_9NO_2$	Piperonylamine	- 718-1481	S Sol	Band study Group freq	Wildman Briggs	JACS AC	77 29	(1955) (1957)	1248 904
$C_8H_9NO_2$	4-Pyridinemethanol acetate	-	-	Band freq	Berson	JACS	77	(1955)	1281
$C_8H_9NO_2$	1-(4-Pyridyl)-methyl acetate	-	Sol	Band study, Assign	Katritzky	JCS	-	(1958)	2182
$C_8H_9NO_2$	4,5,6,7-Tetrahydro-4-keto-3-methyl-benzisoxazole	5.92-13.38 μ S		Table, I	Smith	JCS	-	(1953)	803
$C_8H_9NO_2 \cdot HBr$	N-2-Pyridonepropionic acid hydrobromide	4000-650	L	Spec	Adams	JACS	71	(1949)	3826

$C_8H_9NO_2 \cdot HCl$	N-Methylantranilic acid hydrochloride	600-4000	S	Spec, Band study	Heacock	CJC	34 (1956)	1782
$C_8H_9NO_2 \cdot HCl$	N-Phenylglycine hydrochloride	600-4000	S	Spec, Band study	Heacock	CJC	34 (1956)	1782
$C_8H_9NO_2 \cdot HCl$	Piperonylamine hydrochloride	700-1500	S	Group freq	Briggs	AC	29 (1957)	904
$C_8H_9NO_3$	3,5-Dimethyl-2-nitrophenol	2.7-3.0 μ	Sol	H bond	Baker	JACS	80 (1958)	5358
$C_8H_9NO_3$	2-Carbethoxypyridine-N-oxide	- 800-3000	Sol Sol	Band study, Assign Subst effect	Katritzky Katritzky	JCS JCS	- - (1958)	2182 2195
$C_8H_9NO_3$	3-Carbethoxypyridine-N-oxide	- 800-3000	Sol Sol	Band study, Assign Spec, Freq, I	Katritzky Katritzky	JCS JCS	- - (1958)	2182 2195
$C_8H_9NO_3$	4-Carbethoxypyridine-N-oxide	- 600-3000	Sol Sol	Band study, Assign Substitution effect	Katritzky Katritzky	JCS JCS	- - (1958)	2182 2192
$C_8H_9NO_3$	m-Ethoxynitrobenzene	700-1700 900-3000	Sol Sol	Substitution effect Group freq, Assign	Katritzky Katritzky	JCS JCS	- - (1959)	2058 2062
$C_8H_9NO_3$	p-Ethoxynitrobenzene	700-1700 700-3000	Sol Sol	Substitution effect Group freq, Assign	Katritzky Katritzky	JCS JCS	- - (1959)	2051 2062
$C_8H_9NO_3$	o-Methylbenzo-hydroxamate	700-4000	S, Sol	Spec, H bond	Hadzi	SA	10 (1958)	38
$C_8H_9NO_3$	1-(4-Nitrophenyl)-ethanol	-	-	Anal, Band freq	Fuchs	JACS	76 (1954)	1631
$C_8H_9NO_3$	2-(4-Nitrophenyl)-ethanol	-	-	Anal, Band freq	Fuchs	JACS	76 (1954)	1631
$C_8H_9NO_3$	p-Nitrophenethyl alcohol	1.4 μ	Sol	Band study	Gouldman	JOC	23 (1953)	751

C ₈ H ₉ NO ₃	2-Nitro-3,4-xyleneol	600-4000	S	Spec, H bond, Assign	Pickering	JACS	80 (1958)	680
C ₈ H ₉ NO ₃	4-Nitro-3,5-xyleneol	-	Sol	Stretch freq, Hammett const	Baker	JPC	62 (1958)	744
C ₈ H ₉ NO ₃	6-Nitro-3,4-xyleneol	600-4000	S	Spec, H bond, Assign	Pickering	JACS	80 (1958)	680
C ₈ H ₉ NO ₃ S	p-Formylphenyl methyl sulfone oxime	-	-	Substitution effect	Momose	CPBT	6 (1958)	412
C ₈ H ₉ NO ₄	Hematinic acid imide	2-13 μ	S	Spec, Group freq, Struct	Richmoud	JACS	74 (1952)	4368
C ₈ H ₉ NO ₇	Hematinic acid imide ozonide	2-13 μ	S	Spec, Group freq, Struct	Richmoud	JACS	74 (1952)	4368
C ₈ H ₉ NS	Allyl 2-pyridyl sulfide	1575-650	-	Spec, Group anal	Tarbell	JACS	74 (1952)	48
C ₈ H ₉ NS	Propenyl 2-pyridyl sulfide	1575-650	-	Spec, Group anal	Tarbell	JACS	74 (1952)	48
C ₈ H ₉ NS	Thioacetanilide	3 μ - 3100-3500	Sol Sol Sol	Band study Freq, Rotational iso Config	Russell Suzuki Suzuki	SA MKZ SA	8 (1956) 80 (1959) 16 (1960)	138 697 471
C ₈ H ₉ N ₂ S	2-(3-Pyridyl)-3-thiopyrroline	6.2 μ	Sol	Substitution effect	Meyers	JOC	24 (1959)	1233
C ₈ H ₉ N ₃	β -Phenylethyl-azide	2-16 μ	Sol	Spec	Boyer	JACS	73 (1951)	5248
C ₈ H ₉ N ₃ O	Benzaldehyde semi-carbazone	700-3500	S	Ident, Assign	Davison	JCS	- (1955)	3389
C ₈ H ₉ N ₅	1-Benzyl-5-amino-tetrazole	2-6.6 μ	S	Band freq	Murphy	JOC	19 (1954)	1807
C ₈ H ₉ N ₅	2-Dimethylamino-pteridine	710-3500	S	Spec, Table, Assign, I	Mason	JCS	- (1955)	2336

$C_8^H N_5$	4-Dimethylamino- pteridine	715-1945	S	Table, I	Mason	JCS - (1955)	2336
$C_8^H N_5$	6-Dimethylamino- pteridine	683-1930	S	Table, I	Mason	JCS - (1955)	2336
$C_8^H N_5$	7-Dimethylamino- pteridine	713-1985	S	Table, I	Mason	JCS - (1955)	2336
$C_8^H N_5$	1-Methyl-5-phenyl- aminotetrazole	6-14 μ	S	Spec	Finnegan	JACS 77 (1955)	4420
$C_8^H N_5$	5-Methyl-1-phenyl- aminotetrazole	6-14 μ	S	Spec	Finnegan	JACS 77 (1955)	4420
$C_8^H N_5$	1-o-Tolyl-5-amino- tetrazole	2-6.6 μ	S	Band freq	Murphy	JOC 19 (1954)	1807
$C_8^H O_3^B$	Ethyl-o-phenylene borate	6-14 μ	L, Sol	Assign, Struct	Blau	JCS - (1960)	380
$C_8^H O_5^P$	Acetylphenylphosphate	2-9 μ	Sol	Spec, Freq	Jencks	ABB 88 (1960)	193
$C_8^H_{10}$	Bicyclo[2.2.2]-2,5- octadiene	2-15 μ	L	Spec	Hine	JACS 77 (1955)	594
$C_8^H_{10}$	Bicyclo[4.2.0]-2,4- octadiene	2-16 μ	L	Spec, Taut	Cope	JACS 74 (1952)	4867
$C_8^H_{10}$	1,3,5-Cycloocta- triene	2.5-15 μ	-	Spec, Struct Ident	Cope	JACS 72 (1950)	1123
		-	-		Cope	JACS 72 (1950)	2510
		2.5-16 μ	-	Spec, Iso	Cope	JACS 72 (1950)	2515
		2-16 μ	L	Spec, Ident, Taut	Cope	JACS 74 (1952)	4867
$C_8^H_{10}$	1,3,6-Cycloocta- triene	2.5-16 μ	-	Spec	Cope	JACS 72 (1950)	2515

$^{10}\text{B}_8$	1,2-Dimethylbenzene			Magnetic rotation	Ingersoll	JOSA		
	8-2.0 μ	L		Spec	Ellis	PR	27	(1922) 663
	2-14 μ	L		Photo recording	Barnes	JACS	49	(1926) 298
	-	L		Spec, Freq	Barnes	PR	35	(1927) 2034
	3.1-3.6 μ	L		Spec	White	JRNB	9	(1930) 1524
	1.1-1.8 μ	L		Spec	Liddel	JRNB	11	(1932) 711
	1.1-1.8 μ	Sol		Thermo	Kassel	JCP	4	(1933) 599
	-	-		Absorption freq, Spec	Barnes	IEC	15	(1936) 276
	750-1900	-		Thermo, Vib freq	Pitzer	JACS	65	(1943) 659
	-	-		C_6H_6 derivatives	Depaigne	JPR	7	(1943) 803
	5-8 μ	-		Spec, Iso	Barnes	AC	20	(1946) 33
	-	Sol		Freq, I	Bell	PRS	192	(1948) 402
	12-14 μ	Sol		Anal	Kaye	AC	20	(1948) 498
	12.4-14.8 μ	Sol		Anal	Hibbard	AC	21	(1948) 1006
	8000-9000	Sol		Freq, Dipole moment, I	Cole	TFS	46	(1949) 486
	9-14 μ	Sol		Group anal	Hastings	AC	24	(1950) 103
	-	-		Anal	Pines	JACS	74	(1952) 612
	-	Sol		Band freq, H bond	Tamres	JACS	74	(1952) 4872
	-	Sol		Anal	Williams	AC	24	(1952) 3375
	-	-		Absorbance	Bomstein	AC	25	(1952) 1911
	-	-		Band freq	Pines	JACS	75	(1953) 512
	-	-		Anal	Martin	AC	26	(1953) 6226
	12-15 μ	Sol		Anal	Schnurmann	AC	26	(1954) 1886
	-	-		Anal, Ident	Newman	JACS	77	(1954) 1263
	900-1050	Sol		Rocking mode vib	Randle	JCS	-	(1955) 3789
	1550-2000	-		Bending freq, Assign	Whiffen	SA	7	(1955) 3497
	-	-		Freq	Podall	AC	29	(1955) 253
	-	-		Solvent effect	Matheson	AC	29	(1957) 1423
	15-35 μ	S		Spec, Struct	Bentley	SA	30	(1958) 63A
	800-1600	-		I, Ext coef	Katritzky	JCS	15	(1959) 155
	-	-		NCA, Assign	Kovner	OS	-	(1959) 3670
	900-1300	Sol		Freq	Putnam	JCS	7	(1959) 751
	-	-					-	(1960) 2934

C_8H_{10}	1,3-Dimethylbenzene							
	2-2.8 μ	L		Spec	Ellis	PR	27	(1926) 298
	-	L		Photo recording	Barnes	JACS	49	(1927) 2034
	8-2.8 μ	L		Spec	Ellis	JACS	49	(1927) 347

3.1-3.6 μ	L	Spec, Freq	Barnes	PR	35	(1930)	1524
1.1-1.8 μ	L	Spec	White	JRNB	9	(1932)	711
1.1-1.8 μ	L	Spec	Liddel	JRNB	11	(1933)	599
-	-	Thermo	Kassel	JCP	4	(1936)	276
750-1950	-	Absorption freq, Spec	Barnes	IEC	15	(1943)	659
-	-	Thermo, Vib freq	Pitzer	JACS	65	(1943)	803
5-8 μ	-	C ₆ H ₆ derivatives	Depaigne	JPR	7	(1946)	33
-	Sol	Spec, Iso	Barnes	AC	21	(1948)	402
12-14 μ	Sol	Freq, I	Bell	PRS	192	(1948)	498
12.4-14.8 μ	Sol	Anal	Kaye	AC	20	(1948)	1006
8000-9000	Sol	Anal	Hibbard	AC	21	(1949)	486
9-14 μ	Sol	Freq, Dipole moment, I	Cole	TFS	46	(1950)	103
-	-	Anal	Pines	JACS	74	(1952)	4872
-	Sol	Anal	Williams	AC	24	(1952)	1911
-	-	Band freq, Absorption study	Bomstein	AC	25	(1953)	512
-	-	Anal	Ipatieff	JACS	75	(1953)	3323
-	-	Band freq	Pines	JACS	75	(1953)	6226
-	-	Anal	Martin	AC	26	(1954)	1886
12-15 μ	Sol	Anal, I	Schnurmann	AC	26	(1954)	1263
700-1000	S, Sol	Bending freq	Bellamy	JCS	-	(1955)	2818
900-1050	Sol	Rocking mode vib	Randle	JCS	-	(1955)	3497
1650-2000	Bending	freq, Assign	Whiffen	SA	7	(1955)	253
12-15 μ	L, Sol	Bending freq	Kross	JACS	78	(1956)	1332
-	Sol	Band freq, I	Randle	TFS	52	(1956)	9
-	-	Freq	Podall	AC	29	(1957)	1423
-	-	Solvent effect	Matheson	AC	30	(1958)	63A
15-35 μ	S	Spec, Struct	Bentley	SA	15	(1959)	165
700-1700	Sol	Substitution effect	Katritzky	JCS	-	(1959)	2051
-	Sol	Solvent effect	Lalau	SA	14	(1959)	181
3400-3800	Sol	H bond, Band shift	West	JACS	81	(1959)	1614
700-4000	L, Sol	Freq, Ext coeff	Demaine	CJC	38	(1960)	1921
4,5-Dimethylene-cyclohexene	-	Group freq	Marvel	JACS	77	(1955)	66
6,6-Dimethylfulvene	Sol	Spec	Wood	AC	30	(1958)	1339

$C_8H_{10}DN$	N-Ethylaniline-d ₁	-	L	Freq	Hadzi	JCS - (1957)	843
$C_8H_{10}DN$	N-Methyl-p-toluidine-d ₁	-	L	Freq	Hadzi	JCS - (1957)	843
$C_8H_{10}BrN$	p-Bromo-N,N-dimethylaniline	1700-700	L,S	Spec	Richards	PRS 195 (1948)	1
$C_8H_{10}BrNO_2S$	N-p-Bromophenyl-N-methylmethanesulfonamide	874-1470	Sol	Freq, Assign, Ext coeff	Katritzky	JCS - (1960)	4497
$C_8H_{10}ClN$	p-Chloro-N,N-dimethylaniline	1700-700	L,S	Spec	Richards	PRS 195 (1948)	1
$C_8H_{10}ClNO$	N-(2-Hydroxyethyl)-o-chloroaniline	2100-1400	Sol	Anal, Struct	Whetsel	AC 30 (1958)	1594
$C_8H_{10}ClNO_2$	1,5-Dimethoxy-4-chloroaniline	2600-800	Sol	Struct, Anal, I	Whetsel	AC 30 (1958)	1598
$C_8H_{10}ClNO_2S$	N-(p-Chlorophenyl)-N-methylmethanesulfonamide	874-1470	Sol	Freq, Assign, Ext coeff	Katritzky	JCS - (1960)	4497
$C_8H_{10}ClNO_2S.HCl$	4-Aminomethyl-3-chloro-4-phenylmethyl sulfone hydrochloride	-	S	Substitution effect	Momose	CPBT 6 (1958)	412
$C_8H_{10}ClN_3$	1-p-Chlorophenyl-3,3-dimethyl triazen	600-1800	S	Spec, Assign	Leferre	AJC 6 (1953)	341
$C_8H_{10}Cl_2$	1,6-Dichloro-1,5-cyclooctadiene	2.5-15.5 μ	-	Spec, Struct	Cope	JACS 72 (1950)	3056
$C_8H_{10}F_4O_2$	1,2-Diethoxy-3,3,4,4-tetrafluorocyclobutene	2-15 μ	L	Spec, Struct anal	Park	JACS 71 (1949)	2337

$C_8H_{10}F_4O_2S_2$	Diethyldithio- tetrafluoro- succinate	2-16 μ	L	Spec, Band freq	Hauptachein	JACS 74 (1952)	1974
$C_8H_{10}F_4O_4$	Diethyl tetrafluoro- succinate	2-16 μ	L	Spec, Band freq	Hauptachein	JACS 74 (1952)	1974
$C_8H_{10}IO_2S$	p-Aminomethylphenyl iodomethyl sulfone	-	S	Substitution effect	Momose	CPBT 6 (1958)	412
$C_8H_{10}N_2$	1-(Ethylpropylidene)- malonodinitrile	-	Sol	Band freq, I	Felton	JCS - (1955)	2170
$C_8H_{10}N_2O$	2-N-Acetyl-N-methyl- aminopyridine	-	Sol	Group freq, Assign, I	Katritzky	JCS - (1959)	2067
$C_8H_{10}N_2O$	3-N-Acetyl-N-methyl- aminopyridine	600-3000	Sol	Assign, Symmetry	Katritzky	JCS - (1958)	3165
$C_8H_{10}N_2O$	4-N-Acetyl-N-methyl- aminopyridine	-	Sol	Group freq, Assign, I	Katritzky	JCS - (1959)	2067
$C_8H_{10}N_2O$	m-Aminoacetanilide	-	Sol	Inductive & resonance effect	Freeman	JACS 82 (1960)	2454
$C_8H_{10}N_2O$	p-Aminoacetanilide	1600-1725	Sol	Freq	Thompson	SA 13 (1958)	236
$C_8H_{10}N_2O$	Benzylurea	1200-1700	-	Spec	Barnes	IEG 15 (1943)	659
$C_8H_{10}N_2O$	p-Dimethylamino- nitrosobenzene	822-1535	S, Sol	Group assign, Stretch free	Nakamoto	JACS 78 (1956)	1113
$C_8H_{10}N_2O_2$	2-N-Acetyl-N-methyl- aminopyridine-N- oxide	-	Sol	Group freq, Assign, I	Katritzky	JCS - (1959)	2067

$C_8H_{10}N_2O_2$	4-N-Acetyl-N-methyl-aminopyridine-N-oxide	600-3000 -	Sol Sol	Substitution effect Group freq, Assign, I	Katritzky Katritzky	JCS JCS	- -	(1958) (1959)	2192 2067
$C_8H_{10}N_2O_2$	N,N-Dimethyl-m-nitroaniline	2800-3000 1650-1200 1650-1200	S S S	Group study Freq, H bond Freq	Braunholtz Dyall Hamby	JCS AJC AJC	- 11 11	(1958) (1958) (1958)	2780 513 529
$C_8H_{10}N_2O_2$	N,N-Dimethyl-p-nitroaniline	1300-1600 2800-3000 1650-1200 1650-1200 -	S, Sol S S S -	Struct Group study Freq, H bond Freq Absorption freq, Assign, Struct	Kross Braunholtz Dyall Hamby Katritzky	JACS JCS AJC AJC JCS	78 - 11 11 -	(1956) (1958) (1958) (1958) (1959)	4225 2780 513 529 3674
$C_8H_{10}N_2O_2$	Ethyl N-(2-pyridyl)-urethan	1000-3500	Sol	Spec, Assign, I	Katritzky	JCS	-	(1960)	676
$C_8H_{10}N_2O_2$	Ethyl N-(3-pyridyl)-urethan	1000-3500	Sol	Spec, Assign, I	Katritzky	JCS	-	(1960)	676
$C_8H_{10}N_2O_2$	Ethyl N-(4-pyridyl)-urethan	1000-3500	Sol	Spec, Assign, I	Katritzky	JCS	-	(1960)	676
$C_8H_{10}N_2O_2$	3,4,5,3',4',5'-Hexahydrodifuro-2,3-b,2',3'-e-pyrazine	2-16 μ	Sol	Spec, Struct	Goering	JACS	73	(1951)	4737
$C_8H_{10}N_2O_2$	2-Nitro-4-methyl-aminotoluene	-	-	Comparison	Fuson	JACS	75	(1953)	5744
$C_8H_{10}N_2O_2$	3-Nitro-4-methyl-aminotoluene	-	-	Comparison	Fuson	JACS	75	(1953)	5744
$C_8H_{10}N_2O_2 \cdot H_2O$	2-Amino-1-(2-carboxy)-ethylpyridinium betaine hydrate	2.98-14.66 μ S	S	Table, Group freq	Hurd	JACS	77	(1953)	117

$C_8H_{10}O$	2,4-Dimethylphenol	2.5-15 μ	Sol	Spec, Band freq, I Ident	Friedel	JACS	73	(1951)	2881
		-	-	Spec, Quant anal	Vannmeter	AC	24	(1952)	1758
		11-14 μ	Sol	Spec, Quant anal	Fair	AC	27	(1955)	1886
		-	Sol	Freq	Bavin	CJC	35	(1957)	1555
		3500-3700	Sol	Freq, I, Hammett const	Flynn	AJC	12	(1959)	575
		3500-3800	Sol	Freq, Hammett const	Puttnam	JCS	-	(1960)	5100
		650-1400	Sol	Spec	Shrewsbury	SA	16	(1960)	1294
		1100-1800	-	Spec	Barnes	IEC	15	(1943)	659
		700-1300	Sol	Spec, Anal, Assign	Whiffen	JCS	-	(1945)	268
		-	-	Freq, Anal	Whiffen	TFS	41	(1945)	200
		5-15 μ	L,Sol	Spec, Table	Kletz	JCS	-	(1947)	644
		3 μ	L,Sol	H bond	Sears	JACS	71	(1949)	4110
		8-15 μ	Sol	Spec, Anal	Friedel	AC	22	(1950)	418
		2.5-15 μ	Sol	Spec, Band freq, I	Friedel	JACS	73	(1951)	2881
		-	-	Ident	Vannmeter	AC	24	(1952)	1758
		11-14 μ	Sol	Spec, Quant anal	Fair	AC	27	(1955)	1886
$C_8H_{10}O$	2,5-Dimethylphenol	1650-2000	-	Bending freq, Assign	Whiffen	SA	7	(1955)	253
		-	Sol	Freq	Bavin	CJC	35	(1957)	1555
		900-1030	Sol	Freq	Puttnam	JCS	-	(1960)	2934
		3500-3800	Sol	Freq, Hammett const	Puttnam	JCS	-	(1960)	5100
		650-1400	Sol	Spec	Shrewsbury	SA	16	(1960)	1294
		1050-1800	-	Spec	Barnes	IEC	15	(1943)	659
		700-1300	Sol	Spec, Anal, Assign	Whiffen	JCS	-	(1945)	268
		-	-	Freq, Anal	Whiffen	TFS	41	(1945)	200
		5-15 μ	L,Sol	Spec, Table	Kletz	JCS	-	(1947)	644
		8-15 μ	Sol	Spec, Anal	Friedel	AC	22	(1950)	418
		2.5-15 μ	Sol	Spec, Table, I Solvent effect	Friedel	JACS	73	(1951)	2881
		2.84 μ	Sol	Anal	Simard	AC	23	(1951)	1384
		-	-	Ident	Vannmeter	AC	24	(1952)	1758
		-	Sol	Freq, Dissociation const	Goulden	SA	6	(1954)	129
		11-14 μ	Sol	Spec, Quant anal	Fair	AC	27	(1955)	1886
		-	Sol	Freq	Bavin	CJC	35	(1957)	1555
		3500-3800	Sol	Freq, Hammett const	Puttnam	JCS	-	(1960)	5100
		650-1400	Sol	Spec	Shrewsbury	SA	16	(1960)	1294

$C_8H_{10}O$	2,6-Dimethylphenol	Sol	6900-7200	Band study	Wulf	JACS	58	(1936)	2287
		-	1000-1800	Spec	Barnes	IEC	15	(1943)	659
		Sol	700-1300	Spec, Anal, Assign	Whiffen	JCS	-	(1945)	268
		-	-	Freq, Anal	Whiffen	TFS	41	(1945)	200
		L,S	5-15 μ	Spec, Table	Kletz	JCS	-	(1947)	644
		S,Sol	3100-3700	Spec, Assign	Richards	JCS	-	(1947)	1260
		S	-	Band study	Thompson	JCS	-	(1947)	289
		L,S, Sol	3 μ	H bond	Sears	JACS	71	(1949)	4110
		Sol	8-15 μ	Spec, Anal	Friedel	AC	22	(1950)	418
		Sol	2.5-15 μ	Spec, Table, Band freq	Friedel	JACS	73	(1951)	2881
		-	5-6 μ	Spec	Young	AC	23	(1951)	709
		Sol	8-15 μ	Spec, Anal	Vanmeter	AC	24	(1952)	1758
		Sol	11-14 μ	Spec, Quant anal	Fair	AC	27	(1955)	1886
		-	1650-2000	Bending freq, Assign	Whiffen	SA	7	(1955)	253
		Sol	-	Freq	Bavin	CJC	35	(1957)	1555
$C_8H_{10}O$	3,4-Dimethylphenol	Sol	3500-3800	Freq, Hammett const	Puttnam	JCS	-	(1960)	5100
		Sol	650-1400	Spec	Shrewsbury	SA	16	(1960)	1294
		-	1100-1750	Spec	Barnes	IEC	15	(1943)	659
		Sol	700-1300	Spec, Anal, Assign	Whiffen	JCS	-	(1945)	268
		-	-	Freq, Anal	Whiffen	TFS	41	(1945)	200
		L,S	5-15 μ	Spec, Table	Kletz	JCS	-	(1947)	644
		Sol	8-15 μ	Spec, Anal	Friedel	AC	22	(1950)	418
		Sol	2.5-15 μ	Spec, Band freq, I	Friedel	JACS	73	(1951)	2881
		Sol	2.84 μ	Anal	Simard	AC	23	(1951)	1384
		-	-	Ident	Vanmeter	AC	24	(1952)	1758
		Sol	-	Freq, Dissociation const	Goulden	SA	6	(1954)	129
		Sol	11-14 μ	Spec, Quant anal	Fair	AC	27	(1955)	1886
		Sol	-	Freq	Bavin	CJC	35	(1957)	1555
		Sol	3 μ	Bond length, I	Moccia	PRS	243	(1958)	154
		S	600-4000	Spec, H bond, Assign	Pickering	JACS	80	(1958)	680
$C_8H_{10}O$	3,5-Dimethylphenol	Sol	-	Substitution effect	Stone	SA	10	(1958)	17
		Sol	3500-3800	Freq, Hammett const	Puttnam	JCS	-	(1960)	5100
		Sol	650-1400	Spec	Shrewsbury	SA	16	(1960)	1294

$C_8H_{10}O$	3,5-Dimethylphenol	1125-1775	-	Spec	Barnes	IEC	15	(1943)	659
		700-1300	Sol	Spec, Anal, Assign	Whiffen	JCS	-	(1945)	268
		-	-	Freq, Anal	Whiffen	TFS	41	(1945)	200
		5-15 μ	L,S	Spec, Table	Kletz	JCS	-	(1947)	644
		8-15 μ	Sol	Spec, Anal	Friedel	AC	22	(1950)	418
		2.5-15 μ	Sol	Spec, Band freq, I	Friedel	JACS	73	(1951)	2881
		2.84 μ	Sol	Anal	Simard	AC	23	(1951)	1384
		5-6 μ	-	Spec	Young	AC	23	(1951)	709
		3 μ	Sol	Stretch freq, Hammett const	Ingraham	JACS	74	(1952)	2297
		-	-	Ident	Vanmeter	AC	24	(1952)	1758
$C_8H_{10}O$	m-Ethylphenol	700-1000	S,Sol	Bending freq	Bellamy	JCS	-	(1955)	2818
		11-14 μ	Sol	Spec, Anal	Fair	AC	27	(1955)	1886
		1650-2000	-	Bending freq, Assign	Whiffen	SA	7	(1955)	253
		-	Sol	Freq	Bavin	CJC	35	(1957)	1555
		3500-3800	Sol	Freq, Hammett const	Puttnam	JCS	-	(1960)	5100
		650-1400	Sol	Spec	Shrewsbury	SA	16	(1960)	1294
		1050-1800	-	Absorption freq, Spec	Barnes	IEC	15	(1943)	659
		8-15 μ	Sol	Spec, Anal	Friedel	AC	22	(1950)	418
		2.5-15 μ	Sol	Spec, Band freq, I	Friedel	JACS	73	(1951)	2881
		3 μ	Sol	Stretch freq, Hammett const	Ingraham	JACS	74	(1952)	2297
$C_8H_{10}O$	o-Ethylphenol	-	-	Spec, Ident	Pasternach	JACS	74	(1952)	1928
		-	-	Absorption study	Bomstein	AC	25	(1953)	512
		-	-	Ident	Hochstein	JACS	75	(1953)	5455
		11-14 μ	Sol	Spec, Quant anal	Fair	AC	27	(1955)	1886
		3500-3800	Sol	Freq, Hammett const	Puttnam	JCS	-	(1960)	5100
		650-1400	Sol	Spec	Shrewsbury	SA	16	(1960)	1294
		1050-1800	-	Absorption freq, Spec	Barnes	IEC	15	(1943)	659
		3100-3700	L	Spec, Assign	Richards	JCS	-	(1947)	1260
		8-15 μ	Sol	Spec, Anal	Friedel	AC	22	(1950)	418
		2.5-15 μ	Sol	Spec, Band freq, I	Friedel	JACS	73	(1951)	2881
$C_8H_{10}O$	o-Ethylphenol	-	-	Ident	Vanmeter	AC	24	(1952)	1758
		-	-	Absorption study	Bomstein	AC	25	(1953)	512
		11-14 μ	Sol	Spec, Quant anal	Fair	AC	27	(1955)	1886
		-	-	Spec, Quant anal	Fair	AC	27	(1955)	1886

$C_8H_{10}O$	p-Ethylphenol	3570-3700 650-1400	Sol Sol	Freq, I, H bond Spec	Flynn Shrewsbury	AJC SA	12 (1959) 16 (1960)	575 1294
		1050-1800 5-15 μ 8-15 μ 2.5-15 μ	- L,S Sol Sol	Absorption freq, Spec Spec, Table Spec, Anal Spec, Band freq, I Ident	Barnes Klatz Friedel Friedel Vanmeter	IEC JCS AC JACS AC	15 (1943) - (1947) 22 (1950) 73 (1951) 24 (1952)	659 644 418 2881 1758
		- 11-145 μ 3570-3700 900-1030 650-1400	- Sol Sol Sol Sol	Absorption study Spec, Quant anal Freq, I, H bond Freq Spec	Bomstein Fair Flynn Puttnam Shrewsbury	AC AC AJC JCS SA	25 (1953) 27 (1955) 12 (1959) - (1960) 16 (1960)	512 1886 575 2934 1294
$C_8H_{10}O$	m-Methoxytoluene	800-1800 - 700-1700 900-3000 600-1700	- - Sol Sol L	Absorption freq, Spec Absorption study Substitution effect Group freq, Assign Spec	Barnes Bomstein Katritzky Katritzky Lecompte	IEC AC JCS JCS CPR	15 (1943) 25 (1953) - (1959) - (1959) 249 (1959)	659 512 2058 2062 2443
$C_8H_{10}O$	p-Methoxytoluene	- 800-1800 - 700-1700 900-3000 600-1700	- - - Sol Sol L	Electric moment Absorption freq, Spec Absorption study Substitution effect Group freq, Assign Spec	Williams Barnes Bomstein Katritzky Katritzky Lecompte	CR IEC AC JCS JCS CPR	6 (1929) 15 (1943) 25 (1953) - (1959) - (1959) 249 (1959)	589 659 512 2051 2062 2443
$C_8H_{10}O$	m-Methylbenzyl alcohol	- - - 700-1700 900-3000 600-1700	- - - Sol Sol L	Band assign Substitution effect, Iso	Michinori Oki	BCSJ BCSJ	32 (1959) 32 (1959)	950 955
$C_8H_{10}O$	o-Methylbenzyl alcohol	2-16 μ	S	Spec	Entel	JACS	74 (1952)	441
$C_8H_{10}O$	p-Methylbenzyl alcohol	- -	- -	Substitution effect, Iso	Oki	BCSJ	32 (1959)	955

$C_8H_{10}O$	1-Methyl-2-methoxy-benzene	800-1800 - 600-1700	- - L	Absorption freq, Spec Absorption study Spec	Barnes Bomstein Lecompte	IEC 15 (1943) AC 25 (1953) CPR 249 (1959)	659 512 2443
$C_8H_{10}O$	2,4,6-Octatrienal	1400-2000	Sol	Spec	Blout	JACS 70 (1948)	194
$C_8H_{10}O$	1-Phenyl-1-ethanol	6900-7200 750-3650 665-5000 - - 1.4 μ	Sol Sol L - Sol Sol	Spec, Group anal Band freq Band freq Group freq Substitution effect H bond	Wulf Bergmann Zeiss Pinder Potts Goldman	JACS 57 (1935) JACS 74 (1952) JACS 75 (1953) JCS - (1954) AC 27 (1955) JOC 23 (1958)	1464 1263 897 113 1027 751
$C_8H_{10}O$	2-Phenyl-1-ethanol	700-1500 2-16 μ - - - 8-13 μ	L L L Sol Sol -	Spec, Assign Spec Ident Substitution effect H bond Spec	Richards Entel Searles Potts Kuhn Eliehl	JCS - (1947) JACS 73 (1951) JACS 76 (1954) AC 27 (1955) JACS 79 (1957) SA 10 (1958)	1260 4152 2313 1027 6566 423
$C_8H_{10}O$	Phenyl ethyl ether	8-3.8 μ 1050-2000 5-6 μ 2-12 μ 1500-5000 3100-2800 4000-600 900-3000	L - - Sol Sol Sol Sol Sol	Spec Absorption freq, Spec Spec Spec, Struct Group freq Group Study Substitution effect Group freq, Assign	Taylor Barnes Young O'Connor Briggs Hembest Katritzky Katritzky	JACS 46 (1924) IEC 15 (1943) AC 23 (1951) JACS 76 (1954) AC 29 (1957) JCS - (1957) JCS - (1958) JCS - (1958)	1606 659 709 2368 904 1462 2192 4155
$C_8H_{10}O_2$	5-Carboxy bicyclo [2.2.1]2-heptene	-	-	Group freq	Mcbee	JACS 77 (1955)	915
$C_8H_{10}O_2$	2-Carboxy-bicyclo [2.2.1]-5-heptene	650-3100	Sol	Spec	Hembest	JCS - (1957)	997
$C_8H_{10}O_2$	3-Carboxy-nortri- cylene	2.5-10 μ	Sol	Spec	Roberts	JACS 72 (1950)	3116

$C_8H_{10}O_2$	7-Carboxytricyclo [2.2.1.0 ^{2,6}]-heptane	2.3-15.6 μ S	Table, I	Kwart	JACS	76 (1954)	4072
$C_8H_{10}O_2$	Di-t-butyl peroxide	665-5000	L,G	Ory	AC	32 (1960)	500
$C_8H_{10}O_2$	m-Dimethoxybenzene	700-1700 900-3000	Sol Sol	Katritzky Katritzky	JCS JCS	- -	(1959) 2058 (1959) 2062
$C_8H_{10}O_2$	p-Dimethoxybenzene	1050-2000 700-1700 1500-5000 900-3000 700-1700	- L,S Sol Sol Sol	Barnes Richards Briggs Lagrange Katritzky	IEC PRS AC SA JCS	15 (1943) 195 (1948) 29 (1957) 12 (1958) -	659 1 904 305 2051
$C_8H_{10}O_2$	4,5-Dimethylcatechol	3 μ	Sol	Ingraham	JACS	74 (1952)	2297
$C_8H_{10}O_2$	o-Ethoxyphenol	3 μ 3500-3800	Sol Sol	Flett Puttnam	SA JCS	10 (1958) -	21 5100
$C_8H_{10}O_2$	2-Ethylresorcinol	750-1950	-	Barnes	IEC	15 (1943)	659
$C_8H_{10}O_2$	2-Hydroxy-(Δ^1 -cyclo- hexene-1-yl) acetic acid lactone	1550-1850	Sol	Jones	CJC	37 (1959)	2007
$C_8H_{10}O_2$	3-Hydroxymethyl-p- cresol	700-3600	S,L, Sol	Richards	JCS	- (1947)	1260
$C_8H_{10}O_2$	m-Methoxybenzyl alcohol	-	-	Oki	BCSJ	32 (1959)	955
$C_8H_{10}O_2$	o-Methoxybenzyl alcohol	6900-7200 -	Sol Sol	Wulf Pauling	JACS JACS	57 (1935) 58 (1936)	1464 94
$C_8H_{10}O_2$	p-Methoxybenzyl alcohol	- -	- -	Kochi Oki	JACS BCSJ	75 (1953) 32 (1959)	3443 955

$C_8H_{10}O_2$	2,5-endo-Methylene-1,2,5,6-tetrahydrobenzoic acid	2.5-15 μ	Sol	Spec	Roberts	JACS 72 (1950) 3116
$C_8H_{10}O_2$	2,5-exo-Methylene-1,2,5,6-tetrahydrobenzoic acid	2.5-15 μ	Sol	Spec	Roberts	JACS 72 (1950) 3116
$C_8H_{10}O_2$	Methyl 2,4,6-hepta-trieneoate	1-15 μ	-	Spec, Struct	Cairns	JACS 74 (1952) 5636
$C_8H_{10}O_2$	2-Phenoxyethanol	7-14 μ	L	Rocking freq	Miyake	JACS 82 (1960) 3040
$C_8H_{10}O_2$	Phenyl-1,2-ethane-diol	-	Sol	Substitution effect	Potts	AC 27 (1955) 1027
$C_8H_{10}O_2$	1-Phenyl-1-ethyl hydroperoxide	5-15 μ	Sol	Spec, Band study	Minkoff	PRS 224 (1954) 176
$C_8H_{10}O_2$	Phthalyl alcohol	2-16 μ	S	Spec	Entel	JACS 74 (1952) 441
$C_8H_{10}O_2$	Δ^4 -Tetrahydrophthalaldehyde	2-16 μ	L	Spec, Stretch freq	Hufford	JACS 74 (1952) 3014
$C_8H_{10}O_2$	Veratrole	2-15 μ - - 800-1600 900-1500	L,Sol - Sol - -	Group freq Group study Assign, Shift I, Ext coeff Spec, H bond	Briggs Henbest Flaig Katritzky Lindberg	AC 29 (1957) 904 JCS - (1957) 1462 A 626 (1959) 215 JCS - (1959) 3670 SK 32b (1959) 193
$C_8H_{10}O_2 \cdot 1/2 H_2O$	3,4-Dihydroxy-3,4-dimethyl-1,5-hexadiyne hemihydrate	-	-	Band freq	Davis	JACS 77 (1955) 3284
$C_8H_{10}O_2S$	p-Tolyl methyl sulfone	-	S,Sol	Substitution effect	Momose	CPBT 6 (1958) 412

$C_8H_{10}O_3$	2-Acetylcyclohexane-1,3-dione	3.8-13.9 μ 1500-2700	S, Sol L, Sol	Table, Group freq, I Assign, H bond	Smith Chan	JCS - (1953) 803 JCS - (1956) 3495
$C_8H_{10}O_3$	Crotonic anhydride	1050-2000	-	Spec, Absorption freq	Barnes	IEC 15 (1943) 659
$C_8H_{10}O_3$	cis-1,2-Cyclohexane-dicarboxylic acid (anhydride)	1600-1800	S, Sol	Freq	Hall	JACS 80 (1958) 6428
$C_8H_{10}O_3$	cis-1,3-Cyclohexane-dicarboxylic acid (anhydride)	1600-1800	S, Sol	Freq	Hall	JACS 80 (1958) 6428
$C_8H_{10}O_3$	2,4-Di-(hydroxy-methyl) phenol	-	-	Ident	Martin	JACS 74 (1952) 4208
$C_8H_{10}O_3$	2,6-Dimethoxyphenol	6900-7200 2.7-3.0 μ 900-1500 3500-3800 -	Sol Sol - Sol Sol	Band freq H bond Spec, H bond Freq, Hammett const H bond, Stretch freq	Wulf Baker Lindberg Puttnam Reeves	JACS 58 (1936) 2287 JACS 80 (1958) 5358 SK 32 (1959) 193 JCS - (1960) 5100 CJC 38 (1960) 1249
$C_8H_{10}O_3$	p-Hydrophenoxy-acetic acid	-	Sol	H bond	OkI	BCSJ 33 (1960) 119
$C_8H_{10}O_3$	Methyl β (2-furyl) propionate	800-1700 - 800-1500	Sol - Sol	Freq, Assign Band study, Assign Assign, Band study	Katritzky Katritzky Katritzky	JCS - (1959) 657 SA 16 (1960) 964 SA 16 (1960) 954
$C_8H_{10}O_3$	Nepetic anhydride	-	Sol	Band freq	Moelrvane	JACS 77 (1955) 1599
$C_8H_{10}O_3$	n-Propyl 2-furoate	800-1700 800-1500 -	Sol Sol -	Freq, Assign Band study, Assign Band study, Assign	Katritzky Katritzky Katritzky	JCS - (1959) 657 SA 16 (1960) 954 SA 16 (1960) 964
$C_8H_{10}O_3$	Terrein	- -	S, Sol -	Group freq, Struct Group freq, Struct	Grove Barton	JCS - (1954) 4693 JCS - (1955) 1028

$C_8H_{10}O_3S$	400-4000	L	Spec, Assign	Freeman	AJC	10 (1957)	239
Ethyl benzene-sulphonate							
$C_8H_{10}O_3S$	-	Sol	I, Struct	Rogers	JACS	78 (1956)	1790
p-Methoxyphenyl methyl sulfone							
$C_8H_{10}O_3S$	400-4000	L	Spec, Assign	Freeman	AJC	10 (1957)	239
Methyl o-toluene-sulphonate							
$C_8H_{10}O_3S$	1000-1500	Sol	Spec Band freq	Schreiber Bomstein	AC	21 (1949)	1168
Methyl p-toluene-sulphonate	-	-			AC	25 (1953)	512
$C_8H_{10}O_4$	709-2660	S	Table, Group freq	Ames	JCS	- (1954)	375
dl-Anhydromono-crotalic acid							
$C_8H_{10}O_4$	2-15 μ	L	Spec, Assign	Walton	JACS	79 (1957)	3985
Butyl acetylene-dicarboxylate							
$C_8H_{10}O_4$	2-15 μ	L	Spec, Assign	Walton	JACS	79 (1957)	3985
s-Butyl acetylene-dicarboxylate							
$C_8H_{10}O_4$	751-3584	L	Table, Group freq	Ames	JCS	- (1954)	375
4-Methoxycarbonyl-4-hydroxy-2,3-dimethyl-but-2-enoic lactone							
$C_8H_{10}O_4$	-	S	Band freq	Adams	JACS	75 (1953)	4638
α -Methyl- α -ethylidene-glutaconic acid							
$C_8H_{10}O_4$	-	S	I	Jones	JCS	- (1954)	3208
Octa-2,4-dienedioic acid							
$C_8H_{10}O_4$	-	S	Band study	Jones	JCS	- (1954)	3208
Oct-4-ynedioic acid							
$C_8H_{10}O_4$	650-4000	S, Sol	Spec	Ford	JACS	72 (1950)	4529
Penicillic acid	-	S	Group freq	Grove	JCS	- (1952)	3345
$C_8H_{10}O_4$	-	-	Band freq, Struct	Mehta	JACS	75 (1953)	240
β -Propionylglutaro-bis-lactone							

$C_8H_{10}O_4 \cdot H_2O$	Penicillic acid hydrate	-	S	Group freq	Grove	JCS - (1952)	3345
$C_8H_{10}S$	2-(2-Butenyl)-thiophene	-	-	Absorption band, Assign	Pines	JACS 73 (1951)	5173
$C_8H_{10}S$	2-(3-Butenyl)-thiophene	-	-	Band study, Assign	Pines	JACS 73 (1951)	5173
$C_8H_{11}DO_2$	5,5-Dimethylcyclohexane-1- β -dione- d_1	2000-3500	Sol	Spec, Assign	Bellamy	PRS 257 (1960)	98
$C_8H_{11}D_3O_2$	Cyclohexanol acetate- d_3	-	Sol	Table, Bending freq, Struct	Jones	JACS 74 (1952)	5662
$C_8H_{11}Br$	3-Bromo-1,5-cyclo-octadiene	2.5-15 μ	-	Spec	Cope	JACS 72 (1950)	2510
$C_8H_{11}Br$	1-Bromo-2(trans)-n-octen-4-yne	-	-	Band freq	Celmer	JACS 75 (1953)	3430
$C_8H_{11}Br$	3-Bromo-1-octen-4-yne	-	L	Bending freq	Crombie	JCS - (1955)	1007
$C_8H_{11}Br$	Isopropylvinylbromoethynylcarbinol	-	Sol	Group freq	Celmer	JACS 75 (1953)	3430
$C_8H_{11}BrO$	α, α -Dimethyl- γ -carboxy- γ -bromovalerolactone	-	-	Band study	McLamore	JOC 20 (1955)	109
$C_8H_{11}BrO_4$	Dimethylphenylchlorosilane	-	-	Group freq	McLavin	JACS 75 (1953)	3987
$C_8H_{11}FO_5$	Diethyl fluoro-oxaloacetate	2-30 μ	Sol	Spec, Struct, Anal	Grenoble	APS 14 (1960)	85
$C_8H_{11}F_3O_2$	2,2,2-Trifluoroethyl 2-hexenoate	-	Sol	Band freq	Blank	JCS - (1955)	2190
$C_8H_{11}F_3O_2$	2,2,2-Trifluoroethyl 2-hexenoate	-	L	Band freq	Filler	JACS 76 (1954)	1376

$C_8H_{11}IO_2$	β -Iodocyclohexane-acetic acid- γ -lactone	-	Sol	Struct	Vantamelen	JACS	76 (1954)	2315
$C_8H_{11}IO_2$	δ -Iodocyclohexane-acetic acid- γ -lactone	-	Sol	Struct	Vantamelen	JACS	76 (1954)	2315
$C_8H_{11}N$	N,N-Dimethylaniline	1-12 μ 8-2.8 μ - 1050-1750 700-1400 700-1400 3-15 μ - 625-900 2800-3000 2900-3100 4000-600 -	L L - - L L L - - L Sol Sol -	Spec Spec, Bond study Band freq Spec Spec Spec, Struct Spec, Bond study Anal Substitution effect Group study Freq Group freq Absorption, Assign, Struct	Bell Ellis Bonino Barnes Whiffen Burton Lothrop Dannley Margoshes Braunholtz Hill Katritzky Katritzky	JACS JACS TFS IEC TFS JCS JACS JOC SA JCS JCS JCS JCS	47 (1925) 49 (1927) 25 (1929) 15 (1943) 41 (1945) - (1950) 73 (1951) 20 (1955) 7 (1955) - (1958) - (1958) - (1958) - (1959)	2192 347 876 659 200 1316 3581 92 14 2780 760 4155 3674
$C_8H_{11}N.HBr$	N,N-Dimethylaniline hydrobromide	1000-1500	S,Sol	Band study	Chenon	CJC	36 (1958)	1181
$C_8H_{11}N.HCl$	N,N-Dimethylaniline hydrochloride	1000-1500	S,Sol	Band study	Chenon	CJC	36 (1958)	1181
$C_8H_{11}N.HI$	N,N-Dimethylaniline diiodide	1000-1500	S,Sol	Band study	Chenon	CJC	36 (1958)	1181
$C_8H_{11}N$	2,4-Dimethylaniline	6500-6800 1050-1800	Sol -	Band study Spec	Liddel Barnes	JACS IEC	55 (1933) 15 (1943)	3574 659
$C_8H_{11}N$	2,5-Dimethylaniline	6500-6800	Sol	Band study	Liddel	JACS	55 (1933)	3574
$C_8H_{11}N$	2,6-Dimethylaniline	6500-6800 1050-1800	Sol -	Band study Spec	Liddel Barnes	JACS IEC	55 (1933) 15 (1943)	3574 659

$C_8H_{11}N$	3,4-Dimethylaniline	-	Sol	Freq, FC	Krueger	PRS	243	(1957)	143
$C_8H_{11}N$	3,5-Dimethylaniline	6500-6800 700-1000 2600-800	Sol S,Sol Sol Sol	Band study Bending freq Struct, Anal Freq	Liddel Bellamy Whetsel Bryson	JACS JCS AC JACS	55 - 30 82	(1933) (1955) (1958) (1960)	3574 2818 1598 4858
$C_8H_{11}N$	N-Ethylaniline	1-12 μ 8-2.8 μ 6500-6850 - - - 600-4000	L L Sol - Sol Sol L	Spec Spec, Bond study Band study FC Vib, I Band freq, Ext coeff, I Spec, Band study Freq	Bell Ellis Liddel Richards Richards Russell Heacock Hadzi	JACS JACS JACS TFS TFS JCS CJC JCS	47 49 55 44 45 - 34 -	(1925) (1927) (1933) (1948) (1949) (1955) (1956) (1957)	2192 347 3574 40 874 483 1782 843
$C_8H_{11}N$		8-2.5 μ 2800-3000 2900-3100 2100-1400 - 3300-3500	Sol L,S Sol Sol Sol S,Sol	Spec, Quant anal Group study Freq Band study, Anal Band freq Stretch freq, Config	Whetsel Braunholtz Hill Whetsel Bryson Moritz	AC JCS JCS AC JACS SA	29 - - 30 82 16	(1957) (1958) (1958) (1958) (1960) (1960)	1006 2780 760 1594 4858 1176
$C_8H_{11}N$	2-Isopropylpyridine	2-15 μ	L	Freq	Podall	AC	29	(1957)	1423
$C_8H_{11}N$	3-Isopropylpyridine	2-15 μ	L	Freq	Podall	AC	29	(1957)	1423
$C_8H_{11}N$	4-Isopropylpyridine	2-15 μ	L	Freq	Podall	AC	29	(1957)	1423
$C_8H_{11}N.HCl$	Isopropylpyridine hydrochloride	-	-	Group Freq	Witkop	JACS	76	(1954)	5597
$C_8H_{11}N$	N-Methylbenzylamine	2800-3000 3.38-3.60 μ	L S	Group study Freq	Braunholtz Wright	JCS JOC	- 24	(1958) (1959)	2780 1362
$C_8H_{11}N$	2-Methyl-3-ethyl pyridine	2-15 μ	Sol	Table	Podall	AC	29	(1957)	1423

$C_8H_{11}N$	2-Methyl-4-ethyl-pyridine	-	-	-	Ident	Absorption study, Anal	Vanmeter	AC	24 (1952)	1758
		L	-	-			Cook	AC	28 (1956)	993
$C_8H_{11}N$	2-Methyl-5-ethyl-pyridine	L	-	-	Absorption study, Anal		Cook	AC	28 (1956)	993
		Sol	2-15 μ	-	Freq, Table		Podall	AC	29 (1957)	1423
		L	400-1700	-	Quant anal, Table		Bohon	AC	30 (1958)	245
$C_8H_{11}N$	2-Methyl-6-ethyl-pyridine	L	-	-	Absorption study, Anal		Cook	AC	28 (1956)	993
		-	700-1300	-	Freq		Bohon	AC	30 (1958)	245
$C_8H_{11}N$	4-Methyl-2-ethyl-pyridine	-	-	-	Ident		Vanmeter	AC	24 (1952)	1758
$C_8H_{11}N$	4-Methyl-3-ethyl-pyridine	L	-	-	Absorption study, Anal		Cook	AC	28 (1956)	993
		Sol	400-1700	-	Quant anal, Table		Bohon	AC	30 (1958)	245
$C_8H_{11}N$	N-Methyl-m-toluidine	Sol	2900-3100	-	Freq		Hill	JCS	- (1958)	760
$C_8H_{11}N$	N-Methyl-o-toluidine	Sol	2900-3100	-	Freq		Hill	JCS	- (1958)	760
$C_8H_{11}N$	N-Methyl-p-toluidine	L	6-2.0 μ	-	Bond study		Ellis	JACS	50 (1928)	685
		Sol	6500-6800	-	Band study		Liddel	JACS	55 (1933)	3574
		L	700-1400	-	Spec		Whiffen	TFS	41 (1945)	200
		-	-	-	TC		Richards	TFS	44 (1948)	40
		L	-	-	Freq		Hadzi	JCS	- (1957)	843
		Sol	2900-3100	-	Group freq		Hill	JCS	- (1958)	760
$C_8H_{11}N$	2-Octynonitrile	L	2-15 μ	-	Spec		Wotiz	JACS	71 (1949)	3441
$C_8H_{11}N$	3-Octynonitrile	L	2-15 μ	-	Spec		Wotiz	JACS	71 (1949)	3441
$C_8H_{11}N$	4-Octynonitrile	L	2-15 μ	-	Spec		Wotiz	JACS	71 (1949)	3441
$C_8H_{11}N$	5-Octynonitrile	L	2-15 μ	-	Spec		Wotiz	JACS	71 (1949)	3441
$C_8H_{11}N$	6-Octynonitrile	L	2-15 μ	-	Spec		Wotiz	JACS	71 (1949)	3441
$C_8H_{11}N$	7-Octynonitrile	L	2-15 μ	-	Spec		Wotiz	JACS	71 (1949)	3441

$C_8H_{11}N$	β -Phenylethylamine	6400-6800	Sol	Band study	Liddel	JACS	55 (1933)	3574
$C_8H_{11}N$	4-n-Propylpyridine	-	L	Absorption study, Anal	Cook	AC	28 (1956)	993
$C_8H_{11}N$	2,3,5-Trimethylpyridine	-	-	Ident	Vanmeter	AC	24 (1952)	1758
		-	L	Absorption study, Anal	Cook	AC	28 (1956)	993
$C_8H_{11}N$	2,3,6-Trimethylpyridine	-	-	Ident	Vanmeter	AC	24 (1952)	1758
		-	-	Ident, Band freq	Brown	JACS	76 (1954)	5556
		-	L	Absorption study, Anal	Cook	AC	28 (1956)	993
		2-15 μ	L	Table	Podall	AC	29 (1957)	1423
		700-1300	-	Freq	Bohon	AC	30 (1958)	245
$C_8H_{11}N$	2,4,5-Trimethylpyridine	-	L	Absorption study, Anal	Cook	AC	28 (1956)	993
$C_8H_{11}N$	2,4,6-Trimethylpyridine	800-1900	-	Spec	Barnes	IEC	15 (1943)	659
		-	-	Ident	Vanmeter	AC	24 (1952)	1758
		-	-	Purity determination	Brown	JACS	76 (1954)	5556
		-	L	Absorption study, Anal	Cook	AC	28 (1956)	993
		2-15 μ	L	Freq	Podall	AC	29 (1957)	1423
		400-1700	L	Spec, Quant anal	Bohon	AC	30 (1958)	245
$C_8H_{11}N \cdot HCl$	N-Ethylaniline hydrochloride	600-4000	S	Spec, Band study	Heacock	CJC	34 (1956)	1782
$C_8H_{11}NO$	2-Cyano-2-methylcyclohexanone	-	Sol	Band freq	Bellamy	JOS	- (1954)	4487
$C_8H_{11}NO$	2,4-Dimethyl-3-acetylpyrrole	-	Sol	Band freq	Cookson	JOS	- (1953)	2789
		500-4000	Sol	Spec, Freq, Stretch freq	Eisner	JOS	- (1958)	971
$C_8H_{11}NO$	2-Dimethylaminophenol	2.7-3.0 μ	Sol	H bond	Baker	JACS	80 (1958)	5358
$C_8H_{11}NO$	2,6-Dimethyl-4-methoxypyridine	1400-1700	S	Freq	Tsubomura	JGP	28 (1958)	355

$C_8H_{11}NO$	m-Ethoxyaniline	-	Sol	Freq, FC Band study, Struct, Anal Substitution effect Group freq, Assign Absorption study, Freq, Assign	Krueger Whetsel Katritzky Katritzky Katritzky	PRS AC JCS JCS JCS	243 30 - - -	(1957) (1958) (1959) (1959) (1959)	143 1598 2058 2062 3674
$C_8H_{11}NO$	o-Ethoxyaniline	2600-800	Sol	Freq	Bryson	JACS	82	(1960)	4858
$C_8H_{11}NO$	p-Ethoxyaniline	-	Sol	Substitution effect	Whetsel	AC	30	(1958)	1598
$C_8H_{11}NO$	-	2600-800	Sol	Freq	Krueger	PRS	243	(1957)	143
$C_8H_{11}NO$	-	700-1700	Sol	Band study, Struct, Anal	Whetsel	AC	30	(1958)	1598
$C_8H_{11}NO$	-	900-3000	Sol	Freq, Assign	Katritzky	JCS	-	(1959)	2051
$C_8H_{11}NO$	-	-	Sol	Group freq; Assign	Katritzky	JCS	-	(1959)	2062
$C_8H_{11}NO$	-	-	-	Absorption study, Freq, Assign	Katritzky	JCS	-	(1959)	3674
$C_8H_{11}NO$	O-Ethylaminophenol	-	Sol	Spec, Band freq	Witkop	JACS	74	(1952)	3861
$C_8H_{11}NO$	5-Ethyl-2-pyridyl-methanol	-	-	Group freq, Struct	Bullitt	JACS	76	(1954)	1370
$C_8H_{11}NO$	p-Hydroxyethyl-aniline	2600-800	Sol	Band study, Struct, Anal	Whetsel	AC	30	(1958)	1598
$C_8H_{11}NO$	N-Phenyl-2-amino-ethanol-1	-	Sol	H bond, Group freq	Bergmann	JACS	75	(1953)	68
$C_8H_{11}NO$	-	2100-1400	S, Sol	Group freq	Boxter	JCS	-	(1955)	669
$C_8H_{11}NO$	2-Propoxypyridine	4000-650	Sol	Anal	Whetsel	AC	30	(1958)	1594
$C_8H_{11}NO$	N-n-Propyl-2-pyridone	4000-650	L	Spec	Adams	JACS	71	(1949)	3826
$C_8H_{11}NO.HCl$	Tyraminehydrochloride	6-11 μ	S	Spec	Adams	JACS	71	(1949)	3826
$C_8H_{11}NO$	-	-	Sol	Spec	Parker	N	187	(1960)	386

$C_8H_{11}NO_2$	Cyclohexane-1,3-dicarboximide	1600-1800	Sol	Freq	Hall	JACS 80 (1958)	6428
$C_8H_{11}NO_2$	3,5-Dimethoxyaniline	-	Sol	Freq	Bryson	JACS 82 (1960)	4858
$C_8H_{11}NO_2$	2,6-Dimethoxy-4-methylpyridine	821-2959	L	Table, Band freq	Ames	JOS - (1953)	3008
$C_8H_{11}NO_2$	γ -Ethoxy- β -methylpyridine-N-oxide	900-3000	Sol	Group freq, Assign	Katritzky	JOS - (1959)	2062
$C_8H_{11}NO_2$	Ethyl 2-cyanopent-2-enoate	-	Sol	Freq, I	Felton	JOS - (1955)	2170
$C_8H_{11}NO_2$	6-Methoxy-1,4-dimethylpyrid-2-one	769-1656 -	S S	Table, Band freq Group freq	Ames Ames	JOS - (1953) JOS - (1955)	3008 631
$C_8H_{11}NO_2S$	N-Formyl-2-(-5-methoxy-2-thienyl)ethylamine	-	Sol	Group freq	Herz	JACS 77 (1955)	3529
$C_8H_{11}NO_2S$	N-Methyl-N-phenylmethanesulphonamide	4000-600 874-1470	Sol Sol	Substitution effect Freq, Assign, Ext coeff	Katritzky Katritzky	JOS - (1958) JOS - (1960)	4155 4497
$C_8H_{11}NO_2S$	N-Methyltoluene-p-sulphonamide	600-1700	S, Sol	Freq, Assign	Hadzi	JOS - (1957)	847
$C_8H_{11}NO_2S.HCl$	p-Aminomethylphenyl methyl sulfone hydrochloride	-	S	Substitution effect	Momose	CPPT 6 (1958)	412
$C_8H_{11}NO_3$	dl-Anhydromonocrotalamide	765-3345	S	Table, Band freq	Ames	JOS - (1954)	375
$C_8H_{11}NO_3$	3-Carbethoxy-2-methyl-4-oxo- Δ^2 -pyrrolone	2-8 μ	S	Table, I	Davoll	JOS - (1953)	3802

$C_8H_{11}NO_3$	3.18-13.53 μ S	Table, I	Smith	JCS - (1953)	803
2,6-Diketocyclohexyl methyl ketoxime					
$C_8H_{11}NO_3$	-	S	Ames	JCS - (1955)	631
2,6-Dimethoxy-4-methylpyridine-N-oxide					
$C_8H_{11}NS$	1575-650	-	Tarbell	JACS 74 (1952)	48
n-Propyl 2-pyridyl sulfide					
$C_8H_{11}N_3$	-	L	Overberger	JACS 76 (1954)	1879
2-N,N-Dimethyl-amino-4-vinylpyrimidine					
$C_8H_{11}N_3OS$	700-1700	S	Lieber	CJC 36 (1958)	801
4-o-Methoxyphenylthiosemicarbazide					
$C_8H_{11}N_3OS$	2500-800	S	Elmore	JCS - (1958)	3489
3-Methylpyrrolidino (1:2'-1:5)-2-thiohydantoin					
$C_8H_{11}N_3O_2$	2-15 μ	S	Brownlie	JCS - (1950)	3062
4-Hydroxy-5-acetamido-2,6-dimethylpyrimidine					
$C_8H_{11}N_3S$	700-1700	S	Lieber	CJC 36 (1958)	801
4-Benzylthiosemicarbazide					
$C_8H_{11}N_3S$	700-1700	S	Lieber	CJC 36 (1958)	801
4-p-tolylthiosemicarbazide					
$C_8H_{11}O_2P$	2-21 μ 600-4000 600-4000	S S S	Daasch Braunholtz Braunholtz	AC 23 (1951) JCS - (1959) JCS - (1959)	853 868 868
p-Ethylbenzene-phosphinic acid					
$C_8H_{11}O_2P$	2-21 μ -	Sol -	Daasch Bell	AC 23 (1951) JACS 76 (1954)	853 5185
Ethyl phenylphosphonate					

$C_8H_{11}O_3P$		-	-	Band freq	Bennett	JCS	-	(1954)	3598
Dimethylphenylphosphite	2.5-25 μ	Sol		Freq	Nyquist	APS	11	(1957)	161
C_8H_{12}	Bicyclo[2.2.2]-2-octene	2-15 μ	Sol	Spec	Hine	JACS	77	(1955)	594
C_8H_{12}	2-t-Butylbut-1-en-3-yne	-	-	Spec, Group study	Petrov	ZOK	27	(1957)	1167
C_8H_{12}	4-Butyl-1-buten-3-yne	-	-	Spec, Group study	Petrov	ZOK	27	(1957)	1167
C_8H_{12}	1,3-Cyclooctadiene	2.5-15 μ	-	Spec	Cope	JACS	72	(1950)	1128
C_8H_{12}	1,5-Cyclooctadiene	-	-	Iso Anal	Cope Reed	JACS	72	(1950)	2510
C_8H_{12}	Cyclooctyne	-	L	Band freq	Blomquist	JACS	75	(1953)	2153
C_8H_{12}	1,2-Dimethylene-cyclohexane	-	-	Spec	Bailey	JACS	77	(1955)	1606
C_8H_{12}	2,5-Dimethylhexatriene	1200-1800	-	Spec	Barnes	IEC	15	(1943)	659
C_8H_{12}	2,5-Dimethyl-1-trans-3,5-hexatriene	-	L	Group freq, I	Allan	JCS	-	(1955)	1874
C_8H_{12}	2,4-Dimethylhex-3-en-5-yne	-	-	Group freq	Bergmann	JAP	3	(1953)	97
C_8H_{12}	trans-1,2-Divinylcyclobutane	6.5-14 μ	L	Spec	Reed	JCS	-	(1951)	685
C_8H_{12}	4-Ethenyl-1-cyclohexane	6.5-14 μ	L	Spec	Reed	JCS	-	(1951)	685
C_8H_{12}	1-Ethylcyclohexa-1,4-diene	-	-	Ident, Band freq	Pinder	JCS	-	(1954)	113
C_8H_{12}	2-Isobutylbut-1-en-3-yne	-	-	Group Freq	Bergmann	JAP	3	(1953)	97

C_8H_{12}	2,4,6-Octatriene	1400-2000	Sol	Spec	Bloust	JACS	70 (1948)	194
C_8H_{12}	Pentamethylene-allene	843-2960	-	Table	Bailey	JOC	20 (1955)	95
$C_8H_{12}D_6$	n-Octane-1,1,1,8,8,8- d_6	600-1500	S	Spec, Freq, Assign	Pimental	JCP	23 (1955)	376
$C_8H_{12}BrNO$	2-Bromotropinone	-	Sol	Band freq	Nickon	JACS	77 (1955)	4094
$C_8H_{12}ClNO_3$	Ethyl N-allyl-N-chloroacetyl-carbamate	650-4000	Sol	Spec	Pianka	JCS	- (1960)	983
$C_8H_{12}Cl_2$	1,1-Dichloro-2-cyclohexylethylene	7.5-14/ μ	-	Quant anal	Schmerling	JACS	71 (1949)	2015
$C_8H_{12}Cl_2N_2O_2$	3,6-Bis-(β -Chloroethyl)-2,5-diketopiperazine	2-16/ μ	S	Spec, Band freq	Goering	JACS	73 (1951)	4737
$C_8H_{12}F_3NO$	N-Cyclohexyl-trifluoroacetamide	-	Sol	Stretch freq	Bourne	JCS	- (1952)	4014
$C_8H_{12}NO_2$	2,5-Dimethoxyaniline	2600-800	Sol	Struct	Whetsel	AC	30 (1958)	1598
$C_8H_{12}N_2$	Crotonaldehyde azine	1400-2000	Sol	Spec	Blout	JACS	70 (1948)	194
$C_8H_{12}N_2$	2,4-Dicyano-2-methylpentane	-	-	Band freq	Gingras	JCS	- (1954)	3508
$C_8H_{12}N_2$	p-N,N-Dimethylamino-aniline	3398-3464	Sol	Freq, Chem properties	Flett	TFS	44 (1948)	767
		-	Sol	Solvent effect, Freq	Krueger	FBS	243 (1957)	143
		700-1700	Sol	Substitution effect	Katritzky	JCS	- (1959)	2051
		-	-	Absorption, Freq assign	Katritzky	JCS	- (1959)	3674

$C_8H_{12}N_2$	Suberonitrile	-	-	Band freq	Kitson	AC	24 (1952)	334
$C_8H_{12}N_2$	Tetramethylsuccinonitrile	-	Sol	Ext coeff	Cross	TFS	47 (1951)	354
		-	-	Band freq	Kitson	AC	24 (1952)	334
		-	-	Band freq	Gingras	JCS	- (1954)	3508
		-	S	Ident	Hammond	JACS	77 (1955)	3249
$C_8H_{12}N_2O$	4-(2'-Cyanoethyl)-amino-3-pentene-2-one	3800-650 3-6 μ	S S,Sol	Table H bond, Struct	Cromwell Weinstein	JACS JOC	71 (1949) 23 (1958)	3337 1618
$C_8H_{12}N_2O \cdot HCl$	2-Isopropyl-4-methyl-6-hydroxypyrimidine hydrochloride	-	-	Ident	Snyder	JACS	76 (1954)	118
$C_8H_{12}N_2O_2$	2,4-Diethoxypyrimidine	2-25 μ	S	Spec, Group freq	Short	JCS	- (1952)	168
$C_8H_{12}N_2O_2$	Hexamethylene diisocyanate	- 4-7.5 μ	Sol S	Band freq, I Assign	Davison Barr	JCS JCS	- (1953) - (1956)	3712 3428
$C_8H_{12}N_2O_2S$	1-Aminobenzene-4-sulfone-dimethyl amide	-	-	Spec	Merian	HCA	43 (1960)	1122
$C_8H_{12}N_2O_3$	5,5-Diethylbarbituric acid	2-16 μ 2.5-16 μ	Sol S	Spec, Table, Freq Spec Ident	Ueberger Levi Cleverley	AC AC ANA	24 (1952) 28 (1956) 85 (1960)	1309 1591 582
$C_8H_{12}N_2O_4$	Glyoxal-bis(carbonylthio)imide	-	S	Struct	Gaylord	JOC	20 (1955)	546
$C_8H_{12}N_4$	α, α' -Azodiisobutyronitrile	- 3.3-11.5 μ	Sol - -	Ext coeff Band freq Table, Struct	Cross Kitson Bringer	TFS AC JACS	47 (1951) 24 (1952) 75 (1953)	354 334 3984
$C_8H_{12}O$	1-Acetylcyclohexene	- 1600-1700	- Sol L	Band freq Band freq Stretch freq, Spec	Henbest Rosenfelder Braude	JCS JCS JCS	- (1952) - (1954) - (1955)	1150 2955 3766

$C_8H_{12}O$	Cis- α -Bicyclo[3.3.0]-octanone	2-16 μ	Sol	Spec	Roberts	JACS	74 (1952)	2278
$C_8H_{12}O$	Cis- β -Bicyclo[3.3.0]-octanone	2-16 μ	Sol	Spec	Roberts	JACS	74 (1952)	2278
$C_8H_{12}O$	trans- β -Bicyclo[3.3.0]-octanone	2-16 μ	Sol	Spec	Roberts	JACS	74 (1952)	2278
$C_8H_{12}O$	2-s-Butylfuran	5.91-11.26 μ	-	Table, I, Ext coeff	Hurd	JACS	76 (1954)	50
$C_8H_{12}O$	2-t-Butylfuran	6.28-11.25 μ	-	Table, I, Ext coeff	Hurd	JACS	76 (1954)	50
$C_8H_{12}O$	endo-4-Diethoxybicyclo[2.2.1]hept-1-ene	-	-	Group detection	Henbest	JCS	- (1957)	1462
$C_8H_{12}O$	4-Ethylcyclohex-2-enone	-	-	Group freq	Pinder	JCS	- (1954)	113
$C_8H_{12}O$	6-Ethylcyclohex-2-enone	-	-	Group freq, Ident	Pinder	JCS	- (1954)	113
$C_8H_{12}O$	1-Ethynylcyclohexanol	3100-3400	L	Ident, Freq	Filler	CIL	- (1957)	1322
$C_8H_{12}O$	Ethynylmethyl(1-methylcyclopropyl)carbinol	1-2.7 μ	Sol	Config	Washburn	JACS	80 (1958)	504
$C_8H_{12}O$	2-Hydroxymethylbicyclo[2.2.1]-5-heptene	650-3100	Sol	Spec	Henbest	JCS	- (1957)	997
$C_8H_{12}O$	2-Methoxy-1-hepten-3-yne	-	-	Spec, Freq	Petrov	ZOK	28 (1958)	71

$C_8H_{12}O$	3-Methylcyclopentenyl methyl ketone	-	-	Band freq	McElvane	JACS	77 (1955)	1599
$C_8H_{12}O$	Oct-2-ynal	-	-	Band freq	Crombie	JCS	- (1955)	1007
$C_8H_{12}O$	Tetrahydrophthalan	11 μ	S, Sol	Spec, Band assign	Allison	JCS	- (1958)	4311
$C_8H_{12}O$	4-Vinylcyclohexene oxide	2.5-15 μ 2-15 μ	L Sol	Spec, Group freq Spec, Struct, Group freq	Patterson Bomstein	AC AC	26 (1954) 30 (1958)	823 544
$C_8H_{12}O$	Vinyloxy-1-hexyne	-	-	Spec	Brandama	RTC	79 (1960)	1307
$C_8H_{12}OS_2$	2-Oxocycloheptane-1-spiro-2'-1,3'-dithiolan	-	S	Band study	Jaeger	JCS	- (1955)	160
$C_8H_{12}O_2$	2-(β -Acetoxyethyl)-1,3-butadiene	-	-	Group freq	Blomquist	JACS	77 (1955)	81
$C_8H_{12}O_2$	1-Acetoxy-cyclohex-2-ene	650-3100	Sol	Spec	Henbest	JCS	- (1957)	997
$C_8H_{12}O_2$	1-Acetoxy-cyclohex-3-ene	650-3100	Sol	Spec	Henbest	JCS	- (1957)	997
$C_8H_{12}O_2$	Allylacetylacetone	-	-	Band freq	Davis	JACS	77 (1955)	3284
$C_8H_{12}O_2$	β -n-Butyl- $\Delta^{\alpha,\beta}$ -butenolide	1550-1850	Sol	Freq, I	Jones	CJC	37 (1959)	2007
$C_8H_{12}O_2$	7-Carboxybicyclo[2.2.1]-heptane	2.3-13.7 μ	S	Table, I	Kwart	JACS	76 (1954)	4072
$C_8H_{12}O_2$	trans-Cyclohexanol-2-acetic acid lactone	1550-1850	Sol	Freq	Jones	CJC	37 (1959)	2007

$C_8H_{12}O_2$	1,2-Cyclooctanedione	-	L	Band freq	Blomquist	JACS	75 (1953)	2153
$C_8H_{12}O_2$	2,4-Diethyl-1,3-cyclobutanedione	-	S	Ident	Reid	JACS	75 (1953)	1655
$C_8H_{12}O_2$	Dimedone	2.2-3.6 μ	Sol	Spec, Struct	Hukins	JCS	- (1949)	898
		-	-	Absorption freq, Struct, Anal	Rasmussen	JACS	71 (1949)	1068
		2400-1800	Sol	Struct, Taut, Solvent effect	Angell	AJC	6 (1953)	294
		-	Sol	Shift on chelation	Bellamy	JCS	- (1954)	4487
		5-10 μ	Sol	Spec, Struct, Band freq	Heymann	JACS	76 (1954)	3689
		3-6 μ	S,Sol	Spec	Abramovich	CJC	37 (1959)	361
		2000-3500	Sol	Spec, Assign	Bellamy	PRS	257 (1960)	98
$C_8H_{12}O_2$	2,2-Dimethyl-1,3-cyclohexanedione	1550-1750	Sol	Spec, Assign	Ananichenko	IANS	- (1960)	1644
$C_8H_{12}O_2$	5,5-Dimethyl-2-hexynoic acid	-	Sol	Group freq, I	Allan	JCS	- (1955)	1874
$C_8H_{12}O_2$	4-Epoxyethylcyclohexene oxide	2.5-15 μ	L,Sol	Spec, Group freq	Patterson	AC	26 (1954)	823
$C_8H_{12}O_2$	3-Ethylcyclohexane-1,3-dione	3.68-13.87 μ	S,S,L	Table, I, Ident Band freq	Smith Rogers	JCS	- (1953) - (1955)	803 341
$C_8H_{12}O_2$	Ethyl sorbate	9-3 μ	Sol	Spec	Holman	AC	28 (1956)	1533
$C_8H_{12}O_2$	1,2-Heptadiene-3-carboxylic acid	2-16 μ	S	Spec, Band study	Wotiz	JACS	74 (1952)	1860
$C_8H_{12}O_2$	trans-4,trans-6-octadienoic acid	-	S	Bending freq	Crombie	JCS	- (1955)	1007
$C_8H_{12}O_2$	trans-3-Octen-5-yne-1,8-diol	-	L	Group freq, I	Allan	JCS	- (1955)	1874

$C_8H_{12}O_2$	5-Octynoic acid	2-16 μ	Sol	Spec, Group freq	Howton	JOC	16 (1951)	1405
$C_8H_{12}O_2S$	2-Oxocyclohexane-1-spiro-2'-1'-3'-oxathiolan	-	S	Band study	Jaeger	JCS	- (1955)	160
$C_8H_{12}O_3$	3-t-Butyltetronic acid	2-15 μ	S	Spec, Band freq	Reid	JOC	16 (1951)	33
$C_8H_{12}O_3$	2-Carbomethoxy-2-methyl-3,4-dihydro-2H-pyran	-	-	Band study	Smith	JACS	73 (1951)	5270
$C_8H_{12}O_3$	3,4-Epoxy-cyclohexyl acetate	2800-3100	Sol	Stretch freq	Henbest	JCS	- (1957)	1459
$C_8H_{12}O_3$	Ethyl cyclopentanone-2-carboxylate	-	L	Band freq, Table	Leonard	JACS	74 (1952)	4070
$C_8H_{12}O_3$	2-Oxocyclohexane-1-spiro-2'-1',3'-dioxolan	-	S	Band freq	Jaeger	JCS	- (1955)	160
$C_8H_{12}O_3$	trans-3,trans-5-Octadien-8-olonic acid	-	S	Group freq, I	Allan	JCS	- (1955)	1874
$C_8H_{12}O_3$	β -Vinyl-oxyethyl methacrylate	2-15 μ	L	Assign, Generalisation	Walton	JACS	79 (1957)	3985
$C_8H_{12}O_4$	Butyl fumarate	2-15 μ	L	Assign, Generalisation	Walton	JACS	79 (1957)	3985
$C_8H_{12}O_4$	s-Butyl fumarate	2-15 μ	L	Assign, Generalisation	Walton	JACS	79 (1957)	3985
$C_8H_{12}O_4$	n-Butyl maleate	600-4000	L	Spec, Assign	Le'Fevre	AJC	11 (1958)	92
$C_8H_{12}O_4$	cis-1,4-Cyclohexane-dicarboxylic acid	3200-4000	Sol	H bond	Walborsky	JACS	76 (1954)	5396

$C_8H_{12}O_4$	1,3-Diacetox-2-methylpropene	-	-	Band study	Smith	JACS	73 (1951)	5202
$C_8H_{12}O_4$	3,3-Diacetox-3-methylpropene	-	-	Band study	Smith	JACS	73 (1951)	5282
$C_8H_{12}O_4$	Diethyl fumarate	1050-1750	-	Spec	Barnes	IEC	15 (1943)	659
		-	Sol	Group & band freq	Goodwin	JACS	75 (1953)	4273
		800-1800	L	Spec, Ident	Stafford	AC	26 (1954)	656
		-	Sol	Band freq	Felton	JCS	- (1955)	2170
		600-4000	L	Spec, Assign	Le'Fevre	AJC	11 (1958)	92
		-	-	Group freq shift	Bellamy	JCS	- (1958)	2463
$C_8H_{12}O_4$	Diethyl maleate	1050-1800	-	Spec	Barnes	IEC	15 (1943)	659
		-	Sol	Group freq	Goodwin	JACS	75 (1953)	4273
		800-1800	L	Spec, Ident	Stafford	AC	26 (1954)	656
		-	Sol	Group freq	Felton	JCS	- (1955)	2170
		400-4000	L	Spec, Assign	Le'Fevre	AJC	11 (1958)	92
$C_8H_{12}O_4$	Dihydroanhydro-monocrotalic acid (+5.60°, Stereoisomer)	3500-700	Sol	Spec, Band study	Adams	JACS	74 (1952)	694
$C_8H_{12}O_4$	Dihydromonocrotalic acid (-60.00°, Stereoisomer)	3500-700	Sol	Spec, Band study	Adams	JACS	74 (1952)	694
$C_8H_{12}O_4$	Dimethyl isopropylidene-malonate	3-6 μ	S,Sol	Spec	Abramovich	CJC	37 (1959)	361
$C_8H_{12}O_4$	Ethyl fumarate	2-16 μ	L,Sol	Spec, Ident	Walton	AC	28 (1956)	1388
$C_8H_{12}O_4$	Ethyl hydrogen isopropylidenemalonate	1000-4000	Sol	Spec, Group freq	Corey	JACS	75 (1953)	1172
$C_8H_{12}O_4$	Ethyl maleate	2-16 μ	L,Sol	Spec, Ident	Walton	AC	28 (1956)	1388

$C_8H_{12}O_4$	cis-5-Hydroxy-2-ketocyclohexane-acetic acid	-	-	Ident	Fry	JACS	76 (1954)	284
$C_8H_{12}O_4$	Isobutyl fumarate	2-15 μ	L	Assign, Generalisation	Walton	JACS	79 (1957)	3985
$C_8H_{12}O_4$	Methyl β -methyl-cis-glutaconate	-	-	Anal	Cawley	JACS	77 (1955)	4125
$C_8H_{12}O_4$	Methyl β -methyl-trans-glutaconate	-	-	Anal	Cawley	JACS	77 (1955)	4125
$C_8H_{12}O_4$	α, β, γ -Trimethyl-glutaconic acid	-	-	Anal	Adams	JACS	- (1952)	5608
$C_8H_{12}O_5$	t-Butyl- β -carboxy-acrylyl peroxide	-	Sol	Table, Band freq	Davison	JCS	- (1951)	2456
$C_8H_{12}O_5$	Diethyl oxalacetate	-	Sol	Struct	Goodwin	JACS	76 (1954)	5599
$C_8H_{12}O_5$	l-Monocrotalic acid	-	-	Struct	Adams	JACS	74 (1952)	5608
$C_8H_{12}O_6$	Diethyl dihydroxy-fumarate	3.15-11.7 μ	Sol	Table, Group freq, I	Goodwin	JACS	76 (1954)	5599
$C_8H_{12}O_6$	Ethyl- β ,D-glucos-fururonoside	-	L	Band freq	Phillips	JACS	76 (1954)	3598
$C_8H_{12}O_7$	Diethyl fumarate maleate ozonide	-	Sol	Group & band freq, I	Goodwin	JACS	75 (1955)	4273
$C_8H_{12}OSi$	Tetraacetoxysilane	0-8 μ	Sol	Spec, Freq	Okawara	JACS	82 (1960)	3287
$C_8H_{12}O_9B_2$	Tetraacetyldiborate	1520-1800	S	Freq, Assing, Mol bond	Duncanson	JCS	- (1958)	3652
$C_8H_{12}S$	2-t-Butylthiophene	6-15 μ	-	Spec	Appleby	JACS	70 (1948)	1552
		-	-	Quant anal	Kutz	JACS	71 (1949)	1503

$C_8H_{12}S$	3-t-Butylthiophene	6-15 μ	-	Spec Quant anal	Appleby Kutz	JACS JACS	70 (1948) 71 (1949)	1552 1503
$C_8H_{12}Si$	Dimethylphenyl- silane	2-16 μ 2050-2250	Sol Sol	Freq Freq, Struct	Kniseley Smith	SA SA	15 (1959) 15 (1959)	651 412
$C_8H_{12}Si$	Ethylphenylsilane	-	L, Sol	Vibrations	Harvey	JACS	76 (1954)	4555
$C_8H_{13}D$	1-Octyne-1-d ₁	-	Sol	Solvent effect	Wojtkowiak	CPR	251 (1960)	62
$C_8H_{13}Br$	1-Bromobicyclo [2,2,2] octane	-	-	Micro spec	Nethercot	JCP	21 (1953)	363
$C_8H_{13}Br$	1-Bromo-2-octyne	2-16 μ	L	Spec, Table	Wotiz	JACS	72 (1960)	5055
$C_8H_{13}Br$	2-Bromo-3-octyne	2-16 μ	L Sol	Spec, Table Group freq, I	Wotiz Allan	JACS JCS	72 (1950) - (1955)	5055 1874
$C_8H_{13}BrO$	2-Bromocyclo- octanone	-	Sol	IR shifts	Leonard	JACS	80 (1958)	6039
$C_8H_{13}BrO$	2-Bromo-4,4-dimethyl- cyclohexanone	-	Sol	Band freq, Shift, Table	Corey	JACS	75 (1953)	2301
$C_8H_{13}Cl$	1-Chlorobicyclo [2,2,2] octane	-	-	Micro spec	Nethercot	JCP	21 (1953)	363
$C_8H_{13}ClO$	2-Chloro-3,3- dimethylcyclo- hexanone	-	Sol	IR shifts	Corey	JACS	77 (1955)	5418
$C_8H_{13}ClO$	2-Chloro-4,4- dimethylcyclo- hexanone	-	Sol	IR shifts	Corey	JACS	77 (1955)	5418
$C_8H_{13}ClO$	6-Chloro-2,2- dimethylcyclo hexanone	-	Sol	IR shift	Corey	JACS	77 (1955)	5418

$C_8H_{13}ClO_2$	Ethyl 2-chloro-3-methyl-4-pentenoate	-	-	Band freq, Ident	Phillips	JACS	76 (1954)	5385
$C_8H_{13}Cl_3OS$	Hexylthio trichloroacetate	2.5-16 μ	Sol	Structure effect on freq	Nyquist	SA	15 (1959)	514
$C_8H_{13}Cl_3F_2O_2$	2,4,4-Trichlorobut-3-enal diethyl acetal	-	-	Ident	Hall	JCS	- (1954)	2034
$C_8H_{13}F_3O$	Trifluoromethyl n-hexyl ketone	650-5000	Sol	Stretch freq	Griffin	SA	16 (1960)	1464
$C_8H_{13}F_3OS$	Hexylthio trifluoroacetate	2.5-16 μ	Sol	Structure effect on freq	Nyquist	SA	15 (1959)	514
$C_8H_{13}N$	3,4-Diethylpyrrole	4000-500	L	Spec, Freq, Struct	Eisner	JCS	- (1958)	971
$C_8H_{13}N$	2,3,4,5-Tetramethylpyrrole	-	-	Ident	Vanneter	AC	24 (1952)	1758
$C_8H_{13}NO$	Allylacetylacetone-amine	-	-	Band freq, Struct	Davis	JACS	77 (1955)	3284
$C_8H_{13}NO$	2-Aza-bicyclo [3,2,2] nonan-3-one	1600-3500	Sol	Freq	Hall	JACS	80 (1958)	6428
$C_8H_{13}NO$	3-Carbamyl-1,2-heptadiene	-	S	Band study	Wotiz	JACS	74 (1952)	1860
$C_8H_{13}NO$	3,5-Dimethyl-6-amino-2-hexenoic acid lactam	-	-	Struct	Horning	JACS	74 (1952)	5153
$C_8H_{13}NO$	3-Keto-1-aza-bicyclo [3.2.2] nonane	-	Sol	Group freq, Struct	Leonard	JACS	75 (1953)	6249

$C_8H_{13}NO$	Tropinone	-	Sol	Band freq	Nickon	JACS	77 (1955)	4094
$C_8H_{13}NO$	N-Vinyl-1-aza-2-cycloheptanone	-	Sol	Freq, Spec	Potts	SA	15 (1959)	679
$C_8H_{13}NOS$	N-Methyl-2-(5-methoxy-2-thienyl)-ethylamine	-	Sol	Group freq	Herz	JACS	77 (1955)	3529
$C_8H_{13}NO_2$	Arecoline	1-12 μ	L	Spec	O'Byrne	JOSA	23 (1933)	92
$C_8H_{13}NO_2 \cdot HBr$	Arecoline hydrobromide	1-12 μ	L	Spec	O'Byrne	JOSA	23 (1933)	92
$C_8H_{13}NO_2$	β, β , N-Trimethylglutarimide	-	S	Group freq	Ames	JCS	- (1955)	631
$C_8H_{13}NO_3$	4-Methylcarbaryl-4-hydroxy-2,3-dimethylbutanoic lactone	735-3636	L	Table, Band freq	Ames	JCS	- (1954)	375
$C_8H_{13}NO_3$	α -1-(2-Piperidone)-propionic acid	-	Sol	Ident, Band freq	Todd	JACS	75 (1953)	1895
$C_8H_{13}NO_3S$	2-(3-Carboxypropyl)-4-thiazolidone methyl ester	-	Sol	Band freq	Pennington	JACS	75 (1953)	109
$C_8H_{13}NO_3S$	2-(4-Carboxybutyl)-4-thiazolidone	-	Sol	Band freq	Pinnington	JACS	75 (1953)	109
$C_8H_{13}NO_3S \cdot HCl$	Platynecine sulfite hydrochloride	-	-	Band freq	Adams	JACS	76 (1954)	6379
$C_8H_{13}NO_4$	Methyl 5-methyl-6-nitro-3-hexenoate	-	-	Absorption	Leonard	JACS	74 (1952)	1700

$C_8H_{13}NO_6$	1-Carbomethoxy-2-carboxy-3-methyl-3-nitrobutane	2.5-8 μ	Sol	Spec, Struct	Magee	JOC	19 (1954)	168
$C_8H_{13}NO_6$	2-Carbomethoxy-1-carboxy-3-methyl-3-nitrobutane	2.5-8 μ	Sol	Spec, Struct	Magee	JOC	19 (1954)	168
$C_8H_{13}N_2O_2$	ψ -5-Keto-3-(2-Methylcyclohexyl)-3,5-dihydro-1,2,3,4-oxatriazole	-	-	Struct	Boyer	JACS	77 (1955)	1280
$C_8H_{13}N_2O_2 \cdot 2HCl$	Histidine ethyl ester dihydrochloride	2-9 μ	Sol	Spec, Freq, Reactivity	Jencks	ABB	88 (1960)	193
$C_8H_{13}N_2O_3$	β -(N- γ -L-Glutamyl)-aminopropionitrile	-	-	Ident	Schilling	JACS	77 (1955)	2843
$C_8H_{13}N_2O_3$	β (or α)-(γ -L-glutamyl)-aminopropionitrile	-	-	Ident	Schilling	JACS	76 (1954)	2848
C_8H_{14}	Bicyclo [2.2.2] octane	2-15 μ 250-3500	Sol G,L,S, Sol	Spec Freq, Assign	Hine Macfarlane	JACS JCS	77 (1955) - (1960)	594 4169
C_8H_{14}	cis-Bicyclo [3.3.0] octane	2.5-15.5 μ 2-16 μ 12.6-14 μ	- L L	Spec, Struct Spec Struct, Group anal	Cope Roberts Francis	JACS JACS AC	72 (1950) 74 (1952) 25 (1953)	3056 2278 1466
C_8H_{14}	trans-Bicyclo [3.3.0] octane	2-16 μ	L	Spec	Roberts	JACS	74 (1952)	2278
C_8H_{14}	Bicyclo [4.2.0] octane	-	-	Ident	Blomquist	JACS	73 (1951)	2098
C_8H_{14}	Cyclooctene	2.5-15 μ	-	Spec, Ident	Cope	JACS	72 (1950)	1128

C ₈ H ₁₄	cis-Cyclooctene	2-16 μ	L	Spec, Group freq, Anal	Cope	JACS	75 (1953)	3212
C ₈ H ₁₄	trans-Cyclooctene	2-16 μ	L	Spec, Group freq, Anal	Cope	JACS	75 (1953)	3212
C ₈ H ₁₄	2-Cyclopropyl-3-methyl-1-butene	-	L,Sol	Band freq	Slabey	JACS	76 (1952)	3604
C ₈ H ₁₄	2-Cyclopropyl-1-pentene	-	-	Ident	Greenfield	JACS	76 (1954)	1258
		-	S,Sol	Band freq	Slabey	JACS	76 (1954)	3604
C ₈ H ₁₄	2-Cyclopropyl-2-pentene H.B.	-	L,Sol	Band freq	Slabey	JACS	76 (1954)	3604
C ₈ H ₁₄	2-Cyclopropyl-2-pentene L.B.	-	L,Sol	Band freq	Slabey	JACS	76 (1954)	3604
C ₈ H ₁₄	1,2-Dimethylcyclohexene	-	L	Anal, Band freq	Nevitt	JACS	76 (1954)	4124
C ₈ H ₁₄	2,3-Dimethylcyclohexene	-	L	Anal, Band freq	Nevitt	JACS	76 (1954)	4124
C ₈ H ₁₄	3,3-Dimethylcyclohexene	-	L	Anal, Band freq	Henbest	JCS	- (1954)	800
C ₈ H ₁₄	2,5-Dimethyl-1,5-hexadiene	500-2000 700-1500	-	Spec IR, Assign, Freq	Thompson Sheppard	PRS	184 (1945) 196 (1949)	3 195
C ₈ H ₁₄	1-Ethylcyclohexene	-	-	Ident	Benkeser	JACS	77 (1955)	3230
C ₈ H ₁₄	1-Methylcycloheptene	-	-	Spec, Freq	Brini	BSCF	- (1959)	1188
C ₈ H ₁₄	2-Methyl-3-isopropyl-1,3-butadiene	3500-650	-	Spec, Band freq	Marvel	JACS	74 (1952)	1506

C_8H_{14}	2-Methylmethylene-cyclohexane	-	L	Anal, Band freq	Nevitt	JACS	76 (1954)	4124
C_8H_{14}	1-Octyne	-	Sol	Solvent effect	Wojtkowiak	QPR	250 (1960)	3980
C_8H_{14}	4-Octyne	-	-	Assign	Cleveland	JCP	10 (1942)	172
C_8H_{14}	Spiro [2.5] octane	2-15 μ	L	Spec	Bridson	JCS	- (1951)	2999
$C_8H_{14}BrNO_2$	α, α -Diethoxy- β -bromobutyronitrile	-	-	Band freq	McElvain	JACS	77 (1955)	3786
$C_8H_{14}ClNO_3$	n-Butyl N-chloro-acetyl-N-methyl-carbamate	650-4000	Sol	Spec	Pianka	JCS	- (1960)	983
$C_8H_{14}Cl_2F_2Si$	2,2-Dichloro-3,3-difluorocyclobutylmethyl trimethylsilane	10.85-11.1 μ	-	Freq	Park	JOC	25 (1960)	1628
$C_8H_{14}Cl_2OS$	Hexylthio dichloro-acetate	2.5-16 μ	Sol	Struct effect on freq	Nyquist	SA	15 (1959)	514
$C_8H_{14}F_3NO$	N,N-Diisopropyl-trifluoroacetamide	-	S	Group freq	Robson	JACS	77 (1955)	498
$C_8H_{14}F_4Si$	2,3-Tetrafluoro-cyclobutylmethyl-trimethylsilane	10.85-11.1 μ	-	Freq	Park	JOC	25 (1960)	1628
$C_8H_{14}N_2O_2$	Acetylproline-N-methyl amide	2.8-3.5 μ 2.8-3.2 μ	Sol Sol	Spec, H bond, Config Spec, Group freq, Struct H bond	Mizushima Mizushima	JACS JACS	74 (1952) 76 (1954)	4639 2479
$C_8H_{14}N_2O_2$	Acetyl-L-proline-N-methyl amide	-	Sol	H bond	Mizushima	JACS	76 (1954)	6003
$C_8H_{14}N_2O_2$	Acetyl-L-proline-N-methyl amide	3 μ , 6 μ 2800-3500	Sol Sol	Config Mol config	Mizushima Tsuboi	N JACS	169 (1952) 81 (1959)	1058 1406

$C_8H_{14}N_2O_2$	Desthiolulin	2-16 μ	S, Sol	Spec	Celmer	JACS	77 (1955)	2861
$C_8H_{14}N_2O_2$	N-(n-Hexyl) sydnone	2-15 μ	L	Spec	Fugger	JACS	77 (1955)	1843
$C_8H_{14}N_2O_2$	Tetrahydro-2-hydroxy-4-oxo-5,5-pentamethyleneglyoxaline	-	-	Band study	Carrington	JCS	- (1953)	3105
$C_8H_{14}N_2O_2$	Tetramethyldiketopiperazine	2.8-3.6 μ 2-15 μ	S S	Spec, Assign Spec	Kellner Jacobson	PRS JACS	177 (1941) 68 (1946)	447 2628
$C_8H_{14}N_2O_5$	α -Glutamylalanine (LL, LD)	635-5000	S	Assign	Ellenbogen	JACS	78 (1956)	366
$C_8H_{14}N_2O_5$	α -Analylglutamic acid (LL, LD)	635-5000	S	Assign	Ellenbogen	JACS	78 (1956)	366
$C_8H_{14}N_4O$	n-Caproyldicyandi amide	-	-	Band study	Adams	JOC	17 (1952)	1162
$C_8H_{14}N_4O_2$	N-Nitro-N'-(α -cyanoisopropyl)-piperazine	-	-	Ident	Emmons	JACS	77 (1955)	4387
$C_8H_{14}N_4O_5$	Tetraglycine	4000-650	S	Spec, Struct	Plout	JACS	74 (1952)	1946
$C_8H_{14}N_4O_5$	Triglycylglycine	1450-5300	S	IR (pol)	Abbott	PRS	219 (1953)	17
$C_8H_{14}O$	Butyl cyclopropyl ketone	-	L, Sol	Band freq	Slabey	JACS	76 (1954)	3604
$C_8H_{14}O$	3-Butyl-4-hydroxy-1,2-butadiene	-	-	Absorption band study	Wotiz	JACS	74 (1952)	1860
$C_8H_{14}O$	Cyclohexyl methyl ketone	5-7 μ	L	Band freq	Friess	JACS	74 (1952)	1302

$C_8H_{14}O$	Cyclooctanone	-	L	Band freq	Schubert	JACS	77 (1955)	4172
		-	Sol	Group freq	Leonard	JACS	80 (1958)	6039
		-	Sol	Stretch freq	Burer	IICA	43 (1960)	1487
		-	-	Freq, Temp effect	Chiurdoglu	CPR	250 (1960)	3495
$C_8H_{14}O$	Cyclopropyl t-butyl ketone	2-14.5 μ	L	Spec, Table, Band freq	Wiberly	AC	24 (1952)	623
$C_8H_{14}O$	Diallylmethyl carbinol	-	-	Spec	Michinori	BCSJ	33 (1960)	1600
$C_8H_{14}O$	2,2-Dimethylcyclohexanone	-	-	Band freq, Shift, Table	Corey	JACS	77 (1955)	5418
		400-4000	Sol	Spec, Ext coeff	Cummins	JCS	- (1957)	3847
$C_8H_{14}O$	2,4-Dimethylcyclohexanone	2-15 μ	Sol	Spec, Struct anal	Kornfeld	JACS	71 (1949)	150
$C_8H_{14}O$	2,5-Dimethylcyclohexanone	2-15 μ	Sol	Spec, Struct anal	Kornfeld	JACS	71 (1949)	150
$C_8H_{14}O$	2,6-Dimethylcyclohexanone	400-4000	Sol	Spec, Ext coeff, Absorption	Cummins	JCS	- (1957)	3847
$C_8H_{14}O$	3,3-Dimethylcyclohexanone	-	-	Band freq, Shift, Table	Corey	JACS	77 (1955)	5418
$C_8H_{14}O$	4,4-Dimethylcyclohexanone	-	Sol	Band freq, Config	Corey	JACS	75 (1953)	2301
				Band freq	Corey	JACS	77 (1955)	5418
$C_8H_{14}O$	1-Ethoxycyclohex-2-ene	650-3100	Sol	Spec	Henbest	JCS	- (1957)	997
$C_8H_{14}O$	1-Ethoxycyclohex-3-ene	650-3100	Sol	Spec	Henbest	JCS	- (1957)	997
$C_8H_{14}O$	3-Ethoxycyclohexene	-	-	Ident	Goering	JACS	77 (1955)	3465
		3100-2800	Sol	Group study	Henbest	JCS	- (1957)	1462

$C_8H_{14}^O$	4-Ethoxycyclohexene	3100-2800	Sol	Group study	Henbest	JCS	-	(1957)	1462
$C_8H_{14}^O$	1-Ethoxy-2,4-hexadiene	-	-	Struct	Bateman	JCS	-	(1950)	936
$C_8H_{14}^O$	Hexahydrophthalan	2-16 μ	-	Spec Band freq	Entel Brace	JACS	74	(1952)	441
		-	-			JACS	77	(1955)	4157
$C_8H_{14}^O$	α -Isopropylcyclopentanone	2-15 μ	Sol	Spec, Struct anal	Kornfeld	JACS	71	(1949)	150
$C_8H_{14}^O$	2-Methyl-2-heptenone-6	700-1800	L	Spec, Group freq, Struct Ident	Barnard	JCS	-	(1950)	915
		-	L		Meinwald	JACS	77	(1955)	1617
$C_8H_{14}^O$	2-Methyl-6-heptenone-2	3800-600	-	Spec, Group freq	Kappeler	HCA	37	(1954)	957
$C_8H_{14}^O$	Methyl trans-2-methylcyclopentyl ketone	-	-	Ident	Pines	JACS	76	(1954)	4417
$C_8H_{14}^O$	Octahydrobenzofuran	2-16 μ	L	Spec, Ident	Entel	JACS	73	(1951)	4152
$C_8H_{14}^O$	Oct-trans-2-enal	-	-	Band freq	Crombie	JCS	-	(1955)	1007
$C_8H_{14}^O$	cis-Oct-5-en-2-one	-	L,S	Ident	Harper	JCS	-	(1955)	1512
$C_8H_{14}^O$	3-Octynol-2	2-16 μ	L	Spec, Table	Wotiz	JACS	72	(1950)	5055
$C_8H_{14}^O$	Vinylcyclohexane oxide	3-15 μ	L	Spec, Group freq	Patterson	AC	26	(1954)	823
$C_8H_{14}^{OS}$	Cyclohexanone ethylene hemithioketal	-	Sol	Band freq	Djerassi	JACS	75	(1953)	3704
$C_8H_{14}^{OS}$	1-Ethylthio-4-methyl 1-penten-3-one	1500-1800	Sol	Freq, Struct	Leonard	JACS	81	(1959)	595

$C_8H_{14}O_5$	4-Propionyltetrahydrothiapyran	-	L	Freq	Cockburn	JACS	76 (1954)	5703
$C_8H_{14}O_2$	Butyl crotonate	10-15 μ 2-15 μ	L L	Spec, Epoxy study Spec, Assign	Patterson Walton	AC JACS	26 (1954) 79 (1957)	823 3985
$C_8H_{14}O_2$	s-Butyl crotonate	800-1500	Sol	Band study, Group assign	Katritzky	SA	16 (1960)	954
		-	-	Band study, Assign	Katritzky	SA	16 (1960)	964
$C_8H_{14}O_2$	t-Butyl methacrylate	-	Sol	Freq, Anal	Crawford	JCS	- (1952)	1220
$C_8H_{14}O_2$	n-Butyl methacrylate	-	Sol	Band freq, Absorption study	Davison	JCS	- (1953)	2607
		10-15 μ 2-15 μ	- L	Spec, Epoxy study Spec, Assign	Patterson Walton	AC JACS	26 (1954) 79 (1957)	823 3985
		-	Sol	Freq, I	Thompson	SA	13 (1958)	236
		800-1500	Sol	Band study, Group assign	Katritzky	SA	16 (1960)	954
		-	-	Band study, Assign	Katritzky	SA	16 (1960)	964
$C_8H_{14}O_2$	2-Carboxyhept-1-ene	-	Sol	Group freq, Bend freq, spec	Potts	SA	15 (1959)	679
$C_8H_{14}O_2$	Cyclohexyl acetate	- 1530-1500 - -	G Sol Sol Sol	Group freq Spec, Table Table, Bending freq Freq, I	Hartwell Jones Jones Thompson	JCS JACS JACS SA	- (1948) 74 (1952) 74 (1952) 13 (1958)	1436 5648 5662 236
$C_8H_{14}O_2$	Cyclohexylacetic acid	903-1330	-	Table, Ident	Loftfield	JACS	76 (1954)	35
$C_8H_{14}O_2$	Dibutyl	-	L	Band freq	Leonard	JACS	75 (1953)	3300
$C_8H_{14}O_2$	Di-isobutyl	-	L	Band freq	Leonard	JACS	75 (1953)	3300
$C_8H_{14}O_2$	Cis-2,3-Dihydroxy-bicyclo [2.2.2] octane	3200-400	Sol	Spec, H bond	Walborsky	JACS	76 (1954)	5396

$C_8H_{14}O_2$	trans-2,3-Dihydroxy- bicyclo [2.2.2] octane	3200-4000	Sol	Spec, H bond	Walborsky	JACS	76 (1954)	5396
$C_8H_{14}O_2$	Ethyl 2-hexenoate	-	L	Band freq	Filler	JACS	76 (1954)	1376
$C_8H_{14}O_2$	2-Ethyl-2-hydroxy- cyclohexanone	-	S	Band freq	Jaeger	JCS	- (1955)	160
$C_8H_{14}O_2$	2-Hydroxycyclo- octanone	-	-	Band freq	Blomquist	JACS	75 (1953)	2153
$C_8H_{14}O_2$	Isobutylcrotonate	800-1500	Sol	Band study, Group assign Band study, Assign	Katritzky Katritzky	SA SA	16 (1960) 16 (1960)	954 964
$C_8H_{14}O_2$	Isobutylmethacrylate	2-15/ μ - 800-1500 -	L Sol Sol -	Spec, Assign Freq, I Band study, Group assign Band study, Assign	Walton Thompson Katritzky Katritzky	JACS SA SA SA	79 (1957) 13 (1958) 16 (1960) 16 (1960)	3985 236 954 964
$C_8H_{14}O_2$	Methyl cyclohexane- carboxylate	-	-	Band freq	Neuss	JACS	75 (1953)	4870
$C_8H_{14}O_2$	1-Methylcyclo- hexanecarboxylic acid	-	-	Ident	Lofffield	JACS	76 (1954)	35
$C_8H_{14}O_2$	2-Methyl-2-methallyl- 1,3-dioxolane	-	-	Band freq	Coustantin	JACS	75 (1953)	1716
$C_8H_{14}O_2$	trans-2-Methyl-2- heptenoic acid	600-1900	Sol	Spec, Iso	Cason	JOC	19 (1954)	1947
$C_8H_{14}O_2$	trans-2,trans-4- octadiene-6,7- diol	-	L	Group freq, I	Allan	JCS	- (1955)	1874

$C_8H_{14}O_2$	cis-5-Octenoic acid	2-16 μ	Sol	Spec, Group freq	Howton	JOC	16 (1951)	1405
$C_8H_{14}O_2$	trans-5-Octenoic acid	2-16 μ	Sol	Spec, Group freq	Howton	JOC	16 (1951)	1405
$C_8H_{14}O_2$	Pivaloylacetone	1200-1800	S	Mol const., Assign	Charette	SA	16 (1960)	689
$C_8H_{14}O_2S$	8-Thiol-6-hydroxy-octanoic acid lactone	-	-	Ident	Bullock	JACS	76 (1954)	1828
$C_8H_{14}O_2S_2$	α -Lipoic acid	-	-	Absorption study	Brockman	JACS	74 (1952)	1868
		-	-	Spec	Reed	JACS	74 (1952)	2383
		2.8-12 μ	Sol	Spec, Ident	Hornberger	JACS	75 (1953)	1273
		-	Sol	Assign, Table	Reed	JACS	75 (1953)	1267
		-	-	Ident	Brockman	JACS	76 (1954)	1827
		800-3600	-	Spec	Patterson	JACS	76 (1954)	1823
$C_8H_{14}O_2S_2$	4-Thioctic acid	-	-	Ident	Bullock	JACS	76 (1954)	1828
$C_8H_{14}O_3$	α -sec-Butyl acetoacetate	-	Sol	Taut, Band assign	Movsesyan	IANS	22 (1958)	1126
$C_8H_{14}O_3$	Butyric anhydride	950-1200	Sol	Spec, Anal, Ext coeff	Brown	JCS	- (1951)	87
$C_8H_{14}O_3$	trans-1,2-Cycloheptanediol monoformate	-	-	Ident	Cope	JACS	76 (1954)	279
$C_8H_{14}O_3$	Ethyl cyclopentylcarbonate	-	-	Ident	Bollinger	JACS	75 (1953)	1729
$C_8H_{14}O_3$	Ethyl α , α -dimethylacetoacetate	2-15 μ	-	Absorption freq, Struct anal	Rasmussen	JACS	71 (1949)	1073
$C_8H_{14}O_3$	Ethyl α (ethoxymethyl)acrylate	-	-	Ident	Ferris	JOC	20 (1955)	780

$C_8H_{14}O_3$	Glycidyl 2-tetrahydroxyaryl ether	-	-	Epoxy freq	Patterson	AC	26 (1954)	823
$C_8H_{14}O_3$	1-Glycololcyclohexanol	-	Sol	Band freq	Billimoria	JCS	- (1953)	2626
$C_8H_{14}O_3$	2-Hydroxycyclohexane-1-spiro-2'-1',3'-dioxolan	-	S	Band freq	Jaeger	JCS	- (1955)	160
$C_8H_{14}O_3$	cis-2-Oxahydrindane-cis-5,6-diol	-	S	Ident	Eliel	JACS	77 (1955)	3600
$C_8H_{14}O_3$	cis-2-Oxahydrindane-diol-5,6	-	Sol	Band freq	Eliel	JACS	77 (1955)	3600
$C_8H_{14}O_3$	trans-2-Oxahydrindane-diol-5,6	-	L	Band freq	Eliel	JACS	77 (1955)	3600
$C_8H_{14}O_3$	Ethyl acetate ethylene hemithio-ketal	-	Sol	Band freq	Djerassi	JACS	75 (1953)	3704
$C_8H_{14}O_3S_2$	Protogen-B	-	-	Band study	Brockman	JACS	74 (1952)	1868
		-	-	Band freq	Brockman	JACS	76 (1954)	1827
		800-3600	-	Spec	Patterson	JACS	76 (1954)	1823
$C_8H_{14}O_4$	Dibutyl peroxide	-	-	Table, Group freq	Davison	JCS	- (1951)	2456
$C_8H_{14}O_4$	Diethyl succinate	750-2000	-	Spec	Barnes	IEC	15 (1943)	659
		-	Sol	Mol struct	Felton	JCS	- (1955)	2170
		670-3500	L,S	Spec, Config	Corish	JCS	- (1958)	927
$C_8H_{14}O_4$	Dimethyl adipate	670-3500	L,S	Spec, Config	Corish	JCS	- (1958)	927
$C_8H_{14}O_4$	2,5-Di-O-methyl-1:4,3:6-dianhydro-D-mannitol	700-1000	S	Group freq, I	Barker	JCS	- (1954)	4500

$C_8H_{14}O_4$	2,5-Dimethyl-2,5-dihydroperoxy-hexyne-3	2-6 μ	Sol	Spec	Milas	JACS	74 (1952)	1471
$C_8H_{14}O_4$	α -Ethyl- β -methyl-glutaric acid	600-4000	Sol	Spec, Ident	Snyder	JACS	76 (1954)	33
$C_8H_{14}O_4$	α -Methyl- α -isopropyl-succinic acid	-	-	Ident	Eastman	JACS	75 (1954)	1029
$C_8H_{14}O_4$	Suberic acid	670-2000 650-2000	L, S	Spec, Rocking freq Spec, Struct	Corish Davies	JCS TFS	- (1955) 56 (1960)	2431 185
$C_8H_{14}O_4S$	Thiodiglycol diacetate	1000-1500	Sol	Spec	Schreiber	AC	21 (1949)	1168
$C_8H_{14}O_5$	Diethyl malate	3 μ	Sol	H bond	Mori	NKZ	77 (1956)	459
$C_8H_{14}O_5$	Diethylene glycol diacetate	2-16 μ	L	Spec	Liang	JACS	72 (1950)	1411
$C_8H_{14}O_5$	2,3-O-Isopropylidene-D-lyxofuranose	2-15 μ	S	Spec	Tipson	JRNB	62 (1959)	257
$C_8H_{14}O_5$	2,3-O-Isopropylidene-D-threopentulo-furanose	2-15 μ	S	Spec	Tipson	JRNB	62 (1959)	257
$C_8H_{14}O_5$	1,2-O-Isopropylidene-D-xylofuranose	2-15 μ	S	Spec	Tipson	JRNB	62 (1959)	257
$C_8H_{14}O_5$	Methyl 3:6-anhydro-2-O-methyl- α ,D-mannopyranoside	700-1000	S	Group & band freq, I	Barker	JCS	- (1954)	4550
$C_8H_{14}O_5$	2,3,4-Tri-O-methyl-L-arabino- δ -lactone	1700-1800	S	Freq	Barker	CIL	- (1958)	658

$C_8H_{14}O_5$	2,3,4-Tri-O-methyl-D-xylono- δ -lactone	1700-1800	S	Freq	Barker	CIL	-	(1958)	658
$C_8H_{14}O_6$	Diethyl D-tartrate	3μ	Sol	H bond	Mori	NKZ	77	(1956)	459
$C_8H_{14}O_6$	Diethyl meso-tartrate	6600-7300	Sol	Spec, H bond	Hilbert	JACS	58	(1936)	548
$C_8H_{14}O_6$	3,4-Di-O-methyl-D-glucono- δ -lactone	1700-1800	S	Freq	Barker	CIL	-	(1958)	658
$C_8H_{14}O_6$	5,6-Di-O-methyl-D-mannono- γ -lactone	1700-1800	S	Freq	Barker	CIL	-	(1958)	658
$C_8H_{14}O_6$	Ethyl tartrate	6600-7400	Sol	Spec, H bond	Hilbert	JACS	58	(1936)	548
		-	Sol	Strout	Pauling	JACS	58	(1936)	94
		2-15 μ	Sol	Spec, Anal, Group freq	Priestera	AC	25	(1953)	844
$C_8H_{14}O_6$	Methyl glycolate acetal	-	-	Group study	Adelman	JACS	75	(1953)	2678
$C_8H_{14}O_6S$	Thiodiglycol diacetate sulfone	1000-1500	Sol	Spec	Schrieber	AC	21	(1949)	1168
$C_8H_{14}O_7$	Methyl l-methyl- α D-galacturonate	8-15 μ	S	Spec	Kuhn	AC	22	(1950)	276
$C_8H_{14}S$	Dicrotyl sulfide	500-1500	L	Spec	Sheppard	TFS	46	(1950)	429
$C_8H_{14}S$	trans-2-Thia-hexahydroindan	2-15 μ	L	Spec	Birch	JOC	19	(1954)	1449
$C_8H_{14}S$	cis-2-Thia-hexahydroindan	2-15 μ	L	Spec	Birch	JOC	19	(1954)	1449
$C_8H_{14}S$	2,4,6-Trimethyl- Δ^3 -dihydrothiapyran	-	-	Ident	Naylor	JCS	-	(1949)	2749

$C_8H_{15}Br$	cis-1-Bromo-1,2-dimethylcyclohexane.	-	L	Anal	Hammond	JACS	76 (1954)	4121
$C_8H_{15}Br$	trans-1-Bromo-1,2-dimethylcyclohexane	-	L	Anal	Hammond	JACS	76 (1954)	4121
$C_8H_{15}Br$	cis-1-Bromo-2-octene	-	-	Struct, Ident, Anal	Bateman	JCS	- (1950)	941
$C_8H_{15}BrOS$	Hexylthio monobromoacetate	2.5-16 μ	Sol	Struct effect on freq	Nyquist	SA	15 (1959)	514
$C_8H_{15}ClOS$	Hexylthio monochloroacetate	2.5-16 μ	Sol	Struct effect on freq	Nyquist	SA	15 (1959)	514
$C_8H_{15}N$	1-Allylpiperidine	-	L	Group freq	Leonard	JACS	76 (1954)	2781
		-	L	Anal	Butler	JACS	77 (1955)	1767
$C_8H_{15}N.HBr$	1-Allylpiperidine hydrobromide	-	S	Band freq	Leonard	JACS	76 (1954)	2781
$C_8H_{15}N$	3-Amino-3-methyl-4-heptyne	-	-	Group freq	Hennion	JACS	75 (1953)	4297
$C_8H_{15}N$	1-Heliotridane	650-3800	-	Spec	Leonard	JACS	72 (1950)	2537
$C_8H_{15}N$	1-Methyl-2-propyl- Δ^2 -pyrroline	-	-	Ident	Leonard	JACS	74 (1952)	2871
		-	-	Ident	Leonard	JACS	76 (1954)	2781
$C_8H_{15}N.HClO_4$	1-Methyl-2-n-propyl- Δ^2 -pyrroline perchlorate	-	L	Band freq	Leonard	JACS	76 (1954)	2781
		-	S	Freq	Leonard	JACS	76 (1954)	2781
$C_8H_{15}N$	2-Methyl-1-pyrrolidino-1-propene	-	-	Spec	Opitz	A	623 (1959)	112

$C_8H_{15}N$	Octanonitrile	2-15 μ	L	Spec	Wotiz	JACS 71 (1949)	3441
$C_8H_{15}N$	Piperidino-1-propene	-	-	Spec	Opitz	A 623 (1959)	112
$C_8H_{15}N$	d-Pseudoheliotri- dane	650-3800	-	Spec	Leonard	JACS 72 (1950)	2537
$C_8H_{15}NO$	2-(2-Butenylidene- amino)-1-butanol	-	L	Group freq, I	Goldberg	JACS 77 (1955)	359
$C_8H_{15}NO$	N-Cyclohexylacetamide	-	-	FC	Richards	TFS 44 (1948)	40
$C_8H_{15}NO$	N-Cyclohexylidene- thanolamine	2-15 μ	-	Spec, Struct	Daesch	JACS 73 (1951)	4523
$C_8H_{15}NO$	N,N-Dimethyl-2,3- dimethyl-2- butenamide	-	-	Anal	Corey	JACS 75 (1953)	1163
$C_8H_{15}NO$	N,N-Dimethyl-2,3- dimethyl-3- butenamide	-	-	Anal	Corey	JACS 75 (1953)	1163
$C_8H_{15}NO$	1-Methyl-1-azacyclo- octan-5-one	-	S, Sol	Group freq	Leonard	JACS 76 (1954)	630
$C_8H_{15}NO$	Pelletierine	1-12 μ	L	Spec	O'Burne	JOSA 23 (1933)	92
$C_8H_{15}NO$	Pseudotropine	-	Sol	Ident, Config	Nickon	JACS 74 (1952)	5566
		-	Sol	Spec, H bridge	Zenitz	JACS 74 (1952)	5564
		-	Sol	Ident	Nickon	JACS 77 (1955)	4094
$C_8H_{15}NO$	Tropine	-	Sol	Band freq	Marion	JACS 73 (1951)	305
		2.5-3.5 μ	Sol	Spec, H bridge	Zenitz	JACS 74 (1952)	5564
$C_8H_{15}NO_2$	N-Cyclopentylure- than	-	-	Ident	Bollinger	JACS 75 (1953)	1729

$C_8H_{15}NO_2$	N-(β -Hydroxyethyl)- 8-oxa-3-aza bicyclo [3.2.1] octane	-	-	Ident	Cope	JACS 77 (1955)	393
$C_8H_{15}NO_2S$	β -t-Butylsulfonyl- α -methylpropioni- trile	-	-	Spec	Ross	JACS 73 (1951)	540
$C_8H_{15}NO_3$	N-(Ethoxyethylidene)- glycine ethyl ester	2-15 μ	L	Spec, Struct anal	Wiley	JACS 71 (1949)	2899
$C_8H_{15}NO_3$	N-Hexoylglycine	1500-1750	S	Spec, Assign	Richards	JCS - (1947)	1248
$C_8H_{15}NO_4$	Ethyl γ -methyl- α - nitropentanoate	-	-	Band freq	Emmons	JACS 77 (1955)	4391
$C_8H_{15}NO_4$	Ethyl α -nitro- hexanoate	-	-	Band freq	Emmons	JACS 77 (1955)	4391
$C_8H_{15}NO_5$	Ethyl β -hydroxy- γ - nitrocaproate	-	-	Group & band freq	Leonard	JACS 17 (1952)	1262
$C_8H_{15}NO_6$	2-Acetamido-2- deoxy- α -D-gluc- opyranose	-	S	Group & band freq, I	Barker	JCS - (1954)	171
$C_8H_{15}NO_6$	N-Acetylgalacto- samine	0-15 μ	S	Ident	Suzuki	JBC 235 (1960)	2768
$C_8H_{15}NO_9S$	N-Acetylgalacto- samine-4-mono- sulphate	0-15 μ	S	Ident	Suzuki	JBC 235 (1960)	2768
$C_8H_{15}NO_9S$	N-Acetylgalacto- samine-6-mono- sulphate	0-15 μ	S	Ident	Suzuki	JBC 235 (1960)	2768
$C_8H_{15}NS$	β -t-Butylmercapto- α - methylpropionitrile	-	-	Spec	Ross	JACS 73 (1951)	540

$C_8H_{15}NS$	n-Heptyl thio- cyanate	600-2000	-	Freq	Lieber	SA	13 (1959)	296
$C_8H_{15}NS$	n-Heptyl isothio- cyanate	600-2000	-	Freq	Lieber	SA	13 (1959)	296
$C_8H_{15}N_3O$	3-Methylcyclohexa- none samicarbazone	700-3500	S	Assign, Ident	Davison	JCS	- (1955)	3389
$C_8H_{15}N_5O$	4-Butyl-5-pyrazolono- guanidine	400-400	-	Freq	Gagnon	CJC	37 (1959)	110
$C_8H_{15}O_4P$	Di-isopropoxy- hypophosphorous acid	600-4000	S	Group study	Braunholtz	JCS	- (1959)	868
C_8H_{16}	n-Butylcyclobutane	2-15 μ	L	Spec	Derfer	JACS	71 (1949)	2482
C_8H_{16}	Cyclooctane	- 9-13 μ 2-34 μ	- - L,Sol, S	Freq Spec Spec, Freq, Struct	Kellner Foster Bellis	TFS JACS SA	41 (1945) 70 (1948) 15 (1959)	217 2303 1103
C_8H_{16}	2-Cyclopropyl-3- methylbutane	- 15-35 μ	L,Sol S	Band freq Spec, Struct	Slabey Bentley	JACS SA	76 (1954) 15 (1959)	3604 165
C_8H_{16}	2-Cyclopropyl- pentane	- -	- L,Sol	Ident Band freq	Greenfield Slabey	JACS JACS	76 (1954) 76 (1954)	1258 3604
C_8H_{16}	Di-isobutylene	1-30 μ 1150-1650 3.4 μ -	G - Sol -	Spec Absorption freq, Spec Anal Anal	Kettering Barnes Simard Gasson	P IEC AC JCS	4 (1933) 15 (1943) 23 (1951) - (1954)	39 659 1384 2170
C_8H_{16}	1,1-Dimethyl- cyclohexane	- 2-15 μ -	- L G	Thermo, Struct Spec Anal	Beckett Plyler Bell	JACS JRNB AC	69 (1947) 38 (1947) 22 (1950)	2488 211 1005

C_8H_{16}	1, Cis-2-Dimethyl- cyclohexane	- 1350-1500 13-35 μ	- Sol S	Group anal Struct Spec, Struct	Hastings Bottomley Bentley	AC JCS SA	24 - 15	(1952) (1955) (1959)	612 2624 165
C_8H_{16}	1, trans-2-Dimethyl- cyclohexane	- 2-14.5 μ 15-35 μ	- L S	Thermo, Struct Spec Spec, Struct	Beckett Plyler Bentley	JACS JRNBSA	69 38 15	(1947) (1947) (1959)	2488 211 165
C_8H_{16}	1, trans-2-Dimethyl- cyclohexane	- 2-15 μ - -	- L G -	Thermo, Struct Spec Anal Group anal	Beckett Plyler Bell Hastings	JACS JRNBSA AC AC	69 38 22 24	(1947) (1947) (1950) (1952)	2488 211 1005 612
C_8H_{16}	1, cis-3-Dimethyl- cyclohexane	- - -	- G -	Thermo, Struct Anal Group anal	Beckett Bell Hastings	JACS AC AC	69 22 24	(1947) (1950) (1952)	2488 1005 612
C_8H_{16}	1, cis, 4-Dimethyl- cyclohexane	- - -	- G -	Thermo, Struct Anal Group anal	Beckett Bell Hastings	JACS AC AC	69 22 24	(1947) (1950) (1952)	2488 1005 612
C_8H_{16}	1, trans, 4-Dimethyl- cyclohexane	- - -	- G -	Thermo, Struct Anal Group anal	Beckett Bell Hastings	JACS AC AC	69 22 24	(1947) (1950) (1952)	2488 1005 612
C_8H_{16}	cis, trans-3, 4- Dimethyl-3-hexene	-	-	Optical density	Johnston	AC	20	(1948)	805
C_8H_{16}	1, 1-Di-isopropyl- ethylene	800-1700	Sol	Spec, Freq	Karabotsos	JOC	25	(1960)	1409
C_8H_{16}	1, 1-Di-isopropyl- ethylene-1-C ¹³	800-1700	Sol	Spec, Freq	Karabotsos	JOC	25	(1960)	1409
C_8H_{16}	Ethylcyclohexane	1.1-1.8 μ 6400-8900 1100-1800	Sol Sol -	Spec Spec, Assign Spec	Rose Rose Barnes	JRNBSA JRNBSA IEC	15 19 15	(1935) (1937) (1943)	151 143 659

[illegible]

C ₈ H ₁₆	1-Octene	1-30 μ	G	Spec	Kettering	P	4	(1933)	39
		800-1100	-	Spec, Assign	Thompson	PRS	184	(1945)	3
		2-15 μ	G	Spec, Assign	Rasmussen	JCP	15	(1947)	135
		-	-	Optical density	Johnston	AC	20	(1948)	805
		3.2-3.6 μ	-	Spec	Saier	AC	20	(1948)	812
		-	-	Anal	Hampton	AC	21	(1949)	923
		700-1500	-	IR, Assign	Sheppard	PRS	196	(1949)	195
		-	Sol	Optical density	Treumann	AC	21	(1949)	1161
		-	-	Band study	Bateman	JCS	-	(1950)	941
		-	-	Group freq	Bryant	JACS	75	(1953)	6113
C ₈ H ₁₆	2-Octene	-	-	Absorption study	Binder	AC	26	(1954)	1877
		10-15 μ	L	Spec, Epoxy study	Patterson	AC	26	(1954)	823
		1-2.8 μ	L, Sol	Spec, Ext coeff	Goddu	AC	29	(1957)	1790
		3400-3800	Sol	H bond	West	JACS	81	(1959)	1614
		-	-	Band assign	Harrah	JCP	33	(1960)	298
		800-1100	-	Spec, Assign	Thompson	PRS	184	(1945)	3
		2-15 μ	G	Spec, Assign	Rasmussen	JCP	15	(1947)	135
		-	-	Optical density	Johnston	AC	20	(1948)	805
		3.2-3.6 μ	-	Spec, Anal	Saier	AC	20	(1948)	812
		9-14 μ	L	Spec	Fred	AC	21	(1949)	900
C ₈ H ₁₆	trans-2-Octene	700-1500	-	IR, Assign, Freq	Sheppard	PRS	196	(1949)	195
		2-15 μ	L	Spec	Putscher	AC	24	(1952)	1551
C ₈ H ₁₆	trans-2-Octene	-	-	Stretch freq	Leonard	JACS	74	(1952)	1704
		-	L	Anal, Group freq, Iso	Morton	JOC	20	(1955)	839
C ₈ H ₁₆	3-Octene	2-15 μ	G	Assign, Spec	Rasmussen	JCP	15	(1947)	135
		9-14 μ	L	Spec	Fred	AC	21	(1949)	900
C ₈ H ₁₆	cis-3-Octene	700-1500	-	IR, Assign, Freq	Sheppard	PRS	196	(1949)	195
		-	-	Ident	Benkeser	JACS	77	(1955)	3378
C ₈ H ₁₆	trans-3-Octene	-	-	Ident	Benkeser	JACS	77	(1955)	3378
		-	-	Ident	Benkeser	JACS	77	(1955)	3378
C ₈ H ₁₆	cis-4-Octene	-	L	Anal	Binder	AC	26	(1954)	1877

C ₈ H ₁₆	trans-4-Octene	2-15/ μ	G	Spec, Assign Optical density	Rasmussen	JCP	15 (1947)	135
		-	-	Spec	Johnston	AC	20 (1948)	805
		9-14/ μ	L	Anal	Fred	AC	21 (1949)	900
		-	-	IR, Assign, Freq	Hompton	AC	21 (1949)	923
		700-1500	-	Anal	Sheppard	PRS	196 (1949)	195
		-	L		Binder	AC	26 (1954)	1877
C ₈ H ₁₆	n-Propylcyclopentane	-	G	Anal	Bell	AC	22 (1950)	1005
		-	-	Group anal	Hastings	AC	24 (1952)	612
		-	-	Band freq, Struct	O'Connor	JACS	76 (1954)	2368
C ₈ H ₁₆	1,1,2-Trimethylcyclopentane	-	G	Anal	Bell	AC	22 (1950)	1005
		-	-	Group anal	Hastings	AC	24 (1952)	612
C ₈ H ₁₆	1,1,3-Trimethylcyclopentane	-	G	Anal	Bell	AC	22 (1950)	1005
		-	-	Group anal	Hastings	AC	24 (1952)	612
C ₈ H ₁₆	1,cis-2, cis-3-Trimethylcyclopentane	-	G	Anal	Bell	AC	22 (1950)	1005
		-	-	Group anal	Hastings	AC	24 (1952)	612
		-	-	Ident	Pines	JACS	76 (1954)	4412
C ₈ H ₁₆	1,trans-2,cis-3-Trimethylcyclopentane	-	G	Anal	Bell	AC	22 (1950)	1005
		-	-	Group anal	Hastings	AC	24 (1952)	612
C ₈ H ₁₆	1,cis,2-cis,3-trans-Trimethylcyclopentane	-	G	Anal	Bell	AC	22 (1950)	1005
		-	-	Group anal	Hastings	AC	24 (1952)	612
C ₈ H ₁₆	1-cis,2-cis,4-cis-Trimethylcyclopentane	-	G	Anal	Bell	AC	22 (1950)	1005
		-	-	Group anal	Hastings	AC	24 (1952)	612
C ₈ H ₁₆	1,2-cis,4-trans-Trimethylcyclopentane	3.2-3.6/ μ	Sol	Spec, Assign	Plyler	JRNBS	43 (1949)	37
		-	-	Anal	Bell	AC	22 (1950)	1005
		-	-	Group anal	Hastings	AC	24 (1952)	612

C_8H_{16}	1,2-trans,4-cis-Trimethylcyclopentane	2-15 μ - -	L G -	Spec Anal Group anal	Plyler Bell Hastings	JRNB AC AC	38 (1947) 22 (1950) 24 (1952)	211 1005 612
C_8H_{16}	2,3,3-Trimethyl-1-pentene	- 2-15 μ	- -	Anal Spec, Anal, Band freq	Anderson Brown	AC JACS	20 (1948) 77 (1955)	998 3619
C_8H_{16}	2,3,4-Trimethyl-2-pentene	-	L	I, Freq	Kletz	JCS	- (1948)	1456
C_8H_{16}	2,4,4-Trimethyl-1-pentene	2-15 μ - 8.5-14 μ - 3.2-3.6 μ 700-1500	G - G L - -	Spec, Assign Anal Spec I, Freq Spec IR, Assign, Freq Ext coeff	Rasmussen Anderson Galloway Kletz Saier Sheppard Barnard	JCP AC JACS JCS AC PRS JCS	15 (1947) 20 (1948) 70 (1948) - (1948) 20 (1948) 196 (1949) - (1950)	135 998 2584 1456 812 195
		5300-9000	Sol	Spec, Group freq, I	Lauer	APS	6 (1952)	29
		-	L	Anal	Hadley	JCS	- (1954)	1416
		15-35 μ	S	Spec, Struct	Bentley	SA	15 (1959)	165
C_8H_{16}	2,4,4-Trimethyl-2-pentene	8.5-14 μ - 3.2-3.6 μ 700-1500 5300-9000	L L - - L	Spec I, Freq Spec Spec, Assign Spec, Group freq, I Anal	Galloway Kletz Saier Sheppard Lauer Hadley Saier	JACS JCS AC PRS APS JCS AC	70 (1948) - (1948) 20 (1948) 196 (1949) 6 (1952) - (1954) 26 (1954)	2584 1456 812 195 29 1416 1258
C_8H_{16}	3,4,4-Trimethyl-2-pentene	-	L	I, Freq	Kletz	JCS	- (1948)	1456
$C_8H_{16}N_2O$	4-Methylamino-1,6-dimethyl-2-piperidone	3600-600	L	Absorption tables	Edwards	CJC	32 (1954)	683
$C_8H_{16}N_2O_2$	Acetyl-L-valine-N-methyl amide	2.8-3.1 μ 2800-3500	Sol Sol	Spec, Group freq, Struct Mol config	Mizushima Tsuboi	JACS JACS	76 (1954) 81 (1959)	2479 1406

$C_8H_{16}N_2O_2$	2-Propyl-3-nitroso-4-ethyloxazolidine	2.5-10 μ	L	Spec, Group freq, Struct Ident Ident	Nace	JACS 74 (1952) 5189 JACS 75 (1953) 6260 JACS 75 (1953) 3646
$C_8H_{16}N_2O_3$	Glycyl-L-leucine	4000-650	S	Spec, Struct	Blout	JACS 74 (1952) 1946
$C_8H_{16}N_2O_3$	L-Leucylglycine	4000-650	S	Spec, Struct	Blout	JACS 74 (1952) 1946
$C_8H_{16}N_2O_4$	1,1-Dinitrooctane	-	-	Spec	Novikov	IAMS - (1959) 1855
$C_8H_{16}N_2S$	5-(n-Heptylamino)-1,2,3,4-thiazotriazole	700-1700	S	Spec, Struct, Assign, Taut	Lieber	CJC 36 (1958) 801
$C_8H_{16}N_2O_2$	Acetylacetone semicarbazide	700-3500	S	Ident, Assign	Davison	JCS - (1955) 3389
$C_8H_{16}O$	cis-1-Butenyl butyl ether	840-1800	Sol	Spec, Group freq, Struct	Hall	JCS - (1951) 3341
$C_8H_{16}O$	trans-1-Butenyl butyl ether	840-1800	Sol	Spec, Group freq, Struct	Hall	JCS - (1951) 3341
$C_8H_{16}O$	1-t-Butyl-2-methyltrimethylene oxide	2.5-15 μ	-	Spec	Rust	JACS 76 (1954) 1055
$C_8H_{16}O$	t-Butyl isopropyl ketone	-	G, L, Sol	Carbonyl freq	Bellamy	JCS - (1957) 4294
$C_8H_{16}O$	β -Cyclohexylethanol	2-16 μ	L	Spec	Entel	JACS 73 (1951) 4152
$C_8H_{16}O$	α -Cyclohexylethanol	-	L	Anal, I	Smith	JACS 76 (1954) 4564
$C_8H_{16}O$	Cyclooctanol	665-5000	L	Band freq	Zeiss	JACS 75 (1953) 897
$C_8H_{16}O$	1,2-Epoxyoctane	2-15 μ 2-15 μ	L Sol	Spec, Group freq Spec, Struct, Group freq	Patterson Bomstein	AC 26 (1954) 823 AC 30 (1958) 544

$C_8H_{16}O$	1,2-Epoxy-2,4,4-trimethylpentane	800-1800 2-15 μ	- Sol	Spec Spec, Struct, Group freq	Gasson Bonstein	JCS AC	- 30	(1954) (1958)	2161 544
$C_8H_{16}O$	2,3-Epoxy-2,4,4-trimethylpentane	800-1800 2-15 μ	- Sol	Spec Spec, Struct, Group freq	Gasson Bonstein	JCS AC	- 30	(1954) (1958)	2161 544
$C_8H_{16}O$	2-Ethoxyhex-1-ene	650-3150	L	Table, Band freq, I	Meakins	JCS	-	(1953)	4170
$C_8H_{16}O$	1-Ethylcyclohexanol	-	L	Anal, I	Smith	JACS	76	(1954)	4564
$C_8H_{16}O$	2-Ethylcyclohexanol	2-16 μ	L	Spec, Anal	Entel	JACS	73	(1951)	4152
$C_8H_{16}O$	2-Ethylhexaldehyde	-	Sol	Group & band freq	Pinchas	AC	27	(1955)	2
$C_8H_{16}O$	β -Isobutyltetrahydrofuran	2-15 μ	L	Spec	Quilico	TE	1	(1957)	177
$C_8H_{16}O$	2-Methylcyclohexane-methanol	2-16 μ -	- -	Spec Ident	Entel Entel	JACS JACS	74 76	(1952) (1954)	441 3646
$C_8H_{16}O$	cis-2-Methylcyclohexylmethanol	1300-3650	Sol	Freq, I	Cole	JCS	-	(1959)	1222
$C_8H_{16}O$	trans-2-Methylcyclohexylmethanol	1300-3650	Sol	Freq, I	Cole	JCS	-	(1959)	1222
$C_8H_{16}O$	cis-3-Methylcyclohexylmethanol	1300-3650	Sol	Freq, I	Cole	JCS	-	(1959)	1222
$C_8H_{16}O$	2-Methyl-2-heptenol-6	700-1800	L	Spec, Struct, Group freq	Barnard	JCS	-	(1950)	915
$C_8H_{16}O$	6-Methyl-trans-4-heptenol-1	-	-	Config	Crombie	JCS	-	(1955)	1025

$C_8H_{16}O$	Methyl n-hexyl ketone	500-1750 - 1800-1650 -	L G Sol Sol	Assign Band freq Ext coeff Substitution effect	Thompson Hartwell Cross Thompson	JCS - (1945) 640 JCS - (1948) 1436 TFS 47 (1951) 354 SA 9 (1957) 208
$C_8H_{16}O$	Methyl 2-methyl-cyclohexyl ether	400-4000	Sol	Spec, Ext coeff, Config	Cummins	JCS - (1957) 3847
$C_8H_{16}O$	Methylpropylcyclopropylcarbinol	-	L, Sol	Band freq	Slabey	JACS 76 (1954) 3604
$C_8H_{16}O$	Methylisopropylcyclopropylcarbinol	-	L, Sol	Band freq	Slabey	JACS 76 (1954) 3604
$C_8H_{16}O$	n-Octanal	-	-	Band freq	Crombie	JCS - (1955) 1007
$C_8H_{16}O$	3-Octanone	1600-1800	Sol	Band freq	Fuson	JACS 76 (1954) 2526
$C_8H_{16}O$	trans-n-4-Octenol-1	8-12 μ	L	Spec, Struct	Crombie	JCS - (1950) 1707
$C_8H_{16}O$	2,2,4,4-Tetramethyl-tetrahydrofuran	2.5-15 μ	-	Spec	Rust	JACS 76 (1954) 1055
$C_8H_{16}OS$	Butylthio butyrate	2.5-16 μ	Sol	Struct effect on freq	Nyquist	SA 15 (1959) 514
$C_8H_{16}OS$	Hexylthio acetate	2.5-16 μ	Sol	Struct effect on freq	Nyquist	SA 15 (1959) 514
$C_8H_{16}OS$	Methyl isobutyl ketone ethylene hemithioketal	-	Sol	Band freq	Djerassi	JACS 75 (1953) 3704
$C_8H_{16}OS$	1-(Tetrahydrothiapyran-4)-1-propanol	-	L	Band study	Cockburn	JACS 76 (1954) 5703
$C_8H_{16}O_2$	n-Amyl propionate	500-1750 - - -	L G Sol Sol	Assign Band freq Band vib, I Band freq	Thompson Hartwell Richards Russell	JCS - (1945) 640 JCS - (1948) 1436 TFS 45 (1949) 874 JCS - (1955) 479

$C_8H_{16}O_2$	n-Butyl isobutyrate	20.7-152 μ 500-1750 -	S L G	Transmission Assign Band freq	Seifert Thompson Hartwell	RSI JOS JOS	11 (1940) - (1945) - (1948)	365 640 1436
$C_8H_{16}O_2$	n-Butyl n-butyrate	500-1750 -	L G	Assign Band freq	Thompson Hartwell	JOS JOS	- (1945) - (1948)	640 1436
$C_8H_{16}O_2$	cis-Cyclooctane- 1,2-diol	-	Sol	Band freq	Kuhn	JACS	76 (1954)	4323
$C_8H_{16}O_2$	trans-Cyclooctane- 1,2-diol	-	Sol	Band freq	Kuhn	JACS	76 (1954)	4323
$C_8H_{16}O_2$	cis-Cyclooctane- 1,5-diol	-	Sol	Band freq	Kuhn	JACS	76 (1954)	4323
$C_8H_{16}O_2$	trans-Cyclooctane- 1,5-diol	-	Sol	Group freq	Kuhn	JACS	76 (1954)	4323
$C_8H_{16}O_2$	cis-1,4-Dimethoxy- cyclohexane	-	-	Group freq	Henbest	JOS	- (1957)	1462
$C_8H_{16}O_2$	trans-1,4-Dimethoxy- cyclohexane	-	-	Group freq	Henbest	JOS	- (1957)	1462
$C_8H_{16}O_2$	3,5-Dimethylhexanoic acid	6.5-8.5 μ	L	Ident	Guertin	AC	28 (1956)	1194
$C_8H_{16}O_2$	cis-1,2-Dimethylol- cyclohexane	3 μ	Sol	Band freq	Kuhn	JACS	74 (1952)	2492
$C_8H_{16}O_2$	trans-1,2-Dimethylol- cyclohexane	3 μ	Sol	Band freq	Kuhn	JACS	74 (1952)	2492
$C_8H_{16}O_2$	Ethyl caproate	1-12 μ	Sol	Spec, Ext coeff, Table	O'Connor	JAO	28 (1951)	154
$C_8H_{16}O_2$	2-Ethylhexanoic acid	2-14 μ 6.5-8.5 μ	S L	Spec Ident	Harple Guertin	AC AC	24 (1952) 28 (1956)	635 1194

$C_8H_{16}O_2$	3-Ethylhexanoic acid	6.5-8.5 μ	L	Ident	Guertin	AC	28 (1956)	1194
$C_8H_{16}O_2$	4-Ethylhexanoic acid	6.5-8.5 μ	L	Ident	Guertin	AC	28 (1956)	1194
$C_8H_{16}O_2$	Isoamylpropionate	-	-	IR	High	PR	38 (1931)	1837
$C_8H_{16}O_2$		-	-	IR	Morris	PR	38 (1931)	141
$C_8H_{16}O_2$	Isobutyl isobutyrate	500-1750	L	Assign	Thompson	JCS	- (1945)	640
$C_8H_{16}O_2$		-	G	Band freq	Hartwell	JCS	- (1948)	1436
$C_8H_{16}O_2$	1-Methoxy-2-heptanone	-	-	Ident	Stevens	JACS	76 (1954)	4402
$C_8H_{16}O_2$	Methyl n-heptanoate	-	-	Ident	Cairns	JACS	74 (1952)	5636
$C_8H_{16}O_2$		6.84-13.72 μ	L	Spec, Table, Band freq	Fowler	JOSA	43 (1953)	1054
$C_8H_{16}O_2$	5-Methylheptanoic acid	6.5-8.5 μ	L	Ident	Guertin	AC	28 (1956)	1194
$C_8H_{16}O_2$	4-Methyl-2-pentyl acetate	2-15 μ	-	Spec, Anal	Brown	JACS	77 (1955)	3614
$C_8H_{16}O_2$	n-Octanoic acid	2-16 μ	Sol	Spec	Howton	JOC	16 (1951)	1405
		1-12 μ	Sol	Spec, Ext coeff, Table	O'Connor	JAO	28 (1951)	154
		2-14 μ	S	Spec	Harple	AC	24 (1952)	635
		6.81-13.77 μ	L	Spec, Group freq, Table, I	Fowler	JOSA	43 (1953)	1054
		6.5-8.5 μ	L	Ident	Guertin	AC	28 (1956)	1194
		9-3 μ	Sol	IR	Holman	AC	28 (1956)	1533
		3500-670	L,S	Spec	Corish	JCS	- (1957)	1746
		-	Sol	Freq	Goulden	SA	6 (1954)	129
$C_8H_{16}O_3$	2-Ethoxy-5-hydroxy-methyltetrahydropyran	-	-	Group freq	Marvel	JACS	75 (1953)	4601

$C_8H_{16}O_3$	α -Hydroxycyclohexanone dimethyl ketal	-	-	Group freq	Stevens	JACS 76 (1954)	715
$C_8H_{16}O_3$	3-Hydroxy-2,3-dimethylbutenoic acid ethyl ester	3.09-13.75 μ L		Table	Hatch	JACS 75 (1953)	3712
$C_8H_{16}O_3S$	8-Thiol-6-hydroxy-octanoic acid	-	-	Ident	Bullock	JACS 76 (1954)	1828
$C_8H_{16}O_4$	Ethyl 2,3-dideoxy- α -D-glucopyranoside	-	S	Group & band freq, I	Barker	JCS - (1954)	4211
$C_8H_{16}O_4Se_2$	Diselenium- α -diisobutyric acid	2-40 μ	-	Assign	Bergson	ARK 13 (1958)	11
$C_8H_{16}O_4Se_2$	Diselenium- γ -dibutyric acid	2-40 μ	-	Assign	Bergson	ARK 13 (1958)	11
$C_8H_{16}O_5$	1,1-Bis acetamido-1-deoxy-D-erythrose	650-1800	S	Spec, Ident	Bourne	JCS - (1954)	4009
$C_8H_{16}O_5$	1,1-Bis acetamido-1-deoxy-L-erythrose	650-1800	S	Spec, Ident	Bourne	JCS - (1954)	4009
$C_8H_{16}O_5$	Ethyl 2-deoxy- α -D-glucopyranoside	-	S	Group & band freq, I	Barker	JCS - (1954)	4211
$C_8H_{16}O_5$	2,3,4-Tri-O-methyl- α -D-xylopyranose	-	S	Band freq, I	Barker	JCS - (1954)	3468
$C_8H_{16}O_6$	2,3-Di-O-methyl- β -D-glucopyranose	-	S	Group & band freq, I	Barker	JCS - (1954)	171
$C_8H_{18}O_6$	3,4-Di-O-methyl- α -D-glucopyranose	-	S	Group & band freq, I	Barker	JCS - (1954)	171

$C_8H_{16}O_6$	Ethyl α -D-glucopyranoside	700-1000	S	Group & band freq, I	Barker	JCS	-	(1954)	4550
$C_8H_{16}O_6$	Ethyl β -D-glucopyranoside	700-1000	S	Group freq, I	Barker	JCS	-	(1954)	4550
$C_8H_{16}O_6$	Ethyl α -D-glucopyranoside	-	S	Group & band freq, I	Barker	JCS	-	(1954)	4211
$C_8H_{16}O_6$	Methyl 2-O-methyl- α -D-glucopyranoside	-	S	Group freq, I	Barker	JCS	-	(1954)	171
$C_8H_{16}O_6$	Methyl 4-O-methyl- β -D-glucopyranoside	-	S	Group & band freq, I	Barker	JCS	-	(1954)	171
$C_8H_{16}O_6$	Methyl 6-O-methyl- β -D-glucopyranoside	-	S	Group & band freq, I	Barker	JCS	-	(1954)	171
$C_8H_{16}O_6 \cdot H_2O$	3,4-Di-O-methyl- α -D-mannopyranose hydrate	-	S	Band freq, I	Barker	JCS	-	(1954)	3468
$C_8H_{17}DO$	n-Octanol-d ₁	650-4000	L G,L	Band study IR, Group freq, Table, I	Quinan Quinan	JCP AC	21 26	(1953) (1954)	1896 1762
$C_8H_{17}Br$	1-Bromooctane	500-1500	L,S L	Spec, Iso Mole ratio	Brown Yoshino	TFS CJC	50 35	(1954) (1957)	535 339
$C_8H_{17}Cl$	2-Chloro-2,3,3-trimethylpentane	2-15 μ	-	Spec, Band freq, Anal	Brown	JACS	77	(1955)	3619
$C_8H_{17}Cl$	3-Chloro-2,2,3-trimethylpentane	2-15 μ	-	Indent, Anal Spec, Band freq, Anal	Schmerling Brown	JACS JACS	75 77	(1953) (1955)	6217 3619
$C_8H_{17}Cl$	n-Octyl chloride	16-25 μ	L	Solvent effect	Marrison	JSI	29	(1952)	233

$C_8H_{17}Cl$	s-Octyl chloride	-	-	Band freq	Corey	JACS	76 (1954)	6040
$C_8H_{17}ClO_2S$	n-Octanesulfonyl chloride	-	-	Spec, Assign	Geiseler	ZE	63 (1959)	1140
$C_8H_{17}Cl_3OSi$	Trichlorosilylbutyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_8H_{17}Cl_3OSi$	Trichlorosilylheptyl methyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_8H_{17}Cl_3OSi$	Trichlorosilylhexyl ethyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_8H_{17}N$	1-Butylethylamino-ethylene	-	-	Spec	Opitz	A	623 (1959)	112
$C_8H_{17}N$	1-Diethylamino-1-butene	-	-	Spec	Opitz	A	623 (1959)	112
$C_8H_{17}N$	2-Methyl-1-diethyl-amino-1-propene	-	-	Spec	Opitz	A	623 (1959)	112
$C_8H_{17}N$	1-Methyl-2-ethyl-piperidine	-	L	Spec	Leonard	JACS	77 (1955)	3269
$C_8H_{17}NO$	cis-2-Aminocyclo-octanol	-	Sol	Freq, Assign, Shift	Sicher	CCCC	24 (1959)	950
$C_8H_{17}NO$	trans-2-Aminocyclo-octanol	-	Sol	Freq, Assign, Shift	Sioher	CCCC	24 (1959)	950
$C_8H_{17}NO$	2-Butylideneamino-1-butanol	2.5-10/ μ	L	Spec, Struct, Group freq	Nace	JACS	74 (1952)	5189
$C_8H_{17}NO$	l- ψ -Conhydrine	600-4000	S	Spec, Band study	Heacock	CJC	34 (1956)	1782

$C_8H_{17}NO \cdot HCl$	ℓ - ψ -Conhydrine hydrochloride	600-4000	S	Spec, Band study	Heacock	CJC	34 (1956)	1782
$C_8H_{17}NO$	ψ -Conhydrine	-	Sol	Band freq	Marion	JACS	73 (1951)	305
$C_8H_{17}NO$	N,N-Di-n-propyl-acetamide	-	L	Group freq	Robson	JACS	77 (1955)	498
$C_8H_{17}NO$	2-Methyl-2-isobutyl-oxazolidine	-	Sol	Group freq, Ext coeff	Bergman	JACS	75 (1953)	358
$C_8H_{17}NO$	2-Methyl-2-t-butyl-oxazolidine	-	Sol	Group freq, Ext coeff	Bergmann	JACS	75 (1953)	358
$C_8H_{17}NO$	Octanamide	-	-	Ident	Jones	JCS	- (1953)	3719
$C_8H_{17}NO$	1-Piperidino-2-propanol	3.38-3.60 μ	S	Freq	Wright	JOC	24 (1959)	1362
$C_8H_{17}NO$	2-Propyl-4-ethyl-oxazolidine	2.5-10 μ	L	Struct, Spec, Group freq	Nace	JACS	74 (1952)	5189
		-	L	Spec	Nace	JACS	75 (1953)	3646
		-	L	Ident	Goldberg	JACS	77 (1955)	359
$C_8H_{17}NO_2$	DL- α -Amino-n-caprylic acid	1538-909	Sol	Spec	Parker	SA	16 (1960)	910
$C_8H_{17}NO_2$	N,N-Diethyl- γ -aminobutyric acid	-	Sol	Spec, Association, Freq	Barrow	JACS	80 (1958)	86
$C_8H_{17}NO_3$	n-Octyl nitrate	2-15 μ	Sol	Spec, Struct, Ext coeff	Carrington	SA	16 (1960)	1279
$C_8H_{17}NO_3$	2-Octyl nitrate	-	-	Spec	Morrow	JACS	77 (1955)	756
$C_8H_{17}NO_4 \cdot HCl \cdot H_2O$	Mycaminose hydrochloride hydrate	2-12 μ	S	Spec, Band freq	Hochstein	JACS	77 (1955)	3353

$C_8H_{17}NS$	3-(1-Piperidyl) propanethiol	-	-	Band freq	Plaut	JACS	77 (1955)	1572
$C_8H_{17}N_3O$	N-Cyclohexylamino acetamidoxime	930-3500	S	Freq	Hollander	JOC	23 (1958)	1112
$C_8H_{17}N_3O$	Di-isopropyl ketone semicarbazone	700-3500	S	Assign, Ident	Davison	JACS	- (1955)	3389
$C_8H_{17}N_3O$	Heptanal semi- carbazone	700-3500	S	Assign, Ident	Davison	JCS	- (1955)	3389
$C_8H_{17}N_3O_4$	Diethyl 1,1-dimethyl triazan-2,3-dicarbo- xylate	-	S	Band freq, Struct	Kenner	JCS	- (1952)	2089
$C_8H_{17}O_5S$	n-Octane-1-sulfonate	500-4000	S	Struct	Fujimori	BCSJ	32 (1959)	850
$C_8H_{17}O_4P$	Diethyl γ -ketobutyl- phosphonate	-	-	Ident	Myers	JACS	77 (1955)	3101
C_8H_{18}	2,2-Dimethylhexane	1.5-15 μ 1.5-15 μ	L G	Spec Spec	Oetjen Oetjen	RMP	16 (1944)	260
		-	L	Anal	Glasgow	RMP	16 (1944)	265
		-	-	Anal	Heigl	JRNB	38 (1947)	537
		-	-	Absorption freq	Kent	IEC	19 (1947)	293
		-	-	Freq	Sutherland	AC	19 (1947)	290
		-	-	IR, Assign	Sheppard	JCP	15 (1947)	153
		-	-	Freq	Simpson	JCP	16 (1948)	690
		-	-	Anal	Bell	PRS	199 (1949)	169
		8-12 μ	G	Spec, Anal	Coggeshall	AC	22 (1950)	1005
		2900-1370	L	I	Francis	AC	22 (1950)	381
		-	-	Group anal	Hastings	JCP	18 (1950)	861
		-	-	Anal	Grosse	AC	24 (1952)	612
		-	-	Ident, Anal, Iso	Schmerling	JACS	75 (1953)	1261
		15-35 μ	S	Spec, Struct	Bentley	JACS	75 (1953)	6217
						SA	15 (1959)	165

C ₈ H ₁₈	2,3-Dimethylhexane	1.5-15 μ	L	Spec	Oetjen	RMP	16 (1944)	260
		1.5-15 μ	G	Spec	Oetjen	RMP	16 (1944)	265
		-	-	Anal	Sweeney	IEC	16 (1944)	723
		-	-	Anal	Glasgow	JRNB	38 (1947)	537
		-	-	Anal	Heigl	IEC	19 (1947)	293
		-	-	Absorption freq	Kent	AC	19 (1947)	290
		8.5-135 μ	-	Spec	Ceopetta	AC	20 (1948)	699
		8000-9000	Sol	Anal	Hibbard	AC	21 (1949)	486
		-	G	Anal	Bell	AC	22 (1950)	1005
		2900-1460	L	I	Francis	JCP	18 (1950)	861
		-	-	Anal, Ext coeff	Schneider	JACS	73 (1951)	5013
		-	-	Group anal	Hastings	AC	24 (1952)	612
		-	-	Anal	Schmerling	JACS	75 (1953)	4275
		-	-	Ident, Anal, Iso	Schmerling	JACS	75 (1953)	6217
		-	-	-	-	-	-	-
C ₈ H ₁₈	2,4-Dimethylhexane	1.5-15 μ	L	Spec	Oetjen	RMP	16 (1944)	260
		1.5-15 μ	L	Spec	Oetjen	RMP	16 (1944)	263
		-	-	Anal	Sweeney	IEC	16 (1944)	723
		-	L	Anal	Glasgow	JRNB	38 (1947)	537
		-	-	Anal	Heigl	IEC	19 (1947)	293
		-	-	Absorption freq	Kent	AC	19 (1947)	290
		-	-	Anal	Anderson	AC	20 (1948)	801
		8000-9000	Sol	Anal	Hibbard	AC	21 (1949)	486
		-	G	Anal	Bell	AC	22 (1950)	1005
		8-12 μ	G	Spec, Anal	Coggeshall	AC	22 (1950)	381
		-	-	Anal, Ext coeff	Schneider	JACS	73 (1951)	5013
		-	-	Group anal	Hastings	AC	24 (1952)	612
		-	-	Anal	Donnaud	CPR	239 (1953)	1480
		-	-	Anal, Ident, Iso	Schmerling	JACS	75 (1953)	4275
		-	L	Anal	Schmerling	JACS	75 (1953)	6217
		700-350	-	Freq	Burwell	JACS	76 (1954)	5822
C ₈ H ₁₈	2,5-Dimethylhexane	15-35 μ	S	Spec, Struct	Bentley	SA	15 (1959)	163
		1.5-15 μ	L	Spec	Oetjen	RMP	16 (1944)	260
		1.5-15 μ	L	Spec	Oetjen	RMP	16 (1944)	263
		-	-	Anal	Sweeney	IEC	16 (1944)	723
		-	-	Freq	Kellner	TFS	41 (1945)	217
		-	-	Assing, FC	Ahonen	JCP	14 (1946)	625
		-	L	Anal	Glasgow	JRNB	38 (1947)	537

C_8H_{18}	3,3-Dimethylhexane	-	-	-	Anal	Heigl	IEC	19	(1947)	293
		-	-	-	Absorption freq	Kent	AC	19	(1947)	290
		8000-9000	Sol	-	Anal	Hibbard	AC	21	(1949)	486
		-	G	-	Anal	Bell	AC	22	(1950)	1005
		8-12 μ	G	-	Spec, Anal	Coggeshall	AC	22	(1950)	381
		-	-	-	Anal, Ext coeff	Schneider	JACS	73	(1951)	5013
		-	-	-	Group anal	Hastings	AC	24	(1952)	612
		-	-	-	Anal, Ident	Grosse	JACS	75	(1953)	1261
		-	-	-	Anal	Schmerling	JACS	75	(1953)	4275
		-	-	-	Anal	Burwell	JACS	76	(1954)	5822
		-	Sol	-	Band freq, Struct	O'Connor	JACS	76	(1954)	2368
		2.5-15 μ	-	-	Spec, Ident	Rust	JACS	76	(1954)	1055
C_8H_{18}	3,4-Dimethylhexane	1.5-15 μ	L	-	Spec	Oetjen	RMP	16	(1944)	260
		1.5-15 μ	G	-	Spec	Oetjen	RMP	16	(1944)	265
		-	-	-	Absorption freq	Kent	AC	19	(1947)	290
		-	-	-	Spec, Anal	Ciappetta	AC	20	(1948)	699
		-	-	-	IR, Assign	Sheppard	JCP	16	(1948)	690
		-	G	-	Anal	Bell	AC	22	(1950)	1005
		-	-	-	Group anal	Hastings	AC	24	(1952)	612
		1.5-15 μ	L	-	Spec	Oetjen	RMP	16	(1944)	260
		1.5-15 μ	G	-	Spec	Oetjen	RMP	16	(1944)	265
		-	-	-	Freq	Kellner	TFS	41	(1945)	217
		-	-	-	Assign, FC	Ahonen	JCP	14	(1946)	625
		-	L	-	Anal	Glasgow	JRNB	38	(1947)	537
		-	-	-	Anal	Heigl	IEC	19	(1947)	293
C_8H_{18}	3-Ethylhexane	-	-	-	Absorption freq	Kent	AC	19	(1947)	290
		8.5-13.5 μ	-	-	Spec	Ceopetta	AC	20	(1948)	699
		-	G	-	Anal	Bell	AC	22	(1950)	1005
		-	-	-	Anal, Ext coeff	Schneider	JACS	73	(1951)	5013
		-	-	-	Group anal	Hastings	AC	24	(1952)	612
		-	-	-	Anal	Grosse	JACS	75	(1953)	1261
		700-350	L	-	Freq	Donnaud	CPR	239	(1954)	1480
		1.5-15 μ	L	-	Spec	Oetjen	RMP	16	(1944)	260
		1.5-15 μ	G	-	Spec	Oetjen	RMP	16	(1944)	265
		-	-	-	Absorption freq	Kent	AC	19	(1947)	290
		-	-	-	IR, Assign	Sheppard	JCP	16	(1948)	690
		8000-9000	Sol	-	Anal	Hibbard	AC	21	(1949)	486

C ₈ H ₁₈	2-Methyl-3-ethyl-pentane	-	-	G	Anal	Bell	AC	22	(1950)	1005
		-	-	-	Group anal	Hastings	AC	24	(1952)	612
		1.5-15 μ		L	Spec	Oetjen	RMP	16	(1944)	260
		1.5-15 μ		G	Spec	Oetjen	RMP	16	(1944)	265
C ₈ H ₁₈	3-Methyl-3-ethyl-pentane	-		-	Assign, FC	Ahonene	JCP	14	(1946)	625
		-		-	Absorption freq	Kent	AC	19	(1947)	290
		-		G	Anal	Bell	AC	22	(1950)	1005
		-		-	Group anal	Hastings	AC	24	(1952)	612
		-		-	Spec, Struct	Bentley	SA	15	(1959)	165
		1.5-15 μ		L	Spec	Oetjen	RMP	16	(1944)	260
		1.5-15 μ		G	Spec	Oetjen	RMP	16	(1944)	265
		-		-	Absorption freq	Kent	AC	19	(1947)	290
		-		-	Assign, IR	Sheppard	JCP	16	(1948)	690
		-		G	Anal	Bell	AC	22	(1950)	1005
C ₈ H ₁₈	2-Methylheptane	-		-	Group anal	Hastings	AC	24	(1952)	612
		15-35 μ		S	Spec, Struct	Bentley	SA	15	(1959)	165
		1.1-1.8 μ		L	Spec	Bruun	JRNB	10	(1933)	465
		1.1-1.3 μ		L	Spec	Leslie	JRNB	10	(1933)	609
		1150-1800		-	Spec	Barnes	IEC	15	(1943)	659
		1.5-15 μ		L	Spec	Oetjen	RMP	16	(1944)	260
		1.5-15 μ		G	Spec	Oetjen	RMP	16	(1944)	265
		-		-	Absorption freq	Kent	AC	19	(1947)	290
		-		-	Freq	Sutherland	JCP	15	(1947)	153
		-		-	IR, Assign	Sheppard	JCP	16	(1948)	690
C ₈ H ₁₈	3-Methylheptane	-		-	Freq	Simpson	PRS	199	(1949)	169
		-		G	Anal	Bell	AC	22	(1950)	1005
		-		-	Anal, Ext coeffect	Schneider	JACS	73	(1951)	5013
		-		-	Anal	Burwell	JACS	76	(1954)	5822
		15-35 μ		S	Spec, Struct	Bentley	SA	15	(1959)	165
		1.5-15 μ		L	Spec	Oetjen	RMP	16	(1944)	260
		1.5-15 μ		G	Spec	Oetjen	RMP	16	(1944)	265
		-		-	Absorption freq	Kent	AC	19	(1947)	290
		-		-	IR, Assign	Sheppard	JCP	16	(1948)	690
		-		G	Anal	Bell	AC	22	(1950)	1005

C_8H_{18}	4-Methylheptane	-	-	-	Anal, Ext coeff	Schneider	JACS	73	(1951)	5013
		-	-	-	Group anal	Hastings	AC	24	(1952)	612
		-	-	-	Anal	Grosse	JACS	75	(1953)	1261
		-	-	-	Anal	Burwell	JACS	76	(1954)	5822
		1.5-15 μ	L	-	Spec	Cetjen	RMP	16	(1944)	260
		1.5-15 μ	G	-	Spec	Cetjen	RMP	16	(1944)	265
		-	-	-	Assign, FC	Ahoner	JCP	14	(1946)	625
		-	-	-	Absorption freq	Kent	AC	19	(1947)	290
		-	-	-	IR, Assign	Sheppard	JCP	16	(1948)	690
		-	G	-	Anal	Bell	AC	22	(1950)	1005
C_8H_{18}	n-Octane	-	-	-	Anal, Ext coeff	Schneider	JACS	73	(1951)	5013
		-	-	-	Anal, Ext coeff	Schneider	JACS	73	(1951)	5013
		-	-	-	Group anal	Hastings	AC	24	(1952)	612
		-	-	-	Anal	Burwell	JACS	76	(1954)	5822
		0-2.5 μ	L	-	Spec	Ellis	PR	23	(1924)	48
		2-14 μ	L	-	Spec, Band freq	Ellis	PR	27	(1926)	298
		2825-2975	G	-	Freq difference	Meyer	JOSA	15	(1927)	257
		-	-	-	Group freq	Bonino	TFS	25	(1929)	876
		0-2.4 μ	L	-	Spec	Lecomte	TFS	25	(1929)	864
		1.1-1.8 μ	Sol	-	Spec	Liddel	JRNB	11	(1933)	599
C_8H_{18}	n-Octane	-	G	-	Assign	Adel	JCP	2	(1934)	627
		-	-	-	Thermo	Pitzer	CR	27	(1940)	39
		-	-	-	Vib anal	Rosenbaum	JCP	9	(1941)	295
		1200-1800	-	-	Spec	Barnes	IEC	15	(1943)	659
		1.5-15 μ	L	-	Spec	Oetjen	RMP	16	(1944)	260
		1.5-15 μ	L	-	Spec	Oetjen	RMP	16	(1944)	265
		-	-	-	Freq	Kellner	TFS	41	(1945)	217
		-	-	-	Assign, FC	Ahonen	JCP	14	(1946)	625
		3.2-3.6 μ	-	-	Spec, Anal	Saier	AC	20	(1948)	812
		-	-	-	IR	Sheppard	JCP	16	(1948)	690
C_8H_{18}	n-Octane	-	Sol	-	Anal	Hibbard	AC	21	(1949)	486
		-	-	-	Vib freq	Mizushima	JACS	71	(1949)	1320
		-	-	-	Selection rule	Simanouti	JCP	17	(1949)	1102
		-	G	-	Anal	Bell	AC	22	(1950)	1005
		2900-1370	L	-	I	Francis	JCP	18	(1950)	861
		-	-	-	Group anal	Hastings	AC	24	(1952)	612

C ₈ H ₁₈	2,2,3,3-Tetramethyl- butane	5600-800	L	Spec, I	Lauer	APS	6 (1952)	29
		-	-	Anal	Grosse	JACS	75 (1953)	1261
		700-350	L	Freq, Table	Donneaud	CPR	239 (1954)	1480
		10-15 μ	L	Spec, Epoxy study	Patterson	AC	26 (1954)	823
		1140-650	S	Freq, Assign	Tschamler	JCP	22 (1954)	1845
		-	-	Rocking freq	Corish	JCS	- (1955)	2431
		600-1500	S	Spec, Freq, Assign	Pimentel	JCP	23 (1955)	376
		700-3000	Sol	Ext coeff	Jones	SA	9 (1957)	235
		-	-	Vib anal	Theimer	JCP	27 (1957)	1041
		-	-	Thermo	Pitzer	CR	27 (1940)	39
C ₈ H ₁₈	2,2,3-Trimethyl- pentane	1.5-15 μ	G	Spec	Oetjen	RMP	16 (1944)	265
		-	-	Assign, FC	Ahonen	JCP	14 (1946)	625
		400-5000	Sol	IR	Cleveland	JCP	18 (1950)	1320
		1250-500	-	Thermo	Scott	JACS	74 (1952)	883
		-	-	Anal	Grosse	JACS	75 (1953)	1261
		-	-	Freq	Sheppard	JCP	23 (1955)	582
		1.5-15 μ	L	Spec	Oetjen	RMP	16 (1944)	260
		1.5-15 μ	L	Spec	Oetjen	RMP	16 (1944)	265
		-	-	Anal	Sweeney	IEC	16 (1944)	723
		2-22 μ	S	Spec, Freq, Quant anal	Avery	JAP	18 (1947)	960
C ₈ H ₁₈	2,2,4-Trimethyl- pentane	-	L	Anal	Glassgow	JRNB	38 (1947)	537
		-	-	Anal	Heigl	AC	19 (1947)	293
		-	-	Absorption freq	Kent	AC	19 (1947)	290
		-	-	Anal, Iso	Anderson	AC	20 (1948)	801
		8000-9000	Sol	Anal	Hibbard	AC	21 (1949)	486
		-	G	Anal	Bell	AC	22 (1950)	1005
		-	-	Anal	Coggeshall	AC	22 (1950)	381
		-	-	Group anal	Hastings	AC	24 (1952)	612
		2-22 μ	S	Spec, Freq, Quant anal	Schmerling	JACS	75 (1953)	6217
		1-30 μ	G	Spec	Kettering	P	4 (1933)	39
C ₈ H ₁₈	2,2,4-Trimethyl- pentane	1.1-1.8 μ	Sol	Spec	Liddel	JRNB	11 (1933)	599
		-	-	Thermo	Pitzer	CR	27 (1940)	39
		1100-1800	-	Spec	Barnes	IEC	15 (1943)	659
		1.5-15 μ	L	Spec	Oetjen	RMP	16 (1944)	260
		1.5-15 μ	G	Spec	Oetjen	RMP	16 (1944)	265
		-	-	Anal	Sweeney	IEC	16 (1944)	723
		6.7-13.4 μ	L	Spec	Schlesman	JOSA	35 (1945)	755

C_8H_{18}	2,3,3-Trimethylpentane	2-22 μ	S	Spec, Freq, Quant anal	Avery	JAP	18	(1947)	960
		-	L	Anal	Glasgow	JRNB	38	(1947)	537
		-	-	Anal	Heigl	IEC	19	(1947)	293
		-	-	Anal	Kent	AC	19	(1947)	290
		-	-	Anal	Anderson	AC	20	(1948)	801
		-	-	Anal	Anderson	AC	21	(1949)	911
		8000-9000	Sol	Spec, Anal	Hibbard	AC	21	(1949)	486
		-	G	Anal	Bell	AC	22	(1950)	1005
		-	-	Anal, Ext coeff	Schneider	JACS	73	(1951)	5013
		3.4 μ	Sol	Anal	Simard	AC	23	(1951)	1384
		-	-	Group anal	Hastings	AC	24	(1952)	612
		6.5-9.5 μ	L	Spec	Powell	APS	6	(1952)	3
		2-16 μ	L	Spec	Anderson	JOSA	43	(1953)	221
		-	-	Anal	Grosse	JACS	75	(1953)	1261
		-	-	Anal	Schmerling	JACS	75	(1953)	4275
		700-350	L	Table, Freq	Donnaud	CPR	239	(1954)	1480
		2-15 μ	L	Spec	Muller	AC	27	(1955)	23
		9-3 μ	Sol	IR	Holman	AC	28	(1956)	1533
		1.5-15 μ	L	Spec	Oetjen	RMP	16	(1944)	260
		1.5-15 μ	G	Spec	Oetjen	RMP	16	(1944)	265
		-	-	Anal	Sweeney	IEC	16	(1944)	723
		2-22 μ	S	Spec, Freq, Quant anal	Avery	JAP	18	(1947)	960
		-	L	Anal	Glasgow	JRNB	38	(1947)	537
		-	-	Anal	Heigl	IEC	19	(1947)	293
		-	-	Absorption freq	Kent	AC	19	(1947)	290
		-	-	Anal	Anderson	AC	20	(1948)	801
		8.5-13.5 μ	-	Spec	Geopetta	AC	20	(1948)	699
		8000-9000	Sol	Anal	Hibbard	AC	21	(1949)	486
		-	G	Anal	Bell	AC	22	(1950)	1005
		-	G	Anal	Coggeshall	AC	22	(1950)	381
		-	-	Group anal	Hastings	AC	24	(1952)	612
		-	-	Anal	Schmerling	JACS	75	(1953)	4275
C_8H_{18}	2,3,4-Trimethylpentane	2.6-3.8 μ	Sol	Spec, Assign	Fox	PRS	175	(1940)	208
		1000-1800	-	Spec	Barnes	IEC	15	(1943)	659
		1.5-15 μ	L	Spec	Oetjen	RMP	16	(1944)	260
		1.5-15 μ	G	Spec	Oetjen	RMP	16	(1944)	265

$C_8H_{18}ClO_2PS$	Di-n-butylphosphoro-chloridothionate	-	-	Anal	Sweeney	IEC	16 (1944)	723
$C_8H_{18}NO_5P$	N-Diethylphosphoryl-DL-alanine methyl ester	2-22 μ	-	Assign, FC	Ahonen	JCP	14 (1946)	625
$C_8H_{18}NO_5P$	N-Diethylphosphoryl-DL-alanine methyl ester	-	S	Spec, Freq, Quant anal	Avery	JAP	18 (1947)	960
$C_8H_{18}NO_5P$	N-Diethylphosphoryl-DL-alanine methyl ester	-	L	Anal	Glassgow	JRNB	38 (1947)	537
$C_8H_{18}NO_5P$	N-Diethylphosphoryl-DL-alanine methyl ester	-	-	Anal	Heigl	IEC	19 (1947)	293
$C_8H_{18}NO_5P$	N-Diethylphosphoryl-DL-alanine methyl ester	-	-	Absorption freq	Kent	AC	19 (1947)	290
$C_8H_{18}NO_5P$	N-Diethylphosphoryl-DL-alanine methyl ester	-	-	Anal	Anderson	AC	20 (1948)	801
$C_8H_{18}NO_5P$	N-Diethylphosphoryl-DL-alanine methyl ester	8.5-13.5 μ	-	Spec	Ceapetta	AC	20 (1948)	699
$C_8H_{18}NO_5P$	N-Diethylphosphoryl-DL-alanine methyl ester	8000-9000	Sol	Anal	Hibbard	AC	21 (1949)	486
$C_8H_{18}NO_5P$	N-Diethylphosphoryl-DL-alanine methyl ester	-	G	Anal	Bell	AC	22 (1950)	1005
$C_8H_{18}NO_5P$	N-Diethylphosphoryl-DL-alanine methyl ester	-	G	Anal	Coggeshall	AC	22 (1950)	381
$C_8H_{18}NO_5P$	N-Diethylphosphoryl-DL-alanine methyl ester	-	-	Group anal	Hastings	AC	24 (1952)	612
$C_8H_{18}NO_5P$	N-Diethylphosphoryl-DL-alanine methyl ester	-	-	Anal	Schmerling	JACS	75 (1953)	4275
$C_8H_{18}NO_5P$	N-Diethylphosphoryl-DL-alanine methyl ester	-	-	Anal, Ident	Schmerling	JACS	75 (1953)	6217
$C_8H_{18}ClO_2PS$	Di-n-butylphosphoro-chloridothionate	-	-	Spec, Freq	Popkov	ZOK	29 (1959)	1998
$C_8H_{18}NO_5P$	N-Diethylphosphoryl-DL-alanine methyl ester	3-15 μ	L,S	Spec, Group freq	Li	JACS	77 (1955)	3519
$C_8H_{18}NO_5P$	N-Diethylphosphoryl-DL-alanine methyl ester	3-15 μ	L,S	Spec, Group freq	Li	JACS	77 (1955)	3519
$C_8H_{18}N_2$	Di-t-butylidimide	3.4-11.52 μ	-	Table, Struct	Beringer	JACS	75 (1953)	3984
$C_8H_{18}N_2O$	Dibutyl nitrosamine	-	Sol	Anal	Emmons	JOC	19 (1954)	1472
$C_8H_{18}N_2O$	2-Propyl-3-amino-4-ethyloxazolidine	-	L	Group freq	Nace	JACS	75 (1953)	3646
$C_8H_{18}N_2O_2$	Dibutyl nitramine	-	-	Ident	Emmons	JOC	19 (1954)	1472
$C_8H_{18}N_2O_2$	Dibutyl nitramine	-	-	Ident	Robson	JACS	77 (1955)	2453

$C_8H_{18}N_2O_2$	2-Methyl-2-nitroso-propane dimer	-	Group freq	Jander	JOS	-	(1954)	912
$C_8H_{18}N_2O_2$	cis-Nitrosoisobutane dimer	1000-1300	S	Spec, Struct	Gowenlock	JOS	-	(1957) 3927
$C_8H_{18}N_2O_2$	trans-Nitrosoisobutane dimer	1000-1300	S	Spec, Struct	Gowenlock	JOS	-	(1957) 3927
$C_8H_{18}N_2O_2$	cis-Nitroso-n-butane dimer	1000-1300	S	Spec, Struct	Gowenlock	JOS	-	(1957) 3927
$C_8H_{18}N_2O_2$	trans-Nitroso-n-butane dimer	1000-1300	S	Spec, Struct	Gowenlock	JOS	-	(1957) 3927
$C_8H_{18}N_2O_2$	cis-Nitroso-s-butane dimer	1000-1300	S	Spec, Struct	Gowenlock	JOS	-	(1957) 3927
$C_8H_{18}N_2O_2$	trans-Nitroso-s-butane dimer	1000-1300	S	Spec, Struct	Gowenlock	JOS	-	(1957) 3927
$C_8H_{18}N_2O_2$	cis-Nitroso-t-butane dimer	1000-1300	S	Spec, Struct	Gowenlock	JOS	-	(1957) 3927
$C_8H_{18}O$	n-Butyl t-butyl ether	665-5000	L	Group freq	Ory	AC	32	(1960) 509
$C_8H_{18}O$	Di-n-butyl ether	0-2.5 μ 2-7 μ 7-2.5 μ - - - - 800-1500 720-750 2588-2689	L L L - - - - -	Spec Band study, Spec Group study Solvent effect Solvent effect Solvent effect Anal Spec Band freq H bond, Freq	Ellis Daniels Ellis Gordy Gordy Gordy Barnes Barnes Wiberly Searles	PR JACS JACS JCF JCF JCF JCF JCF JACS	23 47 51 7 7 7 15 15 22 73	(1924) (1925) (1929) (1939) (1939) (1939) (1943) (1943) (1950) (1951) 48 2856 1384 93 99 167 659 659 841 3704

$C_8H_{18}O$	-	-	Group freq	Bell	AC	25 (1953)	1720
	-	-	Ident	Cairns	JOC	18 (1953)	748
	-	-	Anal, Band freq	Emmons	JACS	75 (1953)	6047
	10-15 μ	L	Spec, Epoxy study	Patterson	AC	26 (1954)	823
	3100-2800	Sol	Group study	Henbest	JCS	- (1957)	1462
$C_8H_{18}O$	720-3400	-	Spec	Doering	JACS	72 (1950)	147
	810-840	L	Spec, Anal	Savitzky	RSI	21 (1950)	203
	665-5000	L	Band freq	Zeiss	JACS	75 (1953)	897
$C_8H_{18}O$	350-4000	L,Sol	Band freq	Stuart	JCP	24 (1956)	559
$C_8H_{18}O$	350-4000	L,Sol	Band freq	Stuart	JCP	24 (1956)	559
$C_8H_{18}O$	665-5000	L	Band freq	Zeiss	JACS	75 (1953)	897
$C_8H_{18}O$	100-1000	-	Spec	Wemelle	CPR	246 (1958)	3232
$C_8H_{18}O$	52-152 μ	L	Dispersion	Cartwright	PRS	154 (1936)	138
	6.9-4 μ	L,Sol	Spec, H bond	Kimsey	JCP	5 (1937)	399
	7-14 μ	-	Anal	Ashdown	JCS	- (1948)	1454
	3.2-3.6 μ	-	Spec, Anal	Saier	AC	20 (1948)	812
	2.7-3.2 μ	Sol	H bond	Coggeshall	JACS	73 (1951)	5414
	-	L	Deformation band study	Quinan	JCP	21 (1953)	1896
	665-5000	L	Band freq	Zeiss	JACS	75 (1953)	897
	-	L	Band freq	Mosher	AC	27 (1955)	517
	350-4000	L,Sol	Band study	Stuart	JCP	24 (1956)	559
	3570-3700	Sol	Freq, I	Flynn	AJC	12 (1959)	575
$C_8H_{18}O$	52-152 μ	L,Sol	Ext coeff	Errera	TFS	33 (1937)	120
	7-14 μ	-	Anal	Ashdown	JCS	- (1948)	1454
	665-5000	L	Band freq	Zeiss	JACS	75 (1953)	897
	-	-	Ident	Urry	JACS	76 (1954)	450
	-	-	Ident	Morrow	JACS	77 (1955)	756
$C_8H_{18}O$	-	L	Band study	Mosher	AC	27 (1955)	517
	1400-1600	Sol	Association	Ens	CJC	35 (1957)	170

$C_8H_{18}O$	3-Octanol	665-5000	L	Band freq	Zeiss	JACS	75 (1953)	897
$C_8H_{18}O$	4-Octanol	665-5000	L	Band freq	Zeiss	JACS	75 (1953)	897
$C_8H_{18}O$	2,2,3-Trimethyl-3-pentanol	2-15 μ	-	Spec, Anal, Band freq	Brown	JACS	77 (1955)	3619
$C_8H_{18}O$	2,2,4-Trimethyl-3-pentanol	1-15 μ 665-5000	L L	Spec Band freq	Smith Zeiss	JRNB JACS	46 (1951) 75 (1953)	145 897
		-	-	Anal	Gasson	JCS	- (1954)	2170
$C_8H_{18}O$	2,2,3-Trimethyl-2-pentanol	2-15 μ	-	Spec, Anal, Band freq	Brown	JACS	77 (1955)	3619
$C_8H_{18}O$	2,4,4-Trimethyl-1-pentanol	-	-	Anal	Gasson	JCS	- (1954)	2170
$C_8H_{18}O$	2,4,4-Trimethyl-2-pentanol	-	-	Ident	Graham	JCS	- (1954)	2180
$C_8H_{18}OS$	Di-isobutyl sulfoxide	5.5-24 μ 7-10 μ	S,Sol S,Sol	Spec, Band freq Assign	Cymerman Haszeldine	JCS	- (1951) - (1955)	1332 2901
$C_8H_{18}OS$	Di-n-butyl sulfoxide	1000-1500	Sol	Spec	Schreiber	AC	21 (1949)	1168
$C_8H_{18}O_2$	n-Butyl peroxide	6.73-13.52 μ	-	Table, I	Welch	JACS	77 (1955)	551
$C_8H_{18}O_2$	s-Butyl peroxide	6.82-12.84 μ	-	Table, I	Welch	JACS	77 (1955)	551
$C_8H_{18}O_2$	t-Butyl peroxide	2-15 μ - 800-960	L - Sol	Spec, Anal Band study Band freq	Shreve Kornblum Philpotts	AC JACS AC	23 (1951) 74 (1952) 24 (1952)	282 3079 638
		5-15 μ	Sol	Spec	Minkoff	RPS	224 (1954)	176
		6.80-13.32 μ	-	Table, I	Welch	JACS	77 (1955)	551
		665-5000	L,G	Group freq	Ory	AC	32 (1960)	509
$C_8H_{18}O_2$	2,2-Dimethyl-3-methylpentane-3-hydroperoxide	5-15 μ	Sol	Spec, Band freq	Minkoff	PRS	224 (1954)	176

$C_8H_{18}O_2$	3-Ethyl-1,3-hexane-diol	700-1500	L	Spec, Ident	Shay	AC	26 (1954)	652
$C_8H_{18}O_2$	Isobutyl peroxide	6.8-12.4 μ	-	I, Table	Welch	JACS	77 (1955)	551
$C_8H_{18}O_2$	n-Octyl hydroperoxide	5.5-14.5 μ	L	Spec, Group freq	Mosher	AC	27 (1955)	517
$C_8H_{18}O_2$	2-Octyl hydroperoxide	5.5-14.5 μ	L	Spec, Group freq	Mosher	AC	27 (1955)	517
$C_8H_{18}O_2S$	Di-n-butyl sulfone	1000-1500	Sol	Spec Freq	Schreider Rogers	AC JACS	21 (1949) 78 (1956)	1168 1790
$C_8H_{18}O_3$	Butyltrimethoxy-methane	-	-	Spec, Freq	Nukada	NKZ	81 (1960)	1028
$C_8H_{18}O_3$	Bis(β -ethoxyethyl) ether	1500-5000	Sol	Group freq	Briggs	AC	29 (1957)	904
$C_8H_{19}O_3$	Ethyl orthoacetate	-	Sol	Group freq, Struct	Barton	JCS	- (1954)	2137
$C_8H_{18}O_3Si_2$	Bis-(allylmethyl)-disiloxanediol	-	-	Band freq, Assign	Frisch	JACS	74 (1952)	4584
$C_8H_{18}O_4$	Di(1-hydroxy-n-butyl)-1-peroxide	5-15 μ	Sol	Spec, Band freq	Minkoff	PRS	224 (1954)	176
$C_8H_{18}S$	Di-isobutyl sulfide	2800-3000	Sol	Spec, Stretch freq	Pozefsky	AC	23 (1951)	1611
$C_8H_{18}S$	Di-n-butyl sulfide	6-2.8 μ 1000-1500 500-1500	L Sol L	Band study Spec Spec, Assign	Ellis Schreiber Shepard	JACS AC TFS	50 (1928) 21 (1949) 46 (1950)	2113 1168 429
		-	-	Group freq, Struct	Brandt	JCS	- (1952)	2549
		-	-	Ident	Cairns	JOC	18 (1953)	748
$C_8H_{18}S$	n-Octyl mercaptan	2800-3000	Sol	Stretch freq	Pozefsky	AC	23 (1951)	1611

$C_8H_{18}S_2$	Di-isobutyl disulfide	-	2800-3000	-	Sol	Freq Spec, Stretch freq	Sheppard Pozefsky	TFS AC	46 (1950) 23 (1951)	429 1611
$C_8H_{18}S_2$	Di-n-butyl disulfide	400-1700 500-1500 2800-3000	-	L	L	Spec, Assign Spec, Assign Spec, Stretch freq Group freq	Trotter Sheppard Pozefsky Brandt	JCS TFS AC JCS	- (1946) 46 (1950) 23 (1951) - (1952)	481 429 1611 2549
$C_8H_{18}S_2$	Di-t-butyl disulfide	-	-	-	-	Group freq	Brandt	JCS	- (1952)	2549
$C_8H_{18}Si$	Triethylvinyl- silane	3-15 μ	L	-	-	Spec	Kozima	BCSJ	27 (1954)	287
$C_8H_{18}Se$	Di-n-butylselenide	2-40 μ	-	-	-	Assign	Bergson	ARK	13 (1958)	11
$C_8H_{18}Se$	Di-sec-butylselenide	2-40 μ	-	-	-	Assign	Bergson	ARK	13 (1958)	11
$C_8H_{18}Se$	Di-t-butylselenide	2-40 μ	-	-	-	Assign	Bergson	ARK	13 (1958)	11
$C_8H_{19}N$	Dibutylamine	3100-3550	Sol	-	-	H bond	Lund	ACS	12 (1958)	298
$C_8H_{19}N$	Di-isobutylamine	2-15 μ	L	-	-	Freq assign, NCA	Stewart	JCP	30 (1959)	1259
$C_8H_{19}N$	Di-n-butylamine	1-12 μ 6-2.4 μ 6400-6800 6400-6700	L L Sol Sol	-	-	Spec Group study Band study Spec, Group anal Solvent effect	Bell Ellis Liddel Wulf Gordy Barnes	JACS JACS JACS JACS JCP IEC	49 (1927) 50 (1928) 55 (1933) 57 (1935) 7 (1939) 15 (1943)	1837 685 3574 1464 93 659
		1050-1800 720-750	- L	-	-	Spec Band freq	Wiberly	AC	22 (1950)	841
		-	-	-	-	Anal	Dannley	JOC	20 (1955)	92
		-	Sol	-	-	Band freq, Ext coeff, I	Russell	JCS	- (1955)	483
		2-15 μ	L	-	-	Freq assign, NCA	Stewart	JCP	30 (1959)	1259
$C_8H_{19}N.HBr$	Di-n-butylamine	1000-3500 2000-4000	Sol, S S	-	-	Freq, Band study H bond	Chenon Brisette	CJC CJC	36 (1958) 38 (1960)	1181 34

$C_8H_{19}N.HCl$	Di-n-butylamino hydrochloride	1000-3500	S,Sol	Freq, Band study	Chenon	CJC	36 (1958)	1181
$C_8H_{19}N.HI$	Di-n-butylamine hydriodide	1000-3500 2000-4000	S,Sol S	Freq, Band study Spec, H bond	Chenon Brisette	CJC CJC	36 (1958) 38 (1960)	1181 34
$C_8H_{19}N$	Di-s-butylamine	2-15 μ	L	Freq assign, NCA	Stewart	JCP	30 (1959)	1259
$C_8H_{19}N$	t-Octylamine	2-15 μ	L,Sol	Freq assign, NCA	Stewart	JCP	30 (1959)	1259
$C_8H_{19}N.HCl$	Dimethylhexylamine hydrochloride	2-8 μ	Sol	Spec	Nakanishi	BCSJ	30 (1957)	403
$C_8H_{19}O$	2-n-Butylamino-1-butanol	-	L	Group freq, Struct	Nace	JACS	75 (1953)	3646
$C_8H_{19}NO$	2-Di-n-propylamino-ethanol	3 μ	Sol	Freq, H bond	Flett	SA	10 (1958)	21
$C_8H_{19}NO_4.HCl$	Mycaminitol hydrochloride	-	-	Review paper	Hochstein	JACS	77 (1955)	3353
$C_8H_{19}NS$	4-Diethylamino-butanethiol	-	L,Sol	Band freq	Plant	JACS	77 (1955)	1572
$C_8H_{19}N_2S$	4-n-Heptyl thiosemi-carbazine	700-1700	S	Spec, Struct, Assign, Taut	Lieber	CJC	36 (1958)	801
$C_8H_{19}O_2PS_2$	O,O-Di-n-butylphosphorodithioic acid	450-500	L	Band assign	Mc Ivor	CJC	37 (1959)	869
$C_8H_{19}O_2PS_3$	O,O-Dimethyl-sthio-n-propoxymethylphosphorothionate	-	-	Spec, Freq	Popkov	ZOK	29 (1959)	1998
$C_8H_{19}O_2PS_3$	O,O-Diethyl-s- β -thioethoxyethylphosphorothiolothionate	-	-	Spec, Freq	Popkov	ZOK	29 (1959)	1998

$C_8H_{19}O_3P$	n-Butylhydrogen-n-butylphosphonate	600-5000	L, Sol	Spec, H Bond	Peppard	JINC 12 (1960)	60
$C_8H_{19}O_3P$	Di-n-butyl hydrogen-phosphite	-	-	Band freq	Bell	AC 25 (1953)	1720
$C_8H_{19}O_3P$	Di-n-butyl phosphite	2-21 μ	L	Spec, Anal Group freq, Shift Band freq	Daasch Bell Bennett	AC 23 (1951) JACS 76 (1954) JCS - (1954)	853 5185 3598
$C_8H_{19}O_3P$	Di-t-butylphosphite	-	-	Spec	Young	JACS 75 (1953)	4620
$C_8H_{19}O_3P$	Diethyl butyl-phosphonate	700-1400	L	Spec, Group freq Band freq, Shift	Bellamy Bell	JCS - (1952) JACS 76 (1954)	475 5185
$C_8H_{19}O_3P$	Di-isopropyl ethyl-phosphonate	2-25 μ	L	Spec, Table, Struct Band freq, Shift	Meyrick Bell	JCS - (1950) JACS 76 (1954)	225 5185
$C_8H_{19}O_3FS_2$	O,O-Diethyl-O-ethyl-mercaptoethyl-thiophosphate	-	-	Struct, Band freq	Gardner	AC 25 (1953)	1849
$C_8H_{19}O_4P$	Di-isobutyl hydrogen-phosphate	670-3500	-	Spec, Assign, Table	Bellamy	JCS - (1953)	728
$C_8H_{19}O_4P$	Di-n-butyl hydrogen-phosphate	670-3500 500-4000	- L, Sol	Spec, Assign, Table H bond	Bellamy Peppard	JCS - (1953) JINC 7 (1958)	728 231
$C_8H_{19}O_4P$	Ethyl di-isopropyl-phosphate	900-1060	Sol	Band freq, I	Halwam	JCS - (1953)	626
$C_8H_{19}O_4P$	Mono-(2-Ethylhexyl) phosphoric acid	500-4000	Sol	H bond	Peppard	JINC 7 (1958)	231
$C_8H_{20}Cl_4NB$	Ethyl-di-isopropyl-ammoniumtetra-chloroborate	600-3500	S	Spec	Kynaston	JCS - (1960)	1772
$C_8H_{20}Cl_4NB$	Tetraethylammonium tetrachloroborate	600-3500	S	Spec	Kynaston	JCS - (1960)	1772

$C_8H_{20}Cl_4N_3P_5$	Diethylamino derivative of trimeric phosphorotrihalic chloride	1150-1350	-	Freq, Struct	Shaw	CIL	-	(1959)	54
$C_8H_{20}IN$	Tetraethylammonium iodide	28 μ	Sol	Spec	Nakanishi	BCSJ	30	(1957)	403
$C_8H_{20}NO_2PS$	O,O-Diethyldiethylphosphoramidithioate	600-1050	Sol	Assign	McIvor	CJC	37	(1959)	869
$C_8H_{20}NO_2PS$	Diethyldiethylphosphorimidothionate	740-1500	Sol	Assign	McIvor	CJC	37	(1959)	869
$C_8H_{20}NO_3P$	Di-isopropyldimethylphosphoramidoate	-	-	Spec, Freq	Maarsen	HTC	76	(1957)	713
$C_8H_{20}NO_4P$	Dimethylcyclohexylammonium phosphate	-	-	Spec	Maarsen	HTC	76	(1957)	724
$C_8H_{20}N_2$	unsym-Dibutylhydrazine	-	-	Ident	Emmons	JOC	19	(1954)	1472
$C_8H_{20}N_2$	N,N-Di-isopropylethylenediamine	8.38-3.60 μ	S	Freq	Wright	JOC	24	(1959)	1362
$C_8H_{20}N_2$	Sym-Di-n-propylethylenediamine	3-6.5 μ	Sol	Spec	Woodburn	JOC	17	(1952)	1235
$C_8H_{20}N_2O_6$	2,4-Dinitroestrone	600-4000	S	Spec, H bond, Assign	Pickering	JACS	80	(1958)	680
$C_8H_{20}N_2S_2$	Dithiodiethylamine	700-1850	-	Spec	Barnes	IEC	15	(1943)	659
$C_8H_{20}N_4O_2$	Diethylnitrosamine dimer		Sol, L, G	Stretch freq, Assign	Haszeldine	JCS	-	(1955)	4172
$C_8H_{20}OSi$	Triethylsiloxane	650-1375	G	Spec	Simon	JCP	20	(1952)	905
$C_8H_{20}OSi$	Trimethylsilyl-butyl methyl ether	-	-	Inductive effect	Josien	CPR	249	(1959)	826

$C_8H_{20}OSi$	Trimethylsilyl-methyl butyl ether	-	-	Inductive effect	Josien	CPR 249 (1959)	826
$C_8H_{20}OSi$	Trimethylsilyl-propyl ethyl ether	-	-	Inductive effect	Josien	CPR 249 (1959)	826
$C_8H_{20}OSi_2$	2,2,7,7-Tetramethyl-1-oxa-2,7-disilacyclheptane	-	L	Band study	Sommer	JACS 77 (1955)	2482
$C_8H_{20}^0Si$	Dimethyl-di-isopropoxy-silane	700-1300	L	Spec, Table, Group assign	Richards	JCS - (1949)	124
$C_8H_{20}^0Si$	Dimethyl-di-n-propoxy-silane	750-1300	L	Spec, Table, Group assign	Richards	JCS - (1949)	124
$C_8H_{20}^0Si$	Ethyltriethoxy-silane	700-3000	L	Spec, Table, Group assign	Richards	JCS - (1949)	124
		650-1350	G	Spec	Simon	JCP 20 (1952)	905
$C_8H_{20}^0P_4S_3$	O,0,0,0-Tetraethyl-trithiopyrophosphate	740-1500	L	Band freq	McIvor	CJC 37 (1959)	869
$C_8H_{20}^0Si$	Ethyl orthosilicate	650-1375	G	Spec	Simon	JCP 20 (1952)	905
$C_8H_{20}^0Si$	Tetraethoxysilane	-	-	Spec	Kriegsmann	ZE 62 (1958)	1163
		600-3500	L	Spec	Okawara	BCSJ 31 (1958)	154
$C_8H_{20}^0P_2S$	Diisopropyl dimethyl-monothionopyrophosphate	600-9000	S	Band freq	McIvor	CJC 37 (1959)	869
$C_8H_{20}^0P_2S$	Tetraethylthionopyrophosphate	-	-	Spec	Popkov	ZOK 29 (1959)	1998
$C_8H_{20}^0P_2$	Tetraethyl pyrophosphate	2-21 μ 700-1500	Sol L	Spec, Anal Spec, Group freq	Deasch Bellamy	AC 23 (1951) JCS - (1952)	853 475
		-	Sol	Group freq	Bergmann	JCS - (1952)	847
		-	-	Band freq, Shift	Bell	JACS 76 (1954)	5185

$C_8H_{20}Si$	Di-n-butylsilane	2-13 μ	Sol	Spec	West	JOC	18 (1953)	303
$C_8H_{20}Si$	Dimethyl-di-propylsilane	2-16 μ	L,Sol	Spec, Group freq	Kaye	JOC	18 (1953)	1750
		-	-	Group freq, Thermo	Tannenbaum	JACS	75 (1953)	3753
		-	-	Band study, Group freq	Harvey	JACS	76 (1954)	4555
$C_8H_{20}Si$	n-Octylsilane	2-16 μ	Sol	Freq	Kniseley	SA	15 (1959)	651
$C_8H_{20}Si$	Tetraethylsilane	-	-	Assign	Anderson	JCP	4 (1936)	161
		-	-	Group freq, Thermo	Kaye	JOC	18 (1953)	1750
		2-16 μ	Sol	Spec, Group freq	Tannenbaum	JACS	75 (1953)	3753
		-	-	Review paper	George	JACS	77 (1955)	1677
$C_8H_{21}INO_3P$	Iodide of ethoxy methylphosphoryl chloride	-	-	Spec, Iso, Struct	Larsson	ACS	12 (1958)	587
$C_8H_{21}NO_4$	2-Nitroestrone	600-4000	S	Spec, H bond, Band assign	Pickering	JACS	80 (1958)	680
$C_8H_{21}NO_4$	4-Nitroestrone	600-4000	S	Spec, H bond, Band assign	Pickerning	JACS	80 (1958)	680
$C_8H_{21}NSi$	n-Butylamino-methyl-trimethylsilane	2-15 μ	-	Spec	George	JACS	77 (1955)	3493
$C_8H_{22}N_2O_2Si$	Di-t-butoxy diaminosilane	2.82-14.8 μ	L	Table, Band freq, I	George	JACS	75 (1953)	6308
$C_8H_{22}O_2$	Estrone	600-4000	S	Spec, H bond, Band assign	Pickering	JACS	80 (1958)	680
$C_8H_{22}O_3Si_2$	Diethoxytetramethyl-disiloxane	600-500	L	Spec	Okawara	BCSJ	31 (1958)	154
$C_8H_{22}B_2$	Tetraethyldiborane	1500-2850	-	Freq	Shapiro	JCP	29 (1958)	237
$C_8H_{23}NSi_2$	N,N-Di-(trimethylsilyl)methylamine	-	-	Absorption study	Noll	JACS	73 (1951)	3871
		2-15 μ	-	Spec	George	JACS	77 (1955)	3493

$C_8H_{24}Cl_2N_2P_3$	Dimethylamino derivative of trimeric phosphonitrilic chloride	1150-1350	-	Freq shift, Struct	Shaw	CIL - (1959)	54
$C_8H_{24}N_2OSi_2$	Di-(dimethyl- β -ethyl-aminosilyl) oxide	-	-	Absorption study	Noll	JACS 73 (1951)	3871
$C_8H_{24}N_2O_3P_2$	Octamethyl pyrophosphoramide	-	-	Ident Ident	Tolkmith Tolkmith	JACS 75 (1953) JACS 75 (1953)	5273 5276
$C_8H_{24}N_2O_4P$	Methyl ester of tetrameric phosphonitrilic acid	1250-1350	-	Freq shift, Struct	Shaw	CIL - (1959)	54
$C_8H_{24}O_2Si_3$	Octamethyltrisiloxane	2.5-14 μ 500-1700	Sol L	Spec Spec, Table, Group assign Thermo	Wright Richards Kriegsmann Thompson	JACS 69 (1947) JCS - (1949) ZE 64 (1960) JCS - (1953)	803 124 541 1908
$C_8H_{24}O_4Si_3$	Dimethoxyhexamethyltrisiloxane	700-3500	L	Spec, Struct	Tanaka	BCSJ 31 (1958)	762
$C_8H_{24}O_4Si_4$	Octamethylcyclotetrasiloxane	2.5-14 μ 2-16 μ 500-1700	Sol Sol L	Spec Spec Spec, Table, Group assign	Wright Young Richards	JACS 69 (1941) JACS 70 (1948) JCS - (1949)	803 3758 124
$C_8H_{24}O_7Si_3$	Trimethylpentamethoxytrisiloxane	- 2-16 μ	Sol Sol	Assign, Struct Spec, Struct, Freq	Kriegsmann Smith	ZAUA 298 (1958) SA 16 (1960)	232 87
$C_8H_{24}O_8$	Ethylene glycol tetramer	700-3500	L	Spec, Struct	Tanaka	BCSJ 31 (1958)	762
$C_8H_{24}O_{10}Si_3$	Octamethoxytrisiloxane	700-1600	L	Freq, Config	Kuroda	JPS 26 (1957)	323
$C_8H_{24}O_{12}Si_8$	Octamethyl T ₈	700-3500	L	Spec	Tanaka	BCSJ 31 (1958)	762
$C_8H_{26}O_3Si_4$	Octamethyltetrasiloxane	600-35	L	Group freq	Sprung	JACS 77 (1955)	3990
C_8D_8	Cyclooctatetraene-d ₈	- 200-3500	- L, G	IR, Freq Spec, I	Lippincott Lippincott	BCSJ 31 (1958) JCP 16 (1948) JACS 73 (1951)	67 548 3370

$C_8D_{11}NO_2S$	N-Methyltoluene-p-sulphonamide-d ₁₁	600-1700	S, Sol	Spec, Freq, Assign	Hadzi	JCS	-	(1957)	847
$C_8F_{12}O_9B_3$	Tetratetrifluoroacetyl diborate	1500-1800	S	Carbonyl freq, Assign	Duncanson	JCS	-	(1958)	3652
$C_8F_{17}N$	Perfluoro-4-isopropyl-piperidine	2-15 μ	L	Spec	Halpern	APS	11	(1957)	173
$C_8F_{17}N$	Perfluoro-4-n-propyl-piperidine	2-15 μ	L	Spec	Halpern	APS	11	(1957)	173
$C_8F_{18}O$	Di-nonafluoro-butyl ether	2-16 μ	L	Spec	Henne	JACS	74	(1952)	5420
<u>C_9 COMPOUNDS</u>									
$C_9H_2D_2O_3 \cdot H_2O$	Ninhydrin hydrate-d ₂	600-3000	S	Spec, Freq	Anderson	SA	12	(1958)	233
$C_9H_2F_{13}I$	1,1,1,6,6,7,7,7,8,8-Decafluoro-2-iodo-4-trifluoromethyl-octa-2,4-diene	-	-	Freq	Leedham	JCS	-	(1954)	1634
$C_9H_2F_{13}I$	1,1,1,2,2,7,7,7-Octafluoro-3-iodo-5-pentafluoroethyl-hepta-3,5-diene	-	-	Freq	Leedham	JCS	-	(1954)	1634
$C_9H_3N_{13}$	Hydromelonic acid	2-15 μ	S	Assign	Finkleshtein	OS	6	(1959)	33
$C_9H_4F_3NO_2$	4-Trifluoromethylisatin	1300-3500	Sol	Struct, H bond, Freq	O'Sullivan	JCS	-	(1957)	2202
$C_9H_4F_3NO_2$	7-Trifluoromethylisatin	1300-3500	Sol	Struct, H bond, Freq	O'Sullivan	JCS	-	(1957)	2202

$C_9H_4O_3 \cdot H_2O$	Ninhydrin hydrate	600-3000	S	Spec, Freq	Anderson	SA	12 (1958)	233
$C_9H_4O_5$	Tropolone- α, β -dicarboxylic acid anhydride		S	Freq	Crow	JCS	- (1952)	3705
$C_9H_4O_7$	Puberulonic acid	-	-	Freq, Struct	Johnson	JCS	- (1951)	1139
C_9H_5BrO	2-Bromoindenone	-	Sol	Analysis	Brutcher	CIL	- (1957)	1295
$C_9H_5Br_2NO$	5,7-Dibromo-8-hydroxyquinoline	3300-3400	Sol	Freq, H bond	Badger	JCS	- (1958)	3437
C_9H_5ClNO	5-Chloro-7-iodo-8-hydroxyquinoline	3300-3400	Sol	Freq, H bond	Badger	JCS	- (1958)	3437
C_9H_5ClO	2-Chloroindenone	-	Sol	Analysis	Brutcher	CIL	- (1957)	1295
$C_9H_5ClO_2$	3(p-chlorophenyl)-2-propynoic acid	2-15 μ	Sol	Spec	Ard	AC	23 (1951)	133
$C_9H_5ClO_4$	6-Chloro-3-Methoxyphthalic anhydride	-	-	Ident	Kushner	JACS	74 (1952)	3710
$C_9H_5Cl_2NO$	5,7-Dichloro-8-hydroxyquinoline	3300-3400	Sol	Freq, H bond	Badger	JCS	- (1958)	3437
$C_9H_5Cl_2N_3$	2-Phenyl-4,6-dichloro-s-triazine	2-15 μ	Sol	Assign	Reimbehussel	JACS	82 (1960)	3756
C_9H_5FNO	5-Fluoro-7-iodo-8-hydroxyquinoline	3300-3400	Sol	Freq, H bond	Badger	JCS	- (1958)	3437
$C_9H_5F_3O_3$	Benzoyl trifluoroacetate	-	-	Ident	Emmons	JACS	75 (1953)	6047
		-	-	Freq	Ferris	JACS	75 (1953)	232
		1000-1250	Sol	Freq, Ident	Bourne	JCS	- (1954)	2006
$C_9H_5F_5O$	Pentafluoroethyl phenyl ketone	650-5000	Sol	Freq	Griffin	SA	16 (1960)	1464

$C_9H_5I_2NO$	5,7-Diiodo-8-hydroxy-quinoline	3300-3400	Sol	Freq, H bond	Badger	JCS	-	(1958)	3437
$C_9H_5NO_4$	7-Carboxyisatin	-	-	Spec	Grundon	JACS	74	(1952)	2637
C_9H_6BrN	3-Bromoquinoline	1300-1700	Sol	Freq	Katritzky	JCS	-	(1960)	2942
C_9H_6BrNO	Monobromoquinoline-N-oxide	700-3000	-	Spec	Shindo	CPBT	8	(1960)	845
$C_9H_6Br_2O$	2,2-Dibromoindanone	-	Sol	Anal	Brutcher	CIL	-	(1957)	1295
$C_9H_6Br_2O_3$	ω,ω -Dibromoacetophenone-O-carboxylic acid	-	S	Freq, Taut	Grove	JCS	-	(1951)	877
C_9H_6ClN	2-Chloroquinoline	1300-1700	Sol	Freq	Katritzky	JCS	-	(1960)	2942
C_9H_6ClN	6-Chloroquinoline	1300-1700	Sol	Freq	Katritzky	JCS	-	(1960)	2942
C_9H_6ClN	7-Chloroquinoline	1300-1700	Sol	Freq	Katritzky	JCS	-	(1960)	2942
C_9H_6ClN	8-Chloroquinoline	1300-1700	Sol	Freq	Katritzky	JCS	-	(1960)	2942
C_9H_6ClNO	Monochloroquinoline-N-oxide	700-3000	-	Spec	Shindo	CPBT	8	(1960)	84
C_9H_6ClNC	p-Chlorobenzoylacetoneitrile	-	S,Sol	Freq	Chase	JCS	-	(1953)	3518
C_9H_6ClNO	5-Chloro-8-hydroxy-quinoline	3300-3400	Sol	Freq, H bond	Badger	JCS	-	(1958)	3437
C_9H_6ClNO	7-Chloro-8-hydroxy-quinoline	3300-3400	Sol	Freq, H bond	Badger	JCS	-	(1958)	3437
$C_9H_6ClNO_3$	3-p-Chlorophenyl-oxazolid-2,4-dione	650-4000	Sol	Spec	Pianka	JCS	-	(1960)	98

$C_9H_6ClNO_3$	6-Nitro-4-chloro-2H-benzopyran	-	S	Freq	Hurd	JACS	76 (1954)	5065
$C_9H_6ClN_3O_2$	5-Chloro-4-Carboxy-1-phenyl-1,2,3-triazole	900-1310	S	Assign, I	Lieber	CJC	36 (1958)	1441
$C_9H_6Cl_2O$	2,2-Dichloroindanone	-	Sol	Anal	Brutcher	CIL	- (1957)	1295
$C_9H_6Cl_2O$	2,3-Dichloroindanone	-	-	Spec	Bergmann	BSCF	- (1959)	634
$C_9H_6Cl_6O$	1,7,8,9,10,10-Hexachloro-4-oxatricyclo[5.2.1.0 ^{2,6}]8-decene	-	-	Freq	Brace	JACS	77 (1955)	4157
C_9H_6FNO	5-Fluoro-8-hydroxy-quinoline	3300-3400	Sol	Freq, H bond	Badger	JCS	- (1958)	3437
C_9H_6INO	Iodoquinoline-N-oxide	700-3000	-	Spec	Shindo	CPBT	8 (1960)	845
C_9H_6INO	5-Iodo-8-hydroxy-quinoline	3300-3400	Sol	Freq, H bond	Badger	JCS	- (1958)	3437
$C_9H_6INO_4S$	7-Iodo-8-hydroxy-quinoline-5-sulfonic acid	-	S	Nature of bonding	Norita	SK	32B (1959)	83
$C_9H_6N_2O$	8-Amino-5,6-quinolinequinone	2.5-15 μ	S	Spec	Drake	JACS	73 (1951)	544
$C_9H_6N_2O_2$	3-Nitroquinoline	1300-1700	Sol	Freq	Katritzky	JCS	- (1960)	2942
$C_9H_6N_2O_2$	4-Nitroquinoline	1300-1700	Sol	Freq	Katritzky	JCS	- (1960)	2942
$C_9H_6N_2O_2$	5-Nitroquinoline	1300-1700	Sol	Freq	Katritzky	JCS	- (1960)	2942
$C_9H_6N_2O_2$	6-Nitroquinoline	6.17-14 μ 1300-1700	S Sol	I Freq	Laville Katritzky	JCS JCS	- (1954) - (1960)	400 2942

$C_9H_6N_2O_2$	7-Nitroquinoline	6.17-14 μ 1300-1700	S Sol	I Freq	Laville Katritzky	JCS JCS	- -	(1954) (1960)	400 2942
$C_9H_6N_2O_2$	8-Nitroquinoline	1300-1700	Sol	Freq	Katritzky	JCS	-	(1960)	2942
$C_9H_6N_2O_2$	Toluene diisocyanate	- 4.5-13.5 μ	Sol Sol	Freq, Quant, Analysis	Davison Lord	JCS AC	- 29	(1953) (1957)	3712 497
$C_9H_6N_2O_3$	Nitroquinoline- N-oxide	700-3000	-	Spec	Sindo	CPBT	8	(1960)	845
$C_9H_6N_2O_3$	5-Nitro-8-hydroxy- quinoline	3300-3400	Sol	Freq, H bond	Badger	JCS	-	(1958)	3437
$C_9H_6N_2O_5$	2-p-Nitrophenyl- oxazolid-2,4-dione	650-4000	Sol	Spec	Pianka	JCS	-	(1960)	983
$C_9H_6N_3O_3S$	2-Thio-3-O-nitrophenyl- hydantoin	600-400	S	Spec, Ident	Epp	AC	29	(1957)	1283
$C_9H_6N_4O_8$	2,4-Dinitrophenylhydrazine of mesoxalic acid	5-6 μ	S	Spec	Hayashi	N	178	(1956)	40
C_9H_6O	Indenone	-	Sol	Analysis	Borutcher	CIL	-	(1957)	1295
C_9H_6O	Indone	-	-	Freq	Marvel	JACS	76	(1954)	5435
$C_9H_6O_2$	Coumarin	2-15 μ 1550-1850	- Sol	Freq, Struct Freq	Rasmussen Jones	JACS CJC	71 37	(1949) (1959)	1073 2007
$C_9H_6O_2$	3-Methylenephthalide	-	S	Freq, Taut	Grove	JCS	-	(1951)	877
$C_9H_6O_2$	Methyl 2,4,6-octatri- ynoate	-	Sol	Freq, I	Allan	JCS	-	(1955)	1874
$C_9H_6O_2$	2,4,6-Nonatriyonic acid	-	Sol	Freq, I	Allan	JCS	-	(1955)	1874

$C_9H_6O_2$	Phenylpropionic acid	-	Sol	Freq	Goulden	SA	6 (1954)	129
$C_9H_6O_3$	Coumarilic acid	650-1000 600-1700	- S	Freq Freq	O'Sullivan O'Sullivan	SA JOS	16 (1960) - (1960)	762 3278
$C_9H_6O_3$	Homophthalic acid anhydride	6 μ	S	Freq	Crow	JOS	- (1952)	3705
$C_9H_6O_3$	4-Hydroxycoumarin	2-15 μ	S, Sol	Spec, Struct	Farmer	SA	15 (1959)	870
$C_9H_6O_3 \cdot H_2O$	4-Hydroxycoumarin hydrate	2-15 μ	S, Sol	Spec, Struct	Farmer	SA	15 (1959)	870
$C_9H_6O_3$	Methyl 8-hydroxy-2,4,6- octatriynoate	-	Sol	Freq, I	Allan	JOS	- (1955)	1874
$C_9H_6O_4$	4,6-Dihydroxycoumarin	2-15 μ	S, Sol	Spec, Struct	Farmer	SA	15 (1959)	870
$C_9H_6O_4 \cdot H_2O$	4,6-Dihydroxycoumarin hydrate	2-15 μ	S, Sol	Spec, Struct	Farmer	SA	15 (1959)	870
$C_9H_6O_4$	Methyl trans-2-octen-4,6- diyn-8-oate-1-oic acid	-	Sol	Freq, I	Allan	JOS	- (1955)	1874
$C_9H_6O_5$	Phthalonic acid	-	S	Freq, Taut	Grove	JOS	- (1951)	877
$C_9H_6O_6$	Hemimellitic acid	2-15 μ	S	Spec, Freq, Assign	Gonzalez	SA	12 (1958)	17
$C_9H_6O_6$	Trimellitic acid	2-15 μ	S	Spec, Freq, Assign	Gonzalez	SA	12 (1958)	17
$C_9H_6O_6$	Trimesic acid	2-15 μ	S	Spec, Freq, Assign	Gonzalez	SA	12 (1958)	17
C_9H_7Br	1-Bromo-3-phenyl- 2-propyne	2-16 μ	L	Spec	Wotiz	JACS	72 (1950)	5055
$C_9H_7BrO_2$	α -Bromoallooinamic acid	-	Sol	Freq	Goulden	SA	6 (1954)	129

$C_9H_7BrO_3$	ω -Bromoacetophenone-O-carboxylic acid	-	S	Freq, Taut	Grove	JCS	-	(1951)	877
$C_9H_7BrO_3$	p-Bromophenacyl formate	-	-	Ident, Freq Ident	Grove Hochstein	JCS JACS	-	(1950) 77 (1955)	3350 3353
$C_9H_7BrO_4$	4-Bromo-3-methoxy-5-oxocycloheptatriene-carboxylic acid	673-1859	S	I	Johns	JCS	-	(1954)	198
$C_9H_7ClN_4$	2-Phenyl-4-amino-6-chloro-s-triazine	2-15 μ	S	Assign	Reimschuessel	JACS	82	(1960)	3756
$C_9H_7ClO_2$	4-Chloro-7-hydroxy-indanone	-	Sol	H bond	Farmer	JCS	-	(1956)	3600
$C_9H_7ClO_2S_2$	m-Chlorophenylcarboxymethyl dithioacetate	400-4000	S	Spec, Freq	Bak	ACS	12	(1958)	1451
$C_9H_7ClO_2S_2$	p-Chlorophenylcarboxymethyl dithioacetate	400-4000	S	Spec, Freq	Bak	ACS	12	(1958)	1451
$C_9H_7ClO_3$	3-Chloro-4-thiochromanone-1-dioxide	-	S	Freq	Hurd	JACS	76	(1954)	5065
$C_9H_7Cl_2NO$	3,3-Dichloro-1-methyl-oxindole	1290-4000	Sol	Struct, H bond	Kellie	JCS	-	(1956)	3809
$C_9H_7Cl_3OS$	Benzylthio trichloroacetate	2.5-16 μ	Sol	Struct, Freq	Nyquist	SA	15	(1959)	514
$C_9H_7F_3N_2O_3$	2-Nitro-3-trifluoromethylacetanilide	700-1800	L,S -	Freq Freq	Randle Randle	JCS JCS	-	(1952) (1955)	4153 1311
$C_9H_7F_3N_2O_3$	4-Nitro-2-trifluoromethylacetanilide	700-1800	L,S -	Freq Freq	Randle Randle	JCS JCS	-	(1952) (1955)	4153 1311

$C_9H_7F_3N_2O_3$	4-Nitro-3-trifluoro-methylacetanilide	700-1800	L,S	Freq Freq	Randle Randle	JCS - JCS -	(1952) (1955)	4153 1311
$C_9H_7F_3O$	m-Methyl- ω,ω,ω -trifluoroacetophenone	3-15 μ	L	Spec	Park	JACS	73 (1951)	709
$C_9H_7F_3O$	Trifluoromethyl benzyl ketone	- 650-5000	S Sol,L	Freq Freq	Nes Griffin	JACS SA	72 (1950) 16 (1960)	5409 1464
$C_9H_7F_3OS$	Benzylthio trifluoroacetate	2.5-16 μ	Sol	Struct, Freq	Nyquist	SA	15 (1959)	514
$C_9H_7F_3O_2$	Trifluoromethylbenzoylcarbinol	-	S,Sol	Freq	Nes	JACS	72 (1950)	5409
$C_9H_7F_3O_2$	1,1,1-Trifluoro-3-phenylpropene-2,3-diol	-	S,Sol	Freq	Nes	JACS	72 (1950)	5409
C_9H_7N	1-Cyano-2-phenyl-trans-ethylene	-	Sol	Freq, Spec	Potts	SA	15 (1959)	679
C_9H_7N	Isoquinoline	2.6-3.8 μ 2-14 μ 3-4 μ 700-3000	Sol L L,Sol -	Spec Spec Stretch freq Spec	Fox Freiser Tallent Shindo	JCS JACS AC CPBT	- 71 (1949) 28 (1956) 8 (1960)	318 514 953 845
C_9H_7N	Quinoline	- 2.6-3.8 μ 750-1950 - 3-4 μ 700-3000	- Sol - - L,Sol -	Freq Spec Solvent effect Spec Ident Freq Spec	Bonino Fox Gordy Barnes Entel Tallant Shindo	TFS JCS JCP IEC JACS AC CPBT	25 (1929) - (1939) 7 (1939) 15 (1943) 77 (1955) 28 (1956) 8 (1960)	876 318 93 659 611 953 845
C_9H_7NO	Benzoylacetoneitrile	-	S	Freq	Chase	JCS	- (1953)	3518
C_9H_7NO	p-Cyanoacetophenone	1697	Sol	Freq, I	Tanaka	JCP	24 (1956)	311

C ₉ H ₇ NO	ω-Cyanoacetophenone	-	Sol	I	Jones	JCS	36 (1958)	1020
C ₉ H ₇ NO	α-Formylphenylacetoni- trile	-	S	Freq	Chase	JCS	- (1953)	3518
C ₉ H ₇ NO	1-Hydroxyisoquinoline	-	S,Sol	Freq, Taut	Mason	JCS	- (1957)	4874
C ₉ H ₇ NO	4-Hydroxyisoquinoline	3650-1400	S,Sol	Freq, Taut, Assign	Mason	JCS	- (1957)	4874
C ₉ H ₇ NO	5-Hydroxyisoquinoline	-	S,Sol	Taut, Freq, Assign	Mason	JCS	- (1957)	4874
C ₉ H ₇ NO	6-Hydroxyisoquinoline	-	S,Sol	Taut, Freq, Assign	Mason	JCS	- (1957)	4874
C ₉ H ₇ NO	7-Hydroxyisoquinoline	-	S,Sol	Taut, Freq, Assign	Mason	JCS	- (1957)	4874
C ₉ H ₇ NO	8-Hydroxyisoquinoline	-	S,Sol	Taut, Freq, Assign	Mason	JCS	- (1957)	4874
C ₉ H ₇ NO	2-Hydroxyquinoline	-	S,Sol	Taut, Freq, Assign	Mason	JCS	- (1957)	4874
C ₉ H ₇ NO	3-Hydroxyquinoline	-	S,Sol	Taut, Freq, Assign	Mason	JCS	- (1957)	4874
C ₉ H ₇ NO	4-Hydroxyquinoline	-	S,Sol	Taut, Freq, Assign	Mason	JCS	- (1957)	4874
C ₉ H ₇ NO	5-Hydroxyquinoline	-	S,Sol	Taut, Freq, Assign	Mason	JCS	- (1957)	4874
C ₉ H ₇ NO	6-Hydroxyquinoline	-	S,Sol	Taut, Freq, Assign	Mason	JCS	- (1957)	4874
C ₉ H ₇ NO	7-Hydroxyquinoline	-	S,Sol	Taut, Freq, Assign	Mason	JCS	- (1957)	4874
C ₉ H ₇ NO	8-Hydroxyquinoline	6400-7000 2-11μ	Sol	Spec, Analysis	Wulf	JACS	57 (1935)	1464
		-	Sol	Spec	Phillips	JACS	71 (1949)	3984
		2-15μ	S	Spec	Charles	AC	25 (1953)	530
		8-15μ	S	Spec	Stone	JACS	76 (1954)	4997
		-	S	Assign, Spec	SA	SA	8 (1956)	1
		3300-3400	S,Sol	Taut, Freq, Assign	Mason	JCS	- (1957)	4874
		3μ	Sol	Iso, H bond, Freq, I	Badger	JCS	- (1959)	3437
		3200-3800	Sol	Freq, H bond	Flett	SA	10 (1958)	21
		1300-1700	Sol	Freq, H bond	Bellamy	TFS	55 (1959)	220
			Sol	Freq	Katritzky	JCS	- (1960)	2942

C_9H_7NO	Indole-3-aldehyde	700-4000 900-4000	S S	Spec, Freq, H bond Struct	Tanner O'Sullivan	SA JCS	9 -	(1957) (1959)	282 876
C_9H_7NO	Isoquinoline-N-oxide	700-3000	-	Spec	Shindo	CPBT	8	(1960)	845
C_9H_7NO	Quinoline-N-oxide	1450-3700 800-1600	S -	Spec, Struct Spec, Ident	Mann Clemo	JCS JCS	- -	(1949) (1950)	2816 1481
C_9H_7NO	2-Quinolone	- 1450-4000	S,Sol S,Sol	Spec Spec, Freq	Gibson Price	JCS AJC	- 12	(1955) (1959)	4340 589
C_9H_7NO	4-Quinolizone	-	-	Band study	Bockelheide	JACS	73	(1951)	3681
C_9H_7NOS	p-Acetylphenyl isothiocyanate	- 800-4000	Sol S	Freq Spec	Rao Ham	CS SA	27 16	(1958) (1960)	474 279
$C_9H_7NO_2$	p-Cyanophenyl acetate	-	Sol	Freq	Freeman	JACS	82	(1960)	2454
$C_9H_7NO_2$	p-Cyanomethyl benzoate	650-900	L,Sol	CH out of plane study	Yoshida	CPBT	8	(1960)	389
$C_9H_7NO_2$	2,3-Dihydroxyquinoline	5-7 μ	S	Spec	Grundon	JACS	74	(1952)	2637
$C_9H_7NO_2$	2,4-Dihydroxyquinoline	1400-3650	S	Spec, Assign, Taut	Mason	JCS	-	(1957)	4874
$C_9H_7NO_2$	4,8-Dihydroxyquinoline	1400-3650	S	Spec, Assign, Taut	Mason	JCS	-	(1957)	4874
$C_9H_7NO_2$	Homophthalimide	- 600-3500	S,Sol S,Sol	Freq, Taut Assign, Struct	Mason Blum	JCS SA	- 13	(1957) (1958)	4874 93
$C_9H_7NO_2$	Homopiperonyl cyanide	725-1500	S	Freq	Briggs	AC	29	(1957)	904
$C_9H_7NO_2$	4-Hydroxy-2-quinolone	1450-4000	S	Spec, Freq	Price	AJC	12	(1959)	589
$C_9H_7NO_2$	8-Hydroxyquinoline-N-oxide	800-1600	-	Spec	Clemo	JCS	-	(1950)	1481
$C_9H_7NO_2$	1-Methylisatin	1300-3500	Sol	H bond, Struct, Freq	O'Sullivan	JCS	-	(1957)	2202

$C_9H_7NO_2$	4-Methylisatin	1300-3500	Sol	H bond, Struct, Freq	O'Sullivan	JCS	-	(1957)	2202
$C_9H_7NO_2$	5-Methylisatin	1300-3500	Sol	H bond, Struct, Freq	O'Sullivan	JCS	-	(1957)	2202
$C_9H_7NO_2$	6-Methylisatin	1300-3500	Sol	H bond, Struct, Freq	O'Sullivan	JCS	-	(1957)	2202
$C_9H_7NO_2$	7-Methylisatin	1300-3500	Sol	H bond, Struct, Freq	O'Sullivan	JCS	-	(1957)	2202
$C_9H_7NO_2$	2-Methyl-3,4-benzoxa- zone	680-3600	S	Spec, Struct	Zentmjer	JOC	14	(1949)	967
$C_9H_7NO_2$	2-Methyl-4-oxocyclo- heptaoxazole	682-1626	S	Table	Johnson	JCS	-	(1955)	1841
$C_9H_7NO_2$	N-Methylphthalimide	2.5-14 μ	S	Spec Ident	Boekelheide	JACS	73	(1951)	2286
		-	-	Ident	Boekelheide	JACS	75	(1953)	2546
		-	-	Ident	Boekelheide	JACS	73	(1953)	2286
		-	-	Ident	Weinstock	JACS	73	(1953)	2546
		-	-	Ident	Godfrey	JACS	77	(1955)	3342
		1290-4000	Sol	Struct, H bond, Spec	Kellie	JCS	-	(1956)	3809
$C_9H_7NO_2$	3-Phenylisooxazol-5-one	1000-1850	S	Spec. Freq	Angyal	JCS	-	(1953)	2181
$C_9H_7NO_2S$	p-Methoxybenzoyl isothiocyanate	2000-2300	Sol	Freq	Caldow	SA	13	(1958)	212
$C_9H_7NO_3$	5-Methoxyisatin	1300-3500	Sol	Struct, H bond, Freq	O'Sullivan	JCS	-	(1957)	2202
$C_9H_7NO_3$	6-Methoxyisatin	1300-3500	Sol	Struct, H bond, Freq	O'Sullivan	JCS	-	(1957)	2202
$C_9H_7NO_3$	3-Phenyl-oxazolid-2,4- dione	650-4000	Sol	Spec	Pianka	JCS	-	(1960)	983
$C_9H_7NO_4$	3,4-Methylenedioxy- β - nitrostyrene	700-1500	S, Sol	Freq	Briggs	AC	29	(1957)	904
$C_9H_7NO_4$	6-Nitro-4-chromanone	-	Sol	Freq	Hurd	JACS	76	(1954)	5065

$C_9H_7NO_4$	m-Nitrocinnamic acid	-	Sol	Freq	Goulden	SA	6 (1954)	129
$C_9H_7NO_4$	p-Nitrocinnamic acid	1300-1600	S,Sol	Struct	Kross	JACS	78 (1956)	4225
$C_9H_7NO_4S$	p-Cyanophenyl carboxy-methyl sulfone	-	S	Freq	Momose	CPBT	6 (1958)	412
$C_9H_7NO_4S_2$	m-Nitrophenyl carboxy-methyl dithioacetate	400-4000	S	Spec, Freq	Bak	ACS	12 (1958)	1451
C_9H_7NS	1-Mercaptoisoquinoline	700-3800	S,Sol	Freq, Assign	Spinner	JCS	- (1960)	1237
C_9H_7NS	2-Mercaptoquinoline	700-3800	S,Sol	Freq, Assign	Spinner	JCS	- (1960)	1237
C_9H_7NS	4-Mercaptoquinoline	700-3800	S,Sol	Freq, Assign	Spinner	JCS	- (1960)	1237
C_9H_7NS	8-Mercaptoquinoline	700-3800	S,Sol	Freq, Assign	Spinner	JCS	- (1960)	1237
$C_9H_7N_3O_2$	1-p-Nitrophenylpyrazole	-	-	Ident	Ainsworth	JACS	76 (1954)	3172
$C_9H_7N_3O_3$	1-[5-(2,4,6-Trioxohexahydropyrimidyl)]pyridinium betaine	-	-	Ident	Taylor	JOC	20 (1955)	264
$C_9H_7N_3O_4$	2-(2,4-Dinitrophenyl)-3-methyl-2-azurine	2-12 μ	Sol	Spec, Freq, Struct	Cram	JACS	75 (1953)	33
C_9H_8	Indene	1-14 μ 3.2-3.5 μ 750-1950 2-16 μ - 700-4000 800-1725	L Sol - L Sol L Sol	Spec HC band study Freq, Spec Spec Spec Spec Freq	Stair Wall Barnes Entel Izrailevich Coates O'Sullivan	JRNB JACS IEC AC DANS SA JCS	15 (1935) 62 (1940) 15 (1943) 25 (1953) 111 (1956) 15 (1959) - (1960)	295 2225 659 1303 617 820 3278
C_9H_8	Methylphenylacetylene	500-2300	-	Freq	Murray	JCP	8 (1940)	133
$C_9H_8Cl_2$	2-(2',3'-Dichlorophenyl)-propene-1	-	Sol	Spec, Freq	Potts	SA	15 (1959)	679

$C_9H_8Cl_2O_2S$	Benzylthio dichloro- acetate	2.5-16 μ	Sol	Struct, Freq	Nyquist	SA	15 (1959)	514
$C_9H_8Cl_2O_2$	2-Chloro-1-phenylethyl chloroformate	-	L	Freq, Struct	Hales	JCS	-	(1957) 618
$C_9H_8F_3NO$	N-Benzyltrifluoro- acetamide	-	L,S	Freq	Robson	JACS	77	(1955) 498
$C_9H_8F_3NO$	m-Trifluoromethyl- acetanilide	-	-	Freq	Randle	JCS	-	(1955) 1311
$C_9H_8F_3NO$	o-Trifluoromethyl- acetanilide	-	-	Freq	Randle	JCS	-	(1955) 1311
$C_9H_8F_3NO$	p-Trifluoromethyl- acetanilide	-	-	Freq	Randle	JCS	-	(1955) 1311
$C_9H_8INO_3$	2-Iodoadrenochrome	800-3500	S	Struct	Heacock	CJC	36	(1958) 1550
$C_9H_8N_2$	2-Aminoquinoline	3 μ	Sol	Spec, Freq, Struct	Angyal	JCS	-	(1952) 2911
		1300-1700	Sol	Freq, FC, H bond	Short	JCS	-	(1952) 4584
		-	Sol	Freq	Katritzky	JCS	-	(1960) 2942
		-	-	Spec	Sheinker	DAMS	131	(1960) 1366
$C_9H_8N_2$	3-Aminoquinoline	1300-1700	Sol	Freq, FC, H bond	Short	JCS	-	(1952) 4584
		-	Sol	Freq	Katritzky	JCS	-	(1960) 2942
$C_9H_8N_2$	4-Aminoquinoline	3 μ	Sol	Spec, Freq, Struct	Angyal	JCS	-	(1952) 2911
		1300-1700	Sol	Freq, FC, H bond	Short	JCS	-	(1952) 4584
		-	Sol	Freq	Katritzky	JCS	-	(1960) 2942
$C_9H_8N_2$	5-Aminoquinoline	3300-3800	Sol	FC, Freq	Short	JCS	-	(1956) 4191
		1300-1700	Sol	Freq	Katritzky	JCS	-	(1960) 2942
$C_9H_8N_2$	6-Aminoquinoline	-	Sol	Freq, FC, H bond	Short	JCS	-	(1952) 4584
		1300-1700	Sol	Freq	Katritzky	JCS	-	(1960) 2942

$C_9H_8N_2$	7-Aminoquinoline	-	Sol	Freq, FC, H bond	Short	JCS	-	(1952)	4584
$C_9H_8N_2$	8-Aminoquinoline	-	Sol	Freq, FC, H bond	Short	JCS	-	(1952)	4584
		1300-1700	Sol	Freq	Katritzky	JCS	-	(1960)	2942
$C_9H_8N_2$	3-Aminoisoquinoline	3300-3500	Sol	Freq, FC	Short	JCS	-	(1956)	4191
$C_9H_8N_2$	4-Aminoisoquinoline	3300-3500	Sol	Freq, FC	Short	JCS	-	(1956)	4191
$C_9H_8N_2$	5-Aminoisoquinoline	3300-3500	Sol	Freq, FC	Short	JCS	-	(1956)	4191
$C_9H_8N_2$	6-Aminoisoquinoline	3300-3500	Sol	Freq, FC	Short	JCS	-	(1956)	4191
$C_9H_8N_2$	7-Aminoisoquinoline	3300-3500	Sol	Freq, FC	Short	JCS	-	(1956)	4191
$C_9H_8N_2$	8-Aminoisoquinoline	3300-3500	Sol	Freq, FC	Short	JCS	-	(1956)	4191
$C_9H_8N_2$	2-Methylquinazoline	700-3500	S	Spec, Assign	Culbertson	JACS	74	(1952)	4834
$C_9H_8N_2$	4-Methylquinazoline	700-3500	L	Spec, Assign	Culbertson	JACS	74	(1952)	4834
$C_9H_8N_2O$	p-Cyanoacetanilide	-	Sol	Freq	Freeman	JACS	82	(1960)	2454
		-	S, Sol	H bond, Struct	Mirone	AC	48	(1958)	881
$C_9H_8N_2O$	2,2'-Dipyrryl ketone	-	-	Struct, H bond	Bonino	AAN	21	(1959)	242
$C_9H_8N_2O$	Indole-3-aldoxime	-	Sol	I, Freq, Struct	Mirone	AC	49	(1959)	59
		900-4000	S, Sol	Struct	O'Sullivan	JCS	-	(1959)	876
$C_9H_8N_2O$	2-Methoxyquinazoline	700-3500	S	Spec, Assign	Culbertson	JACS	74	(1952)	4834
$C_9H_8N_2O$	4-Methoxyquinazoline	700-3500	S	Spec, Assign	Culbertson	JACS	74	(1952)	4834
$C_9H_8N_2O$	2-Methyl-4-quinazalone	700-3500	S	Spec, Assign	Culbertson	JACS	74	(1952)	4834
$C_9H_8N_2O$	3-Methyl-4-quinazalone	700-3500	S	Spec, Assign	Culbertson	JACS	74	(1952)	4834
$C_9H_8N_2O$	1-Phenyl-3-pyrazolidone	-	Sol	H bond, Freq	Kurosaki	NKZ	79	(1958)	1362

$C_9H_8N_2OS$	p-Acetamidophenyl thiocyanate	2000-2300	Sol	Freq	Caldow	SA	13 (1958)	212
$C_9H_8N_2OS$	3-Phenyl-2-thiohydantoin	15-25 μ	S	Spec, Ident	Ramachandran	AC	27 (1955)	1734
$C_9H_8N_2O_2$	N-Benzylisynone	2-15 μ	S	Spec	Fugger	JACS	77 (1955)	1843
$C_9H_8N_2O_2$	1-Methylisatin- β -oxime	650-1000	-	Freq	O'Sullivan	SA	16 (1960)	762
$C_9H_8N_2O_2$	5-Methylisatin- β -oxime	650-1000	-	Freq	O'Sullivan	SA	16 (1960)	762
$C_9H_8N_2O_2$	1-Methyl-2,4-quinazoline-dione	700-3500	S	Spec, Assign	Culbertson	JACS	74 (1952)	4834
$C_9H_8N_2O_2$	3-Methyl-2,4-quinazoline-dione	700-3500 2-16 μ	S S	Spec, Assign Spec, Freq	Culbertson Staiger	JACS JOC	74 (1952) 18 (1953)	4834 1427
$C_9H_8N_2O_3$	6-Methoxyisatin- β -oxime	650-1000	-	Freq	O'Sullivan	SA	16 (1960)	762
$C_9H_8N_2O_4$	N-(β -Aminoethyl)- chelidamic acid lactam	2-15 μ	S	Spec, Freq	Schwab	JACS	76 (1954)	1189
$C_9H_8N_2S$	2-Methylmercapto- quinoxaline	700-3800	S, Sol	Freq, Assign	Spinner	JCS	- (1960)	1237
$C_9H_8N_2S$	2-Methyl-4-mercapto- quinazoline	700-3500	S, Sol	Spec, Assign	Culbertson	JACS	74 (1952)	4834
$C_9H_8N_2S$	N-Methyl-2-thioquinoxaline	700-3800	S, Sol	Freq, Spec	Spinner	JCS	- (1960)	1237
$C_9H_8N_2S_2$	2-Phenyl-5-methyl mercapto-1,3,4- thiadiazole	-	-	Ident	Young	JACS	77 (1955)	400

$C_9H_8N_4O$	Benzoyldicyandiamide	-	-	C=N band study	Adams	JOC	17 (1952)	1162
$C_9H_8N_4O_4$	Acrolein-2,4-dinitro-phenylhydrazine	6-15 μ 2-15 μ	S S	Spec Spec, Ident	Ross Jones	AC AC	25 (1953) 28 (1956)	1288 191
$C_9H_8N_4O_6$	Pyruvic acid 2,4-dinitro-phenylhydrazine	1400-1800 1300-3400	- L,S	Ident Spec, Struct Ident	Drew Isherwood Flynn	JACS N JACS	74 (1952) 175 (1955) 75 (1953)	1852 419 5867
C_9H_8O	Acrylophenone	-	-	Ident	Fuson	JACS	77 (1955)	994
C_9H_8O	1,2-Benzocyclopent-1-en-3-one	-	Sol	Freq	Schubert	JACS	77 (1955)	4172
		-	Sol	Freq	Farmer	JCS	- (1956)	3600
		800-1725	Sol	Freq	O'Sullivan	JCS	- (1960)	3278
C_9H_8O	Cinnamaldehyde	600-4000	L	Spec, Freq	Herzert	JOC	25 (1960)	405
C_9H_8O	trans-Cinnamaldehyde	0.7-2.5 μ 0.8-2.5 μ	L L	C=O study Spec	Ellis Sappenfield	JACS PR	51 (1929) 33 (1929)	1384 37
		-	Sol	Freq, Ext coefficient	Pinchas	AC	27 (1955)	2
		2710-2730	Sol	Freq, H bond	Pinchas	AC	29 (1957)	334
		-	Sol	Freq, Spec	Potts	SA	15 (1959)	679
C_9H_8O	Methylphenoxylacetylene	2-16 μ	L	Spec	Hatch	JACS	77 (1955)	1798
C_9H_8O	Phenoxypropadiene	2-16 μ	L	Spec	Hatch	JACS	77 (1955)	1798
C_9H_8O	Phenyl propargyl ether	300-3800	S,Sol	Freq	Nyquist	SA	16 (1960)	419
C_9H_8O	3-Phenyl-2-propynol-1	2-16 μ	L	Spec	Wotiz	JACS	72 (1950)	5055
C_9H_8OS	1-Thiochroman-4-one	-	-	Struct	Kiang	JCS	- (1951)	1909
C_9H_8OS	2-Thioisochroman-4-one	-	-	Struct	Kiang	JCS	- (1951)	1909
$C_9H_8O_2$	Atropic acid	-	Sol	Freq	Goulden	SA	6 (1954)	129

$C_9H_8O_2$	Cinnamic acid	3-15 μ - 600-4000	S Sol -	Spec I, Freq Spec, Freq	Farmer Wenograd Herzert	SA JACS JOC	8 (1957) 79 (1957) 25 (1960)	374 5844 405
$C_9H_8O_2$	cis-Cinnamic acid	-	Sol	Analysis	Grovenstien	JACS	77 (1955)	3795
$C_9H_8O_2$	trans-Cinnamic acid	700-3100 700-4000	S S, l, Sol	Spec Freq, Ext Coefficient	Mann Flett	PBS JCS	A192 (1948) - (1951)	489 962
		-	Sol	Freq	Goulden	SA	6 (1954)	129
		-	S	Freq	Crombie	JCS	77 (1955)	3795
		-	Sol	Analysis	Grovestein	JACS	77 (1955)	3795
		-	Sol	Freq, Spec	Potts	SA	15 (1959)	679
$C_9H_8O_2$	Cyclooctatetraene-carboxylic acid	2-16 μ	Sol	Spec	Cope	JACS	74 (1952)	173
$C_9H_8O_2$	5- α -Furyl-2,4-pentadienal	- 1400-2000	- Sol	Quant Mech. Spec	Mulliken Blout	JCP JACS	7 (1939) 70 (1948)	364 194
$C_9H_8O_2$	7-Hydroxyindanone	-	Sol	H bond	Farmer	JCS	- (1956)	3600
$C_9H_8O_2$	Vinyl benzoate	- -	Sol Sol	Freq Freq, Spec	Davison Potts	JCS SA	- (1953) 15 (1959)	2607 679
$C_9H_8O_2S_2$	Phenyl carboxymethyl-dithioacetate	400-4000	S	Spec, Assign, Freq	Bak	ACS	12 (1958)	1451
$C_9H_8O_3$	Acetophenone-O-carboxylic acid	-	S	Freq, Taut	Grove	JCS	- (1951)	877
$C_9H_8O_3$	p-Acetoxybenzaldehyde	-	Sol	Freq	Freeman	JACS	82 (1960)	2454
$C_9H_8O_3$	Acetyl salicyldehyde	2-12 μ	Sol	Spec, Struct	O'Connor	JACS	76 (1954)	2368
$C_9H_8O_3$	Benzoyl acetic acid	-	Sol	H bond	Oki	BCSJ	33 (1960)	119

$C_9H_8O_3$	4-Carboxyphthalan	11μ	S, Sol	Spec, Assign	Allison	JCS	-	(1958)	4311
$C_9H_8O_3$	O-Coumaric acid	700-4000	S, L	Freq	Flett	JCS	-	(1951)	962
$C_9H_8O_3$	4,7-Dihydroxyindanone	-	Sol	H bond	Farmer	JCS	-	(1956)	3600
$C_9H_8O_3$	cis-Endomethylene tetra-hydrophthalic anhydride	1750-1850	Sol	Freq	Douben	JOC	24	(1959)	1595
$C_9H_8O_3$	O-Formylbenzoic acid pseudo methyl ester	-	S	Freq, Taut Freq	Grove Grove	JCS	-	(1951) (1952)	877 3345
$C_9H_8O_3$	p-Hydroxycinnamic (trans) acid	-	Sol	Freq	Goulden	SA	6	(1954)	129
$C_9H_8O_3$	4-Hydroxy-3-methyl-phthalide	$2-16\mu$	Sol	Spec not shown	Hoshstein	JACS	74	(1952)	3905
$C_9H_8O_3$	5-Hydroxy-6-methyl-phthalide	-	Sol	Freq	Duncanson	JCS	-	(1953)	3637
$C_9H_8O_3$	6-Hydroxy-5-methyl-phthalide	-	S, Sol	Freq	Duncanson	JCS	-	(1953)	3637
$C_9H_8O_3$	7-Hydroxy-3-methyl-phthalide	$2-16\mu$	Sol	Spec	Hochstein	JACS	74	(1952)	3905
$C_9H_8O_3 \cdot H_2O$	7-Hydroxy-3-methyl-phthalide hydroxide	-	Sol	Freq, Struct	Hoshstein	JACS	73	(1951)	5008
$C_9H_8O_3$	7-Hydroxy-6-methyl-phthalide	-	Sol	Freq	Duncanson	JCS	-	(1953)	3637
$C_9H_8O_3$	Methyl-o-hydroxy benzoate (Methyl salicylate)	800-1600	-	I, Ext coefficient	Katritzky	JCS	-	(1959)	3670
$C_9H_8O_3$	4-Methoxyphthalide	-	S, Sol	Freq	Duncanson	JCS	-	(1953)	1331
$C_9H_8O_3$		-	-	Ident	Blair	JCS	-	(1955)	708

$C_9H_8O_3$	7-Methoxyphthalide	-	S, Sol	Freq Ident	Duncanson Blair	JCS - (1953) 1331 JCS - (1955) 708
$C_9H_8O_3$	Methyl O-formylbenzoate normal	-	S	Freq, Taut	Grove	JCS - (1951) 877
$C_9H_8O_3$	Methyl tropone-4- carboxylate	773-1715	S	Freq	Johns	JCS - (1955) 309
$C_9H_8O_3$	Phenyl ethylene carbonate	-	Sol, S	Freq, Struct	Hales	JCS - (1957) 618
$C_9H_8O_3$	Phenylpyruvic acid	660-4000	S	Spec, Taut	Josien	BSCF - (1957) 1148
$C_9H_8O_3$	Tropolone acetate	2-16 μ 600-3400	- S, Sol	Spec, Struct Spec, H bond	Doering Kuratami	JACS 74 (1952) 5688 BCSJ 25 (1952) 250
$C_9H_8O_3S$	1-Thiochroman-4-one sulfone	- -	- -	Struct Freq	Kiang Hurd	JCS - (1951) 1909 JACS 76 (1954) 5065
$C_9H_8O_3S_2$	o-Hydroxyphenylcarboxy- methyl dithioacetate	400-4000	S	Spec, Freq	Bak	ACS 12 (1958) 1451
$C_9H_8O_3S_2$	p-Hydroxyphenylcarboxy- methyl dithioacetate	400-4000	S	Spec, Freq	Bak	ACS 12 (1958) 1451
$C_9H_8O_4$	O-Acetoxybenzoic acid	1400-2000 2-16 μ - 9.27 μ	Sol S - Sol	Spec Spec Assign Quant analysis	Parke Muller Fortune Washburn	AC 23 (1951) 953 AC 28 (1956) 37 AC 29 (1957) 1 AC 29 (1957) 1895
$C_9H_8O_4$	Acetyl benzoyl peroxide	-	Sol	Freq	Davison	JCS - (1951) 2456
$C_9H_8O_4$	Bicyclo[2,2,1]heptadiene- 2,3-dicarboxylic acid	-	-	Freq	Cristol	JACS 76 (1954) 5000
$C_9H_8O_4$	5,7-Dihydroxychromanone	-	Sol	H bond	Farmer	JCS - (1956) 3600
$C_9H_8O_4$	3,4-Dihydroxycinnamic acid	600-4000	-	Spec, Freq	Herzert	JOC 25 (1960) 405

$C_9H_8O_4$	5-Formylvanillin	600-4000	S	Spec, Freq	Herzert	JOC	25 (1960)	405
$C_9H_8O_4$	4-Hydroxy-6-Methoxycoumarone	-	Sol	H bond Spec	Farmer Duncanson	JCS	- (1956)	3600
$C_9H_8O_4$	6-Hydroxy-4-methoxycoumarone	-	Sol	Spec	Duncanson	JCS	- (1957)	3555
$C_9H_8O_4$	5-Hydroxy-tricyclo[2,2,1,0 ^{2,6}]heptane-2,3-dicarboxylic acid- γ -lactone	-	-	Freq	Cristol	JACS	76 (1954)	5000
$C_9H_8O_4$	3-Methoxycyclo-5-oxoheptatrienecarboxylic acid	669-2353	S	I	Johns	JCS	- (1954)	198
$C_9H_8O_4$	4-Methylphthalic acid	10-15 μ	S	Spec, Analysis	Nicholson	AC	31 (1959)	519
$C_9H_8O_4$	4-Methylisophthalic acid	10-15 μ	S	Spec, Analysis	Nicholson	AC	31 (1959)	519
$C_9H_8O_4$	Methylterephthalic acid	10-15 μ	S	Spec	Nicholson	AC	31 (1959)	519
$C_9H_8O_4$	Nortricyclenic acid lactone	2-15 μ	S	Spec, Ident	Winston	JACS	76 (1954)	3045
$C_9H_8O_4$	Tetracyclo[2,2,1,0 ^{2,6} ,0 ^{3,5}]heptane-2,3-dicarboxylic acid	-	-	Freq	Cristol	JACS	76 (1954)	5000
$C_9H_8O_5$	5-Carboxylvanillin	600-4000	S	Spec, Freq	Herzert	JOC	25 (1960)	405
$C_9H_8O_5$	O-Methylisostipitatic acid	662-1825	S	I	Johns	JCS	- (1954)	198
$C_9H_8O_5$	5-Formylvanillic acid	-	S	Spec, Freq	Herzert	JOC	25 (1960)	405

$C_9H_8O_5$	Myristicinic acid	700-3000	S, Sol	Freq	Bridges	AC	29 (1957)	904
$C_9H_8O_5S$	p-Formylphenyl carboxymethyl sulfone	-	S	Freq	Momose	CPIPT	6 (1958)	412
$C_9H_8O_6$	5-Carboxyvanillic acid	600-4000	S	Spec, Freq	Herzert	JOC	25 (1960)	405
C_9H_8S	Phenyl propargyl sulphide	300-3800	Sol, S	Freq	Nyquist	SA	16 (1960)	419
C_9H_9Br	3-Bromo-2-phenyl-1-propene	3.25-14.4 μ	L	I	Hatch	JACS	76 (1954)	2705
C_9H_9Br	Cinnamyl bromide	5-15 μ	L	Spec, Freq, Assign	Lora	JCS	- (1950)	1418
$C_9H_9BrClNO_2$	Ethyl 2-bromomethyl-6-chloronicotinate	-	-	Freq	Ramirez	JOC	19 (1954)	183
$C_9H_9BrN_2O_3$	3-Bromo-4-Methyl-5-nitroacetanilide	1500-1750	S, Sol	Spec, Assign	Richards	JCS	- (1947)	1248
C_9H_9BrO	2-Bromo-1-phenoxy-1-propene	3.31-14.56 μ	L	I	Hatch	JACS	77 (1955)	1798
C_9H_9BrOS	Benzylthio monobromoacetate	2.5-16 μ	Sol	Struct, Freq	Nyquist	SA	15 (1959)	514
$C_9H_9BrO_2$	Ethyl p-bromobenzoate	1700	Sol	Freq, I	Thompson	SA	9 (1957)	208
$C_9H_9BrO_4$	6-Bromo-2,3-dicarboxy-5-hydroxy-1,4-methylene-cyclohexane-3,5-lactone	-	-	Freq	Berson	JACS	76 (1954)	4975
$C_9H_9BrO_4 \cdot H_2O$	6-Bromo-2,3-dicarboxy-5-hydroxy-1,4-methylene-cyclohexane-3,5-lactone hydroxide	-	-	Freq	Berson	JACS	76 (1954)	4975

$C_9H_9BrO_5$	endo-cis-6-Bromo-2-carbo- methoxy-3-carboxy-5- hydroxy-1,4-oxocyclo- hexane-3,5-lactone	-	-	Freq	Berson	JACS	76 (1954)	4975
$C_9H_9BrO_5$	6-Bromo-2-carbomethoxy- trans-3-carboxy-5- hydroxy-1,4-oxocyclo- hexane-3,5-lactone	-	-	Freq	Berson	JACS	76 (1954)	4975
C_9H_9Cl	3-Chloro-2-phenyl-1- propene	3.25-14.35 μ L	Sol	I Freq, Spec	Hatch Potts	JACS SA	76 (1954) 15 (1959)	2705 679
$C_9H_9ClN_6$	N-o-Chlorophenyl- melamine	2-16 μ	S	Spec, Struct, Assign	Padgett	JACS	80 (1958)	803
C_9H_9ClO	cis-2(γ -Chloroallyl) phenol	2.7-3.0 μ	Sol	H bond	Baker	JACS	80 (1958)	5358
C_9H_9ClO	trans-2-(γ -Chloroallyl) phenol	2.7-3.0 μ	Sol	H bond	Baker	JACS	80 (1958)	5358
C_9H_9ClO	Ortho-3'-chloroallyl- phenol	2.7-2.95 μ	Sol	H bond	Baker	JACS	81 (1959)	4524
C_9H_9ClO	2-Chloro-3-phenoxypro- pane-1	-	Sol	Spec, Freq	Potts	SA	15 (1959)	679
C_9H_9ClO	1-Chloro-1-phenyl-2- propanone	-	-	Freq	Bodot	BSCF	- (1960)	1086
C_9H_9ClO	p-Chloropropiophenone	1700	Sol	Freq	Thompson	SA	9 (1957)	208
C_9H_9ClOS	Benzylthio monochloroacetate	2.5-16	Sol	Struct, Freq	Nyquist	SA	15 (1959)	514
$C_9H_9ClO_2$	Ethyl p-chlorobenzate	650-900	S,Sol	CH out of plane	Yoshida	CPBT	8 (1960)	389

$C_9H_9ClO_5$	3-Chloro-2-hydroxy-4,6-dimethoxybenzoic acid	-	-	Ident, Struct	Grove	JCS	-	(1952)	3958
$C_9H_9Cl_3N_2$	N-Benzyltrichloroacetamide	1000-3500	S	Assign, Struct, H bond	Grivas	CJC	37	(1959)	795
$C_9H_9Cl_3N_2$	N-m-Tolyltrichloroacetamide	1000-3500	S, Sol	Assign, Struct, H bond	Grivas	CJC	37	(1959)	795
$C_9H_9Cl_3N_2.HCl$	N-m-Tolyltrichloroacetamide hydrochloride	1350-4000	S	Struct	Grivas	CJC	37	(1959)	1260
$C_9H_9Cl_3N_2$	N-o-Tolyltrichloroacetamide	1000-3500	S, Sol	Assign, Struct, H bond	Grivas	CJC	37	(1959)	795
$C_9H_9Cl_3N_2$	N-p-Tolyltrichloroacetamide	1000-3500	S, Sol	Assign, Struct, H bond	Grivas	CJC	37	(1959)	795
$C_9H_9Cl_3O$	Trichloromethyl-p-tolylcarbinol	700-3600	Sol	Freq, H bond	Bergmann	JACS	74	(1952)	1263
$C_9H_9FO_2$	Ethyl p-fluoro benzoate	1700	Sol	Freq, I	Thompson	SA	9	(1957)	208
$C_9H_9F_3O_3S$	1,1-Di-H-perfluoroethyl p-toluenesulfonate	-	L	Freq	Tiers	JACS	75	(1953)	5978
C_9H_9N	3,4-Dihydroisoquinoline	-	-	Spec	Ban	CPBT	8	(1960)	194
C_9H_9N	2-Methylindole	2-12 μ 750-3060	Sol L	Spec Freq	Witkop Brown	JACS JCS	73 -	(1951) (1952)	713 3172
C_9H_9N	3-Methylindole	755-3065 2-10 μ 3480 -	L - Sol Sol	Freq Spec Freq Freq, I	Brown Geissman Pozefasky Russell	JCS JACS AC JCS	- 74 27 -	(1952) (1952) (1955) (1955)	3172 3916 1466 483

C_9H_9N	N-Methylindole	2900-3100	Sol	Freq	Hill	JCS - (1958)	760
C_9H_9N	3-Phenylpropionitrile	-	-	Freq	Kitson	AC 24 (1952)	334
C_9H_9N	1-(α -Pyridyl)-1,3-butadiene	-	-	Freq	Boekelheide	JACS 76 (1954)	1832
C_9H_9NO	Hydrocarbostyryl	-	-	Ident	Schener	JACS 75 (1953)	3029
C_9H_9NO	α -Hydroxy- β -cyanoethylbenzene	-	Sol	Freq	Potts	AC 27 (1955)	1027
C_9H_9NO	3-Hydroxymethylindole	-	-	Freq	Silverstein	JACS 76 (1954)	4485
C_9H_9NO	3-Keto-1,2,3,4-tetrahydroisoquinoline	3 μ	Sol	Freq	Russel	SA 8 (1956)	138
C_9H_9NO	N-Methylindoxyl	700-4000	S, Sol	Struct, H bond, Freq	Holt	JCS - (1958)	1219
C_9H_9NO	1-Methyloxindole	2-11 μ 1290-4000	Sol Sol	Spec Struct, H bond	Wenkert Kellie	JACS 75 (1953) JCS - (1956)	5514 3809
C_9H_9NO	5-Methyloxindole	1290-4000	Sol	Struct, H bond	Kellie	JCS - (1956)	3809
C_9H_9NO	6-Methoxyindole	-	-	Reference for comparison	Witkop	JACS 75 (1953)	4474
C_9H_9NO	1-Phenyl-2-azetidinone	2-10 μ	Sol	Spec	Sheehan	JACS 72 (1950)	5158
C_9H_9NOS	2-Phenylthiazolid-4-one	-	S Sol	Freq, Struct Struct	Davies Pennington	JCS - (1949) JACS 75 (1953)	2633 109
C_9H_9NOS	p-Ethoxyphenyl isothiocyanate	2000-2300	Sol	Spec, Freq	Caldow	SA 13 (1958)	212
C_9H_9NOSe	5-Methoxy-2-methylbenzoselenazole	800-1725	Sol	Freq	O'Sullivan	JCS - (1960)	3278

$C_9H_9NO_2$	p-Acetylaminobenzaldehyde	-	Sol	Freq	Freeman	JACS	82 (1960)	2454
$C_9H_9NO_2$	Methyl β -(4-pyridyl)acrylate	-	Sol	Assign	Katritzky	JCS	- (1958)	2182
$C_9H_9NO_2$	2-Phenylloxazolid-4-one	-	S	Freq	Davies	JCS	- (1949)	2633
$C_9H_9NO_3$	N-Acetoxybenzamide	-	S	Freq	Freeman	JACS	80 (1958)	5954
$C_9H_9NO_3$	Adrenochrome	1800-3500	S	Freq	Heacock	CJC	36 (1958)	1550
$C_9H_9NO_3$	Adrenolutin	1500-3500	S	Freq, Struct	Heacock	CJC	36 (1958)	1550
$C_9H_9NO_3 \cdot H_2O$	Adrenolutin hydrate	1500-3500	S	Freq, Struct	Heacock	CJC	36 (1958)	1550
$C_9H_9NO_3$	Benzamidoacetic acid	650-1740	-	Freq	Bellamy	JCS	- (1955)	4221
$C_9H_9NO_3S$	Carbothiophenylglycine	-	S	I	Asar	JPC	59 (1955)	322
$C_9H_9NO_4$	Dimethyl pyridine-3,5-dicarboxylate	-	-	Ident	Eliel	JACS	75 (1953)	4291
$C_9H_9NO_4$	Ethyl m-nitrobenzoate	2-15 μ 1700 700-1700 800-1500	- Sol Sol Sol	Freq, Struct Freq, I I Assign Assign	Rasmussen Thompson Katritzky Katritzky Katritzky	JACS SA JCS SA SA	71 (1949) 9 (1957) - (1959) 16 (1960) 16 (1960)	1073 208 2058 954 964
$C_9H_9NO_4$	Ethyl o-nitrobenzoate	2-15 μ	-	Freq, Struct	Rasmussen	JACS	71 (1949)	1073
$C_9H_9NO_4$	Ethyl p-nitrobenzoate	2-15 μ 700-1700 - 600-900	- Sol - I, Sol	Freq, Struct I Assign CH out of plane study	Rasmussen Katritzky Katritzky Yoshida	JACS JCS SA CPBF	71 (1949) - (1959) 16 (1960) 8 (1960)	1073 2051 964 389

$C_9H_9NO_4$	p-Nitrophenylpropionic acid	-	Sol	Freq	Goulden	SA	6 (1954)	129
$C_9H_9NO_5S$	p-Formylphenyl carboxymethyl sulfone oxime	-	S	Freq	Momose	CPBT	6 (1958)	412
$C_9H_9NO_6$	Carboxylated haematinic acid	3-15.5 μ	S	Spec, Ident	McDonald	JACS	- (1952)	4184
C_9H_9NS	2-Phenyl-3-thiopyrroline	6.19 μ	Sol	Freq	Meyers	JOC	24 (1959)	1233
$C_9H_9N_2O_2$	ω -Diazoo-O-methoxyacetophenone	2-11 μ	Sol	Spec	Bose	JACS	74 (1952)	4703
$C_9H_9N_3$	3-Amino-5-phenylpyrazole	3.37-13.1 μ	S	Ident, Struct	Searles	JOC	19 (1954)	928
$C_9H_9N_3O$	2-Indolecarboxylic acid hydrazide	-	-	Ident	Ainsworth	JACS	77 (1955)	1148
$C_9H_9N_3O_2$	1-Acetyl-5-methoxybenzotriazole	-	S	H bond, Freq	O'Sullivan	JCS	- (1960)	3653
$C_9H_9N_3O_2$	N-2-Cyanoethyl-p-nitroaniline	-	-	Freq	Braunholtz	JCS	- (1953)	1817
$C_9H_9N_3O_4$	N-Acetyl-p-nitrobenzamidoxime	-	-	Struct, Freq	Bergmann	JOC	18 (1953)	64
$C_9H_9N_3O_4$	2-(2,4-Dinitrophenyl)-3-methylethylenimine	2-12 μ	Sol	Spec, Freq, Struct	Cram	JACS	75 (1953)	33
$C_9H_9N_3O_6$	DNP-DL-Alanine	625-5000	S	Spec, Ident	Friedberg	CJC	37 (1959)	1469
$C_9H_9N_3O_6$	DNP-L-Alanine	625-5000	S	Spec, Ident	Friedberg	CJC	37 (1959)	1469
$C_9H_9N_3O_6$	Trimethylenetrinitrobenzene	-	-	IR data	Boer	RTC	79 (1960)	231

$C_9H_9N_3O_7$	DNP-DL-Serine	625-5000	S	Spec, Ident	Friedberg	CJC	37 (1959)	1469
$C_9H_9N_5O$	2-Phenoxy-4,6-diamino-1,3,5-triazine	2-16 μ	S	Spec, Struct	Padgett	JACS	80 (1958)	803
C_9H_{10}	Allylbenzene	-	-	Reactant in Bromination	Lora	JCS	- (1950)	1418
C_9H_{10}	Hydrindene	3.2-3.4 μ	Sol	HC band study	Wall	JACS	62 (1940)	2225
		-	-	Analysis	Heigl	IEC	19 (1947)	293
		-	Sol	Analysis	Williams	AC	24 (1952)	1911
		2-16 μ	L	Spec	Entel	AC	25 (1953)	1303
		800-1725	Sol	Freq	O'Sullivan	JCS	- (1960)	3278
C_9H_{10}	Methylcyclooctatetraene	2-16 μ	-	Spec	Cope	JACS	74 (1952)	179
C_9H_{10}	m-Methylstyrene	700-1900	L	Spec	Bryant	JCS	- (1949)	2389
		-	-	Thermo	Kilpatrick	JRNB	42 (1949)	225
		-	-	Analysis	Hadden	AC	26 (1954)	434
		8.79-12.6 μ	-	Quant, Analysis	Hadden	AC	29 (1957)	1554
C_9H_{10}	o-Methylstyrene	-	-	Thermo	Kilpatrick	JRNB	42 (1949)	225
		-	-	Analysis	Hadden	AC	26 (1954)	434
		11.6-13 μ	L	Quant, Analysis	Hadden	AC	29 (1957)	1554
		-	Sol	Freq, Spec	Potts	SA	15 (1959)	679
C_9H_{10}	p-Methylstyrene	800-1950	-	Freq, Spec	Barnes	IEC	15 (1943)	659
		400-3600	L	Spec	Barnes	JAP	16 (1945)	77
		400-3600	L	Spec	Williams	RSI	19 (1948)	135
		700-1900	L	Spec	Bryant	JCS	- (1949)	2389
		-	-	Thermo	Kilpatrick	JRNB	42 (1949)	225
		-	-	Analysis	Hadden	AC	26 (1954)	434
		8.77-12 μ	L	Quant Analysis	Hadden	AC	29 (1957)	1554
C_9H_{10}	α -Methylstyrene	-	-	Thermo	Kilpatrick	JRNB	42 (1949)	225
		-	-	Analysis, Struct	Foster	JACS	75 (1953)	2910
		9-15 μ	-	Spec	Patterson	AC	26 (1954)	823
		1.626 μ	Sol	Ext coefficient	Goddu	AC	29 (1957)	1790
		7.3 μ	L	Quant Anal	Kiley	AC	29 (1957)	1554

C_9H_{10}	β -Methylstyrene	-	-	Thermo Freq	Kilpatrick Hammond	JRNB JACS	42 (1949) 76 (1954)	225 4081
C_9H_{10}	Phenylcyclopropane	-	-	Freq Reference	Smith Hammond	JACS JACS	73 (1951) 76 (1954)	3840 4081
C_9H_{10}	2-Phenylpropene-1	-	Sol	Freq, Spec	Potts	SA	15 (1959)	679
C_9H_{10}	3-Phenylpropene-1	-	Sol	Freq, Spec	Potts	SA	15 (1959)	679
C_9H_{10}	cis-Propenylbenzene	702-3106	L	Freq	Mixer	JACS	75 (1953)	4094
C_9H_{10}	trans-Propenylbenzene	694-3106	L Sol	Freq Freq, Spec	Mixer Potts	JACS SA	75 (1953) 15 (1959)	4094 679
$C_9H_{10}BrNO$	N-(m-Bromobenzylidene) 2-aminoethanol-1	-	Sol	Freq, H bond	Bergmann	JACS	75 (1953)	68
$C_9H_{10}BrNO$	3-Bromo-4-methyl- acetanilide	1500-1750	S, Sol	Assign, Spec	Richards	JCS	- (1947)	1248
$C_9H_{10}BrNO_2S$	1-p-Bromophenyl- cysteine	2-15 μ	S	Spec, Struct	Fuson	JACS	74 (1952)	1
$C_9H_{10}BrNO_3$	Ethyl 2-methyl-5-bromo- 6-oxynicotinate	-	-	Freq	Ramirez	JOC	19 (1954)	183
$C_9H_{10}Br_2O_2$	2-Bromo-4,5-dimethoxy- benzyl bromide	1500-5000	Sol	Freq	Briggs	AC	29 (1957)	904
$C_9H_{10}Br_2O_5$	exo-cis-4,5-Dibromo-3, 6-endoxotetra- hydrophthalic acid 1-methyl ester	-	-	Ident	Berson	JACS	76 (1954)	4060
$C_9H_{10}ClNO$	N-(2-Hydroxymethyl)-2- chlorobenzalimine	2.5-15 μ	L, Sol	Spec, Struct	Daasch	JACS	72 (1950)	3673

$C_9H_{10}ClNO_2$	Ethyl 2-methyl-6-chloronicotinate	2-16 μ	Sol	Spec, Freq	Ramirez	JOC	19 (1954)	183
$C_9H_{10}ClNO_2$	Ethyl N-chlorophenylurethan	1000-3500	Sol	Spec, Assign	Katritzky	JCS	- (1960)	679
$C_9H_{10}ClNO_2S$	l-p-Chlorophenyl-cysteine	2-15 μ	S	Spec, Struct	Fuson	JACS	74 (1952)	1
$C_9H_{10}Cl_2N_2O_2$	2,6-Dichloro-p-phenylene-monoethylcarbamate monoamine	-	-	Spec	Adams	JACS	74 (1952)	3029
$C_9H_{10}FNO_2S$	l-p-Fluorophenylcysteine	2-15 μ	S	Spec, Struct	Fuson	JACS	74 (1952)	1
$C_9H_{10}F_6O_5S_2$	Diethyl dithiolhexafluoroglutarate	2-16 μ	L	Spec, Freq	Hauptschein	JACS	74 (1952)	4005
$C_9H_{10}F_6O_5S_2$	Pentamethylenedithiol bis-(trifluoroacetate)	2-16 μ	L	Spec, Freq	Hauptschein	JACS	74 (1952)	4005
$C_9H_{10}F_6O_4$	1,5-Pentanediol bis-(trifluoroacetate)	-	L	Freq	Rappaport	JACS	75 (1953)	2695
$C_9H_{10}IO_3S$	p-Formylaminomethyl-phenyl iodomethyl sulfone	-	S	Freq	Momose	CPBT	6 (1958)	412
$C_9H_{10}N_2$	Myosmine	2-15 μ 3-6.5 μ	Sol Sol	Spec Spec, Freq	Eddy Witkop	AC JACS	26 (1954) 76 (1954)	1428 5597
$C_9H_{10}N_2.HCl$	Myosmine hydrochloride	3-6.5 μ	S	Spec, Freq	Witkop	JACS	76 (1954)	5597
$C_9H_{10}N_2.2HCl$	Myosmine dihydrochloride	3-6.5 μ	S	Spec, Freq	Witkop	JACS	76 (1954)	5597
$C_9H_{10}N_2$	1-Phenyl-2-pyrazoline	-	-	Freq	Snyder	JACS	74 (1952)	3243

$C_9H_{10}NO_4$	Acetone-2,4-dinitro-phenylhydrazone	2-15 μ 6-15 μ	S S	Spec, Ident Spec	Ross Jones	AC AC	25 (1953) 28 (1956)	1288 191
$C_9H_{10}NO_4$	Propionaldehyde 2,4-dinitrophenyl- hydrazone	6-15 μ 2-15 μ	S S	Spec Spec	Ross Jones	AC AC	25 (1953) 28 (1956)	1288 191
$C_9H_{10}NO_6$	N-Phenylmelamine	2-16 μ	S	Spec, Struct, Assign	Padgett	JACS	80 (1958)	803
$C_9H_{10}NO_2$	2,4-Dimethoxy-6-N,N- dicyanomethylamino- S-triazine	2-15 μ	S	Assign	Reimschuessel	JACS	82 (1960)	3756
$C_9H_{10}O$	2-Allylphenol	2.7-3.0 μ 2.7-2.95 μ 3400-3800 - - 650-1400 650-1400	Sol Sol Sol - - Sol Sol	H bond, Freq H bond Spec, H bond Intramolecular interaction H bond, Freq Spec	Baker Baker West Oki Reeves Shrewsbury	JACS JACS JACS BCSJ CJC SA	80 (1958) 81 (1959) 81 (1959) 33 (1960) 38 (1960) 16 (1960)	5358 4524 1614 717 1249 1294
$C_9H_{10}O$	4-Allylphenol	10-15 μ -	L Sol	Spec Freq, Spec	Patterson Potts	AC SA	26 (1954) 15 (1959)	823 679
$C_9H_{10}O$	Benzyl vinyl ether	600-4000	G,Sol	Spec, Freq	Miakawa	BCSJ	29 (1956)	110
$C_9H_{10}O$	Cyclooctatetraenyl- methyl alcohol	2-16 μ	L	Spec, Freq, Assign	Cope	JACS	75 (1953)	3215
$C_9H_{10}O$	Hemellitaldehyde	-	Sol	Freq	Hunsberger	JACS	77 (1955)	2466
$C_9H_{10}O$	4-Indanol	- 15-25 μ	- Sol	Analysis Spec, Freq, I	Golumbic Friedel	JACS JACS	72 (1950) 73 (1951)	1939 2881
$C_9H_{10}O$	5-Indanol	- 15-25 μ	- Sol	Analysis Spec, Freq, I	Golumbic Friedel	JACS JACS	72 (1950) 73 (1951)	1939 2881

$C_9H_{10}O$	2-Isopropenylphenol	-	-	Intramolecular interaction	Oki	BCSJ	33 (1960)	717
$C_9H_{10}O$	o-Methylacetophenone	-	L	Freq	Schubert	JACS	77 (1955)	4172
		-	Sol	Freq, H bond, I	Forbes	CJC	35 (1957)	488
		-	Sol	Freq, I	Jones	CJC	35 (1957)	504
$C_9H_{10}O$	p-Methylacetophenone	5-7 μ	L	Freq	Soloway	JACS	73 (1951)	5000
		1688	Sol	Freq, I	Tanaka	JCP	24 (1956)	311
		-	Sol	Freq, H bond, I	Forbes	CJC	35 (1957)	488
		-	Sol	Freq, I	Jones	CJC	35 (1957)	504
		7700	Sol	I	Thompson	SA	9 (1957)	208
$C_9H_{10}O$	Methyl benzyl ketone	1700	Sol	Freq, I	Thompson	SA	9 (1957)	208
$C_9H_{10}O$	2-Methyl-2,3-dihydro-benzofuran	2-16 μ	L	Spec	Entel	JACS	73 (1951)	4152
$C_9H_{10}O$	α -Methylstyrene oxide	2-15 μ	L	Spec, Freq	Patterson	AC	26 (1954)	823
		-	Sol	Freq	Potts	AC	27 (1955)	1027
$C_9H_{10}O$	2-Phenyl-2-propen-1-ol	2.95-14.2 μ	L	I	Hatch	JACS	76 (1954)	2705
$C_9H_{10}O$	2-Phenylpropionaldehyde	-	-	Ident	Newman	JACS	76 (1954)	1840
$C_9H_{10}O$	Phenyltrimethylene oxide	2-15 μ	L, Sol	Spec, Freq, Assign	Barrow	JACS	75 (1953)	1175
$C_9H_{10}O$	2-Propenylphenol	2.7-3.0 μ	Sol	H bond	Baker	JACS	80 (1958)	5358
$C_9H_{10}O$	Propiophenone	0.7-2.5 μ	L	C=O study	Ellis	JACS	51 (1929)	1384
		500-1750	L	Assign	Thompson	JCS	- (1945)	640
		-	L	Analysis	Cram	JACS	74 (1952)	2137
		1600-1800	Sol	Freq	Fuson	JACS	76 (1954)	2526
		-	Sol	Freq	McBee	JACS	77 (1955)	83
		1700-	Sol	Freq, I	Thompson	SA	9 (1957)	208
		-	Sol	Freq, I	Morello	SA	15 (1959)	497
		700-4000	Sol	Spec, Freq	Adelfang	JACS	82 (1960)	4241

$C_9H_{10}O$	3,4-Xylaldehyde	-	Sol	Freq		Hunsberger	JACS	77 (1955)	2466
$C_9H_{10}OS$	Benzylthio acetate	2.5-16 μ	Struat, Freq			Nyquist	SA	15 (1959)	514
$C_9H_{10}OS$	Ethylthio benzoate	-	Sol	Freq		Baker	JACS	82 (1960)	1923
$C_9H_{10}OS$	Phenylthio propionate	2.5-16 μ	S	Struat, Freq		Nyquist	SA	15 (1959)	514
$C_9H_{10}O_2$	Ethylbenzoate	0.7-2.5 μ 500-1750 1711-1721	L L Sol	C-O study Assign Freq, I		Ellis Thompson Barrow	JACS JCS JCP	51 (1929) - (1945) 21 (1953)	1384 640 2008
		-	Sol	I		Hirota	BCSJ	27 (1954)	295
		650-1740	Sol	Freq		Bellamy	JCS	- (1955)	4221
		-	-	Freq		Hight	JACS	77 (1955)	4399
		625-900	-	Out of plane CH study		Margoshes	SA	7 (1955)	14
		12-15 μ	S, Sol	Freq		Kross	JACS	78 (1956)	1332
		1500-5000	Sol	Freq		Briggs	AC	29 (1957)	904
		-	-	Dielectric const		Krishna	TFS	53 (1957)	767
		-	-	Freq		Rao	CS	26 (1957)	375
		1700	Sol	Freq, I		Thompson	SA	9 (1957)	208
		11-15 μ	L	Spec		Adams	AC	30 (1958)	1322
		-	Sol	Freq		Exner	CIL	- (1958)	1174
		-	Sol	Assign		Katritzky	JCS	- (1958)	2182
		600-4000	Sol	Freq		Katritzky	JCS	- (1958)	4155
		-	Sol	Freq, I		Thompson	SA	13 (1958)	236
		-	Sol	I, Freq		Mirone	AC	49 (1959)	52
		-	Sol	Freq		Horak	TEL	3 (1959)	19
		-	Sol	I		Gutjahr	SA	16 (1960)	1209
		650-900	Sol, L	CH out of plane study		Yoshida	CPBT	8 (1960)	389
$C_9H_{10}O_2$	o-Ethylbenzoic acid	-	-	Ident		Weinstock	JACS	75 (1953)	2546
		-	-	Ident		Godfrey	JACS	77 (1955)	3342
$C_9H_{10}O_2$	Ethyl hepta-2,6-dienoate	-	-	Freq, I		Shaw	JCS	- (1954)	3217
$C_9H_{10}O_2$	(2-Hydroxycyclohexyl- idene) acetic acid lactone	1550-1850	Sol	Freq, I		Jones	CJC	37 (1959)	2007

$C_9H_{10}O_2$	Methyl o-methylbenzoate	800-1600 800-1500	- Sol	I, Ext coefficient Assign Assign	Katritzky Katritzky Katritzky	JCS SA SA	- 16 (1959) 16 (1960) 16 (1960)	3670 954 964
$C_9H_{10}O_2$	Methyl p-methylbenzoate	700-1700 800-1500	Sol Sol	Freq, Assign Assign	Katritzky Katritzky Katritzky	JCS SA SA	- 16 (1959) 16 (1960)	2051 954 964
		-	-	Assign	Katritzky	SA	16 (1960)	964
		650-900	Sol, L	CH out of plane study	Yoshida	CPBT	8 (1960)	389
$C_9H_{10}O_2$	m-Methylphenyl acetate	-	Sol	Freq	Freeman	JACS	82 (1960)	2454
$C_9H_{10}O_2$	p-Methylphenyl acetate	-	Sol	Freq	Freeman	JACS	82 (1960)	2454
$C_9H_{10}O_2$	Methyl α -phenylacetate	-	Sol	Assign	Katritzky	JCS	- (1958)	2182
		600-4000	Sol	Freq	Katritzky	JCS	- (1958)	4155
$C_9H_{10}O_2$	2,4-Nonadiynoic acid	-	Sol	Freq, I	Allan	JCS	- (1955)	1874
$C_9H_{10}O_2$	Phenyl glycidyl ether	2-15 μ 1-3.1 μ	L, Sol Sol	Spec, Freq Terminal epoxides	Patterson Goddu	AC AC	26 (1954) 30 (1958)	823 2013
$C_9H_{10}O_2$	Phenylpropionic acid	-	Sol	Freq	Goulden	SA	6 (1954)	129
$C_9H_{10}O_2$	Phenyl propionate	-	Sol	Freq, I	Thompson	SA	13 (1958)	236
$C_9H_{10}O_2$	5,6,7,8-Tetrahydro- coumarin	5.82-14.05 μ	S	I	Dreiding	JACS	76 (1954)	6388
$C_9H_{10}O_2$	2,3,5-Trimethyl-p-benzo- quinone	5-15 μ -	Sol Sol	Effect of substitution Assign	Yates Flaig	JACS A	78 (1956) 626 (1959)	650 215
$C_9H_{10}O_2$	2,5,6-Trimethyl-p- benzoquinone	-	Sol	Assign	Flaig	A	626 (1959)	215
$C_9H_{10}O_2S$	Ethyl β -(2'-thienyl) acrylate	800-2000 800-1500	L Sol	I Assign Assign	Katritzky Katritzky Katritzky	JCS SA SA	- 16 (1959) 16 (1960)	3500 954 964
$C_9H_{10}O_2S$	Phenyl allyl sulfone	1000-1500	Sol	Spec	Schrieber	AC	21 (1949)	1168

$C_9H_{10}O_3$	Acetovanillone	- - 600-4000	Sol Sol S	Freq Freq Spec, Freq	Glennie Smith Herzert	JACS JCS JOC	77 - 25	(1955) (1955) (1960)	2409 2347 405
$C_9H_{10}O_3$	2,3-Dimethyl-5-methoxy- 1,4-benzoquinone	5-15 μ	Sol	Freq	Yates	JACS	78	(1956)	650
$C_9H_{10}O_3$	Ethyl β -(2'-furyl)- acrylate	800-1200 800-1500 -	Sol Sol -	Freq, Assign Assign Assign	Katritzky Katritzky Katritzky	JCS SA SA	- 16 16	(1959) (1960) (1960)	657 954 964
$C_9H_{10}O_3$	Ethyl p-hydroxybenzoate	3 μ 3945.5 - 3200-3800 650-900	Sol Sol Sol Sol L, Sol	Freq Freq Freq Freq Freq	Ingraham Baker Stone Putnam Yoshida	JACS JPC SA JCS CPBT	74 62 10 - 8	(1952) (1958) (1958) (1960) (1960)	2297 744 17 5100 389
$C_9H_{10}O_3$	Ethyl o-hydroxybenzoate	800-1500	Sol	Assign	Katritzky	SA	16	(1960)	954
$C_9H_{10}O_3$	Ethyl phenyl carbonate	- -	Sol, L Sol	Freq, Struct Freq	Hales Baker	JCS JACS	- 82	(1957) (1960)	618 1923
$C_9H_{10}O_3$	Ethyl salicylate	1-2.5 μ 800-1600 -	L - -	Spec I Assign	Smith Katritzky Katritzky	JACS JCS SA	48 - 16	(1926) (1959) (1960)	1512 3670 964
$C_9H_{10}O_3$	6-Ethylsalicylic acid	5-16 μ	S	Freq	Pasternack	JACS	74	(1952)	1928
$C_9H_{10}O_3$	2-Hydroxy-3,5,6-trimethyl -p-benzoquinone	-	Sol	Assign	Flaig	A	626	(1959)	215
$C_9H_{10}O_3$	4-Methoxycyclohepta- trienecarboxylic acid	673-2631	S	Freq	Bartels	JCS	-	(1952)	4461
$C_9H_{10}O_3$	2-Methoxy-3,5-dimethyl- p-benzoquinone	-	Sol	Assign	Flaig	A	626	(1959)	215
$C_9H_{10}O_3$	2-Methoxy-3,6-dimethyl p-benzoquinone	-	Sol	Assign	Flaig	A	626	(1959)	215

$C_9H_{10}O_3$	2-Methoxy-5,6-dimethyl- p-benzoquinone	5-15 μ -	S,Sol Sol	Substitution effect Assign	Yates Flaig	JACS A	78 (1956) 626 (1959)	650 215
$C_9H_{10}O_3$	4-Methoxy-2-hydroxy- acetophenone	1550-4000	S	Freq	Hergert	JACS	75 (1953)	1622
$C_9H_{10}O_3$	m-Methoxyphenyl acetate	-	Sol	Freq	Freeman	JACS	82 (1960)	2454
$C_9H_{10}O_3$	p-Methoxyphenyl acetate	-	Sol	Freq	Freeman	JACS	82 (1960)	2454
$C_9H_{10}O_3$	o-Methyl-L-(+)-mandelic acid	8-15 μ	S	Spec, Ident	Bonner	JACS	73 (1951)	3126
$C_9H_{10}O_3$	Methyl p-methoxybenzoate	1500-5000 650-900	Sol L,Sol	Freq C-H out of plane study	Briggs Yoshida	AC CPBT	29 (1957) 8 (1960)	904 389
$C_9H_{10}O_3$	p-Methylphenoxyacetic acid	-	Sol	H bond	OkI	BCSJ	33 (1960)	119
$C_9H_{10}O_3$	α -Phenoxypropionic acid	-	Sol	Freq	Goulden	SA	6 (1954)	129
$C_9H_{10}O_3$	β -Phenoxypropionic acid	-	Sol Sol	Freq H bond	Goulden OkI	SA BCSJ	6 (1954) 33 (1960)	129 119
$C_9H_{10}O_3$	Vertraldehyde	2-15 μ 600-4000	S,Sol S	Freq Spec, Freq	Briggs Herzert	AC JOC	29 (1957) 25 (1960)	904 904
$C_9H_{10}O_4$	2,3-Dicarboxy-5-hydroxy- 1,4-methylenecyclo- hexane-3,5-lactone	-	-	Freq	Berson	JACS	76 (1954)	4975
$C_9H_{10}O_4$	2,3-Dimethoxybenzoic acid	-	Sol	Freq	Edward	JOC	20 (1955)	847
$C_9H_{10}O_4$	2,4-Dimethoxybenzoic acid	-	-	Ident	Barnes	JACS	77 (1955)	3259
$C_9H_{10}O_4$	3,4-Dimethoxybenzoic acid	-	-	Ident	Keepchan	JACS	75 (1953)	1025
		-	-	Reference	Barnes	JACS	77 (1955)	3259

$C_9H_{10}O_4$	3,5-Dimethoxybenzoic acid	-	-	Reference	Briggs Goulden Herzert	AC SA JOC	29 (1957) 6 (1954) 25 (1960)	904 129 405
$C_9H_{10}O_4$	3,4-Dimethoxy-2,5-toluquinone	-	-	Freq	Vischer	JCS	- (1953)	815
$C_9H_{10}O_4$	6-Hydroxy-2,4-dimethoxy-tropone	659-2924	S	Table	Johns	JCS	- (1954)	4605
$C_9H_{10}O_4$	p-Methoxyphenoxycetic acid	-	Sol	H bond	OkI	BCSJ	33 (1960)	119
$C_9H_{10}O_4$	Methyl vanillate	600-4000	S	Spec, Freq	Herzert	JOC	25 (1960)	405
$C_9H_{10}O_4$	Syringaldehyde	600-4000	S	Spec, Freq	Herzert	JOC	25 (1960)	405
$C_9H_{10}O_4S$	p-Methylphenyl carboxymethyl sulfone	-	S	Freq	Momose	CPBT	6 (1958)	412
$C_9H_{10}O_5$	4-Keto-3,6-Methylenehexahydro-trans-phthalic acid	-	-	Freq	Kwart	JACS	76 (1954)	4078
$C_9H_{10}O_6$	2-Hydroxymethyl-5-hydroxy-6-(α -hydroxypropionyl)-4-pyrone	-	-	Freq	Woods	JACS	77 (1955)	3161
$C_9H_{10}S$	Phenyl allyl sulfide	1000-1500 1575-650	Sol -	Spec Spec	Schreiber Tarbell	AC JACS	21 (1949) 74 (1952)	1168 48
$C_9H_{10}S$	Propenyl phenyl sulfide	1575-650	-	Spec	Tarbell	JACS	74 (1952)	48
$C_9H_{11}D$	Mesitylene-2d ₄	500-650	Sol	Freq, I	Tiers	JCP	20 (1952)	761

$C_9H_{11}Br$	γ -Phenylpropyl bromide	13.5-18.5 μ	L	Spec	Mortimer	JACS	69 (1947)	822
$C_9H_{11}BrO_3$	2-Bromo-4,5-dimethoxybenzyl alcohol	1500-5000	Sol	Freq	Briggs	AC	29 (1957)	904
$C_9H_{11}Cl$	m-Chloroisopropylbenzene	-	-	Ident	Pines	JACS	77 (1955)	343
$C_9H_{11}Cl$	o-Chloroisopropylbenzene	-	-	Ident	Pines	JACS	77 (1955)	343
$C_9H_{11}Cl$	p-Chloroisopropylbenzene	-	-	Ident	Pines	JACS	77 (1955)	343
$C_9H_{11}Cl$	α -Chloroisopropylbenzene	-	Sol	Freq	Potts	AC	27 (1955)	1027
$C_9H_{11}Cl_3OSi$	Trichlorosilylpropyl phenyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_9H_{11}N$	N-Ethylbenzalamine	2.5-15 μ	L,Sol	Spec, Struct	Daasch	JACS	72 (1950)	3673
$C_9H_{11}N$	o-Methylbenzylidene-methylamine	-	-	Spec	Ban	CPRF	8 (1960)	194
$C_9H_{11}N$	1,2,3,4-Tetrahydroquinoline	600-4000	L	Spec	Heacock	CJC	34 (1956)	1782
$C_9H_{11}N.HCl$	1,2,3,4-Tetrahydroquinoline hydrochloride	600-4000	S	Spec, Freq	Heacock	CJC	34 (1956)	1782
$C_9H_{11}NO$	N-(o-Tolyl)acetamide	500-1750	S,Sol	Spec, Assign	Richards	JCS	- (1947)	1248
$C_9H_{11}NO$	N-(p-Tolyl)acetamide	1500-1750 3 μ	S,Sol Sol Sol	Spec, Assign Freq Freq	Richards Russell Freeman	JCS SA JACS	- (1947) 8 (1956) 82 (1960)	1248 138 2454
$C_9H_{11}NO$	p-Aminopropiophenone	1700	Sol	Freq, I	Thompson	SA	9 (1957)	208
$C_9H_{11}NO$	p-Dimethylaminobenzaldehyde	700-1000	S,Sol	Out of plane CH deformation	Bellamy	JCS	- (1955)	2818
		-	Sol	Freq	Pinchas	AC	27 (1955)	2

$C_9H_{11}NO$	N,N-Dimethylbenzamide	650-1740 - - 51-59 μ	Sol Sol Sol Sol	Freq Freq Freq I	Bellamy Exner Horak Schulback	JCS - CIL - TEL 3 JCP 64	(1955) 4221 (1958) 1174 (1959) 19 (1960) 1956
$C_9H_{11}NO$	N-(2-hydroxyethyl)-benzalamine	2.5-15 μ	L,Sol	Spec, Stru	Daasch	JACS	72 (1950) 3673
$C_9H_{11}NO$	N,p-Dimethylbenzamide	1600-3500	Sol	Freq	Thompson	SA	13 (1958) 236
$C_9H_{11}NO$	N-Methylphenylacetamide	1750-3600 2-16 μ	S,Sol Sol	Spec, Assign Spec, Stru	Richards Trenner	JCS AC	- (1947) 1248 22 (1950) 405
$C_9H_{11}NO$	N-Methylacetanilide	1500-1750 2800-3000 600-4000 -	Sol S,L Sol Sol	Spec, Assign Freq Freq Assign, I, Stru	Richards Braunholtz Katritzky Katritzky	JCS JCS JCS JCS	- (1957) 1248 - (1958) 2780 - (1958) 4155 - (1959) 2067
$C_9H_{11}NO$	m-Methylacetanilide	700-4000 1600-1725 -	Sol Sol Sol	Assign, Freq Freq Freq	Holt Thompson Freeman	JCS SA JACS	- (1958) 1217 13 (1958) 236 82 (1960) 2454
$C_9H_{11}NO$	Nitrosomesitylene	800-1600 533-1239 -	S,Sol S,Sol -	Assign, Spec Assign Freq	Glusker Nakamoto Lutke	SA JACS ZE	6 (1954) 434 78 (1956) 1113 61 (1957) 976
$C_9H_{11}NO$	Phenylacetoxime	2-16 μ	S	Spec, Ident	Gilsdorf	JACS	74 (1952) 1837
$C_9H_{11}NO_2$	α -Amino- β -phenylpropionic acid	- 600-4000	S S	Freq Ident	Potts Epp	AC AC	27 (1955) 1027 29 (1957) 1283
$C_9H_{11}NO_2$	N-p-anisylacetamide	3 μ	Sol	Freq	Russell	SA	8 (1956) 138
$C_9H_{11}NO_2$	Bicyclo[2,2,1]-heptane-2,3-dicarboximide	1600-3500	Sol	Freq	Hall	JACS	80 (1958) 6428
$C_9H_{11}NO_2$	p-N-Dimethylamino-benzoic acid	-	Sol	Freq	Goulden	SA	6 (1954) 129

$C_9H_{11}NO_2$	Ethyl p-aminobenzoate	1700	Sol	Freq, I	Thompson	SA	9 (1957)	208
		700-1700	Sol	Freq, Assign, I	Katritzky	JCS	- (1959)	2051
		-	-	Freq, Assign, Struot	Katritzky	JCS	- (1959)	3674
		800-1500	Sol	Assign	Katritzky	SA	16 (1960)	954
		-	-	Assign	Katritzky	SA	16 (1960)	964
		650-900	L,Sol	CH out of plane study	Yoshida	CPBT	8 (1960)	389
$C_9H_{11}NO_2$	Ethyl carbanilate	2-15/ μ	Sol	Spec, Freq	Priestera	AC	25 (1953)	844
		-	Sol	Freq, I	Russell	JCS	- (1955)	483
		2.5-7/ μ	S,Sol	Freq, Assign	Barr	JCS	- (1956)	3428
		3/ μ	Sol	Freq	Russell	SA	8 (1956)	138
		600-4000	Sol	Freq	Katritzky	JCS	- (1958)	4155
		1000-3500	Sol	Spec, Assign, I	Katritzky	JCS	- (1960)	676
$C_9H_{11}NO_2$	Ethyl α -(3-pyridyl) acetate	-	Sol	Assign	Katritzky	JCS	- (1958)	2182
		600-3000	Sol	Assign	Katritzky	JCS	- (1958)	3165
$C_9H_{11}NO_2$	Ethyl α -(4-pyridyl) acetate	-	Sol	Assign	Katritzky	JCS	- (1958)	2182
$C_9H_{11}NO_2$	N-(o-Hydroxybenzylidene)-2-aminoethanol-1	2-15/ μ	L,Sol	Spec, Struot	Daasch	JACS	72 (1950)	3673
		-	S,Sol	Freq, H bond	Bergmann	JACS	75 (1953)	68
$C_9H_{11}NO_2$	N-(2-Hydroxyethyl)-4-hydroxybenzylamine	2.8-15/ μ	S	Spec, Struot	Daasch	JACS	72 (1950)	3673
$C_9H_{11}NO_2$	Isopropyl pyridine-3-carboxylate	600-3000	Sol	Assign	Katritzky	JCS	- (1958)	3165
		800-1500	Sol	Assign	Katritzky	SA	16 (1960)	954
		-	-	Assign	Katritzky	SA	16 (1960)	964
$C_9H_{11}NO_2$	p-Methoxyacetanilide	1500-1750	S,Sol	Spec, Assign	Richards	JCS	- (1947)	1248
		1600-1725	Sol	Freq	Thompson	SA	13 (1958)	236
		-	Sol	Freq	Freeman	JACS	82 (1960)	2454
$C_9H_{11}NO_2$	5-Methoxyacetanilide	700-4000	Sol	Assign, Freq	Holt	JCS	- (1958)	1217
$C_9H_{11}NO_2$	6-Methoxyacetanilide	700-4000	Sol	Freq, Assign	Holt	JCS	- (1958)	1217

$C_9H_{11}NO_2$	Methyl N-methyl-anthranilate	2-15 μ 600-4000	- L	Freq, Struct Spec	Rasmussen Heacock	JACS CJC	71 (1949) 34 (1956)	1073 1782
$C_9H_{11}NO_2 \cdot HCl$	Methyl N-methyl-anthranilate hydrochloride	600-4000	S	Spec, Freq	Heacock	CJC	34 (1949)	1782
$C_9H_{11}NO_2$	Methyl β -(4-pyridyl)- propionate	-	Sol	Assign	Katritzky	JCS	- (1958)	2182
$C_9H_{11}NO_2$	L-Phenylalanine	909-1538	Sol	Spec	Parker	SA	16 (1960)	910
$C_9H_{11}NO_2$	n-Propyl pyridine-3- carboxylate	600-3000 800-1500 -	Sol Sol -	Assign Assign Assign	Katritzky Katritzky Katritzky	JCS SA SA	- (1958) 16 (1960) 16 (1960)	3165 954 964
$C_9H_{11}NO_2$	Salicyldimethylamide	3 μ	Sol	Freq, H bond	Flett	SA	10 (1958)	21
$C_9H_{11}NO_2S$	1-Hydroxybenzylmercapto- acetamide	-	S	Freq	Pennington	JACS	75 (1953)	109
$C_9H_{11}NO_2S$	N-Methyl-N-vinylbenzene- sulfonamide	-	-	Spec, Ident, Freq	Cairns	JOC	20 (1955)	627
$C_9H_{11}NO_2S$	L-Phenylcysteine	2-15 μ	S	Spec, Struct	Fuson	JACS	74 (1952)	1
$C_9H_{11}NO_3$	3-Carbethoxymethyl- pyridine-1-oxide	- 800-3000	Sol Sol	Assign Spec, Freq, I	Katritzky Katritzky	JCS JCS	- (1958) - (1959)	2182 3680
$C_9H_{11}NO_3$	Ethyl 2-Methyl-6- oxynicotinate	2-16 μ	Sol	Spec, I	Ramirez	JOC	19 (1954)	183
$C_9H_{11}NO_3$	Isopropyl 3-(pyridine- 1-oxide)carboxylate	800-3000	Sol	Spec, Freq, I	Katritzky	JCS	- (1959)	3680
$C_9H_{11}NO_3$	erythro- β -Phenylserine	2-16 μ	S	Spec, Config, Freq	Bolhofer	JACS	76 (1954)	1322
$C_9H_{11}NO_3$	threo- β -Phenylserine	2-16 μ	S	Spec, Config	Bolhofer	JACS	76 (1954)	1322

$C_9H_{11}NO_3$ 2-Propyl 3-pyridine-1-oxide carboxylate 800-1500 800-1800 Sol Assign Freq, I 16 (1960) 354 Katritzky 1959

$C_9H_{11}NO_3$	m-Propyl 3-pyridine-1-oxide carboxylate	800-1500 800-3000	Sol Sol -	Assign Speco, Freq, I Assign	Katritzky Katritzky Katritzky	SA JCS SA	16 (1960) - (1959) 16 (1960)	954 3680 964
$C_9H_{11}NO_3$	1-Tyrosine	600-4000	S	Ident	Epp	AC	29 (1957)	1283
$C_9H_{11}NO_3$	Tyrosine (L, DL)	700-1500	S	Modes of composition of D and L molecules	Taubel	BCSJ	32 (1959)	726
$C_9H_{11}NO_3S$	p-Acetylamino phenyl methyl sulfone	-	S	Freq	Momose	CPBT	6 (1958)	412
$C_9H_{11}NO_4$	3-Carboethoxy-5-methyl-2-pyrrolecarboxylic acid	-	-	Ident	Jones	JACS	77 (1955)	4069
$C_9H_{11}NO_4$	DL-3,3-Dimethyl-2,5-dioxo-4-hydroxypyrrolidine-4-propionic acid lactone	-	-	Freq	Kuehl	JACS	77 (1955)	251
$C_9H_{11}NO_4$	erythro- β -m-Hydroxy-phenylserine	2-16 μ	S	Speco, Config, Freq	Bolhofer	JACS	76 (1954)	1322
$C_9H_{11}NO_4$	threo- β -m-Hydroxyphenylserine	2-16 μ	S	Speco, Config	Bolhofer	JACS	76 (1954)	1322
$C_9H_{11}NO_4$	erythro- β -p-Hydroxy-phenylserine	2-16 μ	S	Spec, Config, Freq	Bolhofer	JACS	76 (1954)	1322
$C_9H_{11}NO_4$	threo- β -p-Hydroxyphenylserine	2-16 μ	S	Spec, Config	Bolhofer	JACS	76 (1954)	1322
$C_9H_{11}NO_4S$	p-Aminomethylphenyl carboxymethyl sulfone	-	S	Freq	Momose	CPBT	6 (1958)	412
$C_9H_{11}NO_5$	erythro- β -3,4-Dihydroxy-phenylserine	2-16 μ	S	Speco, Config, Freq	Bolhofer	JACS	76 (1954)	1322

$C_9H_{11}NO_5$	threo- β -3,4-Dihydroxy-phenylserine	2-16 μ	S	Spec, Config	Bolhofer	JACS	76 (1954)	1322
$C_9H_{11}NS$	N- α -Methylthiobenzylidenemethylamine	-	Sol	Freq	Goulden	JCS	- (1953)	997
$C_9H_{11}N_2$	Normicotine	2-15 μ 3-4 μ	L,Sol L,Sol	Spec Freq	Eddy Tallent	AC AC	26 (1954) 28 (1956)	1428 953
$C_9H_{11}N_2$	2-(3-Pyridyl)pyrroline	6.15 μ	Sol	Freq	Meyers	JOC	24 (1959)	1233
$C_9H_{11}N_3O$	Acetophenone semi-carbazone	700-3500	S	Ident, Assign	Davison	JCS	- (1955)	3389
$C_9H_{11}N_3O_2$	1-o-Carboxyphenyl-3,3-dimethyltriazene	600-1800	S	Spec, Assign	LeFevre	AJC	6 (1953)	341
$C_9H_{11}N_3O_3$	2-Hydroxy-3-methoxybenzaldehyde semi-carbazone	700-3500	S	Ident, Assign	Davison	JCS	- (1955)	3389
$C_9H_{11}N_5$	1-Ethyl-5-phenylamino-tetrazole	6-14 μ	S	Spec	Finnegan	JACS	77 (1955)	4420
$C_9H_{11}N_5$	1-Methyl-5-(2-tolyl)aminotetrazole	6-14 μ	S	Spec	Finnegan	JACS	77 (1955)	4420
$C_9H_{11}N_5$	1-Phenyl-5-ethylamino-tetrazole	6-14 μ	S	Spec	Finnegan	JACS	77 (1955)	4420
$C_9H_{11}N_5$	1-(2-Tolyl)-5-Methylaminotetrazole	6-14 μ	S	Spec	Finnegan	JACS	77 (1955)	4420
$C_9H_{11}N_5O$	2-Amino-3,6,7-trimethyl-4(3H)pteridinone	684-3405	S	Freq	Roth	JACS	73 (1951)	2864
$C_9H_{11}N_5O$	2-Methylamino-6,7-dimethyl-4(3H)-pteridinone	684-3405	S	Freq	Roth	JACS	73 (1951)	2864

$C_9H_{11}N_5O_3$	Biopterin	823-3650	S	Struot	Paterson	JACS	77 (1955)	3167
$C_9H_{11}N_7$	2-Phenyl-4,6-dihydrazine -s-triazine	2-15 μ	S	Assign	Reimschuessel	JACS	82 (1960)	3756
$C_9H_{11}O_3$	n-Propyl-o-phenylene borate	6-14 μ	S, L	Assign, Struot	Blau	JCS	- (1960)	380
$C_9H_{11}O_5$	Tetrahydrofurfuryl fumarate	2-15 μ	L	Assign	Walton	JACS	79 (1957)	3985
C_9H_{12}	2,3-Dimethylenebicyclo [2.2.1] heptane	720-2810	-	Freq	Bailey	JACS	77 (1957)	1606
C_9H_{12}	Isopropylbenzene	2850-3100 5400-8900 1050-1750 2-15 μ 3.4 μ - - - 9-15 μ - - - 1020 758 2-15 μ 900-1030	G Sol - L Sol - - Sol L L - Sol Sol Sol L Sol	Wave number difference Spec, Assign Spec, Freq Spec, Struot Analysis Analysis Analysis Freq, I Freq, Struot Spec Analysis Ident Freq I Freq, I Spec Freq	Meyers Rose Barnes Shreve Simard Pines Williams Martin O'Connor Patterson Searles Pines Potts Randle Lelau Hawkes Putnam	JOSA JRNB IEC AC AC JACS AC AC JACS AC JACS JACS AC TFS SA SA JCS	15 (1927) 19 (1937) 15 (1943) 23 (1951) 23 (1951) 74 (1952) 24 (1952) 26 (1954) 76 (1954) 26 (1954) 76 (1954) 77 (1955) 27 (1955) 52 (1956) 14 (1959) 16 (1960) - (1960)	257 143 659 282 1384 4872 1911 1886 2368 823 2313 343 1027 9 181 633 2934
C_9H_{12}	1-Methyl-2-ethylbenzene	- 8000-9000 22-39 μ - - -	- Sol L - Sol -	Analysis Analysis Freq Analysis Analysis Absorption	Heigl Hibbard Plyler Pines Williams Bomstein	IEC AC JCP JACS AC AC	19 (1947) 21 (1949) 17 (1949) 74 (1952) 24 (1952) 25 (1953)	293 486 218 4872 1911 512

C ₉ H ₁₂	1,6-Spiro [4.4] nonadiene	1020	Sol	I		Randle	TFS	52 (1956)	9
		15-35/l	S	Spec, Struct		Bentley	SA	15 (1959)	165
		900-1030	Sol	Freq		Puttnam	JCS	- (1960)	2934
		-	-	Freq		Cram	JACS	77 (1955)	3576
		1.1-1.8/l	Sol	Spec		Liddell	JRNB	11 (1933)	599
		1.1-1.8/l	Sol	Spec		Mair	JRNB	11 (1933)	665
		-	-	Thermo		Kassel	JCP	4 (1936)	276
		1100-1800	-	Spec		Barnes	IEC	15 (1943)	659
		-	-	Analysis		Heigl	IEC	19 (1947)	293
		9-14/l	Sol	Freq, I		Cole	TFS	46 (1950)	103
C ₉ H ₁₂	1,2,3-Trimethylbenzene	700-2020	-	Spec		Cannon	SA	4 (1951)	373
		-	-	Analysis		McCauley	JACS	73 (1951)	2013
		-	-	Analysis		Hastings	AC	24 (1952)	612
		5500-6300	L	Spec, Freq, I		Lauer	APS	6 (1952)	29
		-	-	Analysis		Pines	JACS	74 (1952)	4872
		-	Sol	Analysis		Williams	AC	24 (1952)	191
		-	-	Freq		Pines	JACS	75 (1953)	6226
		-	L	Ident		Pines	JACS	77 (1955)	4370
		900-1050	Sol	Vibrations study		Randle	JCS	- (1955)	3497
		1650-2000	-	Freq, Assign		Whiffen	SA	7 (1955)	253
C ₉ H ₁₂	1,2,4-Trimethylbenzene	-	-	Freq		Podall	AC	29 (1957)	1423
		15-35/l	S	Spec, Struct		Bentley	SA	15 (1959)	165
		764	Sol	Freq, I		LaLeu	SA	14 (1959)	181
		1.1-1.8/l	Sol	Spec		Liddle	JRNB	11 (1933)	599
		1.1-1.8/l	Sol	Spec		Mair	JRNB	11 (1933)	665
		-	-	Thermo		Kassel	JCP	4 (1936)	276
		1150-1800	-	Spec		Barnes	IEC	15 (1943)	659
		-	-	Analysis		Heigl	IEC	19 (1947)	293
		8000-9000	Sol	Analysis		Hibbard	AC	21 (1949)	486
		9-14/l	Sol	Freq, I		Cole	TFS	46 (1950)	103
C ₉ H ₁₂	1,2,4-Trimethylbenzene	750-2040	-	Spec		Cannon	SA	4 (1951)	373
		-	-	Analysis		McCauley	JACS	73 (1951)	2013
		-	-	Ident		Clark	JACS	74 (1952)	1030
		-	-	Analysis		Hastings	AC	24 (1952)	612
		550-6300	L	Spec, I, Freq		Lauer	APS	6 (1952)	29

C_9H_{12}	1,3,5-Trimethylbenzene	-	-	Analysis	Pines	JACS	74	(1952)	4872
		-	Sol	Analysis	Williams	AC	24	(1952)	1911
		-	-	Freq	Pines	JACS	75	(1953)	6226
		-	-	Freq	Martin	AC	26	(1954)	1886
		-	L	Ident	Pines	JACS	77	(1955)	4370
		900-1050	Sol	Vibrations study	Randle	JCS	-	(1955)	3497
		1650-2000	-	Freq, Assign	Whiffen	SA	7	(1955)	253
		-	-	Freq	Podall	AC	29	(1957)	1423
		15-35 μ	S	Spec, Struct	Bentley	SA	15	(1959)	165
		900-1030	Sol	Freq	Putnam	JCS	-	(1960)	2934
		-	L	Freq	Ellis	JOSA	8	(1924)	1
		0-2.5 μ	L	Spec	Ellis	PR	23	(1924)	48
		0.5-2.8 μ	L	Spec	Ellis	PR	27	(1926)	298
		-	L	Freq	Barnes	JACS	49	(1927)	2034
		1.1-1.2 μ	L	Band shift study	Barnes	JACS	51	(1929)	1750
		0-2.4 μ	L	Spec	Lecomte	TFS	25	(1929)	864
		1.1-1.8 μ	Sol	Spec	Liddel	JRNB	11	(1933)	559
		1.1-1.8 μ	Sol	Spec	Mair	JRNB	11	(1933)	665
		-	-	Thermo	Kassel	JCP	4	(1936)	276
		1250-1800	-	Spec	Barnes	IEC	15	(1943)	659
		-	-	Freq, Thermo	Pitzer	JACS	65	(1943)	803
		-	-	Analysis	Heigl	IEC	19	(1947)	293
		12-14 μ	Sol	Freq, I	Bell	PRS A192	(1948)	498	
		24-40 μ	-	Freq	Plyler	JCP	16	(1948)	2008
		9-14 μ	Sol	Freq, I	Cole	TFS	46	(1950)	103
		720-2000	-	Spec	Cannon	SA	4	(1951)	373
		-	-	Determination of impurities	McCauley	JACS	73	(1951)	2013
		500-1500	L	Spec	Pimental	JCP	19	(1951)	513
		-	-	Ident	Clark	JACS	74	(1952)	1030
		2.5-15 μ	Sol, L	Spec	Ham	JCP	20	(1952)	1336
		5500-6200	L	Analysis	Hastings	AC	24	(1952)	612
		-	-	Spec, Freq, I	Lauer	APS	6	(1952)	29
		-	-	Analysis	Pines	JACS	74	(1952)	4874
		-	Sol	Freq, H bond	Tamres	JACS	74	(1952)	3375
		-	-	Freq	Pines	JACS	75	(1953)	6226
		-	-	Freq	McCauley	JACS	76	(1954)	2354
		700-2700	Sol	Spec	Martin	AC	26	(1954)	1886

Chemical compound	Wavenumber (cm ⁻¹)	Solvent	Assignment	Author	Year
C ₉ H ₁₂ BrNO ₃	640-1400	Sol	Spec	Haller	22 (1954)
	-	-	FC	Santhamma	23 (1954)
	700-1000	S, Sol	Out of plane CH deformations study	Bellamy	- (1955)
	900-1050	L	Vibrations study	Randle	- (1955)
	1650-2000	-	Freq, Assign	Whiffen	7 (1955)
C ₉ H ₁₂ I ₂	-	-	Freq	Podall	29 (1957)
	675-1700	Sol	Spec, Quant, Analysis	Bohon	30 (1958)
	15-35 μ	S	Spec, Struct	Bentley	245 (1959)
	11-15.25 μ	Sol	Analysis	Jacobsen	165 (1959)
	8.34	Sol	Freq, I	Lalau	31 (1959)
	3400-3800	Sol	H bond	West	181 (1959)
	700-3200	L, Sol, G	Spec	JACS	81 (1959)
	-	-	-	IJP	1614 (1959)
	-	-	-	Banerjee	34 (1960)
	-	-	-	-	1
C ₉ H ₁₂ N ₂ O	2-16 μ	Sol	Spec, Struct	Ramirez	19 (1954)
	-	-	Mol const	Morello	56 (1960)
C ₉ H ₁₂ N ₂ O ₅ P ₂	3-15 μ	L, S	Spec, Freq	Ll	77 (1955)
	-	-	Freq	Overberger	75 (1953)
C ₉ H ₁₂ N ₂	2-15 μ	-	Ident	Overberger	77 (1955)
	-	-	Freq	Overberger	75 (1953)
C ₉ H ₁₂ N ₂	-	-	Freq	Overberger	75 (1953)
	-	-	Freq	Overberger	75 (1953)
C ₉ H ₁₂ N ₂ O	650-4000	S, Sol	H bond	Tanner	15 (1959)
	650-4000	S, Sol	H bond	Tanner	15 (1959)

$C_9H_{12}N_2O$	3-Phenyl-1,1-dimethyl-urea	2-15 μ	S	Spec.	Kirkland	AC	29 (1957)	1127
$C_9H_{12}N_2O_2$	Ethyl N-(5-methyl-2-pyridyl)urethan	1000-3500	Sol	Spec, Assign, I	Katritzky	JCS	- (1960)	676
$C_9H_{12}N_2O_3$	Ethyl N-(5-methyl-2-pyridyl-N-oxide)urethan	1000-3500	Sol	Spec, Assign, I	Katritzky	JCS	- (1960)	676
$C_9H_{12}N_2O_3$	Ethyl 5-hydroxamino-2-methylnicotinate	-	Sol	Freq, Struct	Fanta	JACS	75 (1953)	737
$C_9H_{12}N_2O_4$	4,6-Dihydroxy-5-(2'-tetrahydropyranoxypyrimidine	650-3600	S	Struct	Tanner	SA	8 (1956)	9
$C_9H_{12}N_2O_4$	1-(O-Nitroaniline)2,3-propanediol	-	-	Ident	Caldwell	JACS	74 (1952)	5187
$C_9H_{12}N_2O_4$	1-(p-Nitroaniline)2,3-propanediol	-	-	Ident	Caldwell	JACS	74 (1952)	5187
$C_9H_{12}N_2O_6$	Uridine	9-10.5 μ	S	Freq	Schwarz	APS	6 (1952)	15
$C_9H_{12}N_4$	2-n-Butylpurine	-	Sol	Freq	Brown	JCS	- (1957)	682
$C_9H_{12}N_4O_2$	N-DL- α -Phenylethyl-N'-nitroguanidine	2-15 μ	S	Spec, Freq	Lieber	AC	23 (1951)	1594
$C_9H_{12}N_4O_7$	n-Propylamine picrate	-	S	IR Photographs and interference figures	Mitchell	JACS	65 (1943)	128
$C_9H_{12}N_6$	Triethylenemelamine	-	-	Spec	Allen	AC	27 (1955)	540
$C_9H_{12}O$	1-Benzylethanol-1	9.5-10.5 μ 665-5000	- L	Spec Freq Reference	Winstein Zeiss Bonner	JACS JACS JACS	74 (1952) 75 (1953) 76 (1954)	1140 897 6350

$C_9H_{12}O$	Benzyl ethyl ether	-	-	Freq, Assign	Murray	JCP	9 (1941)	129
$C_9H_{12}O$	1-Cyclopropyl-1-methyl- pent-2-yne-4-ene-ol	1-2.7 μ	Sol	Confirmation of cyclopropyl group	Washburn	JACS	80 (1958)	504
$C_9H_{12}O$	m-Ethoxytoluene	1000-1800	-	Spec, Freq Absorbance	Barnes Bomstein	IEC AC	15 (1943) 25 (1953)	659 512
		700-1700	Sol	I	Katritzky	JCS	- (1959)	2058
		900-3000	Sol	Freq, Assign	Katritzky	JCS	- (1959)	2062
$C_9H_{12}O$	p-Ethoxytoluene	1000-1800	-	Spec, Freq Absorbance	Barnes Bomstein	IEC AC	15 (1943) 25 (1953)	659 512
		700-1700	Sol	I	Katritzky	JCS	- (1959)	2051
		900-3000	Sol	Freq, Assign	Katritzky	JCS	- (1959)	2062
$C_9H_{12}O$	o-Ethylanisole	-	-	Ident	Binder	JCS	- (1954)	113
$C_9H_{12}O$	2-Ethyl-4-methyl- phenol	650-1400	Sol	Spec	Shrewsbury	SA	16 (1960)	1294
$C_9H_{12}O$	2-Ethyl-5-methylphenol	650-1400	Sol	Spec	Shrewsbury	SA	16 (1960)	1294
$C_9H_{12}O$	3-Ethyl-4-methylphenol	650-1400	Sol	Spec	Shrewsbury	SA	16 (1960)	1294
$C_9H_{12}O$	4-Ethyl-m-cresol	5-15 μ 650-1400	L,S Sol	Spec Spec	Kletz Shrewsbury	JCS SA	- (1947) 16 (1960)	644 1294
$C_9H_{12}O$	2-Isopropylphenol	900-1030 3500-3800 650-1400	Sol Sol Sol	Freq Freq Spec	Puttnam Puttnam Shrewsbury	JCS JCS SA	- (1960) - (1960) 16 (1960)	2934 5100 1294
$C_9H_{12}O$	4-Isopropylphenol	3500-3800 650-1400	Sol Sol	Freq Spec	Puttnam Shrewsbury	JCS SA	- (1960) 16 (1960)	5100 1294
$C_9H_{12}O$	Mesitol	3100-3150	Sol	H bond	Lund	ACS	12 (1958)	298
$C_9H_{12}O$	1-Methyl-2-ethoxy- benzene	1000-1800	-	Spec, Freq Absorbance	Barnes Bomstein	IEC AC	15 (1943) 25 (1953)	659 512

$C_9H_{12}O$	2-Methyl-3-ethylphenol	650-1400	Sol	Spec	Schremsbury	SA	16 (1960)	1294
$C_9H_{12}O$	2-Methyl-4-ethylphenol	650-1400	Sol	Spec	Shrewsbury	SA	16 (1960)	1294
$C_9H_{12}O$	2-Methyl-5-ethylphenol	650-1400	Sol	Spec	Shrewsbury	SA	16 (1960)	1294
$C_9H_{12}O$	3-Methyl-5-ethylphenol	5-15 μ	L, S	Spec	Kletz	JCS	- (1947)	644
		-	-	Analysis	Goulumbic	JACS	72 (1950)	1939
		2.5-15 μ	Sol	Spec, Freq, I	Friedel	JACS	73 (1951)	2881
$C_9H_{12}O$	3-Methylocta-4,6-dien-1-yn-3-ol	-	-	Freq	Attenburrow	JCS	- (1952)	1094
$C_9H_{12}O$	6-Methylocta-3,5-dien-7-yn-2-ol	-	-	Freq	Attenburrow	JCS	- (1952)	1094
$C_9H_{12}O$	Phenyl dimethylcarbinol	680-1750	-	Spec, Freq	Philpotts	AC	24 (1952)	638
		-	-		Copp	JCS	- (1953)	4106
		-	Sol	Freq	Potts	AC	27 (1955)	1027
		-	-	Freq, Assign	Michinori	BCSJ	32 (1959)	950
$C_9H_{12}O$	1-Phenyl-1-propanol	9.5-10.5 μ	-	Spec	Winstein	JACS	74 (1952)	1140
		665-5000	L	Freq	Zeiss	JACS	75 (1953)	897
$C_9H_{12}O$	1-Phenyl-2-propanol	1.4 μ	Sol	H bond	Goldman	JOC	23 (1958)	751
$C_9H_{12}O$	2-Phenyl-2-propanol	-	-	Analysis	Russell	JACS	77 (1955)	4583
$C_9H_{12}O$	3-Phenyl-1-propanol	-	L	Ident	Searles	JACS	76 (1954)	2313
		1.4 μ	-	H bond	Goldman	JOC	23 (1958)	751
$C_9H_{12}O$	Propoxybenzene	-	-	Spec, Freq assign	Murray	JCP	9 (1941)	129
		1000-1700	-	Spec	Barnes	IEC	15 (1943)	659
		5-6 μ	-	Spec	Yong	AC	23 (1951)	709
		10-15 μ	L	Spec	Patterson	AC	26 (1954)	823
$C_9H_{12}O$	2-n-Propylphenol	2-16 μ	L	Spec	Entel	JACS	73 (1951)	4152
		650-1400	Sol	Spec	Shrewsbury	SA	16 (1960)	1294

C ₉ H ₁₂ O	4-n-Propylphenol	650-1400	Sol	Spec	Shrewbury	SA	16 (1960)	1294
C ₉ H ₁₂ O	4,5,6,7-Tetrahydro- indanone	- 1600-1750	- L	Freq Freq, Spec	Mathieson Braude	JCS JCS	- -	(1953) 3251 (1955) 3766
C ₉ H ₁₂ O	2,3,4-Trimethylphenol	650-1400	Sol	Spec	Shrewsbury	SA	16 (1960)	1409
C ₉ H ₁₂ O	2,3,5-Trimethylphenol	2.5-15/ μ 3500-3800 650-1400	Sol Sol Sol	Spec, Freq, I Freq Spec	Friedel Puttnam Shrewsbury	JACS JCS SA	73 (1951) - (1960) 16 (1960)	2881 5100 1294
C ₉ H ₁₂ O	2,3,6-Trimethylphenol	3/ μ 11-14/ μ 650-1400	Sol Sol Sol	H bond Spec, Quant analysis Spec	Sears Fair Shrewbury	JACS AC SA	71 (1949) 27 (1955) 16 (1960)	4110 1886 1294
C ₉ H ₁₂ O	2,4,5-Trimethylphenol	650-1400	Sol	Spec	Shrewsbury	SA	16 (1960)	1294
C ₉ H ₁₂ O	2,4,6-Trimethylphenol	3100-3700 - 3/ μ	S,Sol S S,L, Sol	Spec, Assign OH band study H bond	Richards Thompson Sears	JCS JCS JACS	- (1947) - (1947) 71 (1949)	1260 289 4110
C ₉ H ₁₂ O	3,4,5-Trimethylphenol	2.5-15/ μ - 11-14/ μ 650-1400	Sol - Sol Sol	Spec, Freq, I Ident Spec Spec	Friedel VanMeter Fair Shrewsbury	JACS AC AC SA	73 (1951) 24 (1952) 27 (1955) 16 (1960)	2881 1758 1886 1294
C ₉ H ₁₂ OS	3,4,5-Trimethylphenol	3100-3700 3/ μ	S,Sol S,L, Sol	Spec, Assign H bond	Richards Sears	JCS JACS	- (1947) 71 (1949)	1260 4110
C ₉ H ₁₂ OS	3-Isopropyl-2-thienyl methyl ketone	650-1400	Sol	Spec	Shrewsbury	SA	16 (1960)	1294
C ₉ H ₁₂ OS	4-Isopropyl-2-thienyl methyl ketone	-	-	Freq	Spaeth	JACS	77 (1955)	4066
C ₉ H ₁₂ OS	5-Isopropyl-2-thienyl methyl ketone	-	-	Freq	Spaeth	JACS	77 (1955)	4066

$C_9H_{12}O_2$	2-Acetonbicyclo[2:2:1] hept-5-ene	650-3100	Sol	Spec	Henbest	JCS	-	(1957)	997
$C_9H_{12}O_2$	Allethrolene	- 2-15 μ	S L, Sol	Freq Determination via IR	Allan Freeman	JOC AC	20 27	(1955) (1955)	323 1268
$C_9H_{12}O_2$	2-Allyl-1,3-cyclohexane- dione	1550-1750	Sol	Spec	Ananchenko	IANS	-	(1960)	1644
$C_9H_{12}O_2$	2-Carbomethoxybicyclo [2:2:1]hept-5-ene	650-3100	Sol	Spec	Henbest	JCS	-	(1957)	997
$C_9H_{12}O_2$	Cumene hydroperoxide	2-15 μ 680-1770	L Sol Sol	Spec, Struct Spec, Freq Freq	Shreve Philpotts Potts	AC AC AC	23 24 27	(1951) (1952) (1955)	282 638 1027
$C_9H_{12}O_2$	β -Cyclopentyl- $\Delta^{\alpha,\beta}$ butenolide	- 1550-1850	Sol	Freq, I	Jones	CJC	37	(1959)	2007
$C_9H_{12}O_2$	1,6-Diketospiro[4.4] nonane	-	Sol	Freq	Cram	JACS	76	(1954)	2753
$C_9H_{12}O_2$	1,3-Dimethoxybicyclohep- tatridene	704-2994	L	Table	Johns	JCS	-	(1954)	4605
$C_9H_{12}O_2$	2,5-Dimethyl-4-hydroxy- methylphenol	3100-3700	S, Sol	Spec, Assign	Richards	JCS	-	(1947)	1260
$C_9H_{12}O_2$	4,5-Dimethyl-2-hydroxy- methylphenol	700-1500	L, S	Spec, Assign	Richards	JCS	-	(1947)	1260
$C_9H_{12}O_2$	2-(2-Hydroxybicyclohexyl- dene)propionic acid lactone	1650-1800	Sol Sol	Spec, Freq, Struct Freq, Struct	Dauben Djerassi	JACS JACS	75 76	(1953) (1954)	3352 2966
$C_9H_{12}O_2$	o-Methoxy- α -methyl- benzyl alcohol	-	-	Freq	Pinder	JCS	-	(1954)	113

$C_9H_{12}O_2$	1-p-Methoxyphenyl-ethanol	9.8-12 μ	L	Spec	Winstein	JACS	75 (1953)	147
$C_9H_{12}O_2$	p-Methoxyphenylethanol	1.4 μ	Sol	H bond	Goldman	JOC	23 (1958)	751
$C_9H_{12}O_2$	2-p-Methoxyphenyl-ethanol	-	L	Spec	Winstein	JACS	75 (1953)	147
$C_9H_{12}O_2$	3-Methylbicyclo[2:2:1]hept-2-ene-2-carboxylic acid	680-1000	Sol	Struct	Jones	JCS	- (1956)	4073
$C_9H_{12}O_2$	3-Methylbicyclo[2:2:1]hept-5-ene-2-carboxylic acid	680-1000	Sol	Struct	Jones	JCS	- (1956)	4073
$C_9H_{12}O_2$	3-Methylene-6-hydroxy-bicyclo[2:2:1]heptane-2-carboxylic lactone	680-1000	Sol	Struct	Jones	JCS	- (1956)	4073
$C_9H_{12}O_2$	3-n-Nonen-5-ynoic acid	-	-	Ident	Celmer	JACS	75 (1953)	3430
$C_9H_{12}O_2$	1-Phenoxy-2-propanol	8-10 μ	-	Spec	Sexton	JACS	70 (1948)	3606
$C_9H_{12}O_2$	2-Phenoxy-1-propanol	8-10 μ	-	Spec	Sexton	JACS	70 (1948)	3606
$C_9H_{12}O_2$	dl-2-Phenylpropanediol	-	S	Freq	ElieI	JACS	75 (1953)	4585
$C_9H_{12}O_2$	d-2-Phenylpropanediol	-	S	Freq	ElieI	JACS	75 (1953)	4585
$C_9H_{12}O_3$	3-Acetoxy-2-methyl-cyclohex-2-ene-1-one	5.68-14 μ	S	I	Smith	JCS	- (1953)	803
$C_9H_{12}O_3$	2-Acetyl-4,4-dimethyl-5-hydroxy-2-pentenoic acid, lactone	800-2900	Sol	Spec, Freq	Lacy	JCS	- (1960)	3153

$C_9H_{12}O_3$	3-Acetyl-2,5-dihydro-4,5,5-trimethylfuran-2-one	1000-1800	Sol	Spec, Freq	Lacey	JCS - (1960)	3153
$C_9H_{12}O_3$	3,5-Bis hydroxymethyl-p-cresol	700-3700	S,Sol	Spec, Assign	Richards	JCS - (1947)	1260
$C_9H_{12}O_3$	n-Butyl 2-furoate	800-1700 - -	Sol - -	Freq, Assign Assign Assign	Katritzky Katritzky Katritzky	JCS - (1959) SA 16 (1960) SA 16 (1960)	657 954 964
$C_9H_{12}O_3$	3,4-Dimethoxybenzyl alcohol	1500-5000	Sol	Freq	Briggs	AC 29 (1957)	904
$C_9H_{12}O_3$	Ethyl 2,4-dimethyl-3-furoate	-	-	Spec	Alexander	JACS 73 (1951)	356
$C_9H_{12}O_3$	Ethyl 4-keto-2-methyl-cyclopent-2-ene-1-carboxylate	-	-	Freq, Struct	Acheson	JCS - (1952)	1127
$C_9H_{12}O_3$	Ethyl β -(2'-Furyl) propionate	800-1700 800-1500 -	Sol Sol -	Freq, Assign Assign Assign	Katritzky Katritzky Katritzky	JCS - (1959) SA 16 (1960) SA 16 (1960)	657 954 964
$C_9H_{12}O_3$	Glycidyl sorbate	2-15 μ	L	Spec, Freq	Patterson	AC 26 (1954)	823
$C_9H_{12}O_3$	1-Hydroxy-1-guaiacyl-ethane	600-400	-	Spec, Freq	Herzert	JOC 25 (1960)	405
$C_9H_{12}O_3$	β -Hydroxy- β -1-hydroxy-cyclohexylacrylic lactone	-	S,Sol	Freq, Struct	Duncanson	JCS - (1953)	1207
$C_9H_{12}O_3$	2-Propionylcyclohexane-1,3-dione	-	S,L	Freq	Rogers	JCS - (1955)	341
$C_9H_{12}O_3$	1,2,3-Trimethoxybenzene	2-15 μ	S,Sol	Freq	Briggs	AC 29 (1957)	904

$C_9H_{12}O_3$	1,3,5-Trimethoxybenzene	700-1000	S, Sol	Out of plane CH deformation study	Ballamy	JCS	-	(1955)	2818
$C_9H_{12}O_3$	Trimethylphloroglucinol	2-12 μ	Sol	Spec, Struct	O'Connor	JACS	76	(1954)	2368
$C_9H_{12}O_3S$	Ethyl p-toluenesulfonate	-	-	Freq	Bomstein	AC	25	(1953)	512
$C_9H_{12}O_3S$	Methyl β -phenyl- β -hydroxyethyl sulfone	-	-	Freq	Field	JACS	75	(1953)	5582
$C_9H_{12}O_4$	3,5-Dimethyl-2-hydroxy-6-ethoxy- γ -pyrone	-	-	Freq	Reid	JACS	75	(1953)	1655
$C_9H_{12}O_4$	dl-Methyl anhydro-monocrotalate	750-3597	L	Freq	Ames	JCS	-	(1954)	375
$C_9H_{12}O_4$	Methyl penicillate	650-4000	S, Sol	Spec	Ford	JACS	72	(1950)	4529
$C_9H_{12}O_6$	1,3,5-Cyclohexanetri-carboxylic acid	-	-	Ident	Newman	JACS	76	(1954)	4598
$C_9H_{12}O_6$	1,2,0-Isopropylidene-D-glucofuranono-6,3-lactone	2-15 μ	S	Spec	Tipson	JRNB	62	(1959)	257
$C_9H_{12}O_7$	Dimethyl acetoxymethoxy-maleate	2.86-10.3 μ	Sol	Freq, I	Goodwin	JACS	76	(1954)	5599
$C_9H_{12}S$	Cumene mercaptan	-	-	Freq	Fields	JACS	77	(1955)	4255
$C_9H_{12}S$	n-Propyl phenyl sulfide	1575-650	-	Spec	Tarbell	JACS	74	(1952)	48
$C_9H_{12}Si$	Methylphenylvinyl-silane	2050-2250	Sol	Struct	Smith	SA	15	(1959)	412
$C_9H_{13}BrO$	n-Butylvinyl(bromo-ethynyl)carbinol	-	-	Freq	McLamore	JOC	20	(1955)	109

$C_9H_{13}N$	2,4-Dimethyl-6-ethyl- pyridine	- -	- L	Ident Absorption	Vanmeter Cook	AC AC	24 28	{ {	1952 1956	1758 993
$C_9H_{13}N.HCl$	2,4-Dimethyl-3-ethyl- pyridine hydrochloride	2-12/ μ	-	Spec	Witkop	JACS	70	(1948)	3712	
$C_9H_{13}N$	2,6-Dimethyl-4-ethyl- pyridine	2-15/ μ	- -	Spec Absorption	VanMeter Cook	AC AC	24 28	{ {	1952 1956	1758 993
$C_9H_{13}N$	N,N-Dimethyl-m-toluidine	2900-3100	Sol	Freq	Hill	JCS	-	(1958)	760	
$C_9H_{13}N$	N,N-Dimethyl-o-toluidine	2900-3100	Sol	Freq	Hill	JCS	-	(1958)	760	
$C_9H_{13}N$	N,N-Dimethyl-p-toluidine	0.6-2.0/ μ 700-1400 2800-3000 2900-3100	L L L Sol	N-H study Spec Group determination Freq	Ellis Whiffen Braunholtz Hill	JACS TFS JCS JCS	50 41 - -	{ { { {	1928 1945 1958 1958	685 200 2780 760
$C_9H_{13}N$	N-Ethyl-m-toluidine	- - 21-14/ μ	L Sol Sol	Freq Quant analysis Analysis	Hadzi Whetsel Whetsel	JCS AC AC	- 29 30	{ { {	1957 1957 1958	843 1006 1594
$C_9H_{13}N$	N-Ethyl-o-toluidine	2.5-3.1/ μ	Sol L	H bond Freq	Gordy Hadzi	JACS JCS	62 -	{ {	1940 1957	497 843
$C_9H_{13}N$	m-Isopropylaniline	-	Sol	Freq	Bryson	JACS	82	(1960)	4858	
$C_9H_{13}N$	N,N-Methylethylaniline	1-12/ μ 0.8-2.8/ μ 2900-3100	L L Sol	Spec Spec Freq	Bell Ellis Hill	JACS JACS JCS	47 49 -	{ { {	1925 1927 1958	2192 347 760
$C_9H_{13}N$	2-Methyl-3-isopropyl- pyridine	2-15/ μ	Sol	Tables	Podall	AC	29	(1957)	1423	
$C_9H_{13}N$	2-Methyl-5-isopropyl- pyridine	2-15/ μ	Sol	Tables	Podall	AC	29	(1957)	1423	

C_9H_7N	N-n-Propylaniline	1-12 μ 0.8-2.8 μ 6550-6850	L L Sol	Spec Spec NH band	Ball Ellis Liddel	JACS 47 (1925) 2192 JACS 49 (1927) 347 JACS 55 (1933) 3574
C_9H_7N	2-t-Butylpyridine	2-15 μ	L	Freq	Podall	AC 29 (1957) 1423
C_9H_7N	3-t-Butylpyridine	2-15 μ	L	Freq	Podall	AC 29 (1957) 1423
C_9H_7N	4-t-Butylpyridine	2-15 μ	L	Freq	Podall	AC 29 (1957) 1423
C_9H_7N	2,3,4,6-Tetramethylpyridine	- -	- L	Ident Absorption	VanMeter Cook	AC 24 (1952) 1758 AC 28 (1956) 993
C_9H_7N	2,3,5,6-Tetramethylpyridine	-	L	Absorption	Cook	AC 28 (1956) 993
C_9H_7NO	o-N-Ethylanisidine	-	Sol	Spec, Freq	Witkop	JACS 74 (1952) 3861
C_9H_7NO	N-Methyl-N-phenylethanamine	- 3 μ	- Sol	Quant, Analysis Freq, H bond	Whetzel Flett	AC 29 (1957) 1006 SA 10 (1958) 21
C_9H_7NO	N-(β -Phenylisopropyl)hydroxylamine	2-16 μ	S	Spec	Gilsdorf	JACS 74 (1952) 1837
C_9H_7NO	2,4,6-Trimethyl-3-hydroxymethylpyridine	-	Sol	Iso	Kornfeld	JACS 77 (1955) 4425
$C_9H_7NO_2$	N-Acetyl-2-azabicyclo[2,2,2]octan-3-one	1600-1800	Sol	Freq	Hall	JACS 80 (1958) 6428
$C_9H_7NO_2$	N-Acetyl-6-azabicyclo[3,2,1]octan-7-one	1600-1800	Sol	Freq	Hall	JACS 80 (1958) 6428
$C_9H_7NO_2$	3-Carbethoxy-2,4-dimethylpyrrole	- 4000-5000	S S,Sol	Freq Spec, Assign	Burke Eisner	JACS 76 (1954) 1294 JCS - (1958) 971
$C_9H_7NO_2$	2-Carbethoxy-3,5-dimethylpyrrole	2.8-3.6 μ	Sol	H bond	Buswell	JACS 62 (1940) 2759

	500-4000	Sol	Spec, Freq, Struct	Eisner	JCS	-	(1958)	971
$C_9H_{13}NO_2$	2,6-Dimethoxy-3,4-dimethylpyridine	L	Freq	Ames	JCS	-	(1953)	3008
$C_9H_{13}NO_2$	cis-Decahydroisoquinoline-1,3-dione	Sol	Spec, Freq	Bachmann	JOC	19	(1954)	222
$C_9H_{13}NO_2$	trans-Decahydroisoquinoline-1,3-dione	Sol	Spec, Freq	Bachmann	JOC	19	(1954)	222
$C_9H_{13}NO_2$	N-(o-Hydroxybenzyl)-2-aminoethanol-1	Sol	Band study Freq, H bond	Gil Bergmann	JACS JACS	74 75	(1952) (1953)	1346 68
$C_9H_{13}NO_2$	2-(β -Hydroxypropyl)-3-methoxypyridine	- Sol	Freq, Ident Freq	Baker Baker	JOC JOC	20 20	(1955) (1955)	118 136
$C_9H_{13}NO_2$	6-Methoxy-1,3,4-trimethylpyrid-2-one	S	Freq	Ames	JCS	-	(1953)	3008
$C_9H_{13}NO_2$	6-Methoxy-1,4,5-trimethylpyrid-2-one	S	Freq	Ames	JCS	-	(1953)	3008
$C_9H_{13}NO_2$	N-Methylcyclohexane-1,3-dicarboximide	S	Freq	Hall	JACS	80	(1958)	6428
$C_9H_{13}NO_2S$	N-Ethyl-N-methylbenzenesulfonamide	-	Spec, Ident	Cairns	JOC	20	(1955)	627
$C_9H_{13}NO_2S$	N-Ethyl-p-toluene-sulfonamide	S, Sol	Freq	Barter	JCS	-	(1955)	669
$C_9H_{13}NO_2S.HCl$	p-Aminomethylphenylethyl sulfone hydrochloride	S	Freq	Momose	CPBT	6	(1958)	412
$C_9H_{13}NO_2S.HCl$	p-(α)Aminoethylphenyl methyl sulfone hydrochloride	S	Freq	Momose	CPBT	6	(1958)	412

$C_9H_{13}NO_3$	Ethyl 1,4,5,6-tetrahydro-2-methyl-6-oxonicotinate	580-3800 2-16 μ	Sol	Spec, Freq, Struct Spec	Banerjee Ramirez	JOC JOC	19 (1954) 19 (1954)	1516 183
$C_9H_{13}N_2O_9P$	Uridylic acid	9-10.5 μ	S	Freq	Schwarz	APS	6 (1952)	15
$C_9H_{13}N_3$	2,6-Dicyano-2,6-dimethyl-piperidine	2-15 μ	-	Freq	Overberger	JACS	77 (1955)	4097
$C_9H_{13}N_3O_3$	2-Amino-4-hydroxy-5-(2'-tetrahydropyranoxo)pyrimidine	650-3600	S	Freq, Struct	Tanner	SA	8 (1956)	9
$C_9H_{13}N_3O_4$	2-Amino-4,6-dihydroxy-5-(2'-tetrahydropyranoxo)pyrimidine	650-3600	S	Freq, Struct	Tanner	SA	8 (1956)	9
$C_9H_{13}N_3O_4$	4-Amino-2,6-dihydroxy-5-(2'-tetrahydropyranoxo)pyrimidine	650-3600	S	Freq, Struct	Tanner	SA	8 (1956)	9
$C_9H_{13}N_3O_4.HCl$	Cytosine desoxyriboside hydrochloride	2.5-15 μ	S	Spec, Struct	Dekker	JCS	- (1951)	2864
$C_9H_{13}N_3O_5$	Cytidine	-	Sol	Spec, Taut	Miles	BBA	35 (1959)	274
$C_9H_{13}N_5$	2,N-Diethylaminopurine	743-3067	S	I, Freq	Willits	JACS	77 (1955)	2569
$C_9H_{13}N_5O_{10}$	1-Carbethoxymethyl-3,3,5,5-tetranitropiperidine	-	-	Freq	Feuer	JACS	76 (1954)	5124
$C_9H_{13}O_3S.HCl$	p-Aminomethylphenyl hydroxyethyl sulfone	-	S	Freq	Momose	CPBT	6 (1958)	412
C_9H_{14}	Apocyclene	-	Sol	Freq	Winstein	JACS	77 (1955)	3054
C_9H_{14}	Cyclonona-1,3-diene	670-3000	L	Spec, Freq	Fawcett	JCS	- (1954)	2673
C_9H_{14}	Cyclononyne	2-16 μ - -	- L L	Spec No spec shown Freq	Blomquist Blomquist Blomquist	JACS JACS JACS	73 (1951) 74 (1952) 75 (1953)	5510 3643 2153

C_9H_{14}	1-Methyl-2-vinylcyclohexene	-	-	Band study	Stork	JACS 75 (1953)	3197
C_9H_{14}	1-Spiro[4.4]nonene	-	-	Ident	Cram	JACS 77 (1955)	3576
$C_9H_{14}ClN$	Trimethylphenylammonium chloride	600-4000	S	Spec	Heacock	CJC 34 (1956)	1782
$C_9H_{14}ClO_5P$	3-Chloro-5,5-dimethylcyclohex-2-enylidene methylphosphonic acid	-	S	Freq, I	Braude	JCS - (1954)	607
$C_9H_{14}Cl_2O_4$	Diethyl bis-(chloromethyl) malonate	-	-	Freq	Ferris	JOC 20 (1955)	780
$C_9H_{14}IN$	Phenyltrimethylammonium iodide	2-8/11	S	Spec	Nakanishi	BCSJ 30 (1957)	403
$C_9H_{14}IAs$	Phenyltrimethylarsonium iodide	-	-	Spec, Struct	Beeby	JCS - (1951)	886
$C_9H_{14}N$	Phenyltrimethylammonium ion	2800-300	S	Group detection	Braunholtz	JCS - (1958)	2780
$C_9H_{14}N_2$	t-Amyl-(methyl) malononitrile	-	-	Freq	Westfahl	JACS 77 (1955)	936
$C_9H_{14}N_2$	Azeleoneitrile	-	-	Freq	Kitson	AC 24 (1952)	334
$C_9H_{14}N_2$	N-Cyclohexyl-2-cyanoaziridine	-	-	Struct	Jauregg	ANC 72 (1960)	493
$C_9H_{14}N_2O$	4-(2-Cyanoethyl)amino-3-methyl-3-penten-2-one	650-3800	S	Chart, Table	Cromwell	JACS 71 (1949)	3337
$C_9H_{14}N_2O$	4-N-(2'-Cyanoethyl)-methylamino-3-penten-2-one	650-3800 6/11	S S,Sol	Chart, Table Freq	Cromwell Weinstein	JACS 71 (1949) JOC 23 (1958)	3337 1618

$C_9H_{14}N_2O$	N-Phenyl-N'-(2-hydroxy-propyl)hydrazine	650-4000	S, Sol	Freq, H bond	Tanner	SA	15 (1959)	20
$C_9H_{14}N_2OS$	2-Ethylthio-4-hydroxy-5-ethyl-6-methylpyrimidine	2-25/ μ	S	Spec, Freq	Short	JCS	- (1952)	168
$C_9H_{14}N_2O_2S$	2-Keto-4-acetyl-2,4,5,4',3',2'-(5',5'-dimethyl-thiazolido)piperazine	33-14.7/ μ	S, Sol	Freq, I	Hodgson	JACS	76 (1954)	1137
$C_9H_{14}N_2O_3$	3,3-Dimethyl-2,5-dioxo-pyrrolidine-4-propionamide	-	-	Ident	Kuehl	JACS	77 (1955)	4418
$C_9H_{14}N_2O_3$	Ipral	2.5-16/ μ	S	Spec Ident	Levi Cleverley	AC ANA	28 (1956) 85 (1960)	1591 582
$C_9H_{14}N_2O_4$	5-Ethyl-5-(β -hydroxy-propyl)barbituric acid	2-16/ μ	S	Spec	Skinner	JACS	73 (1951)	3321
$C_9H_{14}N_2O_5P$	Deoxycytidine-3'-phosphate	700-1800	-	Spec	Michelson	JCS	- (1954)	34
$C_9H_{14}N_2O_5P$	Deoxycytidine-5-phosphate	700-1800	-	Spec	Michelson	JCS	- (1954)	34
$C_9H_{14}N_4$	1-Amino-2,6-dicyano-2,6-dimethylpiperidine	2-15/ μ	-	Freq, Struct	Overberger	JACS	77 (1955)	4097
$C_9H_{14}N_4$	3,7-Dicyano-3,7-dimethyl-homopiperidazine	-	-	NH ₂ study	Overberger	JACS	75 (1953)	2082
$C_9H_{14}N_4O_3$	2,4-Diamino-6-hydroxy-5-(2'-tetrahydropyranloxy)pyrimidine	650-3600	S	Freq, Struct	Tanner	SA	8 (1956)	9

$C_9H_{14}NO_4$	4-Amino-6-D-xylosidaminopyrimidine	2-15 μ	S	Spec, Freq, Assign	Brownlie	JCS	-	(1950)	3062
$C_9H_{14}O$	1-Acetyl-2-methylcyclohexene	2-12 μ - 1600-1750	- - L	Spec, Struct Freq Freq, Spec	Turner Henbest Braude	JACS JCS JCS	73 - -	(1951) (1952) (1955)	1403 1150 3766
$C_9H_{14}O$	1-Acetyl-2-methyl- Δ^2 -cyclohexene	2-12 μ	-	Spec	Turner	JACS	73	(1951)	1403
$C_9H_{14}O$	1-Ethynylcycloheptanol	3100-3400	L	Ident	Filler	CIL	-	(1957)	1322
$C_9H_{14}O$	Isophorone	- 5.5-8 μ 1600-1750	- Sol L	Freq, Struct Freq Spec, Freq	Rasmussen Bruson Braude	JACS JACS JCS	71 75 -	(1949) (1953) (1955)	1068 3585 3766
$C_9H_{14}O$	4-Isopropyl-3-cyclohexenone	-	L	Freq	Soffer	JACS	77	(1955)	1003
$C_9H_{14}O$	1-Ketospiro[4.4]nonane	-	Sol	Freq	Cram	JACS	76	(1954)	2753
$C_9H_{14}O$	2-Methoxymethylbicyclo[2.2.1]hept-5-ene	650-3100	Sol	Spec	Henbest	JCS	-	(1957)	997
$C_9H_{14}O$	3-Methoxy-1-octen-3-yne	-	-	Spec, Freq	Petrov	ZOK	28	(1958)	71
$C_9H_{14}O$	3-Methyl-3-ethylhexyn-1-one-4	-	-	Freq	Davis	JACS	76	(1954)	3477
$C_9H_{14}O$	3-Methylocta-1,4,6-trien-3-ol	-	-	Freq	Attenburrow	JCS	-	(1952)	1094
$C_9H_{14}O$	6-Methylocta-3,5,7-trien-2-ol	-	-	Freq	Attenburrow	JCS	-	(1952)	1094
$C_9H_{14}O$	1-Methyl-2-vinyl-4-hydroxycyclohexene	2-11.5 μ	Sol	Spec, Freq, Struct	Sto rk	JACS	75	(1953)	3197

$C_9H_{14}O_3$	Ethyl cyclohexanone-2-carboxylate	-	L	Freq	Leonard	JACS	74 (1952)	4070
$C_9H_{14}O_3$	Ethyl cyclohexanone-4-carboxylate	-	L	Freq	Leonard	JACS	74 (1952)	4070
$C_9H_{14}O_3$	Ethyl 4-hydroxy-4-methyl-hex-5-ynoate	-	-	Freq	McLamore	JOC	19 (1954)	570
$C_9H_{14}O_3$	Ethyl 2-oxocyclohexane-1-carboxylate	-	S Sol	C=O freq Freq	Kidd Bellamy	JCS JCS	- - (1953) - (1954)	3244 4487
$C_9H_{14}O_3$	2-Methyl-3,4-dihydro-2H-pyran-2-methanol acetate	-	-	Band study	Smith	JACS	73 (1951)	5270
$C_9H_{14}O_3$	3-Methyl-5-t-butyl-tetronic acid	2-15 μ	S	Spec, Freq	Reid	JOC	16 (1951)	33
$C_9H_{14}O_3$	2,5,8-Nonanetrione	2-15 μ	Sol, S	Spec, Assign	Tensmeyer	JPC	64 (1960)	1655
$C_9H_{14}O_4$	α -Carbethoxy-d-ethyl- γ -butyrolactone	2-16 μ	L	Spec, Freq	Skinner	JACS	73 (1951)	3321
$C_9H_{14}O_4$	trans-(dl)-4-Carboxy-2,2-dimethylcyclobutyl-acetic acid	665-1900	Sol	Ident, Spec	Campbell	JCS	- (1953)	3002
$C_9H_{14}O_4$	Diethyl citraconate	800-1800	L Sol	Ident, Spec Freq	Stafford Felton	AC JCS	26 (1954) - (1955)	656 2170
$C_9H_{14}O_4$	Diethyl cyclopropane-1,1-dicarboxylate	-	Sol L, Sol	Freq, I Freq	Piehl Slabey	JACS JACS	75 (1953) 76 (1954)	5023 3604
$C_9H_{14}O_4$	Diethyl itaconate	800-1800	L	Ident, Spec	Stafford	AC	26 (1954)	656
$C_9H_{14}O_4$	Diethyl mesaconate	-	Sol	Struct, Spec	Felton	JCS	- (1955)	2170

$C_9H_{14}O_4$	Dimethyl 2-methylene-1,6-hexanedioate	-	Sol	Freq	Jones	JCS - (1954)	1865
$C_9H_{14}O_4$	4-Methylcyclohexane-1,1-dicarboxylic acid	3.4-10.9 μ	-	Ident	Price	JACS 76 (1954)	2301
$C_9H_{14}O_4$	dl-Pinic acid	1600-4000	Sol	Spec, Ident	Francois	BSCF - (1959)	1606
$C_9H_{14}O_5$	Methyl monocrotonate	600-4000	S	Spec	Adams	JACS 74 (1952)	5876
$C_9H_{14}O_6$	Triacetin	2-15 μ 2-15 μ	L Sol	Spec Spec, Freq	Kindall Pristera	APS 7 (1953) AC 25 (1953)	179 844
$C_9H_{14}O_6$	1,1,3-Triacetoxyp propane	-	-	Freq	Smith	JACS 73 (1951)	5282
$C_9H_{14}Si$	Isopropylphenylsilane	-	L, Sol	Freq, I	Harvey	JACS 76 (1954)	4555
$C_9H_{14}Si$	n-Propylphenylsilane	-	L, Sol	Freq, I	Harvey	JACS 76 (1954)	4555
$C_9H_{14}Si$	Trimethylphenylsilane	- 1-24 μ 3-12 μ	L L, Sol Sol	Ident Spec Spec	Gilman Cerato Kanazachi	JOC 18 (1953) JCP 22 (1954) BCSJ 27 (1954)	1743 1 441
$C_9H_{15}DO_4$	Diethyl ethylmalonate- d_1	2-15 μ	L	Spec, Freq	Abramovitch	CJC 36 (1958)	151
$C_9H_{15}Br$	2-Bromo-2-methyl-3-octyne	2-16 μ	L	Spec	Wotiz	JACS 72 (1950)	5055
$C_9H_{15}Br$	2-Bromo-3-nonyne	2-16 μ	L	Spec	Wotiz	JACS 72 (1950)	5055
$C_9H_{15}BrO$	2-Bromocyclononanone	-	Sol	IR	Leonard	JACS 80 (1958)	6039
$C_9H_{15}ClSi$	Triallylchlorosilane	8-15 μ	Sol	Spec	Scott	JACS 73 (1951)	2599

$C_9H_{15}N$	$\Delta^{1(10)}$ -Dehydroquinolizidine	-	L	Spec, Freq	Leonard	JACS	77 (1955)	439
$C_9H_{15}N.HI$	Δ^1 -Dehydroquinolizidine hydriodide	-	S	Freq	Leonard	JACS	77 (1955)	439
$C_9H_{15}N$	2-Ethyl-3-methyl-2-hexenenitrile	-	-	Struct	Hogsd	JACS	76 (1954)	2305
$C_9H_{15}N$	3-Isopropylidene-5,5-dimethylpyrrolone	6.37 μ	Sol	Freq	Meyers	JOC	24 (1959)	1233
$C_9H_{15}N$	2,2,3,4-Tetramethyl-3-pentenitrile	-	-	Freq	Van Henningen	JACS	77 (1955)	4016
$C_9H_{15}N$	Triallylamine	-	L	Analysis	Butler	JACS	77 (1955)	1767
$C_9H_{15}N$	2,4,5-Trimethyl-3-ethylpyrrole	-	-	Ident	VanMeter	AC	24 (1952)	1758
$C_9H_{15}NO$	α -Cinenitrile	-	-	Ident	Weinwald	JACS	77 (1955)	1617
$C_9H_{15}NO$	N-Crotonylpiperidine	600-3600	L	Freq	Edwards	CJC	32 (1954)	683
$C_9H_{15}NO$	1-Morpholino-1-cyclopentene	-	-	Spec	Opitz	A	623 (1959)	112
$C_9H_{15}NO$	4-N-Pyrrolidyl-3-penten-2-one	1500-1800	S	Freq, Struct	Leonard	JACS	81 (1959)	595
$C_9H_{15}NO_2$	N-Acetylnorespseudotropine	-	-	Freq, Config	Nickon	JACS	74 (1952)	5566
$C_9H_{15}NO_2.HCl$	O-Acetylnorespseudotropine hydrochloride	-	-	Freq, Config	Nickon	JACS	74 (1952)	5566
$C_9H_{15}NO_2$	N-Pentylisocinimide	-	S	Freq	Ames	JCS	- (1955)	631

U.S. DEPT. OF COMM. BIBLIOGRAPHIC DATA SHEET	1. PUBLICATION OR REPORT NO. NBS Spec. Publ. 428	2. Gov't Accession No.	3. Recipient's Accession No.
TITLE AND SUBTITLE Bibliography of Infrared Spectroscopy Through 1960			5. Publication Date January 1976
AUTHOR(S) C.N.R. Rao, S. K. Dikshit, S. A. Kudchadker, D. S. Gupta, V. A. Narayan, and J. J. Comeford			6. Performing Organization Code
PERFORMING ORGANIZATION NAME AND ADDRESS NATIONAL BUREAU OF STANDARDS DEPARTMENT OF COMMERCE WASHINGTON, D.C. 20234			8. Performing Organ. Report No.
Sponsoring Organization Name and Complete Address (Street, City, State, ZIP) NBS			10. Project/Task/Work Unit No. NBS Project G-78
			11. Contract/Grant No.
			13. Type of Report & Period Covered Final
			14. Sponsoring Agency Code

SUPPLEMENTARY NOTES

Library of Congress Catalog Card Number: 75-619218

ABSTRACT (A 200-word or less factual summary of most significant information. If document includes a significant bibliography or literature survey, mention it here.)

This bibliography is based on a systematic search of the literature on infrared spectroscopy up to the end of 1960. It covers, directly or through abstract journals, 121 periodicals. As a general rule, any paper of interest in the field of infrared spectroscopy is included. Substance coverage is provided in four sections: organic compounds, inorganic compounds, polymeric compounds, and minerals and ores. Information provided includes: empirical formula, compound name, range of wavelengths reported, state of material, type of data presented in paper, and literature reference. Issued in three parts.


KEY WORDS (six to twelve entries; alphabetical order; capitalize only the first letter of the first key word unless a proper name; separated by semicolons)

Bibliography; data; infrared; inorganic, minerals; organic; ores; polymers; spectroscopy.

. AVAILABILITY <input type="checkbox"/> For Official Distribution. Do Not Release to NTIS <input checked="" type="checkbox"/> Order From Sup. of Doc., U.S. Government Printing Office Washington, D.C. 20402, SD Cat. No. C13.10:428/1-3 <input type="checkbox"/> Order From National Technical Information Service (NTIS) Springfield, Virginia 22151	19. SECURITY CLASS (THIS REPORT) UNCLASSIFIED	21. NO. OF PAGES 2399
	20. SECURITY CLASS (THIS PAGE) UNCLASSIFIED	22. Price \$28.50 per set

get
a line on
science and
technology.
subscribe to

DIMENSIONS



Whether you're in business, or a teacher, scientist, or consumer, you'll want to keep up with the latest developments in science and technology. DIMENSIONS/NBS, the monthly magazine from the Commerce Department's National Bureau of Standards, can help keep you informed. Every day at NBS, one of the nation's largest research laboratories, scientists seek new answers to a host of national problems, including energy conservation, product safety, metric conversion, and pollution abatement. Their findings, reported each month in DIMENSIONS/NBS, have a direct impact on our daily lives.

Subscription price: \$9.45 per year.
Order prepaid from the
Superintendent of Documents,
U.S. Government Printing Office,
Washington, D.C. 20402
SD Catalog No. C13.13

Where can you find all the reference data you need? Right in the Journal of Physical and Chemical Reference Data!

Now in its fourth year, this valuable publication has proved that it fills the important gaps for you in the literature of the physical sciences.

Published by the American Institute of Physics and the American Chemical Society for the National Bureau of Standards, this quarterly gives you quantitative numerical data, with recommended values and uncertainty limits chosen by experts in the field.

Critical commentary on methods of measurement and sources of error, as well as full references to the original literature, is an integral part of each of your four issues a year.

Can you afford to be without this prime

source of reliable data on physical and chemical properties? To start receiving your copies, just fill in the order form and drop into the mail. If you

do use a purchase order, please attach the printed form as this will help us to expedite your order.

Send for complete list of reprints!

Journal of Physical and Chemical Reference Data American Chemical Society

1155 Sixteenth Street, N.W., Washington, D.C. 20036

Yes, I would like to receive the JOURNAL OF PHYSICAL AND CHEMICAL REFERENCE DATA at the one-year rate checked below:

	U.S., Canada, Mexico	Other Countries
Members	<input type="checkbox"/> \$25.00	<input type="checkbox"/> \$28.00
Nonmembers	<input type="checkbox"/> \$75.00	<input type="checkbox"/> \$78.00
Bill me <input type="checkbox"/>	Bill company or school <input type="checkbox"/>	Payment enclosed <input type="checkbox"/>

Name

Street

City

☐ Home

☐ Business

State

Zip

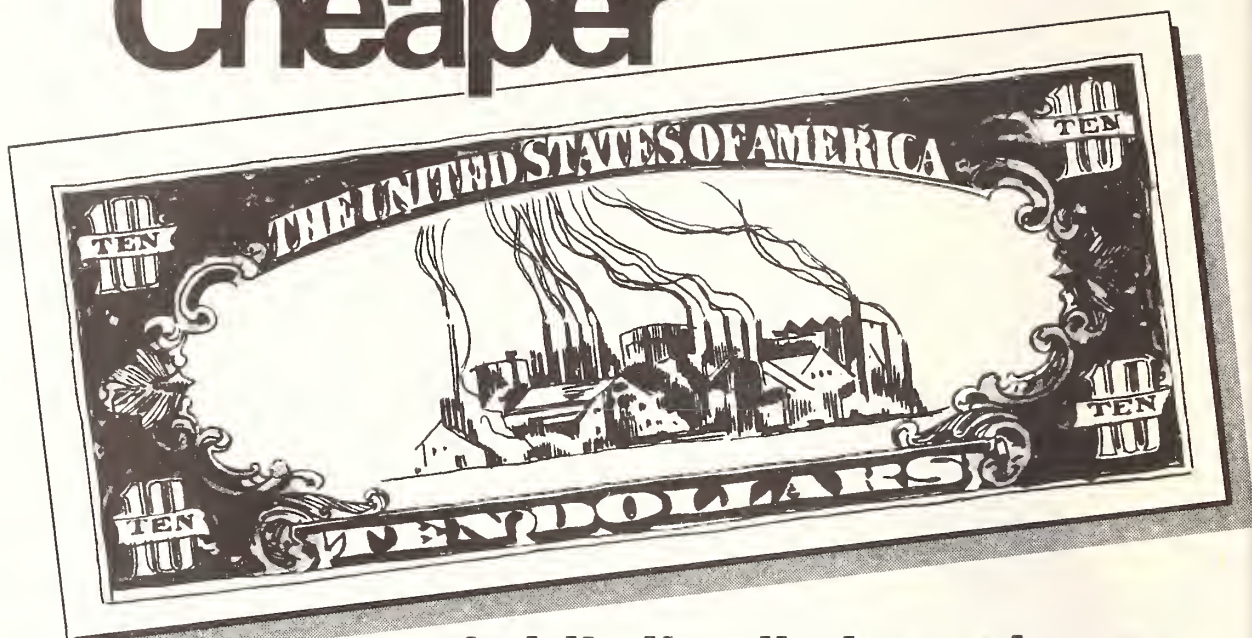
Please Attach This Order Form To Your Purchase Order.



... another ACS service



Time Was When Energy Was Cheaper



...but that's all changed now.

Today, increased energy costs—caused by increasing demand—boost the price of consumer goods, fuel inflation, and hurt our balance of payments.

That's why conserving energy is a must today, especially for you in the business and industry community which uses two thirds of our nation's energy.

Now . . . there's a book to tell you how to do it. It's called *EPIC—the Energy Conservation Program Guide for Industry and Commerce*. Prepared for you by the Commerce Department's National Bureau of Standards in cooperation with the Federal Energy Administration.

EPIC is a comprehensive handbook that can help you establish or improve an energy conservation program in your organization.

Not only industry and commerce but also hospitals, universities, research institutes, ANY organization that uses energy—and has to pay the bills—will want a copy of *EPIC*.

EPIC outlines in detail the steps in setting up an energy conservation program.

It contains a checklist of more than 200 Energy Conservation Opportunities—suggestions to save

energy in a dozen different areas.

EPIC's actual case histories of energy saving actions help you estimate your potential for saving energy—and reducing costs.

And *EPIC* contains much more—financial analysis procedures to evaluate projects, sources of information on energy conservation, engineering data and factors, an energy conservation bibliography.

Make *EPIC* part of your plan to control energy use and costs. Make *EPIC* part of your contribution to using energy resources wisely . . . so we can keep America working and growing.

To order your copy of *EPIC*, send \$2.90 per copy (check, money order or Superintendent of Documents Coupons) to Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Ask for NBS Handbook 115, *EPIC*, C13.11:115. Discount of 25% on orders of 100 copies or more.



U.S. DEPARTMENT OF COMMERCE / National Bureau of Standards
FEDERAL ENERGY ADMINISTRATION / Conservation and Environment

NBS TECHNICAL PUBLICATIONS

PERIODICALS

JOURNAL OF RESEARCH reports National Bureau of Standards research and development in physics, mathematics, and chemistry. It is published in two sections, available separately:

• Physics and Chemistry (Section A)

Papers of interest primarily to scientists working in these fields. This section covers a broad range of physical and chemical research, with major emphasis on standards of physical measurement, fundamental constants, and properties of matter. Issued six times a year. Annual subscription: Domestic, \$17.00; Foreign, \$21.25.

• Mathematical Sciences (Section B)

Studies and compilations designed mainly for the mathematician and theoretical physicist. Topics in mathematical statistics, theory of experiment design, numerical analysis, theoretical physics and chemistry, logical design and programming of computers and computer systems. Short numerical tables. Issued quarterly. Annual subscription: Domestic, \$9.00; Foreign, \$11.25.

DIMENSIONS/NBS (formerly Technical News Bulletin)—This monthly magazine is published to inform scientists, engineers, businessmen, industry, teachers, students, and consumers of the latest advances in science and technology, with primary emphasis on the work at NBS. The magazine highlights and reviews such issues as energy research, fire protection, building technology, metric conversion, pollution abatement, health and safety, and consumer product performance. In addition, it reports the results of Bureau programs in measurement standards and techniques, properties of matter and materials, engineering standards and services, instrumentation, and automatic data processing.

Annual subscription: Domestic, \$9.45; Foreign, \$11.85.

NONPERIODICALS

Monographs—Major contributions to the technical literature on various subjects related to the Bureau's scientific and technical activities.

Handbooks—Recommended codes of engineering and industrial practice (including safety codes) developed in cooperation with interested industries, professional organizations, and regulatory bodies.

Special Publications—Include proceedings of conferences sponsored by NBS, NBS annual reports, and other special publications appropriate to this grouping such as wall charts, pocket cards, and bibliographies.

Applied Mathematics Series—Mathematical tables, manuals, and studies of special interest to physicists, engineers, chemists, biologists, mathematicians, computer programmers, and others engaged in scientific and technical work.

National Standard Reference Data Series—Provides quantitative data on the physical and chemical properties of materials, compiled from the world's literature and critically evaluated. Developed under a world-wide

program coordinated by NBS. Program under authority of National Standard Data Act (Public Law 90-396).

NOTE: At present the principal publication outlet for these data is the Journal of Physical and Chemical Reference Data (JPCRD) published quarterly for NBS by the American Chemical Society (ACS) and the American Institute of Physics (AIP). Subscriptions, reprints, and supplements available from ACS, 1155 Sixteenth St. N. W., Wash. D. C. 20056.

Building Science Series—Disseminates technical information developed at the Bureau on building materials, components, systems, and whole structures. The series presents research results, test methods, and performance criteria related to the structural and environmental functions and the durability and safety characteristics of building elements and systems.

Technical Notes—Studies or reports which are complete in themselves but restrictive in their treatment of a subject. Analogous to monographs but not so comprehensive in scope or definitive in treatment of the subject area. Often serve as a vehicle for final reports of work performed at NBS under the sponsorship of other government agencies.

Voluntary Product Standards—Developed under procedures published by the Department of Commerce in Part 10, Title 15, of the Code of Federal Regulations. The purpose of the standards is to establish nationally recognized requirements for products, and to provide all concerned interests with a basis for common understanding of the characteristics of the products. NBS administers this program as a supplement to the activities of the private sector standardizing organizations.

Federal Information Processing Standards Publications (FIPS PUBS)—Publications in this series collectively constitute the Federal Information Processing Standards Register. Register serves as the official source of information in the Federal Government regarding standards issued by NBS pursuant to the Federal Property and Administrative Services Act of 1949 as amended, Public Law 89-306 (79 Stat. 1127), and as implemented by Executive Order 11717 (38 FR 12315, dated May 11, 1973) and Part 6 of Title 15 CFR (Code of Federal Regulations).

Consumer Information Series—Practical information, based on NBS research and experience, covering areas of interest to the consumer. Easily understandable language and illustrations provide useful background knowledge for shopping in today's technological marketplace.

NBS Interagency Reports (NBSIR)—A special series of interim or final reports on work performed by NBS for outside sponsors (both government and non-government). In general, initial distribution is handled by the sponsor; public distribution is by the National Technical Information Service (Springfield, Va. 22161) in paper copy or microfiche form.

Order NBS publications (except NBSIR's and Bibliographic Subscription Services) from: Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

BIBLIOGRAPHIC SUBSCRIPTION SERVICES

The following current-awareness and literature-survey bibliographies are issued periodically by the Bureau:

Cryogenic Data Center Current Awareness Service

A literature survey issued biweekly. Annual subscription: Domestic, \$20.00; foreign, \$25.00.

Liquefied Natural Gas. A literature survey issued quarterly. Annual subscription: \$20.00.

Superconducting Devices and Materials. A literature

survey issued quarterly. Annual subscription: \$20.00. Send subscription orders and remittances for the preceding bibliographic services to National Technical Information Service, Springfield, Va. 22161.

Electromagnetic Metrology Current Awareness Service
Issued monthly. Annual subscription: \$100.00 (Special rates for multi-subscriptions). Send subscription order and remittance to Electromagnetics Division, National Bureau of Standards, Boulder, Colo. 80302.

U.S. DEPARTMENT OF COMMERCE
National Bureau of Standards
Washington, D.C. 20234

OFFICIAL BUSINESS

Penalty for Private Use, \$300

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF COMMERCE
COM-215

SPECIAL FOURTH-CLASS RATE
BOOK



