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Bibliography of Infrared Spectroscopy through 1960

Part 3

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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 $\text{K}\text{PtCl}_3(\text{NH}_3)$ 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 $(\text{C}_6\text{H}_5)_n$, 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.

$\text{C}_{13}\text{H}_2\text{Cl}_{10}\text{N}_2\text{O}$, $\text{C}_{13}\text{H}_3\text{F}_5\text{N}_2\text{O}_6$, $\text{C}_{13}\text{H}_4\text{Cl}_2\text{F}_6\text{N}_2\text{O}$, $\text{C}_{13}\text{H}_4\text{Cl}_8\text{N}_2\text{O}$, $\text{C}_{13}\text{H}_4\text{F}_{20}\text{O}_4$, $\text{C}_{13}\text{H}_5\text{Cl}_7\text{N}_2\text{O}$
.....; 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) CoC₆O₁₂: (ii) acetylacetone complex of cobalt(III): CoC₁₅H₂₁O₆. 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 Li₂O·Al₂O₃·4SiO₂. The empirical formula of spodumene is shown as Al₂O₁₂Si₄Li₂. 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:

Pd₂C₃₆H₃₀Cl₄P₂ 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.
MC	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)
PhCS	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. Obshchey. 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	Aktriv Mat. Astron. Fysik
ASS	Ann. Soc. Sci. Bruxells
BBA	Biochim et. Biophys. 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

				Hogged	JAS	75 (1953)	4846
C ₂₂ H ₃₄ O ₈	β-n-Propyl-4,5,6-tri-carbethoxy-6-carbe thoxy-methylcyclohexene	-	-	Band freq			
C ₂₂ H ₃₄ O ₁₃	Dipentaerithritol hexaacetate	1075-1125	Sol	Anal	Jaffe	AC	23 (1951) 1164
C ₂₂ H ₃₅ O ₁₀	Ethyl 3α-chloro-5,19-dihydroxytiocolanate	-	Sol	Ident, Production	Herzig	JOC	17 (1952) 724
C ₂₂ H ₃₅ N ₃ O ₅	5α-Pregnane-3β,17α,21-triol-11,20-dione-20-semicarbazone	-	-	Group freq	Chamberlin	JACS	77 (1955) 1221
C ₂₂ H ₃₆ OS	Androstan-17-one trimethylene-hemithioketal	-	Sol	Band freq	Djerassi	JACS	75 (1953) 2704
C ₂₂ H ₃₆ O ₄	Ethyl 3α,11β-dihydroxy- <i>e</i> tianate	-	-	Spec, Ident	Belleau	JACS	74 (1952) 2816
C ₂₂ H ₃₆ O ₈	Dimethyl hexahydro-homophthalate bimolecular	2-12 μ	S	Spec	Sheehan	JACS	72 (1950) 4614
C ₂₂ H ₃₇ NO ₂	Tetrahydropivatchine	-	-	Ident	Djerassi	JACS	76 (1954) 5889
C ₂₂ H ₃₇ N ₃ O ₅	5α-Pregnane-3β,11β,17α,21-tetrol-20-one-20-semicarbazone	-	-	Group freq	Chamberlin	JACS	77 (1955) 1221
C ₂₂ H ₃₈	2-Phenylhexadecane	2-15.5 μ	L	Spec, Struct	Lenneman	JOC	19 (1954) 463
C ₂₂ H ₃₈ O ₃	Bisnorallocholane-3β,16β,22-triol	-	S	Freq	Klass	JACS	77 (1955) 3829
C ₂₂ H ₃₈ O ₃	4-Tert-butylperoxy-2,4,6-tri-tert-butylcyclonexa-2,5-dienone	5.7-6.2 μ	Sol	Group study	Bickel	JUS	- (1953) 3211
C ₂₂ H ₃₈ O ₄	Octadecanediol maleate	1050-1800	-	Spec	Barnes	TEX	15 (1943) 659

$C_{22}H_{38}O_5$	Bisnorallocholane-2 α , $\beta\beta, 15\beta, 16\beta, 22$ -pentaol	-	S	Band freq	Klass	JACS 77 (1955)	3829
$C_{22}H_{39}O_4P$	Diisobutyl p-(2-ethyl-phenyl) phenyl phosphate	-	-	Group freq	Bellamy	JUS - (1952)	1701
$C_{22}H_{39}O_4P$	Di-t-butyl(2-ethyl-hexyl) phenyl phosphate	-	-	Group freq	Bell	JAC:S 76 (1954)	5185
$C_{22}H_{40}O_2$	Behenolic acid	0.9-3 μ	Sol	Spec	Holman	AC 28 (1956)	1533
$C_{22}H_{40}O_2$	$\beta, \beta, 18, 18$ -tetramethyl-1,2-cyclooctadecane-dione	-	L,S	Band freq	Leonard	JAC:S 72 (1950)	5288
$C_{22}H_{40}O_4$	12-Acetoxyelaidyl acetate	2-12 μ	Sol	Substitution effect	McCutchan	JAC:U 36 (1959)	450
$C_{22}H_{40}O_4$	Nonyl fumarate	2-16 μ	L,Sol	Spec, Ident	Walton	AC 28 (1956)	1388
$C_{22}H_{40}O_4$	Nonyl maleate	2-16 μ	L,Sol	Spec, Ident	Walton	AC 28 (1956)	1388
$C_{22}H_{40}Si$	Phenyl-n-hexadecylsilane	2-16 μ	Sol	Group freq	Kriseley	SA 15 (1959)	651
$C_{22}H_{41}NO_3$	4-Ricinelaidoyl-morpholine	2-16 μ	Sol	Spec, Freq	Dupuy	JAC:U 35 (1958)	99
$C_{22}H_{41}NO_3$	4-Ricinelaoyl-morpholine	2-16 μ	Sol	Spec, Freq	Dupuy	JAC:U 35 (1958)	99
$C_{22}H_{41}N_2PS$	N,N-Di-n-butylbenzene-thiophosphonic diamide	2-21 μ	S	Spec, Anal	Daasch	AC 23 (1951)	853
$C_{22}H_{42}$	1-(4-Methylcyclohexyl)-1-(2-methyl-5-isobutyl-1-cyclononyl)-2-methylpropane	7-15 μ	L	Spec	Pines	JAC:S 72 (1950)	1563
$C_{22}H_{42}O_2$	Stearyl methacrylate	2-15 μ	L	Spec, Assign	Walton	JACS 79 (1957)	3985
$C_{22}H_{42}O_3$	Butyl ricinoleate	2.4-3.4 μ	S	Spec, Band freq	Allison	AC 24 (1952)	630

C ₂₂ H ₄₂ O ₄	Di-2-ethylhexyl adipate	2-15 μ	L	Spec	Kendall	APS	7 (1953)	179
C ₂₂ H ₄₂ O ₄	Di-n-hexyl sebacate	2-16 μ	sol	Spec	Stahl	JACS	74 (1952)	5487
C ₂₂ H ₄₂ O ₅	Diethylene glycol mono-ricinoleate	2-15 μ	L	Spec	Kendall	APS	7 (1953)	179
C ₂₂ H ₄₂ O ₆	Triethylene glycol di-2-ethyl hexoate	2-15 μ	L	Spec	Kendall	APS	7 (1953)	179
C ₂₂ H ₄₃ NO ₂	4-Stearoylmorpholine	2-16 μ	sol	Spec, Freq	Dupuy	JAO	35 (1958)	99
C ₂₂ H ₄₃ NO ₃	4-(12-Hydroxystearoyl) morpholine	2-16 μ	sol	Spec, Freq	Dupuy	JAO	35 (1958)	99
C ₂₂ H ₄₄ O ₂	n-Butyl stearate	2-15 μ	L	Spec	Kendall	APS	7 (1953)	179
C ₂₂ H ₄₄ O ₂	5-7 μ	sol	Quant Anal	Kiley	AC	29 (1957)	1895	
C ₂₂ H ₄₄ O ₂	19,19-Dimethyleicosanoic acid	-	-	Spec	Sobotka	JACS	72 (1950)	5139
C ₂₂ H ₄₄ O ₂	n-Docosanoic acid	2-15 μ	S	Spec, Qual anal	Meiklejohn	AC	29 (1957)	329
C ₂₂ H ₄₄ Si	Diallyl-n-hexadecyl-silane	2-16 μ	sol	Group freq	Kniseley	SA	15 (1959)	651
C ₂₂ H ₄₅ O ₃ B	Di-(2-Octyl)-monocyclo-hexyl borate	700-170C	L	Spec, Freq	Werner	AJC	9 (1956)	137
C ₂₂ H ₄₆	n-Docosane	750-1200 650-800 700-1500	S,L	Struct Freq Freq, Assign	Snyder Martin Snyder	JCP SA JMS	27 (1957) 12 (1958) 4 (1960)	969 112 411
C ₂₂ H ₄₆ ClN	(2-Cyclohexylethyl)-dodecyldimethylammonium chloride	-	-	Freq, Purity	Cella	JACS	77 (1955)	4264
C ₂₂ H ₄₈ N ₆	N,N'-Di-n-butyl-N,N'-bis-(2-n-butylaminoethyl)oxamidine	3-6.5 μ	sol	Spec, Group freq	Woodburn	JOC	17 (1952)	1235
C ₂₂ H ₄₈ O ₆ B ₂	Tetrpentylethylene diborate	6-14 μ	L,S	Group freq, Struct	Blau	JCS	- (1960)	380

<u>C₂₃ COMPOUNDS</u>								
C ₂₂ H ₅₈ O ₃ Si ₆	Dodecamethyl-3,10,17-trioxa-2,4,9,11,16,18-hexasilanonadecane	-	-	Group freq	Sommer	JACS	77 (1955)	2482
C ₂₃ H ₁₄ O ₂	4-Hydroxy-1-phenyl-2,3-benzofluorenone	2-16μ	S	Spec	Bader	JACS	75 (1953)	730
C ₂₃ H ₁₄ O ₂	4-Hydroxy-9-phenyl-2,3-benzo-1-isofluorenone	2-16μ	S	Spec	Bader	JACS	75 (1953)	730
C ₂₃ H ₁₆	3'-Methyl-1:2,5:6-di-benzanthracene	670-3150 650-2000	S	Spec, Freq Struct	Orr Cannon	JUS SA	- (1950) 4 (1951)	218 373
C ₂₃ H ₁₆	4-Methylpicene	-	S	Spec	Phillips	JACS	77 (1955)	3856
C ₂₃ H ₁₆ N ₂ O ₃	2-Benzoyl-1-cyano-1-(4-nitrophenyl)-3-phenylcyclopropane	2-16μ	S	Spec, Struct	Allen	JOC	22 (1957)	1291
C ₂₃ H ₁₆ N ₂ O ₃	1,4-Diphenyl-3-phthalimidio-2-azetidinone	2-16μ	Sol	Spec	Sheehan	JACS	73 (1951)	1204
C ₂₃ H ₁₆ O	2-Diphenylmethylen-1-naphthone	-	Sol	Group freq	Ettlinger	JACS	76 (1954)	2769
C ₂₃ H ₁₇ N	9-Amino-9-α-naphthyl-fluorene	6300-6800	Sol	Spec, Anal	Wulf	JACS	57 (1935)	1464
C ₂₃ H ₁₇ NO	2-Benzoyl-1-cyano-1,3-diphenylcyclopropane	2-16μ	S	Spec, Struct	Allen	JOC	22 (1957)	1291
C ₂₅ H ₁₇ NO ₃	1-Benzyl-4,4-diphenyl-2,3,5-pyrrolidinetrione	-	-	Spec	Skinner	JACS	72 (1950)	5569
C ₂₃ H ₁₈	1,2,3-Triphenylcyclopentadiene(1,2,4-isomer; also)	3-15μ	Sol	Spec, Band freq	Panson	JACS	76 (1954)	2187

$C_{23}H_{18}N_2O$ α -(2'-Pyridyl)- β -(1-isquinolinyl)-propiophenone

$C_{23}H_{18}N_2O_3$

α -(1-Benzyl-1,2-dihydro-2-pyridylidene)- γ -phthalimidoacetone

$C_{23}H_{18}N_2O_5$

L-erythro-2-Phenyl-4-benzoyloxymethyl-5-p-nitrophenyl- Δ^2 -oxazoline

1,2-Dibenzoyl-1-phenyl-cyclopropane

1,2-Dibenzoyl-3-phenyl-cyclopropane

1,5-Diketo-1,3,5-tri-phenyl-2-pentene

4-Hydroxy-4-methoxy-2,3,4-triphenylcrotonic acid lactone

β,β,β ,Trifluoropropionic acid, nitron salt

2-Benzoyl-1-carboxamido-1,3-diphenyl-cyclopropane

N,N-Dibenzoylglycine benzyl ester

$3[\beta$ -Keto- γ -(1-benzyl-1,2-dihydro-2-pyridylidene)propyl]-4-quinazolone

1,2-Dibenzoyl-1-phenyl-cyclopropanedioxime

- - - Struct Baker JOC 20 (1955) 118

- S Group freq Moersch JACS 76 (1954) 1703

- S Group freq Allen JOC 22 (1957) 1291

2-16 μ S Spec, Struct Allen JOC 22 (1957) 1291

- Sol Band freq, Struct Berson JACS 74 (1952) 358

- Sol Group freq Yates JACS 76 (1954) 5110

2-11 μ - Spec, Ident Haszeldine JCS - (1952) 3483

2-16 μ S Spec, Struct Allen JOC 22 (1957) 1291

2-8 μ Sol Spec, Group freq Sheehan JACS 74 (1952) 4555

3-11 μ S Ident Allen JOC 22 (1957) 1291

$C_{23}H_{20}N_2O_2$	1,2-Dibenzoyl-3-phenylcyclopropanedioxime	3-11 μ	S	Ident	Allen	JOC	22 (1957)	1291
$C_{23}H_{20}N_2O_2$	1,4-Diphenyl-3-phenylacetylamino-2-azetidinone	2-16 μ	Sol	Spec	Sheehan	JACS	73 (1951)	1204
$C_{23}H_{20}N_2O_2$	2-Phenyl-3-(1-phenyl-2-nitropropyl)indole	-	S	Freq	Noland	JACS	81 (1959)	1203
$C_{23}H_{20}N_2O_4S_2$	5,8-Dihydro-6-methyl-1,4-naphthoquinonedibenzene-sulfonimide	-	-	Group study	Adams	JACS	74 (1952)	2603
$C_{23}H_{20}N_2O_5S$	4-Carbonmethoxy-5,5-dimethyl-2-phenyl- α -phthalimido-2-thiazolidine acetic acid β -lactam	2-11 μ	Sol	Spec, Band freq, Struct	Sheehan	JACS	73 (1951)	4373
$C_{23}H_{20}N_2O_6$	β,ξ -Diaminocaproic acid di(N-phthalyl)methyl ester	-	S	Ident, Band freq	Van Tamelen	JACS	75 (1953)	2031
$C_{23}H_{20}N_2O_6S_2$	3-Acetyl-5-benzensulfonamido-1-benzensulfonyl-X-methyloxinole	-	-	Freq	Adams	JACS	75 (1953)	3403
$C_{23}H_{20}N_2O_7S$	4-Carbonmethoxy-5,5-dimethyl-2-phenyl- α -phthalimido-2-thiazolidine acetic acid β -lactam sulfone	2-11 μ	Sol	Spec, Band freq,	Sheehan	JACS	73 (1951)	4373
$C_{23}H_{20}O_2$	Benzhydryl p-methoxy-styryl ketone	-	-	Band freq	Marvel	JOC	16 (1951)	741
$C_{23}H_{20}O_2S$	9-(9-Allyfluorenyl) p-tolyl sulfone	1100-1400	Sol	Spec, Freq	Bavin	SA	16 (1960)	1312
$C_{23}H_{20}O_{10}$	$\beta',4',5,7$ -Tetraacetoxy-flavanone	1550-4000	S	Group freq	Hergert	JACS	75 (1953)	1622

C ₂₅ H ₂₁ NO	N-Benzyl-1,2-benzoyl-3-p-tolylazacyclopropane	700-4000	Sol	Spec, Freq	Adelfang	JACS 82 (1960) 4241
C ₂₅ H ₂₁ NO	cis-1-Benzyl-2-phenyl-3-p-toluyle thyleneimine	650-3800 2-16 μ	S S	Table Spec, Freq	Cromwell Cromwell	JACS 71 (1949) JACS 73 (1951) 3337
C ₂₅ H ₂₁ NO	trans-1-Benzyl-2-phenyl-3-p-toluyle thyleneimine	650-3800 2-16 μ	S S	Table Spec, Freq	Cromwell Cromwell	JACS 71 (1949) JACS 73 (1951) 3337
C ₂₅ H ₂₁ NO	1,3-Diphenyl-2-(methylbenzylamino)-2-propen-1-one	650-3800	S	Table	Cromwell	JACS 71 (1949) 3337
C ₂₅ H ₂₂ N ₂ O ₂ S ₂	5,8-Dihydro-6-methyl-naphthalene-1,4-dibenzene-sulfonamide	-	-	Group study	Adams	JACS 74 (1952) 2603
C ₂₅ H ₂₂ N ₂ O ₇ S	Methyl-5,5-dimethyl-2-phenyl-3-phthaloylglycy-4-thiazolidine carboxylate sulfone	2-11 μ	Sol	Spec, Band freq, Struct	Sheehan	JACS 73 (1951) 4373
C ₂₅ H ₂₂ O ₂	3,9-Dibenzylidene-1,2-cyclonanedi one	-	S	Group freq	Leonard	JACS 75 (1953) 2714
C ₂₅ H ₂₂ O ₂	3,7-Di-(p-methylbenzylidene)-1,2-cycloheptanedi one	-	S	Group freq	Leonard	JACS 75 (1953) 4989
C ₂₅ H ₂₂ O ₂	3,7-Di-(p-methylbenzyl) tropoline	-	Sol Sol	Group freq Freq	Leonard Panson	JACS 75 (1953) CR. 55 (1955) 4989 9
C ₂₅ H ₂₂ O ₂ S	9-(9-Isopropylfluorenyl)-p-tolylsulfone	1100-1400	Sol	Spec, Freq	Bavin	SA 16 (1960) 1312
C ₂₅ H ₂₂ O ₂ S ₂	Ethyl β , β -bis-(phenylthio) hydrocinnamate	-	-	Group freq, Struct	Campagne	JACS 76 (1954) 1272
C ₂₅ H ₂₂ O ₃	5-Carbome thoxy-3,6-dimethyl-1,2-diphenyl-3,6-methano-7-oxocyclohexene	2-15 μ	S	Spec	Allen	JOC 20 (1955) 306

$C_{23}H_{22}O_3$	Ethyl mandelate benzhydryl ether	600-4000	Sol	Spec	Curtin	JACS 76 (1954) 494
$C_{23}H_{22}O_3$	Ethyl $\alpha\beta\beta$ -phenyl-diphenylhydroxypropionate	2.7-3.1 μ	S,Sol	Spec, H bond	Davies	JCP 8 (1940) 577
$C_{23}H_{22}O_3$	Ethyl $\alpha\beta\beta$ -tri phenyl-lactate	600-4000	Sol	Spec, Struct	Curtin	JACS 76 (1954) 494
$C_{23}H_{22}O_4$	3,7-Di-(p-methoxy-benzylidene)-1,2-cyclo-heptanedione	-	S	Group freq	Leonard	JACS 75 (1953) 4989
$C_{23}H_{22}O_4$	3,7-Di-(p-methoxybenzyl) tropolone	-	Sol	Group freq	Leonard	JACS 75 (1953) 4980
$C_{23}H_{22}O_6$	Rotenone	2-15 μ	Sol Sol	Band freq, Struct Anal	Cupples Cupples	JACS AC 73 (1951) 4023 24 (1952) 1657
$C_{23}H_{22}NO$	N-Benzyl-5,6-diphenyl- -3-hydroxymorpholine	-	-	Struct	Lutz	JACS 76 (1954) 4965
$C_{23}H_{24}N_2O_4S$	Benzyl benzyl-penicillinate	1100-3400	S	Spec	Cavallito	JOC 15 (1950) 815
$C_{23}H_{24}N_2O_5S$	Benzyl benzyl penicilli- -nate monoxide	1000-3400	S	Spec	Cavallito	JOC 15 (1950) 815
$C_{23}H_{24}N_2O_7$	β -Carboxy-4-carbomethoxy- -hydroxymethyl-1-phenyl- -hydrazone-5,6,7-trimethoxy- 1,2,3,4-tetrahydronaphthalene lac tone	-	S	Band freq	Haworth	JCS - (1954) 3611
$C_{23}H_{24}N_2O_7$	Methyl 15-p-methoxyphenyl- all trans-2,4,6,8,10,12, 14-pentadecaheptaenoate	-	S	Group freq, I	Allan	JCS - (1955) 1874
$C_{23}H_{24}O_4$	Pimeloyldiacetophenone	1500-3500	S,Sol	Freq, Assign, Struct	Martin	JACS 80 (1958) 4891
$C_{23}H_{24}O_6$	Dihydriodotetone	2-15 μ	Sol Sol	Band freq, Struct Anal	Cupples Cupples	JACS AC 73 (1951) 4023 24 (1952) 1657

				Spec	Schrecker
C ₂₃ H ₂₄ O ₈	Methyl 6,7-methylenedioxy-5,1-endo-methylenoxy-1-(3,4,5-trimethoxyphenyl)-1,2,3,4-tetrahydronaphthalene-2-carboxylate	β-Peltatin-B methyl ether	2-12.5 μ	Sol	
C ₂₃ H ₂₄ O ₈		-	-	Spec Struct, Config.	
C ₂₃ H ₂₅ N ₂ O	N-Cyclohexyl-2-benzoyl-3-p-acetylphenylazacyclopropane	700-4000	Sol	Spec, Freq	
C ₂₃ H ₂₆ N ₂ O ₄	Brucine	650-4000	S	Spec	
C ₂₃ H ₂₆ N ₂ O ₄ S ₂	N,N'-Dimethyl-N,N'-dibenzeneulfonyldiaminomesitylene	1500-4000	S	Spec	
C ₂₃ H ₂₆ O	Bis-(1-phenylcyclopentyl) ketone	-	-	Struct	
C ₂₃ H ₂₆ OSi	Triphenylsilylbutyl methyl ether	-	-	Inductive effect	Josien
C ₂₃ H ₂₆ OSi	Triphenylsilylmethyl butyl ether	-	-	Inductive effect	Josien
C ₂₃ H ₂₆ OSi	Triphenylsilylpropyl ethyl ether	-	-	Inductive effect	Josien
C ₂₃ H ₂₆ O ₂	1,5-Dimesityl-1,3-penta-dien-1-ol-5-one	-	S	Band freq	Fusion
C ₂₃ H ₂₆ O ₂	1,5-Dimesityl-2,4-penta-dien-2-ol-1-one	-	S	Ident, Band freq Band freq, I	Fusion Fusion
C ₂₃ H ₂₆ O ₅	Δ ^{5,13,15,17} -Etijojerivate-triene-3 ^β -17-diol-11-one-3,17-diacetate	-	S	Group freq	Fried

$C_{23}H_{26}O_6$	Dihydrorotenol	-	Sol	H bond	Hilbert	JACS	58 (1936)	548
$C_{23}H_{26}O_7$	trans- β -Carbethoxy-4-(β , γ -dimeethoxyphenyl)-6,7-dimethoxy-1-tetralone	-	Sol	Band freq	Walker	JACS	75 (1953)	3387
$C_{23}H_{27}D_7N_3$	Δ^5 -Pregnenol- β -one-20-d ₄ -17,21-acetate-d ₃	1300-1500	Sol	Spec	Jones	JACS	74 (1952)	5662
$C_{23}H_{27}NO_2$	Picrotoxadiene maleic anhydride N-phenylimide	2-13 μ	Sol	Spec, Band freq	Conroy	JACS	74 (1952)	3046
$C_{23}H_{27}NO_3$	Isoamyl p-(p-ethoxybenzalamino) cinnamate	2-12 μ	L	Spec	Taschek	JCP	6 (1938)	542
$C_{23}H_{27}NO_6$	Colchicine ethyl ether	6.75-7.25 μ	Sol	Spec	Horowitz	JACS	74 (1952)	587
$C_{23}H_{27}NO_6$	Iso-colchicine ethyl ether	6.75-7.25 μ	Sol	Spec	Horowitz	JACS	74 (1952)	587
$C_{23}H_{27}N_5$	5-(5'-Isopropylamino-3,2a phenazine	2.5-15 μ	S	Spec	Drake	JACS	73 (1951)	544
$C_{23}H_{28}N_2O_4$	O-Acetyllyohibine	-	S	Freq	Huebner	JACS	77 (1955)	469
$C_{23}H_{28}N_2O_4$	Methyl anhydroreserpate	-	-	Band study	Huebner	JACS	77 (1955)	472
$C_{23}H_{28}N_2O_5$	Cimicidine	800-3500	Sol	Spec, Band freq Group freq, Struct	Rogers Snyder	JACS	74 (1952) JACS	1987 76 (1954) 4601
$C_{23}H_{28}N_2O_5 \cdot HCl$	Cimicidine hydrochloride	-	-	Band freq	Snyder	JACS	76 (1954)	4601
$C_{23}H_{28}N_2O_5$	N,N-Dimethylaminocolchicide	2-14 μ	S	Spec, Struct	Rappaport	JACS	76 (1954)	3693
$C_{23}H_{28}O$	1,3-Diaryl-1-2-propen-1-	-	-	Ident	Fusion	JACS	75 (1953)	5952

$C_{23}H_{28}O_2$	1,3-Diduryl-1,2-propane-dione	-	S	Band freq., I	Fusion	JACS 75 (1953) 5952
$C_{23}H_{28}O_2$	1,3-Diduryl-1,3-propane-dione	-	-	Comparison	Fusion	JACS 75 (1953) 5952
$C_{23}H_{28}O_3$	1-2,4b-Dimethyl-1,2, β , β ,4aac,4b,5,6,7,8,10,10 α -dodecahydrophenanthrene- $\gamma\beta$ -ol-1-one benzoate	-	S	Band freq.	Sarett	JACS 75 (1953) 2112
$C_{23}H_{28}O_3$	Duryl 2-hydroxy-4- β -butylphenyl ketone acetate	-	-	Group freq.	Fusion	JACS 77 (1955) 3781
$C_{23}H_{28}O_4$	Methyl-1-methyl- β -acetoxy- $\Delta^1,3,5(10),6$ -estratriene-17 β -carboxylate	-	Sol	Band freq.	Sandoval	JACS 77 (1955) 1448
$C_{23}H_{28}O_4$	$\Delta^4,9(11),16$ -Pregnatrien- Δ^{21} -ol- β ,20-dione-21-acetate	-	S	Band freq.	Allen	JACS 77 (1955) 1028
$C_{23}H_{28}O_5$	$\Delta^{4,16}$ -Pregnadiene-2-ol- β ,11,20-trione-21-acetate	-	S	Band freq.	Allen	JACS 77 (1955) 1028
$C_{23}H_{28}O_6$	17 α -21-Dihydroxy-1,4-pregnadiene-3,11,20-trione-21-acetate	2.5-3.5 μ	Sol	Group study	Kabasaki,Allan	AC 31 (1959) 375
$C_{23}H_{28}O_6$	1-(3',4'-Dimethoxyphenyl)-2-carbethoxy-6,7-dimethoxytetralin	-	Sol	Band study	Walker	JACS 75 (1953) 3387
$C_{23}H_{28}O_6$	d1-16 α ,17 α -Oxido- β ,11,20-triketo-21-hydroxy- Δ^4 -pregnene 21-acetate	-	-	Ident	Barkley	JACS 76 (1954) 5017

$C_{23}H_{28}O_7$	Methyl α -retroendrate dimethyl ether	-	Sol	Ident	Schrecker	JACS 77 (1955) 432
$C_{23}^H28^O_7$	Δ^4 -Pregnene- β , δ , ϵ , ζ , η , κ , λ , μ , ν -tetrone- γ 17 α , ϵ 21-diol- ϵ 21 acetate	-	Sol	Band freq	Sondheimer	JACS 76 (1954) 5020
$C_{23}^H29ClO_6$	4-Chlorocortisone acetate	1550-1800	S	Spec, Freq	Meda	SA 13 (1958) 75
$C_{23}^H29FO_6$	1-Dehydro-9 α -Fluoro- hydrocortisone acetate	-	S	Band freq Group freq	Fried Hirschmann	JACS 77 (1955) 4181 JACS 77 (1955) 3166
$C_{23}^H29FO_6$	6-Dehydro-9 α -fluoro- hydrocortisone acetate	-	S	Group freq Group freq	Fried Hirschmann	JACS 77 (1955) 4181 JACS 77 (1955) 3166
$C_{23}^H29FO_6$	4-Fluorocortisone acetate	1550-1800	S	Spec, Freq	Meda	SA 13 (1958) 75
$C_{23}^H29FO_6$	9 α -Fluorocortisone acetate	-	S	Group freq	Fried	JACS 76 (1954) 1455
$C_{23}^H29N_3O_6$	cis-Bis(α , α -dimethyl- glutarimido)-nitro- mesitylene	-	Sol	Band freq, I	Adams	JACS 75 (1953) 2375
$C_{23}^H29N_3O_6$	trans-Bis-(α , α -dimethyl- glutarimido)-nitro- mesitylene	-	Sol	Band freq	Adams	JACS 75 (1953) 2375
$C_{23}^H29-31N_3O_7$	Xanthomycin-A	2-16 μ	Sol	Spec, Freq, Struct	Rao	JACS 76 (1954) 1335
$C_{23}^H29-31N_3O_7 \cdot HCl_1$	Xanthomycin-A- hydrochloride	2-16 μ	S	Spec, Freq, Struct	Rao	JACS 76 (1954) 1335
C_{23}^H30	P,P'-Hexamethylene-1,5- diphenylpentane	3-12 μ	Sol	Spec	Steinberg	JACS 74 (1952) 5388
$C_{23}^H30O_5$	Δ^5 -Pregnene- β -one-20- α -17,21-acetate	-	Sol	Freq	Jones	JACS 74 (1952) 5662

$C_{25}H_{30}BrFO_6$	2-Bromo-9 α -Fluoro- Δ^4 -pregnen-1 β ,17 α ,21-triol-3,20-dione-21-acetate	-	S	Band freq	Fried	JACS	77 (1955)	4181
$C_{25}H_{30}BrFO_6$	2-Bromo-9 α -fluoro- Δ^4 -pregnen-1 β ,17 α ,21-triol-3,20-dione-21-acetate	-	Sol	Band freq	Fried	JACS	77 (1955)	4181
$C_{25}H_{30}N_2O_2$	Bis-(N-benzyl)-azelanide	700-1700	S	Spec	Stafford	AC	21 (1949)	1454
$C_{25}H_{30}N_2O_3$	N-Carbethoxydeacetyl-aspidospermine	-	-	Group freq, I, Struct	Witkop	JACS	76 (1954)	5603
$C_{25}H_{30}N_2O_3$	N,O-Diacetyl laspidosine	6.01-11.87 μ	Sol	Group freq, I, Struct	Witkop	JACS	76 (1954)	5603
$C_{25}H_{30}N_2O_4$	cis-Bis(α , α -dimethyl-glutarimido)-mesitylene	-	Sol	Band freq	Adams	JACS	75 (1953)	2375
$C_{25}H_{30}N_2O_4$	trans-Bis-(α , α -dimethyl-glutarimido) mesitylene	-	Sol	Band freq	Adams	JACS	75 (1953)	2375
$C_{25}H_{30}N_2O_5$	Methyl reserpate	-	-	Ident	Klohs	JACS	77 (1955)	2241
$C_{25}H_{30}N_2O_5 \cdot HCl$	Dihydrocimicidine hydrochloride	-	-	Band freq	Snyder	JACS	76 (1954)	4601
$C_{25}H_{30}N_2O_15$	1-Deoxy-1-diazo keto-D-erythro-L-glucurononulose heptaacetate	-	-	Freq	Wolfson	JACS	77 (1955)	3096
$C_{25}H_{30}N_2O_15$	1-Deoxy-1-diazo keto-D-erythro-L-mannuronulose heptaacetate	-	-	Freq	Wolfson	JACS	77 (1955)	3096
$C_{25}H_{30}O$	Sym-Didurylacetone	-	-	Freq	Fusion	JACS	75 (1953)	5952
$C_{25}H_{30}O$	4,5-Dihydro-p-cyclodhexyl-phenyl duryl ketone	-	-	Freq	Fusion	JACS	76 (1954)	911

$C_{23}H_{30}^0$	1,5-Dimesityl-2-pentanone	-	-	Band freq	Fusion	JACS	75 (1953)	5950
$\Delta^{4,16}C_{23}H_{30}^0$	-20-Ethylnylpregnadienone- β	-	S, Sol	Freq	Tarpley	APS	9 (1955)	69
$C_{23}H_{30}^0\beta$	$\Delta^{5,13}(17\alpha), 17(20)-17$ -Ethylenedioxyestratriene- $\beta\beta$ -ol-11-one acetate	-	S	Freq	Fried	JACS	75 (1953)	4929
$C_{23}H_{30}^04$	$\alpha-(3\beta$ -Acetoxy-5,7,9-estratrien-17- γ 1)-propionic acid	-	Sol	Group freq Band freq	Mosettig Scheer	JOC JACS	17 (1952) 77 (1955)	764 3300
$C_{23}H_{30}^04$	21-Acetoxypregna-4,9(11)-diene- β ,20-dione	-	Sol	Group freq, Ident	Casanova	JCS	- (1953)	2983
$C_{23}H_{30}^04$	$\Delta^{3,5,16}$ -Androstatriene- β , 1700-1400 17-diol diacetate	Sol	Ident	Jones	JACS	78 (1956)	1152	
$C_{23}H_{30}^04$	$\delta 1-\Delta^{5,16}$ -Ethylenedioxy- pregnadiene-11,20-dione	-	S	Band freq	Poos	JACS	77 (1955)	1026
$C_{23}H_{30}^04$	$\Delta^{1,3,5,10}$ - β -Methoxy-17-(2-acetoxyacetyl)estratriene	-	Sol	Group freq	Jones	JACS	72 (1950)	956
$C_{23}H_{30}^04$	$\Delta^{1,3,5,10}$ -1-Methyl-17-carbome thoxyestra trienol - β -acetate	-	Sol	Group freq	Jones	JACS	72 (1950)	956
$C_{23}H_{30}^04$	$\Delta^{1,3,5}(10)-1$ -Methylestratrienediol- β , 17-diacetate	-	Sol	Group freq	Jones	JACS	72 (1950)	956
$C_{23}H_{30}^04$	Methyl-1-methyl- β -acetoxy- $\Delta^{1,3,5}(10)$ -estratriene- β -carboxylate	-	Sol	Band freq	Sandoval	JACS	77 (1955)	148

$C_{23}H_{30}O_4$	$\Delta^{1,7\alpha}-$ Pregnadien-21-ol- $\beta,20$ -dione acetate	-	Sol S	Group freq	JACS JACS	77 (1955) 77 (1955)	661 4184
$C_{23}H_{30}O_4$	$\Delta^{4,16\alpha}-$ Pregnadien-21-ol- $\beta,20$ -dione-21-acetate	-	S	Struct Group freq	Cole Allen	19 (1954) 77 (1955)	131 1028
$C_{23}H_{30}O_5$	11α -Acetoxy- $16\alpha,17\alpha$ -Oxido- progesterone	-	-	Ident	Peterson	77 (1955)	4428
$C_{23}H_{30}O_5$	d1- β -Ethylenedioxy- 5β - pregnene-11,16,20-trione	-	S	Band freq	Arth	JACS JACS	77 (1955) 77 (1955)
$C_{23}H_{30}O_5$	d1- β -Ethylenedioxy- 13α - pregn- 5β -ene-11,16,20- trione	-	S	Freq	Arth	JACS JACS	3834 3834
$C_{23}H_{30}O_5$	δ -Oxodeoxycorticosterone 21-acetate	-	Sol	Group freq	Amendolla	JCS -	(1954) 1226
$C_{23}H_{30}O_5$	$\Delta^{4,7\alpha}-$ Pregnadien- $17\alpha,21-$ diol- $\beta,20$ -dione-21- acetate	-	S	Band freq	Antonucci	JACS JACS	76 (1954) 76 (1954)
$C_{23}H_{30}O_5$	$\Delta^{4,9(11)}$ -Pregnadien- $17\alpha,$ 21-diol- $\beta,20$ -dione-21- acetate	-	S	Group freq	Bernstein	JACS JACS	4830 4830
$C_{23}H_{30}O_5$	$\Delta^{4,16\alpha}-$ Pregnadien- $11\beta,21-$ diol- $\beta,20$ -dione-21- acetate	-	S	Band freq	Allen	JACS JACS	77 (1955) 77 (1955)
$C_{23}H_{30}O_5$	Δ^4 -Pregneno $l-21$ -trione $-\beta,11,20$ -acetate	1600-1800 1700-1800	Sol -	Freq, Struct Spec Band freq	Jones Jones Jones	JACS CIC JACS	241 94 2820
$C_{23}H_{30}O_5$	Δ^4 -Pregneno $l-21$ -trione $-\beta,12,20$ -acetate	1700	Sol	Freq, Struct	Jones	JACS	241

$C_{23}H_{30}O_5S$	Δ^4 -Pregnene- β , 11, 20-trione-17 α -ol-21-thiol-21-acetate	-	Sol	Band freq	Djerassi	JACS 75 (1953) 3700
$C_{23}H_{30}O_6$	17 $\alpha\beta$ -Acetoxyethyl-D-homo- Δ^4 -androsten-17 α -ol-3, 11, 17-trione	-	Sol	Band freq	Batres	JACS 76 (1954) 5171
$C_{23}H_{30}O_6$	Aldosterone-21-acetate	2-12 μ	Sol	Spec Band freq	Simpson Ham	HCA 37 (1954) 1163 JACS 77 (1955) 1637
$C_{23}H_{30}O_6$	dl-Cortisone acetate	-	-	Ident Ident Band freq, Ident Band freq Ident	Barkley Barkley Bladon Pois Hogg	JACS 75 (1953) 4110 JACS 76 (1954) 5017 JCS - (1954) 125 JACS 76 (1954) 5031 JACS 77 (1955) 4436
$C_{23}H_{30}O_6$	17 α , 21-Dihydroxy-4-pregnene- β , 11, 20-trione-21-acetate	2.5-3.5 μ	-	Group study	Kabasakalian	AC 31 (1959) 375
$C_{23}H_{30}O_6$	Δ^4 -Pregnenediol-17 α , 21-triole-3, 11, 20-acetate-21-	-	Sol	Freq, Struct, Spec Spec, Freq Band study Ident	Jones Meda Romo Oliveto	JACS 74 (1952) 2820 SA 13 (1958) 75 JACS 75 (1953) 1277 JACS 76 (1954) 6113
$C_{23}H_{30}O_6$	Δ^4 -Pregnene- β , 6, 20-trione-17 α , 21-diol (6-Keto-substances)21-acetate	1550-1800	S	Band freq	Sondheimer	JACS 76 (1954) 5020
$C_{23}H_{30}O_6$	α -Kosin	3.13-12.3 μ	S	Freq, I	Birch	JCS - (1952) 3102
$C_{23}H_{30}O_7$	β -Kosin	3.10-12.1 μ	S	Freq, I	Birch	JCS - (1952) 3102
$C_{23}H_{30}O_7$	Δ^4 -Pregnene- β , 11, 20-trione-6 β , 11 α , 21-triol-21-acetate	-	S	Band freq	Sondheimer	JACS 76 (1954) 5020
$C_{23}H_{31}D_3O_3$	Δ^5 -Pregnennol- β -one-20 acetate- d_7	1300-1500	Sol	Spec	Jones	JACS 74 (1952) 5662

Δ^5 -Pregnol- $\beta\text{-one}$ -20 d β -21-acetate	1300-1500	Sol	Spec	Jones	JACS	74 (1952)	5662
C ₂₃ H ₃₁ BrO ₄	4-Bromodeoxycorti- costerone acetate	1550-1800	S	Spec, Freq	Meda	SA 13 (1958)	75
C ₂₃ H ₃₁ BrO ₆	4-Bromo-17 α -hydroxy-21- acetoxypregnane- β ,11, 20-trione	-	-	Comparison	Holysz	JACS 75 (1953)	4432
C ₂₃ H ₃₁ BrO ₆	4-Bromopregnane-17 α ,21- diol- β ,11,20-trione 21-acetate	-	-	Ident Ident	Hanze Oliveto	JACS 76 (1954) JACS 76 (1954)	3179 6113
C ₂₃ H ₃₁ FO ₄	4-Fluorodeoxycorticosterone acetate	1550-1800	S	Freq	Meda	SA 13 (1958)	75
C ₂₃ H ₃₁ FO ₆	Δ^1 -5 α -Dihydro-9 α - fluorohydrocortisone acetate	-	S	Group freq	Hirschmann	JACS 77 (1955)	3166
C ₂₃ H ₃₁ FO ₆	9 α -Fluorohydrocortisone acetate	-	S	Group freq	Fried	JACS 76 (1954)	1455
C ₂₃ H ₃₁ IO ₃	21-Iodo- Δ^5 ,16 β -pregnadien -3 β -ol-20-one acetate	-	Sol	Band freq	Djerassi	JACS 76 (1954)	1722
C ₂₃ H ₃₁ NO ₃	3-(N-Morpholiny)- β ,5, androstadiene-11,17-dione	-	S	Group freq	Heyl	JACS 77 (1955)	488
C ₂₃ H ₃₂	1,5-Dimesitylpentane	-	-	Ident	Fusion	JACS 75 (1953)	5950
C ₂₃ H ₃₂ IN	Duryl-p-tert-butylphenyl-N- methyl ketimine methiodide	-	-	Freq	Fusion	JACS 75 (1953)	5321
C ₂₃ H ₃₂ N ₂ O ₄	16,17-[β ,1-(3-Carboxy-2- pyrazolino]- β -pregnen- 3 β -ol-20-one	-	-	Group study	Mueller	JACS 76 (1954)	3686

$C_{23}H_{32}O_2$	2-t-Amyl-4-methoxy-2, β , γ -dihydrophenyl duryl ketone	-	-	Group freq	Fusion	JACS 76 (1954) 5466
$C_{23}H_{32}O_2$	Bis-(2-hydroxy- β -t-butyl- β -methyl-5-methylphenyl)methane	2.75-3.1 μ	S, Sol	Spec, H bond	Coggeshall	JACS 72 (1950) 2836
$C_{23}H_{32}O_2$	Di-(4-hydroxy-2 or β -methyl-5-t-butylphenyl)methane	2.5-3.4 μ	S, Sol	Freq	Anbelang	JACS 75 (1953) 947
$C_{23}H_{32}O_2$	1,5-Dimesitylpentane-1,2-diol	-	-	Band freq	Fusion	JACS 75 (1953) 5950
$C_{23}H_{32}O_3$	Δ^5 -Acetoxysterio-cholenol-17-ethynyl-17	2800-2700	-	Spec	Jones	CIC 2 (1950) 94
$C_{23}H_{32}O_3$	β -Ethylenedioxo- Δ^5 -pregnadien-20-one	5, 16	Sol	Band freq	Sondheimer	JACS 77 (1955) 192
$C_{23}H_{32}O_3$	17- β -Ethynyl- Δ^5 -androstan-14 α -ol acetate- β	700-1400	S	Ident	Jones	JACS 78 (1956) 1152
$C_{23}H_{32}O_3$	Δ^5 -17-Ethynylandrostanediol- β , 17-acetate- β	1684-1784	Sol	Group freq Band study Spec, Freq	Jones Jones Jones	JACS 72 (1950) 956 JACS 74 (1952) 80 JACS 74 (1952) 2820
$C_{23}H_{32}O_3$	20-Ketoall- Δ^5 -pregnadienol- β β acetate	8:14, 16	Sol	Group freq, Ident	Mancera	JCS - (1952) 1021
$C_{23}H_{32}O_3$	d1- β -Keto-16, Δ^4 , 9(11)-17-dihydroxy-androstadiene acetonide	2-12 μ	Sol	Spec	Woodward	JACS 74 (1952) 4223
$C_{23}H_{32}O_3$	d1- β -Keto-16, 17-dihydroxy- Δ^4 , 9(11)-D-homoandrostanediene acetonide	2-12 μ	Sol	Spec	Woodward	JACS 74 (1952) 4223
$C_{23}H_{32}O_3$	$\Delta^{3,5}$ -Pregnadien-7-one-20 β -ol acetate	-	S	Band freq	Romo	JOC 17 (1952) 1413

C ₂₃ H ₃₂ O ₃	$\Delta^{1,10}$ -Pregnadien- β ,20-dione-20- α -ethylene ketone	-	S	Bond freq	Bernstein	JACS	76 (1954)	5674
C ₂₃ H ₃₂ O ₃	$\Delta^4,17(20)$ -Pregnadien-20 α -ol- β -one 20-acetate	-	Sol	Freq	Djerassi	JACS	77 (1955)	3826
C ₂₃ H ₃₂ O ₃	$\Delta^4,17(20)$ -Pregnadienol-21-one- β acetate	-	Sol	Freq, Spec, Struct	Jones	JACS	74 (1952)	2820
C ₂₃ H ₃₂ O ₃	$\Delta^{5,16}$ -Pregnadienol- $\beta\beta$ -one-20 acetate	1580-3100 700-1400	- Sol S,Sol S	Assign Group study Group freq Ident	Jones Jones Tarpley Jones	JACS JACS APS JACS	70 (1948) 72 (1950) 9 (1955) 78 (1956)	2024 86 69 1152
C ₂₃ H ₃₂ O ₃	$\Delta^{5,17(20)}$ -Pregnadien- $\beta\beta$ -ol-21-al acetate	-	Sol	Band freq	Sondheimer	JACS	75 (1953)	5930
C ₂₃ H ₃₂ O ₃	$\Delta^{7,16}$ -Pregnadien- $\beta\alpha$ -ol-20-one acetate	-	Sol	Group freq	Velasco	JOC	18 (1953)	92
C ₂₃ H ₃₂ O ₃	Δ^4 -17-Vinyl androstenol-17 β -one- β acetate	-	S,Sol	Group freq	Tarpley	APS	9 (1955)	69
C ₂₃ H ₃₂ O ₃	Δ^4 -Pregnene- β ,20-dione-21-thiol acetate	-	Sol	Band freq	Djerassi	JACS	75 (1953)	3700
C ₂₃ H ₃₂ O ₄	$\beta\beta$ -Acetoxyallopregn-8(9)-ene-11,20-dione	-	Sol	Group freq	Barton	JCS	- (1954)	747
C ₂₃ H ₃₂ O ₄	$\beta\beta$ -Acetoxy- Δ^{16} -allo-pregnene-12,20-dione	-	-	Group freq	Mueller	JACS	75 (1953)	4888
C ₂₃ H ₃₂ O ₄	17 $\alpha\delta$ -Acetoxy-17 α -methyl Δ^4 -D-homoandrostene- β ,17-dione	-	Sol	Group freq	Turner	JACS	75 (1953)	3484
C ₂₃ H ₃₂ O ₄	16 $\alpha\delta$ -Acetoxy- Δ^4 -pregnene- β ,20-dione	-	S	Band freq Group freq	Bernstein Hirschmann	JACS JOC	76 (1954) 20 (1955)	5674 572

$C_{23}H_{32}O_4$	2 α -Acetoxyprogesterone	-	Sol.	Band freq	Sondheimer	JACS 75 (1953)	4712
$C_{23}H_{32}O_4$	β -Acetoxyprogesterone	-	Sol.	Group freq	Amendolla	JCS - (1954)	1226
$C_{23}H_{32}O_4$	19-Acetoxyprogesterone	-	Sol.	Group freq	Barber	JOC 19 (1954)	1758
$C_{23}H_{32}O_4$	Δ^1 -Allo pregnenol-21-dione- β ,20 acetate	-	Sol.	Freq, Spec, Struct Table Band study	Jones Jones Jones	JACS 74 (1952) JACS 77 (1955) JACS 78 (1956)	2820 651 1152
$C_{23}H_{32}O_4$	$\Delta^{5,9(11)}$ -Androstadiene- β ,17-dione bisethylene ketal	-	S	Group freq	Bernstein	JOC 19 (1954)	44
$C_{23}H_{32}O_4$	$\Delta^{2,16}$ -Androstadiene- β ,17-diol diacetate	700-1400	Sol.	Spec, Ident	Jones	JACS 78 (1956)	1152
$C_{23}H_{32}O_4$	Δ^5 -Androstenol- β -one-17-acetoacetate	-	Sol.	Freq	Jones	JACS 74 (1952)	5648
$C_{23}H_{32}O_4$	16 α -Carboxy-16,17- α -cyclopropano- β -hydroxy- δ -pregnen-20-one	-	-	Freq	Mueller	JACS 76 (1954)	3686
$C_{23}H_{32}O_4$	Deoxycorticosterone acetate	1550-1800	S	Spec, Freq	Meda	SA 13 (1958)	75
$C_{23}H_{32}O_4$	β ,17-Diacetoxy-5,16-androsta diene	-	-	Band study	Moffett	JACS 74 (1952)	2183
$C_{23}H_{32}O_4$	β ,14-Dihydroxy- $\Delta^{16(17),20(22)}$ -cardadienolide	1000-1900	Sol.	Spec, Freq	Jones	JACS 81 (1959)	5242
$C_{23}H_{32}O_4$	$\Delta^{5-16\alpha,17\alpha}$ -Epoxy pregnenol- β -one-20 acetate	-	Sol.	Band freq, Spec	Jones	JACS 74 (1952)	2820
$C_{23}H_{32}O_4$	Δ^5 - β -Ethylenedioxy-pregnene-11,20-dione	-	-	Band freq Band freq	Constantin John	JACS 75 (1953) JACS 76 (1954)	1716 5026

$C_{23}H_{32}O_4$	dL- β -Ethylenedioxy-13 α -pregn-5-ene-11,20-dione	-	S	Freq		Arth	JACS	77 (1955)	3834
$C_{23}H_{32}O_4$	dL- β -Ethylenedioxy-14 β -pregn-5-ene-11,20-dione	-	S, Sol	Freq		Arth	JACS	77 (1955)	3834
$C_{23}H_{32}O_4$	dL- Δ^5 β -Ethylenedioxy-17 α -pregnene-11,20-dione	-	-	Band freq		Johans	JACS	76 (1954)	5026
$C_{23}H_{32}O_4$	dL- β -Ethylenedioxy-5,16-pregnadiene-1 β -ol-20-one	-	S	Freq		Arth	JACS	77 (1955)	3834
$C_{23}H_{32}O_4$	Methyl β ,11-diketobis-norcholest-4-enate	-	S	Group freq Struct		Bladon Meister	JCS JACS	- (1953) 76 (1954)	2921 5679
$C_{23}H_{32}O_4$	$\Delta^{4,9(11)}$ -Pregnadiene- β ,20-dione- 21 al dimethyl acetal	-	S	Group freq		Taub	JACS	76 (1954)	4094
$C_{23}H_{32}O_4$	Δ^4 -Pregnenol-11 α -dione- β ,20-acetate	-	-	Ident		Patterson	JACS	74 (1952)	5933
$C_{23}H_{32}O_4$	Δ^4 -Pregnenol-1 β -dione- β ,20-acetate	-	Sol	Band freq, Struct		Jones	JACS	74 (1952)	2820
$C_{23}H_{32}O_4$	Δ^4 -Pregnenol-1 β -dione- β ,20-acetate	-	-	Assign		Jones	JACS	70 (1948)	2024
$C_{23}H_{32}O_4$	Δ^4 -Pregnenol-21-dione β ,20-acetate	1580- β 100 1700-1800	Sol	Group study		Jones	JACS	72 (1950)	86
$C_{23}H_{32}O_4$		-	Spec			Jones	CIC	2 (1950)	94
$C_{23}H_{32}O_4$		3500-3700	Sol	Freq		Jones	JACS	74 (1952)	5648
$C_{23}H_{32}O_4$		-	Spec, Band freq, Struct			Jones	JACS	74 (1952)	2820
$C_{23}H_{32}O_4$		-	Group freq		Djerassi	JACS	75 (1953)	3700	
$C_{23}H_{32}O_4$		-	Group freq		Tarpley	APS	9 (1955)	69	
$C_{23}H_{32}O_4$	Δ^{16} -Pregnen-3 α -ol-11,20-dione acetate	-	Sol	Band freq		Boskenkrantz	JACS	75 (1953)	4430
$C_{23}H_{32}O_4$	Δ^4 -Pregnen-3 α -ol-11,20-dione- β ,17 α -oxide-20-ethylene ketal	-	S	Band freq		Bernstein	JACS	76 (1954)	5674

$C_{23}H_{32}O_4$	16,17-Oxido- Δ^4 -pregnen-20 β -ol- β -one acetate	1600-1800	Sol.	Band freq	Fusion	JACS 76 (1954) 2526
$C_{23}H_{32}O_4$	16 α ,17 α -Oxido- Δ^5 -pregnen- β ,21-diol-20-one- β -monoacetate	-	Sol.	Band freq	Djerassi	JACS 76 (1954) 1722
$C_{23}H_{32}O_4S$	Δ^4 -Pregnene- β ,20-dione-17 α -ol-21-thiol-21-acetate	-	Sol.	Band freq	Djerassi	JACS 75 (1953) 3700
$C_{23}H_{32}O_5$	$\beta\beta$ -Acetoxy-5 α -hydroxy-allo- $\beta\beta$ -pregn-7-ene-11,20-dione	-	S	Group freq	Bladon	JCS - (1953) 2921
$C_{23}H_{32}O_5$	17 β -Acetoxyandrost-5-ene- β ,16-dione- β -ethylene ketal	-	Sol.	Band study	Bellamy	JCS - (1957) 861
$C_{23}H_{32}O_5$	11 α -Acetoxy-17 α -hydroxy- Δ^4 -pregnene- β ,20-dione	-	-	Struct	Meister	JACS 75 (1953) 416
$C_{23}H_{32}O_5$	3 β -Acetoxy-13 β -hydroxy-12,13-seco-16-allopregnen-20-one-12-carboxylate	-	Sol.	Band freq	Rochman	JACS 77 (1955) 2228
$C_{23}H_{32}O_5$	17 $\alpha\beta$ -Acetoxyethyl-17-homo-homo- Δ^4 -androsten-17 $\alpha\beta$ -ol- β ,17-dione	-	Sol.	Band freq	Battres	JACS 76 (1954) 5171
$C_{23}H_{32}O_5$	21-Acetoxy-4-pregn-16 α -ol- β ,20-dione	-	-	Struct	Cole	JOC 19 (1954) 131
$C_{23}H_{32}O_5$	Androsterone diethylene ketal	-	S	Group freq	Bernstein	JACS 75 (1953) 1481
$C_{23}H_{32}O_5$	$\Delta^{8(9)}$ -Allopregnene-7,20-diene- β ,11 α -diol- β -monoacetate	-	Sol.	Band study Freq	Djerassi Djerassi	JACS 73 (1951) 4496 JACS 74 (1952) 3321

$C_{23}H_{32}O_5$	Δ^5 -Androsten- 17β -ol- β , 11-dione acetate β -ethyleneketal	-	S	Group freq	Bernstein	JOC	18 (1953)	1166
$C_{23}H_{32}O_5$	Cannogenin	-	-	Spec	Golab	HCA	42 (1959)	2418
$C_{23}H_{32}O_5$	$\beta\beta, \delta\beta$ -Diacetoxo- Δ^4 -androsten-17-one	-	Sol	Group freq	Amendolla	JCS	- (1954)	1226
$C_{23}H_{32}O_5$	$\beta\beta, 17\beta$ -Diacetoxo androst- β -en-16-one	-	Sol	Group study	Bellamy	JCS	- (1957)	861
$C_{23}H_{32}O_5$	$\beta\beta, 17\beta$ -Diacetoxo- Δ^4 -androsten- β -one	-	-	Group freq	Eppstein	JACS	76 (1954)	3174
$C_{23}H_{32}O_5$	11 $\alpha, 17\beta$ -Diacetoxo- Δ^- androsten- β -one	-	S	Group freq	Bernstein Eppstein	JOC JACS	18 (1953) 76 (1954)	1166 3174
$C_{23}H_{32}O_5$	11 $\alpha, 21$ -Dihydroxy-4-pregnene- β ,20-dione acetate-21	-	-	Ident	Eppstein	JACS	75 (1953)	408
$C_{23}H_{32}O_5$	21,21-Dimethoxy- Δ^4 -pregnene- β , 11,20-trione	-	S	Ident	Mattox Gould	JACS JACS	74 (1952) 75 (1953)	4340 3593
$C_{23}H_{32}O_5$	$2\beta, 4b$ -Dimethyl-7-ethyl-enedi oxy-2-acetonyl- $1,2,3,4,4a$ q, 4b,5,6,7,8,10,10a β , dodecahydrophenanthrene-4-one	-	S	Band freq	Poos	JACS	77 (1955)	1026
$C_{23}H_{32}O_5$	6β -Hydroxydeoxycorticosterone 21-acetate	-	Sol	Group freq	Amendolla Romo	JCS JOC	- (1954) 19 (1954)	1226 1509
$C_{23}H_{32}O_5$	$9\beta-(9\alpha)-X$ -Hydroxy-deoxycorticosterone 21-acetate	-	Sol	Group freq	Stone	JACS	77 (1955)	3926
$C_{23}H_{32}O_5$	2 α -Hydroxy testosterone diacetate	-	Sol	Band freq	Sondheimer Clarke	JACS	75 (1953)	4712
$C_{23}H_{32}O_5$	2β -Hydroxytestosterone diacetate	-	-	Ident	Sondheimer Clarke	JACS	77 (1955)	661

$C_{23}H_{32}O_5$	6β -Hydroxytestosterone δ ,17-diacetate	-	Sol Sol	Group freq Ident	Amendolla Romo	JCS JOC	- 19 (1954)	1226 1509
$C_{23}H_{32}O_5$	$9\alpha,11\alpha$ -Oxidoallopregnane 7,20-dione- β -ol acetate	-	Sol Sol	Freq Band freq	Djerassi Djerassi	JACS JACS	73 (1951) 75 (1953)	4496 3505
$C_{23}H_{32}O_5$	$16\alpha,17\alpha$ -Oxidoallopregnane - 11α -ol- β ,20-dione acetate	-	-	Band study	Romo	JACS	75 (1953)	1277
$C_{23}H_{32}O_5$	$\Delta^{4,16}$ -Pregnadiene- 11β ,21- diol- β ,20-dione-20 ethylene ketal	-	S	Band freq	Allen	JACS	77 (1955)	1028
$C_{23}H_{32}O_5$	Pregnanol-21-trione- β ,11, 20 acetate	-	Sol Sol	Assign Freq, Struct	Jones Jones	JACS JACS	70 (1948) 71 (1949)	2024 241
$C_{23}H_{32}O_5$	Δ^4 -Pregnenediol- 11β ,21- dione- β ,20-acetate- γ	-	Sol	Freq, Spec, Struct	Jones	JACS	74 (1952)	2820
$C_{23}H_{32}O_6$	3β -Acetoxy- 13α -hydroxy- $16\alpha,17\alpha$ -epoxy-12-carboxy- -12,13-secoallopregnan- 20-one-12,13-lactone	-	-	Ident	Rochman	JACS	77 (1955)	2228
$C_{23}H_{32}O_6$	$17\alpha\beta$ -Acetoxyethyl-D-homo- Δ^4 -androstene $11\beta,17\alpha$ -diol- β ,17-dione	-	Sol	Ident	Batres	JACS	76 (1954)	5171
$C_{23}H_{32}O_6$	Allopregnane- β ,11,20- trione- 17α ,21-diol-21- acetate	-	-	Spec, Struct Spec, Ident Band study	Oliveto Pataki Romo Dickson Rosenkrantz	JACS JACS JACS JCS AC	74 (1952) 74 (1952) 75 (1953) - (1955) 28 (1956)	2248 5615 1277 443 31
$C_{23}H_{32}O_6$	Dihydrocortisone acetate	-	-	Ident Purity Ident	Holysz Henze Oliveto	JACS JACS JACS	75 (1953) 76 (1954) 76 (1954)	4432 3179 6113
$C_{23}H_{32}O_6$	$11\beta,17\alpha$ -Dihydroxypregnane- β ,20-dione-11,17- diformate	-	-	Group freq	Oliveto	JACS	77 (1955)	3564

			Group freq	Jones	JACS	72 (1950)	956	
$C_{23}H_{32}O_6$	$\beta,12$ -Diketo- 7α -acetoxy- etiocholanic acid methyl ester	-	Sol					
$C_{23}H_{32}O_6$	17α -Hydroxycorticosterone -17-acetate	-	-	Ident Ident	Fried Levin	75 (1953) 75 (1953)	2273 502	
$C_{23}H_{32}O_6$	17α -Hydroxycorticosterone -21-acetate	-	-	Ident Ident Ident	Barkley Oliveto Oliveto	76 (1954) 77 (1955) 77 (1955)	5017 2224 3564	
$C_{23}H_{32}O_6$	Methyl $\beta\beta$ -acetoxy-11:18- epoxy-18-keto- 5α -etianate	$2-12\mu$	Sol	Spec	Simpson	HCA	37 (1954) 1200	
$C_{23}H_{32}O_6$	Pregnan-17 $\alpha,21$ -diol- $3,11$, 20-trione-21-acetate	-	Sol	Spec, Struct, Freq Spec Ident	Jones Oliveto Graber Rosenkrantz	JACS JACS JACS AC	74 (1952) 74 (1952) 76 (1954) 28 (1956)	2820 2248 4474 31
$C_{23}H_{32}O_6$	Δ^4 -Pregnene-11 $\alpha,17\alpha,21$ - triol- $3,20$ -dione 11-acetate	950-1350	S, Sol	Band study	Oliveto	JACS	75 (1953) 3651	
$C_{23}H_{32}O_6$	Δ^4 -Pregnene-11 $\beta,17\alpha,21$ - triol- $3,20$ -dione 11-acetate	-	-	Confirmation of reaction	Oliveto	JACS	75 (1953) 3651	
$C_{23}H_{32}O_6$	Δ^4 -Pregnene-11 $\beta,17\alpha,21$ - triol- $3,20$ -dione 21-acetate	-	Sol	Freq, Spec, Struct	Jones	JACS	74 (1952) 2820	
$C_{23}H_{32}O_6$	Δ^4 -Pregnene-11 $\beta,17\alpha,21$ - triol- $3,20$ -dione 21-monooacetate	-	-	Band study Ident	Romo Peterson	JACS JACS	75 (1953) 75 (1953)	1277 412
$C_{23}H_{32}O_6$	$\beta\beta,5,14$ -Trihydroxy-19- oxo- $\Delta^{20(22)}$ -cardenolide	1000-1900	Sol	Spec, Freq	Jones	JACS	81 (1959) 5242	
$C_{23}H_{32}O_6$	21-Acetoxy- $5\alpha,17\alpha$ - dihydroxyallopregnane $3,11,20$ -trione	-	S	Group freq	Bladon	JCS	- (1954) 125	

$C_{23}H_{32}O_7$	Methyl alloquassinoate	-	S	Freq	Hanson	JCS	-	(1954)	4238
$C_{23}H_{32}O_8$	Allopregnane- β ,11,20-trione- $\delta\alpha_4$, $\delta\beta_4$, $\delta\alpha_1$, $\delta\beta_1$ -tetrol acetate-21-	-	S	Band freq	Sondheimer	JACS	76	(1954)	5020
$C_{23}H_{32}O_{11}$	2-Methyl-1- δ -(1'-tetra-O-acetylglucopyranosyl oxy-ethylidene)cyclohexanone	1377-1770	S	I	Briggs	JCS	-	(1954)	4182
$C_{23}H_{33}BrO_4$	12 α -Bromopregnanol- $\beta\alpha$ -dione-11,20 acetate	-	Sol	Group freq	Jones	JACS	74	(1952)	2828
$C_{23}H_{33}BrO_5$	16 β -Bromo- $\beta\beta$ -acetoxy-17 α -hydroxyallopregnane-12,20-dione	-	-	Freq	Mueller	JACS	75	(1953)	4888
$C_{23}H_{33}BrO_5$	16-Bromoallopregnane- $\beta\beta$,17 α -diol-12,20-dione- β -acetate	1700	Sol	Band study, Group freq	Rothman	JACS	77	(1955)	2229
$C_{23}H_{33}BrO_5$	21-Bromoallopregnane- $\beta\beta$,17 α -diol-12,20-dione- β -acetate	1700	Sol	Band study, Group freq	Rothman	JACS	77	(1955)	2229
$C_{23}H_{33}BrO_5$	12 α -Bromo-11-keto- $\beta\alpha$ -acetoxyetioholic acid methyl ester	-	Sol	Group freq	Jones	JACS	74	(1952)	2828
$C_{23}H_{33}ClO_5$	4-Chloro-17 α -hydroxy-pregnane- β ,11,20-trione- β -ethylene ketal	-	-	Struct	Levin	JACS	76	(1954)	546
$C_{23}H_{33}FO_6$	Allodihydro-9 α -fluoro-hydrocortisone acetate	-	S,Sol	Group freq	Hirschmann	JACS	77	(1955)	3166
$C_{23}H_{33}NO_6$	Dimethyl oxoatidine dicarboxylate	-	-	Group freq	Pelletier	JACS	76	(1954)	4496
$C_{23}H_{33}N_5O_8$	Carbobenzoxy tetra-L-alanyl-L-alanine	-	S	Struct	Zahn	A	636	(1960)	132
$C_{23}H_{34}$	1-Tridecyl naphthalene	690-3248	L	Table, I	Anderson	JCS	-	(1953)	443

C ₂₃ H ₃₄	2-Tridecyclonaphthalene	720-3239	L	Table, I	Anderson	JCS	- (1953)	443
C ₂₃ H ₃₄ N ₂ O. HClO ₄	d-6-(p-Methoxybenzyl) sparteine perchlorate	1038-1619	S	Table	Leonard	JACS	77 (1955)	1552
C ₂₃ H ₃₄ O ₂	β -(Pentadeca trienyl- 8',11',13')-veratrole	-	-	Struct	Sunthankar	JACS	76 (1954)	5070
C ₂₃ H ₃₄ O ₃	20 α -Acetoxyl- Δ^4 -pregnenone	2.5-15 μ	Sol	Spec, Band freq	Hirschmann	JACS	74 (1952)	5357
C ₂₃ H ₃₄ O ₃	$\Delta^9(11)$ -Allopregnen- β - 20-one acetate	920-1292	Sol	Table	Jones	JACS	77 (1955)	651
C ₂₃ H ₃₄ O ₃	Δ^{16} -Allopregn enol- β -one 20-acetate	-	Sol	Group freq, Spec, Struct	Jones	JACS	74 (1952)	2820
C ₂₃ H ₃₄ O ₃	β -Ethyrylandrostan- β , γ -diol-17-acetate	3100-3400	S	Ident, Freq	Filler	CIL	- (1957)	1322
C ₂₃ H ₃₄ O ₃	20-Ketoalloy- $\Delta^{8,14}$ - pregnenol- β -acetate	-	Sol	Group freq	Mancera	JCS	- (1952)	1021
C ₂₃ H ₃₄ O ₃	$\Delta^{5,16}$ -Pregnadien- β -ol- 20-one ethylene ketal	-	S	Band freq	Bernstein	JACS	76 (1954)	5674
C ₂₃ H ₃₄ O ₃	Δ^4 -Pregnien-20 β -ol- 3-one-acetate	1600-1800	Sol Sol	Band freq Group freq	Sondheimer Fusion	JACS	75 (1953) 76 (1954)	5930 2526
C ₂₃ H ₃₄ O ₃	Δ^5 -Pregn enol- β -one-20 acetate	-	-	Assign Freq	Jones	JACS	70 (1948) 74 (1952)	2024 5648
C ₂₃ H ₃₄ O ₃		1300-1500 940-1289 700-1400	Sol Sol Sol	Spec, Freq Table Band study	Jones Jones Jones	JACS	74 (1952) 77 (1955) JACS 78 (1956)	5662 651 1152
C ₂₃ H ₃₄ O ₃	Δ^5 -17-Isopregn enol- β - one-20 acetate	-	S,Sol	Group freq	Tarpley	APS	9 (1955)	69
C ₂₃ H ₃₄ O ₃	Δ^7 -Pregn en- β -ol-20- one acetate	-	Sol	Group freq	Velasco	JOC	18 (1953)	92

$C_{23}H_{34}O_3$	Δ^{11} -Pregnenol- $\beta\alpha$ -one-20-acetate	-	-	Assign	Jones	70 (1948)	2024
$C_{23}H_{34}O_3$	Δ^{16} -Pregnenol- $\beta\alpha$ -one-20-acetate	1580-3100	-	Assign Spec	Jones Jones	70 (1948) 72 (1950)	2024 86
$C_{23}H_{34}O_3$	Progesterone β -mono-cycloethylene ketal	-	S, Sol	Freq	Sondheimer	JACS 77 (1955)	192
$C_{23}H_{34}O_3 \cdot H_2O$	$17\alpha,17\alpha$ -Epoxy- $\beta\beta$ -acetoxy-17 α -methyl-D-homoandrostan-5-ene monohydrate	-	S	Group freq	Gremlyn	JCS - (1953)	1847
$C_{23}H_{34}O_3 S$	Allopregnane- β ,20-dione-21-thiol acetate	-	Sol	Group freq	Djerassi	JACS 75 (1953)	3700
$C_{23}H_{34}O_3 S$	Δ^5 -Androsten- $\beta\beta$ -ol-17-one acetate ethylene-hemithio ketal	-	Sol	Band freq	Djerassi	JACS 75 (1953)	3704
$C_{23}H_{34}O_4$	$\beta\beta$ -Acetoxyallopregnane-11,20-dione	-	Sol	Freq	Stork Cameron	JACS 73 (1951) - (1953)	3546 3864
		-	Sol	Group freq	Djerassi	JACS 75 (1953)	3505
		-	Sol	Band freq	Dickson	JACS - (1955)	443
		-	S, Sol	Group freq	Rosenkrantz	JACS 77 (1955)	2237
$C_{23}H_{34}O_4$	$\beta\beta$ -Acetoxy- $\beta\beta$ -allo-pregnane-11,20-dione	-	Sol	Group freq	Cameron	JCS - (1953)	3864
$C_{23}H_{34}O_4$	$\beta\beta$ -Acetoxyallopregnane-12,20-dione	-	-	Group freq Band study	Mueller Rothman	JACS 75 (1953) 77 (1955)	4868 2229
$C_{23}H_{34}O_4$	$\Delta^5\beta\beta$ -Acetoxytiocholenic acid methyl ester	-	Sol	Group freq	Jones	JACS 72 (1950)	956
$C_{23}H_{34}O_4$	Δ^5 -Allopregnenediol- $\beta\beta$,17 α -one-20-acetate- $\beta\beta$	-	Sol	Band freq, Spec	Jones	JACS 74 (1952)	2820
$C_{23}H_{34}O_4$	Allopregn-21-ol- β ,20-dione acetate	-	Sol	Band freq, Spec Ident	Jones Clarke Jones	JACS 74 (1952) 77 (1955) JACS 78 (1956)	2820 661 1152

				Rosenkrantz	AC	28 (1956)	51
$C_{23}H_{34}^0_4$	Δ^5 -Androstanediol- β ,17 α -diacetate	950-1350	S,Sol	Band study	Jones	JACS 70 (1948)	2024
		1580-3100	- Sol Sol	Assign I Group freq	Jones Jones Jones	JACS 72 (1950)	86
$C_{23}H_{34}^0_4$	Δ^5 -Androstene- β ,17 β -diol diacetate	700-1400	Sol	Band study	Jones	JACS 72 (1950)	956
$C_{23}H_{34}^0_4$	Δ^{16} -Androstene- β ,17- α -diol diacetate	700-1400	Sol	Band study	Jones	JACS 78 (1956)	1152
$C_{23}H_{34}^0_4$	Δ^4 -Androstene- β ,17-dione- β ,17-bisdioxolane	-	-	Group freq	Herzog	JACS 75 (1953)	4425
$C_{23}H_{34}^0_4$	$\beta,5$ -Cyclo- $\delta\alpha,17\beta$ -androstanediol diacetate	β -12 μ	Sol	Spec	Wagner	JOC 17 (1952)	529
$C_{23}H_{34}^0_4$	$\beta,5$ -Cyclo- $\delta\beta,17\beta$ -androstanediol diacetate	β -12 μ	Sol	Spec	Wagner	JOC 17 (1952)	529
$C_{23}H_{34}^0_4$	$\beta\beta,17\beta$ -Diacetoxyl- Δ^5 -androstene	2.5-15 μ	Sol	Spec	Hirschmann	JACS 74 (1952)	5357
$C_{23}H_{34}^0_4$	Digitogenin	-	-	Spec	Golab	HCA 42 (1959)	2418
$C_{23}H_{34}^0_4$	$\beta\beta,14$ -Dihydroxy- $\Delta^{20(22)}$ cardenolide	1000-1900	Sol	Spec, Freq	Jones	JACS 81 (1959)	5242
$C_{23}H_{34}^0_4$	$16\alpha,17\alpha$ -Epoxyallopregnanol- β -one-20 acetate	-	Sol	Band freq	Jones	JACS 74 (1952)	2820
$C_{23}H_{34}^0_4$	$5\alpha,9\alpha$ -Epoxy-11-ketobis-norcolanolic acid methyl ester	1712	Sol	Freq, Struct	Jones	JACS 71 (1949)	241
$C_{23}H_{34}^0_4$	d1- β -Ethylenedioxy- $\beta,16$ -pregnadiene-1 $\beta,20\xi$ -diol	-	S	Freq	Arth	JACS 77 (1955)	3834
$C_{23}H_{34}^0_4$	d1- Δ^5 - β -Ethylenedioxy-pregnene-1 β -ol-20-one	-	-	Band freq	Johns	JACS 76 (1954)	5026

C ₂₃ H ₃₄ O	d1- Δ^5 - β -Ethylenedioxy- -17-n-pregnene-11 α -ol- 20-one	-	-	Band freq	Johns	JACS	76 (1954)	5026
C ₂₃ H ₃₄ O	d1- Δ^5 - β -Ethylenedioxy-17- isopregnene-11 α -ol-20- one	-	-	Band freq	Johns	JACS	76 (1954)	5026
C ₂₃ H ₃₄ O	Δ^5 - β -Ethylenedioxy- pregnene-20 β -ol-11-one	-	-	Band freq	Constantin	JACS	75 (1953)	1716
C ₂₃ H ₃₄ O	$\beta\beta$ -Hydroxy-16 α -acetoxy Δ^5 -pregnen-20-one	-	S,Sol	Group freq	Hirschmann	JOC	20 (1955)	572
C ₂₃ H ₃₄ O	$\Delta^9(11)$ - $\beta\alpha$ -Hydroxy-12- ketonorcholeic acid	-	S,Sol	Group freq	Tarpley	APS	9 (1955)	69
C ₂₃ H ₃₄ O	Methyl $\beta\delta$ -Acetoxy- $\Delta^9(11)$ etiocholenate	25-15 μ 2-12 μ	Sol Sol	Spec, Band freq Spec	Hirschmann Woodward	JACS JACS	74 (1952) 74 (1952)	5357 4223
C ₂₃ H ₃₄ O	17 α -Methyl- $\beta\beta$ -acetoxy 17 $\alpha\beta$ -Hydroxy- Δ^5 -D- homandrostenone-17	2.5-15 μ	S	Spec, Band freq	Hirschmann	JACS	74 (1952)	5357
C ₂₃ H ₃₄ O	Methyl- β ,11-diketobis- norallocholanate	-	-	Struct	Meister	JACS	76 (1954)	5679
C ₂₃ H ₃₄ O	Methyl- β ,11-diketobis- norchohanate	-	-	Distinction from allo	Meister	JACS	76 (1954)	5679
C ₂₃ H ₃₄ O	Pregnanol- $\beta\beta$ -dione-11, 20 acetate	1700	Sol	Freq Band freq, Spec	Jones Jones Mancera Rosenkrantz Rosenkrantz	JACS JACS JACS JACS JACS	71 (1949) 74 (1952) 75 (1953) 75 (1953) 77 (1955)	241 2820 1286 4430 2237
C ₂₃ H ₃₄ O	Pregnanol- $\beta\beta$ -dione-16, 20 acetate	-	Sol	Band freq, Spec	Jones	JACS	74 (1952)	2820
C ₂₃ H ₃₄ O	Pregnane-11 α -ol-3,20- dione acetate	-	Sol	Band study	Mancera	JACS	75 (1953)	1286

C ₂₃ H ₃₄ O ₄	Pregnanol-21-dione- β , 20 acetate	- 767-1336 950-1350	Sol Sol S,Sol	Band freq, Spec Ident Table Band study	Jones Jones Clarke Rosenkrantz	JACS JACS JACS AC	74 (1952) 77 (1955) 77 (1955) 28 (1956)	2820 651 661 31
C ₂₃ H ₃₄ O ₄	Δ^4 -Pregnene-16 α -ol- β ,20- dione-20-ethylene ketone	- 2.5-15 μ -	S Sol	Band freq Spec, Band freq, Band freq, Spec, Struct	Bernstein	JACS	76 (1954)	5674
C ₂₃ H ₃₄ O ₄	Δ^5 -Pregnenediol- β ,17 α - one-20-acetate- β	2.5-15 μ -	S Sol	Spec, Band freq, Band freq, Spec,	Hirschmann Jones	JACS JACS	74 (1952) 74 (1952)	5357 2820
C ₂₃ H ₃₄ O ₄	Δ^5 -Pregnenediol- β ,21- one-20-acetate- β	- 2.5-3.5 μ	- Sol Sol	Assign Band freq, Spec Group freq	Jones Jones Kabasakalian	JACS JACS AC	70 (1948) 74 (1952) 31 (1959)	2024 2820 375
C ₂₃ H ₃₄ O ₄ S	Pregnane- β ,20-dione-17 α - ol-21-thiol 21-acetate	-	Sol	Band freq	Djerassi	JACS	75 (1953)	3700
C ₂₃ H ₂₄ O ₅	$\beta\beta$ -Acetoxyl-5 α -hydroxy- allopregnane-11,20-dione	-	S	Group freq Group freq, Ident	Bladon Bladon	JCS JCS	- (1953) - (1954)	2921 125
C ₂₃ H ₃₄ O ₅	$\beta\beta$ -Acetoxyl-5 α -hydroxy- allo- $\beta\beta$ -pregnane-11, 20-dione	-	S	Group freq	Bladon	JCS JCS	- (1953) - (1953)	2921 2921
C ₂₃ H ₃₄ O ₅	$\beta\beta$ -Acetoxyl-17 α -hydroxy- allopregnane-12,20- dione	- 1700	- Sol	Band freq Spec, Group freq	Mueller Rothman	JACS JACS	75 (1953) 77 (1955)	4888 2229
C ₂₃ H ₃₄ O ₅	21-Acetoxyl- Δ^4 -pregnene - $\beta\beta$, $\beta\beta$ -diol-20-one	-	Sol	Group freq	Amendolla	JCS	- (1954)	1226
C ₂₃ H ₃₄ O ₅	Allo pregnane- β ,17 α - diol-11,20-dione- β - acetate	- 770-3700	S	Group freq Freq, I	Bladon Rosenkrantz	JCS JACS	- (1954) 77 (1955)	125 2237
C ₂₃ H ₃₄ O ₅	Allo pregnane-7,20-dione $\beta\beta$,11 α -diol- β -acetate	-	S S	Freq Freq	Djerassi Djerassi	JACS JACS	73 (1951) 74 (1952)	4496 3321
C ₂₃ H ₃₄ O ₅	Allo pregnane-11 α ,17 α - diol-3,20-dione-11- acetate	-	-	Band study	Romo	JACS	75 (1953)	1277

$C_{23}H_{34}^0$	Allopregnane-11 α ,21-diol-3,20-dione-11-monoacetate	-	Sol	Band freq	Sondheimer	JACS	75 (1953)	2601
$C_{23}H_{34}^0$	Allopregnane-11 β ,21-diol-3,20-dione-21-acetate	950-1350	S,Sol	Band study	Rosenkrantz	AC	28 (1956)	31
$C_{23}H_{34}^0$	Δ^5 -Androsten-11 α -ol-3,17-dione-3,17-diethylene ketal	-	S	Group freq	Bernstein	JACS	75 (1953)	1481
$C_{23}H_{34}^0$	Δ^5 -Androsten-11 β -ol-3,17-dione-3,17-diethylene ketal	-	S	Group freq	Bernstein	JOC	18 (1953)	1166
$C_{23}H_{34}^0$	Δ^5 -Androsten-11 β -ol-3,17-dione-3,17-diethylene ketal	-	S	Group freq	Bernstein	JOC	19 (1954)	41
$C_{23}H_{34}^0$	dl- β - β ,11 β -Diacetoxo-androstan-17-one	-	-	Ident	Johnson	JACS	76 (1954)	3353
$C_{23}H_{34}^0$	β ,16 α -Diacetoxoandrostan-17-one	-	-	Ident, Band freq	Leeds	JACS	76 (1954)	2943
$C_{23}H_{34}^0$	β ,17 α -Diacetoxoandrostan-16-one	-	-	Band freq	Leeds	JACS	76 (1954)	2943
$C_{23}H_{34}^0$	β ,17 β -Diacetoxoandrostan-3-one	-	Sol	Band freq	Rosenkrantz	JACS	76 (1954)	5024
$C_{23}H_{34}^0$	β ,17 β -Diacetoxo-16 α ,17 α -epoxyandrostan	-	-	Band freq	Leeds	JACS	76 (1954)	2943
$C_{23}H_{34}^0$	3,6-Diethylenedioxy-androstan-17-one	-	Sol	Band freq	Rosenkrantz	JACS	76 (1954)	5024
$C_{23}H_{34}^0$	21,21-Dimethoxypregnan-3,11,20-trione	-	S	Group freq, Assign	Gould	JACS	75 (1953)	3593
$C_{23}H_{34}^0$	Etiocolanediol-3 α ,17 α -one-11-diacetate	1712	Sol	Freq, Struct	Jones	JACS	71 (1949)	241
$C_{23}H_{34}^0$	Etiocolanediol-3 α ,17 β -one-11 diacetate	2.5-13 μ - 770-3700	Sol Sol Sol	Freq, Struct Freq, I Freq, I	Rosenkrantz Page Rosenkrantz	JACS JCS JACS	75 (1953) - (1955) 77 (1955)	903 2017 2237

$C_{23}H_{34}^0_5$	Comphogenin	600-4000	Sol	Spec	Watson	AJC	10 (1957)	19
$C_{23}H_{34}^0_5$	Methyl $\beta\alpha$ -acetoxyl-11-ketoetiocholanate	2-12 μ	Sol	Group freq	Woodward	JACS	74 (1952)	4223
$C_{23}H_{34}^0_5$	Methyl 5 α -hydroxy- β ,11-diketobisnorallolocholanate	-	S	Group freq	Bladon	JCS	- (1953)	2921
$C_{23}H_{34}^0_5$	Pregnandiol- $\beta\alpha$,21-dione-11,20-acetate-21	1700	-	Assign Freq., Struct	Jones Jones	JACS 70 (1948) JACS 71 (1949)	2024 241	
$C_{23}H_{34}^0_5$	Pregnane- $\beta\alpha$,21-diol- β ,20-dione-21-acetate	-	S	Band freq	Bernstein	JACS 77 (1955)	2233	
$C_{23}H_{34}^0_5$	Pregnane-11 α ,21-diol- β ,20-dione 11-monoacetate	-	Sol	Freq	Sondheimer	JACS 75 (1953)	2601	
$C_{23}H_{34}^0_5$	Pregnandiol-12 β -21-dione- β ,20-acetate-21	-	-	Assign	Jones	JACS 70 (1948)	2024	
$C_{23}H_{34}^0_5$	Pregnane-17 α ,21-Diol- β ,20-dione-21-acetate	950-1350	S,Sol	Band study	Rosenkrantz	AC 28 (1956)	31	
$C_{23}H_{34}^0_5$	Δ^4 -Pregnen-11 β -ol- β ,20-dione-21-al dimethyl-acetal	-	Sol	Group freq	Taub	JACS 76 (1954)	4094	
$C_{23}H_{34}^0_5$	Δ^4 -Pregnenetriol-17 α ,20,21-one- β -acetate-21	-	Sol	Band freq., Spec, Struct	Jones	JACS 74 (1952)	2820	
$C_{23}H_{34}^0_6$	$\beta\alpha$ -Acetoxyl-21,21-di-hydroxy-17 α -pregnane-11,20-dione	-	S	Spec	Mattox	JACS 74 (1952)	4340	
$C_{23}H_{34}^0_6$	$\beta\beta$ -Acetoxyl-9 α ,17 α -dihydroxyallopregnane-11,20-dione	-	S	Group freq	Barton	JCS - (1954)	747	
$C_{23}H_{34}^0_6$	21-Acetoxypregnan- $\beta\alpha$,17 α -diol-11,20-dione	-	-	Spec	Hershberg	JACS 74 (1952)	3849	

$C_{23}H_{34}O_6$	Allopregnane-11 α ,17 α ,21-triol- β ,20-dione 21-monoacetate	-	-	Band study	Romo	JACS	75 (1953) 1277
$C_{23}H_{34}O_6$	$3\beta,6\beta$ -Diaetoxyandrostan- 5α -ol-17-one	-	Sol	Group freq	Amendolla	JCS	- (1954) 1226
$C_{23}H_{34}O_6$	Dimethyl 3β -acetoxy- Δ^5 -etioibillenate	2.5-15 μ	Sol	Spec, Band freq	Hirschmann	JACS	74 (1952) 5357
$C_{23}H_{34}O_6$	Methyl 3β -Acetoxy-9 α -hydroxy-11-keto- ω -etiocholanate	-	S	Band freq	Hirschmann	JACS	75 (1953) 2361
$C_{23}H_{34}O_6$	Pregnane- 3β ,17 α ,21-triol-11,20-dione-21-acetate	770-3700	S	Freq, I	Rosenkrantz	JACS	77 (1955) 2237
$C_{23}H_{34}O_6$	5α -Pregnane- 3β ,17 α ,21-triol-11,20-dione 21-acetate	770-3700	-	Group freq Freq, I	Chamberlin Rosenkrantz	JACS JACS	77 (1955) 77 (1955) 1221 2237
$C_{23}H_{34}O_6$	Δ^4 -Pregnene-11 α ,17 α ,21-triol- β ,20-dione 20-ethylene ketol	-	S	Band study	Sondheimer	JACS	75 (1953) 1282
$C_{23}H_{34}O_6$	$11\beta,17\alpha,21$ -Trihydroxy-pregnane- β ,20-dione 21-acetate	-	-	Ident Ident Band study	Oliveto Oliveto Rosenkrantz	JACS JACS AC	77 (1955) 77 (1955) 28 (1956) 31
$C_{23}H_{34}O_6$	$3\alpha,11\beta,17\alpha$ -Trihydroxy-pregnane-20-one-11,17-diformate	-	-	Reference for comparison	Oliveto	JACS	77 (1955) 3564
$C_{23}H_{34}O_7$	Allopregnane- β ,20-dione - $5\alpha,6\beta,17\alpha,21$ -tetrol 21-monoacetate	-	S	Band freq	Sondheimer	JACS	76 (1954) 5020
$C_{23}H_{34}O_7$	Pregnane- $5\alpha,11\beta,17\alpha,21$ -tetrol- β ,20-dione 21-acetate	1245-3530	S	Band freq	Bernstein	JACS	77 (1955) 2233
$C_{23}H_{34}O_8$	Ouabagenin	2-16 μ	-	Spec, Ident	Djerassi	JOC	19 (1954) 1351

C ₂₃ H ₃₅ BrO ₄	16-Bromoallopregnane - β ,17 α -diol-20-one β -acetate	1700	sol	Spec, Group freq	Rothman	JACS	77 (1955)	2229
C ₂₃ H ₃₅ BrO ₄	21-Bromopregnanol- β , - α ,17 α -one-20-acetate	-	sol	Band freq, Spec Band freq, Spec	Jones Jones	JACS	74 (1952)	2820
C ₂₃ H ₃₅ BrO ₅	4-Bromopregnane-11 β ,17 α - diol- β ,20-dione- β - ethylene ketal	-	-	Ident	Oliveto	JACS	74 (1952)	2828
C ₂₃ H ₃₅ ClO ₂	β -Chloro-20 α -acetoxy- Δ ⁵ pregnenone	2.5-15/ μ	sol	Spec, Band freq	Hirschmann	JACS	74 (1952)	5357
C ₂₃ H ₃₅ NO ₆	Dimethyl oxoisatisine dicarboxylate	-	-	Group freq	Pelletier	JACS	76 (1954)	4496
C ₂₃ H ₃₆ O ₂	20 α -Acetoxy- Δ ⁵ - pregnenone	-	s,sol	Struct	Daus	JACS	75 (1953)	3840
C ₂₃ H ₃₆ O ₂	Isolanoxyenyl acetate	11-14/ μ	sol	Spec	Barton	JCS	- (1951)	3147
C ₂₃ H ₃₆ O ₂	Δ ⁵ -20-Isonoroholenol β -one-22	-	s,sol	Group freq	Tarpley	APS	9 (1955)	69
C ₂₃ H ₃₆ O ₂	β -(Pentadadienyl-8',11') -veratrole	-	-	Struct	Sunthankar	JACS	76 (1954)	5070
C ₂₃ H ₃₆ O ₂	Δ ⁵ -Pregnen- β -ol acetate	700-1400	sol	Spec, Ident	Jones	JACS	78 (1956)	1152
C ₂₃ H ₃₆ O ₃	Allopregnanol- β -one- 20 acetate	1190-1280 700-1400	sol sol sol	Group freq I Ident	Jones Jones Jones	JACS	72 (1950) 73 (1951) 78 (1956)	956 3215 1152
C ₂₃ H ₃₆ O ₃	Allopregnanol- β -one 20 acetate	1190-1280 - 2-12/ μ 915-1290	sol sol sol -	Assign I Freq Ident Table Ident	Jones Jones Jones Woodward Jones Ramirez	JACS JACS JACS JACS JACS JACS	70 (1948) 73 (1951) 74 (1952) 74 (1952) 77 (1955) 77 (1955)	2024 3215 5648 4223 651 134

$C_{23}H_{36}O_3$	1598	Sol	Freq, I Ident	Rosenkrantz Jones	JACS JACS	77 (1955) 78 (1956)	2237 1152
	770-3700 700-1400	Sol Sol	Group freq Spec, Band freq Band freq, Spec, Struct	Jones Hirschmann Jones	JACS JACS JACS	72 (1950) 74 (1952) 74 (1952)	956 5357 2820
Allopregnanol-20 α -one- β -acetate	2.5-15 μ	Sol Sol Sol	Group freq Spec, Band freq Band freq, Spec, Struct	Jones Rosenkrantz Jones	JACS AC	78 (1956) 28 (1956)	1152 31
	700-1400 950-1350	Sol S,Sol	Ident Band study	Jones Rosenkrantz	JACS AC	78 (1956) 28 (1956)	1152 31
$C_{23}H_{36}O_3$	Allo pregnane-20 β -ol-3-one acetate	700-1400	Sol	Ident	Jones	JACS	78 (1956)
	Allo pregnan-21-ol-20-one acetate	700-1400	-	Ident Spec, Ident	Clarke Jones	JACS JACS	77 (1955) 78 (1956)
$C_{23}H_{36}O_3$	Enol-20-ethyl ester of 3α -hydroxypregnane-11,20-dione	-	Sol	Band freq, Struct	Belleau	JACS	74 (1952)
	β -Ethylenedioxy- Δ^5 -pregnen-20 β -ol	-	Sol	Band study	Sondheimer	JACS	77 (1955)
$C_{23}H_{36}O_3$	17-Ethyletiojervane- β -ol-11-one acetate	-	S	Group freq	Fried	JACS	75 (1953)
	$\beta\beta$ -Hydroxy-20 α -acetoxy- Δ^5 -2.5-15 μ pregnene	Sol	Spec, Band freq	Hirschmann	JACS	74 (1952)	4929 5357
$C_{23}H_{36}O_3$	Δ^{11} - $\beta\alpha$ -Hydroxybisnor-cholenic acid methyl ester	-	Sol Sol	Group freq Group freq	Jones Jones	JACS JACS	72 (1950) 74 (1952)
	$\beta\beta$ -Hydroxy-17 α - β -methyl-D-homoandrostan-17-one acetate	-	Sol	Group freq	Ramirez	JACS	77 (1955)
$C_{23}H_{36}O_3$	17-Isopregnane- $\beta\alpha$ -ol-20-one acetate	-	-	Assign Band freq, Spec, Struct	Jones Jones	JACS JACS	70 (1948) 74 (1952)
	700-1400	Sol	Ident	Jones	JACS	78 (1956)	2024 2820 1152

$C_{23}H_{36}O_3$	$\beta\beta$ -Methoxy- 16β , 17β -dihydroxy- Δ_5 -androstene- 16 , 17 -acetoneide	$2\cdot5$ - 15μ	Sol	Spec, Band freq	Hirschmann	JACS	74 (1952)	5357
$C_{23}H_{36}O_3$	Pregnanol- 3α -one- 20 acetate	1190-1270 - 946-1289 770-3700 700-1400	- Sol Sol Sol Sol	Assign Band study, I Band study Table Freq, I Ident	Jones Jones Mancera Jones Rosenkrantz Jones	JACS JACS JACS JACS JACS JACS	70 (1948) 73 (1951) 75 (1953) 77 (1955) 77 (1955) 78 (1956)	2024 3215 1286 651 2237 1152
$C_{23}H_{36}O_3$	Pregnanol- 3β -one- 20 acetate	1190-1275 1600-3700 - 946-1289 770-3700 700-1400	Sol Sol Sol Sol Sol Sol	Band study, I Spec, Struct Freq Table Freq, I Ident	Jones Jones Jones Jones Jones Jones	JACS JACS JACS JACS JACS JACS	73 (1951) 74 (1952) 74 (1952) 77 (1955) 77 (1955) 78 (1956)	3215 2820 5648 651 2237 1152
$C_{23}H_{36}O_3$	Pregnan- 20α -ol- 3 -one- 20 acetate	950-1350	S,Sol	Band study	Rosenkrantz	AC	28 (1956)	31
$C_{23}H_{36}O_4$	Allopregnaneediol- 3β , 17 -one- 20 -acetate- 3	- - 770-3700	Sol S S	Band freq, Spec, Struct Group freq Ident Freq, I	Jones Jones Solloway Rosenkrantz	JACS JACS JACS JACS	74 (1952) 74 (1952) 76 (1954) 77 (1955)	2820 5648 2941 2237
$C_{23}H_{36}O_4$	Allopregnaneediol- 3β , 21 -one- 20 -acetate- 21	- -	Sol Sol	Group freq Band freq, Spec, Struct	Jones Jones	JACS JACS	72 (1950) 74 (1952)	956 2820
$C_{23}H_{36}O_4$	Allopregnaneodi- 17α , 20 -one- 3 -acetate- 20	-	Sol	Band freq, Spec, Struct	Jones	JACS	74 (1952)	2820
$C_{23}H_{36}O_4$	Allopregnane- 3β , 11β -diol- 20 -one, 11 -monoacetate	-	-	Ident	Mancera	JOC	17 (1952)	1066
$C_{23}H_{36}O_4$	Androstanediol- 3α , 17α -diacetate	-	-	Assign Freq	Jones Jones	JACS JACS	70 (1948) 74 (1952)	2024 5648
$C_{23}H_{36}O_4$	Androstan- 3α , 17β -diol 3 , 17 -diacetate	770-3700 700-1400	Sol Sol	Freq, I Ident	Rosenkrantz Jones	JACS JACS	77 (1955) 78 (1956)	2237 1152

$C_{23}H_{36}^0$	Androstanediol- $\beta\alpha, 17\alpha$ -diacetate	-	Sol	Group freq	Jones	JACS	72 (1950)	956
$C_{23}H_{36}^0$	Androstan- $\beta\alpha, 17\beta$ -diol $\beta, 17$ -diacetate	770-3700	Sol	Freq, I	Rosenkrantz	JACS	77 (1955)	2237
$C_{23}H_{36}^0$	$6\beta, 17\beta$ -Diacetoxysterane	-	S	Band freq	Rosenkrantz	JACS	76 (1954)	5024
$C_{23}H_{36}^0$	$\Delta^5-3\beta, 17\alpha$ -dihydroxy- bisnorcholelic acid methyl ester	1600-3700	Sol	Spec, Freq, Struct	Jones	JACS	74 (1952)	2820
$C_{23}H_{36}^0$	Etiocholane- $3\alpha, 17\beta$ -diol $\beta, 17$ -diacetate	- 770-3700 700-1400	Sol	Group freq Freq, I Ident	Jones Rosenkrantz Jones	JACS	72 (1950) 77 (1955) 78 (1956)	956 2237 1152
$C_{23}H_{36}^0$	Etiocholane- $\beta\alpha, 17\beta$ -diol diacetate	700-1400	Sol	Ident	Jones	JACS	78 (1956)	1152
$C_{23}H_{36}^0$	3β -Hydroxy-11-ketobis- norholanic acid methyl ester	1712 -	Sol Sol	Freq, Struct Freq	Jones Cole	JACS	71 (1949) 74 (1952)	241 5571
$C_{23}H_{36}^0$	Methyl $\beta\beta$ -acetoxyl- alloetianate	-	-	Spec	Belleau	JACS	74 (1952)	2816
$C_{23}H_{36}^0$	Methyl 3α -hydroxy-12- ketobisnorholanic acid	-	S, Sol	Freq	Tarpley	APS	9 (1955)	69
$C_{23}H_{36}^0$	Pregnandiol- $3\alpha, 11\beta$ -one -20-acetate- β	-	Sol	Group freq	Jones	JACS	72 (1950)	956
$C_{23}H_{36}^0$	Pregnandiol- $3\alpha, 17\alpha$ -one- 20-acetate- β	-	-	Assign Band freq, Spec, Struct	Jones Jones	JACS	70 (1948) 74 (1952)	2024 2820
$C_{23}H_{36}^0$	$2\cdot5-13 \mu$	Sol	Freq, Struct	Rosenkrantz Page	JACS	75 (1953)	903	
$C_{23}H_{36}^0$	-	Sol	Freq	Rosenkrantz	JCS	- (1955)	2017	
$C_{23}H_{36}^0$	770-3700	Sol	Freq, I	Rosenkrantz	JACS	77 (1955)	2237	
$C_{23}H_{36}^0$	Pregnandiol- $3\beta, 17\alpha$ -one 20-acetate- β	1600-3700	Sol	Spec, Band freq, Struct	Jones	JACS	74 (1952)	2820
$C_{23}H_{36}^0$	-	Sol	Freq	Jones	JACS	74 (1952)	2820	

			Rosenkrantz	JACS	77 (1955)	2237
C ₂₃ H ₃₆ O ₄	Pregnane diol-3 α ,21-one-20-acetate-21	-	Sol Group freq Band freq, Spec, Struct	Jones Jones	JACS JACS	72 (1950) 74 (1952) 956 5648
C ₂₃ H ₃₆ O ₄	Pregnane diol-3 β ,21-one-20-acetate-21	-	Sol Group freq Freq	Jones Jones	JACS JACS	72 (1950) 74 (1952) 956 2820
C ₂₃ H ₃₆ O ₄	Δ^5 -Pregnene-3 β ,16 α -diol-20-one ethylene ketal	-	S Band freq	Bernstein	JACS	76 (1954) 5674
C ₂₃ H ₃₆ O ₄ S	Pregnane-3 α ,17 α -diol-20-one-21-thiol-21-acetate	-	Sol Band freq	Djerassi	JACS	75 (1953) 3700
C ₂₃ H ₃₆ O ₅	Allopregnane-3 β ,11 α ,21-triol-20-one 11-monoacetate	-	Sol Freq	Sondheimer	JACS	75 (1953) 2601
C ₂₃ H ₃₆ O ₅	2 β ,4b-Dimethyl-1 β -(2-hydroxyethyl)-2-acetyl-7-ethylene-dioxy-1,2,3,4,4a α ,4b,5,6,7,8,10,10a β -dodecahydrophenanthrene-4c-ol	-	- Freq	Johns	JACS	76 (1954) 5026
C ₂₃ H ₃₆ O ₅	dl-3-Ethylenedioxy-5-pregnene-11 α ,16 ξ ,20 ξ -triol	-	S Freq	Arth	JACS	77 (1955) 3834
C ₂₃ H ₃₆ O ₅	Etiolanetriol-3 α ,11,17-diacetate-3,17	-	Sol Group freq	Jones	JACS	72 (1950) 956
C ₂₃ H ₃₆ O ₅	3 α -Hydroxy-12 α -acetoxy-etiolaholic acid methyl ester	-	Sol Group freq	Jones	JACS	72 (1950) 956
C ₂₃ H ₃₆ O ₅	Methyl 3 β -acetoxy-11 β -hydroxy-5 α -etianate	2-12 μ	Sol Spec	Simpson	HCA	57 (1954) 1200
C ₂₃ H ₃₆ O ₅	Methyl 3 β ,5 α -dihydroxy-11-kebtobisnorallocholanate	-	S Group freq	Bladon	JCS	- (1953) 2921

$C_{23}H_{36}O_5$	Pregnane- β -ol, 11 α , 17 α -triol-20-one-11-acetate	-	-	Ident	Oliveto	JACS	75 (1953)	5486
$C_{23}H_{36}O_5$	Pregnatriol- β -ol, 12 α , 21-one-20-acetate-21	-	Sol	Band freq, Spec, Struct	Jones	JACS	74 (1952)	2820
$C_{23}H_{36}O_5$	Pregnatriol- β -ol, 12 β , 21-one-20-acetate-21	-	-	Assign	Jones	JACS	70 (1948)	2024
$C_{23}H_{36}O_5$	Pregnane-11 β , 17 α , 20 β -triol- β -one-20-acetate	-	-	Ident	Oliveto	JACS	77 (1955)	2224
$C_{23}H_{36}O_5$	Pregnane-11 β , 17 α -diol- β , 20-dione- β -ethylene ketal	-	-	I	Oliveto	JACS	77 (1955)	2224
$C_{23}H_{36}O_5$	Δ^4 -Pregnene-11 β , 20 β -diol- β -one-21-al dimethyl acetal	-	-	Ident	Taub	JACS	76 (1954)	4094
$C_{23}H_{36}O_6$	17 α -Acetoxypregnane- β -ol, 5 α , 6 β -triol-20-one	-	S	Group freq	Amendolla	JCS	- (1954)	1226
$C_{23}H_{36}O_6$	Allopregnane- β -ol, 11 α , 17 α , 21-tetrol-20-one 11-monoacetate	-	-	Band freq	Romo	JACS	75 (1953)	1277
$C_{23}H_{36}O_6$	Allopregnane- β -ol, 11 α , 17 α , 21-tetrol-20-one 21-monoacetate	-	-	Band study	Romo	JACS	75 (1953)	1277
$C_{23}H_{36}O_6$	3 α , 12 α -Dihydroxy-7 α -acetoxyethiocholic acid, methyl ester	-	Sol	Group freq	Jones	JACS	72 (1950)	956
$C_{23}H_{36}O_6$	17 α -21-Dihydroxy- β , β -dimethoxyallopregnane-11, 20-dione	-	S	Group freq	Page	JCS	- (1955)	2017
$C_{23}H_{38}N_4O_4$	2-Heptadecanone-2, 4-dinitrophenyl-hydrazone	$2\text{-}15\mu$	S	Spec, Ident	Jones	AC	28 (1956)	191

C ₂₃ H ₃₈ O ₂	Allopregnane- $\beta\alpha$ -ol acetate	700-1400	Sol	Ident	Jones	JACS	78 (1956)	1152
C ₂₃ H ₃₈ O ₂	Allopregnane- $\beta\beta$ -ol acetate	700-1400	Sol	Ident	Jones	JACS	78 (1956)	1152
C ₂₃ H ₃₈ O ₂	Allopregnane-20 α -ol acetate	700-1400	Sol	Spec, Ident	Jones	JACS	78 (1956)	1152
C ₂₃ H ₃₈ O ₂	Allopregnane-20 β -ol acetate	700-1400	Sol	Spec, Ident	Jones	JACS	78 (1956)	1152
C ₂₃ H ₃₈ O ₂	cis- β -(Pentadecenyl-8') veratrole	-	-	Band study	Sunthankar	JACS	76 (1954)	5070
C ₂₃ H ₃₈ O ₂	Pregnane- $\beta\alpha$ -ol acetate	700-1400	Sol	Ident	Jones	JACS	78 (1956)	1152
C ₂₃ H ₃₈ O ₂	Pregnane- $\beta\beta$ -ol acetate	700-1400	Sol	Group freq Ident	Jones Jones	JACS JACS	72 (1950) 78 (1956)	956 1152
C ₂₃ H ₃₈ O ₂	Pregnanol-20 α acetate	-	Sol	Band freq, Spec, Struct	Jones	JACS	74 (1952)	2820
C ₂₃ H ₃₈ O ₂	Pregnanol-20 β acetate	-	Sol	Group freq	Jones	JACS	74 (1952)	5648
C ₂₃ H ₃₈ O ₃	Allopregnane- $\beta\alpha$,20 α -diol acetate- β	700-1400 650-1350	Sol Sol	Band study, Ident Discussion, Generalization	Jones Jones	JACS JACS	78 (1956) 80 (1958)	1152 6121
C ₂₃ H ₃₈ O ₃	Allopregnane- $\beta\alpha$,20 α -diol acetate- β	700-1400 650-1350	Sol Sol	Ident Discussion, Struct	Jones Jones	JACS JACS	78 (1956) 80 (1958)	1152 6121
C ₂₃ H ₃₈ O ₃	$\beta\alpha$ -Hydroxybisnorcholanic acid methyl ester	-	Sol Sol	Group freq Freq	Jones Cole	JACS JACS	72 (1950) 74 (1952)	956 5571
C ₂₃ H ₃₈ O ₃	Pregnane- $\beta\alpha$,20 α -diol acetate	700-1400	Sol	Ident	Jones	JACS	78 (1956)	1152
C ₂₃ H ₃₈ O ₃	Pregnane- $\beta\alpha$,20 α -monoacetate-20	-	Sol	Group freq	Jones	JACS	72 (1950)	956

$C_{23}H_{38}O_4$	$\Delta\alpha,20\beta$ -Dihydroxypregnan -11-one-11-ethyleneketal	-	-	Absorption study	Magerlin	JACS	77 (1955)	1904
$C_{23}H_{38}O_4$	Pregnane- $\beta\alpha,11\alpha$ -diol 20-one 20-ethyleneketal	-	Sol	Group study	Sondheimer	JACS	75 (1953)	1282
$C_{23}H_{38}O_4$	Pregnane-triol- $\beta\alpha,12\alpha,20\beta$ -acetate-12	-	Sol	Band freq, Spec, Struct	Jones	JACS	74 (1952)	2820
$C_{23}H_{38}O_4$	Pregnane-triol- $\beta\alpha,12\alpha,20\beta$ -acetate-12	1600-3700	Sol	Spec, Band freq, Struct	Jones	JACS	74 (1952)	2820
$C_{23}H_{38}O_4$	Pregnane-triol- $\beta\alpha,12\alpha,20\beta$ -acetate-20	-	Sol	Freq	Jones	JACS	74 (1952)	5648
$C_{23}H_{38}O_4$	Pregnane-triol- $\beta\alpha,12\alpha,20\beta$ -acetate-20	-	Sol	Band freq, Spec, Struct	Jones	JACS	74 (1952)	2820
$C_{23}H_{38}O_5$	$\beta\beta$ -Acetoxo- 9β -allopregnan- $5\alpha,11\beta,20\beta$ -triol	-	-	Struct	Bladon	JCS	- (1953)	2921
$C_{23}H_{38}O_5$	Pregnadiol- $\beta\alpha,20$ -one 11 diacetate	1700	Sol	Freq, Struct	Jones	JACS	71 (1949)	241
$C_{23}H_{38}O_5$	Pregnadiol- $\beta\alpha,20$ (epi)- one-11 diacetate	1700	Sol	Freq, Struct	Jones	JACS	71 (1949)	241
$C_{23}H_{39}N$	Δ^5 -Dimethylaminopregnene	-	-	Group freq, Struct	Haworth	JCS	- (1953)	1102
$C_{23}H_{40}$	9-Phenylheptadecane	2-15 μ	L	Spec, Struct	Hawkes	SA	16 (1960)	633
$C_{23}H_{40}$	2,6-Di- β -octyl-4-methylphenol	β μ	S,L, Sol	H bond	Sears	JACS	71 (1949)	4110
$C_{23}H_{42}O_3$	Tetrahydrofurfuryl oleate	2-15 μ	L	Spec	Kendall	APS	7 (1953)	179
$C_{23}H_{42}Si$	Benzyl-n-hexadecylsilane	2-16 μ	Sol	Freq	Kniseley	SA	15 (1959)	651
$C_{23}H_{42}Si$	Benzyl di-n-octylsilane	2-16 μ	Sol	Freq	Kniseley	SA	15 (1959)	651
$C_{25}H_{44}O_2$	Amyl oleate	2-15 μ	L	Spec	Kendall	APS	7 (1953)	179

C ₂₃ H ₄₆	9-Cyclohexyl-heptadecane	9-14 μ	L	Spec	Fred	AC	21 (1949)	900
C ₂₃ H ₄₈	n-Tricosane	9-14 μ 700-1500	Sol, S Freq, Assign	Struct Freq, Assign	Snyder Snyder	JCP JMS	27 (1957) 4 (1960)	969 411
C ₂₃ H ₄₈ Si	Allyl di-n-decyldisilane	2-16 μ	Sol	Freq	Kniseley	SA	15 (1959)	651
C ₂₃ H ₄₈ Si	Cyclopentamethylene-dinonylsilane	2-35 μ	L	Assign	Oshesky	JACS	79 (1957)	2057
C ₂₃ H ₅₀ NO ₇ P	Palmitoylglycollecithin	2-16 μ	S	Spec	Bear	JACS	75 (1953)	5533
C₂₄ COMPOUNDS								
C ₂₄ H ₁₀	1,12-Diphenyl-1,3,5,7, 9,11-dodecahexyne	-	Sol	Group freq, I	Armitage	JCS	- (1954)	147
C ₂₄ H ₁₂ N ₆	2,4,6-Tri-(o-cyanophenyl)- 1,3,5-triazine	2-16 μ	S	Spec	Ross	JACS	72 (1950)	3302
C ₂₄ H ₁₂ O ₂	1,2,6,7-Dibenzpyrene- 3,8-quinone	-	S	Band freq	Haddi	JACS	73 (1951)	5460
C ₂₄ H ₁₄	3,4,8,9-Benzpyrene	650-2010	S	Spec	Cannon	SA	4 (1951)	373
C ₂₄ H ₁₄	4,5,8,9-Dibenzpyrene	650-2010	S	Spec	Cannon	SA	4 (1951)	373
C ₂₄ H ₁₄	3,4(2',3')naphthapyrene	650-2030	S	Spec	Cannon	SA	4 (1951)	373
C ₂₄ H ₁₄ O ₃	2-(1-Pyrenoyl)benzoic acid	5.5-6.5 μ	Sol	Band study, Ident	Sawicki	AC	31 (1959)	523
C ₂₄ H ₁₅ Cl ₃ N ₂ O ₂	3,3',5-Trichlorodipheno- quinone dibenzene- sulfonimide	-	-	Group study	Adams	JACS	74 (1952)	3033
C ₂₄ H ₁₆	5-Phenyl-1,2-benzan- -thracene	660-2010	S	Spec	Cannon	SA	4 (1951)	373

$C_{24}H_{16}$	6-Phenyl-1,2-benzanthracene	1606	S	Spec	Cannon	SA	4 (1951)	373
$C_{24}H_{16}Cl_2N_2O_4S_2$	β,β' -Dichlorodiphenoquinonedibenzene-sulfonimide	650-2020	S	Band freq	Adams	JACS	74 (1952)	3033
$C_{24}H_{16}Cl_4N_2O_4S_2$	N-(2,3,5,6-Tetrachloro-4-phenenesulfonamido-phenyl)-N-(phenyl)benzenesulfonamide	-	-	Group freq	Adams	JACS	74 (1952)	5557
$C_{24}H_{16}O_4$	$\beta,10$ -Diacetoxypyrylene	692-1764	S	Table	Brown	JCS	- (1954)	1280
$C_{24}H_{16}O_{10}$	2,5-Diacetoxypyrenyl-1,4-dicarboxyphenyl-1,4-benzoquinone	5-15 μ	S	Spec, Struct	Edwards	JAPC	10 (1960)	246
$C_{24}H_{17}ClN_2O_4S_2$	β -Chlorodiphenoquinone-dibenzenesulfonimide	-	-	Group freq	Adams	JACS	74 (1952)	3033
$C_{24}H_{17}Cl_3N_4$	2-Amino-5-p-chloroanilino-p-benzoquinone-di-p-chloro anil	-	-	Ident	Hughes	JCS	- (1954)	4630
$C_{24}H_{17}F_3N_4$	2-Amino-5-p-fluoroanilino-p-benzoquinone-di-p-fluoro anil	-	-	Ident	Hughes	JCS	- (1954)	4630
$C_{24}H_{17I_3N_4}$	2-Amino-5-p-iodoanilino-p-benzoquinone-di-p-iodo anil	-	-	Ident	Hughes	JCS	- (1954)	4630
$C_{24}H_{17N_3}$	2, β -Di-[β' -indyl]indole	2-12 μ	Sol	Spec	Witkop	JACS	73 (1951)	713
$C_{24}H_{17N_3}.HCl$	$2,\beta$ -Di-[β' -indyl]- ψ -indole hydrochloride	2-10 μ	S	Spec, Struct, Assign	Witkop	JACS	73 (1951)	713
$C_{24}H_{17N_3O}$	2,2-Bis-[β' -indyl]indoryl	2-12 μ	Sol	Spec, Iso	Witkop	JACS	73 (1951)	713
$C_{24}H_{18}$	9,10-Dimethyl-1,2,5,6-dibenzanthracene	650-2000	S	Spec	Cannon	SA	4 (1951)	373

C ₂₄ H ₁₈	1-Phenyl-2-(3-xenyl)benzene	5-38 μ	S	Spec, Freq, Assign	Stewart	JRNB	60 (1958)	125
C ₂₄ H ₁₈	1-Phenyl-3-(4-xenyl)benzene	5-38 μ	S	Spec, Freq, Assign	Stewart	JRNB	60 (1958)	125
C ₂₄ H ₁₈	0,0'-Quaterphenyl	2-25 μ 5-38 μ	S,Sol	Spec, Assign Spec, Freq, Assign	Dale Stewart	ACS JRNB	11 (1957) 60 (1958)	640 125
C ₂₄ H ₁₈	0,p'-Quaterphenyl	2-25 μ	S,Sol	Spec, Assign	Dale	ACS	11 (1957)	640
C ₂₄ H ₁₈	p,p'-Quaterphenyl	650-2000 2-25 μ 5-38 μ	S,Sol	Spec, Assign Spec, Freq, Assign	Cannon Dale Stewart	SA ACS JRNB	4 (1951) 11 (1957) 60 (1958)	373 640 125
C ₂₄ H ₁₈	m-Quaterphenyl	5-38 μ	S	Spec, Freq, Assign	Stewart	JRNB	60 (1958)	125
C ₂₄ H ₁₈	1,3,5-Triphenylbenzene	1050-1800 640-2010	- Sol	Spec Spec	Barnes Cannon	IEC SA	15 (1943) 4 (1951)	659 373
C ₂₄ H ₁₈ O ₃ N ₃ O ₃	1,3,5-Tri-p-chlorobenzoylperhydro-8-triazine	-	-	Ident, Struct, Group freq	Emmons	JACS	74 (1952)	5524
C ₂₄ H ₁₈ N ₂ O ₄ S ₂	Diphenoquinonedibenzene-sulfonimide	-	-	Band freq	Adams	JACS	74 (1952)	3033
C ₂₄ H ₁₈ N ₂ O ₅	p,p'-Dinitrodiphenyl p-hydroxydiphenyl complex	650-4000	S	Spec, Freq, Assign	Kross	SA	8 (1956)	142
C ₂₄ H ₁₈ O ₂	5-Benzylidene-3,4-diphenyl-4-hydroxy-Δ ² -cyclopentenone	1600-1800	Sol	Group freq	Fusion	JACS	76 (1954)	2526
C ₂₄ H ₁₈ O ₄	Isophthaloyldiacetophenone	1500-3500	S	Freq, Assign, Struct	Martin	JACS	80 (1958)	4891
C ₂₄ H ₁₈ O ₄	Terephthaloyldiacetophenone	1500-3500	S,Sol	Freq, Assign, Struct	Martin	JACS	80 (1958)	4891
C ₂₄ H ₁₈ O ₆	2,2'-Dihydroxy-3,3'-diacetoxyl-1,1'-binaphthyl	2-12 μ	Sol	Spec, Struct	O'Connor	JACS	76 (1954)	2368

$C_{24}H_{18}O_6$	Tri-m-cresotide	1700-1800	S, Sol	Group freq	Short	JCS	-	(1952)	206
$C_{24}H_{18}O_6$	Tri-o-cresotide	1700-1800	S, Sol	Group freq	Short	JCS	-	(1952)	206
$C_{24}H_{18}O_6$	Tri-p-cresotide	1700-1800	S, Sol	Group freq	Short	JCS	-	(1952)	206
$C_{24}H_{19}ClN_2O_6S_3$	2-Chloro-5-phenylmercepto-p-phenylenedibenzene sulfonamide	-	-	Ident	Adams	JACS	75 (1953)	663	
$C_{24}H_{19}ClN_2O_6S_3$	2-Benzene sulfonyl-3-chloro-p-phenylene-dibenzene sulfonamide	-	-	Ident, Iso	Adams	JACS	76 (1954)	1114	
$C_{24}H_{19}ClN_2O_6S_3$	2-Chloro-5-benzene-sulfonyl-p-phenylene-dibenzene sulfonamide	-	-	Ident	Adams	JACS	75 (1953)	3235	
$C_{24}H_{19}ClN_2O_6S_3$	2-Chloro-2-benzene sulfonyl-p-phenylenedibenzene-sulfonamide	-	-	Ident	Adams	JACS	75 (1953)	3235	
$C_{24}H_{19}N$	Triphenyl- β -pyridyl-methane	1300-1900	S	Struct, Spec, Anal	Adams	JACS	71 (1949)	387	
$C_{24}H_{19}NO_3$	1-(2-Phenylethyl)-4,4-diphenyl-2,3,5-pyrrolidinetrione	-	-	Spec	Skinner	JACS	72 (1950)	569	
$C_{24}H_{19}N_2O_6S_2$	α -(1,4-Naphthoquinone-dibenzene sulfonamido-2)nitroethane	-	-	Group study	Adams	JACS	74 (1952)	5557	
$C_{24}H_{19}N_5OS$	5-(Indole-3'-methylene)-3-(phenyl-p-azophenyl)-2-thiohydantoin	600-4000	S	Spec, Ident	Epp	AC	29 (1957)	1283	
$C_{24}H_{20}Cl_4N_4P_4$	Phenyl phosphonitrilic chloride tetramer	1100-1350	-	Freq, Struct	Shaw	CIL	-	(1959)	54
$C_{24}H_{20}N_2$	1,4-Naphthoquinone-di-o-methyl anil	-	-	Group freq, Struct	Adams	JACS	75 (1953)	4642	
$C_{24}H_{20}N_2$	Tetraphenylhydrazine	625-900	-	Substitution effect	Margosches	SA	7 (1955)	14	

C ₂₄ H ₂₀ N ₂ O ₆ S ₂	2-Acetoxy-1,4-naphthalene dibenzenesulfonamide	-	-	Group study	Audens	JACS	I4 (1952)	5557
C ₂₄ H ₂₀ N ₂ O ₆ S ₂	1,4-Naphthalene dibenzene sulfonamido-2-acetic acid	-	-	Group study	Adams	JACS	74 (1952)	5557
C ₂₄ H ₂₀ OSi	Diphenyl-p-phenoxy-phenylsilane	2-16 μ	Sol	Group freq.	Krieseley	SA	15 (1959)	651
C ₂₄ H ₂₀ O ₂	1-Keto-5-methoxy-1,3,5-triphenyl-2,4-pentadiene	-	Sol	Band freq	Berzon	JACS	74 (1952)	358
C ₂₄ H ₂₀ O ₆	2,5-Diacetoxy-3,6-di-p-tolyl-1,4-benzquinone	5-15 μ	S	Spec, Struct	Edwards	JAPC	10 (1960)	246
C ₂₄ H ₂₀ O ₈	2,5-Diacetoxy-3,6-di-p-anisyl-1,4-benzquinone	5-15 μ	S	Spec, Struct	Edwards	JAPC	10 (1960)	246
C ₂₄ H ₂₀ O ₁₀	1-(3',4',5'-Trimethoxy-phenyl)-2,3-dicarboxy-4-acetoxy-6,7-methylene-dioxy-1,2-dihydro-naphthalene anhydride	-	Sol	Group freq	Walker	JACS	75 (1953)	3390
C ₂₄ H ₂₀ As	Tetraphenylarsine	625-900	Sol	Substitution effect	Margoshes	SA	7 (1955)	14
C ₂₄ H ₂₀ Si	Diphenyl-p-biphenyl-silane	2-16 μ	Sol	Group freq	Krieseley	SA	15 (1959)	651
C ₂₄ H ₂₀ Si	Tetraphenylsilane	-	-	Ident Group freq	Brook Margoshes	JACS	76 (1954)	2338
		-	Sol	Substitution effect	Margoshes	AC	27 (1955)	551
		625-900	Sol	Freq	Kross	SA	4 (1955)	14
		1106	Sol	Band freq	Moltes	JACS	77 (1955)	6858
		8-11 μ	S	Freq, Spec, Struct	Smith	CIL	- (1959)	298
		2-15 μ	Sol		SA	16 (1960)	87	
C ₂₄ H ₂₁ ClN ₂ O ₄ S ₂	2-Chloro-6,7-dimethyl-1,4-naphthalene dibenzene-sulfonamide	-	S	Group freq	Adams	JACS	76 (1954)	2408

C ₂₄ H ₂₁ NO ₂	1-Benzoyl-2-phenacyl-1,2,3,4-tetrahydroquinoline	-	Sol	Group freq, Ident	Wright	JACS	76 (1954)	4540
C ₂₄ H ₂₁ N ₃ O ₆ S ₂	α -(1,4-Naphthalene-dibenzene sulfonamido-2)-nitroethane	-	-	Group study	Adams	JACS	74 (1952)	5557
C ₂₄ H ₂₂ N ₂	Anhydroidolene dimer	2-12 μ	S,Sol	Spec, Struct	Witkop	JACS	73 (1951)	2188
C ₂₄ H ₂₂ N ₂	N,N'-Di(α -methylphenyl)-1,4-diaminonaphthalene	-	-	Group freq, Struct	Adams	JACS	75 (1953)	4642
C ₂₄ H ₂₂ N ₂ O ₆ S ₂	5-Acetoxy-4a,5,6,8a-tetrahydro-1,4-naphthaquinonedibenzene-sulfonimide	-	-	Group freq	Adams	JACS	74 (1952)	2593
C ₂₄ H ₂₂ N ₄	meso-Tetramethylporphin	400-4000	S	Spec, H bond	Masor	JCS	- (1958)	976
C ₂₄ H ₂₂ OSi ₂	Diphenyl diphenylsilyl silane	2050-2250	Sol	Freq, Struct	Smith	SA	15 (1959)	412
C ₂₄ H ₂₂ O ₂	Benzhydryl p-ethoxy-styryl ketone	-	-	Band freq	Marvel	JOC	16 (1951)	741
C ₂₄ H ₂₂ O ₃	5-Mesityloyl-1-acenaphthalene acetic acid	-	-	Group freq, Ident	Fusion	JOC	19 (1954)	806
C ₂₄ H ₂₂ O ₃ Si ₂	Bis-(hydroxydiphenyl) disiloxane	650-1300 500-1650	- S	Spec, Assign	Thompson Richards	JCS	19 (1954)	810
C ₂₄ H ₂₂ O ₉	Decarboxamidoterrinolide acid pentamethyl ether	-	Sol	Band freq	Hochstein	JACS	75 (1953)	5455
C ₂₄ H ₂₃ ClN ₂ O ₄ S ₂	2-Chloro-6,7-dimethyl-5,8-dihydro-1,4-naphthalene dibenzene-sulfonamide	-	S	Group freq	Adams	JACS	76 (1954)	2408
C ₂₄ H ₂₃ NO	N-Benzoyl duryl phenyl ketimine	-	-	Group freq, Struct	Fusion	JACS	75 (1953)	5321
C ₂₄ H ₂₃ N ₃ O ₄ S ₂	α -(1,4-Naphthalene dibenzene-sulfonamido-2)-ethylaniline	-	-	Group study	Adams	JACS	74 (1952)	5557

C ₂₄ H ₂₄	Cyclotetracosa-1,3,9,11,17,19-hexayne	3-13 μ	S	Spec	Wolovsky	JACS	81 (1959)	4600
C ₂₄ H ₂₄	Tri-p-Xylylene	-	-	Band freq	Baker	JCS	- (1951)	1114
C ₂₄ H ₂₄ ^{NB}	Ammonium tetraphenylborate	250-4000	S, Sol	Spec, Freq	Waddington	JCS	- (1958)	4340
C ₂₄ H ₂₄ N ₂ O ₂	3,3'-Bis(4'-dimethylaminophenyl) phthalide	330-2000	S	Freq	Jakobsen	APS	14 (1960)	61
C ₂₄ H ₂₄ N ₂ O ₄ S ₂	5,8-Dihydro-6,7-dimethyl-naphthalene-1',4'-dibenzeneulfonamide	-	-	Group study	Adams	JACS	74 (1952)	2603
C ₂₄ H ₂₄ N ₄	Mesotetramethylchlorin	400-4000	S	Spec, H bond	Mason	JCS	- (1958)	976
C ₂₄ H ₂₄ O ₂	3,10-Dibenzylidene-1,2-cyclodecanedione	-	S	Group freq	Leonard	JACS	75 (1953)	2714
C ₂₄ H ₂₄ O ₂	Methyl- β , β -trifluoromethyl-pivalate	-	-	Group freq	McElvain	JACS	75 (1953)	3987
C ₂₄ H ₂₄ O ₆	Methyl-2,4-diphenacyl-1,3-cyclobutane-dicarboxylate	2-13 μ	S	Spec, Struct, Band freq	Reid	JACS	73 (1951)	1985
C ₂₄ H ₂₅ BrO ₁₀	1-Bromo-2-naphthyl-tetraacetyl- β -D-glucopyranoside	5-13 μ	Sol	Spec, Band freq	Tsou	JACS	74 (1952)	3066
C ₂₄ H ₂₅ BrO ₁₀	6-Bromo-3-naphthyl-tetraacetyl- β -D-glucopyranoside	5-13 μ	Sol	Spec, Band freq	Tsou	JACS	74 (1952)	3066
C ₂₄ H ₂₅ NO ₅	2-(β -Phenyl- α , β -dihydroxyethyl)-4-phenylhydroxymethyl-5-anilino-1,3-dioxolane	-	-	Band freq	Smith	JOC	16 (1951)	972
C ₂₄ H ₂₆	p-Di-(2-p-tolylethyl)benzene	-	-	Band freq	Baker	JCS	- (1951)	1114

$C_{24}H_{26}NO_5^P$	N-Dibenzylphosphoryl-dl-phenylalanine methyl ester	β -15 μ	I, S	Spec, Group freq	Li	JACS	77 (1955)	3519
$C_{24}H_{26}N_2O_6$	Ethyl- β -(5-benzoyloxy-indolyl- β)- α -carbethoxy- α -formamidopropionate	2.84-10.63 μ	Sol I	Group freq, Band freq,	Eka	JACS	76 (1954)	5579
$C_{24}H_{26}O_2$	Mesityl-(2-methoxy-5-methylphenyl)-phenyl-carbinol	-	-	Struct, Assign	Fuson	JOC	15 (1950)	1155
$C_{24}H_{26}O_4$	Suberoyldiacetophenone	1500-3500	S	Freq, Assign, Struct	Martin	JACS	80 (1958)	4891
$C_{24}H_{26}O_6$	1,3-Dihydro-8,9-dimethoxy-4-methyl-3-(2,3,5-trimethoxyphenyl)-naphtho[2,3,c]furan	-	-	Group study	Hochstein	JACS	75 (1953)	5455
$C_{24}H_{26}O_8$	1-Acetoxy-2-hydroxymethyl- β -carboxy-4-(3',4'-dimethoxyphenyl)-6,7-dimethoxytetralin lactone	-	Sol	Band freq	Walker	JACS	75 (1953)	3393
$C_{24}H_{26}O_8$	Epipicropodophyllin ethyl ether	-	Sol	Group freq	Schrecker	JACS	75 (1953)	5916
$C_{24}H_{26}O_8$	Epipodophyllotoxin ethyl ether	-	Sol	Group freq	Schrecker	JACS	75 (1953)	5916
$C_{24}H_{26}O_8$	2-Hydroxymethylene- β -carbethoxy-4-(3',4'-dimethoxyphenyl)-6,7-dimethoxy-1-tetralone	-	Sol	Band freq	Walker	JACS	75 (1953)	3393
$C_{24}H_{26}O_9$	α -(3,4-Methylenedioxybenzyl)-2-(3,4,5-trimethoxybenzylidene)succinic acid α -ethyl ester	-	Sol	Group freq	Walker	JACS	76 (1954)	6205
$C_{24}H_{26}O_{10}$	2-Naphthyltetraaceetyl- β -D-glucopyranoside	5-13 μ	Sol	Spec	Tsou	JACS	74 (1952)	3066

C ₂₄ H ₂₇ N ₂ O ₂	3,3'-Imino-bis(4-propylidene-1-phenyl-5-hydroxy)pyrazolone	400-4000	-	Freq		Gagnon	JJC	37 (1959) 110
C ₂₄ H ₂₈ N ₈	Octamethyltetraaza-porphin	400-4000	S	Spec, H bond	-	Mason	JCS	- (1958) 976
C ₂₄ H ₂₈ OSi	Triphenylsilylbutyl ethyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
C ₂₄ H ₂₈ OSi	Triphenylsilylethyl butyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
C ₂₄ H ₂₈ OSi	Triphenylsilylpentyl methyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
C ₂₄ H ₂₈ O ₂	Bis-(1,1'-diphenyl)cyclo-pentylaclyolin	-	-	Struct, Ident	Van Heyningen	JACS	74 (1952)	4861
C ₂₄ H ₂₈ O ₂	1,5-Dimesityl-2,4-pentadien-2-ol-1-one methyl ether	-	-	Group freq	Fusion	JACS	75 (1953)	5950
C ₂₄ H ₂₈ O ₂	1-Duryl-5-mesityl-2,4-pentadien-2-ol-1-one	-	-	Group freq, Struct	Fusion	JACS	75 (1953)	5950
C ₂₄ H ₂₈ O ₂	2-Hydroxy-4-t-butyl-3,4-dihydro-1-naphthyl mesityl ketone	-	-	Group freq	Fusion	JACS	77 (1955)	3781
C ₂₄ H ₂₈ O ₄	3-Acetoxy-17-(α -Acetoxyvinyl)- Δ^1 , Δ^5 (10), Δ^{16} -estratriene	-	Sol	Band freq	Djerassi	JACS	76 (1954)	1722
C ₂₄ H ₂₈ O ₅	3-Acetoxy-17(acetoxacyetyl)- Δ^1 , Δ^5 (10), Δ^{16} -estratriene	-	Sol	Band freq	Djerassi	JACS	76 (1954)	1722
C ₂₄ H ₂₈ O ₇	2-Hydroxymethyl-4-methyl-3-(α -hydroxy-2, Δ^5 ,5-trimethoxybenzyl)-1,8-dimethoxynaphthalene	-	-	Group study	Hochstein	JACS	75 (1953)	5455
C ₂₄ H ₂₈ O ₈	Ethyl isodesoxypodophyllate	-	-	Ident	Schrecker	JACS	75 (1953)	5916

$C_{24}H_{28}O_8$	Flavaspidic acid	$\bar{3.16-13.85}\mu$	S	Struct Band freq, I	Birch Birch	JCS - (1951) JCS - (1952)	3026 3102
$C_{24}H_{28}O_1O_5S_2$	Diethyl di-p-tolyl-sulfonyloxydihydro-muconate	$2-16\mu$	S	Spec, Group freq	Tipson	JOC 18 (1953)	952
$C_{24}H_{28}Si$	Tri- β -phenylethylsilane	$2-16\mu$	Sol	Group freq	Kniseley	SA 15 (1959)	651
$C_{24}H_{29}NO_5$	Isoamyl- p -(p -ethoxy-benzal amino)- Q -methyl-cinnamate	$2-12\mu$	L	Spec	Taschek	JCP 6 (1938)	542
$C_{24}H_{29}N_3O$	1-Methyl- $\bar{\delta}$, $\bar{\delta}$ -di-(p -dimethylaminobenzylidene)-4-piperidone	-	S	Group freq	Leonard	JACS 77 (1955)	1852
$C_{24}H_{29}N_3O$	1-Methyl- $\bar{\delta}$, $\bar{\delta}$ -di-(p -dimethylaminobenzyl)-4-pyridone	-	S	Group freq	Leonard	JACS 77 (1955)	1852
$C_{24}H_{30}N_2O_4$	Diacetylajmaline	-	S	Group freq	Anet	JCS - (1954)	1242
$C_{24}H_{30}N_2O_5$	Acetyl methyl canescate	-	-	Group freq	Klohs	JACS 77 (1955)	4084
$C_{24}H_{30}N_3B_3$	B-triethyl-N-triphenyl-borazole	-	Sol	Struct	Watanae	SA 16 (1960)	78
$C_{24}H_{30}N_4O_5$	$\bar{\delta},\bar{\delta}$ -Dimethyl- $\bar{\delta},\bar{\delta}$ -dioxo- $2,4$ -di- n -propyl- $\bar{\delta}a,4,5,6,7,7a$ -hexahydro- $4,7$ -methanotindene- $8-2,4$ -dinitrophenylhydrazone	-	S	Group freq	Allen	JOC 20 (1955)	323
$C_{24}H_{30}O_2$	2,4-Diallyloestrone	$2-12\mu$	S	Group freq	Patton	CIL - (1960)	1567
$C_{24}H_{30}O_3$	p -Aetoxyphenyl- $2,4,6$ -triisopropylphenyl ketone	-	-	Group freq	Fusion	JACS 75 (1953)	5410
$C_{24}H_{30}O_3Si_3$	2,4,6-Triethyltriphenyl cyclotrisiloxane	$2-16\mu$	Sol	Spec	Young	JACS 70 (1948)	3758
$C_{24}H_{30}O_4$	Dibenzyl sebacate	$2-15\mu$	L	Spec	Kendall	APS 7 (1953)	179

C ₂₄ H ₃₀ O ₅	3-Acetoxy-1 β (acetoxy-acetyl)- Δ^1 , δ^5 (10)-estratriene	-	Sol	Band freq, Ident	Djerassi	JACS	76 (1954) 1722	
C ₂₄ H ₃₀ O ₆	1-(3',4'-Dimethoxyphenyl)-2-carbethoxy-3-methyl-6,7-dimethoxytetralin	-	Sol	Band freq	Walker	JACS	75 (1953) 3393	
C ₂₄ H ₃₀ O ₆	Δ^1 , δ^3 , δ^5 , δ^{10} -Estratrienetriol - δ^3 , δ^{16} , δ^{17} -triacetate	-	-	Assign	Jones	JACS	70 (1948) 2024	
C ₂₄ H ₃₀ O ₆	Δ^1 , δ^3 , δ^5 (10)-Estratrien- δ^3 , δ^{16} α , $\delta^{17}\beta$ -triol triacetate	700-1400	Sol	Ident, Band	Jones	JACS	78 (1956) 1152	
C ₂₄ H ₃₀ O ₆	Δ^1 , δ^3 , δ^5 (10)-Estratrien- δ^3 , $\delta^{16}\beta$, $\delta^{17}\beta$ -triol triacetate	700-1400	Sol	Ident, Band	Jones	JACS	78 (1956) 1152	
C ₂₄ H ₃₀ O ₆	Estriol triacetate	-	Sol	Band freq	Scheer	JACS	77 (1955) 3300	
C ₂₄ H ₃₀ O ₈	4-Oxa-17 α ,21-diacetoxy- Δ^5 -pregnen- δ^3 , δ^{11} , δ^{20} -trione	-	-	Ident	Solloway	JACS	75 (1953) 5442	
C ₂₄ H ₃₀ O ₁₀ S ₂	Diethyl di-p-tolyl-sulfonyloxytetrahydro-muconate	2-16 μ	S	Spec	Tipson	JOC	18 (1953) 952	
C ₂₄ H ₃₀ O ₁₂ S ₂	Diethyl di-o-p-tolyl-sulfonylmucate	2-16 μ	S	Spec	Tipson	JOC	18 (1953) 952	
C ₂₄ H ₃₂ N ₂ O ₂	Bis-(n-benzyl) sebacamide	700-1700	S	Spec	Stafford	AC	21 (1949) 1454	
C ₂₄ H ₃₂ N ₂ O ₄	β -Isoreserpinal acetate	-	-	Ident	Mac Phillamy	JACS	77 (1955) 4335	
C ₂₄ H ₃₂ N ₈	Tetrahydrooctamethyl-tetraazaporphin	400-4000	S	Spec, H bond	Mason	JCS	- (1958) 976	
C ₂₄ H ₃₂ O ₄	2,2-Bis[2-(2-methyl- β -pro- δ -hexenyl)ethyl] ₂ , β -cyclonexanone	1550-1750	Sol	Spec	Ananchenko	IANS	- (1960) 1647	

C ₂₄ H ₃₂ O ₄	16αβ-carbomethoxy-16,17-cyclopopropane-4-pregnene-3,20-dione	-	-	Group freq	Mueller	JACS	76 (1954)	3686
C ₂₄ H ₃₂ O ₄	Methyl α-(3β-acetoxy-5,7,9-estratrien-17-γ ₁)propiionate	-	Sol Sol	Group freq Band freq	Mosettig Scheer	JOC JACS	17 (1952) 77 (1955)	764 3300
C ₂₄ H ₃₂ O ₄	Δ ^{1,3,5;10} -1-Methyl-3-methoxy-17-(2-acetoxy-acetyl)estratriene	-	Sol	Group freq	Jones	JACS	72 (1950)	956
C ₂₄ H ₃₂ O ₅	20α,4b-Dimethyl-1-carboxy-methylene-2-methallyl-7-ethylenedioxy-1,2,3,4,4aα,4b,5,6,7,8,10,10β-dodecahydrophenanthrene-4-one	-	S	Band freq	Arth	JACS	76 (1954)	1715
C ₂₄ H ₃₂ O ₅	2β,4b-Dimethyl-1-carboxy-methylene-2-methallyl-7-ethylenedioxy-1,2,3,4,4aα,4b,5,6,7,8,10,10β-dodecahydrophenanthrene-4-one	-	S	Band freq	Arth	JACS	76 (1954)	1715
C ₂₄ H ₃₂ O ₁₃	β-(4-Methyl-3-oxocyclohexylidene)β-tetra-O-acetylglucopyranosylory-propanoic acid	729-3226	S	I	Briggs	JCS	- (1954)	4182
C ₂₄ H ₃₃ BrO ₂	p-Hydroxy-p'-(ω-bromo-n-decyloxy)biphenyl	-	-	Group freq	Fusion	JACS	75 (1953)	1325
C ₂₄ H ₃₃ NO ₃	3β-Acetoxy-20-oxycanallo-pregn-17-en-11-one	-	S	Group freq	Bladon	JCS	- (1954)	125
C ₂₄ H ₃₃ NO ₆	6β-Nitro-3β,16β-dihydroxy-5-β-bisnorcholenic-22→16-lactone-3-acetate	-	Sol	Band freq	Anagnostopoulos	JACS	76 (1954)	532
C ₂₄ H ₃₄ N ₂	p,p'-Diaminobiphenyl-N,N'-decamethylene	-	-	Group freq	Fusion	JACS	75 (1953)	1327

C ₂₄ H ₃₄ N ₂ O ₃	$\beta\text{-Acetoxy-}16^1,17^1\text{-[}\beta,1\Delta^1\text{-pyrazolino]}^1\text{-}5\text{-pregnen-20-one}$	-	-	Group freq	Mueller	JACS	76 (1954)	3686
C ₂₄ H ₃₄ O ₂	1,1-Bis-(2-hydroxy- β -butyl-5-methylphenyl)ethane	2.75-3.05/ μ	S, Sol	Spec, H bond	Coggeshall	JACS	72 (1950)	2856
C ₂₄ H ₃₄ O ₂	Di-(4-hydroxy-2-methyl-t-butylphenyl)methylmethane	2.5-3.4/ μ	S, Sol	Group freq	Ambelang	JACS	75 (1953)	947
C ₂₄ H ₃₄ O ₃	$\beta\text{-Acetoxy-}16^1,17^1\text{-cyclo-}\Delta^1\text{-propano-}5\text{-pregnen-20-one}$	-	-	Config.	Mueller	JACS	76 (1954)	3686
C ₂₄ H ₃₄ O ₃	20-Hydroxy- β -ketoo- Δ^1 -cholenic acid lactone	1000-1900	Sol	Spec, Group freq	Jones	JACS	81 (1959)	5242
C ₂₄ H ₃₄ O ₃	$\Delta^5,16^1$ -16-methylpregna-dienol- β -one-20-acetate	-	Sol	Group freq, Spec, Struct	Jones	JACS	74 (1952)	2820
C ₂₄ H ₃₄ O ₄	16 α -Carbomethyro-16,17-cyclopropano- β -hydroxy-5-pregnene-20-one	-	-	Group freq	Mueller	JACS	76 (1954)	3686
C ₂₄ H ₃₄ O ₄	17 α -Methyldesoxycorticosterone acetate	-	Sol	Group freq	Engel	JACS	76 (1954)	4909
C ₂₄ H ₃₄ O ₅	$\beta\text{-Acetoxy-}5\text{G-hydroxy-}\Delta^1\text{-bisnorallochole-7,9(11)-dienic acid}$	-	S	Group freq	Bladon	JCS	- (1953)	2921
C ₂₄ H ₃₄ O ₅	2 $\beta,4\text{b-Dimethyl-1-carbethoxy-}$ -methyl-2-methallyl-1 \cdot 2, $\beta,4,4\alpha,4\beta,5,6,7,9,10,10\alpha\beta$ -dodecahydrophenanthrene-1 β -ol-4,7-dione	-	S	Band freq	Arth	JACS	76 (1954)	1715

C ₂₄ H ₃₄ O ₅	2α,4b-Dimethyl-1-carboxy-methylene-2-methallyl-7-ethylenedioxy-1,2,3,4,4α _α ,4b,5,6,7,8,10,10α _β -dodecahydrophenanthrene-4α-ol	-	S	Band freq	Arth	JACS 76 (1954) 1715
C ₂₄ H ₃₄ O ₅	2β,4b-Dimethyl-1-carboxy-methylene-2-methallyl-7-ethylenedioxy-1,2,3,4,4α _α ,4b,5,6,7,8,10,10α _β -dodecahydrophenanthrene-4β-ol	-	S	Band freq	Arth	JACS 76 (1954) 1715
C ₂₄ H ₃₄ O ₅	2β,4b-Dimethyl-7-ethylenedioxy-2-methallyl-1β-carboxymethyl-1,2,3,4,4α _α ,4b,5,6,7,8,10,10α _β -dodecahydronaphthalene-4-one	-	S	Band freq	Poos	JACS 77 (1955) 1026
C ₂₄ H ₃₄ O ₅	3β-Formyloxy-16α-acetoxy- Δ^5 -pregnen-20-one	-	Sol	Group freq	Hirschmann	JACS 75 (1953) 4682
C ₂₄ H ₃₄ O ₅	6-Keto-3β,16β-dihydroxy-bisnorallocholanic-22→16-lactone-3-acetate	-	Sol	Group freq	Hirschmann	JOC 20 (1955) 572
C ₂₄ H ₃₄ O ₅	3,11,12-Triketonorcholanic acid methyl ester	1700	Sol	Freq, Struct	Jones	Anagnostopoulos JACS 76 (1954) 532
C ₂₄ H ₃₄ O ₆	2α,4b-Dimethyl-1β-carbome thoxy-methyl-2-acetonyl-7-ethylenedioxy-1,2,3,4,4α _α ,5,6,7,8,10,10α _β -dodecahydronaphthalene-4-one	-	S	Freq	Arth	JACS 77 (1955) 3834
C ₂₄ H ₃₄ O ₆	2β,4b-Dimethyl-1β-carbome thoxy-methyl-2-acetonyl-7-ethylenedioxy-1,2,3,4,4α _α ,5,6,7,8,10,10α _β -dodecahydronaphthalene-4-one	-	S	Freq	Arth	JACS 77 (1955) 3834
C ₂₄ H ₃₄ O ₇	3α,11β,17α-Trihydroxy-pregnan-20-one triformate	-	-	Group study	Oliveto	JACS 77 (1955) 3564

C ₂₄ H ₃₆	1-Tetradecylnaphthalene	691-3235	L	Table, I	Anderson	JCS	- (1953)	443
C ₂₄ H ₃₆	2-Tetradecylnaphthalene	720-3252	L	Table, I	Anderson	JCS	- (1953)	443
C ₂₄ H ₃₆ N ₂ O ₄	Diacetylhexahydro-	-	S	Group freq	Anet	JCS	- (1954)	1242
C ₂₄ H ₃₆ O ₃	9:11- β -keto-cholenic acid	1580-3100	Sol	Group study, I	Jones	JACS	72 (1950)	86
C ₂₄ H ₃₆ O ₃	Δ^5 -Pregnenol- β -one-20-propionate	-	S, Sol	Group freq	Tarpley	APS	9 (1955)	69
C ₂₄ H ₃₆ O ₃	Δ^5 -Androsten- β -ol-17-one acetate trimethylene hemithioketal	-	Sol	Band freq	Djerassi	JACS	75 (1953)	3704
C ₂₄ H ₃₆ O ₄	β -Acetoxy-11-oxo- β -bisnorallocholanal	-	Sol	Group freq	Cameron	JCS	- (1953)	3864
C ₂₄ H ₃₆ O ₄	Δ^5 - β -Acetoxybisnor-cholenic acid	-	S, Sol	Group freq	Tarpley	APS	9 (1955)	69
C ₂₄ H ₃₆ O ₄	β ,16 β -Dihydroxybisnor-cholanic-22 \rightarrow 16-lactone- β -acetate	-	Sol	Band freq	Anagnostopoulos	JACS	76 (1954)	532
C ₂₄ H ₃₆ O ₄	11,12-Diketonorholanic acid methyl ester	1700	Sol	Struct, Freq Group freq	Jones Jones	JACS JACS	71 (1949) 72 (1950)	241 956
C ₂₄ H ₃₆ O ₄	2 β ,4b-Dimethyl-7-ethylenedioxy-2-methallyl- β -(2-hydroxyethyl)-1,2, β ,4,4a σ ,4b,5,6,7,8,10,10a β -dodecahydronaphthalene-4-one	-	S	Band freq	Poos	JACS	77 (1955)	1026
C ₂₄ H ₃₆ O ₄	3,6-Dioxocholanic acid	-	-	Spec	Morcillo	APS	53B (1957)	145
C ₂₄ H ₃₆ O ₄	3 α ,9 α -Epoxy-11-ketonor-cholanic acid methyl ester	1712	Sol	Freq, Struct, Anal Group freq	Jones Jones	JACS JACS	71 (1949) 74 (1952)	241 5648

$C_{24}H_{36}O_4$	Δ^5 -16 α -Methoxypregneno l - β -one-20-acetate	-	Sol	Band freq., Spec., Struct Ident	Jones	JACS 74 (1952) 2820
$C_{24}H_{36}O_5$	β -Acetoxy-11-oxobisnor- allocholanic acid	-	Sol	Group freq	Mattox	JACS 74 (1952) 4340
$C_{24}H_{36}O_5$	β -Acetoxy-11-oxo- β - bisnorallocholanic acid	-	Sol	Group freq	Cameron	JCS - (1953) 3864
$C_{24}H_{36}O_5$	2 α ,4b-Dimethyl-1 α -carboxy- methyl-2-methallyl-1-7- ethylenedioxy-1',2',3',4' 4 α O,4b,5,6,7,8,10,10 β Δ dodecahydrophenanthrene -4 α -ol	-	S	Band freq	Cameron	JCS - (1953) 3864
$C_{24}H_{36}O_5$	2 α ,4b-Dimethyl-1 β -carboxy- methyl-2-methallyl-1-7- ethylenedioxy-1,2,3,4,4 α O- 4b,5,6,7,8,10,10 β Δ dodecahydrophenanthrene -4 α -ol	-	S	Band freq Freq	Arth	JACS 76 (1954) 1715
$C_{24}H_{36}O_5$	2 β ,4b-Dimethyl-1 α -carboxy- methyl-2-methallyl-1-7- ethylenedioxy-1,2,3,4,4 α O- 4b,5,6,7,8,10,10 β Δ -dodeca- hydrophenanthrene-4 α -ol	-	S	Band freq	Arth	JACS 76 (1954) 1715
$C_{24}H_{36}O_5$	2 β ,4b-Dimethyl-1 β -carboxy- methyl-2-methallyl-1-7- ethylenedioxy-1,2,3,4,4 α O, 4b,5,6,7,8,10,10 β Δ -dodeca- hydrophenanthrene-4 β -ol	-	S	Band freq	Arth	JACS 76 (1954) 1715
$C_{24}H_{36}O_5$	Ethyl- β O-acetoxy-11- ketotitanate	-	-	Spec., Ident	Bellau	JACS 74 (1952) 2816

C ₂₄ H ₃₇ ^{NO} ₃	N-Benzyl oxy- α -dodecyl-glutarimide	-	S	Group freq	Ames	JCS	-	(1955) 631
C ₂₄ H ₃₇ NO ₃	Vera-trobasine	-	-	Struct	Stoll	JACS	74 (1952)	4728
C ₂₄ H ₃₈ ^O ₃	$\beta\alpha\text{C}$ -Hydroxy- Δ^{11} -cholenic acid	2.5-15 μ	S	Spec, Band freq	Hirschmann	JACS	74 (1952)	5357
C ₂₄ H ₃₈ ^O ₃	Δ^{11} - $\beta\alpha\text{C}$ -Hydroxynorcholeic acid, methyl ester	-	Sol	Group freq	Jones	JACS	72 (1950)	956
C ₂₄ H ₃₈ ^O ₄	Di-(2-ethylhexyl) phthalate	2-14 μ	L	Spec	Jones	JACS	74 (1952)	5648
C ₂₄ H ₃₈ ^O ₄	$\beta\alpha\text{C}$ 12 β -Dihydroxy- Δ^{22} -cholenic acid	-	S, Sol	Group freq	Kapff	JCP	16 (1948)	446
C ₂₄ H ₃₈ ^O ₄	2 β ,4 β -Dimethyl-1 α -(2-hydroxyethyl)-2-methallyl-7-ethylene-dioxy-1,2, β ,4, $\alpha\alpha\text{C}$,4b,5,6,7,8,10,10 $\alpha\beta$ -dodecahydrophenanthrene-4 α -ol	-	-	Band freq	Tarpley	APS	9 (1955)	69
C ₂₄ H ₃₈ ^O ₄	2 β ,4 β -Dimethyl-1 α -(2-hydroxyethyl)-2-methallyl-7-ethylene-dioxy-1,2, β ,4, $\alpha\alpha\text{C}$,4b,5,6,7,8,10,10 $\alpha\beta$ -dodecahydrophenanthrene-4 α -ol	-	-	Band freq	Johns	JACS	76 (1954)	5026
C ₂₄ H ₃₈ ^O ₄	2 β ,4 β -Dimethyl-1 α -(2-hydroxyethyl)-2-methallyl-7-ethylene-dioxy-1,2, β ,4, $\alpha\alpha\text{C}$,4b,5,6,7,8,10,10 $\alpha\beta$ -dodecahydrophenanthrene-4 β -ol	-	-	Band freq	Johns	JACS	76 (1954)	5026
C ₂₄ H ₃₈ ^O ₄	2 β ,4 β -Dimethyl-1 β -(2-hydroxyethyl)-2-methallyl-7-ethylene-dioxy-1,2, β ,4, $\alpha\alpha\text{C}$,4b,5,6,7,8,10,10 $\alpha\beta$ -dodecahydrophenanthrene-4 β -ol	-	-	Band freq	Johns	JACS	76 (1954)	5026
C ₂₄ H ₃₈ ^O ₄	2 β ,4 β -Dimethyl-1 β -(2-hydroxyethyl)-2-methallyl-7-ethylene-dioxy-1,2, β ,4, $\alpha\alpha\text{C}$,4b,5,6,7,8,10,10 $\alpha\beta$ -dodecahydrophenanthrene-4 β -ol	-	-	Band freq	Johns	JACS	76 (1954)	5026

$C_{24}H_{38}O_4$	Dioctyl phthalate	2-15 μ - 2-15 μ	S L Sol	Spec Band freq, Spec, I Spec, Group freq	Hansdorff Kendall Pristera	APS APS AC	5 (1950) 7 (1953) 25 (1953)	8 179 844
$C_{24}H_{38}O_4$	$\beta\alpha$ -Hydroxy-6-oxo-cholanic acid	-	-	Spec	Morcillo	ARS	53B (1957)	145
$C_{24}H_{38}O_4$	$\beta\alpha$ -Hydroxy-11-keto-norcholestanic acid	1712 -	Sol Sol	Freq, Struct Freq	Jones Cole	JACS JACS	71 (1949) 74 (1952)	241 5571
$C_{24}H_{38}O_4$	Methyl- β hydroxy-12-keto-norcholestanate	-	S, Sol	Group freq	Tarpley	APS	9 (1955)	69
$C_{24}H_{39}NO_7$	Delcosine	675-3518	S	Freq, Table	Taylor	CJC	32 (1954)	780
$C_{24}H_{39}NO_{14}$	Methyl tetraacetyl-streptobiosaminide dimethyl acetal	-	Sol	Group freq, Struct	Brink	JACS	68 (1946)	2557
$C_{24}H_{39}NS$	2-Heptadecylbenzothiazole	-	-	Solubility	Du Brow	JACS	74 (1952)	6241
$C_{24}H_{40}N_2$	Coneessine	-	-	Band freq, Struct	Haworth	JCS	-	(1953) 1102
$C_{24}H_{40}O$	$\Delta^{9:11}$ -Cholenol-24	700-1400	Sol	Spec, Band freq Group freq	Bladon Werner	JCS JCS	- (1951) - (1954)	2402 1152
$C_{24}H_{40}O_2$	Cholanic acid	-	Sol	Group freq	Jones	JACS	72 (1950)	956
$C_{24}H_{40}O_2$	$\beta\beta$,24-Dihydroxy-20-alloclocholene	-	-	Band freq	Ryer	JACS	74 (1952)	4336
$C_{24}H_{40}O_2$	$\beta\alpha$ 24-Dihydroxychole-11-ene	650-2100	S	Band freq, I	Henbest	JCS	- (1954)	800
$C_{24}H_{40}O_2$	9-Phenylstearic acid	2-15 μ	S	Spec, Assign, Group freq	Kagarise	JPC	59 (1955)	271
$C_{24}H_{40}O_3$	$\beta\alpha$ -Hydroxycholanic acid	2.5-15 μ	S	Spec, Band freq	Hirschmann	JACS	74 (1952)	5357
$C_{24}H_{40}O_4$	Deoxycholic acid	-	-	Spec	Morcillo	ARS	53B (1957)	145

				Spec				
C ₂₄ H ₄₀ O ₄	Hydeoxycholic acid	-	-	-	Morcillo	ARS	295 (1951)	145
C ₂₄ H ₄₀ O ₅	Cholic acid	-	-	Ident Spec	Hirschmann Morcillo	JACS ARS	75 (1953) 53B (1957)	2361 145
C ₂₄ H ₄₂	n-Octadecylbenzene	5400-8900	Sol	Assign, Spec	Rose	JRNB	19 (1937)	143
C ₂₄ H ₄₂	2-Phenyl octadecane	2-15.5 μ	L	Spec, Struct	Lenneman	JOC	19 (1954)	463
C ₂₄ H ₄₃ N ₄ O ₄	4-(12-Acetoxyoleoyl) morpholine	2-16 μ	Sol	Spec, Freq	Dupuy	JAC	35 (1958)	99
C ₂₄ H ₄₃ N ₅ O ₅	Triacetyl sphingosine	2-16 μ 2.9-9.55 μ	Sol -	Spec Freq	Mislow Shapiro	JACS	74 (1952) 76 (1954)	5155 5894
C ₂₄ H ₄₄	1,5-Dicyclohexyl-3-(2-cyclopentylethyl)pentane	-	-	Band freq	Bonstein	AC	25 (1953)	512
C ₂₄ H ₄₄ N ₁₀ O ₃ ·6HCl	Roseothrinic hexahydrochloride	600-4000	S	Spec, Struct	Goto	BCSJ	30 (1957)	729
C ₂₄ H ₄₄ O ₇	Dihydroneoquassin acetate	-	S	Group freq	Hanson	JCS	- (1954)	4238
C ₂₄ H ₄₄ S ₁	Tetracyclohexylsilane	3-12 μ	Sol	Spec	Kanazashi	BCSJ	27 (1954)	441
C ₂₄ H ₄₅ N ₄ O ₄	4-(12-Acetoxy stearoyl) morpholine	2-16 μ	Sol	Spec, Freq	Dupuy	JAC	35 (1958)	99
C ₂₄ H ₄₆ O ₄	Di-n-heptyl sebacate	2-16 μ	Sol	Spec	Stahl	JACS	74 (1952)	5487
C ₂₄ H ₄₆ O ₄	Dilauroyl peroxide	5-15 μ	Sol	Group freq Spec, Band freq	Davison Minkoff	JCS PRS	- (1951) 224 (1954)	2456 176
C ₂₄ H ₄₇ N ₂ O ₂	1-Ethyl-1-azaacyclo-tricosan-12-ol-13-one	-	Sol	Group freq	Leonard	JAC	76 (1954)	5708
C ₂₄ H ₄₈	Cyclohexyl-n-octadecane	5400-8900	Sol	Assign, Spec	Rose	JRNB	19 (1937)	143
C ₂₄ H ₄₈ O ₂	21,21-Dimethyl docosanoic acid	-	-	Spec	Sobotka	JACS	72 (1950)	5139

$C_{24}H_{48}O_2$	12-n-Hexyl octadecanoic acid	2-16 μ	Sol	Band freq, Spec, Struct	Freeman	JACS	74 (1952)	2523
$C_{24}H_{48}O_2$	18-n-Propyl heneicosanoic acid	2-16 μ	Sol	Band freq, Spec, Struct	Freeman	JACS	74 (1952)	2523
$C_{24}H_{48}O_2$	n-Tetracosanoic acid	2-15 μ	S	Spec, Qual, Anal	Meiklejohn	AC	29 (1957)	329
$C_{24}H_{48}O_3$	Ethylene glycol mono-butyl ether stearate	2-15 μ	L	Spec	Kendall	APS	7 (1953)	179
$C_{24}H_{49}N$	2,4-Dimethyl docos-2-enylamine	-	-	Group freq	Bailey	JCS	- (1955)	1547
$C_{24}H_{49}N_2O_6P$	Sphingomyelin	3.10-13.86 μ 2.5-14.5 μ	S S	Group freq, Struct Group freq, Struct Spec, Group freq	Marinetti Marinetti Marinetti	JACS JACS JACS	75 (1953) 76 (1954) 76 (1954)	313 1345 1347
$C_{24}H_{50}$	n-Tetracosane	3.2-14.7 μ	-	Group freq	Bryant Francis Stein Jones Snyder Martin Snyder	JACS AC JCP SA JCP SA JMS	75 (1953) 25 (1953) 22 (1954) 9 (1957) 27 (1957) 12 (1958) 4 (1960)	6113 1466 1993 235 969 12 411
$C_{24}H_{50}O_2$	Lauraldehyde hemiacetal	-	Sol	Group freq	Erlanson	JACS	76 (1954)	4472
$C_{24}H_{51}N$	2,4-Dimethyl docosanylamine	-	-	Group freq	Bailey	JCS	- (1955)	1547
$C_{24}H_{51}N_2O_6P$	Dihydro sphingomyelin	2.5-14.5 μ	S	Spec, Group freq, Struct	Marinetti Marinetti	JACS JACS	76 (1954)	1347
$C_{24}H_{51}N_2O_8P$	Sphingomyelin hydroxylated	3.01-13.86 μ	S	Anal Table, Band freq	Marinetti Marinetti	JACS JACS	75 (1953) 76 (1954)	313 1345
$C_{24}H_{51}O_3B$	Tri-2-octyl borate	670-1800	S	Spec, Freq	Werner	AJC	8 (1955)	355
$C_{24}H_{51}O_3P$	Tri-2-ethyl hexyl-3-phosphite	700-1620	L	Spec, Group freq	Bellamy	JCS	- (1952)	475
$C_{24}H_{51}O_4P$	Tri-2-ethyl hexyl-phosphate	700-1570	L	Spec, Group freq	Bellamy	JCS	- (1952)	475
		-	-	Group freq	Bellamy	JCS	- (1952)	1701
		2-15 μ	L	Spec	Kendall	APS	7 (1953)	179
		-	-	Group freq	Bellamy	JACS	76 (1954)	5185

C ₂₄ H ₅₂ Si	Tri-n-Octylsilane	2-16/ μ	sol	Group freq	Knisely	SA	15 (1959)	651
C ₂₄ H ₅₄ N ₃ B	Tris di-n-butylamino-boron	2-15/ μ	L	Freq, Assign	Aubrey	JCS	- (1960)	5239
C ₂₄ H ₅₄ O ₉ Si ₃	Hexa-tert-but oxy cyclo-trisiloxane	-	-	Spec, Assign	Vorankov	ZOK	28 (1958)	2128
C ₂₄ H ₅₇ N ₃ O ₆ Si ₃	Hexa-t-butoxy-cyclotrisilazane	2.93-14.52/ μ	sol	Band freq, I	George	JACS	75 (1953)	6308
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C ₂₅ COMPOUNDS								
C ₂₅ H ₁₀ F ₃₈ O ₄	1,5-Pentanediol bis nona-decafluoro caprate	-	L	Group freq	Rappaport	JACS	75 (1953)	2695
C ₂₅ H ₁₄ O ₂	Fluorene-9'-spiro-2-peri-naphthane-1,3-dione	-	S	Struct	Greenhow	JCS	- (1953)	3099
C ₂₅ H ₁₈	Diphenylfluorene	650-2000	S	Spec	Cannon	SA	4 (1951)	373
C ₂₅ H ₁₈ N ₂ O ₄	1,4-Diphenyl-3-(2-benzylidene-4,5-diketo-3-oxazolidyl)-2-azetidinone	2-8/ μ	sol	Band freq	Sheehan	JACS	73 (1951)	4756
C ₂₅ H ₁₈ O	2-(1-Naphthyl)-3-phenyl-indone	-	-	Spec	Bergmann	BSCF	- (1959)	634
C ₂₅ H ₁₉ CIN ₂ O ₂	4-Chloro-o-quinonedibenzimide cyclopentadrene adduct	-	-	Struct	Adams	JACS	76 (1954)	2763
C ₂₅ H ₁₉ CIN ₂ O ₅ S ₂	N ¹ ,N ¹ '-Dibenzenesulfonyl-N ¹ -benzoyl-2-chloro-p-phenylenediamine	-	S	Group freq	Adams	JACS	76 (1954)	3584

C ₂₅ H ₁₉ C ₁ N ₃ O ₄ S ₂	N-(2,3,5,6-Tetrachloro-4-phenylsulfonamido-phenyl)-N-(2-methyl-4-aminophenyl)benzenesulfonamide	-	-	Group freq	Adams	JACS 74 (1952) 5869
C ₂₅ H ₁₉ C ₁ N ₃ O ₄ S ₂	N-(2,3,5,6-Tetrachloro-4-phenylsulfonamido-phenyl)-N-(3-methyl-4-aminophenyl)benzenesulfonamide	-	-	Group freq	Adams	JACS 74 (1952) 5869
C ₂₅ H ₁₉ N ₂ O ₂	1-Piperidinoperylene-3,10-quinone	768-1637	S	Table	Brown	JCS - (1954) 1280
C ₂₅ H ₁₉ N ₅ O ₈	Benzyl-4-phenyl-2,5-diketo-3-2,4-dinitrophenylhydrazone-1-pyrrolidine acetate	2-8 μ	S	Spec, Band freq	Sheehan	JACS 74 (1952) 360
C ₂₅ H ₂₀	Tetraphenylmethane	3.2-3.6 μ 1300-1900 660-2040	Sol -	Band freq Struct, Spec, Anal Spec	Wall Adams Cannon Pinchhas Margoshes Noltes	JACS 61 (1939) 1053 JACS 71 (1949) 387 SA 4 (1951) 373 JCS - (1954) 863 SA 7 (1955) 14 CIL - (1959) 298
C ₂₅ H ₂₀ N ₂ O ₂	1-Methyl-3-(1-phenyl-2-phthalimidoethyl)indole	-	Sol,S	Group freq	Noland	JACS 81 (1959) 1203
C ₂₅ H ₂₀ N ₂ O ₂	2-Methyl-3-(1-phenyl-2-phthalimidoethyl)indole	-	S,Sol	Group freq	Noland	JACS 81 (1959) 1203
C ₂₅ H ₂₀ N ₂ O ₂	α -Quinonedibenzimid \circ cyclopentadiene adduct	-	-	'Freq	Adams	JACS 76 (1954) 2763
C ₂₅ H ₂₀ OSi	Benzoyltriphenylsilane	-	Sol	Freq	Brook	JACS 82 (1960) 5102
C ₂₅ H ₂₀ O ₂	5-Benzylidene-3,4-d ₁ -phenyl-4-hydroxy-2-methyl- Δ ² -cyclopentenone	1600-1800	Sol	Group freq	Fusion	JACS 76 (1954) 2526

					Josien	JOC	JCR	CCC
$C_{25}H_{20}O_2$	2-Methyl-3(β -diphenyl)- α -ethyl-1,4-naphthoquinone	1600-1800	Sol	Group freq	Ingraham	JACS	74 (1952)	2297
$C_{25}H_{20}O_2$	4-Tritylcatechol	$3\ \mu$	Sol	Group freq	Allen	JOC	20 (1955)	306
$C_{25}H_{20}O_3$	5,8-Dimethyl-6,7-diphenyl-5,8-methano-1,4,9-trioxa-5,8,8a-tetrahydronaphthalene	$2-15\ \mu$	S	Group freq, Spec	Hergert	JACS	75 (1953)	1622
$C_{25}H_{20}O_{12}$	3,3',4',5,7-Penta-acetoxy flavone	1550-4000	S	Group freq	Hergert	JACS	75 (1953)	1622
$C_{25}H_{20}O_{12}$	3,3',4',5,8-Penta-acetoxy flavone	1550-4000	S	Group freq	Hergert	JACS	75 (1953)	1622
$C_{25}H_{22}N_2O_5S_2$	1,4-Naphthalene dibenzene sulfonamido-2-acetyl-methane	-	-	Group study	Adams	JACS	74 (1952)	5557
$C_{25}H_{22}N_2O_5S_3$	2-Methoxy-5-phenylmercapto-p-phenylenedibenzene-sulfonamide	-	-	Ident	Adams	JACS	75 (1953)	3235
$C_{25}H_{22}N_2O_6S_3$	2-Methyl-y-benzene-sulfonyl-p-phenylene-dibenzenesulfonamide	-	-	Ident	Adams	JACS	75 (1953)	3235
$C_{25}H_{22}N_2O_7S_3$	2-Methoxy-5-benzene-sulfonyl-p-phenylene-dibenzenesulfonamide	-	-	Ident	Adams	JACS	75 (1953)	3235
$C_{25}H_{22}N_4O_2$	Zolon	$0-0.8\ \mu$	S	Ident	Svatos	JOC	21 (1956)	1171
$C_{25}H_{22}OSi$	Triphenylsilylmethyl phenyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_{25}H_{22}O_2$	1,3-Dibenzoyl-2-phenyl-cyclopentane	-	-	Group freq, Struct	Fusion	JACS	77 (1955)	174
$C_{25}H_{22}O_2Si$	Phenyl-p-phenoxyphenyl-p-anisyl silane	$2-16\ \mu$	Sol	Group freq	Kniseley	SA	15 (1959)	651

$C_{25}H_{22}O_3$	$\Delta^{1,3,5(10),6,8}$ -Estrapentaenol- β -one-17-benzoate	-	Sol	Group freq	Jones	JACS	74 (1952)	5648
$C_{25}H_{22}O_{12}$	d-Dihydroquercetin pentaacetate	700-4000	S	Spec, Config. Assign	Hergert	JOC	18 (1953)	521
$C_{25}H_{22}O_{12}$	$3,3',4',5,7$ -Penta-acetoxy flavone	1550-4000	S	Group freq	Hergert	JACS	75 (1953)	1622
$C_{25}H_{22}Si$	p-Tolyltriphenylsilane	-	Sol	Group freq	Margoshes	AC	27 (1955)	357
$C_{25}H_{23}NO_6$	Dibenzyl carbobenzoyloxy-aminomalonate	-	Sol	Group freq	Kissmann	JACS	75 (1953)	1967
$C_{25}H_{23}N_3O_4S_2$	2-(p-Monomethylamino-phenyl)-benzene-1,4-dibenzenesulfonamide	-	-	Group freq, Struct	Adams	JACS	75 (1953)	4642
$C_{25}H_{24}O_2$	1-Acetyl-5-mesityloyl-acenaphthene	-	-	Ident, Group freq	Fuson	JACS	76 (1954)	810
$C_{25}H_{24}O_3$	$\Delta^{1,3,5:10,7}$ -Estrateraenol- β -one-17-benzoate	-	Sol	Group freq	Jones	JACS	74 (1952)	5648
$C_{25}H_{24}O_{11}$	1-Epicatethol penta-acetate	700-4000	S	Spec, Struct, Assign	Hergert	JOC	18 (1953)	521
$C_{25}H_{24}O_{11}$	d- $3,3',4',5,7$ -Penta-hydroxyflavan penta-acetate trans	700-4000	S	Spec, Struct, Assign	Hergert	JOC	18 (1953)	521
$C_{25}H_{25}NO_6$	1-Epanorin	650-3800	S, Sol	Spec	Frank	JACS	72 (1950)	4454
$C_{25}H_{25}NO_8$	Pentamethylterritinolide	-	Sol	Group freq	Hochstein	JACS	75 (1953)	5455
$C_{25}H_{26}NB$	Methylammoniumtetra-phenylborate	-	S	H bond, Band freq	Nuttall	JCS	- (1960)	4965

					Audited			
$C_{25}H_{26}N_2O_4S_2$	2,6,7-Trimethyl-5,8-dihydro-1,4-naphthalenedibenzene sulfonamide	-	-	S	Group freq			
$C_{25}H_{26}N_2O_8S_2$	N,N' -Dicarboxymethyl- N,N' -dibenzene sulfonyldiaminomesitylene	450-4000	S	Melting Point	Adams	JACS 70 (1948) 4204		
$C_{25}H_{26}O_2$	3,11-Dibenzylidene-1,2-cyclohexadecanedione	-	S	Group freq	Leonard	JACS 75 (1953) 2714		
$C_{25}H_{26}O_3$	$\Delta^{1,3,5,10}$ -Estratrienol- β -one-17-benzoate	-	Sol	Group freq	Jones	JACS 74 (1952) 5648		
$C_{25}H_{26}O_6$	3,7-Di(m,p-dimethoxybenzylidene)-1,2-octoheptanedione	-	S	Group freq	Leonard	JACS 75 (1953) 4989		
$C_{25}H_{26}O_{10}$	2-Carbomethoxy-3-carbethoxy-4-(3',4',5'-trimethoxyphenyl)-6,7-methylene-dioxy-1-tetralone	-	Sol	Group freq	Walker	JACS 75 (1953) 3390		
$C_{25}H_{28}N_2O_6S_2$	N -Ethyl- N' -Carboxymethyl- N,N' -dibenzene sulfonyl-diaminomesitylene	650-4000	S	Melting Point	Adams	JACS 70 (1948) 4204		
$C_{25}H_{28}O$	1-Keto-2-benzylidenenor-dehydroabietane	-	-	Group freq	Zeiss	JACS 75 (1953) 5935		
$C_{25}H_{28}O_3$	1,5-Dimesityl-1,3-pentadien-1-ol-5-one acetate	-	S	Band freq, Group freq	Fuson	JACS 75 (1953) 5402		
$C_{25}H_{28}O_3$	1,5-Dimesityl-2,4-pentadien-2-ol-1-one acetate	-	S	Group freq	Fuson	JACS 75 (1953) 5952		
$C_{25}H_{28}O_4$	Azeolidiacetophenone	1500-3500	S	Freq, Assign, Struct	Martin	JACS 80 (1958) 4891		
$C_{25}H_{30}N_2O_4S_2$	N,N' -Diethyl- N,N' -dibenzenesulfonyldiaminomesitylene	650-4000	S	Melting Point	Adams	JACS 70 (1948) 4204		

$C_{25}H_{30}N_2O_5$	O,N-Diacetyllyohimbine	-	-	Group freq, Band freq	Huebner	JACS 77 (1955) 469
$C_{25}H_{30}OSi$	Triphenylsilylhexyl methyl ether	-	-	Inductive effect	Josien	CPR 249 (1959) 826
$C_{25}H_{30}OSi$	Triphenylsilylpentyl ethyl ether	-	-	Inductive effect	Josien	CPR 249 (1959) 826
$C_{25}H_{30}OSi$	Triphenylsilylpropyl butyl ether	-	-	Inductive effect	Josien	CPR 249 (1959) 826
$C_{25}H_{30}O_2$	1,5-Diduryl-1,3-pentadien-1-one	-	S	Band freq, Group freq	Fusion	JACS 75 (1953) 5402
$C_{25}H_{30}O_2$	1,5-Diduryl-2-pentene-1,5-dione	-	S	Band freq, Group freq	Fusion	JACS 75 (1953) 5402
$C_{25}H_{30}O_5$	β' -(X-Acetoxy- β -methoxy-estra-1,3,5(10),14-tetraenyl-17)butanolide	-	Sol	Group freq	Sneeden	JACS 77 (1955) 130
$C_{25}H_{30}O_6$	$\Delta^{5,7}$ -Androstadien- β -ol-17-one acetate, maleic anhydride adduct	670-3700	S	Spec, Ident, Struct	Antomucci	JOC 16 (1951) 1356
$C_{25}H_{32}N_2O_5$	Quinine α , β -dihydroxy-isovalerate	2-15 μ	S	Ident, Spec	Sjolander	JACS 76 (1954) 1085
$C_{25}H_{32}N_2O_6$	Methyl reserpate acetate	-	S	Ident	MacPhillamy	JACS 77 (1955) 4335
$C_{25}H_{32}N_2O_6$	Methyl- β -isoreserpate acetate	-	S	Group freq	MacPhillamy	JACS 77 (1955) 4335
$C_{25}H_{32}O_4$	β -Acetoxy- $\Delta^{14}(15),16(17)$, 1000-1900 $\Delta^{20(22)}$ -cardatrienolide	Sol	Spec, Freq	Jones	JACS 81 (1959) 5242	
$C_{25}H_{32}O_4$	β ,20-Diacetoxy-5,7,9(11) 20-pregnate-traeae	-	-	Band freq	Moffett	JACS 74 (1952) 2183

				Arth		JACS	77 (1955)	3834
				Freq				
C ₂₅ H ₃₂ O ₆	dl- β -Ethylenedioxy-20-acetoxyl-5,17-pregnadiene 11,16-dione	-	S					
C ₂₅ H ₃₂ O ₇	Aldosterone-18,21-diacetate	2-12 μ -	Sol Sol	Spec Band freq		Simpson Ham	37 (1954) 77 (1955)	1163 1637
C ₂₅ H ₃₂ O ₈	Albaspidin	2.97-13.57 μ	S	Band freq, I		Birch	JCS -	(1952) 3102
C ₂₅ H ₃₂ O ₈	Methyl- β -oxo-(11?) ¹⁹ -diacetoxyl-14-hydroxy- Δ ^{1,4} -etiadienone	-	Sol	Group freq, Band freq		Florey	JOC 19 (1954)	1174
C ₂₅ H ₃₂ O ₈	Δ ⁴ -Pregnene-2 α ,17 α ,21-triol-3,11,20-trione 2,21-diacetate	-	Sol	Band freq		Rosenkrantz	JACS 77 (1955)	145
C ₂₅ H ₃₂ O ₈	Δ ⁴ -Pregnene- β ,11,20-trione-6 β ,17 α ,21-triol- δ ,21-diacetate	-	S	Band freq		Sondheimer	JACS 76 (1954)	5020
C ₂₅ H ₃₃ NO ₇	Lycoc tamone monoacetate	600-3600	S	Spec		Edwards	CJC 32 (1954)	708
C ₂₅ H ₃₄	1,5-Diphenyl- β -(3-cyclopentylpropyl)pentane	1.1-1.25 μ	L	Anal		Evans	AC 23 (1951)	1604
C ₂₅ H ₃₄ N ₂ O ₅	β -Acetoxy-16,17-[β ,1-(3-carboxy-2-pyrazolino)]- β -pregnen-20-one	-	-	Group freq		Muller	JACS 76 (1954)	3686
C ₂₅ H ₃₄ N ₂ O ₆ ·HCl	β -Y-Epoxy-Y'-[β -(3,4-dimethoxyphenyl)-ethyl-amino]-N-[β -(3,4-dimethoxyphenyl)-ethyl]-isovaleramide hydrochloride	2-16 μ	-	Spec		Lassilo	JACS 75 (1953)	5980
C ₂₅ H ₃₄ O ₄	2,4-Di-t-butylphenyl duryl ketone	-	-	Group freq Ident		Fusion Fusion	JACS 76 (1954) JACS 77 (1955)	5119 3781
C ₂₅ H ₃₄ O ₄	12 β -Acetoxy- β -hydroxy- card-14,20(22)dienolide	-	-	Struct		Cardwell	JCS -	(1954) 2012

$C_{25}H_{34}O_4$	$\beta,20$ -Diacetoxyl- $\gamma,5,20$ -pregnatriene	-	-	Band freq	Moffett	JACS	74 (1952)	2185
$C_{25}H_{34}O_4$	$\beta\beta,20$ -Diacetoxyl- $\gamma,16,20$ -pregnatriene	-	-	Band freq Band freq	Moffett Djerassi	JACS JACS	74 (1952) 76 (1954)	2185 1722
$C_{25}H_{34}O_4$	$\Delta^{\gamma},5,17(20)$ -Pregnatriene- $\gamma,20$ -diol diacetate	-	Sol	Freq	Djerassi	JACS	77 (1955)	3826
$C_{25}H_{34}O_5$	$\beta\beta$ -Acetoxyl- $12\beta,14$ -dihydroxy- card- $8(14),20(22)$ dienolide	-	-	Struct	Cardwell	JCS	- (1954)	2012
$C_{25}H_{34}O_5$	$\beta\beta$ -Acetoxyl- 14 -hydroxy- $16(17),20(22)$ - cardadienolide	1000-1900	Sol	Spec, Freq	Jones	JACS	81 (1959)	5242
$C_{25}H_{34}O_5$	$\delta,11$ -Allopregnadiene- $\beta\beta,20\beta$ -diol- 7 -one- diacetate	-	S	Group freq	Romo	JACS	74 (1952)	2918
$C_{25}H_{34}O_5$	$\Delta^{\delta,14,15}$ -Allopregnadiene- $\beta\beta,20\beta$ -diol- 7 -one diacetate	-	Sol	Band freq	Hemin	JACS	75 (1953)	1745
$C_{25}H_{34}O_5$	$2\beta,4$ b-Dimethyl- 1 -carbo- methoxymethylene- 2 - methallyl- 7 -ethylenedioxy- $1,2,3,4,4\alpha\beta,4\beta,5,$ $6,7,8,10,10\beta$ -dodecahydrophenanthrene- 4 -one	-	S	Band freq	Arth	JACS	76 (1954)	1715
$C_{25}H_{34}O_5$	$\Delta^{\delta,16}$ -Pregnadienediol $-2,\beta\beta$ -one- 20 -diacetate	-	Sol Sol	Group freq Spec, Struct, Group freq	Jones Jones	JACS JACS	72 (1950) 74 (1952)	956 2820
$C_{25}H_{34}O_5$	$\Delta^{\delta,16}$ -Pregnadiene- $\beta\beta,21$ - diol- 20 -one diacetate	-	Sol	Band freq	Djerassi	JACS	76 (1954)	1722
$C_{25}H_{34}O_5$	$\Delta^{\delta,16}$ -Pregnadiene- 21 -ol- $3,20$ -diol- 21 -acetate- β -ethylene ketal	-	S	Band freq	Allen	JACS	77 (1955)	1028

							HCA	4< (1953)	248
C ₂₅ H ₃₄ O ₆	Acetyl derivative of Cannogenin	-	-	Spec	GÖLDA				
C ₂₅ H ₃₄ O ₆	Acetylgomphogenin	600-4000	Sol	Spec	Watson		AJC	10 (1957)	79
C ₂₅ H ₃₄ O ₆	Δ ¹⁶ -Allopregnene-3β,12β-diol-11,20-dione diacetate	-	Sol	Group freq Group freq	Martinez Mueller		JACS JACS	75 (1953) 75 (1953)	239 4888
C ₂₅ H ₃₄ O ₆	Δ ⁸⁽⁹⁾ -Allopregnene-7,20-dione-3β,11α-diol diacetate	-	Sol	Group freq Spec Band freq	Djerassi Djerassi Djerassi		JACS JACS JACS	73 (1951) 74 (1952) 75 (1953)	4496 3321 3505
C ₂₅ H ₃₄ O ₆	Decarboxyhydrolimonin	2-16 μ	S	Spec, Band freq, Struct	Rosenfeld		JACS	73 (1951)	2491
C ₂₅ H ₃₄ O ₆	2α,3β-Diacetoxy-Δ ¹⁶ -allopregnene-12,20-dione	-	-	Group freq	Mueller		JACS	75 (1953)	4888
C ₂₅ H ₃₄ O ₆	3β,20-Diacetoxy-(5,6)α-(16,17)β-dioxido-20-pregnene	-	-	Group freq, Struct	Moffett		JACS	76 (1954)	3678
C ₂₅ H ₃₄ O ₆	3β,5α-Diacetoxy-9α,11α-epoxyallopregn-7-en-20-one	-	S	Group freq	Bladon		JCS	- (1953)	2916
C ₂₅ H ₃₄ O ₆	6β,21-Diacetoxy-4-pregnene-3,20-dione	-	-	Ident			Eppstein	JACS	75 (1953) 408
C ₂₅ H ₃₄ O ₆	2α,21-Dihydroxyprogesterone diacetate	-	-	Ident			Clarke	JACS	77 (1955) 661
C ₂₅ H ₃₄ O ₆	16α,21-Dihydroxyprogesterone diacetate	-	Sol	Group freq	Hirschmann		JACS	75 (1953)	4862
C ₂₅ H ₃₄ O ₆	Δ ⁵ -3-Ethylenedioxypregnen-21-ol-11,20-dione acetate	-	-	Band freq Band freq	Constantin Poos		JACS JACS	75 (1953) 76 (1954)	1716 5031
C ₂₅ H ₃₄ O ₆	6β-Hydroxydeoxy corticosterone-6,21-diacetate	-	Sol	Group freq Ident	Amendolla Romo		JCS JOC	- (1954) 19 (1954)	1226 1509

C ₂₅ H ₃₄ O ₆	2-Hydroxydesoxy-corticosterone diacetate	-	-	Ident	Sondheimer	JACS 75 (1953) 4712
C ₂₅ H ₃₄ O ₆	19-Hydroxy-11-desoxy-corticosterone diacetate	-	Sol	Group freq	Barber	JOC 19 (1954) 1758
C ₂₅ H ₃₄ O ₆	16 α ,17 α -Oxido- Δ^5 -pregnene- β ,21-diol-20-one diacetate	-	Sol	Band freq	Djerassi	JACS 76 (1954) 1722
C ₂₅ H ₃₄ O ₆	$\Delta^5,16$ -Pregnadien-21-ol- β ,11,20-trione- β ,20-bisethylene ketal	-	S	Band freq, Group freq	Allen	JACS 77 (1955) 1028
C ₂₅ H ₃₄ O ₆	Δ^4 -Pregnene-11 α ,21-diol- β ,20-dione diacetate	-	Sol	Freq	Sondheimer	JACS 75 (1953) 2601
C ₂₅ H ₃₄ O ₇	β -Ethylenedioxycorticisone acetate	-	-	Spec, Ident	Poos	JACS 76 (1954) 5031
C ₂₅ H ₃₄ O ₇	Δ^4 -Pregnene- β ,20-dione- β ,17 α ,21-triol 6,21-diacetate	-	-	Ident Band freq	Meister Sondheimer	JACS 76 (1954) 4050 JACS 76 (1954) 5020
C ₂₅ H ₃₄ O ₇	Δ^4 -Pregnene-2 α ,17 α ,21-triol- β ,20-dione-2,21-diacetate	-	Sol	Band freq	Rosenkrantz	JACS 77 (1955) 145
C ₂₅ H ₃₄ O ₇	Δ^4 -Pregnene-11 α ,17 α ,21-triol- β ,20-dione-11,21-diacetate	-	-	Ident Band freq	Peterson Romo Sondheimer Meister	JACS 75 (1953) 412 JACS 75 (1953) 1277 JACS 75 (1953) 1282 JACS 76 (1954) 4050
C ₂₅ H ₃₄ O ₈	β -Ethylenedioxo- $\xi_5,6\xi_5$ -Oxidopregnane-11,20-dione-17 α ,21-diol-21-acetate	-	S	Band freq	Sondheimer	JACS 76 (1954) 5020
C ₂₅ H ₃₄ O ₈	Pregnaneetriol-4,17 α ,21-trione-3,11,20-diacetate -4,21	-	Sol	Band freq, Spec,	Jones	JACS 74 (1952) 2820

C ₂₅ H ₃₄ O ₉	Allo pregnane- β ,11,20-trione - $5\alpha,6\beta,17\alpha,21$ -tetrol-6,21-diacetate	-	S	Band freq	Sondheimer	JACS	76 (1954)	5020
C ₂₅ H ₃₄ O ₉	Methyl-1-oxo-(11?),19-diacetoxy- β ,14-dihydroxy- Δ^2 -14 β -etienate	-	-	Struct	Florey	JOC	19 (1954)	1174
C ₂₅ H ₃₄ O ₉	Methyl- β -oxo-(11?),19-diacetoxy- β ,14-dihydroxy- Δ^1 -14 β -etienate	-	-	Struct	Florey	JOC	19 (1954)	1174
C ₂₅ H ₃₄ O ₁₃	Methyl β -(4-methyl- β -oxocyclohexylidene)- α -tetra- α -acetylgluco-pyranosylpropiionate	725-1767	S	I, Table	Briggs	JCS	- (1954)	4182
C ₂₅ H ₃₄ O ₁₇	Keto-D-erythro-L-mannonoctulose octaacetate	-	-	Ident	Wolfson	JACS	77 (1955)	3096
C ₂₅ H ₃₅ BrO ₆	12 α -Bromopregnane-11,20 β ,21-dione-11,20-diacetate	-	Sol	Group freq	Jones	JACS	74 (1952)	2828
C ₂₅ H ₃₅ IO ₅	21-Iodo- Δ^{16} -allopregnene- β , β , β -diol-20-one diacetate	-	Sol	Band freq	Romo	JACS	76 (1954)	5169
C ₂₅ H ₃₅ NO ₆	Lycocatam monoacetate	600-3600	S	Spec	Edwards	CJC	32 (1954)	708
C ₂₅ H ₃₅ NO ₇	Lycocatam monooacetate	600-3600	S	Spec	Edwards	CJC	32 (1954)	708
C ₂₅ H ₃₆	1,1-Dibenzylylundecane	700-1200	I,S	Spec, Effect of change of state	Richards	PRS	195 (1948)	1
C ₂₅ H ₃₆ N ₂ O ₁₇	Hexaacetylmacrozamin	5-9 μ	S	Spec, Struct, Group freq	Langley	JCS	- (1951)	2309
C ₂₅ H ₃₆ O	2,4-Di-t-butyl-2, β -dihydrophenyl duryl ketone	-	S	Group freq	Langley	JCS	- (1952)	4191
		-	-	Group freq	Fusion	JACS	76 (1954)	5119
		-	-	Group freq	Fusion	JACS	76 (1954)	5466

C ₂₅ H ₃₆ ⁰ ₂	2,2-Bis-(2-hydroxy- β -t-butyl-5-methylphenyl)propane	-	S, Sol	H bond	Oggeshall	JACS	72 (1950)	2836
C ₂₅ H ₃₆ ⁰ ₂	Di-(4-hydroxy-2-methyl- γ -t-butylphenyl)ethylethane	2.5-3.4 μ	S, Sol	Group freq	Ambelang	JACS	75 (1953)	947
C ₂₅ H ₃₆ ⁰ ₃	$\Delta^{8,11}$ - β -Ketochaladienic acid methyl ester	-	Sol	Group freq	Jones	JACS	72 (1950)	956
C ₂₅ H ₃₆ ⁰ ₄	$\Delta^{7,17(20)}$ -Allopregna-diene- $\beta\beta$,20-diol diacetate	-	S	Band freq	Pataki	JACS	74 (1952)	3436
C ₂₅ H ₃₆ ⁰ ₄	$\Delta^{3,5}$ -Androstadienediol- β ,17 α -dipropionate	1580-3100	-	Assign I	Jones Jones	JACS JACS	70 (1948) 72 (1950)	2024 86
C ₂₅ H ₃₆ ⁰ ₄	$\beta\beta$,20-Diacetoxyl-16,20-allopregnadiene	-	-	Band freq	Moffett	JACS	74 (1952)	2183
C ₂₅ H ₃₆ ⁰ ₄	$\beta\beta$,20-Diacetoxyl-5,20-pregnadiene	-	-	Band freq Group freq	Moffett Vanderhaeghe	JACS JACS	74 (1952) 74 (1952)	2183 2810
C ₂₅ H ₃₆ ⁰ ₄	$\beta\beta$,21-Diacetoxyl- Δ^5 ,17(20) pregnadiene	2.5-15 μ	Sol	Spec, Band freq	Hirschmann	JACS	74 (1952)	5357
C ₂₅ H ₃₆ ⁰ ₄	$\Delta^5,17(20)$ -Pregnadiene- β ,20-diacetate	-	Sol	Band freq, Spec, Struct	Jones	JACS	74 (1952)	2820
C ₂₅ H ₃₆ ⁰ ₄	$\Delta^{5(6),17(20)}$ -Pregnadiene- $\beta\beta$,20-diol diacetate A	-	Sol	Group freq, Struct	Vanderhaeghe	JACS	74 (1952)	2810
C ₂₅ H ₃₆ ⁰ ₄	$\Delta^{5(6),17(20)}$ -Pregnadiene- $\beta\beta$,20-diol diacetate B	-	Sol	Group freq, Struct	Vanderhaeghe	JACS	74 (1952)	2810
C ₂₅ H ₃₆ ⁰ ₄	$\Delta^{5,16}$ -Pregnadiene- β ,20- diacetate B	-	S	Band freq, Ident	Bernstein	JACS	76 (1954)	5674

Δ^5 -Pregnadiene- $\beta\beta$ -ol
-20-one acetate ethylene
ketal

$C_{25}H_{36}O_4$

Δ^5 -Pregnien- $\beta\beta$ -ol-20-one-
21-thiol diacetate

$C_{25}H_{36}O_5$

$\beta\beta$ -Acetoxy-14-hydroxy-
 $\Delta^{20(22)}$ -cardinolide

$C_{25}H_{36}O_5$

$\beta\beta$ -Acetoxy-7-keto- Δ^5 -
bisnorcholenic acid
methyl ester

$C_{25}H_{36}O_5$

Acetyl derivative of
Digitoxigenin

$C_{25}H_{36}O_5$

Δ^{16} -Allopregnene- $\beta\beta,6\beta$ -
diol-20-one diacetate

$C_{25}H_{36}O_5$

$\beta\beta$,20-Diacetoxylpregnen-
-17(20)-en-11-one

$C_{25}H_{36}O_5$

2 α ,4b-Dimethyl- $\beta\beta$ -Carbo-
methoxymethyl-2-methallyl
-7-ethylenedioxo-1,2, β ,3, β ,4,
4a α ,4b,5,6,7,8,10,10a β
dodecahydronaphthalene-4-one

$C_{25}H_{36}O_5$

2 β ,4b-Dimethyl-10-Carbo-
methoxymethyl-2-methallyl
-7-ethylenedioxo-1,2, β ,3, β ,4a α ,
4b,5,6,7,8,10,10a β -dodeca-
hydrophenanthrene-4-one

$C_{25}H_{36}O_5$

2 β ,4b-Dimethyl-7-ethylen-
dioxy-2-me thalyl-1 β -
carbome thoxyme thyl-1,2, β ,3, β ,4,
4a α ,4b,5,6,7,8,10,10a β
dodecahydronaphthalene-4-one

$C_{25}H_{36}O_5$

JACS 75 (1953) 3700

JACS 81 (1959) 5242

JACS 77 (1955) 651

JACS 42 (1959) 2418

HCA 76 (1954) 5169

JCS - (1954) 747

JACS 77 (1955) 3834

JACS 77 (1955) 1026

Arth

Poos

$C_{25}H_{36}O_5$	$\Delta^{5,16}$ -Pregnadien-21-ol-3,20-dione-3,20-bisethylene ketal	-	S	Band freq, Group freq	Allen	JACS	77 (1955)	1028
$C_{25}H_{36}O_5$	Δ^5 -Pregnene- $\beta\beta,16\alpha$ -diol-20-one diacetate	-	S	Band freq	Bernstein	JACS	76 (1954)	5674
$C_{25}H_{36}O_5$	Δ^5 -Pregnenediol- $\beta\beta,17\beta$ -one-20 diacetate	-	Sol	Band freq, Spec., Struct	Jone s	JACS	74 (1952)	2820
$C_{25}H_{36}O_5$	Δ^5 -Pregnene- $\beta\beta,20\beta$ -diol -7-one diacetate	-	-	Ident	Romo	JOC	17 (1952)	1413
$C_{25}H_{36}O_5$	Δ^5 -Pregnene- $\beta\beta,21$ -diol -20-one diacetate	-	Sol	Ident	Djerassi	JACS	75 (1953)	3493
$C_{25}H_{36}O_5$	Δ^{16} -Pregnenediol- $\beta\beta,12\beta$ -one-20 diacetate	-	Sol	Ident	Djerassi	JACS	76 (1954)	1722
$C_{25}H_{36}O_5$	Δ^{16} -Pregnenediol- $\beta\beta,12\beta$ -one-20 diacetate	-	Sol	Ident	Jones	JACS	78 (1956)	1152
$C_{25}H_{36}O_5$	Δ^5 -Pregnene- $\beta\beta,20$ -dione- $16\alpha,17\alpha$ -oxide bisethylene ketal	-	S	Band freq	Jones	JACS	74 (1952)	2820
$C_{25}H_{36}O_6$	Allopregnane- $\beta\beta,11\alpha$ -diol-7,20-dione diacetate	-	Sol	Band freq	Djerassi	JACS	73 (1951)	4496
$C_{25}H_{36}O_6$	Allopregnane- $\beta\beta,12\beta$ -diol-11,20-dione diacetate	-	Sol	Group freq	Djerassi	JACS	74 (1952)	3321
$C_{25}H_{36}O_6$	Allopregnane- $\beta\beta,20\beta$ -diol-7,11-dione diacetate	-	Sol	Band freq	Djerassi	JACS	75 (1953)	3505
$C_{25}H_{36}O_6$	Allopregnane- $\beta\beta,21$ -diol-11,20-dione- $\beta,21$ -diacetate	-	Sol	Group freq	Martinez	JACS	75 (1953)	239
$C_{25}H_{36}O_6$	Allopregnane- $\beta\beta,21$ -diol-11,20-dione diacetate	770-3700	Sol	Freq, I	Romo	JACS	74 (1952)	2918
$C_{25}H_{36}O_6$	Allopregnane-11 $\alpha,21$ -diol - $\beta,20$ -dione diacetate	-	Sol	Freq	Rosenkrantz	JACS	77 (1955)	2237
$C_{25}H_{36}O_6$	Allopregnane-11 $\alpha,21$ -diol - $\beta,20$ -dione diacetate	-	Sol	Freq	Sondheimer	JACS	75 (1953)	2601

C₂₅H₃₆⁰ Δ⁴-Androstanetriol-3β,4,
17β-triacetate
dione-11-acetate-3,17-
diethylene ketal

C ₂₅ H ₃₆ ⁰	Δ ⁴ -Androstanetriol-3β,4, 17β-triacetate	-	Sol	Group freq	Jones	JACS	72 (1950)	956
C ₂₅ H ₃₆ ⁰	Δ ⁵ -Androstanetriol-3β,16- 17-triacetate	-	-	Assign	Jones	JACS	70 (1948)	2024
C ₂₅ H ₃₆ ⁰	11-Dydrocorticosterone bisethylene ketal	-	S	Band freq	Bernstein	JACS	77 (1955)	2331
C ₂₅ H ₃₆ ⁰	3β,5α-Diacetoxyallo- pregane-11,20-dione	-	S	Band freq	Bladon	JCS	- (1954)	125
C ₂₅ H ₃₆ ⁰	16α,21-Diacetoxy-Δ ⁵ - pregnen-3β-ol-20-one	-	Sol	Group freq	Hirschmann	JACS	75 (1953)	4862
C ₂₅ H ₃₆ ⁰	3-Ethoxy-Δ ² -allopregnem- 17α,21-diol-11,20-dione- 21-acetate	-	-	Ident, Spec	Oliveto	JACS	74 (1952)	2248
C ₂₅ H ₃₆ ⁰	dL-Δ ⁵ -3-Ethylenedioxy- pregnen-11β,21-diol-20- one-21-acetate	-	-	Band freq	Poos	JACS	76 (1954)	5031
C ₂₅ H ₃₆ ⁰	11α-Hydroxy-16α,17α-oxido- progesterone-3,20-bis- ethylene ketal	-	-	Group freq	Peterson	JACS	77 (1955)	4428
C ₂₅ H ₃₆ ⁰	Methyl-3β-acetoxy-9α,11α- epoxy-7-oxohydroxybisnor- allochol-7-enate	-	S	Group freq	Bladon	JCS	- (1953)	2921
C ₂₅ H ₃₆ ⁰	Methyl-3β-acetoxy-5α- hydroxy-11-keto-2β-bis- norallochol-7-enate	-	Sol	Group freq	Bladon	JCS	- (1953)	2921
C ₂₅ H ₃₆ ⁰	Methyl-3β-acetoxy-5β- hydroxy-7-oxobishor- allochol-9(11)-enoate	-	Sol	Band freq	Elks	JCS	- (1954)	463

C ₂₅ H ₃₆ O ₆	Methyl- $\beta\alpha$,11-diacetoxyl- $\Delta^9(11)$ -etiocholenate	-	Sol	Band freq	Hirschmann	JACS	75 (1953)	2361
C ₂₅ H ₃₆ O ₆	9 α ,11 α -Oxidoallopregnane- $\beta\beta$,20 β -diol-7-one diacetate	-	S	Bad Band freq	Stork Djerassi	JACS	73 (1951) 75 (1953)	3546 3505
C ₂₅ H ₃₆ O ₆	16 α ,17 α -Oxidoallopregnane- $\beta\beta$,11 β -diol-20-one diacetate	-	-	Band freq	Romo	JACS	75 (1953)	1277
C ₂₅ H ₃₆ O ₆	$\Delta^{5,7}$ -Pregnadiene-17 α ,21-diol- β ,20-dione- β ,20-bisethylene ketal	-	S	Band freq	Antonacci	JACS	76 (1954)	2956
C ₂₅ H ₃₆ O ₆	$\Delta^{5,9(11)}$ -Pregnadiene-17 α ,21-diol- β ,20-dione- β ,20-bisethylene ketal	-	S	Group freq	Bernstein	JACS	75 (1953)	4830
C ₂₅ H ₃₆ O ₆	$\Delta^{5,6}$ -Pregnadiene-11 β ,21-diol- β ,20-dione- β ,20-bisethylene ketal	-	S	Band freq, Group freq	Allen	JACS	77 (1955)	1028
C ₂₅ H ₃₆ O ₆	Pregnane-11 α ,21-diol- β ,20-dione diacetate	-	Sol	Freq	Sondheimer	JACS	75 (1953)	2601
C ₂₅ H ₃₆ O ₆	Δ^4 -Pregnenetriol-17 α ,20,21-one- β -diacetate-20,21	-	Sol	Group freq, Spec, Struct	Jones	JACS	74 (1952)	2820
C ₂₅ H ₃₆ O ₆	$\beta\beta$,16 α ,17 β -Triacetoxy- Δ^5 -androstene	2.5-15 μ	Sol	Spec, Band freq	Hirschmann	JACS	74 (1952)	5357
C ₂₅ H ₃₆ O ₇	$\beta\beta$ -Acetoxy-14-hydroxy-cardanolide	1000-1900	Sol	Spec, Freq	Jones	JACS	81 (1959)	5242
C ₂₅ H ₃₆ O ₇	$\beta\beta$ -Acetoxy-14-hydroxy-17 α -cardanolide	1000-1900	Sol	Spec, Freq	Jones	JACS	81 (1959)	5242
C ₂₅ H ₃₆ O ₇	Allopregnatriol- $\beta\beta$,17 α ,21-dione-11,20-diacetate- β ,21	-	Sol	Band freq, Spec,Struct Group freq	Jones Chamberlin Rosenkrantz	JACS	74 (1952) 77 (1955) 77 (1955)	2820 1221 2237

C ₂₅ H ₃₆ O ₇	Allopregnane- β ,17 α ,21-triol-12,20-dione-3,21-diacetate	1700	Sol	Spec, Group freq	Rothman	JACS 77 (1955) 22229		
C ₂₅ H ₃₆ O ₇	Allopregnane-11 α ,17 α ,21-triol- β ,20-dione-11,21-diacetate	-	-	Band freq	Romo	JACS 75 (1953) 1277		
C ₂₅ H ₃₆ O ₇	Corticosterone bisethylene ketal	-	S	Ident	Allen	JACS 76 (1954) 6116		
C ₂₅ H ₃₆ O ₇	17 α ,21-Diaacetoxyl- β -hydroxypregnane-11,20-dione	-	-	Ident	Schneider	JACS 77 (1955) 4184		
C ₂₅ H ₃₆ O ₇	β ,7 α -Diacetoxyl-12-keto-etiocolanic acid methyl ester	1700	Sol	Freq, Struct, Anal	Jones	JACS 71 (1949) 241		
C ₂₅ H ₃₆ O ₇	β -Keto-7 α ,12 α -diaacetoxyl-etiocolanic acid, methyl ester	-	Sol	Group freq	Jones	JACS 72 (1950) 956		
C ₂₅ H ₃₆ O ₇	Pregnane- β Q,17 α ,21-triol-11,20-dione- β ,21-diacetate	770-3700	S	Freq, I	Rosenkrantz	JACS 77 (1955) 2237		
C ₂₅ H ₃₆ O ₇	Pregnane- δ Q,6 β ,21-triol-3,20-dione- δ 6 β ,21-diacetate	-	S	Band freq	Bernstein	JACS 77 (1955) 2233		
C ₂₅ H ₃₆ O ₇	Pregnane-11 α ,17 α ,21-triol- β ,20-dione-11,21-diacetate	-	-	Ident	Oliveto	JACS 75 (1953) 3651		
C ₂₅ H ₃₆ O ₈	Allopregnane- β ,20-dione- δ 5 α ,6 β ,17 α ,21-tetrol-6,21-diacetate	-	S	Band freq	Sondheimer	JACS 76 (1954) 5020		
C ₂₅ H ₃₆ O ₈	12-Carboxy-12,13-sec-allopregnane- β ,13 α ,17 α ,21-tetrol-20-one-12,13-lactone- β ,21-diacetate	1700	Sol	Band freq, Spec	Rothman	JACS 77 (1955) 2229		

C ₂₅ H ₃₆ O ₈	7-Keto-3 α -succinooxy-12-hydroxyetiocholanic acid methyl ester	-	Sol	Group freq	Jones	JACS 72 (1950)	956
C ₂₅ H ₃₆ O ₁₀	Glucourubin	-	-	Group study	Ram	JACS 76 (1954)	6066
C ₂₅ H ₃₇ BrO ₄	Methyl- β ,11-diketo-12 α -bromocholate	-	-	Freq	Keyman	JACS 73 (1951)	5252
C ₂₅ H ₃₇ BrO ₅	11-Bromopregnadiol- β ,20-one-12 diacetate	-	Sol	Group freq	Jones	JACS 74 (1952)	2828
C ₂₅ H ₃₇ NO ₂ ·HBr	5-Palmitoyl-8-quinolino hydrobromide	-	-	Struct	Edgerton	JACS 74 (1952)	5209
C ₂₅ H ₃₇ NO ₆	Dihydrolycoctan monoacetate	600-3600	S	Spec	Edwards	CJC 32 (1954)	708
C ₂₅ H ₃₈	1-Pentadecyl naphthalene	691-3188	L	Table, I	Anderson	JCS - (1953)	443
C ₂₅ H ₃₈	2-Pentadecyl naphthalene	720-3245	L	Table, I	Anderson	JCS - (1953)	443
C ₂₅ H ₃₈ Br ₂ O ₃	2,2'-Dibromoandrostanol-17 β -one- β hexahydrobenzoate	-	Sol	Group freq	Jones	JACS 72 (1950)	956
C ₂₅ H ₃₈ O ₃	Δ^{11} - β q,9q-Epoxycholenic acid methyl ester	650-3100	Sol Sol	Group freq Band freq, I	Jones Henbest	JACS 72 (1950) JCS - (1954)	956 800
C ₂₅ H ₃₈ O ₃	(β or 4)-12-Ketocholenic acid methyl ester	-	Sol	Group freq	Jones	JACS 72 (1950)	956
C ₂₅ H ₂₈ O ₃	Δ^{11} - β -Ketocholenic aci methyl ester	1580-3100	Sol Sol	Group study, I Group freq	Jones Jones	JACS 72 (1950) JACS 72 (1950)	86 956
C ₂₅ H ₃₈ O ₃ S	Δ^4 -Pregnen- β -one-20 β -ol acetate ethylenehemithioketal	-	Sol	Band freq	Djerassi	JACS 75 (1953)	3704
C ₂₅ H ₃₈ O ₄	Δ^{16} -Allopregnenediol- β ,20 β diacetate	-	Sol Sol	Group freq Group freq, Spec, Strict	Jones Jones Jones	JACS 72 (1950) JACS 72 (1952)	956 2820

C ₂₅ H ₃₈ O ₄	α -is- Δ^1 (β)-Allopregnene- $\beta\beta$,20-diol diacetate	-	Sol	Group freq, Struct	Vanderhaeghe	JACS	74 (1952)	2810
C ₂₅ H ₃₈ O ₄	trans- Δ^1 (β)-Allopregnene- $\beta\beta$,20-diol diacetate	-	Sol	Group freq, Struct	Vanderhaeghe	JACS	74 (1952)	2810
C ₂₅ H ₃₈ O ₄	Δ^1 (β)-Allopregnenediol- $\beta\beta$,20-diol diacetate	-	Sol	Group freq, Spec, Struct	Jones	JACS	74 (1952)	2820
C ₂₅ H ₃₈ O ₄	Δ^1 (β)-Allopregnene- $\beta\beta$,20-diol diacetate	-	Sol	Group Freq, Struct	Vanderhaeghe	JACS	74 (1952)	2810
C ₂₅ H ₃₈ O ₄	Δ^1 -Androstanediol- $\beta\beta$,17 α dipropionate	-	-	Assign	Jones	JACS	70 (1948)	2024
C ₂₅ H ₃₈ O ₄	16 α ,20-Diaetoxy- Δ^2 -allopregnene	2.5-15/ μ	Sol	Speo, Band freq	Hirschmann	JACS	74 (1952)	5357
C ₂₅ H ₃₈ O ₄	$\beta\beta$,20 α -Diacetoxy- Δ^5 -pregnene	2.5-15/ μ	Sol	Spec, Band freq	Hirschmann	JACS	74 (1952)	5357
C ₂₅ H ₃₈ O ₄	3,6-Diketoocholanic acid, methyl ester	-	Sol	Group freq	Jones	JACS	72 (1950)	956
C ₂₅ H ₃₈ O ₄	3,12-Diketoocholanic acid methyl ester	1700	Sol	Freq, Struct, Anal	Jones	JACS	71 (1949)	241
C ₂₅ H ₃₈ O ₄	3 α ,9 α -Epoxy-11-keto-cholanic acid methyl ester	1712	Sol Sol	Freq, Struct Group freq	Jones Jones	JACS	71 (1949) 74 (1952)	241 5648
C ₂₅ H ₃₈ O ₄	Δ^5 -16 α -Ethoxypregnenol- $\beta\beta$ -one-20-acetate	-	Sol	Band freq, Spec, Struct	Jones	JACS	74 (1952)	2820
C ₂₅ H ₃₈ O ₄	Δ^9 (11)-12-Keto-3 α -hydroxy 1580-3100 cholenic acid methyl ester	-	Sol	Group study	Jones	JACS	72 (1950)	86
		-	Sol	Group freq	Jones	JACS	72 (1950)	956
		-	Sol	Group freq	Cole	JACS	74 (1952)	5571
		-	Sol	Group freq	Archer	JACS	76 (1954)	4915
		-	S,Sol	Group freq	Tarpley	APS	9 (1955)	69

C ₂₅ H ₃₈ O ₄	Methyl- β -keto- α , α , α , α -oxidocholate	-	-	Band freq	Heymann	JACS	73 (1951)	5256
C ₂₅ H ₃₈ O ₄	Δ^4 -Pregnenediol- β , α -diacetate	-	Sol	Group freq	Jones	JACS	72 (1950)	956
C ₂₅ H ₃₈ O ₄	Δ^5 -Pregnene- β , β , α -triol diacetate	-	S	Band freq	Romo	JOC	17 (1953)	1413
C ₂₅ H ₃₈ O ₄	Δ^{16} -Pregnenediol- β , β , α -diacetate	1580-3100 -	Sol Sol	Group Study, I Group freq	Jones Jones	JACS	72 (1950) JACS 74 (1952)	86 2820
C ₂₅ H ₃₈ O ₄	$\Delta^{17(20)}$ -Pregnenediol- β , β , α -diacetate	-	Sol	Group freq, Spec, Struct	Jones	JACS	74 (1952)	2820
C ₂₅ H ₃₈ O ₄	Progesterone bisethylene ketal	-	S	Group study Ident	Antonucci Allen	JOC	17 (1952) JACS 76 (1954)	1369 6116
C ₂₅ H ₂₈ O ₅	Allopregnane- β , β , α -triol-20-one- β , α -diacetate	770-3700	Sol	Freq, I	Rosenkrantz	JACS	77 (1955)	2237
C ₂₅ H ₃₈ O ₅	Allopregnane- β , β , α -triol-20-one diacetate	-	Sol	Band freq	Romo	JACS	76 (1954)	5169
C ₂₅ H ₃₈ O ₅	Allopregnenediol- β , β , α -triol-20-one diacetate	-	Sol	Band freq, Spec, Struct	Jones	JACS	74 (1952)	2820
C ₂₅ H ₃₈ O ₅	Allopregnene- β , β , α -triol-20-one diacetate	-	Sol	Group freq, Struct	Turner Turner	JACS JACS	74 (1952) 75 (1953)	4220 3489
C ₂₅ H ₃₈ O ₅	Allopregnane- β , β , α -triol-11-one diacetate	-	Sol	Group freq	Romo	JACS	74 (1952)	2918
C ₂₅ H ₃₈ O ₅	β , β , α -Triacetoxylolopregnane-20-one	-	-	Group freq	Hirschmann	JOC	20 (1955)	572
C ₂₅ H ₃₈ O ₅	β , β , α -Triacetoxylolopregnane-20-one	-	-	Ident	Solloway	JACS	76 (1954)	2941
C ₂₅ H ₃₈ O ₅	β , β , α -Triacetoxylolopregnane-20-one	770-3700 700-1400	- Sol	Ident Freq, I Ident	Solloway Rosenkrantz Jones	JACS JACS JACS	76 (1954) 77 (1955) 78 (1956)	2941 2237 1152

C ₂₅ H ₃₈ O ₅	$\beta\beta,20\alpha$ -Diacetoxyl-17 α -hydroxy- Δ^5 -pregnene	11.9-12.7/ μ	Sol	Spec, Band freq	Hirschmann	JACS 74 (1952) 5357
C ₂₅ H ₃₈ O ₅	$\beta\beta,20$ -Diacetoxyl-17 α -hydroxy- Δ^5 -pregnene	2.5-15/ μ	Sol	Spec, Band freq	Hirschmann	JACS 74 (1952) 5357
C ₂₅ H ₃₈ O ₅	2 β ,4b-Dimethyl-1 α -carbo-methoxymethyl-2-metha-11yl-7-ethylendioxy-1,2,3,4,4a α ,4b,5,6,7,8,10,10a β -dodecahydro-phenanthrene-4 α -ol	-	S	Band freq	Arth	JACS 76 (1954) 1715
C ₂₅ H ₃₈ O ₅	Methyl- β -hydroxy-3 α ,9 α -oxido-11-ketocholanate	-	-	Freq	Heymann	JACS 73 (1951) 5252
C ₂₅ H ₃₈ O ₅	Pregnane- $\beta\alpha,6\beta$ -diol-20-one- $\beta,6$ -diacetate	770-3700	Sol	Freq, I	Rosenkrantz	JACS 77 (1955) 2237
C ₂₅ H ₃₈ O ₅	Pregnadiol- $\beta\alpha,11\alpha$ -one-20 diacetate	-	-	Assign Ident Band freq, Ident	Jones Mancera Sondheimer	JACS 70 (1948) 2024 JACS 75 (1953) 1286 JACS 75 (1953) 1282
C ₂₅ H ₃₈ O ₅	Pregnadiol- $\beta\alpha,20\alpha$ -one-11 diacetate	2.5-15/ μ 770-3700	Sol Sol	Group freq, Struct Freq Freq, I	Rosenkrantz Page Rosenkrantz	JACS 75 (1953) 903 JCS - (1955) 2017 JACS 77 (1955) 2237
C ₂₅ H ₃₈ O ₅	Pregnane- $\beta\alpha,20\beta$ -diol-11-one- $\beta,20$ -diacetate	- 770-3700	- Sol	Band freq Ident Freq, I	Mancera Oliveto Rosenkrantz	JACS 75 (1953) 1286 JACS 75 (1953) 488 JACS 77 (1955) 2237
C ₂₅ H ₃₈ O ₅	Δ^5 -Pregnene triol- $\beta\beta,17\alpha,20$ -diacetate- $\beta,20$	-	Sol	Band freq, Spec,	Jones	JACS 74 (1952) 2820
C ₂₅ H ₃₈ O ₅	Δ^5 -Pregnene-16 α -ol- $\beta,20$ -dione bisethylene ketal	-	S	Band freq	Bernstein	JACS 76 (1954) 5674
C ₂₅ H ₃₈ O ₅	Δ^5 -Pregnene-17 α -ol- $\beta,20$ -dione bisethylene ketal	-	S	Band freq	Bernstein	JACS 76 (1954) 5674

C ₂₅ H ₃₈ O ₅	Δ^5 -Pregnene-21-ol-3,20-dione-3,20-bisethylene ketal	-	S	Band freq	Bernstein	JACS	77 (1955)	2233
C ₂₅ H ₃₈ O ₆	3 α -Acetoxy-21,21-dimethoxy-pregnane-11,20-dione	-	S	Ident	Mattox	JACS	74 (1952)	4340
C ₂₅ H ₃₈ O ₆	Allopregnane-3 β ,7,11 α -triol-20-one-3,11-diacetate	-	Sol	Band freq	Djerassi	JACS	75 (1953)	3505
C ₂₅ H ₃₈ O ₆	Allopregnane-3 β ,11 β ,21-triol-20-one-3,21-diacetate	770-3700	Sol	Freq, I	Rosenkrantz	JACS	77 (1955)	2237
C ₂₅ H ₃₈ O ₆	Allopregnane-3 β ,11 α ,17 α -triol-20-one-3,11-diacetate	-	-	Band freq, Ident	Romo	JACS	75 (1953)	1277
C ₂₅ H ₃₈ O ₆	Allopregnane-triol-3 β ,17 α ,21-one-20-diacetate-3,21	770-3700	S,Sol	Band freq, Spec, Struct Freq, I	Jones	JACS	74 (1952)	2820
C ₂₅ H ₃₈ O ₆	Δ^7 -Allopregnene-17 α ,21-diol-3 β ,20-dione-3,20-bisethylene ketal	-	S	Band freq	Antonacci	JACS	76 (1954)	2956
C ₂₅ H ₃₈ O ₆	Androstanetriol-2,3,17-triacetate	-	Sol	Group freq	Jones	JACS	72 (1950)	956
C ₂₅ H ₃₈ O ₆	Androstane-3 α ,16 α ,17 β -triol-3,16,17-triacetate	770-3700	Sol	Freq, I	Rosenkrantz	JACS	77 (1955)	2237
C ₂₅ H ₃₈ O ₆	11-Epicorticosterone bisethylene ketal	-	S	Band freq	Bernstein	JACS	77 (1955)	2351
C ₂₅ H ₃₈ O ₆	Methyl 3 β -acetoxy-5 α -hydroxy-11-ketobisnorallocholanate	-	Sol	Group freq	Bladon	JCS	- (1953)	2921
C ₂₅ H ₃₈ O ₆	Methyl 3 β -acetoxy-5 α -hydroxy-1-keto-9 β -allocholanate	-	Sol	Group freq	Bladon	JCS	- (1953)	2921

C ₂₅ H ₃₈ ⁰	Pregnane-triol- $\beta\alpha,11\alpha,21-$ one-20 diacetate	-	Sol	Band freq, Spec, Struct	Jones	JACS	74 (1952)	2820
C ₂₅ H ₃₈ ⁰	Pregnane- $\beta\alpha,11\beta,17\beta$ -triole-20-one 11,17-diacetate	-	-	Ident	Oliveto	JACS	75 (1953)	5486
C ₂₅ H ₃₈ ⁰	Pregnane- $\beta\alpha,17\alpha,20\beta$ -triole-11-one, β ,20-diacetate	-	-	Ident	Oliveto	JACS	75 (1953)	488
C ₂₅ H ₃₈ ⁰	Pregnane-triol- $\beta\alpha,17\alpha,21-$ one-20-diacetate- $\beta,21$	770-3700	S	Group freq, Spec Freq, I	Jones Rosenkrantz	JACS JACS	74 (1952) 77 (1955)	2820 2237
C ₂₅ H ₃₈ ⁰	Pregnane-triol- $\beta\beta,17\alpha,21-$ one-20-diacetate- $\beta,21$	-	Sol	Band freq, Spec, Struct Freq, I	Jones Rosenkrantz	JACS JACS	74 (1952) 77 (1955)	2820 2237
C ₂₀ H ₃₈ ⁰	Pregnanol-17 α -trione- $\beta,11,$ 20- β ,20-bisethylene ketal	-	S,Sol	Group freq	Tarpley	APS	9 (1955)	69
C ₂₅ H ₃₈ ⁰	Δ^5 -Pregnene-17 $\alpha,21$ -diol - $\beta,20$ -bisethylene ketal	-	S	Band freq	Antonucci	JACS	76 (1954)	2956
C ₂₅ H ₃₈ ⁰	$\beta\beta,16\alpha,17\beta$ -Triacetoxyl-androstan e	2.5-15 μ	Sol	Spec Ident	Hirschmann Leeds Hirschmann	JACS JOC JOC	74 (1952) 76 (1954) 20 (1955)	5357 2943 572
C ₂₅ H ₃₈ ⁰	$\beta\beta,16\beta,17\beta$ -Triacetoxyl-androstan e	-	-	Ident	Leeds	JACS	76 (1954)	2943
C ₂₅ H ₃₈ ⁰	$\beta,6,17$ -Triethylenedioxy-androstan e	-	-	Group freq	Rosenkrantz	JACS	76 (1954)	5024
C ₂₅ H ₃₈ ⁰	21-Acetoxy-17 α -hydroxy- $\beta,3$ -dimethoxyallopregnane -11,20-dione	-	S	Group freq	Page	JCS	- (1955)	2017
C ₂₅ H ₃₈ ⁰	Allopregnane- $\beta\alpha,11\beta,17\alpha,21$ -tetrol-20-one- $\beta,21$ -diacetate	770-3700	S	Freq, I	Rosenkrantz	JACS	77 (1955)	2237
C ₂₅ H ₃₈ ⁰	Allopregnane-tetrol- $\beta\beta,17\alpha,21$ -one-20-diacetate- $\beta,21$	-	Sol	Band freq, Spec, Struct Freq, I	Jones Rosenkrantz	JACS JACS	74 (1952) 77 (1955)	2820 2237

$C_{25}H_{38}O_7$	β,β -Dimethoxypregnane-17 α ,21-diol-11,20-dione 21-acetate	-	-	Group study	Oliveto	JACS	76 (1954) 6113
$C_{25}H_{38}O_7$	$4\alpha,4b$ -Dimethyl- β -carbo-methoxymethyl-2 β -methoxy-2,3-dihydroxypropyl)-7-ethylendioxy-1,2, β ,4,4 α ,4b,5,6,7,8,10,10 α β -dodecahydrophenanthrene-4-one	-	S	Freq	Arth	JACS	77 (1955) 3834
$C_{25}H_{38}O_7$	11-epihydrocortisone bisethylene ketal	-	-	Ident Group study Ident	Antonucci Sondheimer Allen	JOC JACS JACS	18 (1953) 70 75 (1953) 1282 76 (1954) 6116
$C_{25}H_{38}O_7$	3 α -Hydroxy-7 α ,12 α -di-acetoxyclocholanic acid, methyl ester	-	Sol	Group freq	Jones	JACS	72 (1950) 956
$C_{25}H_{38}O_7$	Pregnane-tetrol-3 α ,11 β ,17 α ,21-one-20-diacetate-3,21	-	Sol	Band freq, Spec, Struct Freq, I	Jones	JACS	74 (1952) 2820
$C_{25}H_{38}O_7$	Pregnane-3 β ,11 β ,17 α ,21-tetrol-20-one-3,21-diacetate	770-3700	S	Freq, I	Rosenkrantz	JACS	77 (1955) 2237
$C_{25}H_{38}O_7$	Δ^5 -Pregnene-11 β ,17 α ,21-triol-3,20-dione-3,20-dieethylene ketal	770-3700	S	Freq, I	Rosenkrantz	JACS	77 (1955) 2237
$C_{25}H_{38}O_7$	Phenylbenzyl-n-dodecyl silane	2-16 μ	Sol	Freq	Antonucci	JOC	18 (1953) 70
$C_{25}H_{38}Si$					Kniseley	SA	15 (1959) 651
$C_{25}H_{39}BrO_6$	4-Bromopregnane-11 β ,17 α ,21-diol-3,20-dione-3,20-bisethylene ketal	-	-	Group freq	Oliveto	JACS	77 (1955) 2224
$C_{25}H_{39}ClO_3$	$\Delta^{9:11}$ - β -Hydroxy-12 α -chlorocholenic acid methyl ester	-	Sol	Freq	Cole	JACS	74 (1952) 5571

C ₂₅ H ₃₉ NO	5-Hexadecyl-8-quinolinol	-	-	Struct	Edgerton	JA~5	74 (1952)	5209
C ₂₅ H ₄₀ O ₂	Methyl- $\Delta^9(11)$ -cholenate	700-1000 -	Sol Sol	Spec, Band freq Freq	Bladon Heymann	JCS JACS	- (1951)	2402
C ₂₅ H ₄₀ O ₃	$\beta\alpha$ -Hydroxy- $\Delta^{9:11}$ -cholenic acid methyl ester	1580-3100	-	Assign Group study, I	Jones Jones	JACS JACS	70 (1948) 72 (1950)	2024 86
C ₂₅ H ₄₀ O ₃	$\beta\alpha$ -Hydroxy- Δ^{11} -cholenic acid methyl ester	1580-3100 -	Sol Sol 650-3100	Assign Group study, I Group freq Group freq	Jones Jones Jones Henbest	JACS JACS JACS JCS	70 (1948) 72 (1950) 74 (1952) - (1954)	2024 86 5648 800
C ₂₅ H ₄₀ O ₃	$\Delta^5-\beta\beta$ -Hydroxycholenic acid methyl ester	1580-3100 -	Sol Sol -	Group study, I Group freq Group freq Spec, Band freq Discussion	Jones Jones Cole Hirschmann Jones	JACS JACS JACS JACS JACS	72 (1950) 72 (1950) 74 (1952) 74 (1952) 80 (1950)	86 956 5571 5357 6121
C ₂₅ H ₄₀ O ₃	Methyl- $\Delta^{9:11}-\beta$ -hydroxycholenate	700-1000	Sol	Spec, Band freq	Bladon	JCS	- (1951)	2402
C ₂₅ H ₄₀ O ₄	Allopregnane- $\beta\alpha,20\alpha$ -diol- $\beta,20$ -diacetate	770-3700 700-1400	Sol Sol	Freq, I Band discussed, Ident	Hirschmann Jones	JACS JACS	77 (1955) 78 (1956)	2237 1152
C ₂₅ H ₄₀ O ₄	Allopregnane- $\beta\alpha,20\beta,20\alpha$ -diacetate	- 770-3700 700-1400	Sol Sol Sol	Group freq Freq, I Spec, Ident	Jones Rosenkrantz Jones	JACS JACS JACS	72 (1950) 77 (1955) 78 (1956)	956 2237 1152
C ₂₅ H ₄₀ O ₄	Allopregnane- $\beta\beta,20\beta$ -diol- β -diacetate	- 770-3700 700-1400	Sol Sol Sol	Group freq Freq, I Ident	Jones Rosenkrantz Jones	JACS JACS JACS	72 (1950) 77 (1955) 78 (1956)	956 2237 1152
C ₂₅ H ₄₀ O ₄	Benzoyl stearoyl peroxide	-	Sol	Group freq	Davison	JCS	- (1951)	2456
C ₂₅ H ₄₀ O ₄	$\beta\alpha,12\beta$ -Dihydroxy- $\Delta^{9:11}$ -cholenic acid methyl ester	-	-	Assign	Jones	JACS	70 (1948)	2024

$C_{25}H_{40}O_4$	9 α ,11 α -Epoxy-3 β -hydroxy-cholanic acid methyl ester	-	Sol	Group freq	Cole	JACS	74 (1952)	5571
$C_{25}H_{40}O_4$	3 α -Hydroxy-11 α ,12 α -Epoxycholanic acid, methyl ester	-	-	Assign Group freq	Jones Cole	JACS JACS	70 (1948) 74 (1952)	2024 5571
$C_{25}H_{40}O_4$	3 α -Hydroxy-6-ketocholanic acid methyl ester	-	Sol	Group freq	Jones Cole	JACS JACS	72 (1950) 74 (1952)	956 5571
$C_{25}H_{40}O_4$	3 α -Hydroxy-11-ketocholanic acid methyl ester	1700	Sol	Freq, Struct, Anal	Jones Cole	JACS JACS	71 (1949) 74 (1952)	241 5571
$C_{25}H_{40}O_4$	3 α -Hydroxy-12 β -methoxy- $\Delta^{9:11}$ -cholenic acid	-	-	Assign	Jones	JACS	70 (1948)	2024
$C_{25}H_{40}O_4$	Methyl-3 β -hydroxy-12-ketocholanoate	-	S, Sol	Group freq	Archer Tarpley	JACS APPS	76 (1954) 9 (1955)	4915 69
$C_{25}H_{40}O_4$	Pregnandiol-3 α ,20 α -diacetate	770-3700	-	Assign Freq, I	Jones Rosenkrantz	JACS JACS	70 (1948) 77 (1955)	2024 2237
$C_{25}H_{40}O_4$	Pregnandiol-3 β ,20 β -diacetate	-	-	Assign Band freq	Jones Jones	JACS JACS	70 (1948) 74 (1952)	2024 80
$C_{25}H_{40}O_4$	Pregnandiol-3 β ,20 β -diacetate	770-3700	-	Assign Freq, I	Jones Rosenkrantz	JACS JACS	70 (1948) 77 (1955)	2024 2237
$C_{25}H_{40}O_5$	Allopregnane-3 β ,11 β ,20 β -triol-3,20-diacetate	-	-	Band freq	Romo	JACS	74 (1952)	2918
$C_{25}H_{40}O_5$	Allopregnane-3 β ,17 α ,20 α -triol-3,20-diacetate	770-3700	-	Ident Freq, I	Solloway Rosenkrantz	JACS JACS	76 (1954) 77 (1955)	2941 2237
$C_{25}H_{40}O_5$	Allopregnane-3 β ,17 α ,20 β -triol-3,20-diacetate	770-3700	Sol	Freq, I	Rosenkrantz	JACS	77 (1955)	2237
$C_{25}H_{40}O_5$	3 α ,12 α -Dihydroxy-7-keto-cholanic acid methyl ester	1700	Sol	Freq, Struct	Jones	JACS	71 (1949)	241

C ₂₅ H ₄₀ O ₅	Methyl- $\beta\alpha$, 12 β -dihydroxy-11-ketocholanate	-	S, Sol	Group freq	Tarpley	APS	9 (1955)	69
C ₂₅ H ₄₀ O ₅	Pregnane-triol- $\beta\alpha$, 12 α , 20 β -diacetate- β , 12	-	Sol	Band freq, Spec, Struct	Jones	JACS	74 (1952)	2820
C ₂₅ H ₄₀ O ₅	Pregnane-triol- $\beta\alpha$, 12 α , 20 β -diacetate- β , 20	1600-3700	Sol	Spec, Band freq, Struct	Jones	JACS	74 (1952)	5648
C ₂₅ H ₄₀ O ₅	Pregnane-triol- β , 17 α , 20-diacetate- β , 20	-	Sol	Group freq	Jones	JACS	74 (1952)	2820
C ₂₅ H ₄₀ O ₅	Pregnane-triol- β , 17 α , 20-diacetate- β , 20	-	Sol	Band freq, Spec, Struct	Jones	JACS	74 (1952)	5648
C ₂₅ H ₄₀ O ₆	Androstan- $\beta\beta$, 17 β -diol dicathylate	-	-	Freq	Fleiser	JACS	74 (1952)	2820
C ₂₅ H ₄₀ O ₆	Pregnane-5 α , 21-diol- β , 20-dione- β , 20-bis ethylene ketal	-	S	Band freq	Bernstein	JACS	77 (1955)	3309
C ₂₅ H ₄₀ O ₆	Pregnane-5 α , 11 β , 17 α , 21-tetrol- β , 20-dione- β , 20-bis ethylene ketal	-	S	Band freq	Bernstein	JACS	77 (1955)	2233
C ₂₅ H ₄₁ NO ₄	$\beta\beta$, 17 α -Dihydroxy-20 α -acetamidoallopregnane- β -monooacetate	-	-	Struct	Ramirez	JACS	77 (1955)	134
C ₂₅ H ₄₁ NO ₄ ·HCl	Pregnane-diol- $\beta\alpha$, 12 α -amine-20-hydrochloride diacetate	-	-	Assign	Jones	JACS	70 (1948)	2024
C ₂₅ H ₄₂ N ₂ O ₅	HCl dl-threo-2-Amino-1-(p-nitrophenyl)-1-O-palmitoyl-1,3-propane-diol hydrochloride	-	-	Band freq	Edgerton	JACS	77 (1955)	27
C ₂₅ H ₄₂ N ₂ O ₄	2-Nonadecanone-2,4-dinitro-phenylhydrazone	2-15 μ	S	Band freq, Spec	Jones	AC	28 (1956)	191
C ₂₅ H ₄₂ O ₂	Cholanic acid methyl ester	-	Sol	Group freq	Jones	JACS	72 (1950)	956

C ₂₅ H ₄₂ O ₃	Bisnorallocholane- β , 16 β ,22-triol acetone ide	-	S	Band freq	Klass	JACS	77 (1955) ~ 3829
C ₂₅ H ₄₂ O ₃	5,4-Bisnorcholestane-5, 5-diol-2-oic-2 \rightarrow 5- lactole	-	-	Group freq	Weisnborn	JACS	76 (1954) 552
C ₂₅ H ₄₂ O ₃	3 α -Hydroxycholanic acid methyl ester	-	-	Assign Group freq Ext. Coefficient, I	Jones Cole Jones	JACS JACS JACS	70 (1948) 74 (1952) 74 (1952) 2024 5571 80
C ₂₅ H ₄₂ O ₄	3 α ,12 α -Dihydroxycholanic acid methyl ester	1692-1792	Sol	Ext. Coefficient, I	Jones	JACS	74 (1952) 80
C ₂₅ H ₄₂ O ₄	3 β ,12 β -Dihydroxycholanic acid methyl ester	-	-	Assign	Jones	JACS	70 (1948) 2024
C ₂₅ H ₄₂ O ₄	Hydeoxycholic acid methyl ester	-	-	Spec	Morollo	ARS	53B (1957) 145
C ₂₅ H ₄₂ O ₅	Bisnorallocholane-2 α , 3 β ,15 β ,16 β ,22-pentaol acetone ide	-	S	Band freq	Klass	JACS	77 (1955) 3829
C ₂₅ H ₄₄	9-(2-Phenylethyl)- heptadecane	1.1-1.25 μ	L	Anal	Evans	AC	23 (1951) 1604
C ₂₅ H ₄₄	10-Phenylnonadecane	2-15 μ	L	Spec	Hawkes	SA	16 (1960) 633
C ₂₅ H ₄₆	1,5-Dicyclohexyl-3-(2- cyclohexylethyl) pentane	3.4-14.7 μ	Sol	Struct, Group anal	Francis	AC	25 (1953) 1466
C ₂₅ H ₄₆	1,5-Dicyclohexyl-3-(3- cyclopentylpropyl) pentane	1.1-1.25 μ	L	Anal	Evans	AC	23 (1951) 1604
C ₂₅ H ₄₆	1,7-Dicyclopentyl-4-(2- cyclohexylethyl)- heptane	1.1-1.25 μ	L	Anal	Evans	AC	23 (1951) 1604
C ₂₅ H ₄₆	1,7-Dicyclopentyl-4-(3- cyclopentylpropyl)heptane	-	-	Band freq	Bomstein	AC	25 (1953) 512

C ₂₅ H ₄₈	1-Cyclohexyl-3-(2-cyclohexylethyl)heptadecane	1.1-1.25 μ L	Spec, Anal	Evans	AC	23 (1951)
C ₂₅ H ₄₈	1-Cyclopentyl-4-(3-cyclopentylpropyl)dodecane	1.1-1.25 μ L 3-14.7 μ Sol,L	Spec, Anal Struct, Group anal	Francis Francis	AC AC	23 (1951) 25 (1953) 1466
C ₂₅ H ₄₈	1-n-Pentadecyldecahydronaphthalene	3.4-14.7 μ Sol	Struct, Group anal	Francis	AC	25 (1953) 1466
C ₂₅ H ₄₈ O ⁰	Di(2-ethylhexyl)azelate	2-15 μ L	Spec	Kendall	APS	7 (1953) 179
C ₂₅ H ₅₀	9-(3-cyclopentylpropyl)heptadecane	3-14.7 μ Sol,L	Struct, Group anal	Francis	AC	25 (1953) 1466
C ₂₅ H ₅₁ N ₂ O ₉ P ⁰	Hydroxyformyrosphingomyelin	3.01-13.86 μ S	Band freq	Marinetti	JACS	76 (1954) 1345
C ₂₅ H ₅₂	9-Octylheptadecane	1.1-1.25 μ L 3-14.7 μ Sol,L	Anal Struct, Group anal	Francis Francis	AC AC	23 (1951) 25 (1953) 1466
C ₂₅ H ₅₂	n-Pentacosane	750-1150 S 700-1500 S	Struct, Band freq Assign, Freq	Snyder Snyder	JCP JMS	27 (1957) 4 (1960) 411
C ₂₅ H ₅₂ Si	Cyclopentamethylene-didecylsilane	2-35 μ L	Assign	Oshesky	JACS	79 (1957) 2057
C ₂₅ H ₅₄ NO ₇ P ⁰	Stearoyl glycollecithin hydrate	2-16 μ S	Spec	Baer	JACS	75 (1953) 5533
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C ₂₆ COMPOUNDS						
C ₂₆ H ₁₆	Dibiphenyleneethylene	660-4000 Sol	Spec	Wood	AC	30 (1958) 1339
C ₂₆ H ₁₆ C ₁₄ N ₂ O ₂	2-Benzamido-N-benzoyl-3,5, 2',4'-tetrachlordiphenyl-amine	3-15 μ -	Group freq	Ford	JCS	- (1953) 3529

$C_{26}H_{16}N_2O_4$	1,2-Dinitro-1,2-bis-phenyleneethane	650-5000	S	Spec	Freeman	JOC	21 (1956)	472
$C_{26}H_{16}O_2$	Dibenzanthrone	600-2000	S	Spec	Durie	AJC	10 (1957)	429
$C_{26}H_{16}O_3$	2-(5-chrysenoyl) benzoic acid	5.5-6.5 μ	Sol	Ident, Substitution effect	Sawicki	AC	31 (1959)	523
$C_{26}H_{17}N_3$	$4',4''$ -Dihydrodiquinolino ($2':3'-1:2$) ($3''$: $2''$ -5:6) isojujline	-	-	Band freq, I	Braunholtz	JCS	- (1955)	393
$C_{26}H_{17}N_3$	Diquinolino($2':3'-1:2$) ($3''$: $2''$ -5:6) jujuline	-	-	Band freq, Ident	Braunholtz	JCS	- (1955)	393
$C_{26}H_{18}$	10,10-Diphenyldibenzo-fulvene	660-4000	Sol	Spec	Wood	AC	30 (1958)	1359
$C_{26}H_{18}N_2O_2$	p-Azobenzophenone	800-4000	S	Spec	Curtin	JACS	76 (1954)	494
$C_{26}H_{18}N_2O_2S_2$	9,10-Anthraquinone dibenzeneulfonimide	-	-	Group freq	Adams	JACS	74 (1952)	2593
$C_{26}H_{18}N_2O_5$	P,P'-Dibenzoxazoxy-benzene	-	S	Ident	Leonard	JOC	17 (1952)	1071
$C_{26}H_{18}N_4$	Phenylazo- β - $\alpha\beta$ '-azo-naphthalene	-	S	Freq	LeFevre	AJC	10 (1957)	26
$C_{26}H_{18}O_2$	Fluorenonepinacol	3μ	Sol	Spec, Freq	Kuhn	JACS	74 (1952)	2492
$C_{26}H_{18}O_6$	1,3,10-Triacetoxypyerylene	743-1770	S	Table	Brown	JCS	- (1954)	1280
$C_{26}H_{19}ClN_2O_4S$	4-Chloro-6-benzene-sulfonyl-o-phenylene-dibenzamide	-	-	Ident	Adams	JACS	76 (1954)	2763
$C_{26}H_{19}NO_3S$	Anthracene-p-quimone-monobenzene sulfonimide mono adduct	-	-	Freq	Adams	JACS	74 (1952)	2605

$C_{26}H_{19}NO_3S$	9,10- σ -Benzene-4-benzene-sulfonamido-1-hydroxy-anthracene	-	-	Group study	Adams	JACS	74 (1952)	2605
$C_{26}H_{20}$	cis-9,10-Dihydro-9,10-diphenylphenanthrene	-	-	Band freq	Bergmann	JOC	19 (1954)	1387
$C_{26}H_{20}$	trans-9,10-Dihydro-9,10-diphenylphenanthrene	-	-	Band freq	Bergmann	JOC	19 (1954)	1387
$C_{26}H_{20}$	Tetraphenylethylenne	3.39-14.40 μ Sol	Ident	Brewster	JACS	76 (1954)	6368	
$C_{26}H_{20}N_2O_2$	4-Benzamido-N-benzoyl-diphenylamine	3-15 μ	Group freq	Ford	JCS	- (1953)	3529	
$C_{26}H_{20}N_2O_2S_2$	9,10-Anthracene dibenzene-sulfonamide	-	-	Group study	Adams	JACS	74 (1952)	2593
$C_{26}H_{20}N_4$	1,2,2a,3,10,10a-Hexahydro-diindolo(3',2'-4;5) (2",3"-8;9)-2a,10a-diazapryrene	-	-	Struct	Almond	JCS	- (1951)	1906
$C_{26}H_{20}O$	Benzopinacolone	5.97-14.69 μ S - Sol	Table Freq	Brewster Brook	JACS	76 (1954)	6368	
$C_{26}H_{20}O_2S$	9-(9-Phenylfluorenyl)-p-tolylsulfone	1100-1400 Sol	Spec, Freq	Bavin	JACS	82 (1960)	5102	
$C_{26}H_{20}O_3$	2-Hydroxy-4-diphenyl-hydroxymethylbenzophenone	-	-	Band freq	Wasserman	SA	16 (1960)	1312
$C_{26}H_{20}O_{10}$	2,5-Diacetoxy-3,6-di-p-acetoxyphenyl-1,4-benzoquinone	5-15 μ S	Spec, Struct	Edwards	JACS	77 (1955)	973	
$C_{26}H_{21}ClN_2O_4S_2$	1,4-Dihydro-2-chloro-9,10-anthracene dibenzenesulfonamide	-	-	Group freq	Adams	JACS	74 (1952)	2593

C ₂₆ H ₂₁ ClN ₂ O ₄ S ₂	β,β' -Dimethyl- β -chloro-diphenoxquinone dibenzesulfonamide	-	-	Band freq	Adams	JACS 74 (1952) 3038
C ₂₆ H ₂₁ Cl ₄ N ₃ O ₄ S ₂	N-(2,3,5,6-Tetrachloro-4-benzenesulfonamido-phenyl)-N-(3,5-dimethyl-4-aminophenyl)benzenesulfonamide	-	-	Freq	Adams	JACS 74 (1952) 5896
C ₂₆ H ₂₁ NO ₂	1-Cyclohexylaminoperylene 769-3300 S -3,10-quinone	-	-	Freq	Adams	JACS 74 (1952) 5869
C ₂₆ H ₂₂	Unsym-Tetraphenylethane 3.42-14.35 μ Sol -	-	-	Ident, Table Ident	Brewster Fusion	JACS 76 (1954) 6368 JACS 77 (1955) 1138
C ₂₆ H ₂₂ Br ₂ N ₂ O ₄ S ₂	3,3'-Dibromo-4,4'-diphenyl sulfonamidobenzyl	-	-	Group freq	Fusion	JACS 75 (1953) 5744
C ₂₆ H ₂₂ Cl ₂ N ₂ O ₄ S ₂	N,N'-Dibenzenesulfonyl- β,β' -dimethyl 5,5'-dichlorobenzidine	-	-	Spec, Ident	Adams	JACS 74 (1952) 3038
C ₂₆ H ₂₂ Cl ₂ N ₂ O ₆ S ₂	N,N'-Dibenzenesulfonyl-2, 2'-dichloro- β,β' - dimethoxybenzidine	-	-	Iso., Band study	Adams	JACS 75 (1953) 5901
C ₂₆ H ₂₂ Cl ₂ N ₂ O ₆ S ₂	N,N'-Dibenzenesulfonyl-2, 2'-dichloro-5, β -dimethoxybenzidine	-	-	Iso., Band study	Adams	JACS 75 (1953) 5901
C ₂₆ H ₂₂ Cl ₂ N ₂ O ₆ S ₂	N,N'-Dibenzenesulfonyl-5, 5'-dichloro- β,β' -dimethoxybenzidine	-	-	Iso., Band study	Adams	JACS 75 (1953) 5901
C ₂₆ H ₂₂ N ₂ O ₂	1,2-Dimethyl- β -(1-phenyltryptamine)phthalimide	-	-	S,Sol Freq	Noland	JACS 81 (1959) 1205

$C_{26}H_{22}N_2O_2$	2-Methyl-3-(1-phenyl-1-2-phthalimidopropyl)indole	-	S, Sol	Freq	Noland	JACS	81 (1959)	1203
$C_{26}H_{22}N_2O_4S_2$	1,4-Dihydro-9,10-anthracene dibenzenesulfonamide	-	-	Group freq	Adams	JACS	74 (1952)	2593
$C_{26}H_{22}N_2O_4S_2$	β,β' -Dimethylidiphenoquinone dibenzene-sulfonimide	-	-	Group freq, Band study	Adams	JACS	74 (1952)	3038
$C_{26}H_{22}N_2O_4S_2$	1,4,4a,9a-Tetrahydro-9,10-anthraquinone dibenzene-sulfonimide	-	-	Group freq	Adams	JACS	74 (1952)	2593
$C_{26}H_{22}N_4O_4S_2$	Di-p-amidinophenyl disulfide dibenzene-sulfonate	$5.5-24\mu$	S	Spec, Band freq	Cymerman	JCS	- (1951)	1332
$C_{26}H_{22}N_4O_{12}$	10-(trans-1,2-Dimethoxy-carbonylvinyl)acridinium methoxide picrate	-	-	Ident	Acheson	JCS	- (1954)	3240
$C_{26}H_{22}O$	Dibenzhydryl ether	-	Sol	Ident Reference	Rausch Merrow	JACS	76 (1954)	3622
$C_{26}H_{22}O$	Mesityl 1-phenyl-2-naphthyl ketone	-	-	Grignard react. prod.	Fusion	JOC	16 (1951)	643
$C_{26}H_{22}O_2$	Benzophenone pinacol	3μ	Sol Sol	Spec, Freq Ident	Kuhn Rausch	JACS	74 (1952)	2492
$C_{26}H_{22}O_3$	2-Hydroxy-4-diphenyl-hydroxymethylbenzhydrol	-	-	Ident	Wasserman	JACS	76 (1954)	3622
$C_{26}H_{22}O_6$	Terephthaloyl bis-(p-methoxyacetophenone)	1500-3500	S	Freq, Assign, Struct	Martin	JACS	80 (1958)	4891
$C_{26}H_{23}NO_5$	1-Phenyl-3-methyl-4,4-dicarbobenzyl oxy 2-azetidinone	$2-11\mu$	Sol	Spec	Sheehan	JACS	73 (1951)	1761
$C_{26}H_{24}ClNO_5$	Dibenzyl-(α -chloropropionyl)anilinomalonate	$2-11\mu$	Sol	Spec	Sheehan	JACS	73 (1951)	1761

C ₂₆ H ₂₄ O ₈ Si	Triphenylsilyl ethyl phenyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
C ₂₆ H ₂₄ O ₆ B ₂	Tetraphenylethylene diborate	6-14 μ	L,S	Freq, Struct	Blau	JCS	- (1960)	380
C ₂₆ H ₂₄ Si	Diphenyldi-p-tolylsilane	-	Sol	Freq	Margoshes	AC	27 (1955)	351
C ₂₆ H ₂₅ N ₃ O ₄ S ₂	2-(p-Dimethylamino-phenyl)benzene-1,4-dibenzene sulfonyl amide	-	-	Group freq, Struct	Adams	JACS	75 (1953)	4642
C ₂₆ H ₂₆	1-Neopentyl-2,3-diphenyl-indene	-	-	Ident	Fusion	JOC	17 (1952)	255
C ₂₆ H ₂₆ O	α -Benzal- γ -phenyl-butyromesitylene	-	-	Group freq	Fusion	JOC	18 (1953)	1263
C ₂₆ H ₂₇ N ₂ O ₅ P	N-Dibenzylphosphoryl-DL-tryptophan methyl ester	3-15 μ	S,L	Spec, Group freq	Li	JACS	77 (1955)	3519
C ₂₆ H ₂₈ N ₂ B	Dimethylammonium-tetraphenylborate	-	S	H bond, Band freq	Muttall	JCS	- (1960)	4965
C ₂₆ H ₂₈ N ₄ O ₁₁	2,4-Dicarbethoxy- β -(3',4'-methylene dioxy-phenyl)-5-hydroxy-5-methylcyclohexanone 2,4-dinitrophenyl-hydrazone	-	Sol	Band freq	Walker	JACS	77 (1955)	3664
C ₂₆ H ₂₈ O	α,β -Dimesityl- β -phenyl vinyl alcohol	2.7-2.9 μ	Sol	Spec OH data	Buswell Fusion	JACS	69 (1947)	770
C ₂₆ H ₂₈ O ₆	Ethyl-2,4-diphenacyl-1,3-oxabutantanedicarboxylate.	2-13 μ	S	Band freq, Spec, Struct	Reid	JACS	68 (1946)	389
C ₂₆ H ₂₈ O ₁₄	Apiin	-	L	Freq	Inglett	JOC	23 (1958)	93
C ₂₆ H ₃₀ N ₂ O ₂	1-Methyl-3-benzal-4-piperidone dimer	-	S	Group freq	McElvain	JACS	77 (1955)	492

C ₂₆ H ₃₀ ⁰ ₂	all trans-2,4,6,8,10,16, 18,20,22,24-hexacosadecaen -13-yne-12,15-diol	-	S	Group freq, I	Allen	JCS	-	(1955)	1874
C ₂₆ H ₃₀ ⁰ ₃	β-Benzylxylo-Δ ⁵ ,5'-andro- stadiene-11,17-dione	-	S	Group freq	Bernstein	JOC	18	(1953)	1166
C ₂₆ H ₃₀ ⁰ ₃	8,20-Dicarboxy 6,6 para- cyclophane anhydride	3.27-11.47 μ	Sol	I, Group freq	Cram	JACS	77	(1955)	1179
C ₂₆ H ₃₀ ⁰ ₃	8,21-Dicarboxy 6,6 para- cyclophane anhydride	3.27-11.47 μ	Sol	I, Group freq	Cram	JACS	77	(1955)	1179
C ₂₆ H ₃₀ ⁰ ₃	1-Duryl-5-mesityl-2,4- pentadien-2-ol-1-one acetate	-	-	Band freq	Fusion	JACS	75	(1953)	5950
C ₂₆ H ₃₀ ⁰ ₃	2-Hydroxy-4-t-butyl-3,4- dihydro-1-naphthyl mesityl ketone acetate	-	-	Group freq	Fusion	JACS	77	(1955)	3781
C ₂₆ H ₃₀ ⁰ ₄	1,4-di-(2-Acetoxy-3,4,6- trimethylphenyl)-1,3- butadiene	-	-	Spec, Band freq,	Smith	JACS	73	(1951)	3851
C ₂₆ H ₃₀ ⁰ ₆	1,4-di-(2-Hydroxy-3,4,6- trimethylphenyl)-butane 1,4-dione diacetate	-	-	Spec, Band freq,	Smith	JACS	73	(1951)	3847
C ₂₆ H ₃₀ ⁰ ₉	2-Hydroxymethylene-3- carboxy-4-(3',4'- dimethoxyphenyl)-6,7- dimethoxy-1-tetralone ethylene acetal	-	Sol	Band freq	Walker	JACS	75	(1953)	3393
C ₂₆ H ₃₀ ⁰ ₁₅	Tetraacetylasperuloside	746-1773	S	I	Briggs	JCS	-	(1954)	4182
C ₂₆ H ₃₁ NO	1-Methyl-3,5-di-(p-iso- propylbenzylidene)-4- piperidone	-	S	Group freq	Leonard	JACS	77	(1955)	1852
C ₂₆ H ₃₁ NO	1-Methyl-3,5-di-(p-iso- propylbenzyl)-4-pyridone	-	S	Group freq	Leonard	JACS	77	(1955)	1852

1660

$C_{26}H_{32}OSi$	Triphenylsilylbutyl butyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_{26}H_{32}OSi$	Triphenylsilylheptyl methyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_{26}H_{32}OSi$	Triphenylsilylhexyl ethyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_{26}H_{32}O_2$	(7-p-7-p)-Cyclophandione- _{1,14}	Sol	Group freq	Schubert	JACS	76 (1954)	5462	
$C_{26}H_{32}O_3$	Δ^4 -Androstenol-17 α -one- β - benzoate	-	-	Assign	Jones	JACS	70 (1948)	2024
$C_{26}H_{32}O_3$	Δ^4 -Androsten-17 β -ol- β - one benzoate	682 1370 -	Sol S,Sol	Table Group freq	Jones Tarpley	JACS APS	77 (1955) 9 (1955)	651 69
$C_{26}H_{32}O_3$	Δ^5 -Androstenol- β -one- β - benzoate	-	-	Assign	Jones	JACS	70 (1948)	2024
$C_{26}H_{32}O_4$	β -Acetox- $\Delta^{14}(15)$, 16(17), ^{20,22} bufatetraenolide	1000-1900	Sol	Spec, Freq	Jones	JACS	81 (1959)	5242
$C_{26}H_{32}O_4$	Methylbixin(natural)	6.8-14 μ	S,Sol	Spec	Lunde	JACS	77 (1955)	1647
$C_{26}H_{32}O_4$	Methylbixin(all-trans)	6.7-14 μ	S,Sol	Spec	Lunde	JACS	77 (1955)	1647
$C_{26}H_{32}O_4$	Neomethylbixin-A	6.8-14 μ	S,Sol	Spec, Band study	Lunde	JACS	77 (1955)	1647
$C_{26}H_{32}O_4$	Neomethylbixin-C	6.8-9 μ	Sol	Spec	Lunde	JACS	77 (1955)	1647
$C_{26}H_{32}O_9$	1-Hydroxy-2-ethylenedioxime thyl- β -carboxy- β -(3',4'-dimethoxyphenyl)-6,7-dimethoxytetralin	-	Sol	Band freq	Walter	JACS	75 (1953)	3393

C ₂₆ H ₃₄ BrNO ₅	-	-	-	-	Band study	S	JACS	73 (1951)	4748
C ₂₆ H ₃₄ N ₂ O ₂	2,2'-Dimethyl-4,4'-(hexa-methylenediamino)bibenzyldiacetate	-	-	-	For comparison	Fusion	JACS	75 (1953)	5744
C ₂₆ H ₃₄ N ₂ O ₅	Quinine- α,β -dihydroxy- β -methylvalerate	2-15 μ	S	Ident, Spec	Sjolander	JACS	76 (1954)	1085	
C ₂₆ H ₃₄ O ₂	Sym-Di-(P-Carbethoxy-pentamethylbenzyl)-ethane cyclic acyloin	-	-	Freq	Fusion	JACS	74 (1952)	1621	
C ₂₆ H ₃₄ O ₃	Androstanol- $\beta\delta$ -one-17-benzoate	-	-	Assign	Jones	JACS	70 (1948)	2024	
C ₂₆ H ₃₄ O ₃	Androstanol- $\beta\beta$ -one-17-benzoate	-	sol	Band freq	Barnes	JCS	- (1953)	571	
C ₂₆ H ₃₄ O ₃	Δ^5 -Androstanediol- $\beta\beta,17\beta$ - β -benzoate	-	S, Sol	Group freq	Tarpley	APS	9 (1955)	69	
C ₂₆ H ₃₄ O ₃	β -Benzoylory- Δ^5 -andro-stadiene- $1\beta,17\beta$ -diol	-	S	Group freq	Bernstein	JOC	18 (1953)	1166	
C ₂₆ H ₃₄ O ₃	Etiocanolol- $\beta\delta$ -one-17- β -benzoate	-	-	Assign	Jones	JACS	70 (1948)	2024	
C ₂₆ H ₃₄ O ₃	19-Nor- $\Delta^1,3,5(10),6$ - β -22 α -spirostataren- β -ol	-	sol	Free OH study	Sondheimer	JACS	76 (1954)	2250	
C ₂₆ H ₃₄ O ₄ S	Dehydroisoandrostenyl p-toluenesulfonate	670-3700	S	Spec	Bernstein	JOC	16 (1951)	679	

C ₂₆ H ₃₅ NO ₇	β-Cyanopregnane-3,17α, 21-triol-11,20-dione- 3,21-diacetate	-	Sol	Freq	Graber	JACS	76 (1954)	4474
C ₂₆ H ₃₆ O ₃	Δ ^{1,4} -Androstanediol-17α- one-3-hexahydroben- zoate	1580-3100 670-1380	Sol Sol	I Group freq Spec	Jones Jones Jones	JACS JACS JACS	72 (1950) 72 (1950) 77 (1955)	86 956 651
C ₂₆ H ₃₆ O ₃	β-Hydroxy-Δ ^{5,7,9:10-} 22-iso-19-norspirosta- triene	-	Sol Sol	Group freq Band freq	Mosettig Scheer	JOC JACS	17 (1952) 77 (1955)	764 3300
C ₂₆ H ₃₆ O ₃	19-Nor-Δ ^{1,3,5(10)-} spirostatriene-3-ol	-	Sol	OH study	Sondheimer	JACS	76 (1954)	2230
C ₂₆ H ₃₆ O ₄ S	Epiandrosterone p- toluenesulfonate	-	Sol	Band study	Iriarte	JOC	20 (1955)	542
C ₂₆ H ₃₆ O ₅	β,22-Diacetoxybisnor- chola-7,9,20(22)- trien-5α-ol	-	S	Group freq	Bladon	JCS	- (1953)	2916
C ₂₆ H ₃₆ O ₅	2α,4b-Dimethyl-1-carbethoxy- -methylene-2-methallyl-7- ethylenedioxy-1,2,3,4,4aα, 4b,5,6,7,8,10,10aβ-dodeca- hydrophenanthrene-4-one	-	S	Band freq	Arth	JACS	76 (1954)	1715
C ₂₆ H ₃₆ O ₅	2β,4b-Dimethyl-1-carbethoxy- -methylenecarboxylic acid-7- ethylenedioxy-1,2,3,4,4aα, 4b,5,6,7,8,10,10aβ-dodeca- hydrophenanthrene-4-one	-	S	Band freq	Arth	JACS	76 (1954)	1715
C ₂₆ H ₃₆ O ₅	2α,4b-Dimethyl-1-ethoxy- ethynyl-2-methallyl-7- ethylenedioxy-1,2,3,4,4aα, 4b,5,6,7,8,10,10aβ-dodeca- hydrophenanthrene-4-one	-	S	Band freq	Arth	JACS	76 (1954)	1715

$C_{26}H_{36}O_5$	2β -4b-Dimethyl-1-ethoxy-ethynyl-2-methallyl-7-ethylenedioxy-1,2, β ,3,4,4a α -,4b,5,6,7,8,10,10 β -dodecahydronanthrene-1 α -ol-4-one	-	S	Band freq	Arth	JACS	76 (1954)	1715
$C_{26}H_{36}O_5$	2β ,4b-Dimethyl-1-ethoxy-ethynyl-2-methallyl-7-ethylenedioxy-1,2, β ,3,4,4a α -,4b,5,6,7,8,10,10 β -dodecahydronanthrene-1 β -ol-4-one	-	S	Band freq	Arth	JACS	76 (1954)	1715
$C_{26}H_{36}O_5$	d1-Ethylenedioxy-16-isopropoxy-5,16-pregnadiene-11,20-dione	-	S	Freq	Arth	JACS	77 (1955)	3834
$C_{26}H_{36}O_5$	d1- β -Ethylenedioxy-20-isopropoxy-5,17-pregnadiene-11,16-dione	-	S	Freq	Arth	JACS	77 (1955)	3834
$C_{26}H_{36}O_6$	β ,5 α -Diacetoxy-(9 α ,11 α)-epoxybisnorcholest-7-en-22-ol	-	S	Group freq	Bladon	JCS	- (1953)	2916
$C_{26}H_{36}O_6$	2α ,4b-Dimethyl-1-carboxymethylene-2-methallyl-7-ethylenedioxy-1,2, β ,3,4,4a α -,4b,5,6,7,8,10,10 β -dodecahydronanthrene-4 α -ol acetate	-	Sol	Band freq	Arth	JACS	76 (1954)	1715
$C_{26}H_{36}O_7$	β -Formyloxy-16 α ,21-diacetoxy- Δ^5 -pregnen-20-one	-	Sol	Group freq	Hirschmann	JACS	75 (1953)	4862
$C_{26}H_{36}O_7$	16 α -Methoxy- Δ^5 -pregnen-2, β -diol-12,20-dione diacetate	-	-	Group freq	Moore	JACS	74 (1952)	6287
$C_{26}H_{37}BrO_3$	Δ^1 -2-Bromoandrostenol-17 β -one- β -hexahydrobenzoate	-	Sol	Group freq	Jones	JACS	72 (1950)	956
					1663			

$C_{26}H_{37}BrO_3$	Δ^4 -2-Bromoandrostenol-17 β -one-3 β -hexahydrobenzoate	-	Sol	Group freq	Jones	JACS 72 (1950) 956
$C_{26}H_{37}ClO_5$	2 β ,4b-Dimethyl-1-(2-chloro-2-ethoxy)ethenyl-2-methallyl-7-ethylenedioxy-1,2, β ,4,4a α ,4b,5,6,7,8,10,10a β -dodecahydro-phenanthrene-1 β -ol-4-one	-	S	Band freq	Arth	JACS 76 (1954) 1715
$C_{26}H_{38}Br_2O_2$	2,4-Dibromoandrostanol-17 β -one-3-hexahydrobenzoate	-	Sol	Group freq	Jones	JACS 72 (1950) 956
$C_{26}H_{38}N_2O$	N,N-Diethyl-2-benzyl-5-diethylamino-3-phenyl-valeramide	-	-	Ident	Snyder	JACS 76 (1954) 1893
$C_{26}H_{38}N_2O$	N,N-Diethyl-4-benzyl-5-diethylamino-3-phenyl-valeramide	-	-	Ident	Snyder	JACS 76 (1954) 1893
$C_{26}H_{38}N_6O_9$	Carbobenzoypenta-L-alanyl-L-alanine	-	S	Struct	Zahn	A 636 (1960) 132
$C_{26}H_{38}O$	2-t-Butyl-4-t-butyl-2, β -dihydrophenyl duryl ketone	-	-	Group freq	Fusion	JACS 76 (1954) 5466
$C_{26}H_{38}O$	4-t-Butyl-2-t-butyl-2, β -dihydrophenyl duryl ketone	-	-	Group freq	Fusion	JACS 76 (1954) 5466
$C_{26}H_{38}O_2$	1,1-Bis-(2-hydroxy-3-t-butyl-5-methylphenyl)isobutane	-	S,Sol	H bond	Coggeshall	JACS 72 (1950) 2836
$C_{26}H_{38}O_2$	2,2-Bis-(2-hydroxy-3-t-butyl-5-methylphenyl)butane	2.8-3.1 μ	S,Sol	H bond, Spec	Coggeshall	JACS 72 (1950) 2836
$C_{26}H_{38}O_2$	Di-(4-Hydroxy-2-methyl-5-t-butylphenyl)propyl methane	2.5-3.4 μ	S,Sol	Freq	Ambelang	JACS 75 (1953) 947

				Band freq	Ambelang	JACS	75 (1953)	947
C ₂₆ H ₃₈ O ₂	Di-(4-Hydroxy-2-methyl-5-t-butylphenyl)isopropylmethane	2.5-3.4 μ	S			JACS	72 (1950)	86
C ₂₆ H ₃₈ O ⁰	Δ^1 -Androstenol-17 α -one- β -hexahydrobenzoate	1580-3100 746-1272	Sol Sol Sol	Group freq Group freq Table	Jones Jones Jones	JACS JACS JACS	72 (1950) 72 (1950) 77 (1955)	956 956 651
C ₂₆ H ₃₈ O ₄	$\beta\beta^5$ -Acetoxyl-20-hydroxy- Δ^5 -cholenic acid lactone	1000-1900	Sol	Spec, Freq	Jones	JACS	81 (1959)	5242
C ₂₆ H ₃₈ O ₄	$\beta\beta^5$ -22-Diacetoxyl-5,20(22)-bisnorcholeadiene	-	-	Band study	Moffett	JACS	74 (1952)	2183
C ₂₆ H ₃₈ O ₄	Lupulone	2-10 μ	S	Spec, Group freq, Struct	Howard	JCS	- (1952)	1902
C ₂₆ H ₃₈ O ₄	5 α ,22a-C-Norspirostane β ,11-dione	-	-	Freq	Wendler	JACS	77 (1955)	1632
C ₂₆ H ₃₈ O ₄	Δ^5 -20-(Spiro-2-oxa- β -oxocyclopentano) pregnenol- β -acetate	-	Sol	Group freq	Jones	JACS	72 (1950)	956
C ₂₆ H ₃₈ O ₅	$\Delta^9(11)$ - β Acetoxy-12-ketocholenic acid	1700	Sol Sol,S	Struct, Anal, Freq Group freq	Jones Tarpley	JACS APS	71 (1949) 9 (1955)	241 69
C ₂₆ H ₃₈ O ₅	$\beta\beta$,22-Diacetoxylbisorallochol-20(22)-en-11-one	-	Sol	Group freq	Cameron	JCS	- (1953)	3864
C ₂₆ H ₃₈ O ₅	$\beta\beta$,22-Diacetoxyl-9 β -bisnorallorchol-20(22)-en-11-one	-	Sol	Group freq	Cameron	JCS	- (1953)	3864
C ₂₆ H ₃₈ O ₅	11 α ,22-Diacetoxylbisor-4-cholen- β -one	-	-	Struct	Meister	JACS	76 (1954)	5679

$C_{26}H_{38}O_5$	$2\beta,4b$ -Dimethyl-1-carbethoxy-methylene-2-methallyl-7-ethylenedioxy-1,2,3,4, α c,4b,5,6,7,8,10,10 $\alpha\beta$ -dodeca-hydrophenanthrene-4 β -ol	-	S	Band freq	Arth	JACS	76 (1954)	1715
$C_{26}H_{38}O_5$	$2\beta,4b$ -Dimethyl-1-e thoxy-ethynyl-2-me thallyl-7-ethylenedioxy-1,2,3,4,4 α c,4b,5,6,7,8,10,10 $\alpha\beta$ -dodeca-hydrophenanthrene-1 β ,4 β -diol	-	S	Band freq	Arth	JACS	76 (1954)	1715
$C_{26}H_{38}O_5$	Methyl 3α -formoxy- $\Delta^9(11)$ 12-ketocholenate	-	Sol	Group freq	Archer	JACS	76 (1954)	4915
$C_{26}H_{38}O_6$	$3\beta,5\alpha$ -Diacet oxy-11-oxobis-noreholan-22-al	-	Sol	Group freq	Bladon	JCS	- (1954)	125
$C_{26}H_{38}O_6$	$2\alpha,4b$ -Dimethyl-1-carbethoxy-methylene-2-methallyl-7-ethylenedioxy-1,2,3,4,4 α c,4b,5,6,7,8,10,10 $\alpha\beta$ -dodeca-hydrophenanthrene-1 β -ol-4-one	-	S	Band freq	Arth	JACS	76 (1954)	1715
$C_{26}H_{38}O_6$	$2\beta,4b$ -Dimethyl-1-carbethoxy-me thyl-2-me thallyl-7-ethylenedioxy-1,2,3,4,4 α c,4b,5,6,7,8,10,10 $\alpha\beta$ -dodeca-hydrophenanthrene-1 α -ol-4-one	-	S	Band freq	Arth	JACS	76 (1954)	1715
$C_{26}H_{38}O_6$	$2\beta,4b$ -Dimethyl-1-carbethoxy-methyl-2-me thallyl-7-ethylenedioxy-1,2,3,4,4 α c,4b,5,6,7,8,10,10 $\alpha\beta$ -dodeca-hydrophenanthrene-1 β -ol-4-one	-	Sol	Group freq	Archer	JACS	76 (1954)	4915

Ethyl β ,19-d α etoxy-
5-hydroxy- Δ - ϵ tiooo-
lenate

$C_{26}H_{38}O_7$

			Spec., Band freq	Hirschmann	JACS 74 (1952)	5357
$C_{26}H_{38}O_8$	Ouabagenin monoacetonide	2-16 μ	S Ident Spec., Ident	Sneeden Djerassi	JACS 75 (1953) JOC 19 (1954)	3510 1351
$C_{26}H_{38}O_9$	Hydrolimoninic acid	2-16 μ	S Spec., Band freq, Struct	Rosenfeld	JACS 73 (1951)	2491
$C_{26}H_{39}BrO_3$	2-Bromoandrostanol-17 β -one-3-hexahydrobenzoate	-	Sol Sol	Jones Jones	JACS 72 (1950) JACS 74 (1952)	956 2828
$C_{26}H_{40}$	1-Hexadecylnaphthalene	690-3239	L Table, I	Arderson	JCS - (1953)	443
$C_{26}H_{40}$	2-Hexadecylnaphthalene	720-3242	L Table, I	Arderson	JCS - (1953)	443
$C_{26}H_{40}O_4$	Δ - β -Acetoxycholenic acid	-	S,Sol Group freq	Tarpley	APS 9 (1955)	69
$C_{26}H_{40}O_4$	Methyl β -acetoxylonon-16-cholenate	-	S Band study	Ryer	JACS 74 (1952)	4464
$C_{26}H_{40}O_4$	22a,5 α -C-Nor-D-homo-18-nor-spirostan- β -ol-17 α -one	-	- Band study Ident	Hirschmann Hirschmann	JACS 74 (1952) JACS 76 (1954)	2693 4013
$C_{26}H_{40}O_5$	β -Acetoxy-11-ketonorcholanic acid methyl ester	1700	Sol Struct, Group freq	Jones	JACS 71 (1949)	241
$C_{26}H_{40}O_5$	Methyl β -formoxy-11-ke tocholana te	-	Sol Group freq	Archer	JACS 76 (1954)	4915
$C_{26}H_{40}O_5$	Methyl β -formoxy-12-ke tocholana te	-	Sol Group freq	Archer	JACS 76 (1954)	4915
$C_{26}H_{40}O_5$	Methyl- β -methoxy- β ,9 α -oxido-11-ke tocholana te	-	- Band study	Heymann	JACS 73 (1951)	5252
$C_{26}H_{40}O_6$	Methyl- β -formoxy-12 β -hydroxy-11-ke tocholana te	-	Sol Group freq	Archer	JACS 76 (1954)	4915
$C_{26}H_{40}O_8$	d1-Dimethyl- β ,11 β -diacetoxyleti oallomobilanate	-	- Ident	Johnson	JACS 76 (1954)	3353

C ₂₆ H ₄₁ NO ₂	16 α -Piperidino-5-pregnene- $\beta\beta$ -ol-20-one	-	-	Ident	Gould	JACS 76 (1954) 5567
C ₂₆ H ₄₂	$\Delta^3,5$ - β -Norcholestadiene	-	-	Ident	Fieser	JACS 75 (1953) 4386
C ₂₆ H ₄₂ O ₂	Δ^5 -Norcholesteno- β -one- -24	-	S, Sol	Group freq	Tarpley	APS 9 (1955) 69
C ₂₆ H ₄₂ O ₂	Δ^5 -Norcholesteno- β -one- -25	-	S, Sol	Group freq	Tarpley	APS 9 (1955) 69
C ₂₆ H ₄₂ O ₂	B-Norcoprostan-3,6-dione	-	Sol	Band freq, Ident	Fieser	JACS 75 (1953) 4386
C ₂₆ H ₄₂ O ₄	Dinonyl phthalate	-	-	Band freq, I	Kendall	APS 7 (1953) 179
C ₂₆ H ₄₂ O ₄	Methyl β -acetoxyallo- norcholanate	-	S	Band freq	Ryer	JACS 74 (1952) 4464
C ₂₆ H ₄₂ O ₅	β -Acetoxy-22,22-dimethoxy- bisnorallocholan-11-one	-	Sol	Group freq	Page	JCS - (1955) 2017
C ₂₆ H ₄₂ O ₅	Methyl β -acetoxy-17 α - hydroxyallonorcholanate	-	-	Band freq	Ryer	JACS 74 (1952) 4464
C ₂₆ H ₄₂ O ₅	Methyl β -Methoxy- $\beta\alpha$, 9α - oxido-11-hydroxycholanate	-	-	Freq	Heymann	JACS 73 (1951) 5252
C ₂₆ H ₄₄ O	2-Oxo-A-norcholestane	-	Sol	Group freq	Smith	JACS 76 (1954) 6119
C ₂₆ H ₄₄ O	β -Oxo-A-norcholestane	-	Sol	Group freq	Smith	JACS 76 (1954) 6119
C ₂₆ H ₄₄ O ₂	5-Hydroxy- β , 5 -secoc 4-norcholestane- β -oic acid lactone	1000-1900	S	Spec, Freq	Jones	JACS 81 (1959) 5242
C ₂₆ H ₄₄ O ₄	$\beta\alpha$, 12α -Dihydroxycholanic acid ethyl ester	-	Sol	Group freq	Jones	JACS 72 (1950) 956
C ₂₆ H ₄₄ O ₅	Ethyl $\beta\alpha$, 7α , 12α -tri- hydroxycholate	2.5-3.5 μ	Sol	Group study	Kabasakalian	AC 31 (1959) 375
C ₂₆ H ₄₆	-	-	Freq		Schlatter	JACS 76 (1954) 4952

C ₂₆ H ₄₆	1-Phenyleicosane	2-15 μ	L	Spec	Nielson	AC	21 (1949)	369
C ₂₆ H ₄₆	2-Phenyleicosane	2-15 μ	L	Spec	Nielson	AC	21 (1949)	369
C ₂₆ H ₄₆	3-Phenyleicosane	2-15 μ	L	Spec	Nielson	AC	21 (1949)	369
C ₂₆ H ₄₆	4-Phenyleicosane	2-15 μ	L	Spec	Nielson	AC	21 (1949)	369
C ₂₆ H ₄₆	5-Phenyleicosane	2-15 μ	L	Spec	Nielson	AC	21 (1949)	369
C ₂₆ H ₄₆	7-Phenyleicosane	2-15 μ	L	Spec	Nielson	AC	21 (1949)	369
C ₂₆ H ₄₆	9-Phenyleicosane	2-15 μ	L	Spec	Nielson	AC	21 (1949)	369
C ₂₆ H ₄₆	8-p-Tolylnonadecane	1.1-1.25 μ	L	Anal, Absorption	Evans	AC	23 (1951)	1604
C ₂₆ H ₄₆	9-n-Dodecyltetradeca-hydroanthracene	12.6-14.7 μ	Sol,L	Struct	Francis	AC	25 (1953)	1466
C ₂₆ H ₅₀	9-[α -(cis-0.3-3'-Bicyclo-octyl)-methyl]heptadecane	1.1-1.25 μ 12.6-14.7 μ	L	Anal Struct, Anal	Evans Francis	AC AC	23 (1951) 25 (1953)	1604 1466
C ₂₆ H ₅₀ ⁰	Di-(2-ethylhexyl) sebacate	2-14 μ	L	Spec	Kapff	JCP	16 (1948)	446
C ₂₆ H ₅₀ ⁰	Di-n-octylsebacate	2-16 μ	Sol	Spec	Stahl	JACS	74 (1952)	5487
C ₂₆ H ₅₂	1-Cyclohexyleicosane	2-15 μ 3.4-14.7 μ	L Sol	Spec, Anal Anal	Nielson Francis	AC AC	21 (1949) 25 (1953)	369 1466
C ₂₆ H ₅₂	2-Cyclohexyleicosane	2-15 μ	L	Spec, Anal	Nielson	AC	21 (1949)	369
C ₂₆ H ₅₂	3-Cyclohexyleicosane	2-15 μ	L	Spec, Anal	Nielson	AC	21 (1949)	369
C ₂₆ H ₅₂	4-Cyclohexyleicosane	2-15 μ	L	Spec, Anal	Nielson	AC	21 (1949)	369
C ₂₆ H ₅₂	5-Cyclohexyleicosane	2-15 μ	L	Spec, Anal	Nielson	AC	21 (1949)	369
C ₂₆ H ₅₂	7-Cyclohexyleicosane	2-15 μ	L	Spec, Anal	Nielson	AC	21 (1949)	369
C ₂₆ H ₅₂	9-Cyclohexyleicosane	2-15 μ	L	Spec, Anal	Nielson	AC	21 (1949)	369

$C_{26}H_{52}$	11-Cyclohexyleicosane	2-15 μ	L	Spec, Anal	Nielsen	AC	21 (1949)	369
$C_{26}H_{52}$	11-Cyclopentylhexaicosane	1.1-1.25 μ	L	Group absorption coeff. anal	Evans	AC	23 (1951)	1604
$C_{26}H_{52}$	1,4-Di-n-decylcyclohexane	12.6-14.7 μ	Sol,L	Struct, Anal	Francis	AC	25 (1953)	1466
$C_{26}H_{52}O_2$	n-Hexacosanoic acid	2-15 μ	S	Spec, Anal	Meiklejohn	AC	29 (1957)	329
$C_{26}H_{54}$	5,14-Dibutyloctadecane	1.1-1.25 μ 12.6-14.7 μ	L Sol,L	Anal, Absorption Anal	Evans Francis	AC AC	23 (1951) 25 (1953)	1604 1466
$C_{26}H_{54}$	11-(2',2'-Dimethylpropyl) heicosane	1.1-1.25 μ	L	Anal, Absorption	Evans	AC	23 (1951)	1604
$C_{26}H_{54}$	3-Ethyltetracosane	8-13 μ 700-2800	- L,S	Spec Spec	Thompson Richards	N PRS	158 (1946) 195 (1948)	234 1
$C_{26}H_{54}$	n-Hexacosane	700-2800 12.6-14.7 μ 1470	L,S L,S Sol	Spec Ext. coefficient Struct	Richards Francis Stein Jones Snyder	PRS AC JCP SA JCP	195 (1948) 25 (1953) 22 (1954) 9 (1957) 27 (1957)	1 1466 1993 235 969
$C_{26}H_{54}$	11-n-Pentylhexaicosane	12.6-14.7 μ	Sol,L	Struct, Anal	Snyder Francis	JMS AC	4 (1960) 25 (1953)	411 1466

C₂₇ COMPOUNDS

$C_{27}H_{18}O_2$	1-Carboxybenzylidene -2-hydroxy-4-berz- hydrylidene-2,5- cyclohexadiene lactone	-	Sol	Band freq	Wasserman	JACS	77 (1955)	973
$C_{27}H_{19}N_3O_5S_2$	2-(2'-Pyridino)-1,4- naphthoquinone dibenzenesulfonimide	-	-	Group freq	Adams	JACS	76 (1954)	702
$C_{27}H_{20}N_2$	2-Phenyl-3-benzo- hydryquinoline	-	-	Ident	House	JACS	76 (1954)	1235

C ₂₇ H ₂₀ O ₂	2,2,4,4-Tetraphenyl-oxetanone	-	-	Group freq, Band freq Struct	Hoey Murr	JACS JACS	77 (1955) 77 (1955)	391 4450
C ₂₇ H ₂₁ C1N ₂ O ₄	α -p-Nitrobenzoyl oxy- β -(1-benzyl-2-pyridyl)-styrene chloride	-	S	Group freq	Baker	JOC	20 (1955)	118
C ₂₇ H ₂₁ N ₃ O ₅ S ₂	N-(1',4'-Dibenzene sulfonyl-amido-2'-naphthyl)-2-pyridone	-	-	Group freq	Adams	JACS	76 (1954)	702
C ₂₇ H ₂₂	9,9-Dibenzylfluorene	700-1400	Sol	Spec	Scherf	CJC	38 (1960)	697
C ₂₇ H ₂₂ C1NO ₂ ·H ₂ O	α -Benzoyl oxy- β -(1-benzyl-2-pyridyl)-styrene chloride hydrate	-	-	Group freq	Baker	JOC	20 (1955)	118
C ₂₇ H ₂₂ N ₂ O ₄ S ₂	Cyclopentadiene-1,4-naphthoquinone dibenzene-sulfonimide adduct	-	-	Group freq	Adams	JACS	74 (1952)	2593
C ₂₇ H ₂₂ N ₂ O ₆ S ₂	1,4-Naphthoquinonedibenzene-sulfonimido-2-acetylactone	-	-	Group indic	Adams	JACS	74 (1952)	5557
C ₂₇ H ₂₂ O ⁰	cis-1,1,2,3-Tetr phenyl-2-propen-1-ol	-	-	Group freq, Struct	Lutz	JACS	77 (1955)	366
C ₂₇ H ₂₂ O ⁰	1,2,3,3-Tetr phenyl-2-propen-1-ol	-	-	Group freq	Lutz	JACS	77 (1955)	366
C ₂₇ H ₂₂ O ⁰	α -Tolyl tri ty 1 ketone	-	-	Group freq	Fusion	JACS	77 (1955)	1138
C ₂₇ H ₂₂ O ₂	p-Anisyl tri ty 1 ketone	-	-	Group freq	Fusion	JACS	77 (1955)	1138
C ₂₇ H ₂₂ O ₂	α -Hydroxy-sym-tetraphenylacetone	-	S	Group freq	Dean	JACS	76 (1954)	4988
C ₂₇ H ₂₂ O ₂	2,2,4,4-Tetr phenylloxetanol	-	S, Sol	Group freq, Band freq	Hoey	JACS	77 (1955)	391
C ₂₇ H ₂₂ O ₂ S	9-(9-Benzylfluorenyl)-p-tolyl sulfone	1100-1400	Sol	Spec, Freq	Bavin	SA	16 (1960)	1312
C ₂₇ H ₂₃ N ₃ O ₂	3,6-Dimethyl-3,6-methano-4-nitro-7-oxo-1,2,5-triphenylcyclohexene	2-15 μ	S	Struct	Allen	JOC	20 (1955)	306

1672

$C_{27}H_{24}$	1,1,1,3-Tetraphenylpropane	-	Sol	Group freq	Pinchasi	JCS	- (1954)	863
$C_{27}H_{24}N_2O_2$	1,2-Dimethyl-3-(1-phenyl-2-phthalimidopropyl)indole	-	S	Freq	Noland	JACS	81 (1959)	1203
$C_{27}H_{24}N_2O_4S_2$	1,4-Dihydro-2-methyl-9,10-anthracene dibenzene-sulfonamide	-	-	Group freq	Adams	JACS	74 (1952)	2593
$C_{27}H_{24}N_2O_4S_2$	1,4,4a,9a-Tetrahydro-2-methyl-9,10-anthracene dibenzene sulfonamide	-	-	Group freq	Adams	JACS	74 (1952)	2593
$C_{27}H_{24}N_2O_6S_2$	1,4-Naphthalene dibenzene-sulfonamido-2-acetylacetone	-	-	Group indic	Adams	JACS	74 (1952)	5557
$C_{27}H_{24}N_4O_{12}$	10-(trans-1,2-Dimethoxy-carbonylviny1)-acridinium ethoxide picrate	-	S	Ident	Acheson	JCS	- (1954)	3240
$C_{27}H_{24}O$	Mesityl 1-benzyl-2-naphthyl ketone	-	-	Grignard react-prod	Fusion	JOC	16 (1951)	643
$C_{27}H_{24}O$	Mesityl 1-p-tolyl-2-naphthyl ketone	-	-	Grignard react-prod	Fusion	JOC	16 (1951)	643
$C_{27}H_{25}N_5O_4$	2-Phenyl- N,N' -bis(4-carboethoxyphenyl)-4,6-diamino-s-triazine	2-15 μ	S	Assign	Reimschuessel	JACS	82 (1960)	3756
$C_{27}H_{26}OSi$	Triphenylsilylpropyl phenyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_{27}H_{26}Si$	Tri-p-tolylphenylsilane	-	-	Purity Group freq	Brook Margoshes	JACS AC	76 (1954) 27 (1955)	2333 351
$C_{27}H_{27}NO$	cis-1-Cyclohexyl-2-phenyl-3-(p-phenylbenzoyl)ethylenimine	1122-3070 650-4000	S, Sol	Table, Freq, I Group freq, I	Cromwell Cromwell	JOC JACS	17 (1952) 75 (1953)	414 6252

$C_{27}H_{30}NO$	trans-1-Cyclohexyl-2-phenyl-3-(p-phenylbenzoyl)ethylenimine	1125-2070 650-4000	S,Sol	Table, Freq, I Group freq, I	Cromwell Cromwell	JOC JACS	17 (1952) 75 (1953)	414 6252
$C_{27}H_{27}N_3O_6$	1,3,5-Tris-p-methoxybenzylperhydro-s-triazine	-	-	Struc, Ident, Group freq	Emmons	JACS	74 (1952)	5524
$C_{27}H_{28}O$	α -Benzal- δ -phenyl-valeromesitylene	-	-	Group freq	Fusion	JOC	18 (1953)	1263
$C_{27}H_{29}NO$	1-Methyl-3-(3,3-diphenyl-2-propenyl)-4-phenyl-4-hydroxypiperidine	-	-	Group freq	McElvain	JACS	76 (1954)	5625
$C_{27}H_{29}NO.HCl$	1-Methyl-3-(3,3-diphenyl-2-propenyl)-4-phenylhydrochloride	-	-	Group freq	McElvain	JACS	76 (1954)	5625
$C_{27}H_{30}$	Cycloheptacosa-1,3,10,12,19,21-hexayne	3-15 μ	S	Spec	Wolovsky	JACS	81 (1959)	4600
$C_{27}H_{30}NB$	Trimethylammonium-tetraphenylborate	-	S	H bond, Band freq	Muttall	JCS	- (1960)	4965
$C_{27}H_{30}N_2O_2$	Benzoyldeacetyl-aspidospermine	-	-	Group freq, I, Struc	Witkop	JACS	76 (1954)	5603
$C_{27}H_{30}O_2$	α -Hydroxybenzyl- δ -phenyl-valeromesitylene	-	-	Group freq	Fusion	JOC	18 (1953)	1263
$C_{27}H_{30}O_16$	Rutin	1550-4000 - L	S Freq	Group freq, H bond	Hergert Inglett	JACS JOC	75 (1953) 23 (1958)	1622 93
$C_{27}H_{31}N_3O_5$	Haplophytine	800-3500 - -	Sol Ident Band freq	Spec, Band freq	Rogers Snyder Snyder	JACS JACS JACS	74 (1952) 76 (1954) 76 (1954)	1987 2819 4601
$C_{27}H_{32}N_2O$	Benzyldeacetylaspidospermine	-	-	Group freq, I, Struc	Witkop	JACS	76 (1954)	5603

C ₂₇ H ₃₂ N ₂ O ₆ S ₂	N-Ethyl-N'-carbethoxy-methyl-N,N'-dibenzene-sulfonyldiamino-mesitylene	650-3900	-	Spec	Adams	JACS	70 (1948)	4204
C ₂₇ H ₃₂ N ₄ O ₁	2',4'-Dicarbethoxy-3-(3',4'-dimethoxyphenyl)-5-methylcyclohexanone 2,4-dinitrophenylhydrazone	-	Sol	Group freq	Walker	JACS	77 (1955)	3664
C ₂₇ H ₃₂ N ₄ O ₁₁	2,4'-Dicarbethoxy-3-(3',4'-dimethoxyphenyl)-5-hydroxy-5-methylcyclohexanone 2,4-dinitrophenylhydrazone	-	Sol	Group freq	Walker	JACS	77 (1955)	3664
C ₂₇ H ₃₂ N ₈ O ₁₄	(d,-l,-or dl-) sparteine dipicrate	650-3500	S,Sol	Spec	Leonard	JACS	72 (1950)	1316
C ₂₇ H ₃₂ O ₃	1,5-Diduryl-1,3-pentadien-1-ol-5-one acetate	-	S	Band & Group freq	Fuson	JACS	75 (1953)	5402
C ₂₇ H ₃₂ O ₁₄	Naringin	-	L	Freq	Inglett	JOC	23 (1958)	93
C ₂₇ H ₃₃ BrO ₁₆	Tetraacetylasperuloside bromometholide	800-1773	S	Table, I	Briggs	JCS	- (1954;	4182
C ₂₇ H ₃₃ NO ₃	2,2',2"-Trihydroxy-3,3',3",5,5',5"-hexamethyltribenzylamine	-	-	Spec, Freq, Assign	Ignonin	DANS	121 (1958)	652
C ₂₇ H ₃₃ N ₃ O ₅	Dihydronaplophytine	-	-	Band freq	Snyder	JACS	76 (1954)	2819
C ₂₇ H ₃₄ N ₄ O ₆	Testosterone acetate 2,4-dinitrophenylhydrazone	-	-	Ident	Beereboom	JACS	75 (1953)	3500
C ₂₇ H ₃₄ OSi	Triphenylsilylheptyl ethyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826

C ₂₇ H ₃₄ OSi	Triphenylsilyl octyl methyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
C ₂₇ H ₃₄ OSi	Triphenylsilylpentyl butyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
C ₂₇ H ₃₄ O ₃	2,4b-Dimethyl-2-methallyl-1,2,3,4,4aQ,4b,5,6,7,8,10, 10a β -dodecahydrophenanthrene -7 β -ol-1-one benzoate	-	S	Band freq	Sarett	JACS	75 (1953)	2112
C ₂₇ H ₃₄ O ₆	$\Delta^{5,7}$ -Pregnadien-3 β -ol-20-one acetate maleic anhydride adduct	670-3700	S	Spec, Ident, Struct	Antonucci	JOC	16 (1951)	1356
C ₂₇ H ₃₄ O ₈	3,5-Pregnadiene-3,21,21-triol-11,20-dione triacetate	-	S	Group freq, Ident	Gould	JACS	75 (1953)	3593
C ₂₇ H ₃₄ O ₉	Δ^4 -Pregnene-2 α ,17 α ,21-triol-3,11,20-trione triacetate	-	Sol	Band freq	Rosenkrantz	JACS	77 (1955)	145
C ₂₇ H ₃₄ Si	Tri- γ -propylphenyl-silane	2-16 μ	Sol	Freq	Kniseley	SA	15 (1959)	651
C ₂₇ H ₃₅ NO ₃	1,14-Dimethyl-2-ke-to-3-methylanilinomethylene -6,7-dihydroxy- $\Delta^{1(11)}$ -dodecahydro-phenanthrene acetonide	2-12 μ	Sol	Spec	Woodward	JACS	74 (1952)	4223
C ₂₇ H ₃₆ O ₃	$\Delta^{1,4,6}$ -22-isopirostatrien-3-one	-	-	Band freq	Yashin	JACS	73 (1951)	4654
C ₂₇ H ₃₆ O ₃	$\Delta^{4,6,8}$ -22-isopirosta-3-trien-3-one	-	-	Band freq	Yashin	JACS	73 (1951)	4654
C ₂₇ H ₃₆ O ₃	$\Delta^{4,7,9(11)}$ -22-isopirostatrien-3-one	-	-	Band freq	Yashin	JACS	73 (1951)	4654

$C_{27}H_{36}O_4$	dl-17-Furfurylidene-D-homoepandrosterone acetate	-	-	Ident	Johnson	JACS	75 (1953)	2275
$C_{27}H_{36}O_4$	22a-Spirosta-4,8-diene- β ,11-dione	-	Sol	Group freq	Djerassi	JCS	- (1954)	2346
$C_{27}H_{36}O_5$	7 α ,8 α -9 α -Diépoxy- $\Delta^{4,6}$ -22a- α -spirost-4-en- β -one	-	Sol	Band freq	Djerassi	JCS	- (1954)	2346
$C_{27}H_{36}O_5$	9 α ,11 α -Epoxy- $\Delta^{4,6}$ -22a-spirostadien-8 ξ -ol-3-one	-	Sol	Band freq	Lemin	JACS	76 (1954)	5672
$C_{27}H_{36}O_5$	$\Delta^8(9)$ -22-Isoallospirost- β ,7,11-trione	-	Sol	Freq, Band study	Djerassi	JACS	74 (1952)	1712
$C_{27}H_{36}O_6$	3 β ,16-Diacetoxyl $\Delta^{14(15),20(22)}$ -cardadien-oxide	1000-1900	Sol	Spec, Freq	Jones	JACS	81 (1959)	5242
$C_{27}H_{36}O_6$	$\Delta^{5,9(11),16}$ -Pregnatrien- α -21-ol, β ,20-dione-21-acetate, β ,20-bis-ethylene ketal	-	S	Band freq, Group freq	Allen	JACS	77 (1955)	1028
$C_{27}H_{36}O_7$	Δ^5 -Pregnadien-21-ol- β ,11,20-trione 21-acetate β ,20-bisethylene ketal	-	S	Band freq	Allen	JACS	77 (1955)	1028
$C_{27}H_{36}O_7$	$\Delta^{5,7,9(11)}$ -Pregnatriene- α -17 α ,21-diol- β ,20-dione-21-acetate β ,20-bisethylene ketal	-	S	Band freq	Antonacci	JACS	76 (1954)	2956
$C_{27}H_{37}BrO_4$	Δ^4 -23-Bromo-22a-spirostene- β ,12-dione	-	Sol	Band freq	Djerassi	JACS	75 (1953)	4885
$C_{27}H_{37}ClO_2$	3-Chloro- $\Delta^{3,5,7}$ -22-isospirostatriene	-	-	Group indic, Struct	Dauben	JACS	75 (1953)	3255

					Spec		Bernstein	JOC	16 (1951)	679
C ₂₇ H ₃₈ N ₀ S ₂ O ₄	Dehydroisoandrostenylisothiuronium p-toluene-sulfonate	670-3700	S							
C ₂₇ H ₃₈ ⁰	Neoergosterone	720-1630	Sol S,Sol	Group freq Band freq			Moesttig Scheer	JOC JACS	17 (1952) 77 (1955)	764 3500
C ₂₇ H ₃₈ ⁰ ₃	Δ ^{4,7} -22-isopriosta-diene-3-one	-	-	Band freq			Yashin	JACS	73 (1951)	4654
C ₂₇ H ₃₈ ⁰ ₃	Δ ^{7,9(11)} -22-isopriostadien-3-one	-	-	Band freq			Yashin	JACS	73 (1951)	4654
C ₂₇ H ₃₈ ⁰ ₄	Δ ⁴ -22a-Spirostane-3,6-dione	-	S	Band freq			Romo	JOC	19 (1954)	1509
C ₂₇ H ₃₈ ⁰ ₄	Δ ⁴ -22a-Spirostane-3,12-dione	-	-	Group freq			Djerassi	JACS	75 (1953)	4885
C ₂₇ H ₃₈ ⁰ ₄	Δ ⁸ -22a-Spirostane-3,11-dione	-	-	Band freq			Lemin	JACS	76 (1954)	5672
C ₂₇ H ₃₈ ⁰ ₄	Δ ⁸ -22a,5β-Spirostene-3,11-dione	-	Sol	Band freq			Lemin	JACS	76 (1954)	5672
C ₂₇ H ₃₈ ⁰ ₅	3β-Acetoxy-16,17-cyclopropano-16αq-carbethoxy-5-pregn-20-one	-	-	Group freq			Mueller	JACS	76 (1954)	3686
C ₂₇ H ₃₈ ⁰ ₅	Anhydrohecogenoinic acid	-	S	Band freq			James	JCS	- (1955)	637
C ₂₇ H ₃₈ ⁰ ₅	7β,8β,9α,11α-Diepoxy-22a,5β-spirostan-2-one	-	Sol	Band freq			Lemin	JACS	76 (1954)	5672
C ₂₇ H ₃₈ ⁰ ₅	9α,11α-Epoxy-3-oxo-22a-spirost-7-en-5αol	-	Sol	Band freq			Djerassi	JCS	- (1954)	2346

$C_{27}H_{38}O_5$	$\Delta^{8(9)}\text{-}22\text{-Isoallospirosten-}5\text{,7-dione-}11\alpha\text{-ol}$	-	S	Band freq, Group freq	Djerassi	JACS	74 (1952)	1712
$C_{27}H_{38}O_5$	$9\alpha,11\alpha\text{-Oxido-}22\text{-isoallo-spirostan-}3\text{,7-dione}$	-	S	Freq, Group band	Djerassi	JACS	74 (1952)	1712
$C_{27}H_{38}O_6$	$\Delta^{16,20}\text{-Allopregnadiene-}3\beta,6\beta,20\text{-triol triacetate}$	-	Sol	Band freq	Romo	JACS	76 (1954)	5169
$C_{27}H_{38}O_6$	$7\alpha,8\alpha,9\alpha,11\alpha\text{-Di-epoxy-}5\alpha\text{-hydroxy-}22\alpha\text{-spirostan-}3\text{-one}$	-	Sol	Band freq	Djerassi	JCS	- (1954)	2346
$C_{27}H_{38}O_6$	$\Delta^{5,16}\text{-Pregnadien-}21\text{-ol-}3\text{,20-dione-}2\text{-acetate}$ $\text{3,20-bisethylene ketal}$	-	S	Band & Group freq	Allen	JACS	77 (1955)	1028
$C_{27}H_{38}O_7$	$16\alpha\text{-Ethoxy-}\Delta^5\text{-pregnen-}2\text{,}3\beta\text{-diol-}12\text{,}20\text{-dione diacetate}$	-	-	Group indic	Moore	JACS	74 (1952)	6287
$C_{27}H_{38}O_7$	$\Delta^{4,7}\text{-Pregnadiene-}17\alpha,21\text{-diol-}3\text{,20-dione 21-acetate 3,20 bisethylene ketal}$	-	S	Band freq	Antonacci	JACS	76 (1954)	2956
$C_{27}H_{38}O_7$	$\Delta^{5,7}\text{-Pregnadiene-}17\alpha,21\text{-diol-}3\text{,20-dione 21-acetate 3,20-bisethylene ketal}$	-	S	Band freq	Antonacci	JACS	76 (1954)	2956
$C_{27}H_{38}O_7$	$\Delta^{5,9(11)}\text{-Pregnadiene-}17\alpha,21\text{-diol-}3\text{,20-dione 21-acetate 3,20-bisethylene ketal}$	-	S	Group freq	Bernstein	JACS	75 (1953)	4830
$C_{27}H_{38}O_8$	$9(11)\alpha,17(20)\alpha\text{-Di-epoxy-}5\alpha\text{-pregnane-}3\text{,}11\text{,}20\text{-triol-}3\text{,}11\text{,}20\text{-triacetate}$	-	-	Group freq	Chamberlin	JACS	77 (1955)	1221

Δ^5 -Pregnene-17 α ,21-diol- 3,11,20-trione- β ,20- diethylene ketal-21- acetate	$C_{27}H_{38}O_8$	-	S	Group freq Ident	Antonucci Allen	JOC JACS	18 (1953) 76 (1954)	70 6116
$\beta\alpha$ 17 α ,21-Triacetoxy- pregnane-11,20-dione	$C_{27}H_{38}O_8$	-	-	Ident	Soloway	JACS	75 (1953)	5442
$\beta\alpha$ -Succinooxy-7 α -acetoxy -12-ketotiocholanic acid methyl ester	$C_{27}H_{38}O_9$	1700	Sol	Absorp freq, Struct, Anal Group freq	Jones	JACS	71 (1949)	241
$\beta\alpha$ -Succinooxy-12 α -acetoxy -7-ketotiocholanic acid methyl ester	$C_{27}H_{38}O_9$	1700	Sol	Absorp freq, Struct, Anal	Jones	JACS	72 (1950)	956
β -Quahagenin diacetate	$C_{27}H_{38}O_{10}$	2-16 μ	-	Spec	Djerassi	JOC	19 (1954)	1351
Methyl-1-oxo- $\beta\beta$, 19-triacetoxy-5,14- dihydroxy-14 β -etianate	$C_{27}H_{38}O_{11}$	-	-	Struc	Florey	JOC	19 (1954)	1174
β -D-Galactopyranosyl -(1 \rightarrow 4)-D-altropyranose -1,2-(methyl orthoacetate) hexaacetate	$C_{27}H_{38}O_{18}$	2-15 μ	S	Spec	Tipson	JRNB	62 (1959)	257
β -D-Glucopyranosyl -(1 \rightarrow 4)-D-mannopyranose 1,2-(methyl orthoacetate) hexaacetate	$C_{27}H_{38}O_{18}$	2-15 μ	S	Spec	Tipson	JRNB	62 (1959)	257
$C_{27}H_{39}BrN_2O_7S$	S-(Heptaacetyl- β -D- celllobiosyl)thiuronium bromide	8-15 μ	S	Spec	Boumer	JACS	73 (1951)	2241
$C_{27}H_{39}IO_3$	6-Iodo- Δ^4 -22 α ,25 α , spirosten- β -one	-	Sol	Freq	Djerassi	JACS	77 (1955)	3826
$C_{27}H_{39}NO_2$	Veratramine	-	Sol	Anal Spec	Papineau Tamm	AC JACS	24 (1952) 74 (1952)	1918 3842
$C_{27}H_{39}NO_3$	Jervine	1500-3700	S,Sol Sol	Group freq, Spec Anal	Marion Papineau	JACS AC	73 (1951) 24 (1952)	305 1918
		-						1679

C ₂₇ H ₄₀	-	Sol	Group band Spec	intensity	Hiskey Hirschmann	JACS JACS	75 (1953) 76 (1954)	5135 4013
Anthracholesta-tetraene	2-16 μ	Sol	Ident Spec, Band freq		Nes Scheer	JACS JACS	76 (1954) 77 (1955)	3182 3300
C ₂₇ H ₄₀ Br ₂ O ₄	11 α ,2 β -Dibromo-5 α ,22a-spirostan- β -ol-12-one	700-1400	Sol	Group freq, Assign	Dickson	JCS	- (1955)	447
C ₂₇ H ₄₀ N ₂ O ₈	Methyl 3 α -acetoxy-7,11-dinitro- Δ^8 -choleinate	726-3620	Sol	Band freq	Anagnostopoulos	JACS	76 (1954)	532
C ₂₇ H ₄₀ O ⁰	Cholesta-1,3,5-trien-7-one	650-900	Sol	Spec	Henbest	JCS	- (1957)	997
C ₂₇ H ₄₀ O ⁰	Cholesta-1,4,6-trien-7-one	650-900	Sol	Spec	Henbest	JCS	- (1957)	997
C ₂₇ H ₄₀ O ⁰	2,6-Diisobornyl-4-methyl phenol	3 μ	Sol	H bond	Sears	JACS	71 (1949)	4110
C ₂₇ H ₄₀ O ⁰	Epineoergosterol	720-1630	S,Sol	Band freq	Scheer	JACS	77 (1955)	3300
C ₂₇ H ₄₀ O ⁰	7-keto- $\Delta^3,5,8(9)-$ cholestatriene	-	S	Band freq	Tsuda	JACS	77 (1955)	665
C ₂₇ H ₄₀ O ⁰	Neoergosterol	720-1630	S,Sol	Group freq Band freq	Moestig Scheer	JOC JACS	17 (1952) 77 (1955)	764 3300
C ₂₇ H ₄₀ O ₃	Δ^4 -Diosgenone	-	Sol	Ident	Djerassi	JACS	77 (1955)	3826
C ₂₇ H ₄₀ O ₃	$\Delta^{8(9)}-22$ -Isopirosten- Δ^3 -one	-	Sol	Band freq	Djerassi	JACS	74 (1952)	422
C ₂₇ H ₄₀ O ₃	Δ^4 -Sarsasapogenone- β	890-1340	Sol	Group freq, I	Jones	JACS	75 (1953).	158
C ₂₇ H ₄₀ O ₃	Δ^7-22 a-spirosten- β -one	-	Sol	Group freq	Velasco	JOC	18 (1953)	92
C ₂₇ H ₄₀ O ₄	Hecogenone	-	-	Ident Ident Group freq	Rothman Wendlers Elks	JACS JACS JCS	74 (1952) 74 (1952) - (1954)	4013 4894 1739

β -Hydroxy-22a-spirost-5-en-12-one	Δ^4 -22a-spirosten- β -one	2.5-3.5/ μ	Sol	Group study	Kabasakalian	AC	31 (1959)	375
δ -Hydroxy- Δ^4 -22a-spirosten- β -one	-	Sol	Band freq, Group study	Romo	JOC	19 (1954)	1509	
Δ^8 -22a-5 α -14-Iso(β)-spirosten- β -ol-11-one	-	Sol	Band freq	Djerassi	JACS	75 (1953)	3496	
Δ^{13} (17a)-22a,5 α -C-Nor/D-homospirosten- β -ol-11-one	2-16/ μ	Sol	Spec	Hirschmann	JACS	76 (1954)	4013	
Δ^{22a} -Spirosta- $\Delta^7,9(11)$ -diene- β ,5 α -diol	-	Sol	Group freq	Djerassi	JCS	- (1955)	2346	
$\Delta^{22a,5\alpha}$ -Spirostane- β ,6-dione	-	Sol	Band freq	Romo	JOC	19 (1954)	1509	
$\Delta^{22a,5\alpha}$ -Spirostane- β ,11-dione	-	Sol	Band freq	Djerassi	JACS	74 (1952)	1712	
$\Delta^{22a,5\beta}$ -Spirostane- β ,11-dione	-	Sol	Band freq	Djerassi	JACS	76 (1954)	5533	
$\Delta^{22a,5\alpha}$ -Spirostane- β ,11-dione	-	Sol	Band freq	Lemin	JACS	76 (1954)	5672	
$\Delta^{22a,5\alpha}$ -Spirostane- β ,12-dione	-	-	Ident	Djerassi	JACS	75 (1953)	4885	
$\Delta^{22a,5\beta}$ -Spirostane- β ,12-dione	-	-	Ident, Band freq	Djerassi	JACS	75 (1953)	4885	
Δ^8 -22a,5 α -Spirosten- β -ol-7-one	-	Sol	Group freq, Band freq	Mancera	JACS	75 (1953)	4428	
Δ^8 -22a, β -Spirosten-3 α -ol-7-one	-	S	Group freq, Band freq	Rosenkrantz	JACS	75 (1953)	4430	
Δ^8 -22a,5 α -Spirosten- β -ol-11-one	-	Sol	Group freq	Djerassi	JACS	75 (1953)	3496	

$C_{27}H_{40}O_4$	$\Delta^{9(11)}-22\alpha,5\beta$ -Spirosten - β -ol-12-one	-	Sol	Band freq, Ident	So dheimer	JACS 75 (1953) 5930
$C_{27}H_{40}O_5$	$\Delta^{9(11)}-3\alpha$ -Acetoxyl-12-keto- cholenic acid methyl ester	1700	Sol	Struct, Freq	Jones	JACS 71 (1949) 241
$C_{27}H_{40}O_5$	β -Dehydrohecololactone	-	Sol	Group freq	Rothman	JACS 76 (1954) 527
$C_{27}H_{40}O_5$	9,11-Dehydromannogenin	-	-	Group freq	Ricciuti	JACS 74 (1952) 4461
$C_{27}H_{40}O_5$	$7\beta,8\beta,9\alpha,11\alpha$ -Diepoxy- 22a, β -spirostan-3 β -ol	-	Sol	Absence of C=O band	Lemin	JACS 76 (1954) 5672
$C_{27}H_{40}O_5$	$9\alpha,11\alpha$ -Epoxy-22a, β -spi- rostan-8 β -ol-3-one	-	Sol	Group freq	Lemin	JACS 76 (1954) 5672
$C_{27}H_{40}O_5$	$9\alpha,11\alpha$ -Epoxy-22a- spirost-7-ene-3 β ,5 α -diol	-	Sol	Band freq	Djerassi	JCS - (1954) 2346
$C_{27}H_{40}O_5$	$\Delta^{8(9)}-22$ -Isoallolospirostan β ,11 α -diol-7-one	-	S	Group freq	Djerassi	JACS 74 (1952) 1712
$C_{27}H_{40}O_5$	Kamnogenin	-	-	Group freq	Ricciuti	JACS 74 (1952) 4461
$C_{27}H_{40}O_5$	Methyl β -acetoxyl-11-keto- $\Delta^{8(9)}$ -cholenate	-	-	Band freq	Heymann	JACS 73 (1951) 5252
$C_{27}H_{40}O_5$	Methyl- β -acetoxyl-11-keto- $\Delta^{8(9)}$ -cholenate	-	-	Band freq	Heymann	JACS 73 (1951) 5252
$C_{27}H_{40}O_5$	22a,5 α -Spirostan- β -ol- 7,11-dione	-	Sol	Ident	Mancera	JACS 75 (1953) 4426
$C_{27}H_{40}O_5$	22a,5 α -Spirostan- β -ol- 11,12-dione	-	Sol	Band freq	Djerassi	JACS 76 (1954) 5533
$C_{27}H_{40}O_5$	$\Delta^{9(11)}-22a,5$ -Spirostene- β , 11-diol-12-one	-	Sol	Band freq	Djerassi	JACS 76 (1954) 5533

C ₂₇ H ₄₀ ⁰ ₆	7 α ,8 α ,9 α ,11 α -Diepoxy-22a-spirostan-3 β ,5 α -diol	-	Sol	Band freq	Djerassi	JCS	-	(1954)	2346
C ₂₇ H ₄₀ ⁰ ₆	Hecogenoic acid	-	S	Band freq	James	JCS	-	(1955)	637
C ₂₇ H ₄₀ ⁰ ₆	Methyl 3 α -acetoxy-11,12-diketocholanate	-	Sol	Group freq	Archer	JACS	76	(1954)	4915
C ₂₇ H ₄₀ ⁰ ₆	Methyl Δ^8 -3 α -acetoxy-7-keto-11 α -hydroxy-cholenate	-	S	Free, Free OH band	Djerassi	JACS	74	(1952)	3321
C ₂₇ H ₄₀ ⁰ ₆	Δ^5 -Pregn-21-ol-3 β ,20-dione 21-acetate 3,20-bisethylene ketone	-	S	Band freq	Bernstein	JACS	77	(1955)	2233
C ₂₇ H ₄₀ ⁰ ₆	Δ^5 -Pregnenetriol-3 β ,16 α ,20 β -triacetate	8-14 μ 2.5-15 μ	- Sol -	Freq, Band freq Spec, Band freq Ident.	Hirschmann Hirschmann Hirschmann	JACS JACS JOC	74 74 20	{1952} {1952} (1955)	539 5357 572
C ₂₇ H ₄₀ ⁰ ₆	Δ^5 -Pregnenetriol-3 β ,20,21-triacetate	-	Sol	Group freq	Jones	JACS	72	(1950)	956
C ₂₇ H ₄₀ ⁰ ₆	$\Delta^{17(20)}$ -Pregnene-3 α ,12 α ,20-triol triacetate	-	Sol Sol	Group freq, Struct Band freq, Struct	Jones Vanderhaeghe	JACS JACS	74 74	{1952} {1952}	2820 2810
C ₂₇ H ₄₀ ⁰ ₆	$\Delta^{17(20)}$ -Pregnentriol-3 β ,11 β ,20-triacetate	-	Sol	Band freq, Struct	Jones	JACS	74	(1952)	2820
C ₂₇ H ₄₀ ⁰ ₆	$\Delta^{17(20)}$ -Pregnentriol-3 β ,12 β ,20-triacetate	-	-	Assign	Jones	JACS	70	(1948)	2024
C ₂₇ H ₄₀ ⁰ ₆	$\Delta^{20(21)}$ -Pregnene-3 α ,12 α ,20-triol triacetate	-	Sol	Group freq, Group spec, Struct	Vanderhaeghe	JACS	74	(1952)	2810
C ₂₇ H ₄₀ ⁰ ₆	3 β ,16 α ,20 α -Triacetoxysterane- Δ^5 -pregnene	2.5-15 μ	Sol -	Spec, Band freq Ident.	Hirschmann Hirschmann	JACS JOC	74 20	{1952} (1955)	5357 572
C ₂₇ H ₄₀ ⁰ ₇	Allopregnane-3 β ,6 β ,21-triol-20-one triacetate	-	Sol	Band freq	Romo	JACS	76	(1954)	5169

C ₂₇ H ₄₀ O ⁷	Allopregnane- β ,7,11 α -triol-20-one triacetate	-	Sol	Band freq	Djerassi	JACS	75 (1953)	3505
C ₂₇ H ₄₀ O ⁷	Allopregnane- β ,11 α ,21-triol-20-one triacetate	-	Sol	Freq	Sondheimer	JACS	75 (1953)	2601
C ₂₇ H ₄₀ O ⁷	Δ^7 -Allopregnene-17 α ,21-diol- β ,20-dione 21-acetate 3,20-bisethylene ketal	-	S	Band freq	Antonucci	JACS	76 (1954)	2956
C ₂₇ H ₄₀ O ⁷	Digitogenic acid	-	Sol	Band freq	Klass	JACS	77 (1955)	3829
C ₂₇ H ₄₀ O ⁷	Pregnane- β , α ,11 α ,21-triol-20-one triacetate	-	Sol	Band freq	Sondheimer	JACS	75 (1953)	2601
C ₂₇ H ₄₀ O ⁷	Pregnane- β , α ,11 β ,17 α -triol-20-one triacetate	-	-	Group study	Oliveto	JACS	75 (1953)	5486
C ₂₇ H ₄₀ O ⁷	Δ^5 -Pregnene-17 α ,21-diol- β ,20-dione 21-acetate 3,20-bisethylene ketal	-	S	Band freq	Antonucci	JACS	76 (1954)	2956
C ₂₇ H ₄₀ O ⁸	Allopregnane- β ,11 α ,17 α ,21-tetrol-20-one-3,11,21-triacetate	-	-	Band freq, Free OH indic	Romo	JACS	75 (1953)	1277
C ₂₇ H ₄₀ O ⁸	Allopregnane- β ,17 α ,20 β ,21-tetrol-11-one-3,20,-21-triacetate	770-3700	S	Freq, I	Rosenkranz	JACS	77 (1955)	2237
C ₂₇ H ₄₀ O ⁸	Δ^5 -Pregnene-11 β ,17 α ,21-triol- β ,20-dione-21-acetate-3,20-bis-ethylene ketal	-	S	Group freq Ident	Bernstein Allen	JACS JACS	75 (1953) 76 (1954)	4830 6116
C ₂₇ H ₄₀ O ⁸	Pregnane- β ,17 α ,20 β ,21-tetrol-11-one 3,20,21-triacetate	770-3700	-	Ident Freq, I	Solloway Rosenkranz	JACS JACS	76 (1954) 77 (1955)	2941 2237
C ₂₇ H ₄₀ O ⁸	3 α ,7 α ,12 α -Triacetoxymethylcholanic acid ¹	-	Sol	Group freq	Jones	JACS	72 (1950)	956

C ₂₇ H ₄₀ O ₈	3 α ,20 β ,21-Triacetoxyl-17 α -hydroxypregnane-11-one	-	-	Ident	Schneider	JACS	77 (1955)	4184
C ₂₇ H ₄₀ O ₈	3 β ,6 β ,17 α -Triacetoxyl-pregnane-5 α -ol-20-one	-	Sol	Group freq	Amendolla	JCS	- (1954)	1226
C ₂₇ H ₄₀ O ₉	Pregnane-11 β ,17 α ,21-triol-3 β ,20-dione-5 α ,6 α -oxide-21-acetate-3,20-bis-ethylene ketal	-	S	Band freq	Bernstein	JACS	77 (1955)	2233
C ₂₇ H ₄₀ O ₉	Pregnane-11 β ,17 α ,21-tetrol-3 β ,20-dione-5 β ,6 β -oxide-21-acetate-3,20-bis-ethylene ketal	-	S	Band freq	Bernstein	JACS	77 (1955)	2233
C ₂₇ H ₄₀ O ₉	3 α -Succinoyl-7 α -ace toxy-12 α -hydroxyethylcholic acid, methyl ester	-	Sol	Group freq	Jones	JACS	72 (1950)	956
C ₂₇ H ₄₀ O ₁₁	Methyl 3 β , ⁽¹¹⁾ ,19-triacetoxyl-1 β ,5,14-trihydroxy-14 β -etianate	-	-	Ident	Flory	JOC	19 (1954)	1174
C ₂₇ H ₄₁ BrO ₃	22a,25a,4-Bromospirostan-3 β -one	-	Sol	Group freq	Djerassi	JACS	77 (1955)	4291
C ₂₇ H ₄₁ BrO ₃	23-Bromo-22a,5 α -spirostan-3 β -one	-	Sol	Band freq Group freq	Herran Djerassi	JACS	76 (1954) 77 (1955)	5531 4291
C ₂₇ H ₄₁ BrO ₄	23 β -Bromo-11 β ,12 β -epoxy-5 α ,22a-spirostan-3 β -ol	732-3620	S	Group & Band freq Group freq, Assign	Cornforth Dickson	JCS	- (1954) - (1955)	907 447
C ₂₇ H ₄₁ BrO ₄	23a-Bromo-3 β -hydroxy-5 α ,22a-spirostan-12-one	-	S,Sol	Group freq, Assign	Dickson	JCS	- (1955)	447
C ₂₇ H ₄₁ BrO ₅	23a-Bromo-3 β ,12 β -dihydroxy-5 α ,22a-spirostan-11-one	724-3620	S	Group freq, Assign	Dickson	JCS	- (1955)	447
C ₂₇ H ₄₁ BrO ₅	4-Bromo-3-ke to-12-acetoxy-cholic acid methyl ester	-	Sol	Group freq	Jones	JACS	72 (1950)	956

$C_{27}H_{41}BrO_5$	11α -Bromo-12-keto- β -acetoxycholanic acid methyl ester	1500-1800	Sol	Group freq, Spec	Jones	JACS	74 (1952)	2828
$C_{27}H_{41}BrO_5$	11β -Bromo-12-keto- β -acetoxycholanic acid methyl ester	1500-1800	Sol	Group freq, Spec	Jones	JACS	74 (1952)	2828
$C_{27}H_{41}Br_3O$	$2\alpha,2\beta,6\beta$ -Tribromo- Δ^4 -cholestren- β -one	-	-	C=O shift	Fieser	JACS	77 (1955)	3305
$C_{27}H_{41}NO_3$	Dihydrojervine	-	S,Sol	Band freq	Winterstetter	JACS	76 (1954)	5609
$C_{27}H_{41}NO_7$	Digitogenic acid oxime	-	Sol	Band freq	Klass	JACS	77 (1955)	3829
$C_{27}H_{41}NO_8$	Cevinilic acid δ -lactone	-	Sol	Group freq	Kupchan	JACS	77 (1955)	683
$C_{27}H_{42}$	Anthracholestatriene	-	Sol	Band freq, Spec	Scheer	JACS	77 (1955)	3300
$C_{27}H_{42}$	Cholesta-1,4-dien- β -one	400-4000	Sol	Spec, Config, Absorp band, Extinction coeff	Cummins	JOS	- (1957)	3847
$C_{27}H_{42}$	Neoergostatriene	720-1630	S,Sol	Band freq	Scheer	JACS	77 (1955)	3300
$C_{27}H_{42}D_4O$	Cholestanone- β -d ₄ -2,4	1350-1500	Sol	Spec, Table, Freq	Jones	JACS	74 (1952)	5662
$C_{27}H_{42}Br_2O$	$2\alpha,6\beta$ -Dibromo- Δ^4 -cholestren- β -one	-	-	Group freq shift	Fieser	JACS	77 (1955)	3305
$C_{27}H_{42}Br_4O$	$2\alpha,2\beta,5\alpha,6\beta$ -Tetra-bromocholestan- β -one	-	-	Group freq shift	Fieser	JACS	77 (1955)	3305
$C_{27}H_{42}N_2O_9$	Methyl $3\alpha,11$ -dihydroxy-9-nitrocholanate- β -acetate 11-nitrate	-	Sol	Band freq	Anagnostopoulos	JACS	76 (1954)	532
$C_{27}H_{42}O$	$\Delta^{1,4}$ -Cholestanone- β	1580-3100 - 1616-1716	Sol Sol Sol	Group study, I Group freq Band study	Jones Jones Jones	JACS JACS JACS	72 (1950) 72 (1950) 74 (1952)	86 956 80
		670-1390	Sol	Group study, II Group freq Band study	Jones Jones Jones	JACS JACS JACS	72 (1950) 72 (1950) 74 (1952)	86 956 80

C ₂₇ H ₄₂ ⁰	670-1390 -	Sol S,Sol Sol	Spec, Table Group freq Substitution, Spec	Jones Tarpley Cummins	JACS APS JCS	77 (1955) 9 (1955) - (1957)	651 69 3847	
C ₂₇ H ₄₂ ⁰	Δ ^{2,4} -Cholestadiene-6-one	-	Band freq	Reich	JOC	16 (1951)	1753	
C ₂₇ H ₄₂ ⁰	Δ ^{3,5} -Cholestadien-2-one	-	Sol	Conca	JOC	18 (1953)	1104	
C ₂₇ H ₄₂ ⁰	Δ ^{3,5} -Cholestadienone-7	1700	Sol	Absorp freq, Struct, Anal	JACS	71 (1949)	241	
C ₂₇ H ₄₂ ⁰	1580-3100 650-900	Sol	Group study	Jones	JACS	72 (1950)	86	
		Sol	Spec	Jones Henbest Morcll's	JCS	- (1957)	997	
		-	IR discussed	Jones Henbest Morcll's	ARS	(1957)	145	
C ₂₇ H ₄₂ ⁰	Δ ^{4,6} -Cholestadienone-3	-	Assign	Jones	JACS	70 (1948)	2024	
	1580-3100 1616-1716	Sol	Group position, I	Jones	JACS	72 (1950)	86	
	-	Sol	Band study	Jones	JACS	74 (1952)	80	
	700-1390 400-4000	Sol	Table, Group freq	Jones	JACS	74 (1952)	5648	
	600-900	Sol	Spec, Table	Jones	JACS	77 (1955)	651	
			Spec, Config, Band	Jones Cummins	JCS	- (1957)	3847	
			study, Extinction					
			coeff.					
			Spec	Henbest	JCS	- (1957)	997	
C ₂₇ H ₄₂ ⁰	Δ ^{7,14} -Cholestadiene-3-one	-	Band freq	Fieser	JACS	75 (1953)	4404	
C ₂₇ H ₄₂ ⁰	Dihydroepineorgosterol	720-1630	S,Sol	Band freq	Scheer	JACS	77 (1955)	3300
C ₂₇ H ₄₂ ⁰	Dihydreneorgosterol	700-1400	S,Sol	Spec, Band freq	Scheer	JACS	77 (1955)	3300
C ₂₇ H ₄₂ ⁰	Δ ^{1,3,5(10)-1-Methyl-17-(1-methylheptyl)-estratrienol-3}	1650-1800	Sol	Group study, Band study	Jones	JACS	72 (1950)	956
C ₂₇ H ₄₂ ⁰	Δ ⁴ -Cholestene-3,6-dione	-	Group freq, Ident	Amendolla	JCS	- (1954)	1226	
C ₂₇ H ₄₂ ⁰	Δ ⁴ -Cholestene-3,24-dione	-	Band freq	Ercoli	JACS	75 (1953)	3284	
C ₂₇ H ₄₂ ⁰	20α,Δ ⁵ ,3-Deoxydiogenin	2750-3100	Sol	Spec, C-H freq	Smith	AC	31 (1959)	1539

$C_{27}H_{42}^0$	20- Δ^5 -3-deoxyamogenin	3100-2750	Sol	Spec	Smith	AC	31 (1959)	1539
$C_{27}H_{42}^0$	Δ^2 -22-isocallospirostene	-	-	No C=O absorpt	Wendler	JACS	74 (1952)	4894
$C_{27}H_{42}^0$	Δ^4 -22a,25a-spirosten	-	Sol	Ident	Djerassi	JACS	77 (1955)	4291
$C_{27}H_{42}^0$	Δ^7 -Cholestene-3,6-dione-5-ol	-	Sol	Band freq	Fieser	JACS	75 (1953)	4377
$C_{27}H_{42}^0$	Cyclo- β -diosgenin	788-3620	S, Sol	Table, Group freq, Ident	Callow	JCS	- (1955)	1966
$C_{27}H_{42}^0$	$\Delta^9(11)$ -Dehydrotigogenin	-	-	Group indic, Freq	Hirschmann	JACS	75 (1953)	3252
$C_{27}H_{42}^0$	20 α -3-Deoxy hecogenin	2750-3100	Sol	Spec	Smith	AC	31 (1959)	1539
$C_{27}H_{42}^0$	Diosgenin	890-1500	Sol	Spec, Table, Group freq, I	Jones	JACS	75 (1953)	158
$C_{27}H_{42}^0$	β -Hydroxy-C-nor-D-homo-5 α ,22a-spirost-17a-ene	-	-	Ident Band freq, Config Comparison	Sato Ziegler Ziegler	JACS	75 (1953)	6067
$C_{27}H_{42}^0$	$\beta\beta$ -Hydroxy-C-nor-D-homo-5 α ,22a-spirost-17a-ene	-	S	Group freq	Elks	JACS	76 (1954)	3865
$C_{27}H_{42}^0$	$\beta\beta$ -Hydroxy-C-nor-D-homo-5 α ,22a-spirost-17a-ene	-	S	Group freq	Elks	JACS	77 (1955)	1223
$C_{27}H_{42}^0$	$\beta\beta$ -Hydroxy-5 α ,22a-spirost-11-ene	-	S	Group freq	Elks	JCS	- (1954)	1739
$C_{27}H_{42}^0$	20-Isosmilagenone	-	S	Group freq	Elks	JCS	- (1954)	1739
$C_{27}H_{42}^0$	22-Isospirostan-3-one	-	-	Compar	Wall	JACS	77 (1955)	1230
$C_{27}H_{42}^0$	$\Delta^{8(9)}$ -22-Isospirosten-3 α -ol	-	Sol	Band freq	Djerassi	JACS	74 (1952)	422
$C_{27}H_{42}^0$	β -Keto-20-isosarsasapogenone	-	-	Free OH band, No carbonyl bond	Djerassi	JACS	74 (1952)	422
$C_{27}H_{42}^0$			-	Group freq, Struct	Wall	JACS	77 (1955)	1230

C ₂₇ H ₄₂ ⁰ ₃	Neodiosgenin	-	-	Band freq, Band freq	Config	Ziegler Ziegler	JACS JACS	76 (1954) 77 (1955)	3865 1223
C ₂₇ H ₄₂ ⁰ ₃	8 α ,9 α -Oxidocholestane- β , 7-dione	-	Sol	Band freq	Fieser	Fieser	JACS	75 (1953)	4719
C ₂₇ H ₄₂ ⁰ ₃	8 α ,14 α -Oxidocholestane- β , 7-dione	-	Sol	Band freq	Fieser	Fieser	JACS	75 (1953)	4719
Pseudodiogenin		660-5000	Sol	Spec, Group freq Band freq, Config.		Hayden Ziegler	AC JACS	26 (1954) 76 (1954)	550 3865
Sarsasapogenone- β		-	-				JACS	75 (1953)	158
C ₂₇ H ₄₂ ⁰ ₃	Sarsasapogenone- β	890-1340	Sol	Spec, Table, Group freq	Jones	Kabasakalian	AC	31 (1959)	375
C ₂₇ H ₄₂ ⁰ ₃	22a-Spirost-5-en-3 β -ol	2.5-3.5 μ	Sol	Group study			JACS JACS	72 (1950) 75 (1953)	956 158
C ₂₇ H ₄₂ ⁰ ₃	Tigogenone- β	890-1500	Sol	Group freq, Spec, Table, Group freq, I	Jones Jones I	Jones Jones Jones	JACS JACS JACS	75 (1953) 77 (1955)	158
C ₂₇ H ₄₂ ⁰ ₃	Yamogenin	890-1500	Sol	Spec, Group freq, I	Jones Wall	Jones Jones	JACS JACS	75 (1953) 77 (1955)	158 3086
C ₂₇ H ₄₂ ⁰ ₄	$\Delta^{9(11)}$ -3 α -Acetoxycholenic acid, methyl ester	1580-3100	Sol	-	Assign	Jones Jones Jones	JACS JACS JACS	70 (1948) 72 (1950) 72 (1950)	2024 86 956
C ₂₇ H ₄₂ ⁰ ₄	Δ^5 -3 β -Acetoxycholenic acid, methyl ester	1580-3100	Sol	Group study	Jones Jones Hirschmann Jones	Jones Jones Hirschmann Jones	JACS JACS JACS JACS	72 (1950) 72 (1950) 74 (1952) 78 (1956)	86 956 5357 1152
C ₂₇ H ₄₂ ⁰ ₄		-	Sol	Group freq					
C ₂₇ H ₄₂ ⁰ ₄		2.5-15 μ	S, Sol	Spec, Band freq					
C ₂₇ H ₄₂ ⁰ ₄		700-1400	Sol	Band study, Ident					
C ₂₇ H ₄₂ ⁰ ₄	Δ^{11} -3 α -Acetoxycholenic acid, methyl ester	1580-3100	Sol	Group study	Jones Jones Hirschmann Henbest	Jones Jones Hirschmann Henbest	JACS JACS JACS JCS	72 (1950) 72 (1950) 74 (1952) -	86 956 5357 800
C ₂₇ H ₄₂ ⁰ ₄	Δ^{11} -3 β -Acetoxycholenic acid, methyl ester	1580-3100	Sol	Group study	Jones Jones	Jones Jones	JACS JACS	72 (1950) 72 (1950)	86 956
C ₂₇ H ₄₂ ⁰ ₄	Cyclo- γ -hecogenin	785-3620	Sol	Table, Group freq	Callow	Callow	JCS	- (1955)	1966

$C_{27}H_{42}O_4$	Cyclo- μ -sisalagenin	868-3620	S, Sol	Table, Group freq	Callow	JCS	- (1955)	1966
$C_{27}H_{42}O_4$	13 β -Hydroxy-12,13-seco-5 α ,22a-spirostan-12-oic acid 12,13-lactone	-	Sol	Group & Band freq, I	Rothman	JACS	76 (1954)	527
$C_{27}H_{42}O_4$	12 α -Hydroxy-5 α ,22a-spirostan-3 β -one	-	Sol	Group freq	Elks	JCS	- (1954)	1739
$C_{27}H_{42}O_4$	22-Isoallospirostan-3 β -ol-11-one	-	Sol	Freq, OH free bond Ident Band freq, Ident	Djerassi Sondheimer Djerassi	JACS	74 (1952)	1712
$C_{27}H_{42}O_4$	11-Ketoneotigogenin	-	Sol	Band freq	Ziegler	JACS	74 (1952)	2696
$C_{27}H_{42}O_4$	Neohecogenin	-	Sol	Band freq	Ziegler	JACS	76 (1954)	5533
$C_{27}H_{42}O_4$	11-Oxocyclo- ψ -tigogenin	784-3620	S, Sol	Table, Group freq, Iso	Callow	JCS	- (1955)	1223
$C_{27}H_{42}O_4$	11-Oxopseudotigogenin	-	S, Sol	Group freq, Ident	Dickson	JCS	- (1955)	1966
$C_{27}H_{42}O_4$	Pennogenin	890-1340	Sol	Spec, Table, Group freq, I	Jones	JACS	77 (1955)	443
$C_{27}H_{42}O_4$	Pseudohecogenin	660-5000	S, Sol	Spec, Group freq Band freq	Hayden Callow	AC JCS	26 (1954)	550
$C_{27}H_{42}O_4$	Pseudosisalagenin	-	S	Comparison, Freq	Callow	JCS	- (1955)	1671
$C_{27}H_{42}O_4$	6,7-Secocoprostan-3 β -one-6,7-dioic acid anhydride	-	Sol	Band freq	Fieser	JACS	75 (1953)	4386
$C_{27}H_{42}O_4$	Sisalagenin	-	S	Band study	Callow	JCS	- (1955)	1671
$C_{27}H_{42}O_4$	22a,5 β -Spirostan-3 β -ol-7-one	-	Sol	Group freq, Band freq	Mancera	JACS	75 (1953)	4428
$C_{27}H_{42}O_4$	22a,5 α -Spirostan-3 β -ol-11-one	-	Sol	Band freq, Tree OH indic	Sondheimer	JACS	75 (1953)	1282
$C_{27}H_{42}O_4$	22a,5 α -Iso(α)-spirostan-3 β -ol-11-one	-	-	Ring conformation	Djerassi	JACS	75 (1953)	3496

C ₂₇ H ₄₂ O ₄	22a, ⁵ -14-Iso(β)-spirostan- β -ol-11-one	-	Sol	Band freq	Djerassi	JACS	75 (1953)	3496
C ₂₇ H ₄₂ O ₄	22a, ^{5\alpha} -Iso(α), ¹⁴ -iso(β)-spirostan- β -ol-11-one	-	Sol	Band freq	Djerassi	JACS	75 (1953)	3496
C ₂₇ H ₄₂ O ₄	22a, ^{5\beta} -Spirostan- β -ol-11-one	-	Sol	Band freq	Lemin	JACS	76 (1954)	5672
C ₂₇ H ₄₂ O ₄	22a, ^{5\alpha} -Spirostan- β -ol-12-one	-	-	Group freq Table, Group freq	Kuder Ricciuti	JACS	74 (1952)	3201
		-	-	Ident	Djerassi	JACS	74 (1952)	4461
		-	S,Sol	Group freq	Turner	JACS	75 (1953)	4885
		-	-	Band study	Hirschmann	JACS	75 (1953)	4362
		-	S	Ident, Freq	Callow	JACS	76 (1954)	4013
		-	-	Ident, Freq	Callow	JCS	- (1955)	1671
C ₂₇ H ₄₂ O ₄	22a, ^{5\beta} -Spirostan- β -ol-12-one	-	-	Group freq	Djerassi	JACS	75 (1955)	1966
C ₂₇ H ₄₂ O ₄	22a-Spirost-5-ene-1 β , β -diol	2.5-3.5 μ	Sol	Group study	Kabasakalian	AC	31 (1959)	375
C ₂₇ H ₄₂ O ₄	Δ ⁴ -22a-Spirostan- β , β -diol	-	S	Free OH	Romo	JOC	19 (1954)	1509
C ₂₇ H ₄₂ O ₅	β -Acetoxyl-11 α ,21 α epoxycholanic acid, methyl ester	-	Sol	Group freq	Jones	JACS	72 (1950)	956
C ₂₇ H ₄₂ O ₅	β ,13 β -Dihydroxy-12,13- secospirostan-12-oic acid-12,13-lactone	-	Sol	Group & Band freq	Rothman	JACS	76 (1954)	527
C ₂₇ H ₄₂ O ₅	β -Hydroxy-5 α ,22a-C-norspirostan-11-oic acid	-	S,Sol	Group & Band freq	Wendler	JACS	77 (1955)	1632
C ₂₇ H ₄₂ O ₅	Isocallospirostan-2 α , β -diol-12-one	-	-	Group freq Band freq	Krider Ricciuti	JACS	74 (1952)	3201
		-	-			JACS	74 (1952)	4461

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$C_{27}H_{42}O_5$	22-Isocallolospirostan- $\beta,11\alpha$ -diol-7-one	-	Sol	Group freq, Free OH band	Djerassi	JACS	74 (1952)	1712
$C_{27}H_{42}O_5$	22-Isocallolospirostan- $\beta,12$ -diol-11-one	-	-	Struct, Assign, Group freq	Djerassi	JOC	16 (1951)	303
$C_{27}H_{42}O_5$	22a,5 α -14-Isospirostane- 2 $\alpha,3\beta$ -diol-15-one	-	Sol	Band freq	Klass	JACS	77 (1955)	3829
$C_{27}H_{42}O_5$	6-Keto- β -acetoxy- allocholanic acid methyl ester	-	Sol	Group freq	Jones	JACS	72 (1950)	956
$C_{27}H_{42}O_5$	6-Keto- β -acetoxycholanic acid, methyl ester	-	Sol	Group freq	Jones	JACS	72 (1950)	956
$C_{27}H_{42}O_5$	6-Keto-12-acetoxycholanic acid, methyl ester	-	Sol	Group freq	Jones	JACS	72 (1950)	956
$C_{27}H_{42}O_5$	11-Ketorockogenin	-	-	Ident Ident	Rosenfeld Wendler	JACS JACS	77 (1955) 77 (1955)	4367 1632
$C_{27}H_{42}O_5$	20 α -Manogenin acetate	2750-3100	Sol	Spec, Freq	Smith	AC	31 (1959)	1539
$C_{27}H_{42}O_5$	20 β -Manogenin acetate	2750-3100	Sol	Spec, Freq	Smith	AC	31 (1959)	1539
$C_{27}H_{42}O_5$	Methyl β -acetoxy-11- ketocholanate	1712	Sol	Absorp freq, Struct Band freq	Jones Anagnostopoulos Archer Rosenfeld	JACS JACS JACS JACS	71 (1949) 76 (1954) 76 (1954) 77 (1955)	241 532 4915 4367
$C_{27}H_{42}O_5$	Methyl- β -acetoxy-12- ketocholanate	1700	Sol	Absorp freq, Struct, Anal	Jones Rosenfeld	JACS JACS	71 (1949) 77 (1955)	241 4367
$C_{27}H_{42}O_5$	Methyl- β -acetoxy-8,9- oxidocholanate	-	-	Freq	Heymann	JACS	73 (1951)	5252
$C_{27}H_{42}O_5$	Methyl- β -acetoxy-9 $\beta,11\beta$ - oxidocholanate	-	-	Ester carbonyl absorb	Constantin	JACS	74 (1952)	3908
$C_{27}H_{42}O_5$	6,7-Seco- Δ^4 -cholest α - one-6,7-dioic acid	-	Sol	Group freq, Band freq	Fieser	JACS	75 (1953)	4386

C ₂₇ H ₄₂ O ₅	22a-Spirostan-5 α ,6 β -diol - β -one	-	S	Band freq, Free OH indic	Sondheimer	JACS	76 (1954)	5020
C ₂₇ H ₄₂ O ₅	22a,25a-Spirostan-2 β , 3 β -diol-12-one	-	Sol	Freq	Djerassi	JACS	77 (1955)	4291
C ₂₇ H ₄₂ O ₆	Allopregnane-3 β ,11 α ,29 β - triol triacetate	-	Sol	Freq	Stock	JACS	73 (1951)	5546
C ₂₇ H ₄₂ O ₆	Allopregnane triol-3 α , 16,20-triacetate	-	Sol	Group freq Band study	Jones Jones	JACS	72 (1950) 74 (1952)	956 80
C ₂₇ H ₄₂ O ₆	Allopregnane triol-3 α , 16 α ,29 β -triacetate	8-13 μ	-	Absorp max, Band freq	Hirschmann	JACS	74 (1952)	539
C ₂₇ H ₄₂ O ₆	Allopregnane triol-3 β ,16 α , 29 β -triacetate	2.5-15 μ	-	Ident Spec., Band freq	Hirschmann Hirschmann	JACS	74 (1952) 74 (1952)	539 5357
C ₂₇ H ₄₂ O ₆	Allopregnane-3 β ,29 β ,21- triol-3,20,21-triacetate	770-3700	Sol	Freq, I	Rosenkrantz	JACS	77 (1955)	2257
C ₂₇ H ₄₂ O ₆	Methyl-3 α -acetoxy-9 α - hydroxy-11-ketocholanate	-	Sol	Band freq	Heymann	JACS	73 (1951)	5252
C ₂₇ H ₄₂ O ₆	Methyl-3 β -acetoxy-9 α - hydroxy-11-ketocholanate	-	-	Freq	Heymann	JACS	73 (1951)	5252
C ₂₇ H ₄₂ O ₆	Methyl-3 α -acetoxy-12 β - hydroxy-11-ketocholanate	-	Sol	Group freq	Archer	JACS	76 (1954)	4915
C ₂₇ H ₄₂ O ₆	Pregnane triol-3 α ,12 α ,29 β - triacetate	-	Sol	Table, Group freq	Jones	JACS	74 (1952)	5648
C ₂₇ H ₄₂ O ₆	Pregnane triol-3 α ,16,20- triacetate	-	Sol	Group freq	Jones	JACS	72 (1950)	956
C ₂₇ H ₄₂ O ₆	22a,5 α -2,3-Secospirostane- 2, β -dioic acid	-	Sol	Band freq, Ident	Herran	JACS	76 (1954)	5531
C ₂₇ H ₄₂ O ₆	2, β -Seco-22b-spirostane- 2, β -dioic acid	800-1400	Sol	Spec	Wall	JACS	75 (1953)	4437
C ₂₇ H ₄₂ O ₆	3 β ,16 α ,20 α -Triacetoxyl- allopregnane	2.5-15 μ	Sol	Spec, Band freq, Group study	Hirschmann	JACS	74 (1952)	5357
					1693			

C ₂₇ H ₄₂ O ₇	All pregnane- β , 17 α , 20 β , 21-tetrol 3,20,21-triacetate	770-3700	Sol	Freq, I	Rosenkrantz	JACS	77 (1955)	2237
C ₂₇ H ₄₂ O ₇	Pregnane-5 α , 21-diol-3,20-dione-21-acetate 3,20-bisethylene ketal	-	S	Band freq	Bernstein	JACS	77 (1955)	2233
C ₂₇ H ₄₂ O ₈	Allo pregnane- β , 11 β , 17 α , 20 β , 21-pento ₁ 3,20,21-triacetate	770-3700	S	Freq, I	Rosenkrantz	JACS	77 (1955)	2237
C ₂₇ H ₄₂ O ₉	Pregnane-5 α , 11 β , 17 α , 21-tetrol-3,20-dione-21-acetate-3,20-bisethylene ketal	-	S	Band freq	Bernstein	JACS	77 (1955)	2233
C ₂₇ H ₄₃ BrO	Δ^1 -2-Bromocholestenone - β	-	Sol	Group freq	Jones	JACS	72 (1950)	956
C ₂₇ H ₄₃ BrO	Δ^2 -2-Bromocholestenone - β	1641-1741 -	Sol Sol	Band study Table, Freq	Jones Jones	JACS JACS	74 (1952) 74 (1952)	80 5648
C ₂₇ H ₄₃ BrO	2 α -Bromocholest-1-en- β -one	400-4000	Sol	α -Halogen substitution spec	Cummins	JCS	- (1957)	3847
C ₂₇ H ₄₃ BrO	2 α -Bromo- Δ^4 -cholesten- β -one	400-4000	-	Freq shift Substitution effect, Spec	Fieser Cummins	JACS JCS	77 (1955) - (1957)	3305 3847
C ₂₇ H ₄₃ BrO	4 α -Bromocholest-1-en- β -one	400-4000	Sol	Substitution effect	Cummins	JCS	- (1957)	3847
C ₂₇ H ₄₃ BrO	6 α -Bromocholest-4-en- β -one	-	Sol, S	Substitution effect, Freq Spec, Config. Extinction coeff	Bird Cummins	JCS	- (1956) - (1957)	3675 3847
C ₂₇ H ₄₃ BrO	6 β -Bromocholest-4-en- β -one	-	S, Sol	Freq, Substitution effect	Bird	JCS	- (1956)	3675
		400-4000	Sol	Spec, Config., Extinction coeff.	Cummins	JCS	- (1957)	3847

$C_{27}H_{43}Br_3^0$	$2\alpha,5\alpha,6\beta$ -Tribromo-cholestane- β -one	-	-	Freq shift	Fieser	JACS	77 (1955)	3305
$C_{27}H_{43}Br_3^0$	$2\beta,5\alpha,6\beta$ -Tribromo-cholestane- β -one	-	-	Freq shift	Fieser	JACS	77 (1955)	3305
$C_{27}H_{43}Br_3^0$	$4\alpha,5\alpha,6\beta$ -Tribromo-cholestaneone- β	-	-	Group freq	Corey	JACS	76 (1954)	175
$C_{27}H_{43}Br_3^0$	$4\beta,5\alpha,6\beta$ -Tribromo-cholestaneone- β	-	-	Group freq	Corey	JACS	76 (1954)	175
$C_{27}H_{43}Cl_{10}$	Δ^1 -2-Chlorocholestene- β -one	-	Sol	Band freq	Beereboom	JOC	19 (1954)	1196
$C_{27}H_{43}Cl_{10}$	Δ^4 -2 α -Chlorocholestene- β -one	-	Sol Sol	Band freq Substitution effect	Beereboom Cummins	JOC JCS	19 (1954) - (1957)	1196 3847
$C_{27}H_{43}Cl_{10}$	6β -Chloro- Δ^4 -cholestene- β -one	-	-	Ident	Ginsburg	JACS	75 (1953)	5489
$C_{27}H_{43}NO$	Pseudosolanidine	2-14.5 μ	S	Spec	Pelletier	JACS	75 (1953)	4442
$C_{27}H_{43}NO$	Solanidine	2-14.5 μ	-	Ident Spec	Pelletier Pelletier	JACS JACS	74 (1952) 75 (1953)	4218 4442
$C_{27}H_{43}NO_2$	Isorubijervine	-	Sol	Anal	Papineau Pelletier Riols	AC JACS JACS	24 (1952) 74 (1952) 75 (1953)	1918 4218 2133
$C_{27}H_{43}NO_2 \cdot H_2O$	Rubijervine hydrate	-	Sol	Anal, for ester conc. in mixture	Papineau	AC	24 (1952)	1918
$C_{27}H_{43}NO_2$	Solasodine	-	-	Ident Ident	Uhle Uhle	JACS JACS	75 (1953) 76 (1954)	2280 4245
$C_{27}H_{43}NO_3$	Tetrahydrojeridine	-	S	Band freq	Wintersteiner	JACS	76 (1954)	5609
$C_{27}H_{43}NO_7$	Pseudozygadenine	2-13 μ	Sol	Spec	Kupchan	JACS	75 (1953)	1025
$C_{27}H_{43}NO_7$	Zygadenine	2-13 μ	Sol	Ident, Spec	Kupchan	JACS	75 (1953)	1025
$C_{27}H_{43}NO_8$	Cevine	1500-3700	S, Sol	Group freq, Spec no C=O band	Marion Marion	JACS JACS	73 (1951) 74 (1952)	305 270
		-	-	1695				

		-	Ident	Barton	JCS	-	(1953)	424	
		2-13 μ	Sol	Kupchan	JACS	75	(1953)	5519	
		2-14.5 μ	S	Pelletier	JACS	75	(1953)	3248	
C ₂₇ H ₄₃ NO ₈	Germine	3-14 μ	S	Freq, Struct	JACS	74	(1952)	3041	
		-	S	Ident	JACS	75	(1953)	1025	
		2-14.5 μ	S	Spec	JACS	75	(1953)	3248	
		-	S	Ident	JACS	76	(1954)	5545	
		-	-	Ident	JACS	77	(1955)	3348	
C ₂₇ H ₄₃ NO ₈	Isogermine	2-14 μ	S	Freq, Struct	Fried	74	(1952)	3041	
		2-14.5 μ	S	Spec	Pelletier	JACS	75	(1953)	3248
C ₂₇ H ₄₃ NO ₈	Pseudogermine	2-14.5 μ	S	Spec	Pelletier	JACS	75	(1953)	3248
C ₂₇ H ₄₃ NO ₈	Protocevine	2-13 μ	Sol	Spec, Ident	Kupchan	JACS	75	(1953)	5519
C ₂₇ H ₄₃ NO ₈	Veracevine	2-14.5 μ	S	Spec	Pelletier	JACS	75	(1953)	3248
C ₂₇ H ₄₃ NO ₈	Isoveracevine	-	-	Group freq, Struct	Barton	JCS	-	(1953)	424
		-	S	Group freq, Ident	Kupchan	JACS	75	(1953)	5519
		2-14.5 μ	S	Spec	Pelletier	JACS	75	(1953)	3248
C ₂₇ H ₄₃ NO ₉	Protoverine	2-13 μ	S	Spec	Klohs	JACS	74	(1952)	5107
		2-14.5 μ	S	Spec, Group freq	Pelletier	JACS	75	(1953)	3248
C ₂₇ H ₄₃ NO ₉	Isoprotoverine	-	-	Band study	Myers	JACS	74	(1952)	3198
		-	S	Group indic	Pelletier	JACS	75	(1953)	3248
C ₂₇ H ₄₄	$\Delta^{2,4}$ -Cholestadiene	1650-1800	Sol	Group study	Jones	JACS	72	(1950)	956
		2-5-15 μ	Sol	Spec, Band freq	Hirschmann	JACS	74	(1952)	5357
C ₂₇ H ₄₄	$\Delta^{2,5}$ -Cholestadiene	3-40-7.25 μ	Sol	Table, no OH band	Tsou	JACS	76	(1954)	6108
C ₂₇ H ₄₄	$\Delta^{2,6}$ -Cholestadiene	650-3100	Sol	Band freq, I	Henbest	JCS	-	(1954)	800
C ₂₇ H ₄₄	$\Delta^{3,5}$ -Cholestadiene	2-9 μ	-	Spec, Group freq	O'Connor	JACS	74	(1952)	5454
		650-900	Sol	Spec	Henbest	JCS	-	(1957)	997
C ₂₇ H ₄₄ D ₂ O	Cholestanone-7-d ₂ -6	1300-1500	Sol	Spec, Group freq	Jones	JACS	74	(1952)	5662

C ₂₇ H ₄₄ BrClO	2 α -Chloro-2 β -bromo-cholestane-3-one	-	Sol	Band freq Spec, Extinction coeff, Config.	Beereboom Cummins	JOC JCS	19 (1954) - (1957)	1196 3847
C ₂₇ H ₄₄ BrClO	2 α -Chloro-4 α -bromo-cholestane-3-one	-	Sol	Band freq Spec, Config, Extinction coeff.	Beereboom Cummins	JOC JCS	19 (1954) - (1957)	1196 3847
C ₂₇ H ₄₄ Br ₂ O	2 α -Iodo-4 α -bromo-cholestane-3-one	400-4000	Sol	Substitution effect, Spec	Cummins	JCS	-	(1957) 3847
C ₂₇ H ₄₄ Br ₂ O	2,2-Dibromocholestanone-3	1685-1785	Sol	Group freq Band study	Jones	JACS	72 (1950) 74 (1952)	956 80
	-	-	Sol	Group freq	Jones	JACS	74 (1952)	2828
	-	-	Sol	Table, Group freq	Jones	JACS	74 (1952)	5648
	-	400-4000	Sol	Spec, Config, Extinction coeff	Cummins	JCS	- (1957)	3847
C ₂₇ H ₄₄ Br ₂ O	2,4-Dibromocholestanone-3	1706-1806	Sol	Group freq Band study	Jones	JACS	72 (1950) 74 (1952)	956 80
	-	-	Sol	Group freq	Jones	JACS	74 (1952)	2828
C ₂₇ H ₄₄ Br ₂ O	2 α ,4 α -Dibromo-cholestane-3-one	400-4000	-	Freq, Shift Spec, Config, Extinction coeff	Cookson Cummins	JCS JCS	- (1954) - (1957)	282 3847
C ₂₇ H ₄₄ Br ₂ O	5 α ,6 β -Dibromo-cholestane-3	-	-	Group freq	Corey	JACS	76 (1954)	175
C ₂₇ H ₄₄ Br ₂ O	2,4-Dibromocoprostanone-3	-	Sol	Group freq, Substitution effect	Jones	JACS	74 (1952)	2828
C ₂₇ H ₄₄ Cl ₂ O	2,2-Dichlorocholestan-3-one	-	Sol	Band freq Band freq	Beereboom Beereboom	JACS	75 (1953) 19 (1954)	3500 1196
	-	-	S	Ident	Fonken	JACS	77 (1955)	172
	-	400-4000	Sol	Spec, Config, Extinction coeff.	Cummins	JCS	- (1957)	3847
C ₂₇ H ₄₄ O	Δ ^{5,7} -Cholestadienol-3 β	-2-16 μ	Sol	Table, Group freq Spec, Group freq	Jones Johnson	JACS JACS	74 (1952) 75 (1953)	5648 52
C ₂₇ H ₄₄ O	Δ ^{6,8} -Cholestadienol-3 β	-	Sol	Table, Group freq	Jones	JACS	74 (1952)	5648

$C_{27}H_{44}^0$	Δ^1 -Cholestenone-3	1580-3100 - 744-1270 400-4000	Sol Sol Sol Sol	Group study Group freq Table Spec, Config. Extinction coeff.	Jones Jones Jones Cummins	JACS JACS JACS JCS	72 (1950) 72 (1950) 77 (1955) - (1957)	86 956 651 3847	
$C_{27}H_{44}^0$	Δ^2 -Cholesten-1-one	3-15/ μ 600-900	- Sol	Spec, Table, Spec	Striebel Henbest	HCA JCS	37 (1954) - (1957)	1094 997	
$C_{27}H_{44}^0$	Δ^4 -Cholestenone-3	1580-3100 3-13/ μ	- Sol S,Sol	Assign Group study Spec, Band freq, Struct	Jones Jones Josien	JACS JACS JACS	70 (1948) 72 (1950) 73 (1951)	2024 86 4445	
			- Sol - Sol - 674-1330 -	Band freq, Ident Group freq Ident Ident Table Freq, Substitution effect	Fieser Rubin Sondheimer Beereboom Jones Bird	JACS JACS JACS JOC JACS JCS	75 (1953) 75 (1953) 75 (1953) 19 (1954) 77 (1955) - (1956)	4377 3513 5930 1196 651 3675	
			400-4000 650-900 -	Spec, Config, Extinction coeff. Spec Spec	Cummins Henbest Morita	JCS JCS BCSJ	- (1957) - (1957) 31 (1956)	3847 997 379	
				- - - - 1671-1771 400-4000	Band freq Band study Spec,Config. Extinction coeff.	Reich Jones Cummins	JOC JACS JCS	16 (1951) 74 (1952) - (1957)	1753 80 3847
$C_{27}H_{44}^0$	Δ^4 -Cholestenone-6	-	-	Band freq	Reich	JOC	16 (1951)	1753	
$C_{27}H_{44}^0$	Δ^5 -Cholestenone-3	1671-1771 400-4000	Sol Sol	Band study Spec,Config. Extinction coeff.	Jones Cummins	JACS JCS	74 (1952) - (1957)	80 3847	
$C_{27}H_{44}^0$	Cholest-5-en-7-one	650-900	Sol	Spec	Henbest	JCS	- (1957)	997	
$C_{27}H_{44}^0$	$\Delta^{8:9}$ -Cholestenone-3	700-1000	Sol	Spec, Band freq	Bladon	JCS	- (1951)	2402	
$C_{27}H_{44}^0$	Δ^1 -Coprostan-3-one	-	Sol	Group freq	Rubin	JACS	75 (1953)	3513	
$C_{27}H_{44}^0$	Isocholestane-6-one	3-13/ μ	- S,Sol	Table, Group freq Band freq, Struct	Jones Josien	JACS JACS	74 (1952) 73 (1951)	5648 4445	

$C_{27}H_{44}O$	A-Nor-3 α ,3 β -bisnorlanost-8-en-3 β -one	2.5-15 μ	Sol	Struct	Cole	JCS	-	(1959)	1212
$C_{27}H_{44}O$	Vitamin D β	700-1500	-	Spec Table, Group freq Group freq	Jones Jones Milas	CJC JACS JACS	2 74 77	{1950} {1952} {1955}	94 5618 4180
$C_{27}H_{44}O_2$	Cholestanedione-3,7	-	Sol	Table, Freq	Jones	JACS	74	(1952)	5648
$C_{27}H_{44}O_2$	Δ^2 -Cholestenol-5 α -6-one	-	-	Band freq	Reich	JOC	16	(1951)	1753
$C_{27}H_{44}O_2$	Δ^3 -Cholesten-5 α -ol-2-one	600-900	Sol Sol	Group freq, Struct Spec	Conca Henbest	JOC JCS	18 -	{1953} (1957)	1104 997
$C_{27}H_{44}O_2$	Δ^4 -Cholesten-3 β -ol-6-one	-	S,Sol	Group freq	Turner	JACS	75	(1953)	4362
$C_{27}H_{44}O_2$	Δ^4 -Cholesten-4-ol-3 β -one	-	Sol	Band freq	Fieser	JACS	76	(1954)	1728
$C_{27}H_{44}O_2$	Δ^4 -Cholesten-6 α -ol-3-one	-	Sol	Band freq, Free OH	Sondheimer	JACS	75	(1953)	4712
$C_{27}H_{44}O_2$	Δ^4 -Cholesten-6 β -ol-3-one	-	Sol Sol Sol	Ident, Band freq Group freq Band freq, Free OH	Fieser Amendolla Romo	JACS JCS JOC	75 - 19	{1953} {1954} (1954)	4377 1226 1509
$C_{27}H_{44}O_2$	$\Delta^{8(14)}$ -Cholesten-3 β -ol-7-one	-	Sol	Band freq	Fieser	JACS	75	(1953)	4719
$C_{27}H_{44}O_2$	20 α ,3-Deoxysmilagenin	3100-2750	Sol	Spec	Smith	AC	31	(1959)	1539
$C_{27}H_{44}O_2$	20 α -3-Deoxy sarsa-sapogenin	2700-3100	Sol	Spec	Smith	AC	31	(1959)	1539
$C_{27}H_{44}O_2$	3-Desoxy sarsassapogenin	890-1590	Sol Sol	Table, Spec, I Anal, Ident	Jones Wall	JACS JACS	75 77	{1953} {1955}	158 3086
$C_{27}H_{44}O_2$	3-Desoxy-20-iso sarsa-sapogenin	-	-	No OH indic	Wall	JACS	77	(1955)	1230

$C_{27}H_{44}O_2$	β -Desoxypseudosarsasapogenin	-	Sol	Group freq, Struct	Wall	JACS	77 (1955)	1230
$C_{27}H_{44}O_2$	Deoxysmiliagenin	-	Sol	Anal, Ident	Wall	JACS	77 (1955)	3086
$C_{27}H_{44}O_2$	20 α - β -Desoxytigogenin	2700-3100	Sol	Spec	Smith	AC	31 (1959)	1539
$C_{27}H_{44}O_2$	β -Desoxytigogenin	890-1500	Sol	Spec, Table, Group freq, I	Jones	JACS	75 (1953)	158
$C_{27}H_{44}O_2$	-	-	Sol	Ident	Wall	JACS	77 (1955)	3086
$C_{27}H_{44}O_2$	-	-	Sol	Spec	Smith	AC	31 (1959)	1539
$C_{27}H_{44}O_2$	β -Desoxyneotigogenin	890-1500	Sol	Table, I	Jones	JACS	75 (1953)	158
$C_{27}H_{44}O_2$	2 α ,5 α -Epidioxy- Δ^2 -cholestane	650-3100	Sol	Band freq, I	Henbest	JCS	- (1954)	800
$C_{27}H_{44}O_2$	1,2 α -Epoxycholestan- β -one	β -15 μ	Sol	Spec, Freq, Table	Striebel	HCA	37 (1954)	1094
$C_{27}H_{44}O_2$	7-Ketocholesterol	-	S,Sol	Group freq	Turner	JACS	75 (1953)	4362
$C_{27}H_{44}O_2$	4 α ,5-Oxidocholestane-2-one	-	Sol	Group freq	Conca	JOC	18 (1953)	1104
$C_{27}H_{44}O_2$	22a,25a-Spirostane	-	Sol	Ident	Djerassi	JACS	77 (1955)	4291
$C_{27}H_{44}O_3$	Δ^4 -Cholestene-6/17-dicarboxylic acid anhydride	-	-	Group freq	Gates	JOC	20 (1955)	610
$C_{27}H_{44}O_3$	Cyclo- Ψ -sarsasapogenin	869-3620	S,Sol	Table, Group freq	Callow	JCS	- (1955)	1966
$C_{27}H_{44}O_3$	20 α - β -Deoxyrockogenin	3100-2750	Sol	Spec	Smith	AC	31 (1959)	1539
$C_{27}H_{44}O_3$	β -Episarsasapogenin	890-3500	Sol	Spec, Table, I, Group freq	Jones	JACS	75 (1953)	158
$C_{27}H_{44}O_3$	Ketone 104	$\bar{5}-13\mu$	Sol	Band freq	Fieser	JACS	75 (1953)	4395
$C_{27}H_{44}O_3$			Sol	Spec, Band freq, Group freq	Fieser	JACS	75 (1953)	4418

$C_{27}H_{44}O_3$	$\delta\alpha, 14\alpha$ -Oxidocholestane- β -ol-7-one	-	Sol	Band freq	Fleiser	JACS	75 (1953)	4719
$C_{27}H_{44}O_3$	Sarsasapogenin	890-1340	Sol	Table, I Spec, Iso Ident	Jones Wall Scheer	JACS 76 (1954) 77 (1955)	158 2850 641	
$C_{27}H_{44}O_3$	-	-	Sol	Band freq	Ziegler	JACS 77 (1955)	3086	
$C_{27}H_{44}O_3$	-	-	Sol	Band freq, I IR discussed	Morcillo	JACS 53B (1957)	1223 145	
$C_{27}H_{44}O_3$	β -Hydroxy-(25-27)-trisnorlanast-8-en-24-oic acid	15000-3700	Sol	Freq	Cole	JCS	- (1959)	2005
$C_{27}H_{44}O_3$	20-Isosarsasapogenin	2.5-15 μ	Sol	Spec	Wall	JACS	77 (1955)	1230
$C_{27}H_{44}O_3$	Neosarsasapogenin	700-1400	Sol	Spec, Band freq	Ziegler	JACS	77 (1955)	1223
$C_{27}H_{44}O_3$	Pseudosarsasapogenin	800-5000	Sol	Spec, Group freq	Hayden	AC JACS 77 (1954) 77 (1955)	550 641	
$C_{27}H_{44}O_3$	-	Sol	Group freq	Scheer	JACS 77 (1955)	1230		
$C_{27}H_{44}O_3$	2.5-15 μ	Sol	Spec	Wall	JACS 77 (1955)	1223		
$C_{27}H_{44}O_3$	Smilagenin	-	-	Spec, Iso Ident	Wall Callow Djerassi	JACS 76 (1954) 76 (1955) 77 (1955)	2850 1671 4291	
$C_{27}H_{44}O_3$	-	S	Sol	Ident	Scheer	JACS 77 (1955)	641	
$C_{27}H_{44}O_3$	-	-	Sol	Ident	Wall	JACS 77 (1955)	3086	
$C_{27}H_{44}O_3$	-	-	Sol	Ident	Ziegler	JACS 77 (1955)	1223	
$C_{27}H_{44}O_3$	Cyclo- γ -smilagenin	785-1365	S	Table, Group freq, Iso	Callow	JCS	- (1955)	1966
$C_{27}H_{44}O_3$	20-Isosmilagenin	2.5-15 μ	Sol	Spec	Wall	JACS	77 (1955)	1230
$C_{27}H_{44}O_3$	Neosmilagenin	700-1400	Sol	Spec, Band freq	Ziegler	JACS	77 (1955)	1223
$C_{27}H_{44}O_3$	Pseudosmilagenin	660-5000	Sol	Spec, Group freq	Hayden	AC JACS 77 (1954) 77 (1955)	550 641	
$C_{27}H_{44}O_3$	-	Sol	Band freq, Ident	Scheer	Djerassi	JACS	77 (1955)	5291
$C_{27}H_{44}O_3$	22a, 25a, 5 α -Spirostane- β -ol	-	Sol	Ident	Kabasakalian	AC	51 (1959)	375
$C_{27}H_{44}O_3$	5 α , 22a -Spirostane- β -ol	2.5-3.5 μ	Sol	Group study				

$C_{27}H_{44}O_3$	Tigogenin	-	-	Spec Physical properties, Group study	Kriider Reucciuti	JACS JACS	74 (1952) 74 (1952)	3201 4461
		890-1350	Sol	Spec, Table, Group freq, I	Jones	JACS	75 (1953)	158
		2750-3100	Sol	Ident Spec, Struct	Callow Smith	JCS AC	- (1955) 31 (1959)	1671 1539
$C_{27}H_{44}O_3$	Cyclo- ψ -tigogenin	787-3500	S	Table, Group freq	Callow	JCS	- (1955)	1966
$C_{27}H_{44}O_3$	Cyclo- ψ -neotigogenin	868-3620	S,Sol	Table, Group freq	Callow	JCS	- (1955)	1966
$C_{27}H_{44}O_3$	Neotigogenin	890-1340	Sol	Spec, Table, Group freq, I	Jones	JACS	75 (1953)	158
		-	S	Ident Band freq	Callow Ziegler	JCS JACS	- (1955) 77 (1955)	1671 1223
$C_{27}H_{44}O$	Pseudo tigogenin	660-5000	Sol S,Sol	Spec, Group freq Group freq, Band freq	Hayden Dickson	AC JCS	26 (1954) - (1955)	550 443
$C_{27}H_{44}O$	Pseudoneotigogenin	-	S	Freq	Callow	JCS	- (1955)	1671
$C_{27}H_{44}O$	30 α -Acetoxycholanic acid methyl ester	700-1400	Sol Sol	Group bond study Band study, Ident	Jones Jones	JACS JACS	74 (1952) 78 (1956)	80 1152
$C_{27}H_{44}O$	Androhydrocoleolyl alcohol	-	Sol	Group & Band freq	Rothman	JACS	76 (1954)	527
$C_{27}H_{44}O$	Cholegenin	-	-	Group freq	Mazur	JCS	- (1954)	1223
$C_{27}H_{44}O$	25 β -Isocholegenin	-	-	Group & Band freq	Mazur	JCS	- (1954)	1223
$C_{27}H_{44}O$	Δ^4 -Cholestene-6,7- dicarboxylic acid	-	-	Group freq	Gates	JOC	20 (1955)	610
$C_{27}H_{44}O$	3,5-Cyclocholestane-6,7- dicarboxylic acid	-	-	Group freq	Gates	JOC	20 (1955)	610
$C_{27}H_{44}O$	3 β ,12 α -Dihydroxy-5 α ,22 α - spirostanane	-	S	Group freq	Elks	JCS	- (1954)	1739
$C_{27}H_{44}O$	Ketone 104 lactone	-	Sol	Band freq	Fieser	JACS	75 (1953)	4418

				Group freq	Elks	JCS	-	(1954)	1759
C ₂₇ H ₄₄ O ₄	3 β ,12 β -Dihydroxy-5 α ,22 α -spirostane	-	S						
C ₂₇ H ₄₄ O ₄	Gitogenin	-	-	Spec	Krider	JACS	74 (1952)	3201	
		-	Sol	Free OH band, Ident	Herran	JACS	76 (1954)	5531	
		-	Sol	Band freq	Klass	JACS	77 (1955)	3829	
C ₂₇ H ₄₄ O ₄	3 β -Hydroxycholestane-6,7-dicarboxylic acid-6, β -lactone	-	-	Group freq	Gates	JOC	20 (1955)	610	
C ₂₇ H ₄₄ O ₄	Methyl 3 β -acetoxy-allocholanate	2.5-15 μ	Sol	Spec, Band freq	Hirschmann	JACS	74 (1952)	5357	
C ₂₇ H ₄₄ O ₄	Rockogenin	-	-	Ident	Rothman	JACS	74 (1952)	4013	
C ₂₇ H ₄₄ O ₄	12-Epirockogenin	-	-	Ident	Hirschmann	JACS	76 (1954)	4013	
C ₂₇ H ₄₄ O ₄	22b-Spirostane-2 ϵ ,3 β -diol	830-1500	Sol	Spec, Struct	Wall	JACS	75 (1953)	4437	
C ₂₇ H ₄₄ O ₄	22a,5 α -Spirostane-2 β ,3 β -diol	-	Sol	Free OH band only	Herran	JACS	76 (1954)	5531	
		-	Sol	Band freq	Klass	JACS	77 (1955)	3829	
C ₂₇ H ₄₄ O ₄	22a,5 α -Spirostane-3 β ,6 β -diol	-	Sol	Ident	Romo	JACS	76 (1954)	5169	
C ₂₇ H ₄₄ O ₄	22a,5 α -Spirostane-3 β ,11 α -diol	-	Sol	Free OH indic, Ident	Sondheimer	JACS	75 (1953)	1282	
C ₂₇ H ₄₄ O ₄	5 α ,22a-Spirostane-3 β ,11 β -diol	-	S,Sol	Band freq, Ident	Dickson	JCS	- (1955)	443	
C ₂₇ H ₄₄ O ₄	22a,25a-Spirostane-2 β ,3 β -diol	-	-	Ident	Wall	JACS	75 (1953)	4437	
		-	Sol	Ident	Ijerassi	JACS	77 (1955)	4291	
C ₂₇ H ₄₄ O ₅	Digitogenin	-	Sol	Band freq	Klass	JACS	77 (1955)	3829	
C ₂₇ H ₄₄ O ₅	Neodigitogenin	-	Sol	Band freq	Klass	JACS	77 (1955)	3829	
C ₂₇ H ₄₄ O ₅	13 β -Hydroxy-12,13-seco-5 α ,22a-spirostane-12-oic acid	-	Sol	Group freq, Band freq, I	Rothman	JACS	76 (1954)	527	

$C_{27}H_{44}^0_5$	Methyl $\beta\alpha$ -acetoxyl- 11β -hydroxy cholanate	-	-	Spec, Group freq	Constantin	JACS	74 (1952)	3908
$C_{27}H_{44}^0_5$	6,7-Secocoprostan- β -one- δ , γ -dicic acid	-	Sol.	Group freq, Band freq	Fieser	JACS	75 (1953)	4386
$C_{27}H_{44}^0_6$	Methyl- $\beta\alpha$ -acetoxyl- $9\alpha,11\beta$ -dihydroxycholanate	-	-	Freq	Heyman	JACS	73 (1951)	5252
$C_{27}H_{44}^S$	7-Dehydrocholesteryl mercaptan	670-3700	S	Spec	Bernstein	JOC	16 (1951)	685
$C_{27}H_{45}^D$	β -Deuterome thyl-A-norcholest- β (5)-ene	650-4000	Sol.	Group freq, I, Spec	Barton	JCS	- (1954)	2715
$C_{27}H_{45}^Br$	$\beta\alpha$ -Bromocholest-5-ene	400-1400	Sol.	Freq	Barton	JCS	- (1956)	331
$C_{27}H_{45}^Br$	$\beta\beta$ -Bromocholest-5-ene	400-1400	Sol.	Freq	Barton	JCS	- (1956)	331
$C_{27}H_{45}^BrO$	2-Bromocholestane- β	-	Sol.	Group freq Band study Group freq	Jones Jones Jones	JACS	72 (1950)	956
		1683-1783	Sol.	Group freq, Band study	Jones	JACS	74 (1952)	80
		-	Sol.	Config., Struct Group freq Config., Spec,	Corey Jones Cookson	JACS	74 (1952)	2828
$C_{27}H_{45}^BrO$	2 α -Bromocholestane- β -one	-	-	Extinction coefficient	Cummins	JCS	- (1957)	3847
		-	-	Config., Struct	Jones	JACS	75 (1953)	4832
		-	Sol.	Config., Struct Group freq Config., Spec,	Jones Cookson	JACS	75 (1953)	4839
		400-4000	Sol.	Extinction coefficient	Cummins	JCS	- (1954)	282
						JACS	- (1957)	3847
$C_{27}H_{45}^BrO$	2β -Bromocholestane- β -one	-	-	Config., Struct	Jones	JACS	75 (1953)	4839
$C_{27}H_{45}^BrO$	3α -Bromocholestane-2-one	-	-	Group freq Spec, Config, Extinction coefficient	Alt. Cummins	JCS	- (1954)	4284
		400-4000	Sol.	Table, Group freq	Jones	JACS	74 (1952)	5648
$C_{27}H_{45}^BrO$	3 -Bromocholestane-6	-	Sol.	Spec, Config, Substitution effect	Cummins	JCS	- (1957)	3847
$C_{27}H_{45}^BrO$	4 α -Bromocholestane- β -one	400-4000	Sol.	Group freq	Jones	JACS	72 (1950)	956
		-	Sol.	Band study	Jones	JACS	74 (1952)	80
		1673-1773	Sol.	Group freq, Band study	Jones	JACS	74 (1952)	2828
		400-4000	Sol.	Spec, Extinction coefficient	Cummins	JCS	- (1957)	3847

$C_{27}H_{45}BrO$	4β -Bromocoprostan- β -one	-	-	Config.	Jones	JACS	75 (1953)	4839
$C_{27}H_{45}Cl$	3β -Chloro- Δ^5 -cholestane	2.5-15/ μ 400-1400	Sol Sol	Spec, Band freq Freq	Hirschmann Barton	JACS JCS	74 (1952) - (1956)	5357 331
$C_{27}H_{45}C1$	3α -Chlorocholestan-5-ene	400-1400	Sol	Freq	Barton	JCS	- (1956)	331
$C_{27}H_{45}C10$	2-Chlorocholestan- β -one	-	Sol S	Band freq Ident	Beereboom Fonken	JACS JCS	75 (1953) 77 (1955)	3500 172
$C_{27}H_{45}C10$	2 α -Chlorocholestan- β -one	400-4000	Sol	Spec, Config, Extinction coefficient	Cummins	JCS	- (1957)	3847
$C_{27}H_{45}C10$	2 β -Chlorocholestan- β -one	400-4000	Sol	Spec, Config, Extinction coefficient	Cummins	JCS	- (1957)	3847
$C_{27}H_{45}C10$	3α -Chlorocholestan-2-one	400-4000	-	Group freq Spec, Config, Extinction, Coefficient	Alt Cummins	JCS JCS	- (1954) - (1957)	4284 3847
$C_{27}H_{45}C10$	3α -Chlorocoprostan-6-one	400-4000	Sol	Spec, Config, Extinction, Coefficient	Cummins	JCS	- (1957)	3847
$C_{27}H_{45}C10$	3β -Chlorocoprostan-6-one	400-1400 400-4000	Sol Sol	Freq Spec, Config, Extinction, Coefficient	Barton Cummins	JCS JCS	- (1957) - (1957)	331 3847
$C_{27}H_{45}C10$	5 α -Chlorocholestan-6-one	400-4000	Sol	Spec, Config, Extinction, Coefficient	Cummins	JCS	- (1957)	3847
$C_{27}H_{45}I0$	2-Iodocholestanone- β	1674-1774	Sol - -	Band study Group freq, Group band Ident	Jones Jones Beereboom	JACS JACS JACS	74 (1952) 74 (1952) 75 (1955)	80 2828 3500
$C_{27}H_{45}I0$	2 α -Iodocholestan- β -one	400-4000	Sol	Spec, Config, Extinction, coefficient	Cummins	JCS	- (1957)	3847
$C_{27}H_{45}I0$	3 α -Iodocholestan-2-one	400-4000	Sol	Spec, Config, Extinction, coefficient	Cummins	JCS	- (1957)	3847
$C_{27}H_{45}N$	Solanidine	-	-	Ident	Weisenborn	JACS	75 (1953)	259
$C_{27}H_{45}NO$	Solanidine- β -ol	-	-	Ident	Weisenborn	JACS	75 (1953)	259

C ₂₇ H ₄₅ NO ₂	Tomatidine	2-15 μ	S, Sol	Spec., Struct	Fontaine	JACS	73 (1951)	878
C ₂₇ H ₄₅ NO ₃	Ketone 104 oxime	-	Sol	Band freq	Fieser	JACS	75 (1953)	4418
C ₂₇ H ₄₅ NO ₅	22,26-Iminojervane- $\beta\beta$, 16,17,23-tetrol-11-one	-	S	Band freq	Winstonsteiner	JACS	76 (1954)	5609
C ₂₇ H ₄₅ NO ₈	Cevinilol	-	Sol	Group study	Kupchan	JACS	77 (1955)	683
C ₂₇ H ₄₅ NO ₈	Dihydrocevine isoorthoacetate	-	Sol	Group study	Barton	JCS	- (1954)	3950
C ₂₇ H ₄₆	¹ Δ -Cholestene	650-3100	Sol	Band freq, I	Herbest	JCS	- (1954)	800
C ₂₇ H ₄₆	² Δ -Cholestene	1580-3100 650-3100	Sol Sol	Group study, I Band freq, I	Jones Herbest	JACS JCS	72 (1950) - (1954)	86 800
C ₂₇ H ₄₆	³ Δ -Cholestene	650-3100	Sol	Band freq, I	Herbest	JCS	- (1954)	800
C ₂₇ H ₄₆	⁴ Δ -Cholestene	700-1000	Sol	Spec., Group freq	Bladon	JCS	- (1951)	2402
C ₂₇ H ₄₆	⁵ Δ -Cholestene	1650-1800 700-1000	Sol Sol	Group study Spec., Band freq, Group freq	Jones Bladon	JACS JCS	72 (1950) - (1951)	956 2402
C ₂₇ H ₄₆	2.5-15 μ	Sol	Spec., Band freq	Hirschmann	JACS	74 (1952)	5357	
	-	Sol	Table, Group freq	Jones	JACS	74 (1952)	5648	
	-	-	Band freq, Struct	Daus	JACS	75 (1953)	3840	
C ₂₇ H ₄₆	^{8:9} Δ -Cholestene	700-1000	Sol	Spec., Band freq, Group freq	Bladon	JCS	- (1951)	2402
C ₂₇ H ₄₆	$\beta:5$ -Cyclocholestane	9-11 μ 650-4000 β -14 μ	Sol Sol Sol	Spec., Band freq Group freq, I Spec., Band study	Barton Barton Cole	JCS JCS JCS	- (1951) - (1954) - (1954)	1444 2715 3807
C ₂₇ H ₄₆	β -Methyl- Δ -norcholestene - β (5)	650-4000	Sol	Group freq, I	Barton	JCS	- (1954)	2715

$C_{27}H_{46}BrCl$	2α -Bromo- $\beta\beta$ -chloro-cholestane	400–1400	Sol	Freq	Barton	JCS	–	(1956)	331
$C_{27}H_{46}BrCl$	2β -Bromo- 3α -chloro-cholestane	400–1400	Sol	Freq	Barton	JCS	–	(1956)	331
$C_{27}H_{46}BrCl$	3α -Bromo- 2β -chloro-cholestane	400–1400	Sol	Freq	Barton	JCS	–	(1956)	331
$C_{27}H_{46}BrCl$	3β -Bromo- 2α -chloro-cholestane	490–1400	Sol	Freq	Barton	JCS	–	(1956)	331
$C_{27}H_{46}Br_2$	2α ; 3β -Dibromocholestane	400–1400	Sol	Freq	Barton	JCS	–	(1956)	331
$C_{27}H_{46}Br_2$	2β ; 3α -Dibromocholestane	400–1400	Sol	Freq	Barton	JCS	–	(1956)	331
$C_{27}H_{46}Br_2$	3α ; 4β -Dibromocholestane	400–1400	Sol	Freq	Barton	JCS	–	(1956)	331
$C_{27}H_{46}Br_2$	3β ; 4α -Dibromocholestane	400–1400	Sol	Freq	Barton	JCS	–	(1956)	331
$C_{27}H_{46}Br_2$	5β ; 6α -Dibromocholestane	400–1400	Sol	Freq	Barton	JCS	–	(1956)	331
$C_{27}H_{46}Br_2$	2α ; 3β -Dichlorocholestane	400–1400	Sol	Freq	Barton	JCS	–	(1956)	331
$C_{27}H_{46}Cl_2$	2β ; 3α -Dichlorocholestane	400–1400	Sol	Freq	Barton	JCS	–	(1956)	331
$C_{27}H_{46}Cl_2$	5α ; 6β -Dichlorochlestane	400–1400	Sol	Freq	Barton	JCS	–	(1956)	331
$C_{27}H_{46}Cl_2$	5α ; 6α -Dichlorochlestane	400–1400	Sol	Freq	Barton	JCS	–	(1956)	331
$C_{27}H_{46}Cl_2$	-3β -ol								
$C_{27}H_{46}Cl_2O$	5α ; 6β -Dichlorochlestane	400–1400	Sol	Freq	Barton	JCS	–	(1956)	331
$C_{27}H_{46}Cl_2O$	-3β -ol								
$C_{27}H_{46}O$	Cholestan-1-one	3–15 μ	Sol	Spec, Freq table	Striebel	HCA	37	(1954)	1094
$C_{27}H_{46}O$	Cholestan-2-one	–	–	Group freq Spec, Substitution effect	Alt Cummins	JCS JCS	–	(1954) (1957)	4284 3847
$C_{27}H_{46}O$	Cholestanone-3	700–1000	–	Assign Spec, Band freq, Group freq	Jones Bladon	JACS JCS	70 –	(1948) (1951)	2024 2402

1708

1658-1768	Sol	Band study	Jones	JACCS	74 (1952)	80
-	Sol	Group freq, Band study	Jones	JACCS	74 (1952)	2828
1350-1800	Sol.	Spec, Group freq	Jones	JACCS	74 (1952)	5648
1350-1500	Sol.	Spec, Freq	Jones	JACCS	74 (1952)	5662
-	Sol.	Group freq, Ident	Beereboom	JACCS	75 (1953)	1718
-	-	Ident	Corey	JACCS	75 (1953)	4832
-	-	Absorption study	Dauben	JACCS	75 (1953)	5340
757-1309	Sol.	Table	Jones	JACCS	77 (1955)	651
950-1350	S,Sol	Band study	Rosenkrantz	AC	28 (1956)	31
400-4000	Sol.	-halogen substitution effect, Spec	Cummins	JCS	- (1957)	3847
C ₂₇ H ₄₆ O	Cholestanone-4	-	Sol.	Table, Group freq	Jones	JACCS
C ₂₇ H ₄₆ O	Cholestanone-6	-	-	Band freq	Reich	JOC
		-	Sol.	Band freq	Fieser	JACCS
C ₂₇ H ₄₆ O	Cholestanone-7	-	Sol	Group freq	Jones	JACCS
		1660-1760	Sol	Band study	Jones	JACCS
		1350-1750	Sol	Table, Group freq	Jone s	JACCS
		1300-1500	Sol	Spec, Table, Freq	Jone s	JACCS
C ₂₇ H ₄₆ O	¹ Δ -Cholestenol- β	650-3100	Sol	Band freq, I	Henbest	JCS
C ₂₇ H ₄₆ O	⁴ Δ -Cholestenol-2α	-	Sol	Band freq	Fieser	JACCS
C ₂₇ H ₄₆ O	⁴ Δ -Cholesten-6α-ol	-	-	Ident, Anal	Becker	JOC
C ₂₇ H ₄₆ O	⁴ Δ -Cholesten-6β-ol	-	-	Struct	Becker	JOC
C ₂₇ H ₄₆ O	⁶ Δ -Cholestenol- β	2-16 ^μ 650-3100	S S,Sol	Spec, Group freq Band freq Group freq	Johnson Henbest James	JACCS JCS JCS
C ₂₇ H ₄₆ O	⁷ Δ -Cholestenol- β	1580-3100	Sol	Group study, I	Jones Idler Johnson	JACCS JACCS JACCS
		- 2-16 ^μ	S S	Band freq Spec, Group freq		72 (1950) 75 (1953) 75 (1953)
						86 1712 52

C ₂₇ H ₄₆ ⁰	Δ ^{8,9} -cholesteno-ββ	700–1000	Sol	Spec, Band freq, Group freq	Bladon	JCS	–	(1951)	2402
C ₂₇ H ₄₆ ⁰	Δ ^{8,14} -cholesteno-ββ	2700–3900 1580–3100 –	Sol Sol Sol	Spec, Assign Group study, I Group freq, Stereo study	Jones Jones Cole	JACS JACS JACS	70 72 74	(1948) (1950) (1952)	2024 86 5571
C ₂₇ H ₄₆ ⁰	Δ ¹⁴ -cholesteno-ββ	2700–3900 1580–3100 –	Sol Sol –	Spec, Assign Spec, Group study, I Group freq, Stereo study	Idler Johnson	JACS JACS	75 75	(1953) (1953)	1712 52
C ₂₇ H ₄₆ ⁰	Cholesterol	2–16 μ 1.05 μ –	Sol – –	Spec Longitudinal dispersion Assign	Baird Lepechkin Jones	JOSA JPC	37 51	(1947) (1947)	754 875
C ₂₇ H ₄₆ ⁰		6–15 μ 1450–3700 700–1400 1580–1400 2–15 μ 700–1000 800–1700 –	S S S Sol Sol Sol Sol	Temp effect on spec Spec, Struct Spec Group study, I Spec, Struct Spec, Band freq, Group freq Spec Group freq, Stereo study	Hainer Mann Jones Jones Jones Pontain Bladon Blout Cole	JOSA PR JCS CIC JACS JACS JCS JOSA JACS	70 75 – 2 72 73 – 42 74	(1948) (1949) (1949) (1950) (1950) (1951) (1951)	2024 1320 2816 94 86 878 2402
		2.5–15 μ 1350–1500 2.5–11 μ –	Sol Sol Sol –	Band freq Spec, Table, Group freq Spec Purity	Hirschmann Jones Coates Fieser Idler Johnson Holman Beher Cummins Henbest Morollo	JACS JOSA JACS JACS JACS JACS AC AC JCS JCS ARS	74 43 75 75 75 75 28 29 – – 53B	(1952) (1953) (1953) (1953) (1953) (1953) (1956) (1957) (1957) (1957)	5357 5648 5395 1712 52 1533 1147 3847 1462 145

650-1350	Sol	Generalisations, Discussions Group study Intamolecular interaction	Jones Kabasakalian Oki	JACS AC BCSJ	80 31 32	(1958) (1959) (1959)	6121 375 306					
2.5-3.5 μ 3550-3650	Sol Sol	Spec , Band freq Band freq Intramolecular interaction	Hirschmann Fieser Oki	JACS JACS BCSJ	74 75 32	(1952) (1953) (1959)	5357 4377 306					
C ₂₇ H ₄₆ O	Epicolesterol	2.5-15 μ - 3550-3650	Sol Sol Sol	Spec , Band freq Band freq Intramolecular interaction	Hirschmann Fieser Oki	JACS JACS BCSJ	74 75 32	(1952) (1953) (1959)	5357 3513 306			
C ₂₇ H ₄₆ O ⁴	Δ -Cholesterol- β	2.5-15 μ	Sol	Spec , Band freq Assign Group freq, Group Table, Group freq in steroids	Jones Jones Jones Rubin Jones Jones Cummins	JACS JACS JACS JACS JACS JACS JCS	70 74 74 75 77 28 -	(1948) (1952) (1952) (1953) (1955) (1956) (1957)	2024 2828 5648 3513 651 51 3847			
C ₂₇ H ₄₆ O	Coprostanone- β	-	Sol	Group freq Table, Group freq in steroids	Jones Jones Jones	JACS JACS JACS	70 74 74	(1948) (1952) (1952)	2024 2828 5648			
C ₂₇ H ₄₆ O	Coprostan-6-one	400-4000	Sol	Group freq Table Struct Spec , Config , Ext. coeff Q-halogen substitution effect, Spec	Rubin Jones Rosenkrantz Cummins	JACS JACS JCS	75 77 77 -	(1953) (1955) (1955) (1957)	3513 651 51 3847			
C ₂₇ H ₄₆ O	2 α :3 α -Epoxycholestane	2800-3100	Sol	Band study	Henbest	JCS	-	(1957)	1459			
C ₂₇ H ₄₆ O	5 α :6 α -Epoxycholestane	2800-3100	Sol	Band study	Henbest	JCS	-	(1957)	1459			
C ₂₇ H ₄₆ O	5 β :6 β -Epoxycholestane	2800-3100	Sol	Band study	Henbest	JCS	-	(1957)	1459			
C ₂₇ H ₄₆ O	2 β ,3 β -Oxidocholestane	-	-	Indic no C=O or OH	Beereboom Corey Fieser	JACS JACS JACS	75 75 75	(1953) (1953) (1953)	3500 4832 4837			
C ₂₇ H ₄₆ O ₂	Cholestanol- β -one-6	-	-	Assign Group freq Group freq, Stereo study	Jones Jones Cole	JACS JACS JACS	70 72 74	(1948) (1950) (1952)	2024 956 5571			
C ₂₇ H ₄₆ O ₂	Cholestan- β -ol-7-one	-	S,Sol Sol	Group freq Band freq	Turner Anagnostopoulos	JACS JACS	75 76	(1953) (1954)	4362 532			
			Sol	Band freq	Anagnostopoulos	JACS	76	(1954)	532			

C ₂₇ H ₄₆ O ₂	Cholestan-5 α -ol-2-one	-	Sol	Band freq	Conca	JOC	18 (1953)	1104
C ₂₇ H ₄₆ O ₂	Cholestanol-5 α -6-one	-	-	Band freq	Reich	JOC	16 (1951)	1753
C ₂₇ H ₄₆ O ₂	$^5\Delta$ -Cholestene- β ,4 α -diol	-	Sol	Band freq	Fieser	JACS	76 (1954)	1728
C ₂₇ H ₄₆ O ₂	8(14) Δ -Cholestene- β ,7 α -diol	-	S	Band freq	Fieser	JACS	75 (1953)	4404
C ₂₇ H ₄₆ O ₂	Coprostan-27-oic acid	1500-3700	Sol	Freq, Iso	Cole	JCS	- (1959)	2005
C ₂₇ H ₄₆ O ₂	Desoxo ketone 104	-	Sol	Band freq	Fieser	JACS	75 (1953)	4418
C ₂₇ H ₄₆ O ₂	β ,26-Dihydroxy-5 α ,22 α -furostane	-	S	Group freq	Elks	JCS	- (1954)	1739
C ₂₇ H ₄₆ O ₂	16,22-Epoxy coprostan- β -ol	-	-	Group freq	Wall	JACS	77 (1955)	1230
C ₂₇ H ₄₆ O ₂	β -Hydroxy-6, β -oxidocholestane	-	-	no indic of C=O or OH	Corey	JACS	76 (1954)	175
C ₂₇ H ₄₆ O ₂	7-Ketocholestanol	-	-	Spec Group freq	Fresir Turner	JACS	74 (1952)	3309
C ₂₇ H ₄₆ O ₂	$^8\Delta$ -5-Methyl-19-nor-cholestenediol- β ,6	-	Sol	Table, Group freq in steroids	Jones	JACS	75 (1953)	4562
C ₂₇ H ₄₆ O ₂	4,5-Secocolesterol-3,5-dione	-	Sol	Band freq, Struct	Heard	JACS	73 (1951)	4036
C ₂₇ H ₄₆ O ₂	4,5-Seco-3,5-oxido-cholestan- β -ol	-	-	Band freq, Struct	Heard	JACS	73 (1951)	4036
C ₂₇ H ₄₆ O ₂	δ -Tocopherol	6-10.5 μ	-	Spec	Stern	JACS	69 (1947)	869
C ₂₇ H ₄₆ O ₂	Cholestane- β ,5 α -diol-6-one	-	-	Band freq	Reich	JOC	16 (1951)	1753
C ₂₇ H ₄₆ O ₃	Dihydrosarsasapogenin	800-1350 900-1300	S,Sol Sol	Spec Spec	Scheer Wall	JACS	77 (1955)	641
C ₂₇ H ₄₆ O ₃						JACS	77 (1955)	1230

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$C_{27}H_{46}O_3$	Dihydro-20-iso-sarsasapogenin	900-1300	Sol	Spec	Wall	JACS	77 (1955)	1230
$C_{27}H_{46}O_3$	Dihydropseudo-sarsasapogenin	-	Sol	Free OH freq	Scheer	JACS	77 (1955)	641
$C_{27}H_{46}O_3$	Dihydrosmilagenin	800-1350	S, Sol	Free OH freq, Spec Compar Ident	Scheer Wall Wall	JACS 77 (1955) JACS 77 (1955) JACS 77 (1955)	641 1230 3086	
$C_{27}H_{46}O_3$	Dihydropseudo-smilagenin	-	- Sol	Free OH freq	Scheer	JACS	77 (1955)	641
$C_{27}H_{46}O_4$	8 α ,14 α -Oxidocholestane-3 β ,17 α -diol	-	Sol	Band freq	Fieser	JACS	75 (1953)	4719
$C_{27}H_{46}O_4$	2,3-Seco-5 α -Cholestane-2,3-dicarboxylic acid	-	-	Struct	Castu	GCI	90 (1960)	1147
$C_{27}H_{46}O_4$	2,3-Seco-5 β -cholestane-2,3-dicarboxylic acid	-	-	Struct	Castu	GCI	90 (1960)	1147
$C_{27}H_{46}O_5$	12,13-Seco-5 α ,22 α -spirostan-3 β ,12,13 ξ -triol	-	Sol	Band & Group freq	Rothman	JACS	76 (1954)	527
$C_{27}H_{46}O_8$	Glyceryl triacetate ricinoleate	2-15 μ	L	Spec	Kendall	APS	7 (1953)	179
$C_{27}H_{46}O_8$	Cholesteryl mercaptan	670-3700	S	Spec	Bernstein	JOC	16 (1951)	685
$C_{27}H_{47}D_0$	Cholestanol-3-d ₁	-	-	Freq	Dauben	JACS	75 (1953)	1718
$C_{27}H_{47}D_0$	Epicholestanol-3-d ₁	-	-	Freq	Dauben	JACS	75 (1953)	1718
$C_{27}H_{47}Br$	3 α -Bromocholestanone	400-1400	Sol	Freq	Barton	JCS	- (1956)	331
$C_{27}H_{47}Br$	3 β -Bromocholestanone	400-1400	Sol	Freq	Barton	JCS	- (1956)	331
$C_{27}H_{47}Br$	7 β -Bromocholestanone	400-1400	Sol	Freq	Barton	JCS	- (1956)	331
$C_{27}H_{47}Br$	3 α -Bromocoprostanone	400-1400	Sol	Freq	Barton	JCS	- (1956)	331

$C_{27}H_{47}Br$	$\beta\text{-Bromocoprostanate}$	400–1400	Sol	Freq	Barton	JCS	– (1956)	331
$C_{27}H_{47}BrO$	$2\alpha\text{-Bromocholestane-}\beta\alpha\text{-ol}$	400–1400	– Sol	Band freq Freq	Rieser Barton	JACS JCS	75 (1953) – (1956)	4837 331
$C_{27}H_{47}BrO$	$2\alpha\text{-Bromocholestane-}\beta\beta\text{-ol}$	–	–	Group freq Band freq	Corey Rieser Barton	JACS JACS JCS	75 (1953) 75 (1953) – (1956)	4832 4837 331
$C_{27}H_{47}BrO$	$\beta\beta\text{-Bromocholestane-}\beta\alpha\text{-ol}$	–	–	Band freq Freq	Barton	JCS	– (1956)	331
$C_{27}H_{47}C_1$	$3\alpha\text{-Chlorocholestanate}$	400–1400	Sol	Freq	Barton	JCS	– (1956)	331
$C_{27}H_{47}C_1$	$3\beta\text{-Chlorocholestanate}$	2.5–15/ μ 400–1400	Sol Sol	Spec, Band freq Freq, Spec	Hirschmann Barton	JACS JCS	74 (1952) – (1956)	535 331
$C_{27}H_{47}C_1$	$7\alpha(\beta)\text{-Chlorocholestanate}$	400–1400	Sol	Freq	Barton	JCS	– (1956)	331
$C_{27}H_{47}C_1$	$3\alpha\text{-Chlorocoprostanate}$	400–1400	Sol	Freq, Spec	Barton	JCS	– (1956)	331
$C_{27}H_{47}C_1$	$\beta\beta\text{-Chlorocoprostanate}$	400–1400	Sol	Freq, Spec	Barton	JCS	– (1956)	331
$C_{27}H_{47}C_{10}$	$2\alpha\text{-Chlorocholestan-}\beta\beta\text{-ol}$	400–1400	Sol	Freq	Barton	JCS	– (1956)	331
$C_{27}H_{47}C_{10}$	$\beta\beta\text{-Chlorocholestan-}\beta\alpha\text{-ol}$	400–1400	Sol	Freq	Barton	JCS	– (1956)	331
$C_{27}H_{47}C_{10}$	$3\alpha\text{-Chlorocholestan-}2\beta\text{-ol}$	400–1400	Sol	Freq	Barton	JCS	– (1956)	331
$C_{27}H_{47}C_{10}$	$3\beta\text{-Chlorocoprostan-}6\beta\text{-ol}$	400–1400	Sol	Freq	Barton	JCS	– (1956)	331
$C_{27}H_{47}C_{10}$	$6\beta\text{-Chlorocholestan-}3\beta:5\alpha\text{-diol}$	400–1400	Sol	Freq	Barton	JCS	– (1956)	331
$C_{27}H_{47}C_1N_0O_{12}$	Streptohydrazid trihydrochloride	–	–	Band freq	Pennington	JACS	75 (1953)	2261
$C_{27}H_{47}NO$	Cholestanone-6-oxime	–	Sol	Band freq	Rieser	JACS	76 (1954)	1945
$C_{27}H_{48}$	Cholestanate	700–1000 1350–1500	Sol Sol	Spec, Band freq Spec, Group freq in steroids	Bladon Jones	JCS JACS	– (1951) 75 (1952)	2402 5648

	-	-	Struct Band freq, I	Daus Henbest Scheer Rosenkrantz	JACS JCS JACS AC	75 (1953) (1954) 800 1820 31
	-	Sol	Ident			
	-	S, Sol	Band study			
950-1350	-	-	Ident	Scheer Smith	JACS AC	77 (1955) 31 (1959)
C ₂₇ H ₄₈	2700-3100	Sol	Spec, Struct, Absorp.	Hawkes	SA	16 (1960) 633
C ₂₇ H ₄₈	11-Phenylheneicosane	2-15 μ	L	Spec, Struct		
C ₂₇ H ₄₈	Cholestanol	2750-3100	Sol	Spec, Struct, Absorp	Smith	AC 31 (1959) 1539
C ₂₇ H ₄₈ ⁰	Cholestanol-2α	-	-	Group freq Band freq	Barton Fieser	JCS - (1953) 1027
C ₂₇ H ₄₈ ⁰	Cholestanol-2β	-	-	Group freq Ident	Barton Corey	JACS 75 (1953) 4716
C ₂₇ H ₄₈ ⁰	Cholestanol-3	700-1000	Sol	Spec, Band freq, Group freq	Bladon	JCS - (1953) 1027
C ₂₇ H ₄₈ ⁰	Cholestanol-3α	2-12 μ	Sol	Spec, Ident	Woodward	JACS 75 (1953) 4832
C ₂₇ H ₄₈ ⁰	Cholestanol-3β	875-1185	Sol	Spec Group freq, Stereo	Lieberman Cole	JACS 70 (1948) 1427 JACS 74 (1952) 5571
C ₂₇ H ₄₈ ⁰	Cholestanol-3α	-	-	Group freq Group freq, Struct	Barton Rosenkrantz Rosenkrantz Jones	JCS - (1953) 1027 JACS 75 (1953) 903 JACS 77 (1955) 2257 JACS 80 (1958) 6121
C ₂₇ H ₄₈ ⁰	Cholestanol-3β	875-1185	Sol	Assign Spec Group freq Group freq, Stereo	Jones Lieberman Jones Cole	JACS 70 (1948) 2024 JACS 70 (1948) 1427 JACS 72 (1950) 956 JACS 74 (1952) 5571
C ₂₇ H ₄₈ ⁰	Cholestanol-3β	-	-	Freq Ident	Barton Corey Johnson Rosenkrantz Henbest Rosenkrantz	JCS - (1953) 1027 JACS 75 (1953) 6234 JACS 75 (1953) 52 JCS - (1954) 800 JACS 77 (1955) 2257
C ₂₇ H ₄₈ ⁰	Cholestanol-3α	2-16 μ	S	Spec, Group freq		
C ₂₇ H ₄₈ ⁰	Cholestanol-3β	2.5-13 μ	Sol	Group freq, Struct Band freq, I		
C ₂₇ H ₄₈ ⁰	Cholestanol-3α	770-3700	Sol	Freq, I		

$C_{27}H_{48}^0$	650-1750 400-4000	S Sol	Spec, Ident Spec, Config, Extinction coeff.	Beher Cummins	AC JCS	29 - (1957)	1147 3847
$C_{27}H_{48}^0$	650-1350	Sol	Discussion, Generalisation	Jones	JACS	80 (1958)	6121
$C_{27}H_{48}^0$	-	-	Group freq	Barton	JCS	- (1953)	1027
$C_{27}H_{48}^0$	-	-	Freq	Barton	JCS	- (1953)	1027
5α -Cholestanol	-	Sol	Group freq	Conca	JOC	18 (1953)	1104
$C_{27}H_{48}^0$	-	Sol	Group freq, Stereo study	Cole	JACS	74 (1952)	5571
$C_{27}H_{48}^0$	2·5-13/ μ 770-3700 650-1350	Sol Sol Sol	Group freq, Struct Characteristic freq, I Discussion, Generalisation	Rosenkrantz Rosenkrantz Jones	JACS JACS JACS	75 (1953) 77 (1955) 80 (1958)	903 2237 6121
$C_{27}H_{48}^0$	-	Sol	Group freq, Stereo study	Cole	JACS	74 (1952)	5571
$C_{27}H_{48}^0$	770-3700 650-1350	Sol Sol	Characteristic freq, I Discussion, Generalisation	Rosenkrantz Jones	JACS JACS	77 (1955) 80 (1958)	2237 6121
$C_{27}H_{48}^0$	-	Sol	Group freq	Smith	JACS	76 (1954)	6119
$C_{27}H_{48}^0$	2-Hydroxymethyl-A- norcholestane	-	Assign	Jones	JACS	70 (1948)	2024
$C_{27}H_{48}^0$	Cholestanediol-3,4	-	Ident	Corey	JACS	76 (1954)	175
$C_{27}H_{48}^0$	Cholestan- β , β -diol	-	Ident	Becker	JOC	20 (1955)	353
$C_{27}H_{48}^0$	Cholestan-5 α ,6 α -diol	-	Band freq	Reich	JOC	16 (1951)	1753
$C_{27}H_{48}^0$	Cholestanediol-5 α ,6 β	-	Sol	Conca	JOC	18 (1953)	1104
$C_{27}H_{48}^0$	2 α ,5 α -Dihydroxy- cholestane	-	Ident	Scheer	JACS	77 (1955)	1820
$C_{27}H_{48}^0$	Tetrahydrosarsa- sapogenin	-	Ident				
$C_{27}H_{50}$	4-n-Pentadecyl eca- hydroacenaphthene	-	Struct, Group anal	Francis	AC	25 (1953)	1466

$C_{27}H_{52}O_2$	2,4-Dimethyl-2-penta-cosenoic acid	-	Sol	Band freq	Cason	JOC	19 (1954)	1836
$C_{27}H_{52}O_2$	2-Methyl-2-hexaco-noic acid	-	Sol	Band freq	Cason	JOC	19 (1954)	1836
$C_{27}H_{52}O_2$	C_{27} -Phthienoic acid	5.6-16 μ	Sol	Spec, Struct Band freq, Struct	Freeman Cason	JACS JOC	75 (1953) 19 (1954)	1859 1836
$C_{27}H_{56}$	n-Heptacosane	750-1150 700-1500	S S	Struct, Band study Freq, Assign	Snyder Snyder	JCP JMS	27 (1957) 4 (1960)	969 411
$C_{27}H_{56}Si$	Cyclopentamethylene-diundecylsilane	2-35 μ	L	Assign	Oshesky	JACS	79 (1957)	2057
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C ₂₈ COMPOUNDS								
$C_{28}H_{10}Br_2N_2O_4$	$3,3'$ -Dibromo-1,2:2',1'-anthraquinoneazaine	3-15 μ	S	Spec, Struct	Wyman	JACS	78 (1956)	4599
$C_{28}H_{10}Cl_2N_2O_4$	$3,3'$ -Dichloro-1,2:2',1'-anthraquinoneazaine	3-15 μ	S	Spec, Struct	Wyman	JACS	78 (1956)	4599
$C_{28}H_{12}Br_2N_2O_4$	$3,3'$ '-Dibromoindanthrone	3-8.5 μ	S	Struct	Wyman	JACS	78 (1956)	4599
$C_{28}H_{12}Cl_2N_2O_4$	$3,3'$ '-Dichloroindanthrone	3-8.5 μ	S	Struct	Wyman	JACS	78 (1956)	4599
$C_{28}H_{12}N_2O_2$	Flavanthrone	650-9000	S	Spec, Group freq	Durie	AJC	10 (1957)	429
$C_{28}H_{12}N_2O_4$	Anthraquinoneazaine	5.9-8.5 μ	S	Spec, Struct, Band freq	Wyman	JACS	78 (1956)	4599
$C_{28}H_{12}N_2O_4$	1,2:2',1'-Anthraquinone-azaine	3-15 μ	S	Spec, Struct	Wyman	JACS	78 (1956)	4599
$C_{28}H_{12}O_2$	Mesonaphthodianthrone	-	S	Band freq, Group freq	Haddi	JACS	73 (1951)	5460
$C_{28}H_{14}N_2O_4$	Indanthrone	3-15 μ	S	Spec, Struct	Wyman	JACS	78 (1956)	4599

C ₂₈ H ₁₄ ⁰ ₂	Helianthrone	-	S	Band freq, Group freq	Hadzi	JACS	73 (1951)	5460
C ₂₈ H ₁₄ ⁰ ₄	4,4'-Dihydroxyhelianthrone	-	S	Group freq	Brown	JCS	- (1955)	744
C ₂₈ H ₁₆ ⁰ ₈	Tetrasalicylide	1700-1800	S,Sol	Group freq	Short	JCS	- (1952)	206
C ₂₈ H ₁₇ N ₃ ⁰ ₄	4',4''-Dihydroquinolino(2':3'-1;2')(2':3'-1;2)(3":2"-5;6)-isojujline-4',4''dicarboxylic acid	-	-	Band freq	Braunholtz	JCS	- (1955)	393
C ₂₈ H ₁₇ N ₃ ⁰ ₄	Diquinolino(2':3'-1;2)(3":2"-5;6)jujline-4',4''-dicarboxylic acid	-	-	Band freq, Group freq	Braunholtz	JCS	- (1955)	393
C ₂₈ H ₁₈ N ₂ ⁰ ₄	1,4-Bisbenzamido-antraquinone	1633-3130	-	Group freq	Flett	JCS	- (1948)	1441
C ₂₈ H ₁₈ N ₂ ⁰ ₄	Bis-(p-phenylbenzoyl)furoxan	-	S,Sol	Group freq, I	Boyer	JACS	77 (1955)	4238
C ₂₈ H ₁₈ N ₄ ⁰ ₂	Bis-(p-phenylbenzoyl)furoxan azine	-	S,Sol	Group freq, I	Boyer	JACS	77 (1955)	4238
C ₂₈ H ₁₈ O ₂	Anthracene photozide	850-1300	-	Group freq	Nikitin	OS	4 (1958)	702
C ₂₈ H ₁₈ O ₈	5,5'-Di-C-benzylellagic acid	5.0-6.15 μ S	Struct	Stitt	JACS	81 (1959)	4615	
C ₂₈ H ₂₀ N ₂ ⁰ ₃	1,4-Bisbenzamidoanthrone	1635-2200	S	Group freq	Flett	JCS	- (1948)	1441
C ₂₈ H ₂₀ N ₂ ⁰ ₄	1,4-Bisbenzamido-oxanthrone	1637-3250	S	Group freq	Flett	JCS	- (1948)	1441
C ₂₈ H ₂₀ O ₂	cis-Diphenyldibenzoyl-ethylene	6.03-14.60 μ S	Table, Spec Band freq, Ident	Kuhn Yates	JACS	72 (1950)	5058	
C ₂₈ H ₂₀ O ₂	trans-Diphenyldibenzoyl-ethylene	6.03-14.78 μ S	Table, Spec	Kuhn	JACS	76 (1954)	5110	
C ₂₈ H ₂₀ O ₂	Diphenyl ketene(dimer)	600-1800	S,Sol	Spec	Armstrong	AJC	10 (1957)	34

$C_{28}H_{20}O_2$	4-Hydroxy-2,2,3,4-tetraphenyl- β -butenoic acid lactone	-	Sol	Group freq	Yates	JACS	76 (1954)	5110
$C_{28}H_{20}O_4$	Benzilide	$4\text{-}8 \mu$	Sol	Spec, Struct	Wasserman	JACS	72 (1950)	5787
$C_{28}H_{20}O_8$	$3,4,9,10\text{-Tetraacetoxyperylene}$	746-1764	S	Table	Calderbank	JCS	- (1954)	1285
$C_{28}H_{20}O_8Si$	Silicon tetrabenzooate	$2\text{-}15 \mu$	Sol	Spec, Group freq	Lanning	JOC	19 (1954)	1171
$C_{28}H_{20}O_8B_2$	$4,9\text{-Dihydroxypyrenylene-3,10-quinone bis-boroacetate}$	699-1715	S	Table	Calderbank	JCS	- (1954)	1285
$C_{28}H_{21}N$	Tetraphenylpyrrole	6600-6900	Sol	Spec, Band freq	Wulf	JACS	57 (1935)	1464
$C_{28}H_{22}BrN_5$	2-Bromoethyl-4,6-bis-(diphenylamino)-S-triazine	$2\text{-}15 \mu$	Sol	Assign	Reimschuessel	JACS	82 (1960)	3756
$C_{28}H_{22}N_2O_5S_2$	$2\text{-}(p\text{-Hydroxyphenyl)-1,4-naphthalene dibenzene sulfonamide}$	-	-	Group study	Adams	JACS	74 (1952)	5560
$C_{28}H_{22}N_2O_6S_3$	2-Benzenesulfonyl-1,4-naphthalene dibenzene-sulfonamide	-	-	Group study	Adams	JACS	74 (1952)	5560
$C_{28}H_{22}O$	Benzhydryl p-phenyl-styryl ketone	-	-	Band freq	Marvel	JOC	16 (1951)	741
$C_{28}H_{22}O_2$	$2\text{-Benzylidene-5-methoxy-5-(p-biphenyl)-2,5-dihydro-}\beta\text{,4-benzofuran}$	1050-1210	Sol	Spec, Band freq	Bergmann	JOC	15 (1950)	1023
$C_{28}H_{22}O_3$	Benzoin diphenyl acetate	-	S	Group freq	Curtin	JOC	19 (1954)	820
$C_{28}H_{22}O_3$	Didesyl ether	700-4000	S	Spec, Struct	Curtin	JOC	19 (1954)	820
$C_{28}H_{22}O_3$	$6,12\text{-Diphenyl-2,8-dimethyl-6,12-epoxy-6H,12H-dibenzo[b,f][5]dioxocin}$	-	S	Band freq	Newman	JOC	19 (1954)	985

C ₂₈ H ₂₂ O ₃	2,5-Oxido-2,3,5,6-tetraphenylloxane	700-4000	Sol	Spec, Struct	Curtin	JOC	19 (1954)	820
C ₂₈ H ₂₂ O ₅	Di-o-carboxybenzhydryl ether	600-4000	S	Spec	Curtin	JOC	19 (1954)	352
C ₂₈ H ₂₃ N ₆ O	1-Rhizocarpic acid	650-3800	S,Sol	Spec	Frank	JACS	72 (1950)	4454
C ₂₈ H ₂₃ N ₄ O ₂ S ₂	2-(N-Anilino)-1,4-naphthalene dibenzene-sulfonamide	-	-	Group freq, Struct	Adams	JACS	75 (1953)	4642
C ₂₈ H ₂₃ N ₅	2-Methyl-4,6-bis-(di-phenylamino)-S-triazine	2-15 μ	Sol	Assign	Reimschuessel	JACS	82 (1960)	7356
C ₂₈ H ₂₄	Cyclooctacosa-1,3,8,10,15,17,22,24-octayne	3-15 μ	S	Spec	Wolovsky	JACS	81 (1959)	4600
C ₂₈ H ₂₄	2,2'-Dibenzylstilbene	10-14 μ	Sol	Group freq	Bergmann	JACS	75 (1953)	4281
C ₂₈ H ₂₄ N ₂ O ₆ S ₂	1-Acetoxyl-1,4,4a,9a-tetrahydro-9,10-anthraquinone dibenzesulfonimide	-	-	Group freq	Adams	JACS	74 (1952)	2593
C ₂₈ H ₂₄ N ₂ O ₇	Usnic acid arydrophenyl-hydrazone diacetate	-	Sol	Band freq	Barton	JCS	- (1953)	603
C ₂₈ H ₂₄ N ₂ O ₉ S	Benzene sulfonylapotermycinonitrile	-	S	Band freq	Hochstein	JACS	75 (1953)	4455
C ₂₈ H ₂₄ N ₄	6-Benzeneazo-1,3,6-triphenyl-1,4,5,6-tetrahydropyridazine	770-5000	S	Spec	Curtin	JACS	72 (1950)	5238
C ₂₈ H ₂₄ O ₂	O-Methoxy-sym-tetrabenzoacetone	-	S	Group freq	Dean	JACS	76 (1954)	4988
C ₂₈ H ₂₄ O ₂	1-Methyl-2,2,4,4-tetraphenyl oxetanol	-	S,Sol	Group freq	Hoey	JACS	77 (1955)	391
C ₂₈ H ₂₄ O ₂	cis-1,2,3,4-Tetraphenyl-2-butene-1,4-diol	-	-	Group freq	Lutz	JOC	20 (1955)	218

$C_{28}H_{24}O_2$	trans-1,2,3,4-Tetraphenyl -2-butene-1,4-diol(low m.p. 185°)	-	-	Band freq	Lutz	JOC	20 (1955)	218
$C_{28}H_{24}O_2$	trans-1,2,3,4-Tetraphenyl -2-butene-1,4-diol(high m.p. 291-293°)	-	S	Band freq	Lutz	JOC	20 (1955)	218
$C_{28}H_{26}N_2O_4S_2$	1,4-Dihydro-2,3-dimethyl -9,10-anthracene dibenzene sulfonamide	-	-	Group freq	Adams	JACS	74 (1952)	2593
$C_{28}H_{26}N_2O_4S_2$	1,4,4a,9a-Tetrahydro-2,3- dimethyl-9,10-anthra- quinone dibenzene sulfonimide	-	-	Group freq	Adams	JACS	74 (1952)	2593
$C_{28}H_{26}N_2O_10S$	Benzenesulfonyl- tetramycinonitrile	-	-	Band freq	Hochstein	JACS	75 (1953)	5455
$C_{28}H_{28}N_2O_4S_2$	4,4'-Diphenylsulfonamido -2,2'-dimethylbibenzyl	-	-	Spec, Ident	Fusion	JACS	75 (1953)	5744
$C_{28}H_{28}N_4O_4$	Acetonylpyrrole	6500-6900	Sol	Spec, Band freq	Wulf	JACS	57 (1935)	1464
$C_{28}H_{28}O$	Mesityl-1-benzyl-1-methyl -1,4-dihydro-2-naphthyl ketone	-	-	Ident	Fusion	JOC	17 (1952)	881
$C_{28}H_{28}OSi$	Triphenylsilylbutyl phenylether	-	-	Inductive effect	Josien	CPR	248 (1959)	826
$C_{28}H_{28}O_4$	Dibenzylidenedihydro- picROTOxinide	2-13 μ	Sol	Spec	Conroy	JACS	74 (1952)	491
$C_{28}H_{28}O_7P_2$	Tetrabenzyl pyrophosphate	-	-	Group freq	Bellamy Bell	JCS	- (1952)	1701
$C_{28}H_{28}Si$	Tetra-p-tolylsilane	-	-	Ident Group freq	Brook Margoshes	JACS AC	76 (1954) 27 (1955)	2333 351

C ₂₈ H ₂₉ N ₀ S ₃	β ,4-Dicarbanilino-5,5-dimethyl-1-2-phenacyl-aminomethylthiazolidine	800-2600	S	Spec	Davis	JOC	13 (1948)	682
C ₂₈ H ₃₀ N ₂ O ₄	O-Benzoylyohimbine	-	-	Group freq	Huebuer	JACS	77 (1955)	469
C ₂₈ H ₃₀ N ₄	Octamethylporphyrin	670-4000 400-4000	S S	Spec, Assign, Group freq Spec, H bonding	Falk Mason	AJSR JCS	4A (1951) - (1958)	579 976
C ₂₈ H ₃₀ O	Mesityl-1-benzyl-1-methyl- -1,2,3,4-tetrahydro-2-naphthyl ketone	-	-	Ident	Fusion	JOC	17 (1952)	881
C ₂₈ H ₃₀ O ₄	β , β -Bis(2'-methyl-4'-hydroxy-5'-isopropyl-phenyl)phthalide	330-2000	S	Freq	Jakobsen	APS	14 (1960)	61
C ₂₈ H ₃₀ O ₆	Desapogossypol hexamethyl ether	2-12 μ	Sol	Spec, Group freq, Struct	O'Connor	JACS	76 (1954)	2368
C ₂₈ H ₃₂ N ₂ O ₃	1-Methyl- β -benzal-4-piperidone dimer acetate	-	S	Group freq	McElvain	JACS	77 (1955)	492
C ₂₈ H ₃₂ N ₄	Octamethyl chlorin	400-4000	S	Spec, H bond	Mason	JCS	- (1958)	976
C ₂₈ H ₃₂ O ₄ Si ₄	2,4,6,8-Tetramethyl tetraphenylcyclotetrasiloxane	2-16 μ	Sol	Spec	Young	JACS	70 (1948)	3758
C ₂₈ H ₃₃ BrO ₁₇	Tetraacetylasperuloside monobromoacetoxylate	779-1776	S	Table, I	Briggs	JCS	- (1954)	4182
C ₂₈ H ₃₄	1,7-Diphenyl-4-(β -phenyl- α -propyl)heptane	1.1-1.25 μ	L	Group study, Anal	Evans	AC	23 (1951)	1604
C ₂₈ H ₃₄ O ₄	Δ ⁴ -Pregnene-20 β -ol-3,11-dione benzoate	-	-	Band freq	Constantin	JACS	75 (1953)	1716
C ₂₈ H ₃₄ O ₁₄ S ₂	Diethyl di-o-acetyl di-0- p -tolylsulfonylmucate	2-16 μ	S	Spec, Group freq	Tipson	JOC	18 (1953)	952
C ₂₈ H ₃₄ O ₁₅	Hesperidin	-	L	Group freq	Inglett	JOC	23 (1958)	93

$C_{28}H_{36}N_2O_7$	N-Acetyl-3-isoreserpine-diol diacetate	-	S	Group freq	MacPhillamy	JACS	77 (1955)	4355
$C_{28}H_{36}OSi$	Triphenylsilylhexyl butyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_{28}H_{36}OSi$	Triphenylsilylnonyl methyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_{28}H_{36}OSi$	Triphenylsilyloctyl ethyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_{28}H_{36}O_4$	19-Nor- Δ^{1} 22-spirostetraen- β -ol acetate	-	Sol	Band freq	Sondheimer	JACS	76 (1954)	2230
$C_{28}H_{36}O_5S$	11 α -Hydroxyprogesterone p-toluenesulfonate	-	Sol	Band freq	Rosenkrantz	JACS	76 (1954)	2227
$C_{28}H_{38}O_3$	Lumista-4,6,8(14),9(11),22-pentaen- β -one	725-1660	Sol	Table, I	Bladon	JCS	- (1955)	2176
$C_{28}H_{38}O_3$	21-Benzylidenepregnane- β ,20 β -diol-11-one	-	-	Group study	Oliveto	JACS	76 (1954)	6111
$C_{28}H_{38}O_4$	β -Acetoxy- $\Delta^{5,7,9}(10)$ 22-iso-19-norspirostriene	-	Sol Sol	Group freq Band freq	Mosettig Scheer	JOC JACS	17 (1952) 77 (1955)	764 3300
$C_{28}H_{38}O_5S$	Pregn-11 α -ol-3,20-dione p-toluenesulfonate	-	Sol	Band freq	Rosenkrantz	JACS	76 (1954)	2227
$C_{28}H_{38}O_6$	β ,5 α ,22-Triacetoxybisnor-chola-7,9,20(22)-triene	-	S	Group freq	Bladon	JCS	- (1953)	2916
$C_{28}H_{38}O_7$	β ,5 α ,22-Triacetoxy-9 α ,11 α -epoxybisnorchola-7,20(22)-dione	-	S	Group freq	Bladon	JCS	- (1953)	2916

$C_{28}H_{38}O_9$	Cellobiose acetate	700-1500	S	Ident.	White	AC	30 (1958)	506
$C_{28}H_{38}O_9$	α -Cellobiose octaacetate	8-15 μ	S	Spec	Kuhn	AC	22 (1950)	276
$C_{28}H_{38}O_9$	Gentibiose acetate	700-1500	S	Ident.	White	AC	30 (1958)	506
$C_{28}H_{38}O_9$	Isomaltose acetate	700-1500	S	Ident.	White	AC	30 (1958)	506
$C_{28}H_{38}O_9$	Lactose octaacetate	8-15 μ	S	Spec	Kuhn	AC	22 (1950)	276
$C_{28}H_{38}O_9$	Maltose acetate	700-1500	S	Ident.	White	AC	30 (1958)	506
$C_{28}H_{38}O_9 \cdot 2H_2O$	Octaacetetyl trehalose dihydrate	2-15 μ	S	Spec	Arcamone	GCI	87 (1957)	1499
$C_{28}H_{38}O_9$	Sucrose octaacetate	—	S	Ident.	Lemieux	JACS	75 (1953)	448
$C_{28}H_{38}O_9$	Octaacetyl trehalosamine	2-15 μ	S	Spec	White	AC	30 (1958)	506
$C_{28}H_{39}NO_{18}$	Anthraergostapentaene	—	Sol	Group study	Arcamone	GCI	87 (1957)	1499
$C_{28}H_{40}$	$\beta,5$ -Cycloergosta-6,9(11),8(14),22-tetraene	1550-1650	Sol	Spec, Band freq	Nes Scheer	JACS	76 (1954)	3182
$C_{28}H_{40}$	Antimycin A	—	Sol	Band freq, Group freq	Rees	JACS	77 (1955)	3300
$C_{28}H_{40}NO_9$	Ergosta-3,5,8(9),22-tetraen-7-one	2-12 μ	Sol	Spec	Tener	JACS	— (1954)	3422
$C_{28}H_{40}O^0$	Ergosta-4,6,8(9),22-tetraen-3-one	—	Sol	Group freq	Elks	JCS	— (1954)	463
$C_{28}H_{40}O^0$	Ergosta-4,6,8(14),22-tetraen-3-one	—	Sol	Group freq	Elks	JCS	— (1954)	468
$C_{28}H_{40}O^0$	Lumista-3,5,8(9),22-tetraen-7-one	685-1643	Sol	Group freq, I	Bladon	JCS	— (1955)	2176
$C_{28}H_{40}O^0$	Lumista-4,6,8(9),22-tetraen-3-one	680-1655	Sol	Table, I	Bladon	JCS	— (1955)	2176

$C_{28}H_{40}^0$	Lumista-4,6,8(14),22-tetraen-3-one	695-1663	Sol	Table, I	Bladon	JCS - (1955) 2176
$C_{28}H_{40}^0_2$	1,1-Bis-(2-hydroxy-3-t-butyl-5-meethylphenyl)cyclohexane	2.35-3.05 μ	S,Sol	Spec, H bond	Coggesshall	JACS 72 (1950) 2836
$C_{28}H_{40}^0_2$	3,5,3',5'-Tetra-t-butyl-diphenquinone	1600-1800	Sol	Group freq	Fuson	JACS 76 (1954) 2526
$C_{28}H_{40}^0_3$	21-Benzylidene pregnane- β ,20 β -triol	-	-	Group study	Oliveto	JACS 76 (1954) 6111
$C_{28}H_{40}^0_3$	Δ -29,30-Bisnoroleadien-3 β -ol-11,20-dione	12,18	Sol	Band freq	Djerassi	JACS 76 (1954) 4085
$C_{28}H_{40}^0_7$	3 β ,5 α ,22-Triacetoxysterinorchole-20(22)-en-11-one	-	S	Group freq	Bladon	JCS - (1954) 125
$C_{28}H_{40}^0_8$	Digitogenin lactone triacetate	-	Sol	Band freq	Klass	JACS 77 (1955) 3829
$C_{28}H_{41}NO_7$	Norcerinone-C-ortho-acetate	-	-	Group freq	Kupchan	JACS 77 (1955) 683
$C_{28}H_{42}^0$	3,5-Cyclo- Δ ergostaatriene 6,8:14,22	2-16 μ	-	Spec	Fieser	JACS 74 (1952) 5397
$C_{28}H_{42}^0_4$	Δ _{2,4} -Ergostenone-3-d ₄ -	-	Sol	Group freq	Jones	JACS 74 (1952) 5662
$C_{28}H_{42}^0$	24(28)Dehydroergosterol	8-13 μ	Sol	Spec, Band freq	Brewik	JOC 19 (1954) 1734
$C_{28}H_{42}^0$	Ergosta-4,7,22-trien-3-one	650-900	Sol	Spec	Henbest	JCS - (1957) 997
$C_{28}H_{42}^0$	Lumista-4,7,22-trien-3-one	765-1674	Sol	Table, I	Bladon	JCS - (1955) 2176

$C_{28}H_{42}^0$	9(10)-Secoergosta-4,7, 10(19),22-tetraen-3-one	-	S	Band freq	Trippett	JCS	-	(1955)	370
$C_{28}H_{42}O_2$	Di-(4-hydroxy-2-methyl- 5-t-butylphenyl)-3- pentylmethane	2.5-3.4 μ	S, Sol	Group freq	Ambelang	JACS	75	(1953)	947
$C_{28}H_{42}O_2$	8 β -Hydroxylumista-4,6, 22-trien-3-one	675-1665	Sol	Table, I	Bladon	JCS	-	(1955)	2176
$C_{28}H_{42}O_3$	21-Benzylpregna-3 α , 1 β ,20 α -triol	-	-	Group study	Oliveto	JACS	76	(1954)	6111
$C_{28}H_{42}O_3$	7,24-Dioxa-26,27-bisnor- lanosta-8,11-dien-3 α -ol	-	Sol	Band freq	Halsall	JCS	-	(1954)	2385
$C_{28}H_{42}O_3$	5 α ,8 α -Epidioxy-3 β - hydroxylumista-6,9(11), 22-triene	-	S	Ident	Bladon	JCS	-	(1955)	2176
$C_{28}H_{42}O_3$	3,7,24-Trioxo-26,27- bisnorlanost-8-ene	-	Sol	Band freq, Ident	Halsall	JCS	-	(1954)	2385
$C_{28}H_{42}O_5$	22a,5 α -C-Nor-D-homo- 18-norspirostan-3 β -ol- 17a-one acetate	-	-	Ident	Hirschmann	JACS	76	(1954)	4013
$C_{28}H_{42}O_7$	3 β ,22,22-Triacetoxybisnor- allocholan-11-one	-	Sol	Group freq Band freq	Cameron Page	JCS	-	(1953)	3864
$C_{28}H_{42}O_7$	2 β ,8 β ,11 α -Triacetoxy- lanalone	-	Sol	Band freq	Barnes	JCS	-	(1955)	2017
$C_{28}H_{42}O_7$	3 β ,7 θ ,11 α -Triacetoxy-4, 4,4-trimethyl-3 α - androstan-17-one	2.5-15 μ	Sol	Struct	Cole	JCS	-	(1955)	571
$C_{28}H_{43}NO_5$	13 α -Cyno-22a,5 α -C- nor-D-homospirostane	-	-	Group study	Hirschmann	JACS	76	(1954)	4013
$C_{28}H_{43}O_4^P$	Bis-[p-(1,1,3,3-Tetra- methylbutyl)phenyl] phosphoric acid	500-4000	S, Sol	H bond	Peppard	JINC	7	(1958)	231

$C_{28}H_{44}$	Anthraergostatriene	700-1400	Sol	Spec, Band freq	Scheer	JACS	77 (1955)	3300
$C_{28}H_{44}$	$\begin{matrix} 3,5\text{-Cyclo-}\Delta \\ \text{ergostadiene} \end{matrix}$	$\begin{matrix} 8(14),22 \\ - \end{matrix}$	$2.7\text{-}15\mu$	Sol	Spec, Struct, Group freq	Cahill	JOC	18 (1953) 720
$C_{28}H_{44}Br_2^0$	$\begin{matrix} 2\alpha,4\alpha\text{-Dibromoergost} \\ -9(11)\text{-en-}\beta\text{-one} \end{matrix}$	400-4000	Sol	Spec, Ext. Coefficient	Cummins	JCS	- (1957) 3847	
$C_{28}H_{44}Br_2^0$	$\begin{matrix} 2\alpha,4\alpha\text{-Dibromoergosta} \\ -\beta,11\text{-dione} \end{matrix}$	400-4000	Sol	Spec, Substitution	Cummins	JCS	- (1957) 3847	
$C_{28}H_{44}^0$	$\begin{matrix} 3,5\text{-Cyclo-}\Delta \\ -8(14)\text{oxide} \end{matrix}$	22	$2.7\text{-}15\mu$	Sol	Spec, Struct, Group freq	Cahill	JOC	18 (1953) 720
$C_{28}H_{44}^0$	$\begin{matrix} \Delta^{4,22} \\ -\text{Ergostadienone-}\beta \end{matrix}$	-	Sol	Group freq Group freq	Jones Shepherd	JACS JACS	74 (1952) 77 (1955) 5648	
$C_{28}H_{44}^0$	$\begin{matrix} \Delta^{7,22} \\ -\text{Ergostadienone-}\beta \end{matrix}$	-	Sol	Group freq	Jones	JACS	74 (1952) 5648	
$C_{28}H_{44}^0$	Ergosterol	$\begin{matrix} 650\text{-}1300 \\ 8\text{-}13\mu \end{matrix}$	S Sol	Spec Spec	Turnbull Breivek	CIL JOC	33 (1950) 19 (1954) 626	
$C_{28}H_{44}^0$	$\begin{matrix} \Delta^{8:14} \\ -\text{Ergosterol} \end{matrix}$	-	S	Band freq	Idler	JACS	75 (1953) 1712	
$C_{28}H_{44}^0$	Lumisterol	1650-1800	Sol -	Group study Group freq	Jones Jones	JACS JACS	72 (1950) 74 (1952) 5648	
$C_{28}H_{44}^0$	Vitamin D ₂	$\begin{matrix} - \\ 700\text{-}1500 \\ 1650\text{-}1800 \\ - \end{matrix}$	Sol Sol -	Spec Spec Group study Group freq	Shallow Jones Jones Jones	PR CIC JACS JACS	45 (1934) 2 (1950) 72 (1950) 74 (1952) 126 94 96 5648	
$C_{28}H_{44}^0$	$\begin{matrix} 3,5\text{-Cycloergostane-8(14),} \\ 22\text{-dioxide} \end{matrix}$	$2.7\text{-}15\mu$	Sol	Spec, Struct, Group freq	Cahill	JOC	18 (1953) 720	
$C_{28}H_{44}^0$	$\begin{matrix} 4 \\ 4\text{-Methyl-}\Delta \\ -3,6\text{-dione} \end{matrix}$	-	Sol	Band freq	Fieser	JACS	75 (1953) 4386	

$C_{28}H_{44}O_3$	$\beta\beta,5\alpha$ -Dihydroxyergosta-9(11),22-dien-7-one	-	S	Group freq	Elks	JCS	-	(1954)	463
$C_{28}H_{44}O_3$	7,24-Dioxo-26,27-bis-norlanost-8-en- $\beta\alpha$ -ol	-	Sol	Band freq	Halsall	JCS	-	(1954)	2385
$C_{28}H_{44}O_3$	$5\alpha,8\alpha$ -Epidioxy- Δ -ergostadienol- $\beta\beta$	6,22	Sol	Band freq, I	Henbest	JCS	-	(1954)	800
$C_{28}H_{44}O_3$	$5\beta,8\beta$ -Epidioxy- $\beta\beta$ -hydroxylumista-6,22-diene	-	S	Group freq, Ident	Bladon	JCS	-	(1955)	2176
$C_{28}H_{44}O_3$	9 $\alpha,11\alpha$ -Epoxyergosta-7,22-diene- $\beta\beta,5\alpha$ -diol	-	S	Group freq	Elks	JCS	-	(1954)	463
$C_{28}H_{44}O_3$	Δ ,7,14,22-Ergostatriene- $\beta\beta,5\alpha,6\alpha$ -triol	-	Sol	Band freq	Fieser	JACS	75	(1953)	4066
$C_{28}H_{44}O_3$	Methyl- β -oxo-A-trisnor-lupan-28-oate	1350-1500	Sol	Spec, Struct	Cole	JCS	-	(1956)	1007
$C_{28}H_{44}O_3$	Δ -27-Norcholesténol- $\beta\beta$ -one-25 acetate	-	Sol 700-1400	Group freq S,Sol Sol	Jones Tarpley Jones	JACS APS JACS	74 9 78	(1952) (1955) (1956)	5648 69 1152
$C_{28}H_{44}O_3$	$\overset{5}{\Delta}$ -Nor-27-cholestén- $\beta\beta$ -ol-24-one acetate	700-1400	Sol	Ident	Jones	JACS	78	(1956)	1152
$C_{28}H_{44}O_4$	$\beta\beta,24$ -Diacetoxy- Δ (20)allocolene	-	-	Band freq	Ryer	JACS	74	(1952)	4336
$C_{28}H_{44}O_4$	$3\alpha,24$ -Diacetoxychol-11-ene	650-3100	Sol	Band freq, I	Henbest	JCS	-	(1954)	800
$C_{28}H_{44}O_4$	$5\alpha,8\alpha$ -Epidioxy- $\beta\beta$ -hydroxy-12-keto-ergost-9(11)-ene	-	S	Group freq	Henbest	JCS	-	(1952)	4894

C ₂₈ H ₄₄ O ₂	Methyl-3 α -hydroxy-11,12-diketooarate-12-trimethylenethioketal	-	Sol	Group freq	Archer	JACS	76 (1954)	4915
C ₂₈ H ₄₄ O ₅	$\begin{array}{c} 4 \\ \text{6,7-Secoo-}\Delta\text{-cholesten-3-} \\ \text{one-6,7-dioic acid, 7-} \\ \text{monomethyl ester} \end{array}$	-	Sol	Group freq, Band freq	Fieser	JACS	75 (1953)	4386
C ₂₈ H ₄₄ O ₆	Bisnorallocholane-3 β ,16 β ,22-triol triacetate	-	Sol	Freq	Klass	JACS	77 (1955)	3829
C ₂₈ H ₄₄ Si	Diphenyl-n-hexadecyl-silane	2-16 μ	Sol	Group freq	Kniseley	SA	15 (1959)	651
C ₂₈ H ₄₅ BrO ₂	2 α -Bromoergosta-3,11-dione	400-4000	Sol	Spec, Substitution effect	Cummins	JCS	- (1957)	3847
C ₂₈ H ₄₅ N	3-Cyano-5 α -cholest-2-ene	-	-	Struct	Casu	GCI	90 (1960)	1147
C ₂₈ H ₄₅ N	3-Cyano-5 β -cholest-2-ene	-	-	Struct	Casu	GCI	90 (1960)	1147
C ₂₈ H ₄₅ N	3-Cyano-5 β -cholest-3-ene	-	-	Struct	Casu	GCI	90 (1960)	1147
C ₂₈ H ₄₆	3,5-Cyclo- Δ ergostene	8(14)	2.7-15 μ	Sol	Spec, Struct, Group freq Cahill	JOC	18 (1953)	720
C ₂₈ H ₄₆	Δ -5-Isoergostadiene	7,22	Sol	Group study	Jones	JACS	72 (1950)	956
C ₂₈ H ₄₆ Br ₂ O ₂	2 α ,4 α -Dibromo-11 β -hydroxyergostan-3-one	1650-1800	Sol	Spec, Substitution effect	Cummins	JCS	- (1957)	3847
C ₂₈ H ₄₆ O	Chalinesterol	-	S	Band freq	Idler	JACS	77 (1955)	4142
C ₂₈ H ₄₆ O	α -Dihydroergosterol	2.5-13 μ	Sol	Struct	Rosenkrantz	JACS	75 (1953)	903
C ₂₈ H ₄₆ O	γ -Dihydroergosterol	2.5-13 μ	Sol	Struct	Rosenkrantz	JACS	75 (1953)	903

$C_{28}H_{46}^0$	$\Delta^{7,22}-\beta$ -isoergostadienol $-\beta\alpha$	-	Sol	Group freq	Cole	JACS	74 (1952)	5571
$C_{28}H_{46}^0$	$\Delta^{7,22}$ -Ergostadienol- $\beta\beta$	-	-	Ident	Nes	JOC	18 (1953)	276
$C_{28}H_{46}^0$	$\Delta^{8(14),22}$ -Ergostadienol- $\beta\beta$	-	-	Group freq	Nes	JOC	18 (1953)	276
$C_{28}H_{46}^0$	Δ^7 -Ergostenone- β	700-1000	Sol	Spec., Band freq	Bladon	JCS	- (1951)	2402
$C_{28}H_{46}^0$	$\Delta^{8:14}$ -Ergostenone- β	700-1000	Sol	Group freq	Jones	JACS	72 (1950)	956
			Sol	Spec., Band freq	Bladon	JCS	- (1951)	2402
			Sol	Group freq	Jones	JACS	74 (1952)	5648
			Sol	Group freq	Jones	JACS	74 (1952)	5662
$C_{28}H_{46}^0$	Ergost-9(11)-en- β -one	400-4000	Sol	Spec., Substitution effect	Cummins	JCS	- (1957)	3847
$C_{28}H_{46}^0$	Δ^{22} -Ergostenone- β	-	Sol	Group freq	Jones	JACS	72 (1950)	956
			Sol	Group freq	Jones	JACS	74 (1952)	5648
$C_{28}H_{46}^0$	$\Delta^{5,7}$ - β -Methoxycholestadiene	640-3600	S	Spec., Ident	Bernstein	JACS	73 (1951)	846
$C_{28}H_{46}^0$	24-Methylenecholesterol	-	S	Group freq	Idler	JACS	77 (1955)	4142
$C_{28}H_{46}^0$	$\beta\beta$ -Carboxy- Δ -cholestene	-	S,Sol	Ident	Corey	JACS	75 (1953)	6234
$C_{28}H_{46}^0$	Δ^5 -Cholestenol- $\beta\beta$ -formate	-	Sol	Group freq	Jones	JACS	74 (1952)	5648
$C_{28}H_{46}^0$	Ergosta- β ,11-dione	400-4000	Sol	Spec., Substitution effect	Cummins	JCS	- (1957)	3847
$C_{28}H_{46}^0$	Ketoergostenol	-	Sol	Group freq	Turner	JACS	75 (1953)	4362

$C_{28}H_{46}O_2$	4-Methylcholestane - β ,6-dione	-	Sol	Band freq, I_{SO}	Fieser	JACS	75 (1953)	4386
$C_{28}H_{46}O_3$	$5\alpha, 12\alpha$ -Dihydroxy-26,27 -bisnorlanost-8-en- 24-one	-	Sol	Band freq	Halsall	JCS	- (1954)	2385
$C_{28}H_{46}O_3$	Ergosta-7,22-diene- $\beta\alpha$, $5\alpha, 1\beta$ -triol	-	S	Group freq	Bladon	JCS	- (1953)	2921
$C_{28}H_{46}O_3$	Ergosta-9(11),22-diene $\beta\beta, 5\alpha, 7\beta$ -triol	-	S	Group freq	Elks	JCS	- (1954)	463
$C_{28}H_{46}O_3$	Sarsasapogenin methyl ether	-	Sol	Group freq	Page	JCS	- (1955)	2017
$C_{28}H_{46}O_4$	5β -Hydroxy-6-keto- cholestane- $\beta\beta$ -carboxylic acid	-	S	Group freq	Roberts	JCS	- (1954)	3178
$C_{28}H_{46}O_5$	200 β -Markogenin acetate	2750-3100	Sol	Spec, Group freq	Smith	AC	31 (1959)	1539
$C_{28}H_{46}O_5$	20 β -Markogenin acetate	2750-3100	Sol	Spec, Struct	Smith	AC	31 (1959)	1539
$C_{28}H_{46}O_6$	Methyl hecolate	-	Sol	Group freq, Band freq	Rothman	JACS	76 (1954)	527
$C_{28}H_{47}BrO_2$	2α -Bromo-11 β -hydroxy- ergostan- β -one	400-4000	Sol	Spec, Substitution effect	Cummins	JCS	- (1957)	3847
$C_{28}H_{47}BrO_2$	4 α -Bromo-11 β -hydroxy- ergostan- β -one	400-4000	Sol	Spec, Substitution effect	Cummins	JCS	- (1957)	3847
$C_{28}H_{48}$	Δ^7 -Ergostenone	700-1000	Sol	Spec, Band freq	Bladon	JCS	- (1951)	2402
$C_{28}H_{48}$	$\Delta^{8(14)}$ -Ergostenone	1650-1800 700-1000	Sol Sol -	Group study Spec, Band freq Group freq	Jones Bladon Jones	JACS JCS JACS	72 (1950) - (1951) 74 (1952)	956 2402 5648
$C_{28}H_{48}$	Δ^{14} -Ergostenone	-	Sol	Group freq	Jones	JACS	74 (1952)	5648

$C_{28}H_{48}$	Δ -Ergostenone	1650-1800 680-1400 1350-1500	Sol Sol Sol	Group study Spec Spec, Group freq	Jones Jones Jones	JACS JACS JACS	72 (1950) 72 (1950) 74 (1952)	956 5322 5648
$C_{28}H_{48}$	Δ -5-isoergostenone	1650-1800	Sol	Group study	Jones	JACS	72 (1950)	956
$C_{28}H_{48}$	1-(n-Tetrahydronaphthyl)n-octadecane	5400-8900	Sol	Assign, Spec	Rose	JRNB	19 (1937)	143
$C_{28}H_{48}^0$	Campesterol	10.0-10.75 μ	Sol	Anal	Johnson	AC	29 (1957)	468
$C_{28}H_{48}^0$	i-Cholesteryl methyl ether	3-13 μ	S,Sol	Spec, Band freq, Struct	Josien	JACS	73 (1951)	4445
$C_{28}H_{48}^0$	Ergostan- β -one	950-1350	S,Sol	Band freq	Rosenkrantz	AC	28 (1956)	31
$C_{28}H_{48}^0$	α -Ergostenol	2.5-13 μ	Sol	Group freq, Struct	Rosenkrantz	JACS	75 (1953)	903
$C_{28}H_{48}^0$	β -Ergostenol	2.5-13 μ	Sol	Group freq, Struct	Rosenkrantz	JACS	75 (1953)	903
$C_{28}H_{48}^0$	γ -Ergostenol	2.5-13 μ	Sol	Group freq, Struct	Rosenkrantz	JACS	75 (1953)	903
$C_{28}H_{48}^0$	Δ -5-isoergostenol- $\beta\alpha$	1650-1800	Sol	Group study	Jones	JACS	72 (1950)	956
$C_{28}H_{48}^0$	Δ -Ergostenol- $\beta\beta$	700-1000 2.5-15 μ -	Sol Sol S	Spec, Band freq Spec, Band freq Band freq	Bladon Hirschmann Idler	JCS JACS JACS	- (1951) 74 (1952) 75 (1953)	2402 5357 1712
$C_{28}H_{48}^0$	Δ -Ergostenol- $\beta\beta$	-	Sol	Group freq	Cole Jones	JACS JACS	74 (1952) 74 (1952)	5571 5648
$C_{28}H_{48}^0$	Δ (14) -Ergostenol- $\beta\beta$	700-1000	Sol - -	Spec, Band freq Group freq Group freq Ident	Bladon Cole Jones Nas	JCS JACS JOC	- (1951) 74 (1952) 74 (1952) 18 (1953)	2402 5571 5648 276

C ₂₈ H ₄₈ ⁰	¹⁴ Δ -Ergostenol- ³ β	700-1000	Sol Sol Sol	Spec, Band freq Group freq Group freq	Bladon Cole Jones	JCS JACS JACS	- (1951) 74 (1952) 74 (1952)	2402 5571 5648
C ₂₈ H ₄₈ ⁰	²² Δ -5-Isoergostenol- ³ α	900-3700	Sol Sol	Group freq Spec, Group freq	Cole Jones	JACS JACS	74 (1952) 74 (1952)	5571 5648
C ₂₈ H ₄₈ ⁰	⁵ 3β-Methoxy- Δ -cholestene	640-3600 3-13 μ	S S,Sol	Spec, Ident Spec, Band freq, Struct	Bernstein Josien	JACS JACS	73 (1951) 73 (1951)	846 4445
		2.5-15 μ	Sol Sol	Spec, Band freq Group freq Group freq, Ident	Hirschmann Page Henbest	JACS JCS JCS	74 (1952) - (1955) - (1957)	5357 2017 1462
C ₂₈ H ₄₈ ⁰	⁵ 4β-Methoxy- Δ -cholestene	-	-	Ident Ident	Evans Becker	JCS JOC	- (1953) 20 (1955)	540 353
C ₂₈ H ₄₈ ⁰	⁴ 6β-Methoxy- Δ -cholestene	-	-	Ident	Becker	JOC	20 (1955)	353
C ₂₈ H ₄₈ ⁰	2-Carbomethoxy-A-nor- cholestane	-	Sol	Group freq	Smith	JACS	76 (1954)	6119
C ₂₈ H ₄₈ ⁰	¹¹ β-Hydroxyergosten- ³ - one	400-4000	Sol	Spec, Substitution effect	Cummins	JCS	- (1957)	3847
C ₂₈ H ₄₈ ⁰	β-Tocopherol	6-10.5 μ	-	Spec	Stern	JACS	69 (1947)	869
C ₂₈ H ₄₈ ⁰	γ-Tocopherol	6-10.5 μ	-	Spec	Stern	JACS	69 (1947)	869
C ₂₈ H ₄₈ ⁰	³ β, ⁵ α-Dihydroxyergostan- -11-one	-	S	Group freq	Bladon	JCS	- (1953)	2921
C ₂₈ H ₄₈ ⁰	⁵ α-Hydroxycholestane- ³ β-carboxylic acid	-	S	Group freq	Roberts	JCS	- (1954)	3178
C ₂₈ H ₄₈ ⁰	⁴ β-Methoxycholestane- ol-2-one	-	Sol	Group freq	Conca	JOC	18 (1953)	1104
C ₂₈ H ₄₈ ⁰	³ β-Tocopherylquinone	1600-1800	Sol	Group freq	Fuson	JACS	76 (1954)	2526

$C_{28}H_{48}O_5$	$\beta,5\alpha,9\beta,11\alpha$ -Tetra-hydroxyergostan-7-one	-	S	Group freq	Bladon	JCS	-	(1953)	2916
$C_{28}H_{49}C_1$	β -Chloro- β -methyl-cholestane	400-1400	Sol	Group freq	Barton	JCS	-	(1956)	331
$C_{28}H_{50}$	Ergostane	1650-1800 680-1400 1350-1500 950-1350	Sol Sol Sol S,Sol	Group study Spec Spec, Group freq Band freq	Jones Jones Jones Rosenkrantz	JACS JACS JACS AC	72 72 74 28	(1950) (1950) (1952) (1956)	956 5322 5648 31
$C_{28}H_{50}^0$	Ergostanol- $\beta\beta$	- 2.5-13 μ 770-3700 650-1350	Sol Sol Sol Sol	Group freq Group freq Struct, Group freq Freq, I Discussion	Cole Jones Rosenkrantz Rosenkrantz Jones	JACS JACS JACS JACS JACS	74 74 75 77 80	(1952) (1952) (1953) (1955) (1958)	5571 5648 903 2237 6121
$C_{28}H_{50}^0$	Lumistanol- $\beta\alpha$	700-1350 -	Sol -	Spec, Band freq Group freq	Cole Barton	JCS JCS	- -	(1952) (1953)	4969 1027
$C_{28}H_{50}^0$	Lumistanol- $\beta\beta$	700-1350 -	Sol -	Spec, Band freq Group freq	Cole Barton	JCS JCS	- -	(1952) (1953)	4969 1027
$C_{28}H_{50}^0$	$\beta\alpha$ -Methoxycholestane	650-1400	Sol	Group freq Spec	Lewis Page	JCS JCS	- -	(1955) (1955)	1375 2017
$C_{28}H_{50}^0$	$\beta\beta$ -Methoxycholestane	-	Sol Sol	Group freq Spec	Lewis Page	JCS JCS	- -	(1955) (1955)	1375 2017
$C_{28}H_{50}^0$	$\beta\alpha$ -Methoxycoprostanate	-	Sol	Ident Group freq Spec	Lewis Lewis Page	JCS JCS JCS	- - -	(1955) (1955) (1955)	1375 1365 2017
$C_{28}H_{50}^0$	$\beta\beta$ -Methoxycoprostanate	-	Sol Sol	Group freq Spec	Lewis Page	JCS JCS	- -	(1955) (1955)	1375 2075
$C_{28}H_{50}^0$	$\beta\alpha$ -Methylcholestane- $\beta\beta$ _{ol}	3600-3650	Sol	Group freq, Ident	Cole	JCS	-	(1959)	1218
$C_{28}H_{50}^0$	$\beta\beta$ -Methylcholestane- $\beta\alpha$ _{ol}	3600-3650	Sol	Group freq, Ident	Cole	JCS	-	(1959)	1218
$C_{28}H_{50}^0$	Lumistane- $\beta\beta$, $\beta\beta$, $\beta\beta$ -triol	-	S	Group freq	Bladon	JCS	-	(1955)	2176

$C_{28}H_{52}O_4$	Lauryl fumarate	2-16 μ	L	Spec, Ident	Walton	AC	28 (1956)	1368
$C_{28}H_{52}O_4$	Lauryl maleate	2-16 μ	L	Spec, Ident	Walton	AC	28 (1956)	1388
$C_{28}H_{54}O_4$	Dimyristoyl peroxide	-	Sol	Group freq	Davison	JCS	- (1951)	2456
$C_{28}H_{54}O_4$	Di-n-nonyl sebacate	2-16 μ	Sol	Spec	Stahl	JACS	74 (1952)	5487
$C_{28}H_{56}$	5-Cyclohexyl-n-docosane	5400-8900	Sol	Assign, Spec	Rose	JRNB	19 (1937)	143
$C_{28}H_{56}$	11-Cyclohexylmethyl-n-heneicosane	1.1-1.25 μ	L	Anal	Evans	AC	23 (1951)	1604
$C_{28}H_{56}O_2$	n-Octacosanoic acid	2-15 μ	S	Spec, Qual anal	McKlejohn	AC	29 (1957)	329
$C_{28}H_{58}$	n-Octacosane	9.25-11.25 μ	Sol	Group anal	Hastings	AC	24 (1952)	6112
		700-3000	Sol	Spec	Miller	JPC	60 (1956)	599
				Group study, Ext.	Jones	SA	9 (1957)	235
				coefficient				
		750-1200	S	Struct	Snyder	JCP	27 (1957)	969
		650-900	L,S	Band freq	Martin	SA	12 (1958)	112
		700-1500	S	Freq, Assign	Snyder	JMS	4 (1960)	411

 C_{29} COMPOUNDS

$C_{29}H_{16}N_2O_4$	N-Methylindanthrone	5.9-8.5 μ	Sol	Spec, Struct	Wyman	JACS	78 (1956)	4599
$C_{29}H_{20}O$	2,3,4,5-Tetraphenyl-cyclopenta-2,4-dien-1-one	2-15 μ	Sol	Spec	Sonntag	JACS	75 (1953)	2283
$C_{20}H_{20}O_2$	2-Benzoyl-3,4,5-triphenyl-furan	-	Sol	Band freq	Yates	JACS	76 (1954)	5110
$C_{29}H_{20}O_3$	2-Benzoyl-4-hydroxy-2,3,4-triphenyl-3-butenoic acid lactone	-	Sol	Group freq	Yates	JACS	76 (1954)	5110
$C_{29}H_{22}N_2O_5$	N-(6-Benzylamino-3,4-methylenedioxybenzoyl)-p-methoxyaminophenyl-benzoate	700-1500	S	Group freq	Briggs	AC	29 (1957)	904

C ₂₉ H ₂₂ O ⁰	1,3-Dihydro-1,3-diphenyl-2- ² -ketoo-2H-cyclopenta[1]phenanthrene	2-15 μ	S	Spec	Sonntag	JACS	75 (1953)	2283
C ₂₉ H ₂₂ O ⁰	2,3,4,5-Tetraphenylcyclopenta-2,4-dien-1-ol	2-15 μ	S	Spec, Group freq	Sonntag	JACS	75 (1953)	2283
C ₂₉ H ₂₂ O ⁰	2,3,4,5-Tetraphenylcyclopent-2-en-1-one	2-15 μ	S	Spec, Group freq Ident	Sonntag Mueller	JACS JACS	75 (1953) 76 (1954)	2283 4621
C ₂₉ H ₂₂ O ⁰	2,3,4-Triphenyl-5-benzylfuran	2-15 μ	sol	Spec	Sonntag	JACS	75 (1953)	2283
C ₂₉ H ₂₂ O ⁰	4,5-Dihydroxy-2,3,4,5-tetr phenylclopent-2-enone	-	sol	Struct	Yates	JACS	76 (1954)	5110
C ₂₉ H ₂₄	Tetraphenylcyclopentene	2-15 μ	sol	Spec	Sonntag	JACS	75 (1953)	2283
C ₂₉ H ₂₄ N ₂ O ⁰	1,2-Dibenzoyl-1-phenylcyclopropane monophenylhydrazone	3-11 μ	S	Ident	Allen	JOC	22 (1957)	1291
C ₂₉ H ₂₄ O ⁰	1-Ethoxy-1,2,3-triphenylindene	-	-	Group study	Lutz	JACS	77 (1955)	366
C ₂₉ H ₂₄ O ⁰	2,3,4,5-Tetraphenylcyclopentanone-1	2-15 μ	sol	Spec, Group freq	Sonntag	JACS	75 (1953)	2283
C ₂₉ H ₂₅ N ₃ O ⁰ S ₂	2-N-Methylanilino-1,4-naphthalene dibenzene-sulfonamide	-	-	Group freq, Struct	Adams	JACS	75 (1953)	4642
C ₂₉ H ₂₆ N ⁰ B ⁰	Pyridinium tetraphenylborate	-	S	H bond, Band freq	Muttall	JCS	- (1960)	4965
C ₂₉ H ₂₆ N ₂ O ⁰ S ₂	Diethyl(1-benzensulfonimido-4-benzensulfonimido-1,2-dihydrop naphylidene-2)-malonate	-	-	Group study	Adams	JACS	74 (1952)	5557
C ₂₉ H ₂₇ N ₃	1,5-Diphenyl-3-p-tolyl-4-benzylamino-2-pyrazoline	687-3050	-	Table	Cromwell	JACS	71 (1949)	3337

$C_{29}H_{28}N_2O_8S_2$	Diethyl 1,4-naphthalene dibenzenesulfonamido-2-malonate	-	-	Group study	Adams	JACS 74 (1952) 5557
$C_{29}H_{28}O$	Mesityl 1-p-isopropylphenyl-2-naphthyl ketone	-	-	Grignard reaction prod.	Fusion	JOC 16 (1951) 643
$C_{29}H_{30}OSi$	Triphenylsilylpentyl phenyl ether	-	-	Inductive effect	Josien	CPR 249 (1959) 826
$C_{29}H_{30}O_3$	p-Durolyphenyl duryl dike tone	-	-	Ident	Fusion	JACS 77 (1955) 3776
$C_{29}H_{31}NO_8 \cdot 2H_2O$	N-Benzylornnarceine dihydrate	-	-	Group freq	Whaley	JOC 19 (1954) 666
$C_{29}H_{33}BrN_2O_4$	dL-Rubremetinium bromide	800-3700	Sol	Spec, Ident	Battersby	JCS - (1953) 2463
$C_{29}H_{34}N_2O_6S$	Methyl recanescate O-tosylate	-	Sol	Comparison	Neuss	JACS 77 (1955) 4087
$C_{29}H_{34}N_2O_8S_2$	N,N' -Dicarbeethoxymethyl- N,N' -dibenzenesulfonyl-1-diaminomesitylene	650-4000	S	Ident	Adams	JACS 70 (1948) 4204
$C_{29}H_{34}N_4O_9$	Cortisone 21-acetate- β -mono-2,4-dinitrophenyl-1-hydrazone	-	Sol	Group freq	Reich	JOC 18 (1953) 822
$C_{29}H_{34}O$	β ,4-Diphenyl-2,5-dodeca-methylenecyclopenta-2,4-dienone	2-15 μ	Sol	Group study	Allen	JOC 20 (1955) 306
$C_{29}H_{34}O$	Trimesityl vinyl alcohol	2.7-2.9 μ	-	OH data	Fusion	JACS 68 (1946) 389
$C_{29}H_{34}O$	Maleic anhydride adduct of $\beta\beta$,20-diacetoxy-5,7,9(11),pregnatriene	-	-	Spec	Buswell	JACS 69 (1947) 770
$C_{29}H_{34}O$	Maleic anhydride adduct of $\beta\beta$,20-diacetoxy-9,11-oxido-5,7,20-pregnatriene	-	-	Freq	Moffett	JACS 74 (1952) 2183
$C_{29}H_{34}O_8$					Moffett	JACS 74 (1952) 2183

C ₂₉ H ₃₄ O ₁₅	Pectolinarin	-	L	Freq	Tiglgett	JOC	23 (1958)	93	
C ₂₉ H ₃₆ NO ₅	22,26-Imino-4,13,15,17 (17a)-jervatetraene-2 β -ol - β ,11-dione N-acetate	-	S	Band freq	Wintersteiner	JACS	75 (1953)	4938	
C ₂₉ H ₃₆ N ₂ O ₄	Isotetradehydroemetine	2-16 μ	S	Spec, Struct	Hayett	JACS	73 (1951)	2578	
C ₂₉ H ₃₆ N ₄ O ₇	Desoxycorticosterone acetate 3 β -mono-2,4-dinitrophenylhydrazone	-	Sol	Group freq	Reich	JOC	18 (1953)	822	
C ₂₉ H ₃₆ O ₂	Bis-(2-hydroxy-3 β -t-butyl-5 β -methyl-phenyl) phenyl-methane	2.75-3.05 μ	S,Sol	Spec, H bond	Coggshall	JACS	72 (1950)	2836	
C ₂₉ H ₃₇ NO ₃	dL-3-Keto-4-berzyl-16,17 5 β ,9(11)-dihydroxy- Δ ⁻¹⁰⁻ epi-4-aza-D-homoandrostadiene acetone	2-12 μ	Sol	Spec	Woodward	JACS	74 (1952)	4223	
C ₂₉ H ₃₈ N ₂ O ₄ S ₂	N,N'-Dibutyl-N,N'-dibenzene sulfonyl-diaminomesitylene	650-4000 650-3900	S	Iso Spec, Iso	Adams Adams	JACS JACS	62 (1940) 70 (1948)	732 4204	
C ₂₉ H ₃₈ OSi	Triphenylsilyldecyl methyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826	
C ₂₉ H ₃₈ OSi	Triphenylsilylheptyl butyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826	
C ₂₉ H ₃₈ OSi	Triphenylsilylmonyl ethyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826	
C ₂₉ H ₃₈ O ₂ S	Methyl- Δ -3-keto-17 α -methyletiene-3 β -benzyl-thienol ether	4	-	Sol	Group freq	Engel	JACS	76 (1954)	4909
C ₂₉ H ₃₈ O ₄	β -Formoxy-16 α -benzyloxy- Δ ⁵ -pregnen-20-one	-	-	Group freq	Hirschmann	JOC	20 (1955)	572	

C ₂₉ H ₃₈ O ₄	Δ state tetraen-3-ol-3-acetate	3,5,7,9(11) -22-Isospiro- ol-acetate	-	-	Band freq	Yashin	JACS 73 (1951) 4654
C ₂₉ H ₃₈ O ₄	1-Methyl-19-nor-Δ 22a-spirostatrien-3-ol-acetate	1,3,5(10),6	-	Sol	Band freq	Sondheimer	JACS 76 (1954) 2230
C ₂₉ H ₃₈ O ₉	Protokosin	2.96-13.77 μ s	Table, Band freq	Birch	JCS - (1952) 3102		
C ₂₉ H ₄₀ N ₂ O ₄ · 2HBr · H ₂ O	Emetine hydrobromide heptahydrate	2-16 μ s	Spec, Struct	Hazlett	JACS 73 (1951) 2578		
C ₂₉ H ₄₀ N ₂ O ₄ · 2C ₂ H ₄ · H ₂ O	Emetine hydrogen oxalate monohydrate	2-16 μ	S	Spec, Struct	Hazlett	JACS 73 (1951) 2578	
C ₂₉ H ₄₀ N ₂ O ₄ · 2C ₂ H ₄ · 2H ₂ O	Noemetine hydrogen oxalate dihydrate	2-16 μ	S	Spec, Struct	Hazlett	JACS 73 (1951) 2578	
C ₂₉ H ₄₀ N ₂ O ₄ · 2C ₂ H ₄ · 3H ₂ O	Emetine-IV hydrogen oxalate trihydrate	2-16 μ	S	Spec, Struct	Hazlett	JACS 73 (1951) 2578	
C ₂₉ H ₄₀ N ₂ O ₄ · 2C ₂ H ₄ · 5H ₂ O	Isoemetine hydrogen oxalate pentahydrate	2-16 μ	S	Spec, Struct	Hazlett	JACS 73 (1951) 2578	
C ₂₉ H ₄₀ O ₄	β-Acetoxy-Δ isopirostatriene	2,4,6 -22-	-	-	Band study	Dauben	JACS 75 (1953) 3235
C ₂₉ H ₄₀ O ₄	Δ -3-ol-3-acetate	3,5,7 -22-Isospirostanetriene	-	-	Band freq	Yashin	JACS 73 (1951) 4654
C ₂₉ H ₄₀ O ₄	1-Methyl-19-nor-Δ 22a-spirostatrien-3-ol acetate	1,3,5(10)	-	Sol	Band freq	Sondheimer	JACS 76 (1954) 2230

$C_{29}H_{40}O_5$	$\Delta^{3,5}-22a\text{-Spirostadiene-}3\text{-ol-}12\text{-one acetate}$	-	Sol	Band freq	Djerassi	JACS	75 (1953)	4885
$C_{29}H_{40}O_6$	$\Delta^{8}-22a,5\alpha\text{-Spirosten-}3\beta\text{-ol-}7,11\text{-dione acetate}$	-	Sol	Ident	Mancera	JACS	75 (1953)	4428
$C_{29}H_{40}O_6$	$\Delta^{8(a)}-22\text{-Isoallospirosten-}3\beta\text{-ol-}7,11\text{-dione acetate}$	Sol	Freq	Djerassi	JACS	74 (1952)	1712	
$C_{29}H_{40}O_6$	$\Delta^{8}-22a,5\beta\text{-Spirosten-}3\alpha\text{-ol-}7,11\text{-dione acetate}$	-	S	Band freq	Rosenkrantz	JACS	75 (1953)	4430
$C_{29}H_{40}O_{11}$	Ouabagenin triacetate	-	-	Ident, Struct	Florey	JOC	19 (1954)	1174
$C_{29}H_{41}BrO_5$	$3\beta\text{-Acetoxy-}2\beta\text{-bromo-}5\alpha,22a\text{-spirost-}9(11)\text{-en-}12\text{-one}$	$2.5\text{--}16\mu$	S,Sol	Spec, Group freq	Dickson	JCS	- (1955)	447
$C_{29}H_{41}BrO_5$	$3\beta\text{-Acetoxy-}2\beta\text{-bromo-}5\alpha,22a\text{-spirost-}9(11)\text{-en-}12\text{-one}$	878-1736	Sol	Group freq, Spec	Dickson	JCS	- (1955)	447
$C_{29}H_{41}BrO_5$	$2\beta\text{-Bromo-}12\text{-oxo-}5\alpha;22a\text{-spirost-}9(11)\text{-en-}3\beta\text{-yl acetate}$	400-1400	S	Freq	Barton	JCS	- (1956)	331
$C_{29}H_{41}BrO_5$	$2\beta\text{-Bromo-}12\text{-oxo-}5\alpha;22a\text{-spirost-}9(11)\text{-en-}3\beta\text{-yl acetate}$	400-1400	S	Freq	Barton	JCS	- (1956)	331
$C_{29}H_{42}BrClO_5$	$3\beta\text{-Acetoxy-}2\beta\text{-bromo-}12\alpha\text{-chloro-}5\alpha,22a\text{-spirostan-}11\text{-one}$	726-1734	Sol	Group freq	Dickson	JCS	- (1955)	447
$C_{29}H_{42}BrClO_5$	$12\alpha\text{-Chloro-}2\beta\text{-bromo-}11\text{-oxotigogenin acetate}$	4000	Sol	Spec, Config.	Cummins	JCS	- (1957)	3847
$C_{29}H_{42}Br_2O_5$	$3\beta\text{-Acetoxy-}11\alpha,2\beta\text{-dibromo-}5\alpha,22a\text{-spirostan-}12\text{-one}$	726-1730 400-1400	Sol Sol	Group freq Group freq	Dickson Barton	JCS JCS	- (1955) - (1956)	447 331

$C_{29}H_{42}Br_2O_5$	$\beta\beta$ -Acetoxy-11 α ,23 β -dibromo-5 α ,22 α -spirostan-12-one	882-1732 400-1400	Sol Sol	Group freq Group freq	Dickson Barton	JCS JCS	— (1955) — (1956)	447 331
$C_{29}H_{42}Br_2O_5$	$\beta\beta$ -Acetoxy-12 α ,23 α -dibromo-5 α ,22 α -spirostan-11-one	728-1753	Sol	Group freq	Dickson	JCS	— (1955)	447
$C_{29}H_{42}Br_2O_5$	11 α :23 α -Dibromohecogenin acetate	400-4000	Sol	Spec	Cummins	JCS	— (1957)	3847
$C_{29}H_{42}Br_2O_5$	11 α ;23 β -Dibromohecogenin acetate	400-4000	Sol	Spec	Cummins	JCS	— (1957)	3847
$C_{29}H_{42}Br_2O_5$	12 α ,23 β -Dibromo-11-oxo-5 α ,22 α -spirostan-3 β -yl acetate	—	S	Group freq	Cornforth	JCS	— (1954)	907
$C_{29}H_{42}Br_2O_5$	12 α :23 α -Dibromo-11-oxo-tigogenin acetate	400-4000	Sol	Spec, Ext. Coeff.	Cummins	JCS	— (1957)	3847
$C_{29}H_{42}ClNO_4$	22,26-Imino-3 β -chloro-17(20)-jervene-11,23-dione N-acetate	—	S	Band freq	Iselin	JACS	76 (1954)	5616
$C_{29}H_{42}N_6O_9$	Amicetin	2.5-15.5 μ	S	Spec, Band freq, Struct	Himmon	JACS	75 (1953)	5864
$C_{29}H_{42}O_2$	Epineoergosterol acetate	720-1630	S,Sol	Band freq	Scheer	JACS	77 (1955)	3300
$C_{29}H_{42}O_2$	Neoergosterol acetate	720-1630	S,Sol	Band freq	Scheer	JACS	77 (1955)	3300
$C_{29}H_{42}O_3S$	$\Delta^{3,5,7}$ -22 α -3 β -Hydroxy-ethylmercapto-spiro-statriene	—	Sol	Group study	Djerassi	JACS	75 (1953)	3704
$C_{29}H_{42}O_4$	$\Delta^{7,9(11)}$ -22-Isoallospirostadien-3 β -ol acetate	—	—	Ident	Hirschmann	JACS	75 (1953)	3252
$C_{29}H_{42}O_4$	$\Delta^{3,5}$ -22a,25a-Spirostadiene-3 β -ol acetate	—	Sol	Freq	Djerassi	JACS	77 (1955)	3826

C ₂₉ H ₄₂ O ₅	$\beta\beta$ -Acetoxy- Δ -spirostadien-5 α -ol	-22a-	-	Sol	Band freq	Djerassi	JCS	- (1954)	2346
C ₂₉ H ₄₂ O ₅	$\beta\beta$ -Acetoxy-5 α ,22a-spirost-9(11)-en-12-one	2.5-16 μ	Sol	Spec	Dickson	JCS	- (1955)	447	
C ₂₉ H ₄₂ O ₅	$\delta\beta$ -Acetoxy- Δ -spirosten-3-one ⁴	-	Sol Sol	Band freq Band freq	Romo Sondheimer	JOC JACS	19 76 (1954)	1509 5020	
C ₂₉ H ₄₂ O ₅	20 $\alpha\Delta$ -Gentrogenin acetate	2750-3100	Sol	Spec	Smith	AC	31 (1959)	1539	
C ₂₉ H ₄₂ O ₅	Δ -22a-Isopirostadiene-3 β ,14-diol 3-acetate	7,9(11) Δ -22a-Isopirostadiene-3 β -acetate	-	Sol	Band freq	Fieser	JACS	75 (1953)	4404
C ₂₉ H ₄₂ O ₅	Δ -22a-Spirosten-2 α -ol-3-one acetate	-	Sol	Band freq	Herran	JACS	76 (1954)	5531	
C ₂₉ H ₄₂ O ₅	Δ -22a-Spirosten-3 β -ol-7-one acetate	-	Sol	Band freq, Ident	Sondheimer	JACS	75 (1953)	5930	
C ₂₉ H ₄₂ O ₅	Δ -22a,5 α -Spirosten-3 β -ol-7-one acetate	-	Sol	Band freq	Mancera	JACS	75 (1953)	4428	
C ₂₉ H ₄₂ O ₅	Δ -22a,5 α -Spirosten-3 β -ol-7-one acetate	-	S	Group freq	Rosenkrantz	JACS	75 (1953)	4430	
C ₂₉ H ₄₂ O ₅	$\beta\beta$ -Acetoxy-9 α ,11 α -epoxy-22a-spirost-7-en-5 α -ol	-	Sol	Band freq, Ident	Djerassi	JCS	- (1954)	2346	
C ₂₉ H ₄₂ O ₆	7 ξ ,8 ξ ,9 α ,11 α -Diepoxy-22a, $\beta\beta$ -spirost-7-en-5 α -ol acetate	-	Sol	Band freq	Lemin	JACS	76 (1954)	5642	
C ₂₉ H ₄₂ O ₆	22-Isoallospirostan-3 β -ol-7,11-dione acetate	-	Sol -	Freq Spec, Ident	Djerassi Romo	JACS JACS	74 (1952) 74 (1952)	1712 2918	

$C_{29}H_{42}O_6$	$\overset{\beta}{\text{Methyl}} \Delta-\overset{\beta}{\alpha}, 11\alpha$ -diacetoxy-7-ke to-cholenate	-	-	Band study	Djerassi	JACS	74 (1952)	3321
$C_{29}H_{42}O_6$	$9\alpha, 11\alpha$ -Oxido-22a, 5 α -Spirostan-3 β -ol-7-one acetate	-	S	Band freq Band freq	Stork Djerassi	JACS JACS	73 (1951) 75 (1953)	3546 3505
$C_{29}H_{42}O_6$	22a, 5 β -Spirostan-3 α -ol -7, 11-dione acetate	-	S	Band freq	Rosenkrantz	JACS	75 (1953)	4430
$C_{29}H_{42}O_7$	3 β -Acetoxy-7 α , 8 α , 9 α , 11 α -diepoxy-22a-spirostan-5 α -ol	-	Sol	Band freq	Djerassi	JCS	- (1954)	2346
$C_{29}H_{42}O_7$	Methyl 3 α -acetoxyl-11, 12-diketochohanate enol acetate	-	Sol	Band freq	Djerassi	JACS	76 (1954)	5533
$C_{29}H_{42}O_9$	16 α , 17 α -Oxidoallopregnane-3 β , 11 α -diol-7, 20-dione 3, 11-diacetate 7, 20-biscycloethyleneketal	-	Sol	Band freq	Djerassi	JACS	75 (1953)	3505
$C_{29}H_{42}O_{12}$	Methyl 1 β , 3 β , (11), 19; te traacetoxyl-5, 14-dihydroxy-14 β -etianate	-	-	Struct	Florey	JOC	19 (1954)	1174
$C_{29}H_{43}O_2$	$^{6,8}\Delta$ -Cholestadienol-3 β -acetate-d $_3$	-	Sol	Freq	Jones	JACS	74 (1952)	5662
$C_{29}H_{43}BrO_5$	3 β -Acetoxy-2 β -a-bromo-5 β -2 β -a-Spirostan-12-one	724-1736 400-4000	S, Sol Sol	Group freq Spec	Dickson Cummins	JCS JCS	- (1955) - (1957)	447 3847
$C_{29}H_{43}BrO_5$	2 β -Bromo-11 β , 12 β -epoxy-5 α , 22 a-spirostan-3 β -y1 acetate	- 732-1732	Sol Sol	Group freq Group freq	Cornforth Dickson	JCS JCS	- (1954) - (1955)	907 447
$C_{29}H_{43}BrO_5$	2 β -Bromohecogenin acetate	400-4000	Sol	Spec	Cummins	JCS	- (1957)	3847

$\beta\text{-Acetoxy-}2\beta\text{-bromo-}$ $1\beta\text{-hydroxy-}5\alpha,22\alpha\text{-}$ spirostan-12-one	-	S, Sol	Group freq	Dickson	JCS	-	(1955)	443
$C_{29}H_{43}BrO_6$	-	Sol	Group freq	Jones	JACS	74 (1952)	2828	
$C_{29}H_{43}BrO_7$	6-Bromo-7-keto- $3\alpha,12\alpha$ -diacetoxylcholanic acid methyl ester	-	Sol	Group freq	Jones	JACS	74 (1952)	2828
$C_{29}H_{43}BrO_7$	11-Bromo-12-keto- $3\alpha,7\alpha$ -diacetoxylcholanic acid methyl ester	-	Sol	Group freq	Jones	JACS	74 (1952)	2828
$C_{29}H_{43}BrO_7$	Methyl $3\alpha,12\alpha$ -diacetoxyl- 6α -bromo-7-ketocholana te	-	-	Group freq	Corey	JACS	76 (1954)	175
$C_{29}H_{43}BrO_7$	Methyl $3\alpha,12\alpha$ -diacetoxyl- 6β -bromo-7-ketocholana te	-	-	Group freq	Corey	JACS	76 (1954)	175
$C_{29}H_{43}ClO_5$	12ξ -Chloro-11-oxotigogenin acetate	400-4000	Sol	Spec	Cummins	JCS	- (1957)	3847
$C_{29}H_{43}NO_5$	17a,22,26-Ni trilo-jerv-5-ene- $3\beta,17,23$ -triol-11-one 17-acetate	-	S	Spec, Band freq	Wintersteiner	JACS	75 (1953)	4938
$C_{29}H_{43}NO_8$	Cevagenine C-orthoacetate	2-13 μ	Sol	Spec, Group freq, Struct	Kupchan	JACS	77 (1955)	686
$C_{29}H_{43}NO_8$	Cevagenine D-orthoacetate	2-13 μ	Sol	Spec, Group freq	Kupchan	JACS	77 (1955)	686
$C_{29}H_{43}NO_8$	Cevine Orthoacetate	2-13 μ	Sol	Spec, Group freq, Struct	Kupchan	JACS	77 (1955)	686
$C_{29}H_{43}NO_8 \cdot CH_3OH$	Cevine orthoacetate methanol	-	Sol	Struct, Group freq	Barton	JCS	- (1954)	2137
$C_{29}H_{43}NO_9$	Dihydroanthydrolycoctonam	600-3600	S	Spec	Edward	CJC	32 (1954)	708
$C_{29}H_{44}BrClO_5$	$\beta\text{-Acetoxy-}2\beta\text{-bromo-}$ 12α -chloro- $5\alpha,22\alpha$ -spirostan-11 β -ol	728-3560	S	Group freq, Assign	Dickson	JCS	- (1955)	447

1744

$C_{29}H_{44}Br_2O_4$	β -Acetoxy-17,17a-dibromo-C-nor-D-homo-5 α ,22a-spirostanate	-	Sol	Group freq	Elks	JCS	- (1954)	1739
$C_{29}H_{44}Br_2O_4$	Dibromosarsasapogenin Acetate	-	Sol	Struct	Ziegler	JACS	77 (1955)	1223
$C_{29}H_{44}Br_2O_4$	Dibromosmilagenin acetate	-	Sol	Ident	Ziegler	JACS	77 (1955)	1223
$C_{29}H_{44}Br_2O_5$	β -Acetoxy-11 α ,23 α -dibromo-5 α ,22a-spirostan-12 α -ol	724-3620	Sol	Group freq, Assign	Dickson	JCS	- (1955)	447
$C_{29}H_{44}Br_2O_5$	β -Acetoxy-11 α ,23 α -dibromo-5 α ,22a-spirostan-12 β -ol	724-3620	Sol	Group freq, Assign	Dickson	JCS	- (1955)	447
$C_{29}H_{44}Br_2O_5$	β -Acetoxy-12 α ,23 α -dibromo-5 α ,22a-spirostan-11 β -ol	726-3620	Sol	Group freq, Assign	Dickson	JCS	- (1955)	447
$C_{29}H_{44}Br_2O_5$	11 α ,23 ξ -Dibromo-12 α -hydroxy-5 α ,22a-spirostan-3 β -yl acetate	-	Sol	Group freq	Corrforth	JCS	- (1954)	907
$C_{29}H_{44}Br_2O_5$	11 α ,23 ξ -Dibromo-12 β -hydroxy-5 α ,22a-spirostan-3 β -yl acetate	-	Sol	Group freq	Corrforth	JCS	- (1954)	907
$C_{29}H_{44}Br_2O_5$	12 α ,23 ξ -Dibromo-11 β -hydroxy-5 α ,22a-spirostan-3 β -yl acetate	-	S	Group freq	Corrforth	JCS	- (1954)	907
$C_{29}H_{44}ClNO_4$	22,26-Imino-3 α -chloro-jervane-11,23-dione N-acetate	-	S	Band freq	Iselin	JACS	76 (1954)	5616
$C_{29}H_{44}O$	β -Methoxy-3,5-cyclo-ergosta-7,9(11),22-triene	-	Sol	Band freq, Group freq	Rees Page	JCS	- (1954)	3422
$C_{29}H_{44}O$	3-Methoxy-3,5,7,22-ergo-state traene	-	S	Band freq, Group freq	Shepherd	JACS	77 (1955)	1212

C ₂₉ H ₄₄ O ₂	Dihydroepineoergosterol acetate	720-1630	S,Sol	Band freq	Scheer	JACS	77 (1955)	3300
C ₂₉ H ₄₄ O ₂	Dihydrooergosterol acetate	720-1630	S,Sol	Band freq	Scheer	JACS	77 (1955)	3300
C ₂₉ H ₄₄ O ₂	Di-(4-hydroxy-2-methyl- <i>tert</i> -butylphenyl)hexyl-methane	2.5-3.4/ μ	S,Sol	Freq	Ambelang	JACS	75 (1953)	947
C ₂₉ H ₄₄ O ₂	$\Delta^{12,18}$ - $\beta\beta$ -Noroleadien- $\beta\beta$ -ol-11-one	-	Sol	Freq	Djerassi	JACS	76 (1954)	4085
C ₂₉ H ₄₄ O ₃	$\Delta^{5,8(9)}$ -cholesteryl acetate	-	S	Band freq	Tsuda	JACS	77 (1955)	665
C ₂₉ H ₄₄ O ₃	Δ^4 -22a-Spirosten-3-one ethylene hemithioketal	-	Sol	Ident	Djerassi	JACS	75 (1953)	3704
C ₂₉ H ₄₄ O ₃ S	$\beta\beta$ -Acetoxy-C-nor-D-homo- $\beta\alpha$,22a-spirost-17-ene	-	Sol	Group freq	Elks	JCS	- (1954)	1739
C ₂₉ H ₄₄ O ₄	$\beta\beta$ -Acetoxy- 5α ,22a- Δ -spirostene	-	Sol	Gru-p freq, Ident Band freq, Ident	Elks Henbest	JCS JCS	- (1954)	1739
C ₂₉ H ₄₄ O ₄	Disogenin acetate	2.5-15/ μ 835-1000 700-1400 890-1500	Sol Sol Sol -	Spec, Band freq Spec, Freq Spec, Ident Spec, Group freq Ident Freq Reference for comparison	Hirschmann Wall Eddy Jones Sato Page Ziegler	JACS AC AC JACS JACS JCS JACS	74 (1952) 24 (1952) 25 (1953) 75 (1953) 75 (1953) - (1955) 77 (1955)	5357 1337 266 158 6067 2017 1223
C ₂₉ H ₄₄ O ₄	Cyclo- ψ -Diosgenin acetate	786-1732	Sol	Group freq Freq	Callow Page	JCS JCS	- (1955) - (1955)	1966 2017
C ₂₉ H ₄₄ O ₄	20 $\alpha\Delta$ -Diosgenin acetate	2750-3100	Sol	Spec	Smith	AC	31 (1959)	1539

1746

$C_{29}H_{44}O_5$	$20\beta-\Delta$ -Diosgenin acetate	2750-3100	Sol	Spec	Smith	AC	31 (1959)	1539
$C_{29}H_{44}O_4$	20-Isodiosgenin acetate	7-15 μ	Sol	Spec, Freq	Eddy	AC	27 (1955)	1067
$C_{29}H_{44}O_4$	Neodiosgenin acetate	-	Sol	Band freq	Ziegler	JACS	77 (1955)	1223
$C_{29}H_{44}O_4$	$8(14)\Delta$ -22-Isoallolospirostanol- β -acetate	-	Sol	Ident	Mancera	JCS	- (1952)	1021
$C_{29}H_{44}O_4$	1-Methyleno-11-hydroxy-14-methyl-[2,2-[9,8]- β ,10-dimethyl-5,7-dioxaspiro[5.4]decane]-hexadecahydro-chrysophluorene acetate	-	-	Band study	Hirschmann	JACS	74 (1952)	2693
$C_{29}H_{44}O_4$	Δ -22a, 5α -C-Nor-D-homospirosten- β -ol acetate	-	Sol	Group freq Band freq	Elks Hirschmann	JCS JACS	- (1954) 76 (1954)	17 4013
$C_{29}H_{44}O_4$	$9(11)\Delta$ -22a-5 α -Spirosten- β -ol acetate	2.5-15 μ	Sol	Spec, Band freq Band freq Ident	Hirschmann Rosenkrantz Wendler	JACS JACS JACS	74 (1952) 76 (1954) 77 (1955)	5357 2227 1632
$C_{29}H_{44}O_4$	Yamogenin acetate	890-1350	Sol	Spec, Group freq	Jones	JACS	75 (1953)	158
$C_{29}H_{44}O_4$	20-Isoyamogenin acetate	7-15 μ	Sol	Spec, Freq	Eddy	AC	27 (1955)	1067
$C_{29}H_{44}O_4$	$20\alpha\beta-\Delta$ -Yamogenin acetate	2750-3100	Sol	Spec, Struct	Smith	AC	31 (1959)	1539
$C_{29}H_{44}O_4$	$20\beta-\Delta$ -Yamogenin acetate	2750-3100	Sol	Spec, Struct	Smith	AC	31 (1959)	1539
$C_{29}H_{44}O_5$	β -Acetoxy- $11\alpha,12\alpha$ -epoxy- 5α ,22a-spirostane	-	Sol	Group freq	Elks	JCS	- (1954)	1739
$C_{29}H_{44}O_5$	12α -Acetoxy- 5α ,22a-Spirostan- β -one	-	Sol	Group freq	Elks	JCS	- (1954)	1739
$C_{29}H_{44}O_5$	Hecogenin acetate	- 800-1050	Sol Sol	I, Band study Freq, Anal	Jones Wall	JACS AC	74 (1952) 24 (1952)	80 1357

$C_{29}H_{44}O_5$	Cyclo- β -Hecogenin acetate	-	Sol	Spec, Ident	Eddy	AC	25 (1953)	266
			Sol	Group freq, I	Jones	JACS	75 (1953)	158
-		-	-	Ident	Krider	JACS	76 (1954)	2938
-		-	-	Band study	Callow	JCS	- (1955)	1671
-		-	-	Reference	Dickson	JCS	- (1955)	447
-		-	-	Ident	Rosenfeld	JACS	77 (1955)	4367
400-4000		Sol	Spec	Spec	Cummins	JCS	- (1957)	3847
$C_{29}H_{44}O_5$					Callow	JCS	- (1955)	1966
$C_{29}H_{44}O_5$	20 α -Hecogenin acetate	2750-3100	Sol	Spec	Smith	AC	31 (1959)	1539
$C_{29}H_{44}O_5$	20 β -Hecogenin acetate	2750-3100	Sol	Spec, Struct	Smith	AC	31 (1959)	1539
$C_{29}H_{44}O_5$	20-Isohecogenin acetate	7-15 μ	Sol	Spec, Band freq	Eddy	AC	27 (1955)	1067
$C_{29}H_{44}O_5$	22-Isoallospirostan- $\beta\beta$ -ol-11-one acetate	-	-	Spec, Ident	Romo	JACS	74 (1952)	2918
$C_{29}H_{44}O_5$	5 α ,22a-C-Norspirostan- $\beta\beta$ -ol-11a-ol- β -acetate	-	Sol	Freq	Wendler	JACS	77 (1955)	1632
$C_{29}H_{44}O_5$	9 α ,11 α -Oxido-5 α ,22 α -Spirostan- $\beta\beta$ -ol acetate	-	-	Spec, Band freq	Constantin	JACS	74 (1952)	3908
$C_{29}H_{44}O_5$	11-Oxotigogenin acetate	-	Sol	Band freq	Rosenkrantz	JACS	76 (1954)	2227
$C_{29}H_{44}O_5$	11-Oxocyclo- γ -tigogenin acetate	400-4000	-	Ident	Callow	JCS	- (1955)	1966
$C_{29}H_{44}O_5$	Pennogenin 3-monoacetate	784-1731	Sol	Spec, Ext. Coeff., Config.	Cummins	JCS	- (1957)	3847
$C_{29}H_{44}O_5$	Sisalagenin acetate	890-1340	Sol	Group freq, I	Callow	JCS	- (1955)	1966
$C_{29}H_{44}O_5$	Cyclo- β -Sisalagenin acetate	-	S	Band freq	Herran	JACS	75 (1953)	158
$C_{29}H_{44}O_5$	22a,5 α -Spirostan-2 α -ol-3-one acetate	-	Sol	Band freq	Callow	JCS	- (1955)	1671
$C_{29}H_{44}O_5$					Callow	JCS	- (1955)	1966
$C_{29}H_{44}O_5$					Herran	JACS	76 (1954)	5531

$C_{29}H_{44}O_5$	22a,5 α -Spirostan-2 β -ol- β -one acetate	-	Sol	Band freq	Herran	JACS	76 (1954)	5531
$C_{29}H_{44}O_5$	22a,5 α -Spirostan-3 β -ol-11-one β -acetate	-	Sol	Band freq, Ident	Djerassi	JACS	76 (1954)	5533
$C_{29}H_{44}O_5$	22a,5 β -Spirostan-3 α -ol-11-one acetate	-	Sol	Band freq Band freq	Rosenkrantz Lenin	JACS JACS	75 (1953) 76 (1954)	4430 5672
$C_{29}H_{44}O_5$	22a,5 β -Spirostan-3 α -ol-12-one acetate	-	-	Band freq	Djerassi	JACS	75 (1953)	4865
$C_{29}H_{44}O_5$	$^{20}\text{D}-\Delta^5$ -Yuccagenin acetate		2750-3100	Sol	Spec, Struct	Smith	AC	31 (1959) 5539
$C_{29}H_{44}O_5S_2$	Methyl 3 α -formoxy-11,12-diketocholanate-12-trimethylene thio ketol	-	Sol	Group freq	Archer	JACS	76 (1954)	4915
$C_{29}H_{44}O_6$	2 β -Acetoxy-5 α ,22a-C-norspirostan-11 α -oic acid	-	-	Freq	Wendler	JACS	77 (1955)	1632
$C_{29}H_{44}O_6$	Hecololactone 3-acetate	5.6-15 μ	Sol	Spec, Band freq	Rothman	JACS	76 (1954)	527
$C_{29}H_{44}O_6$	8,14 ξ -Oxido-22a-allo-spirostan-7 ξ -ol- β -one ethylene ketol	-	-	Ident	Bernstein	JOC	18 (1953)	1418
$C_{29}H_{44}O_6$	22a,5 α -Spirostan-3 β ,12 β -diol-11-one β -acetate	-	Sol	Band freq	Djerassi	JACS	76 (1954)	5533
$C_{29}H_{44}O_6$	22a-Spirostan-3-one-5 α ,6 β -diol 6-monoacetate	-	Sol	Band freq	Sondheimer	JACS	76 (1954)	5020
$C_{29}H_{44}O_7$	Methyl 3 α ,11 β -diacetoxy-12-ketocholanate	-	-	Ident	Rosenfeld	JACS	77 (1955)	4367
$C_{29}H_{44}O_7$	Methyl 3 α ,12 α -diacetoxy-7-ke tocholanate	1700	Sol	Freq, Struct, Anal Group freq	Jones Corey	JACS JACS	71 (1949) 76 (1954)	241 175
$C_{29}H_{44}O_7$	Methyl 3 α ,12 β -diacetoxy-11-ke tocholanate	-	-	Ident	Rosenfeld	JACS	77 (1955)	4367

C ₂₉ H ₄₄ O ₇	Methyl $\beta\beta,11\beta$ -diacetoxy- $\beta\alpha,9\alpha$ -oxidochoolanate	-	-	Band freq	Heymann	JACS	73 (1951)	5252
C ₂₉ H ₄₅ B ₃ O ₂	$\overset{\beta}{\Delta}$ -Cholestenol- $\beta\beta$ -acetate-d ₃	-	Sol	Band study	Jones	JACS	74 (1952)	5662
C ₂₉ H ₄₅ BrO ₃	7-Keto-8-bromocholesteryl acetate	-	Sol	Freq	Tsuda	JACS	77 (1955)	665
C ₂₉ H ₄₅ NO ₃	$\beta\beta$ -Acetoxy-22-piperidino-bisnorallochol-20(22)-en-11-one	-	Sol	Group freq	Cameron	JCS	- (1953)	3864
C ₂₉ H ₄₅ NO ₃	Solanidine- β -one-18-ol acetate	-	-	Ident	Klohs	JACS	75 (1953)	2133
C ₂₉ H ₄₅ NO ₄	22,26-Tmino-17(20)-isojervene- $\beta\beta,23$ -diol-11-one N-acetate	-	S	Band freq	Wintersteiner	JACS	76 (1954)	5609
C ₂₉ H ₄₅ NO ₅	16,22,26-Nitrilojervane- $\beta\beta,17,23$ -triol-11-one 17-acetate	-	S	Band freq	Wintersteiner	JACS	76 (1954)	5609
C ₂₉ H ₄₅ NO ₈	Cevinilol C-orthoacetate	-	-	Freq	Kupchan	JACS	77 (1955)	683
C ₂₉ H ₄₅ NO ₈	Zygaccine	-	-	Ident	Kupchan	JACS	77 (1955)	755
C ₂₉ H ₄₅ NO ₉	Ceracine	$2-13\mu$	Sol	Spec	Kupchan	JACS	75 (1953)	5519
C ₂₉ H ₄₅ O	Norechinocystadienol	$6.4-12\mu$	Sol	Spec, Ident, Struct	Barton	JCS	- (1951)	257
C ₂₉ H ₄₆ Br ₂ O ₃	$\beta\beta$ -Acetoxy-5 $\alpha,7\alpha$ -dibromo-cholestane-6	-	-	Group freq	Corey	JACS	76 (1954)	175
C ₂₉ H ₄₆ Br ₂ O ₃	$\beta\beta$ -Acetoxy-5 $\alpha,7\alpha$ -dibromo-cholestane-6	-	-	Group freq	Corey	JACS	76 (1954)	175
C ₂₉ H ₄₆ O	28-Norolean-17-en-3-one	$1350-1500$ $680-700$	Sol Sol	Ident Freq, I	Cole Cole	JCS	- (1956) JCS - (1957)	1007 1332

$C_{29}H_{46}O$	$\Delta^{4,22}$ -Stigmastadien- β -one	9.75-10.75 μ Sol	Spec, Anal	Slomp	JACS 77 (1955)	1216
$C_{29}H_{46}OS$	7-Dehydrocholesteryl thioacetate	670-3700 S	Spec	Bernstein	JOC 16 (1951)	685
$C_{29}H_{46}OS_2$	Δ^4 -Cholestene- β ,6-dione β -monoethylene thioketal	-	Sol	Band freq	Fieser	JACS 76 (1954) 1945
$C_{29}H_{46}O_2$	$\Delta^{3,5}$ -Cholestadienol- $\beta\beta$ -acetate	1580-3100 -	Sol Sol	Group study, I Group freq	Jones Jones	JACS 72 (1950) JACS 72 (1950)
$C_{29}H_{46}O_2$	$\Delta^{5,7}$ -Cholestadienol- $\beta\beta$ -acetate	-	-	Assign	Jones	JACS 70 (1948) 2024
$C_{29}H_{46}O_2$	$\Delta^{6,8}$ -Cholestadienol- $\beta\beta$ -acetate	-	Sol 650-900	Group freq Table Spec	Jones Jones Henbest	JACS 74 (1952) JACS 74 (1952) JCS - (1957) 997
$C_{29}H_{46}O_2$	$\Delta^{8,24}$ -Cholestadienol- $\beta\beta$ -acetate	-	Sol	Freq	Jones	JACS 74 (1952) 5648
$C_{29}H_{46}O_2$	Δ^4 -Cholesten- $\delta\alpha$ -ol- β -one acetate	-	Sol	Band freq	Fieser	JACS 75 (1953) 4377
$C_{29}H_{46}O_2$	Isodehydrocholestrol acetate	-	Sol	Freq	Barton	JCS - (1953) 1842
$C_{29}H_{46}O_2$	$\beta\beta$ -Methoxyergosta-7,22-dien-11-one	-	-	Group study	Henbest	JCS - (1957) 1462
$C_{29}H_{46}O_2$	$\beta\beta$ -Methoxyergosta-8,22-dien-11-one	-	-	Group study	Henbest	JCS - (1957) 1462
$C_{29}H_{46}O_2$	Methyl cholesta- β ,5-diene- β -carboxylate	-	Sol	Group freq	Roberts	JCS - (1954) 3178

C ₂₉ H ₄₆ O ₂	Norechinocystenolone	-	Sol	Band freq	Djerassi	JACS	77 (1955)	3579
C ₂₉ H ₄₆ O ₂	Δ^{22} -Sitostenedione- β ,6	1700	Sol	Freq, Struct	Jones	JACS	71 (1949)	241
C ₂₉ H ₄₆ O ₃	$\beta\beta$ -Acetoxy- Δ -cholest- -7-one	-	Sol	Band freq	Fieser	JACS	75 (1953)	4395
C ₂₉ H ₄₆ O ₃	$\beta\beta$ -Acetoxy- Δ -cholest- -7-one	8(14)	-	Sol	Band freq	Fieser	JACS	75 (1953) 4395
C ₂₉ H ₄₆ O ₃	6α -Acetoxy- Δ -cholest- β -one	Δ^4	-	Sol	Band freq	Sondheimer	JACS	75 (1953) 4712
C ₂₉ H ₄₆ O ₃	6β -Acetoxycholest-4-en- β -one	-	Sol	Group freq Band freq	Amendolla Romo	JCS JOC	- (1954) 19 (1954)	1226 1509
C ₂₉ H ₄₆ O ₃	Δ^4 -2-Carbome thoxy- choleste none- β	1350-1500	Sol	Spec, Freq.	Jones	JACS	74 (1952)	5648
C ₂₉ H ₄₆ O ₃	Δ^4 -4-Carbome thoxy- cholestnone- β	-	Sol	Spec, Table	Jones	JACS	74 (1952)	5648
C ₂₉ H ₄₆ O ₃	Δ^5 -Cholestene- β ,4-dione β -ethylene ketal	-	Sol	Band freq	Fieser	JACS	76 (1954)	1728
C ₂₉ H ₄₆ O ₃	Δ^4 -Cholesten-2 α -ol- β -one acetate	-	Sol	Band freq	Fieser	JACS	75 (1953)	4716
C ₂₉ H ₄₆ O ₃	Δ^4 -Cholesten-4-ol- β -one acetate	-	Sol	Band freq	Fieser	JACS	76 (1954)	1728
C ₂₉ H ₄₆ O ₃	Δ^5 -Cholesten- β -ol-4- one acetate	-	Sol	Band freq	Fieser	JACS	76 (1954)	1728

$C_{29}H_{46}^0_3$	Δ^5 -Cholesten- β -ol-7-one acetate	650-1390 650-900	Sol S, Sol Sol	Spec Group freq Spec	Jones Tarpley Henbest	JACS APS JCS	77 (1955) 9 (1955) - (1957)	651 69 997
$C_{29}H_{46}^0_3$	Δ^5 -Cholesten-4 α -ol- β -one acetate	-	Sol	Band freq	Fieser	JACS	76 (1954)	1728
$C_{29}H_{46}^0_3$	Epimeric-6 α -acetoxyl-4-cholestene- β -one	-	Sol	Freq, Spec	Moritz	BCSJ	31 (1958)	379
$C_{29}H_{46}^0_3$	Epimeric-6 β -acetoxyl-4-cholestene- β -one	-	Sol	Spec	Moritz	BCSJ	31 (1958)	379
$C_{29}H_{46}^0_3$	15-Oxocholest-8(14)-en- β -yl acetate	1600-1750	Sol	Freq, Spec	Braude	JCS	- (1955)	3766
$C_{29}H_{46}^0_4$	β -Acetoxyl-22-isovalor-spirostane	2.5-15 μ	Sol	Spec, Band freq	Hirschmann	JACS	74 (1952)	5357
$C_{29}H_{46}^0_4$	Cholestenol-5 α -dione- β ,6- β -acetate	-	Sol	Band freq	Tarlton	JACS	75 (1953)	4423
$C_{29}H_{46}^0_4$	Ketone 104 enol acetate	-	Sol	Band freq	Fieser	JACS	75 (1953)	4418
$C_{29}H_{46}^0_4$	Sarsasapogenin acetate	830-1020 835-1000 700-1400 890-1468	Sol Sol Sol Sol	Spec, Anal Spec, Ident I, Group freq Freq	Rothman Wall Eddy Jones Page Ziegler Morillo	JACS AC AC JACS JCS JACS ARS	74 (1952) 24 (1952) 25 (1953) 75 (1953) - (1955) 77 (1955) 53B (1957)	4013 1337 266 158 2017 1223 145
$C_{29}H_{46}^0_4$	20 α -Sarsasapogenin acetate	2750-3100	Sol	Spec	Smith	AC	31 (1959)	1539
$C_{29}H_{46}^0_4$	20 β -Sarsasapogenin acetate	2750-3100	Sol	Spec, Struct	Smith	AC	31 (1959)	1539
$C_{29}H_{46}^0_4$	Cyclo- γ -Sarsasapogenin acetate	868-1732 -	S, Sol Sol	Group freq Freq	Callow Page	JCS JCS	- (1955) - (1955)	1966 2017
$C_{29}H_{46}^0_4$	β -Episarsasapogenin acetate	890-1340	Sol	Group freq	Jones	JACS	75 (1953)	158

$C_{29}H_{46}O_4$	20-Isosarsasapogenin acetate	-	-	Band freq Group freq, Struct	Wall Wall	JACS JACS	76 (1954) 77 (1955)	2849 1230
$C_{29}H_{46}O_4$	Smilagenin acetate	835-1000 700-1400	Sol Sol	Spec Spec, Ident	Wall Eddy Callow Djerassi	AC AC JCS JACS	24 (1952) 25 (1953) - (1955) 77 (1955)	1337 266 1671 4291
$C_{29}H_{46}O_4$	20 α -Smilagenin acetate	-	Sol	Ident	Wall	JACS	77 (1955)	3086
$C_{29}H_{46}O_4$	20 β -Smilagenin acetate	-	Sol	Ident	Zeigler	JACS	77 (1955)	1223
$C_{29}H_{46}O_4$	Cyclo- γ -Smilagenin acetate	2750-3100	Sol	Spec, Struct	Smith	AC	31 (1959)	1539
$C_{29}H_{46}O_4$	20-isosmilagenin acetate	2750-3100	Sol	Spec, Struct	Smith	AC	31 (1959)	1539
$C_{29}H_{46}O_4$	22a,25a,5 α -Spirostan-3 α -ol acetate	785-1730	Sol Sol	Group freq Freq	Callow Page	JCS JCS	- (1955) - (1955)	1966 2017
$C_{29}H_{46}O_4$	22a,25a,5 α -Spirostan-3 α -ol acetate	7-15 μ	- -	Band freq Spec, Band freq Band freq	Wall Eddy Wall	JACS AC JACS	76 (1954) 27 (1955) 77 (1955)	2849 1067 1230
$C_{29}H_{46}O_4$	22a,25a,5 α -Spirostan-3 α -ol acetate	-	Sol	Ident	Djerassi	JACS	77 (1955)	4291
$C_{29}H_{46}O_4$	22a,25a-Spirostan-4 α -ol acetate	-	Sol	Freq	Djerassi	JACS	77 (1955)	4291
$C_{29}H_{46}O_4$	Tigogenin acetate	800-1050 700-1400 890-1340	Sol Sol Sol	Band study Spec, Ident Group freq, I	Wall Eddy Jones Kriider Callow Page Cummins	AC AC JACS JACS JCS JCS	24 (1952) 25 (1953) 75 (1953) 76 (1954) - (1955) - (1955)	1337 266 158 2938 1671 2017
$C_{29}H_{46}O_4$	20 α -Tigogenin acetate	2750-3100	Sol	Spec	Smith	AC	31 (1959)	1539
$C_{29}H_{46}O_4$	20 β -Tigogenin acetate	2750-3100	Sol	Spec, Struct	Smith	AC	3 (1959)	1539
$C_{29}H_{46}O_4$	Cyclo- γ -Tigogenin acetate	5-16 μ	Sol Sol	Spec, Group freq	Callow Page	JCS JCS	- (1955) - (1955)	1966 2017
$C_{29}H_{46}O_4$	Cyclo- γ -neotigogenin acetate	5-16 μ	Sol -	Spec Freq	Callow Page	JCS JCS	- (1955) - (1955)	1966 2017

1754

$C_{29}H_{46}O_4$	20-isotigogenin acetate	7-15 μ	Sol	Spec, Band freq	Eddy	AC	27 (1955)	1067
$C_{29}H_{46}O_4$	neotigogenin acetate	-	S Sol	Ident Freq	Callow Page	JCS	(1955)	1966
$C_{29}H_{46}O_5$	12 α -Acetoxyl-22 α -spirostan- $\beta\beta$ -ol	-	Sol	Group freq	Elks	JCS	- (1955)	2017
$C_{29}H_{46}O_5$	20 α -Chlorogenin acetate	2750-3100	Sol	Spec, Struct	Smith	AC	31 (1959)	1739
$C_{29}H_{46}O_5$	20 β -Chlorogenin acetate	2750-3100	Sol	Spec, Struct	Smith	AC	31 (1959)	1539
$C_{29}H_{46}O_5$	20 α -Götogenin acetate	2750-3100	Sol	Spec	Smith	AC	31 (1959)	1539
$C_{29}H_{46}O_5$	20 β -Götogenin acetate	2750-3100	Sol	Spec	Smith	AC	31 (1959)	1539
$C_{29}H_{46}O_5$	11 β -Hydroxy-5 α ,22 α -spirostan- $\beta\beta$ -y1 acetate	-	-	Group freq	Comforth	JCS	- (1954)	907
$C_{29}H_{46}O_5$	22-Isoallopirostan- $\beta\beta$,11 β -diol β -acetate	-	-	Band study	Djerassi	JACS	74 (1952)	1712
$C_{29}H_{46}O_5$	25-Isocholegenin- β -monoacetate	-	-	Band freq	Mazur	JCS	- (1954)	1223
$C_{29}H_{46}O_5$	⁵ β ,4-Secoh- Δ -cholest-7-one- β ,4-dioic acid dimethyl ester	-	Sol	Band freq	Fieser	JACS	75 (1953)	4386
$C_{29}H_{46}O_5$	6,7-Secoh- Δ -cholest-7-one-6,7-dioic acid dime thyl ester	-	Sol	Band freq	Fieser	JACS	75 (1953)	4386
$C_{29}H_{46}O_5$	22a,5 α -Spirostan- $\beta\beta$,11 α -diol β -monoacetate	-	Sol	Band freq	Rosenkrantz	JACS	76 (1954)	2227
$C_{29}H_{47}BrO_3$	$\beta\beta$ -Acetoxyl-5 α -bromo-cholestane-6	-	-	Group freq	Corey	JACS	76 (1954)	175
$C_{29}H_{47}BrO_3$	$\beta\beta$ -Acetoxyl-7 α -bromo-cholestane-6	-	-	Group freq	Corey	JACS	76 (1954)	175

$C_{29}H_{47}BrO_3$	6α -Bromo-7-oxocholestane $-\beta$ -yl acetate	— 400-4000	Sol Sol	Freq Spec	Cookson Cummins	JCS JCS	— (1954)	282 3847
$C_{29}H_{47}BrO_3$	6β -Bromo-7-oxocholestane $-\beta$ -yl acetate	— 400-4000	Sol Sol	Freq Spec	Cookson Cummins	JCS JCS	— (1954)	282 3847
$C_{29}H_{47}NO_4$	6-Nitrocholesteryl acetate	—	Sol	Band freq	Anagnostopoulos	JACS	76 (1954)	532
$C_{29}H_{47}NO_4$	6-Nitroepicholesteryl acetate	—	Sol	Band freq	Anagnostopoulos	JACS	76 (1954)	532
$C_{29}H_{48}$	28-Norolean-13(18)-ene	680-3700	Sol	Freq, I	Cole	JCS	— (1957)	1332
$C_{29}H_{48}$	28-Norolean-17-ene	680-1350	Sol	Freq, I	Cole	JCS	— (1957)	1332
$C_{29}H_{48}Cl_2O_2$	$5\alpha,6\beta$ -Dichlorocholestan $-\beta$ -yl acetate	400-1400	Sol	Group freq	Barton	JCS	— (1956)	331
$C_{29}H_{48}N_2O_6$	7,8-Dinitrocholestanyl acetate	—	Sol	Band freq	Anagnostopoulos	JACS	76 (1954)	532
$C_{29}H_{48}N_2O_7$	6β -Nitrocholestane- 3α , 5α -diol β -acetate β -nitrate	—	Sol	Band freq	Anagnostopoulos	JACS	76 (1954)	532
$C_{29}H_{48}N_2O_7$	6β -Nitrocholestane- 3β , 5α -diol β -acetate β -nitrate	—	Sol	Band freq	Anagnostopoulos	JACS	76 (1954)	532
$C_{29}H_{48}^0$	β -Acetyl- 5α -cholest-2- ene	—	—	Struct	Casu	GCI	90 (1960)	1147
$C_{29}H_{48}^0$	β -Acetyl- 5β -cholest-2-ene	—	—	Struct	Casu	GCI	90 (1960)	1147
$C_{29}H_{48}^0$	Lup-20(29)-en-28-ol	3600-3650	Sol	Freq, Struct	Cole	JCS	— (1959)	1218
$C_{29}H_{48}^0$	3α -Nor-19 α (H)-Taraxastan -20-one	—	Sol	Band freq	Ames	JCS	— (1954)	1905
$C_{29}H_{48}^0$	Oleanol	11-13 μ 1350-3700 3600-3650	Sol Sol Sol	Spec, Struct Freq, I Struct	Barton Cole Cole	JCS JCS JCS	— (1951) — (1957) — (1959)	257 1332 1218

$C_{29}H_{48}O$	$\Delta^5,24(28)$ -Stigmastadienol $-\beta\beta$	-	Sol. Freq	Cole Jones	JACS JACS	74 (1952) 74 (1952)	5571 5648
$C_{29}H_{48}O$	$\Delta^7,22$ -Stigmastadienol- $\beta\beta$	-	Sol. Freq	Cole Hamilton Jones Idler Rosenkrantz	JACS JCS JACS JACS JACS	74 (1952) - (1952) 74 (1952) 75 (1953) 75 (1953)	5571 5051 5648 1712 903
$C_{29}H_{48}O$	Δ^4 -Stigmastenone- β	-	S, Sol. Group freq	Tarpley	APS	9 (1955)	69
$C_{29}H_{48}O$	$\beta\beta$ -Stigmast-22-en- β -one	5.5-10.75 μ Sol	Anal, Spec	Slomp	JACS	77 (1955)	1216
$C_{29}H_{48}O$	Δ^{22} -Stigmasten- β -one	5.5-10.75 μ Sol	Anal	Slomp	JACS	77 (1955)	1216
$C_{29}H_{48}O$	Stigmasterol	\bar{S} 650-1750 2-15 μ S, Sol	Band freq Spec Spec, Anal	Idler Behr Johnson	JACS AC AC	75 (1953) 29 (1957) 29 (1957)	1712 1147 468
$C_{29}H_{48}OS$	Cholesteryl thiocotate	670-3700 S	Spec	Bernstein	JOC	16 (1957)	685
$C_{29}H_{48}OS_2$	Cholestane- β ,6-dione β -monoethylene thioketal	-	Sol. Band freq	Fieser	JACS	76 (1954)	1945
$C_{29}H_{48}OS_2$	Δ^4 -Cholestan-2 α -ol- β -one ethylenethioketal	-	Sol. Band freq	Fieser	JACS	75 (1953)	4716
$C_{29}H_{48}OS_2$	Cholesteryl-S-methyl Xanthate	2-9 μ -	Spec, Group freq	O'Connor	JACS	74 (1952)	5454
$C_{29}H_{48}O_2$	$\beta\alpha$ -Acetoxy- Δ -cholestene	2.5-15 μ -	Spec, Band freq Group freq	Hirschmann Fieser	JACS JACS	74 (1952) 75 (1953)	5357 4377
$C_{29}H_{48}O_2$	$\beta\beta$ -Acetoxy- Δ -cholestene	-	Sol. Band freq, I	Herbest	JCS	- (1954)	800
$C_{29}H_{48}O_2$	$\beta\beta$ -Acetoxy- Δ -cholestene	2.5-15 μ Sol	Spec, Band freq	Hirschmann	JACS	74 (1952)	5357

$C_{29}H_{48}O_2$	$\beta\beta$ -Acetoxy- Δ -cholestene	2.5-15 μ 650-3100 -	Sol Sol Sol	Spec, Band freq Band freq, I Group freq	Hirschmann Henbest James	JCS JCS JCS	74 (1952) - (1954) - (1955)	5357 800 1370
$C_{29}H_{48}O_2$	$\beta\beta$ -Acetoxy- Δ -cholestene	2.5-15 μ	Sol	Spec, Band freq	Hirschmann	JACS	74 (1952)	5357
$C_{29}H_{48}O_2$	$\beta\beta$ -Acetoxy- cholestene- Δ	17(20)	-	Ident	Cardwell	JCS	- (1953)	361
$C_{29}H_{48}O_2$	Δ -Cholesten-3-ol- acetate	700-1400	Sol	Spec, Ident	Jones	JACS	78 (1956)	1152
$C_{29}H_{48}O_2$	Δ -Cholesten-6 α -ol acetate	-	-	Ident	Becker	JOC	20 (1955)	353
$C_{29}H_{48}O_2$	Δ -Cholesten- β -ol acetate	- 2-15 μ 25-15 μ -	Sol Sol Sol -	Assign Spec, Struct Spec, Band freq Freq Table	Jones Fontaine Hirschmann Jones Jones Wall Jones Cummins Morcillo	JACS JACS JACS JACS AC JACS JCS ARS	70 (1948) 73 (1951) 74 (1952) 74 (1952) 74 (1952) 24 (1952) 78 (1956) - (1957) 53B (1957)	2024 878 5357 5648 5662 1337 1152 3847 145
$C_{29}H_{48}O_2$	Δ -Cholesten- β -ol acetate	- 825-1000 700-1400 400-4000 -	Sol Sol Sol -	Spec, Band freq	Jones Hirschmann	JACS JACS	70 (1948) 74 (1952)	2024 5357
$C_{29}H_{48}O_2$	Δ -Cholestenol- $\beta\beta$ acetate	2.5-15 μ	Sol	Assign Spec, Band freq	Jones Hirschmann	JACS JACS	70 (1948) 74 (1952)	2024 5357
$C_{29}H_{48}O_2$	Δ -Cholestenol- $\beta\beta$ acetate	- 1580-3100 700-1400	Sol Sol	Assign Group study, I Ident	Jones Jones Jones	JACS JACS JACS	70 (1948) 72 (1950) 78 (1956)	2024 86 1152
$C_{29}H_{48}O_2$	$\beta\beta$ -Cyclo-6 α -cholestano1 acetate	3-12 μ	Sol	Spec	Wagner	JOC	17 (1952)	529
$C_{29}H_{48}O_2$	$\beta\beta$ -Cyclo-6 β -cholestano1 acetate	3-12 μ	Sol	Spec	Wagner	JOC	17 (1952)	529

$C_{29}H_{48}_2^0$	$\beta\beta$ -Hydroxy-4,4-dimethyl-8(14)-15-keto- Δ -cholestene	-	-	Group freq	Woodward	JACS 76 (1954) 2852
$C_{29}H_{48}_2^0$	$\beta\beta$ -Hydroxy- β 0-norlupan-20-one	1350-1500	Sol	Spec, Ident	Cole	JCS - (1956) 1007
$C_{29}H_{48}_2^0$	$\beta\beta$ -Methoxy-14-methyl-cholest-7-en-15-one	-	Sol	Freq	Page	JCS - (1955) 2017
$C_{29}H_{48}_2^0$	Sitostane-dione- β , δ	1700	Sol	Freq, Struct, Anal	Jones	JACS 71 (1949) 241
$C_{29}H_{48}_2^0S$	Ketone 104 e thylene thio-ketal	-	Sol	Band freq	Fieser	JACS 75 (1953) 4418
$C_{29}H_{48}_3^0$	$\beta\beta$ -Acetoxycholestane-6 β -Acetoxyl- Δ -cholesteno-5 α	-	Sol	Band freq Group freq	Anagnostopoulos Corey	JACS 76 (1954) 532 JACS 76 (1954) 175
$C_{29}H_{48}_3^0$	Cholestan- $\beta\alpha$ -ol-6-one acetate	650-3100	Sol	Band freq, I	Henbest	JCS - (1954) 800
$C_{29}H_{48}_3^0$	Cholestanol- $\beta\beta$ -one-7-acetate	-	Sol	Band freq	Anagnostopoulos	JACS 76 (1954) 532
$C_{29}H_{48}_3^0$	-	400-4000	S,Sol Sol	Group freq Spec	Tarpley Cummins	APS JCS 9 (1955) 3847 - (1957) 3847
$C_{29}H_{48}_3^0$	Δ -Cholestene- β ,4-dione β -dimethyl ketal	-	Sol	Band freq	Fieser	JACS 76 (1954) 1728
$C_{29}H_{48}_3^0$	Δ -Cholestene-4 α -ol- β -one ethylene ketal	-	Sol	Band freq	Fieser	JACS 76 (1954) 1728
$C_{29}H_{48}_3^0$	14-Methyl- β -oxo-A-nor-coprostan- $\beta\beta$ -yl acetate	-	Sol	Band freq, Struct	Barton	JCS - (1954) 903
$C_{29}H_{48}_4^0$	Alcohol 104 acetate	-	Sol	Band freq	Fieser	JACS 75 (1953) 4418
$C_{29}H_{48}_4^0$	Dimethyl Δ -Cholesten-4 β , β -dicarboxylate β , 7-dicarboxylate	-	-	Group freq, Ident	Gates	JOC 20 (1955) 610

C ₂₉ H ₄₈ O ₄	Dimethyl 3,5-Cyclocholestane -6, 7-dicarboxylate	-	-	Group freq, Ident	Gates	JOC	20 (1955)	610
C ₂₉ H ₄₈ O ₄	Me methyl 5 α -hydroxy-6- ketocholestan-3 β - carboxylate	-	Sol	Group freq	Roberts	JCS	- (1954)	3178
C ₂₉ H ₄₉ BrO ₂	2 β -Bromocholestane-3 β - ol acetate	-	-	Band study	Fieser	JACS	75 (1953)	1704
C ₂₉ H ₄₉ C ₁	3 β -Chlorostigmaster-5-ene	400-1400	Sol	Freq	Barton	JCS	- (1956)	331
C ₂₉ H ₄₉ C ₁₀ ₂	2 α -Chlorocholestan-3 β -ol acetate	-	-	Ident	Beereboom	JACS	75 (1953)	3500
C ₂₉ H ₄₉ C ₁₀ ₂	3 β -Chlorocoprostan-6 β - yl acetate	400-1400	Sol	Group freq	Barton	JCS	- (1956)	331
C ₂₉ H ₄₉ C ₁₀ ₃	3 β -Acetoxy-6 α -chloro- cholestan-5 α -ol	-	Sol	Freq	Henbest	JCS	- (1958)	2633
C ₂₉ H ₄₉ C ₁₀ ₃	6 β -Chloro-5 α -hydroxy- cholestan-3 β -yl acetate	400-1400	Sol	Freq	Barton	JCS	- (1956)	331
C ₂₉ H ₄₉ FO ₃	3 β -Acetoxy-6 β -fluoro- cholestan-5 α -ol	-	Sol	Freq	Henbest	JCS	- (1958)	2633
C ₂₉ H ₄₉ NO ₈	Erythralosamine	-	-	Ident	Flynn	JACS	76 (1954)	3121
C ₂₉ H ₅₀ ⁰	3 β -Acetylcholestane	-	-	Freq	Corey	JACS	75 (1953)	6234
C ₂₉ H ₅₀ ⁰	3 α -Sitosterol	10-13 μ	-	Spec, Band freq	Idler	JACS	75 (1953)	4325
C ₂₉ H ₅₀ ⁰	β -Sitosterol	-	Sol	Freq	Cole	JACS	74 (1952)	5571
		-	Sol	Freq	Jones	JACS	74 (1952)	5648
		-	S	Band freq	Idler	JACS	75 (1953)	1712
		10.0-10.75 μ	Sol	Anal	Behr	AC	29 (1957)	1147
		650-1750	S	Spec	Johnson	AC	29 (1957)	468
		650-1350	Sol	Generalization	Jones	JACS	80 (1958)	6121
C ₂₉ H ₅₀ ⁰	γ -Sitosterol	10.0-10.75 μ	S sol	Band freq Anal	Idler	JACS	75 (1953)	1712
					Johnson	AC	29 (1957)	468

$C_{29}H_{50}^0$	$\Delta^{8:14}$ -Sitosterol	-	S	Band freq	Idler	JACS	75 (1953)	1712
$C_{29}H_{50}^0$	Δ^7 -Stigmastenol	$10\text{--}13\mu$	Sol	Band freq	Idler	JACS	75 (1953)	4325
$C_{29}H_{50}^0$	Δ^{22} -Stigmastenol- β	-	Sol	Freq	Cole	JACS	74 (1952)	5571
			Sol	Freq	Jones	JACS	74 (1952)	5648
			Sol	Generalization	Jones	JACS	80 (1958)	6121
$C_{29}H_{50}^0$	Δ^{22} -Isostigmastenol- α	-	Sol	Freq	Cole	JACS	74 (1952)	5571
			Sol	Spec, Freq	Jones	JACS	74 (1952)	5648
$C_{29}H_{50}^0S$	Cholestan- β -one ethylene hemithioketal	-	Sol	Band freq	Djerassi	JACS	75 (1953)	3704
$C_{29}H_{50}^0S_2$	Cholestan- 2α -ol- β -one ethylene thioketal	-	Sol	Band freq	Fileser	JACS	75 (1953)	4716
$C_{29}H_{50}^0_2$	β -Carbome thoxycholestan	-	Sol	Ident	Corey	JACS	75 (1953)	6234
$C_{29}H_{50}^0_2$	Cholestanol- 2α acetate	-	-	Struct, Band study	Barton	JCS	- (1953)	1027
$C_{29}H_{50}^0_2$	Cholestanol- 2β acetate	-	-	Struct	Barton	JCS	- (1953)	1027
$C_{29}H_{50}^0_2$	Cholestan- 3α -ol acetate	-	-	Assign	Jones	JACS	70 (1948)	2024
			Sol	Band study, I	Jones	JACS	73 (1951)	3215
			Sol	Spec	Dauben	JACS	74 (1952)	5206
			-	Band study	Barton	JCS	- (1953)	1027
			Sol	Freq, I	Rosenkrantz	JACS	77 (1955)	2237
			Sol	Ident	Jones	JACS	78 (1956)	1152
$C_{29}H_{50}^0_2$	Cholestan- 3β -ol acetate	-	-	Assign	Jones	JACS	70 (1948)	2024
			Sol	Band I	Jones	JACS	73 (1951)	3215
			Sol	Spec	Dauben	JACS	74 (1952)	5206
		$2\cdot5\text{--}15\mu$	Sol	Spec, Band freq	Hirschmann	JACS	74 (1952)	5357
		-	Sol	Freq	Jones	JACS	74 (1952)	5648
		-	-	Band study	Barton	JCS	- (1953)	1027
		-	-	Ident	Cardwell	JCS	- (1953)	361
		-	Sol	Band freq, I	Herbest	JCS	- (1954)	800
		-	Sol	Ident	Jones	JACS	78 (1956)	1152
			Sol	Spec	Cummins	JCS	- (1957)	3847

$C_{29}H_{50}O_2$	Cholestanol-4 α -acetate	-	Sol	Band study	Henbest	JCS	-	(1958)	2633
$C_{29}H_{50}O_2$	Cholestanol-4 β -acetate	-	-	Band study	Barton Page	JCS	-	(1953)	1027
$C_{29}H_{50}O_2$	Coprostanol-3 α -acetate	-	Sol	Band study	Barton Page	JCS	-	(1955)	2017
$C_{29}H_{50}O_2$	Coprostanol-3 β -acetate	1195-1270 700-1400	Sol -	Band I Band study Ident	Jones Barton Jones	JACS JCS JACS	73 - 78	(1951) (1953) (1956)	3215 1027 1152
$C_{29}H_{50}O_2$	Lupane-3 β ,28-diol	1195-1280 700-1400	Sol -	Band I Band study Ident	Jones Barton Jones	JACS JCS JACS	73 - 78	(1951) (1953) (1956)	3215 1027 1152
$C_{29}H_{50}O_2$	α -Tocopherol	3600-3650	Sol	Freq	Cole	JCS	-	(1959)	1218
$C_{29}H_{50}O_2$	3 β -Acetoxycholestane- 5 α -ol	6-10.5 μ 2-10 μ 2-16 μ 0.9-3 μ	- L - Sol	Spec Spec Spec Spec	Stern Boyer Issidorides Holman	JACS JACS JACS AC	69 73 73 28	(1947) (1951) (1951) (1956)	869 733 5146 1533
$C_{29}H_{50}O_3$	Cholestan-5 α ,6 α -diol 6 α -acetate	-	-	Ident	Becker	JOC	20	(1955)	353
$C_{29}H_{50}O_3$	$^5\Delta$ -Cholesten-4 α -ol-3- one dimethyl ketol	-	Sol	Band freq	Fieser	JACS	76	(1954)	1728
$C_{29}H_{50}O_3$	2 α ,5 α -Dihydroxycholestane 2-monooacetate	-	Sol	Band freq	Conca	JOC	18	(1953)	1104
$C_{29}H_{50}O_3$	Methyl 5 α -hydroxycholestane -3 β -carboxylate	-	Sol	Group freq	Roberts	JCS	-	(1954)	3178
$C_{29}H_{50}O_3$	α -Tocopheroxide	2-10 μ	L	Spec	Boyer	JACS	73	(1951)	733
$C_{29}H_{50}O_3$	α -Tocopherylquinone	2-10 μ	L	Spec	Boyer	JACS	73	(1951)	733

$C_{29}H_{50}O_4$	Dimethyl 2,3-secocolesterolane-2,3-dioate	2-16 μ 1600-1800 —	Spec Freq Sol Freq, Ident	Issidorides Fusion	JACS JACS	73 (1951) 76 (1954)	5146 2526
$C_{29}H_{50}O_5$	Dimethyl $\beta\beta$ -hydroxycholestane-6,7-dicarboxylate	—	Group freq	Smith	JACS	76 (1954)	6119
$C_{29}H_{51}N$	$\beta\beta$ -Dimethylaminocholest-5-ene	—	Band freq, Struct	Gates	JOC	20 (1955)	610
$C_{29}H_{51}N$	$\beta\alpha$ -Dimethylaminocholest-5-ene	2900-3100	Spec Group freq	Haworth	JCS	— (1953)	1102
$C_{29}H_{52}O$	Stigmastanol	625-5000	S Ident, Spec	Idler	JACS	75 (1953)	1712
$C_{29}H_{52}O_2$	β , β -Dimethoxycholestane	660-1400	Spec, Band freq	Page	JCS	— (1955)	2017
$C_{29}H_{52}O_3$	α -Tocopherolhydroquinone	2-12 μ	S Spec	Rosenkrantz	JACS	72 (1950)	3304
$C_{29}H_{54}$	8-(9-Heptadecyl) [β .0, β .2] tricyclododecane	3.4-14.7 μ Sol	Anal	Francis	AC	25 (1953)	1466
$C_{29}H_{55}NO_{10}$	X- α -Desosaminyl- dihydroerythronolide	—	— Freq	Wiley	JACS	77 (1955)	3676
$C_{29}H_{58}$	11-(2,4-Dimethylcyclopentylmethyl)heneicosane	12.6-14.7 μ Sol	Anal, Struct	Francis	AC	25 (1953)	1466
$C_{29}H_{58}$	11-(2,5-Dimethylcyclo- 11-hexyl)heneicosane	1.1-1.25 μ L	Anal	Evans	AC	23 (1951)	1604
$C_{29}H_{60}$	n-Nonacosane	5400-8900 750-1200 700-1500	Spec, Assign Struct Freq, Assign	Rose Snyder Snyder	JRNBB JCP JMS	19 (1937) 27 (1957) 4 (1960)	143 969 411
$C_{29}H_{60}O$	d-n-Nonacosan-10-ol	—	— Ident	Bentley	JCS	— (1955)	596
$C_{29}H_{60}Si$	Cyclopentamethylene- didodecylsilane	2-35 μ	L Assign	Oshesky	JACS	79 (1957)	2057

$C_{30}H_{22}Cl_2N_2O_8S_4$	N,N,N',N' -Tetrabenzenesulfonyl-2,3-dichloro-p-phenylenediamine	680-1380	S	Band freq	Adams	JACS	74 (1952)	2608
$C_{30}H_{22}N_2O_2$	2-Phenyl-3-(1-phenyl-2-phthalimidoethyl)indole	-	S,Sol	Group freq	Noland	JACS	81 (1959)	1203
$C_{30}H_{22}N_2O_4$	1,4-Bis methylbenzamidoanthraquinone	1648-1663	-	Group freq	Flett	JCS	- (1948)	1441
$C_{30}H_{22}N_4$	1,1',3',5'-Tetraphenyl-3,5'-bipyrazolyl	650-1600	S	Band freq	Finar	JCS	- (1955)	1205
$C_{30}H_{22}N_4$	1,1',5,5'-Tetraphenyl-3,3'-bipyrazolyl	650-1600	S	Band freq	Finar	JCS	- (1955)	1205
$C_{30}H_{22}O_2$	5-Benzylidene-4-hydroxy-2,3,4-triphenyl- Δ^2 -cyclopentenone	1600-1800	Sol	Group freq	Fusion	JACS	76 (1954)	2526
$C_{30}H_{22}O_2$	9-Methylnanthracene photoxide	850-1300	-	Group freq	Nikitin	OS	4 (1958)	702
$C_{30}H_{22}O_4$	4,4'-Bis(benzoylacetyl)biphenyl	1500-3500	S	Freq, Assign, Struct	Martin	JACS	80 (1958)	4891
$C_{30}H_{22}O_4$	1,1',2,2-Tetrabenzoylethane	1.5-2.5 μ	Sol	Freq, Assign	Martin	JACS	81 (1959)	130
$C_{30}H_{22}O_8$	β,β' -Di-o-methyl-5,5'-di-C-benzylellagic acid	5.0-6.15 μ	S	Struct	Stitt	JACS	81 (1959)	4615
$C_{30}H_{22}O_8$	Erythroaphin (sm,fb, en,ee)	670-3500	S	Spec Ident of fb	Johnson Brown	JCS	- (1951)	2633
$C_{30}H_{22}O_8$	cis-cis-Erythrocaphin-fb	-	-	Ident Group freq, Struct Spec, Band freq	Brown Brown Brown	JCS	- (1952)	4928
		750-1350	S			JCS	- (1955)	954
						JCS	- (1955)	959
						JCS	- (1955)	1144

C ₃₀ H ₂₂ O ₈	cis-trans-Erythroaphin-s1	670-3500	S	Spec, Struct Ident Group freq, Struct Spec, Band freq	Johnson Brown Brown Brown	JCS JCS JCS JCS	- (1951) - (1955) - (1955) - (1955)
C ₃₀ H ₂₂ O ₈	trans-trans-Erythroaphin	750-1350	S	Spec, Band freq	Brown	JCS	- (1955) 1144
C ₃₀ H ₂₂ O ₉	Hydroxyerythroaphin-fb	721-3226	S	Band freq, Table Ident Band freq, Ident	Brown MacDonald Brown	JCS JCS JCS	- (1952) 4928 - (1954) 2378 - (1955) 954
C ₃₀ H ₂₂ O ₉	Hydroxyerythroaphin-s1	721-3226	S	Band freq, Ident	Brown	JCS	- (1955) 954
C ₃₀ H ₂₂ O ₁₀	Dihydroxyerythroaphin-fb	699-3268	S	Band freq Group study Table	Brown MacDonald Brown	JCS JCS JCS	- (1952) 4928 - (1954) 2378 - (1955) 954
C ₃₀ H ₂₂ O ₁₁	Rhodoaphin-be	-	S	Ident, Group study	MacDonald	JCS	- (1954) 2378
C ₃₀ H ₂₄ N ₂ O ₈ S ₄	2,X-Bis(benzenesulfonyl)-p-phenylenedibenzene-sulfonamide	-	S	Ident	Adams	JACS	75 (1953) 3235
C ₃₀ H ₂₄ N ₂ O ₈ ·H ₂ O	Diaminoerythroaphin-fb-hydrate	697-1629 697-3333	S S	Band freq Table	Brown Brown	JCS JCS	- (1952) 4928 - (1952) 4928
C ₃₀ H ₂₄ O ⁰	1-Methyl-2,3,4,5-tetraphenylcycloenta-2,4-dien-1-ol	2-15μ	Sol	Spec, Group freq	Somntag	JACS	75 (1953) 2283
C ₃₀ H ₂₄ OSi	Di-2-biphenylsilylanol	-	S	Group freq	Gilman	JOC	20 (1955) 862
C ₃₀ H ₂₄ O ₂	Bis-9-hydroxymethyl-anthracene	-	-	Ident	Greene	JACS	77 (1955) 3852
C ₃₀ H ₂₆ N ₂	Diphenyl ketene-N-methyl-imine dimer	-	-	Band freq	Stevens	JACS	76 (1954) 4398
C ₃₀ H ₂₆ N ₂ O ₂	1-threo-5-Benzylidene-amino-4-(p-benzylidene-aminophenyl)-2-phenyl-1,3-dioxane	-	-	Group freq	Eggerton	JOC	19 (1954) 593

C ₃₀ H ₂₆ N ₄ O ₄	Uronic acid phenylhydrazone anhydrophenylhydrazone	-	Sol	Group freq	Barton	JCS	- (1953)	603
C ₃₀ H ₂₆ OSi ₂	Pentaphenylhydroxysilane	-	-	Group study	Gilmans	JACS	75 (1953)	1250
C ₃₀ H ₂₆ O ₂	Biphenylene (o-duroyl-phenyl)carbinol	-	-	Group freq	Fusion	JOC	19 (1954)	674
C ₃₀ H ₂₆ O ₄	d11-1,6-Di-o-hydroxy-phenyl-3,4-diphenyl-1-hexane-1,6-dione	-	-	Group freq	Jack	JCS	- (1954)	3684
C ₃₀ H ₂₆ O ₄	meso-1,6-Di-o-hydroxy-phenyl-3,4-diphenyl-1-hexane-1,6-dione	-	-	Group freq	Jack	JCS	- (1954)	3684
C ₃₀ H ₂₆ O ₄	Flavpinacol	-	-	Group freq	Jack	JCS	- (1954)	3684
C ₃₀ H ₂₆ O ₅	Di-o-Carbomethoxy-benzhydryl ether	6000-4000	Sol	Spec, Group freq	Curtin	JOC	19 (1954)	352
C ₃₀ H ₂₈	Cyclo-di-(4,4'-dibenzyl-methane)	3-12 μ	Sol	Spec	Steinberg	JACS	74 (1952)	5388
C ₃₀ H ₂₈ N ₂ O ₄	4,9-Dihydroxy-1,6-dipiperidinoperylene-3,10-quionone	752-3344	S	Table	Calderbank	JCS	- (1954)	1285
C ₃₀ H ₂₈ O ₄	p-t-Butylphenyl trietyl ketone	-	-	Group freq, Ident	Fusion	JACS	77 (1955)	1138
C ₃₀ H ₂₈ O ₄	Tetraanisylethylene	1000-1700	Sol	Band freq, Ident	Buckles	JACS	82 (1960)	2444
C ₃₀ H ₂₈ O ₅	4'-Me thoxy-2,2'-t-trianisylacetophenone	1000-1700	Sol	Band freq, Ident	Buckles	JACS	82 (1960)	2444
C ₃₀ H ₂₉ NO ₇	2-Vera troyl-3,5-bis(3,4-dimethoxyphenyl)pyridine	-	-	Group freq	Eliel	JACS	75 (1953)	4291
C ₃₀ H ₃₀	p,p'-Bis-(4-methylbenzyl)dibenzyl	3-12 μ	Sol	Spec	Steinberg	JACS	74 (1952)	5388

C ₃₀ H ₃₀ N ₂ O ₅ P	N-Benzylphosphoryl-dl-phenylalanine benzyl ester	3-15 μ	S,L	Spec, Freq	Li	JACS	77 (1955)	3519
C ₃₀ H ₃₀ O ₆	1,1',2',2'-Tetraanisyl-1,2'-ethanediol	1000-1700	Sol	Band freq, Ident	Puckles	JACS	82 (1960)	2444
C ₃₀ H ₃₀ O ₈	Gossypol	2-12 μ	Sol	Spec, Struct, Group freq	O'Connor	JACS	76 (1954)	2368
C ₃₀ H ₃₀ O ₁₆	Octa-o-acetyl tetrahydroosperlein	-	-	Ident	Lloyd	JCS	- (1955)	2163
C ₃₀ H ₃₂ OSi	Triphenylsilylhexyl phenyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
C ₃₀ H ₃₂ O ₃	1-(p-Duroylphenyl)-3-duryl-1,3-propanedione	-	-	Group freq	Fusion	JACS	77 (1955)	3776
C ₃₀ H ₃₄ N ₂ O ₁₀ S ₂	α-Aminomethyl-δ-amino-valeric acid di-(p-hydroxyazobenzene-p-sulfonate)	2-16 μ	S	Spec, Struct	Van Tamelen	JACS	75 (1953)	2031
C ₃₀ H ₃₄ N ₆ O ₁₀ S ₂	Isoleysine di-(p-hydroxy-azobenzene-p-sulfonate)	2-16 μ	S	Spec, Struct, Ident	Van Tamelen	JACS	75 (1953)	2031
C ₃₀ H ₃₅ NO ₃	Dehydropiandrosterone α-naphthylurethan	-	S	Group freq, I	Werbin	JACS	77 (1955)	4431
C ₃₀ H ₃₅ NO ₃	Testosterone-α-naphthylurethan	-	S	Group freq, I	Werbin	JACS	77 (1955)	4431
C ₃₀ H ₃₆	Cyclotriaconta-1,3,11,13,21,23-hexayne	3-15 μ	S	Spec	Wolovsky	JACS	81 (1959)	4600
C ₃₀ H ₃₆ N ₂ O ₇ S	Methyl reserpate-o-tosylate	-	Sol	Ident	Neuss	JACS	77 (1955)	4087
C ₃₀ H ₃₆ O ₇ S	dl-Ethylenedioxo-16-tosyloxy-14β-15,16-pregnadiene-11,20-dione	-	S	Freq	Arth	JACS	77 (1955)	3834
C ₃₀ H ₃₆ O ₇ S	dl-3-Ethylenedioxo-13C-16-tosyloxypregna-5,16-diene-11,20-dione	-	S	Freq	Arth	JACS	77 (1955)	3834

$C_{30}H_{36}O_7S$	d1- β -Ethylenedioxy-16-tosyloxy-5,16-pregnadiene-11,20-dione	-	S	Freq	Arth	JACS	77 (1955) 3834
$C_{30}H_{37}NO_3$	Etocholan-17 β -ol- β -one- α -naphthylurethane	-	S	Group freq, I	Werbin	JACS	77 (1955) 4431
$C_{30}H_{38}O_6$	Allopregnane-11 α ,21-diol-3,20-dione-11-acetate ^o	-	Sol	Freq	Sondheimer	JACS	75 (1953) 2601
$C_{30}H_{38}O_7$	$\beta\beta$,16-Diacetoxyl- Δ^{14} (15),20,22-bufatrienolide	1000-1900	Sol	Spec, Group freq	Jones	JACS	81 (1959) 5242
$C_{30}H_{38}O_8$	1,4-Diacetoxyl-1,4-di-(2-acetoxyl-3,4,6-trimethylphenyl)butane	-	-	Spec, Band freq, Struct	Smith	JACS	73 (1951) 3851
$C_{30}H_{38}O_9$	Pentaacetylglaucarubol	-	-	Group study	Ham	JACS	76 (1954) 6066
$C_{30}H_{40}OSi$	Triphenylsilyldecyloxyethyl ether	-	-	Inductive effect	Josien	CPR	249 (1959) 826
$C_{30}H_{40}OSi$	Triphenylsilyloctylbutyl ether	-	-	Inductive effect	Josien	CPR	249 (1959) 826
$C_{30}H_{40}OSi$	Triphenylsilylundecylmethyl ether	-	-	Inductive effect	Josien	CPR	249 (1959) 826
$C_{30}H_{40}OS$	β -Benzylthio- Δ^5 -pregnen-7-one-20 β -ol acetate ⁵	-	S	Group freq	Romo	JOC	17 (1952) 1413
$C_{30}H_{40}O_4$	16α -Benzyloryl- Δ^5 -pregnenol- β -one-20-acetate ^o	2.5-15 μ	Sol	Band freq, Group freq Spec, Band freq	Hirschmann Hirschmann	JACS JACS	74 (1952) 5339 74 (1952) 5357
$C_{30}H_{40}O_4$	4 -Pregnene-16 α -benzyl oxy- β ,20-dione-20- α ethylene ketol	-	S	Band freq	Bernstein	JACS	76 (1954) 5674

C ₃₀ H ₄₀ O ₄	Pristimerin	$\bar{\beta}$ -2-12 μ	S, Sol Sol	Group freq., Struct Spec, Struct	Nakanishi Nakanishi	JACS BCSJ	29 (1955) 77 (1956)	7 3169
C ₃₀ H ₄₀ O ₇ S	Δ^5 -Androsten-11 α -ol- β , 17-dione-11-p-toluene- sulfonate- β ,17-bisethylene- ketal	-	S	Group freq	Bernstein	JOC	19 (1954)	41
C ₃₀ H ₄₀ O ₇ S	2 β -4b-Dimethyl-1 β -(2- tosyloxyethyl)-2-acetoxyl- 7-ethylenedioxy-1,2, β ,4, 4a β ,5,6,7,8,10,10 α - dodecahydronanthrene- 4-one	-	-	Band freq	Johns	JACS	76 (1954)	5026
C ₃₀ H ₄₂ N ₃ R ₃	B-Tributyl-N-triphenyl- borazole	-	Sol	Struct	Watanae	SA	16 (1960)	78
C ₃₀ H ₄₂ O ₃	β -i-Propylidene-A-nor- β -O, β -1-bisnorlanosta-5, β -8- diene-7,11,12-trione	2.5-15 μ	Sol	Struct	Cole	JCS	- (1959)	1212
C ₃₀ H ₄₂ O ₃	Lanosta-2,5,8-triene- 7,11,12-trione	2.5-15 μ	Sol	Struct	Cole	JCS	- (1959)	1212
C ₃₀ H ₄₂ O ₄	β -Acetoxyergosta-5,8(9), 22-triene-7,11-dione	-	S	Group freq, I	Elks	JCS	- (1954)	451
C ₃₀ H ₄₂ O ₄	Dumartierigenindione	-	Sol	Band freq	Djerassi	JACS	76 (1954)	2969
C ₃₀ H ₄₂ O ₄	Δ^5 -Pregnene-16 α -benzoyloxy- β -ol-20-one ethylene- Ketal	-	S	Band freq	Bernstein	JACS	76 (1954)	5674
C ₃₀ H ₄₂ O ₄	Pristimerol	2-14 μ	S	Spec	Nakanishi	BCSJ	29 (1956)	7
C ₃₀ H ₄₂ O ₆	$\Delta^{22\alpha}$ -5 α -Spirostan- β - ol-7,11-dione- β - propionate	-	Sol	Band freq	Mancera	JACS	75 (1953)	4428

$C_{30}H_{42}O_7S$	$\alpha,4\beta$ -Dime thy1- 1β -(2-tosyloxythyl)-2-acetonyl-7-ethylenedioxy-1,2,3,4,4a δ ,4b,5,6,7,8,10,10 β -dodeca-hydrophenanthrene-4 α -ol	-	-	Band freq	Johns	JACS 76 (1954) 5026
$C_{30}H_{42}O_{10}$	Onabagenin monoacetone diacetate	-	2-16 μ	Ident Spec	Sneeden Djerassi	JACS 75 (1953) 3510 JOC 19 (1954) 1351
$C_{30}H_{44}Br_2O_4$	$\beta\beta$ -Acetoxy-22,23-dibromo-ergost-8(9)-en-7,11-dione	-	S	Group freq	Elks	JCS - (1954) 451
$C_{30}H_{44}N_2O_4$	Dumortierigenindione dioxime	-	-	Group study	Djerassi	JACS 76 (1954) 2969
$C_{30}H_{44}N_2O_4$	Pilocerine	2-16 μ	Sol	Spec, Struct, Group freq	Djerassi	JACS 75 (1953) 3632
$C_{30}H_{44}O_2$	Dehydrolumisterol acetate	-	S	Ident	Bladon	JCS - (1955) 2176
$C_{30}H_{44}O_2$	$4,4'$ -Dihydroxy- $3,3',5,5'$ -tetra- t -butyldiphenyl-ethylene	2-15 μ	Sol	Spec, Band freq	Bohn	JOC 22 (1957) 458
$C_{30}H_{44}O_2$	$3,5,6,8$ '-Tetra- t -butyl- $\beta,4$ -dihydrobenzopyran- $2'$ -spirocyclohexa- $3,5$ -dien-2-one	-	-	Group freq	Moore	JCS - (1954) 243
$C_{30}H_{44}O_2$	Tetra- t -butylstibenequinone	2-15 μ	Sol	Spec, Band freq	Bohn	JOC 22 (1957) 458
$C_{30}H_{44}O_3$	$\beta\beta$ -Acetoxyergosta-5,8(9),22-trien-7-one	-	S,Sol	Group freq	Elks	JCS - (1954) 451
$C_{30}H_{44}O_3$	$\beta\beta$ -Acetoxyergosta-5,9(11),22-trien-7-one	-	-	Ident	Elks	JCS - (1954) 463
$C_{30}H_{44}O_3$	$\beta\beta$ -Acetoxylumista-5,8(9),22-trien-7-one	-	S,Sol.	Group freq	Burke	JCS - (1953) 3237
$C_{30}H_{44}O_3$	$\beta\beta$ -Acetoxylumista-5,8(9),22-trien-7-one	685-1736	S,Sol	Group freq, Ident, I	Bladon	JCS - (1954) 451
$C_{30}H_{44}O_3$	16 β -Hydroxy- β -oxo-20-isoo-burico-7,9(11)-dien-21-oic acid lactone	-	Sol	Band freq	Bowers	JCS - (1955) 2176
$C_{30}H_{44}O_3$	7,22-trien-7-one	-	-	-	-	JACS - (1954) 3070

C ₃₀ H ₄₄ O ₃	Lanosta-5,8-diene-7,11,12-trione	2.5-15 μ	Sol	Struct	Cole	JCS	- (1959)	1212
C ₃₀ H ₄₄ O ₃	Δ^{12} -18 β -Oleanene-3,16-diol-28-ol	-	Sol	Band freq	Djerassi	JACS	76 (1954)	4089
C ₃₀ H ₄₄ O ₄	$\beta\beta$ -Acetoxy-5 α ,8 α -epidioxy- $\Delta^{6,9(11),22}$ -ergostatriene	650-3100	Sol	Band freq, I	Henbest	JCS	- (1954)	800
C ₃₀ H ₄₄ O ₄	$\beta\beta$ -Acetoxyergosta-5,22-diene-7,11-dione	-	S	Group freq	Elks	JCS	- (1954)	451
C ₃₀ H ₄₄ O ₄	13-Carboxy- $\beta\beta$,19-dihydroxy-12-nor-11-oxotaxaster-18-ene lactone	-	Sol	Group freq, Struct	McKean	JCS	- (1954)	1989
C ₃₀ H ₄₄ O ₄	7,15-Dioxoergosta-8(14),22-dien- $\beta\beta$ -yl acetate	-	Sol	Group freq	Barton	JCS	- (1954)	52
C ₃₀ H ₄₄ O ₄	$\beta\beta$ -Hydroxylanosta-5,8-diene-7,11,12-trione	2.5-15 μ	Sol	Struct	Cole	JCS	- (1959)	1212
C ₃₀ H ₄₄ O ₄	Novic acid	-	Sol	Group freq	Barton	JCS	- (1953)	3111
C ₃₀ H ₄₄ O ₅	$\beta\beta$ -Acetoxy-5 α -hydroxy-ergosta-8(9),22-diene-7,11-dione	-	S	Group freq	Elks	JCS	- (1954)	451
C ₃₀ H ₄₄ O ₅	Δ^{12} -19,30-Bisnoroleanene-11,18,20-tri- $\beta\beta$ -ol acetate	-	Sol	Band freq	Djerassi	JACS	76 (1954)	4085
⁸		Δ^{12} -22-isoallospirosten-3 β -ol-11-one propionate	-	S Freq	Sondheimer	JACS	74 (1952)	2696
C ₃₀ H ₄₄ O ₅	9 α ,11 α -Oxido- Δ^7 -22 α ,5 α -spirosten-3 β -ol propionate	-	Sol	Band freq	Djerassi	JACS	75 (1953)	3496

$C_{30}H_{44}O_5$	Δ^- -22a,5 α -spirostan- $\beta\beta$ -ol-11-one propionate	-	Sol	Band freq	Djerassi	JACS	75 (1953) 3496
$C_{30}H_{44}O_6$	Δ^- -22a,5 α -spirostan- $\beta\beta$ -7-diol-11-one- β -propionate	-	Sol	Band freq	Mancera	JACS	75 (1953) 4428
$C_{30}H_{44}O_{16}$	Ethyl-1,1,3,3-tetra-carbethoxy-2,4-cyclobutane dimalonate(β -form)	$2-13/\mu$	S	Spec, Struct, Band freq	Reid	JACS	73 (1951) 1985
$C_{30}H_{44}O_{16}$	Ethyl 1,1,3,3-tetra-carbethoxy-2,4-cyclobutane dimalonate(β -form)	$2-13/\mu$	S	Spec, Struct, Band freq	Reid	JACS	73 (1951) 1985
$C_{30}H_{46}$	1-(p-Diphenyl)-n-octadecane	5400-8900	Sol	Spec, Assign	Rose	JRNB	19 (1937) 143
$C_{30}H_{46}BrO_7$	12 α -Bromo-11-keto- $\beta\beta$ -methylsuccinooxycholanic acid methyl ester	-	Sol	Group freq	Jones	JACS	74 (1952) 2828
$C_{30}H_{46}Br_2O_3$	$\beta\beta$ -Acetoxy-22,23-dibromo-ergost-9-en-7-one	-	S	Group freq	Elks	JCS	- (1954) 451
$C_{30}H_{46}Br_2O_3$	$\beta\beta$ -Acetoxy-22,23-Dibromo-9 β -ergost-7-en-11-one	-	Sol	Group freq	Elks	JCS	- (1953) 2933
$C_{30}H_{46}Br_2O_3$	$\beta\beta$ -Acetoxy-22,23-dibromo-9 β -ergost-7-en-11-one	-	Sol	Group freq	Elks	JCS	- (1953) 2933
$C_{30}H_{46}Br_2O_4$	22,23-Dibromo-7 α ,8 α -epoxy-11-oxoergostan- $\beta\beta$ -y1 acetate	-	S	Group freq	Grigor	JCS	- (1954) 2333
$C_{30}H_{46}Br_2O_4$	22,23-Dibromo-7 β ,8 β -epoxy-11-oxo- β -ergostan- $\beta\beta$ -y1 acetate	-	S	Group freq	Grigor	JCS	- (1954) 2333
$C_{30}H_{46}Br_2O_4$	22,23-Dibromo-7 β -hydroxy-11-oxoergost-8-en- $\beta\beta$ -y1 acetate	-	S	Group freq	Grigor	JCS	- (1954) 2933

$C_{30}H_{46}Cl_2O_3$	$\beta\beta$ -Acetoxyl-22,23-dichloro -9 α ,11 α -epoxyergost-7-en-	-	S	Group freq	Elks	JCS	-	(1953) 2933
$C_{30}H_{46}Cl_2O_3$	$\beta\beta$ -Acetoxyl-22,23-dichloro -9 β -ergost-7-en-11-one	-	Sol	Group freq	Elks	JCS	-	(1953) 2933
$C_{30}H_{46}O$	Lanosta-5,8,11-trien-7- one	2.5-15/ μ	Sol	Struct	Cole	JCS	-	(1959) 1212
$C_{30}H_{46}O_2$	Anhydroooxoleadienol	-	S	Band freq	Halsall	JCS	-	(1953) 4139
$C_{30}H_{46}O_2$	$4,4'$ -Dihydroxy- $3,3',5,5'$ - tetra- t -butyldiphenyl- ethane	2-15/ μ	Sol	Spec, Band freq	Bohn	JOC	22	(1957) 458
$C_{30}H_{46}O_2$	$\Delta^{7,14,22}$ -Ergostatrienol - β -acetate	-	S,Sol	Group study	Fieser	JACS	75	(1953) 4404
$C_{30}H_{46}O_2$	16β -Hydroxy-20-isoeburico -7,9(11)-dien-21-oic acid lactone	-	Sol	Band freq, Ident	Bowers	JCS	-	(1954) 3070
$C_{30}H_{46}O_2$	Lamisteryl acetate	-	Sol	Group freq	Jones Jones	JACS	72	(1950) 956
$C_{30}H_{46}O_2$	$3,5,3',5'$ -Tetra- t -butyl 2,2'-dihydroxydibenzyl	-	-	Group freq	Moore	JACS	74	(1952) 5648
$C_{30}H_{46}O_2$	Urs-12-en-3,11-dione	1350-1500	Sol	Group study, Group freq	Cole	JCS	-	(1956) 1007
$C_{30}H_{46}O_2S_2$	Di-(2-hydroxy- $3,5$ -di- t - butyl-6-me thylphenyl) disulphide	680-3700	Sol	Freq, I	Cole	JCS	-	(1957) 1332
$C_{30}H_{46}O_2S_2$	Di-(4-hydroxy-2-methyl- 5 - H-octylphenyl) disulphide	-	S,Sol,L	Struct, Assign	Binder	JACS	81	(1959) 3608
$C_{30}H_{46}O_2S_2$	Di-(2-hydroxy- 3 -H-octyl- 5 - methy-phenyl)disulphide	-	S,Sol,L	Struct, Assign	Binder	JACS	81	(1959) 3608

$C_{30}H_{46}O_3$	Acetoxyanthraergosta-5,7,9-trien-7-ol	-	S	Group freq, I	Bladon	JCS	- (1955)	2176
$C_{30}H_{46}O_3$	$\beta\beta$ -Acetoxyergosta-5,8(9)-dien-7-one	-	S	Group freq, I	Bladon	JCS	- (1955)	2176
$C_{30}H_{46}O_3$	$\beta\beta$ -Acetoxyergosta-7,22-dien-11-one	-	S	Band freq	Bachmann	JACS	75 (1953)	3268
$C_{30}H_{46}O_3$	$\beta\beta$ -Acetoxy-9 α -ergosta-7,22-dien-11-one	-	Sol	Group freq	Bladon	JCS	- (1953)	2921
$C_{30}H_{46}O_3$	$\beta\beta$ -Acetoxy-9 α -ergosta-7,22-dien-11-one	-	Sol	Group freq	Elks	JCS	- (1953)	2933
$C_{30}H_{46}O_3$	$\beta\beta$ -Acetoxy-9 β -ergosta-7,22-dien-11-one	-	Sol	Group freq	Bladon	JCS	- (1953)	2921
$C_{30}H_{46}O_3$	$\beta\beta$ -Acetoxyergosta-8(9),22-dien-7-one	-	S, Sol	Group freq	Elks	JCS	- (1953)	2933
$C_{30}H_{46}O_3$	$\beta\beta$ -Acetoxyergosta-8(9),22-dien-11-one	-	S	Band freq	Bachmann	JACS	75 (1953)	3268
$C_{30}H_{46}O_3$	$\beta\beta$ -Acetoxyergosta-9,22-dien-7-one	-	S, Sol	Group freq	Bladon	JCS	- (1953)	2921
$C_{30}H_{46}O_3$	$\beta\beta$ -Hydroxyoleana-11,13(18)-dien-28-oic acid	1500-3700	Sol	Group freq	Elks	JCS	- (1954)	451
$C_{30}H_{46}O_3$	β -Ketoleanolic acid lactone	-	Sol	Band freq	Djerassi	JCS	- (1959)	2005
$C_{30}H_{46}O_3$	Lanost-8-ene-3,7,11-trione	2.5-15 μ	Sol	Struct	Cole	JCS	- (1959)	1212
$C_{30}H_{46}O_3$	7-Oxoergosta-8(14),22-dien- β -yl-acetate	1600-1750	S	Group freq	Barton Braude	JCS	- (1954)	52
$C_{30}H_{46}O_3$	15-Oxoergosta-8(14),22-dien- β -yl-acetate	1600-1750	Sol	Group freq, Spec Freq, Spec	Barton Braude	JCS	- (1955)	3766
$C_{30}H_{46}O_3$	15-Oxo-14 β -ergosta-7,22-dien- β -yl-acetate	-	Sol	Group freq	Barton	JCS	- (1954)	52
$C_{30}H_{46}O_3$	Thurberogenin	2-15 μ	Sol	Spec Group freq	Djerassi Djerassi	JACS	75 (1953)	2254
		-	-			JACS	76 (1954)	2969

C ₃₀ H ₄₆ O ₃ ^S	Δ-22a-Spirosten-3-one-trimethylene hemithio- ketal	-	Sol	-	Djerassi	JACS	75 (1953)	3704
C ₃₀ H ₄₆ O ₄	3β-Acetoxy-5α,8α- 6,22- epidioxy- Δ - ergostadiene	650-3100	Sol	Band freq, I	Henbest	JCS	- (1954)	800
C ₃₀ H ₄₆ O ₄	3β-Acetoxy-5β,8β-epidioxy- lumista-6,22-diene	-	S	Ident	Bladon	JCS	- (1955)	2176
C ₃₀ H ₄₆ O ₄	3β-Acetoxy-9α,11α-epoxy- ergosta-7,22-dien-5α-ol	-	Sol	Group freq	Bladon	JCS	- (1953)	2921
C ₃₀ H ₄₆ O ₄	3β-Acetoxy-7β,8β-epoxy- 9β-ergost-22-en-11-one	-	Sol	Group freq	Henbest	JCS	- (1954)	728
C ₃₀ H ₄₆ O ₄	3β-Acetoxy-9α,11α-epoxy- ergost-22-en-7-one	-	S	Ident, Group freq	Elks	JCS	- (1954)	451
C ₃₀ H ₄₆ O ₄	3β-Acetoxy-5α-hydroxy-9β- ergosta-7,22-dien-11-one	-	S	Group freq	Bladon	JCS	- (1953)	2921
C ₃₀ H ₄₆ O ₄	7,11-Diketoergost-5- 3β-yl acetate	-	Sol	Group freq	Barnes	JCS	- (1953)	1149
C ₃₀ H ₄₆ O ₄	7,15-Dioxo-8α,14β-ergost -22-en-3β-yl acetate	-	Sol	Group freq, Band freq	Barton	JCS	- (1954)	52
C ₃₀ H ₄₆ O ₄	7,15-Dioxo-8β,14α-ergost -22-en-3β-yl acetate	-	Sol	Group freq, Band freq	Barton	JCS	- (1954)	52
C ₃₀ H ₄₆ -48 ₄ ^O	Dumortierigenin	-	Sol	Group freq, Struct	Djerassi	JACS	76 (1954)	2969
C ₃₀ H ₄₆ O ₄	7α,8α-Epoxy-15-oxo-14ξ- ergost-22-en-3β-yl acetate	-	Sol	Group freq	Barton	JCS	- (1954)	52
C ₃₀ H ₄₆ O ₄	7α-Hydroxy-15-oxoergosta- 8(14),22-dien-3β-yl acetate	-	Sol	Group freq, Struct	Barton	JCS	- (1954)	52

C ₃₀ H ₄₆ O ₄	15 ξ -Hydroxy-7-oxoergosta-8(14),22-dien- β -y1-acetate	-	Sol	Group freq	Barton	JCS	- (1954)	52
C ₃₀ H ₄₆ O ₄	8 α ,14 α -Oxide- Δ ²² -ergostane- β -ol-7-one acetate	-	Sol	Band freq	Fieser	JACS	75 (1953)	4404
C ₃₀ H ₄₆ O ₄	Thurberogenin oxide	-	Sol	Band freq	Djerassi	JACS	77 (1955)	1200
C ₃₀ H ₄₆ O ₅	β -Acetoxy-5 α -hydroxy-ergost-8(9)-ene-7,11-dione	-	S,Sol	Group freq	Elks	JCS	- (1954)	451
C ₃₀ H ₄₆ O ₅	19,30-Bisnoroleanane-11,18, 20-trion- β -ol acetate	-	Sol	Band freq	Djerassi	JACS	76 (1954)	4085
C ₃₀ H ₄₆ O ₅	8-Epi(α)-9-epi(β)-22-isooallospirostan- β -ol-11-one propionate	-	S	Freq	Sondheimer	JACS	74 (1952)	2696
C ₃₀ H ₄₆ O ₅	β -Hydroxy-urs-12-ene-27,28-dioic acid	1500-3700	Sol	Freq	Cole	JCS	- (1959)	2005
C ₃₀ H ₄₆ O ₅	22 α ,5 α -8-Iso(α)-spirostan- β -ol-11-one-propionate	-	Sol	Band freq, Ident	Djerassi	JACS	75 (1953)	3496
C ₃₀ H ₄₆ O ₅	22 α -5 α -14-Iso(β)-spirostan- β -ol-11-one-propionate	-	Sol	Band freq	Djerassi	JACS	75 (1953)	3496
C ₃₀ H ₄₆ O ₅ S ₂	Methyl- β -acetoxyl-11,12-diketocholanate-12-trimethylene thioketal	-	Sol	Group freq	Archer	JACS	76 (1954)	4915
C ₃₀ H ₄₆ O ₆	Methyl- β -acetoxyl-7,11-dioxo-25,26,27-trisnorlanostan-24-oate	2.5-15/ μ	Sol	Struct	Cole	JCS	- (1959)	1212
C ₃₀ H ₄₆ O ₆	Methyl- β -acetoxyl-5 α ,22 α -C-norspirostan-11 α -oate	-	-	Band freq	Wendler	JACS	77 (1955)	1632

$C_{30}H_{46}O_8S$	5 α ,22 α -Spirostane-3 β ,11 α -diol-12-one- β -acetate-11-methanesulfonate	-	-	Band freq, Iso	Wendler	JACS	77 (1955)	1632
$C_{30}H_{46}O_8S$	5 α ,22 α -Spirostane-11 α ,12 β -diol-3 β -one-11-me thane-sulfonate 12-acetate	-	-	Band freq, Group freq	Wendler	JACS	77 (1955)	1632
$C_{30}H_{47}D_3O_2$	Δ^- 5-Isoergostenol-3 α -acetate-d β	-	Sol	Group freq	Jones	JACS	74 (1952)	5662
$C_{30}H_{47}BrO$	2 α -Bromo- β -amyr-12-en-3-one	-	Sol	Group freq	Cookson	JCS	- (1954)	282
$C_{30}H_{47}BrO_2$	2 α -Bromoallobutolone	400-4000	Sol	Spec, Ext. Coefficient	Cummings	JCS	- (1957)	3847
$C_{30}H_{47}BrO_3$	12 α -Bromo-3 β ,13 β -dihydroxyolestan-28-oic-13(28)-lactone	1350-1500	Sol	Group freq	Cole	JCS	- (1956)	1007
$C_{30}H_{48}$	3 β -isopropylidene-A-nor-30,31-bisnorlanosta-7,9(11)-diene	2.5-15/ μ	Sol	Struct	Cole	JCS	- (1959)	1212
$C_{30}H_{48}$	Δ^2 -4-Methylene-3-deoxofriedelene	-	-	Freq	Corey	JACS	77 (1955)	3667
$C_{30}H_{48}$	Ursa-2,12-diene	680-3700	Sol	Freq, I	Cole	JCS	- (1957)	1332
$C_{30}H_{48}$	Ursa-9(11),12-diene	680-3700	Sol	Freq, I	Cole	JCS	- (1957)	1332
$C_{30}H_{48}Br_2O_3$	3 β -Acetoxy-22,23-dibromo-9 α -ergostan-11-one	-	Sol	Group freq	Elks	JCS	- (1953)	2933
$C_{30}H_{48}Br_2O_3$	3 β -Acetoxy-22,23-dibromo-9 β -ergostan-11 one	-	Sol	Group freq	Elks	JCS	- (1953)	2933
$C_{30}H_{48}Cl_2O_3$	3 β -Acetoxy-22,23-dichloro-9 α -ergostan-11-one	-	Sol	Group freq	Elks	JCS	- (1953)	2933
$C_{30}H_{48}Cl_2O_3$	3 β -Acetoxy-22,23-dichloro-9 β -ergostan-11-one	-	Sol	Group freq	Elks	JCS	- (1953)	2933

β -Amyr-12-en- β -one	-	Sol	Group freq.	Cookson	JCS	- (1954)	282
δ -Amyr-13(18)-en- β -one	-	-	Ident	Halsall	JCS	- (1954)	1902
Cycloartenone	5-12 μ 2700-3100 2.5-15 μ	Sol Sol Sol	Spec, Band freq. Band freq., Spec Strict	Barton Cole Cole	JCS JCS JCS	- (1951) (1954) (1959)	1444 3810 1212
Heterolupenal	-	-	Group freq.	Ames	JCS	- (1954)	1905
Lup-20(29)-en- β -one	680-3700	Sol	Freq, I	Cole	JCS	- (1957)	1332
β -Methoxy-11 α -methyl- ergosta-6,8,22-triene	650-900	Sol	Spec	Henbest	JCS	- (1957)	997
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Δ^5 -4-Methylfriedelene	-	-	Freq.	Corey	JACS	77 (1955)	3667
Phyllanthone	-	Sol	Group freq.	Cole	JCS	- (1954)	3810
ψ -Tarazastenone	-	-	Ident	Halsall	JCS	- (1954)	1902
Urs-12-en- β -one	1350-1500 1350-3700	Sol Sol	Group freq. Freq, I	Cole Cole	JCS JCS	- (1956) (1957)	1007 1332
Urs-12-en-11-one	1350-1500 680-3700	Sol Sol	Spec, Group freq. Freq, I	Cole Cole	JCS JCS	- (1956) (1957)	1007 1332
Allobetulone	400-4000	Sol	Spec, Ext. Coefficient	Cummins	JCS	- (1957)	3847
Anhydrooxoelenerol	-	Sol	Band freq.	Halsall	JCS	- (1953)	4139
$\Delta^{7,22}$ -Ergostadienol- β -acetate	-	-	Ident	Nes	JOC	18 (1953)	276
$\Delta^8(14),22$ -Ergostadienol- β -acetate	-	-	Ident, Band freq.	Nes	JOC	18 (1953)	276
Lanost-8-ene- β ,7-dione	2.5-15 μ	Sol	Struct	Cole	JCS	- (1959)	1212
β -Methoxy-14-methylergosta-7,22-dien-15-one	-	Sol	Freq	Page	JCS	- (1955)	2017

C ₃₀ H ₄₈ O ₂	Olean-12-en-3 β -oic acid	1500-3700	Sol	Group study	Cole	JCS	- (1959)	2005
C ₃₀ H ₄₈ O ₃	β -Acetoxyergost-5-en-11-one	-	L	Group freq	Bladon	JCS	- (1954)	125
C ₃₀ H ₄₈ O ₃	β -Acetoxyergost-7-en-11-one	-	-	Struct	Bladon	JCS	- (1953)	2921
C ₃₀ H ₄₈ O ₃	β -Acetoxyergost-8(9)-en-7-one	-	S,Sol	Group freq	Elks	JCS	- (1954)	451
C ₃₀ H ₄₈ O ₃	β -Acetoxyergost-8(9)-en-11-one	-	S	Group freq	Bladon	JCS	- (1953)	2921
C ₃₀ H ₄₈ O ₃	β -Acetoxyergost-9(11)-en-7-one	-	S,Sol	Group freq, Ident	Barton	JCS	- (1954)	747
C ₃₀ H ₄₈ O ₃	β -Acetoxyergost-9(11)-en-7-one	-	Sol	Group freq	Elks	JCS	- (1954)	451
C ₃₀ H ₄₈ O ₃	β -Acetoxyergost-22-en-11-one	-	-	Group freq, Ident	Cameron	JCS	- (1953)	3864
C ₃₀ H ₄₈ O ₃	β -Acetoxy-9 α -ergost-22-en-11-one	-	Sol	Group freq	Bladon	JCS	- (1954)	125
C ₃₀ H ₄₈ O ₃	β -Acetoxy-9 β -ergost-22-en-11-one	-	Sol	Group freq	Elks	JCS	- (1953)	2933
C ₃₀ H ₄₈ O ₃	β -Boswellic acid	1600-3700 1500-3700	Sol Sol	Group freq, H bond Group freq	Cole Cole	JCS	- (1953)	2933
C ₃₀ H ₄₈ O ₃	7,14 Δ -Cholestadienyl catheylate	-	Sol	Group freq	Fieser	JACS	75 (1953)	4404
C ₃₀ H ₄₈ O ₃	β ,13 β -Dihydroxy-18 α -oleanan-28-oic-13(28)-lactone	1350-1500	Sol	Group study	Cole	JCS	- (1956)	1007
C ₃₀ H ₄₈ O ₃	β ,13 β -Dihydroxyoleanan-28-oic-13(28)-lactone	1350-1500	Sol	Group study	Cole	JCS	- (1956)	1007
C ₃₀ H ₄₈ O ₃	β ,13 β -Dihydroxyursan-28-oic-13(28)lactone	1350-1500	Sol	Group study	Cole	JCS	- (1956)	1007
C ₃₀ H ₄₈ O ₃	Gummosogenin	-	Sol	Band freq	Djerassi	JACS	76 (1954)	4089

1780

$C_{30}H_{48}O_3$	$\beta\beta$ -Hydroxylanost-5-ene-7,11-dione	2.5-15 μ 3600-3650	Sol Sol	Ident Struct Ident, Freq	Djerassi	JACS JCS JCS	77 (1955) (1959) (1959)	3579
$C_{30}H_{48}O_3$	$\beta\beta$ -Hydroxylanost-8-ene-7,11-dione	2.5-15 μ 3600-3650	Sol Sol	Struct Ident, Freq	Cole Cole	JCS JCS	- (1959) - (1959)	1212 1218
$C_{30}H_{48}O_3$	$\beta\beta$ -Hydroxyurs-12-en-28-oic acid	1350-1500 1500-3700	Sol Solv	Group freq, Group study Group study	Cole Cole	JCS JCS	- (1956) - (1959)	1007 2005
$C_{30}H_{48}O_3$	Lanostane-3,7,11-trione	2.5-15 μ	Sol	Struct	Cole	JCS	- (1959)	1212
$C_{30}H_{48}O_3$	Morolic acid	1350-1500 1500-3700	Sol Solv	Ident, Struct Group freq, Ident Group study	Barton Cole Cole	JCS JCS JCS	- (1951) - (1956) - (1959)	257 1007 2005
$C_{30}H_{48}O_3$	α -Nor-2-Ketoerburic-8-enoic acid	-	S	Group freq	Holker	JCS	- (1953)	2414
$C_{30}H_{48}O_3$	Oleanolic acid	1350-1500 1500-3700	Sol Solv	Group freq Group study	Cole Cole	JCS JCS	- (1956) - (1959)	1007 2005
$C_{30}H_{48}O_3$	δ -Oleanolic acid	1500-3700	Sol	Group study	Cole	JCS	- (1959)	2005
$C_{30}H_{48}O_3$	Oleanolic acid lactone	-	Sol	Band freq	Djerassi	JACS	76 (1954)	2969
$C_{30}H_{48}O_3$	18-isooleanolic acid lactone	-	-	Ident	Djerassi	JACS	76 (1954)	5780
$C_{30}H_{48}O_3$	24-Oxo-26,27-bisnor-cycloartanyl acetate	-	-	Ident	Henry	JCS	- (1955)	1607
$C_{30}H_{48}O_3$	β -Oxolupan-28-oic acid	1500-3700	Sol	Group study	Cole	JCS	- (1959)	2005
$C_{30}H_{48}O_4$	$\beta\beta$ -Acetoxy-5 α ,8 α ,9 α ,11 α -diepoxyergostane	-	-	Group study	Clayton	JCS	- (1953)	2009
$C_{30}H_{48}O_4$	$\beta\beta$ -Acetoxy-5 α ,8 α -epidioxy-22- -ergostene	-	Sol	Band freq, I	Henbest	JCS	- (1954)	800

 Δ -ergostene

$C_{30}H_{48}O_4$	$\beta\beta$ -Acetoxyergostane-7, 11-dione	-	S, Sol	Ident, Group freq	Elks	JCS	- (1954)	451
$C_{30}H_{48}O_4$	$\beta\beta$ -Acetoxy-5 α ,8 α -diol diene-5 α ,8 α -diol	650-3100	Sol	Band freq, I	Henbest	JCS	- (1954)	800
$C_{30}H_{48}O_4$	$\beta\beta$ -Acetoxy-5 α -hydroxy- ergost-22-en-11-one	-	Sol	Group freq	Bladon	JCS	- (1954)	125
$C_{30}H_{48}O_4$	$\beta\beta$,23-Dihydroxyolean- 12-en-28-oic acid	1500-3700	Sol	Group study	Cole	JCS	- (1959)	2005
$C_{30}H_{48}O_4$	Ergosta-9(11),22-diene- $\beta\beta$,5 α ,7 β -triol-3- monoacetate	-	Sol	Group freq	Elks	JCS	- (1954)	463
$C_{30}H_{48}O_4$	Ergosta-7,22-dien- $\beta\beta$,5 α , 11 β -triol-3-monoacetate	-	S	Group freq	Bladon	JCS	- (1953)	2921
$C_{30}H_{48}O_4$	22a,5 α -Spirostan-2 β , β diol acetone	-	Sol	Band freq	Klass	JACS	77 (1955)	3829
$C_{30}H_{48}O_4$	Stellatogenin	-	Sol	Group freq	Djerassi	JACS	77 (1955)	1200
$C_{30}H_{48}O_4$	$\beta\beta$ -Acetoxyl-9 β ,11 α - dihydroxy-	-	-	Group freq	Budzíárek	JCS	- (1952)	2892
	Δ -ergostenone-7	22						
$C_{30}H_{48}O_5$	$\beta\beta$ -Acetoxy-5 α ,8 α -epoxy- 9 α -hydroxyergostan-11-one	-	S	Group freq	Clayton	JCS	- (1953)	2009
$C_{30}H_{48}O_5$	$\beta\beta$ -Acetoxy-9 α ,11 α -epoxy- 5 α -hydroxyergostan-7-one	-	S	Group freq	Bladon	JCS	- (1953)	2916
$C_{30}H_{48}O_6S$	$\beta\beta$ -Acetoxy-5 α ,8 α -epoxy- ergostane-9 α ,11 α -diol sulfite	-	S	Group freq	Clayton	JOS	- (1953)	2009
$C_{30}H_{48}O_7$	Methyl hecolate- β - acetate	-	Sol	Group freq	Rothman	JACS	76 (1954)	527
$C_{30}H_{48}O_7S$	12-Epirockogenin- β - acetate-12-mesylate	-	S	Group freq	Hirschmann	JACS	76 (1954)	4013

$C_{30}H_{48}O_8S$	5 α ,22a-Spirostane- β , β , β , β -triol-11-methane-sulfonate 12-acetate	-	S	Group freq	Wendler	JACS	77 (1955)	1632
$C_{30}H_{49}O$	α -Amyrene-27- δ_1	650-4000	Sol	Group freq, I	Barton	JCS	- (1954)	2715
$C_{30}H_{49}O_2$	Ergostanol- β -acetate- δ_3	-	Sol	Group freq	Jones	JACS	74 (1952)	5662
$C_{30}H_{49}BrO$	2-Bromofriedelin	-	-	Group freq	Corey	JACS	77 (1955)	3667
$C_{30}H_{49}BrO$	4-Bromofriedelin	-	-	Freq	Corey	JACS	77 (1955)	3667
$C_{30}H_{49}BrO$	2 α -Bromolanost-8(9)-en- β -one	400-4000	Sol	Spec, Substitution	Cummins	JCS	- (1957)	3847
$C_{30}H_{49}BrO$	2 β -Bromolanost-8(9)-en- β -one	400-4000	Sol	Spec, Substitution	Cummins	JCS	- (1957)	3847
$C_{30}H_{49}BrO_3$	9 α -Bromo-11-oxoergostan- β - β -yl acetate	400-4000	Sol	Spec, Substitution	Cummins	JCS	- (1957)	3847
$C_{30}H_{49}BrO_3$	12 α -Bromo-11-oxoergostan- β - β -yl acetate	400-4000	Sol	Spec, Substitution	Cummins	JCS	- (1957)	3847
$C_{30}H_{49}N_3O_3$	Δ^4 -Cholestenol- β - β -6-one acetate semicarbazone	-	-	Band freq	Reich	JOC	16 (1951)	1753
$C_{30}H_{50}$	β -Allyl-5-cholestene	-	-	Ident	Baker	JACS	77 (1955)	3644
$C_{30}H_{50}$	α -Amyrene	650-4000 β -14 μ	Sol	Group freq, I Spec	Barton Cole	JCS	- (1954)	2715 3807
$C_{30}H_{50}$	Cycloartene	-	Sol	Group freq	Cole	JCS	- (1954)	3810
$C_{30}H_{50}$	β -isopropylidene-A-nor-30,31-bisnorlanost-8-ene	2.5-15 μ	Sol	Struct	Cole	JCS	- (1959)	1212
$C_{30}H_{50}$	Lanosta-7,9(11)-diene	2.5-15 μ	Sol	Struct	Cole	JCS	- (1959)	1212
$C_{30}H_{50}$	Lanosta-8,24-diene	2.5-15 μ	Sol	Struct	Cole	JCS	- (1959)	1212

$C_{30}H_{50}$	α -Lupene	-	Sol	Ext. Coefficient, Freq	Bernard	JCS	-	(1950)	915
$C_{30}H_{50}$	Olean-13(18)-ene	-	-	Ident, Struct	Corey	JACS	77	(1955)	3668
$C_{30}H_{50}$	Olean-18-ene	680-3700	Sol	Freq, I	Cole	JCS	-	(1957)	1332
$C_{30}H_{50}$	Phyllanthane	650-4000 2700-3100	Sol Sol	Group freq, I Spec, Freq	Barton Cole	JCS	-	{1954}	2715 3810
$C_{30}H_{50}$	Squalene	600-1800 2-16 μ 2-16 μ	- L,Sol -	Spec Spec Spec, Group freq	Thompson Dauben Dauben	TFS JACS JACS	41 74 74	(1945) (1952) (1952)	246 4321 5204
$C_{30}H_{50}$	Squalene C ¹⁴	2-16 μ	-	Spec, Group freq	Dauben	JACS	74	(1952)	5204
$C_{30}H_{50}$	ψ -Tarexastene	-	S	Band freq	Ames	JCS	-	(1954)	1905
$C_{30}H_{50}$	19 α (H)-Taraxast-20(30)-ene	-	S	Ident, Band freq	Ames	JCS	-	(1954)	1905
$C_{30}H_{50}$	Urs-12-ene	680-3700	Sol	Freq, I	Cole	JCS	-	(1957)	1332
$C_{30}H_{50}Br_2O$	2,2-Dibromolanostan- β -one	400-4000	Sol	Spec, Substitution	Cummings	JCS	-	(1957)	3847
$C_{30}H_{50}^0$	δ -Amyr-13(18)-en- β -ol	-	-	Ident	Halsall	JCS	-	(1954)	1902
$C_{30}H_{50}^0$	Cycloartenol	750-1500 950-3139	Sol Sol	Spec, Freq Spec, Freq, Group study	Cole Allsop	JCS JCS	- -	(1954) (1956)	3810 4868
$C_{30}H_{50}^0$	9:19-Cyclolanost-24-en- β -ol	950-3639	Sol	Spec, Freq, Group study	Allsop	JCS	-	(1956)	4868
$C_{30}H_{50}^0$	13:27-Cycloursan- β -ol	3600-3650	Sol Sol	Group freq Group freq, Ident	Cole Cole	JCS JCS	- -	(1954) (1959)	3810 1218
$C_{30}H_{50}^0$	Euphol	-	-	Freq	Barbour	JCS	-	(1955)	2194
$C_{30}H_{50}^0$	Lanosta-7,9(11)-dien β -ol	2.5-15 μ 3600-3650	Sol Sol	Struct Group freq, Ident	Cole Cole	JCS JCS	- -	(1959) (1959)	1212 1218

C ₃₀ H ₅₀ ⁰	Lanost-8-en-3 β -one 2.5-15 μ	400-4000 Sol Struct	Spec, Substitution Struct	Cummins Cole	JCS JCS	(1957) (1959)	3847 1212
C ₃₀ H ₅₀ ⁰	Lup-20(29)-en-3 α -ol	950-3639 680-3700 Sol	Spec, Freq, Group study Freq, I	Allsop Cole	JCS JCS	(1956) (1957)	4866 1332
C ₃₀ H ₅₀ ⁰	Lup-20(29)-en-3 β -ol	- 950-3639 Sol	Ext. Coefficient, Freq Spec, Freq, Group study Freq, I	Bernard Allsop	JCS JCS	(1950) (1956)	915 4868
C ₃₀ H ₅₀ ⁰	Lup-20(29)-en-28-ol	680-3700 3600-3650 Sol	Group freq, Ident	Cole Cole	JCS JCS	(1957) (1959)	1332 1218
C ₃₀ H ₅₀ ⁰	Lup-20(29)-en-28-ol	680-3700 Sol	Freq, I	Cole	JCS	(1957)	1332
C ₃₀ H ₅₀ ⁰	$\beta\beta$ -Methoxy-14-methyl- ergosta-7,22-diene	- Sol	Freq	Page	JCS	(1955)	2017
C ₃₀ H ₅₀ ⁰	21-Noreburic-8-en-20-one	- Sol	Group freq	Holker	JCS	(1953)	2422
C ₃₀ H ₅₀ ⁰	Olean-12-en-3 α -ol	950-3639 Sol	Spec, Freq, Group study	Allsop	JCS	(1956)	4868
C ₃₀ H ₅₀ ⁰	Olean-12-en-3 β -ol	950-3639 680-3700 Sol	Spec, Freq, Group study Freq, I	Allsop Cole	JCS JCS	(1956) (1957)	4868 1332
C ₃₀ H ₅₀ ⁰	Olean-18-en-3 β -ol	11-13 μ 680-3700 3600-3650 Sol	Spec, Struct Freq, I Group study	Barton Cole Cole	JCS JCS JCS	(1951) (1957) (1959)	257 1332 1218
C ₃₀ H ₅₀ ⁰	Stigmasteryl methyl ether	3-12 μ S,Sol	Band freq, Struct	Josien	JACS	73 (1951)	4445
C ₃₀ H ₅₀ ⁰	iso-Stigmasteryl methyl ether	3-12 μ S,Sol	Band freq, Struct	Josien	JACS	73 (1951)	4445
C ₃₀ H ₅₀ ⁰	ψ -Taraxasterol	- -	Group freq, Band freq Ident	Ames Halsall	JCS JCS	(1954) (1954)	1905 1902
C ₃₀ H ₅₀ ⁰	Ursan-11-one	1350-1500 Sol	Group freq	Cole	JCS	(1956)	1007

C ₃₀ H ₅₀ ⁰	Urs-12-en-3 α -ol	950-3639	Sol	Spec, Freq, Group freq	Allsop	JCS	- (1956)	4868
C ₃₀ H ₅₀ ⁰	Urs-12-en-3 β -ol	950-3639	Sol	Spec Spec, Freq, Group study	Cole Allsop	JCS	- (1954) - (1956)	3807 4868
C ₃₀ H ₅₀ ⁰	680-3700	Sol	Freq, I	Freq, I	Cole	JCS	- (1957)	1332
C ₃₀ H ₅₀ ⁰	3 β -Acetoxyergost-9(11)-ene	-	L	Group freq	Crawshaw	JCS	- (1954)	731
C ₃₀ H ₅₀ ⁰	Eburico-7,9(11)-diene-16 α ,21-diol	-	-	Ident	Bowers	JCS	- (1954)	3070
C ₃₀ H ₅₀ ⁰	7 Δ -Ergostenol-3 β -acetate	2.5-15 μ	Sol	Spec, Band freq	Hirschmann	JACS	74 (1952)	5357
		-	Sol	Group freq	Jones	JACS	74 (1952)	5648
		-	-	Ident	Nes	JOC	18 (1953)	276
		2.5-13 μ	Sol	Group freq, Strict	Rosenkrantz	JACS	75 (1953)	903
		-	Sol	Freq	Page	JCS	- (1955)	2017
C ₃₀ H ₅₀ ⁰	8(14) Δ -Ergostenol-3 β -acetate	2.5-15 μ	Sol	Spec, Band freq	Hirschmann	JACS	74 (1952)	5357
		-	Sol	Group freq	Jones	JACS	74 (1952)	5648
		-	-	Ident	Bladon	JCS	- (1953)	2921
		2.5-13 μ	Sol	Group freq, Strict	Rosenkrantz	JACS	75 (1953)	903
		-	Sol	Freq	Page	JCS	- (1955)	2017
C ₃₀ H ₅₀ ⁰	14 Δ -Ergostenol-3 β -acetate	-	Sol	Group freq	Jones	JACS	74 (1952)	5648
C ₃₀ H ₅₀ ⁰	22 Δ -5 β -isoergostenol-3 β -acetate	-	Sol	Group freq	Jones	JACS	74 (1952)	5648
		-	Sol	Group freq	Jones	JACS	74 (1952)	5662
C ₃₀ H ₅₀ ⁰	22 Δ -5 β -Ergosten-3 α -ol acetate	700-1400	Sol	Ident	Jones	JACS	78 (1956)	1112
C ₃₀ H ₅₀ ⁰	Erythriol	-	-	Ident	Djerassi	JACS	76 (1954)	5780
C ₃₀ H ₅₀ ⁰	3 β -Hydroxylanost-8-en-7-one	2.5-15 μ 3600-3650	Sol Sol	Struct Group freq	Cole Cole	JCS	- (1959) - (1959)	1212 1218

1786

β -Hydroxyoleanan-12-one	1350-1500 3600-3650	Sol Sol	Spec, Group freq Group freq, Ident	Cole Cole	JCS JCS	(1956) (1959)	1007 1218
20 α -Hydroxy-21-oxo-taraxastane	-	Sol	Band freq	Ames	JCS	-	(1954) 1905
β -Keto-18(α)-oleanan-2 β -ol	19-Keto-18(α)-oleanan-2 β -ol	-	Sol	Group freq	Ames	JCS	- (1952) 2868
β -Lup-20(29)-ene-3 β ,28-diol	680-3700 3600-3650	Sol Sol	Freq, I Group freq, Ident	Cole Cole	JCS JCS	- (1957) - (1959)	1332 1218
Urs-12-ene-3 α ,24-diol	1600-3700	Sol	Group freq, H bond	Cole	JCS	- (1959)	1224
Urs-12-ene-3 β ,24-diol	1600-3700	Sol	Group freq, H bond	Cole	JCS	- (1959)	1224
Urs-12-ene-3 β ,28-diol	3600-3650	Sol	Struct	Cole	JCS	- (1959)	1218
β -Acetoxy-9 β ,11 β -epoxyergostane	-	Sol	Ident	Henbest	JCS	- (1955)	2477
β -Acetoxyergostan-7-one	-	S,Sol	Group freq	Elks	JCS	- (1954)	451
β -Acetoxy-8 α -ergostan-11-one	-	Sol	Group freq	Bladon	JCS	- (1953)	2921
β -Acetoxy-9 α -ergostan-11-one	-	Sol	Group freq	Elks	JCS	- (1953)	2933
β -Acetoxy-9 β -ergostan-11-one	-	Sol	Group freq	Bladon	JCS	- (1953)	2933
β -Acetoxy-9 β -ergostan-11-one	-	Sol	Group freq	Elks	JCS	- (1953)	2933
β -Acetoxyergost-14-en-5 α -ol	-	Sol	Group freq	Bladon	JCS	- (1954)	736
β -Acetoxylumist-7-en-5 β -ol	-	S	Group freq	Bladon	JCS	- (1955)	2176
β -Acetoxy-9 β -lumist-7-en-5 α -ol	-	S	Group freq	Bladon	JCS	- (1955)	2176
β -Hydroxylanostane-7,11-dione	2.5-15 μ 3600-3650	Sol Sol	Struct Group freq, Ident	Cole Cole	JCS JCS	(1959) (1959)	1212 1218

$C_{30}H_{50}^0_3$	Longispinogenin	-	Sol	Ident Ident	Djerassi Djerassi	JACS JACS	76 77	(1954) (1955)
$C_{30}H_{50}^0_3$	11-Oxoergostan- β -yl acetate	400-4000	Sol	Spec, Substitution	Cummins	JCS	-	(1957)
$C_{30}H_{50}^0_3$	15-Oxoergostan- β -yl acetate	-	Sol	Group freq	Barton	JCS	-	(1954)
$C_{30}H_{50}^0_4$	β -Acetoxy- δ -hydroxy-ergostan-11-one	-	S	Group freq	Bladon	JCS	-	(1953)
$C_{30}H_{50}^0_4$	β -Acetoxy- δ -hydroxy- β -ergostan-11-one	-	S	Group freq	Bladon	JCS	-	(1953)
$C_{30}H_{50}^0_4$	β -Acetoxy- δ -hydroxy-ergostan-11-one	-	S	Group freq Group freq	Barton Crawshaw	JCS JCS	- (1954)	(1954)
$C_{30}H_{50}^0_6$	Lithocholanyl alcohol dicathylate	-	-	Band study	Fleiser	JACS	74	(1952)
$C_{30}H_{51}^0$	Lanost-7-ene-19-d ₁	650-4000	Sol	Group freq, I	Barton	JCS	-	(1954)
$C_{30}H_{51}^0$	Lanost-8-ene-19-d ₁	650-4000	Sol	Group freq, I	Barton	JCS	-	(1954)
$C_{30}H_{51}BrO$	2 α -Bromolanostan- β -one	400-4000	Sol	Spec, Substitution	Cummins	JCS	-	(1957)
$C_{30}H_{51}BrO$	2 β -Bromolanostan- β -one	400-4000	Sol	Spec, Substitution	Cummins	JCS	-	(1957)
$C_{30}H_{51}BrO$	β -Acetoxy- δ -bromo-ergostan-11 β -ol	-	Sol	Freq	Henbest	JCS	-	(1955)
$C_{30}H_{51}N$	β -Isopropylideneamino-cholest- β -ene	-	-	Group freq	Haworth	JCS	-	(1955)
$C_{30}H_{51}N$	β -Isopropylideneamino-cholest- β -ene	-	-	Group freq	Haworth	JCS	-	(1955)
$C_{30}H_{52}$	Cycloartane	650-4000 750-1500	Sol Sol	Group freq, I Spec	Barton Cole	JCS JCS	- (1954)	2715 3810

$C_{30}H_{52}$	Euphene	-	Sol	Ident	Barton	JCS	-	(1955)	876
$C_{30}H_{52}$	Lanost- β -ene	-	Sol	Ident	Holker	JCS	-	(1953)	2422
		-	Sol	Ident	Barton	JCS	-	(1955)	876
		2.5-15 μ	Sol	Struct	Cole	JCS	-	(1959)	1212
$C_{30}H_{52}$	Lanost-9(11)-ene	650-4000	Sol	Group freq, I	Barton	JCS	-	(1954)	2715
$C_{30}H_{52}$	19 α (H)-Taxastane	-	S	Band freq, Ident	Ames	JCS	-	(1954)	1905
$C_{30}H_{52}^0$	Artenol	9-11 μ	Sol	Spec	Barton	JCS	-	(1951)	1444
$C_{30}H_{52}^0$	Cycloartanol	2700-3100	Sol	Spec, Band freq	Cole	JCS	-	(1954)	3810
$C_{30}H_{52}^0$	Friedelien- $\beta\alpha$ -ol	3600-3650	Sol	Struct	Cole	JCS	-	(1959)	1218
$C_{30}H_{52}^0$	Friedelien- $\beta\beta$ -ol	3600-3650	Sol	Struct	Cole	JCS	-	(1959)	1218
$C_{30}H_{52}^0$	Lanostan- β -one	400-4000	Sol	Spec, Substitution	Gummans	JCS	-	(1957)	3847
$C_{30}H_{52}^0$	Lanost-8-en- $\beta\alpha$ -ol	950-3639	Sol	Spec, Freq, Group study	Allsop	JCS	-	(1956)	4868
$C_{30}H_{52}^0$	Lanost-8-en- $\beta\beta$ -ol	950-3639	Sol	Spec, Freq, Group study	Allsop	JCS	-	(1956)	4868
		2.5-15 μ	Sol	Struct	Cole	JCS	-	(1959)	1212
		3600-3650	Sol	Group freq, Ident	Cole	JCS	-	(1959)	1218
$C_{30}H_{52}^0$	Lanost-9(11)-en- $\beta\beta$ -ol	2.5-15 μ	Sol	Struct	Cole	JCS	-	(1959)	1212
		3600-3650	Sol	Group freq, Ident	Cole	JCS	-	(1959)	1218
$C_{30}H_{52}^0$	Lupan- $\beta\beta$ -ol	3600-3650	Sol	Group freq, Ident	Cole	JCS	-	(1959)	1218
$C_{30}H_{52}^0$	Ergostan- $\beta\beta$ -ol-acetate	-	Sol	Group freq	Jones	JACS	72	(1950)	956
		1180-1300	Sol	Band study, I	Jones	JACS	73	(1951)	3215
		-	Sol	Band freq	Cole	JCS	-	(1952)	4969
		1682-1782	Sol	I, Ext. Coefficient,	Jones	JACS	74	(1952)	5648
		-	Sol	Band study	Jones	JACS	74	(1952)	5662
		-	Sol	Group freq	Jones	JACS	74	(1952)	5662
		2.5-13 μ	Sol	Group study	Rosenkrantz	JACS	74	(1952)	80
		-	Sol	Group freq, Struct	Rosenkrantz	JACS	75	(1953)	903
		770-3700	Sol	Group freq	Page	JCS	77	(1955)	2017
				Freq, I	Rosenkrantz	JACS	77	(1955)	2237

C ₃₀ H ₅₂ O ₂	Lumistanol- $\beta\alpha$ -acetate	700-1400	Sol	Band study, Ident	Jones	JACS	78 (1956)	1152
C ₃₀ H ₅₂ O ₂	Lumistanol- $\beta\beta$ -acetate	-	-	Band study	Barton	JCS	- (1953)	1027
C ₃₀ H ₅₂ O ₃	-	1180-1300	Sol	Group freq	Jones	JACS	72 (1950)	956
C ₃₀ H ₅₂ O ₃	-	-	Sol	Band study, I	Jones	JACS	73 (1951)	3215
C ₃₀ H ₅₂ O ₃	-	-	Sol	Group freq, Band freq	Cole	JCS	- (1952)	4969
C ₃₀ H ₅₂ O ₃	1686-1786	Sol	I, Ext. Coefficient, Band study	Jones	JACS	74 (1952)	80	
C ₃₀ H ₅₂ O ₃	-	-	Band freq	Barton	JCS	- (1953)	1027	
C ₃₀ H ₅₂ O ₃	$\beta\beta$ -Acetoxysterostan-5 α -ol	-	-	Group freq	Bladon	JCS	- (1954)	736
C ₃₀ H ₅₂ O ₃	18 β -Oleanane- $\beta\alpha$,13 β ,28-triol	-	Sol	Group freq	Djerassi	JACS	76 (1954)	2969
C ₃₀ H ₅₂ O ₄	$\beta\beta$ -Acetoxysterostane-5 α ,14 α -diol	-	-	Group freq	Bladon	JCS	- (1954)	736
C ₃₀ H ₅₂ O ₄	$\beta\beta$ -Acetoxylumistane- $\beta\beta$,8 β -diol	-	S	Group freq	Bladon	JCS	- (1955)	2176
C ₃₀ H ₅₂ O ₄	Stellatoerin tetrolin	-	-	Group freq	Djerassi	JACS	77 (1955)	1200
C ₃₀ H ₅₃ O	Lanostane-19- α ol	650-4000	Sol	Group freq, I	Barton	JCS	- (1954)	2715
C ₃₀ H ₅₄	Lanostane	650-4000	Sol	Group freq, I	Barton	JCS	- (1954)	2715
C ₃₀ H ₅₄	$\beta\beta$ -Propylcholestane	-	-	Ident	Baker	JACS	77 (1955)	3644
C ₃₀ H ₅₄	Di-n-decyl sebacate	2-16 μ	Sol	Spec	Stahl	JACS	74 (1952)	5487
C ₃₀ H ₅₈ O ₄	n-Triacontanoic acid	2-15 μ	S	Spec, Qual anal	Meiklejohn	AC	29 (1957)	329
C ₃₀ H ₆₀ O ₂	n-Triacontane	10.0-10.75 μ	Sol	Quan. Anal	Johnson	AC	29 (1957)	468
C ₃₀ H ₆₂	650-800 μ	L,S	Band freq	Martin	SA	12 (1958)	12	
C ₃₀ H ₆₄ S ₁	700-1500 μ	S	Freq, Assign	Snyder	JMS	4 (1960)	411	
C ₃₀ H ₆₄ S ₁	Tri-n-decylsilane	2-16 μ	Sol	Group freq	Kniseley	SA	15 (1959)	651

$C_{30}H_{78}O_4Si_8$ Hexadecamethyl- β , α -17,
24-tetraoxo- β -2,4,9,11,
16,18,23,25-octasila-
hexacosane 1790

JACS 77 (1955) 2482

C_{31} COMPOUNDS

				Sommer	JACS 77 (1955)	2482
$C_{31}H_{24}O_4$	4-Acetoxy-5-hydroxy- β , β - 4,5-tetraphenylcyclopent- 2-enone	-	Sol	Group freq	Yates	1790
$C_{31}H_{24}O_4$	1,1, β , β -Tetrabenzyloxy- propane	2.5-6.5/ μ	Sol	Freq, Struct	Martin	76 (1954) 5110
$C_{31}H_{25}N$	p-Triptyldiphenylamine	2.9/ μ	-	Freq, Assign	JACS 81 (1959) 130	
$C_{31}H_{28}O$	p-(t-Butyl)- α , β , β - tri phenylacrylphenone	-	-	Ident	Craig	JACS 71 (1949) 2250
$C_{31}H_{30}O$	p-t-Anylphenyl tri ty1 ketone	-	-	Group freq, Ident	Fusion	JACS 77 (1955) 994
$C_{31}H_{34}OSi$	Triphenylsilylheptyl phenyl ether	-	-	Inductive effect	Josien	JACS 77 (1955) 1138
$C_{31}H_{36}N_2O_2 \cdot$ HCl	O- β ,4,5-trimethoxy- benzoylcorynanthine hydrochloride	-	-	Freq	Huebner	JACS 77 (1955) 469
$C_{31}H_{38}O_{10}$	$\Delta^{5,7,9(11)}$ -Pregnatriene- 17 α ,21-diol- β ,20-dione 21-acetate β ,20-bisethylene ketal maleic anhydride adduct	-	S	Freq	Antognacci	JACS 76 (1954) 2956
$C_{31}H_{38}O_{11}$	Methylpolyacetylgluco- siduronate of $\Delta^{1,3,5}$ -estratriene- ol-17-one	650-3700	S	Spec, Assign	Smakula	JACS 81 (1959) 1708

C ₃₁ H ₄₀ Br ₂ N ₀ 7	Methyl- β , 11-diketo-4, 12 α -dibromocholanate- β - (2,4-dinitrophenyl- hydrazone)	-	-	Spec, Ident	McGuckin	JACS	74 (1952)	3951
C ₃₁ H ₄₀ N ₀ 8	β ,21-Diacetoxyl- Δ ⁵ - pregnen-20-one 2,4- dinitrophenylhydrazone	-	Sol	Group freq, Ident	Reich	JOC	19 (1954)	1041
C ₃₁ H ₄₀ O ₄	β ,Benzoyl-20-hydroxy- Δ ⁵ -cholenic acid lactone	1000-1900	Sol	Spec, Freq	Jones	JACS	81 (1959)	5242
C ₃₁ H ₄₀ O ₄	Δ ⁵ -20-(spiro-2-oxa- β - oxocyclopentano)-pregnenol - β -benzoate	-	Sol	Group freq	Jones	JACS	72 (1950)	956
C ₃₁ H ₄₀ O ₅	β ,Benzoylory-4:4:14- trimethyl-5 α -pregnane 7:11:20-trione	2.5-15 μ	Sol	Struct	Cole	JCS	- (1959)	1212
C ₃₁ H ₄₀ O ₈	Dimethyl ester of maleic anhydride adduct of β , 20-diacetoxyl-5,7,9(11), 20-pregnatriene	-	-	Freq	Moffett	JACS	74 (1952)	2183
C ₃₁ H ₄₀ O ₉	Dimethyl ester of maleic anhydride adduct of β , 20-diacetoxyl-9,11-oxido- 5,7,20-pregnatriene	-	-	Freq	Moffett	JACS	74 (1952)	2183
C ₃₁ H ₄₀ O ₁₁	Methyl polyacetyl- glucosiduronate of Δ ⁵ , β , β -estratriene - β ,17 β -diol	650-5700	S	Spec, Assign	Smakula	JACS	81 (1959)	1708
C ₃₁ H ₄₂ OSi	Triphenylsilylnonyl butyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826

$C_{31}H_{42}OSi$	Triphenylsilylundecyl ethyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_{31}H_{42}O_5$	$\Delta^{3,26}$ -Diacetoxyl- $\Delta^{3,5,7,20(22)}$ furostetraene	-	-	Group study	Dauben	JACS	75 (1953)	3255
$C_{31}H_{42}O_6S$	$2\beta,4b$ -Dime thyl- $1\beta-(2-$ tosyloxyethyl)-2-methallyl -7-ethylenediory-1,2, $\beta,4$, $4\alpha,4b,5,6,7,8,10,10\alpha\beta$ -dodecahydrophenanthrene-4-one	-	-	Band freq	Hohns	JACS	76 (1954)	5026
$C_{31}H_{42}O_{12}$	Ouabagenin tetraacetate	-	-	Struct	Floreay	JOC	19 (1954)	1174
$C_{31}H_{44}O_4S$	$\Delta^{3,5,7}$ - $22\alpha,\beta$ - $(\beta$ -Acetoxyethylmercapto)-spirostatriene	-	Sol	Band freq	Djerassi	JACS	75 (1953)	3704
$C_{31}H_{44}O_5$	Methyl $3,12:19$ -trioxo-olean-13(18)-en-28-oate	1350-1500 680-3700	Sol Sol	Freq Freq, I	Cole Cole	JCS JCS	- (1956) - (1957)	1007 1332
$C_{31}H_{44}O_6$	$\Delta^{7,9(11)}$ - $22\alpha,\beta$ -Spirostadiene- $3\alpha,7$ -diol diacetate	-	Sol	Band freq	Rosenkrantz	JACS	75 (1953)	4430
$C_{31}H_{44}O_6S$	$2\beta,4b$ -Dime thyl- $1\beta-(2-$ tosyloxyethyl)-2-methallyl -7-ethylenediory-1,2, $\beta,4$, $4\alpha,4b,5,6,7,8,10,10\alpha\beta$ -dodecahydrophenanthrene-4q-ol	-	-	Band freq	Johns	JACS	76 (1954)	5026
$C_{31}H_{44}O_6S$	$2\beta,4b$ -Dime thyl- $1\beta-(2-$ tosyloxyethyl)-2-methallyl -7-ethylenediory-1,2, $\beta,4$, $4\alpha,4b,5,6,7,8,10,10\alpha\beta$ -dodecahydrophenanthrene-4q-ol	-	-	Band freq	Johns	JACS	76 (1954)	5026

C ₃₁ H ₄₄ O ₇	Kamnogenin acetate	—	Sol Sol	Band study Spec, Ident	Jones Eddy	JACS AC	74 (1952) 25 (1953)	80 266
C ₃₁ H ₄₄ O ₇	20 α , Δ -Kamnogenin acetate	700–1400	Sol Sol	Spec, Band freq	Smith	AC	31 (1959)	1539
C ₃₁ H ₄₄ O ₇	8 Δ -22 α ,5 α -Spirostene- $\beta\beta$, 11 α -diol-7-one-3,11-diacetate	2750–3100	Sol	Ident	Mancera	JACS	75 (1953)	4428
C ₃₁ H ₄₄ O ₇	8(9) Δ -22-Isoallospirosten- $\beta\beta$, 11 α -diol-7-one diacetate	—	Sol	Freq	Djerassi	JACS	74 (1952)	1712
C ₃₁ H ₄₄ O ₇	9(11) Δ -22a,5 α -Spirostane- $\beta\beta$, 11-diol-12-one 3,11-diacetate	—	Sol	Band freq	Djerassi	JCS	76 (1954)	5533
C ₃₁ H ₄₅ BrO ₇	23a-Bromo- $\beta\beta$, 12 α -diacetoxy- $\beta\alpha$, 22a-spirostan-11-one	724–1758	Sol	Group freq, Assign	Dickson	JCS	— (1955)	447
C ₃₁ H ₄₅ BrO ₇	23a-Bromo- $\beta\beta$, 12 α -diacetoxy- $\beta\alpha$, 22a-spirostan-11-one	728–1752	Sol	Group freq, Assign	Dickson	JCS	— (1955)	447
C ₃₁ H ₄₅ O ₅	Diacetidihydrojervine	2.5–15 μ	Sol	Spec, Band freq	Hirschmann	JACS	74 (1952)	5357
C ₃₁ H ₄₆ C ₁ N ₀ O ₅	22,26-Imino- $\beta\alpha$ -chloro-16-jervene-23-ol-11-one 25,N-diacetate	—	S	Band freq	Iselin	JACS	76 (1954)	5616
C ₃₁ H ₄₆ C ₁ N ₀ O ₅	17a,22,26-Nitrillo- $\beta\alpha$ -chlorogervane-17,23-diol-11-one 17,23-diacetate	—	S	Band freq	Iselin	JACS	76 (1954)	5616
C ₃₁ H ₄₆ C ₁ N ₀ O ₆	22 ²⁶ -Imino- $\beta\alpha$ -chloro-17a-jervene-17,23-diol-11-one, 23,N-diacetate	—	S	Band freq	Iselin	JACS	76 (1954)	5616

C ₃₁ H ₄₆ N ₂ O ₄	N,N'-Dibenzylxory- α -dodecylglutaramide	-	S	Group freq	Ames	JCS	- (1955)	631
C ₃₁ H ₄₆ O ₃	Dehydroeburiconic acid	-	S	Ident	Gascoigne	JCS	- (1953)	1830
C ₃₁ H ₄₆ O ₃	$\Delta^{13(18),19}$ - β -Olestan- β -ol-11-one 3-acetate	-	Sol	Band freq	Djerassi	JACS	76 (1954)	4085
C ₃₁ H ₄₆ O ₄	Methyl diketoechino-cystate	-	-	Ident	Djerassi	JACS	77 (1955)	3579
C ₃₁ H ₄₆ O ₄	Methylidioxolemadienate	-	Sol	Band freq	Halsall	JCS	- (1953)	4139
C ₃₁ H ₄₆ O ₄	Methyl- β ;19-dioxo-olean-12-en-28-oate	1350-1500 680-3700	Sol Sol	Freq Freq, I	Cole Cole	JCS	- (1956)	1007
C ₃₁ H ₄₆ O ₄	Methyl- β ;19-dioxo-olean-13(18)-en-28-oate	1350-1500	Sol	Freq	Cole	JCS	- (1957)	1332
C ₃₁ H ₄₆ O ₄	Δ^{12} - β -Oleanen- β ,21-dion-28-oic acid methyl ester	-	Sol	Band freq	Djerassi	JACS	77 (1955)	1825
C ₃₁ H ₄₆ O ₅	Pseudodiogenin diacetate	660-5000	- -	Ident Spec, Group freq Band freq	Bauhen Hayden Ziegler	JACS	76 (1954)	4618
C ₃₁ H ₄₆ O ₅ S ₂	22a, β -Spirostan- α -ol-11-one-7-cycloethylene-mercaptal acetate	-	Sol	Band freq	Rosenkrantz	JACS	75 (1953)	4430
C ₃₁ H ₄₆ O ₆	ψ -Hecogenin diacetate	-	-	Ident	Callow	JCS	- (1955)	1966
C ₃₁ H ₄₆ O ₆	Kryptogenin acetate	700-1400	Sol Sol	Freq Spec, Ident	Bowers Eddy	JCS AC	- (1953)	2548
C ₃₁ H ₄₆ O ₆	Yuccagenin diacetate	850-1000 700-1400 890-1340	Sol Sol Sol	Spec Spec, Ident Group freq, I	Rothman Eddy Jones	JACS AC JACS	74 (1952) 25 (1953) 75 (1953)	4012 266 158

C ₃₁ H ₄₆ O ₇	$\beta\beta,11\zeta$ -Diacetoxyl- α , 22a-spirostan-12-one	-	Sol	Group freq	Rosenfeld	JACS	77 (1955)	4367
C ₃₁ H ₄₆ O ₇	$\beta\beta,12\theta$ -Diacetoxyl- α , 22a-spirostan-11-one	-	-	Ident Ident	Rosenfeld Wendler	JACS JACS	77 (1955)	1632
C ₃₁ H ₄₆ O ₇	Manogenin diacetate	800-1050 700-1400 890-1340	Sol Sol Sol	Freq, Anal Spec, Ident Group freq, I Ident	Wall Eddy Jones Krider	AC AC JACS JACS	24 (1952) 25 (1953) 75 (1953) 76 (1954)	1337 266 158 2938
C ₃₁ H ₄₆ O ₇	20-Isomanogenin diacetate	7-15 μ	Sol	Spec, Freq	Eddy	AC	27 (1955)	1067
C ₃₁ H ₄₆ O ₇	8,14 ζ -Oxido-22a-allo- spirostan-7 ζ -ol- β -one ethylene ketal acetate	-	S	Group freq	Bernstein	JOC	18 (1953)	1418
C ₃₁ H ₄₆ O ₇	5 α ,22a-Spirostan- $\beta\beta,11\alpha$ - diol-12-one diacetate	-	-	Band study	Wendler	JACS	77 (1955)	1632
C ₃₁ H ₄₆ O ₇	7-Keto- $\beta\alpha,6\alpha$ 12 α -tri- acetoxycholanic acid methyl ester	-	Sol	Group freq	Jones	JACS	72 (1950)	956
C ₃₁ H ₄₇ NO ₅	O,N-Diacetyl tetrahydro- jervine	-	S	Band freq	Wintersteiner	JACS	76 (1954)	5609
C ₃₁ H ₄₇ O ₆	Pseudosisalagenin diacetate	-	S	Ident S, Sol	Callow Callow	JCS JCS	- (1955) - (1955)	1671 1966
C ₃₁ H ₄₈ N ₂ O ₂ · HBr	5-Palmityl-7-(1-piperi- dylmethyl)-8-quinolinol hydrobromide	-	-	Struct	Edgerton	JACS	74 (1952)	5209
C ₃₁ H ₄₈ O ₂	Bis-(2-hydroxy- β - methyl-5-isooctylphenyl) -methane	2.75-3.2 μ	S,Sol	Spec, H bond	Coggeshall	JACS	72 (1950)	2836
C ₃₁ H ₄₈ O ₂	Di-(2-hydroxy- β ,5-di-t- butyl-6-methylphenyl)- methane	2.5-3.4 μ	S,Sol	Freq	Amelang	JACS	75 (1953)	947

C ₃₁ H ₄₈ O ₂	Di-(4-hydroxy-2-methyl-5-t-butylphenyl)-octylmethane	2.5-3.4 μ	S, Sol	Freq	Ambelang	JACS 75 (1953) 947
C ₃₁ H ₄₈ O ₂	2-Methyl-1- β -phytyl-2, β -dihydro-1,4-naphtoquinone	-	-	Ident	Hirschmann	JACS 76 (1954) 4592
C ₃₁ H ₄₈ O ₂	Methylursa-2:12-dien-28-oate	680-3700	Sol	Freq, I	Cole	JCS - (1957) 1332
C ₃₁ H ₄₈ O ₃	Methylidhydro-oxo-elemente	-	Sol	Band freq	Holsall	JCS - (1953) 4139
C ₃₁ H ₄₈ O ₃	Methyl β -hydroxyoleano-11:13(18)-dien-28-oate	680-3700	Sol	Freq, I	Cole	JCS - (1957) 1332
C ₃₁ H ₄₈ O ₃	Methyl β -oxolup-20(29)-en-28-oate	680-3700	Sol	Freq, I	Cole	JCS - (1957) 1332
C ₃₁ H ₄₈ O ₃	Methyl β -oxoolean-18-en-28-oate	1350-1500 680-3700	Sol SOL	Freq Freq, I	Cole Cole	JCS - (1956) 1007 JCS - (1957) 1332
C ₃₁ H ₄₈ O ₃	Methyl β -oxours-12-en-28-oate	1350-1500 680-3700	Sol SOL	Freq Freq, I	Cole Cole	JCS - (1956) 1007 JCS - (1957) 1332
C ₃₁ H ₄₈ O ₃	Methyl pinicolate-A	-	Sol	Group freq	Guider	JCS - (1954) 4471
C ₃₁ H ₄₈ O ₃	Norechnocystenolone acetate	-	Sol	Freq	Djerassi	JACS 77 (1955) 3579
C ₃₁ H ₄₈ O ₄	Methyl machaerate	-	Sol	Group freq	Djerassi	JACS 77 (1955) 1825
C ₃₁ H ₄₈ O ₅	Dihydrodiogenin diacetate	835-1000	Sol	Spec, Anal	Wall	AC 24 (1952) 1337
C ₃₁ H ₄₈ O ₅	Pseudosarsapogenin diacetate	-	Sol	Spec, Group freq	Hayden Scheer	AC 26 (1954) 550 JACS 77 (1955) 641
C ₃₁ H ₄₈ O ₅	Pseudosmileygenin diacetate	-	Sol	Spec, Group freq	Hayden Scheer	AC 26 (1954) 550 JACS 77 (1955) 641

$C_{31}H_{48}O_5$	Pseudotigogenin diacetate	-	Sol	Spec, Group freq Spec, Ident	Hayden Callow	AC JCS	26 (1954) - (1955)	550 1966
$C_{31}H_{48}OS$	22 α -5 α -Spirostan-3 β -ol-12-one acetate ethylene hemithioketal	-	Sol	Ident	Djerassi	JACS	75 (1953)	3704
$C_{31}H_{48}O_6$	Anhydrohecetyl alcohol diacetate	-	-	Group freq, I	Rothman	JACS	76 (1954)	527
$C_{31}H_{48}O_6$	22-Isoallospirostan-3 β , 6 α -diol-3 β ,6-diacetate	700-1400	Sol	Spec, Ident	Eddy	AC	25 (1953)	266
$C_{31}H_{48}O_6$	22-Isospirostan-3 β ,6 α -diol diacetate	1800-1050 890-1340	Sol	Freq, Anal Spec, Group freq, I	Wall Jones	AC JACS	24 (1952) 75 (1953)	1337 158
$C_{31}H_{48}O_6$	20-isochlorogenin diacetate	7-15 μ	Sol	Spec, Band freq	Eddy	AC	27 (1955)	1067
$C_{31}H_{48}O_6$	Cholegenin diacetate	-	-	Group freq	Mazur	JCS	- (1954)	1223
$C_{31}H_{48}O_6$	25-isocholegenin diacetate	-	-	Group freq	Mazur	JCS	- (1954)	1223
$C_{31}H_{48}O_6$	3 β ,12 α -Diacetoxy-5 α ,22a-spirostane	-	Sol	Group freq, Ident	Elks	JCS	- (1954)	1739
$C_{31}H_{48}O_6$	3 β ,12 β -Diacetoxy-5 α ,22a-spirostane	-	Sol	Group freq	Elks	JCS	- (1954)	1739
$C_{31}H_{48}O_6$	12-Dihydromangogenin diacetate-2,3	890-1340	Sol	Group freq, I	Jones	JACS	75 (1953)	158
$C_{31}H_{48}O_6$	Gitogenin diacetate	800-1050 700-1400 890-1340	Sol	Freq, Anal Spec, Ident Group freq, I Band freq	Wall Eddy Jones Klass	AC AC JACS JACS	24 (1952) 25 (1953) 75 (1953) 77 (1955)	1337 266 158 3829
$C_{31}H_{48}O_6$	20-isogitogenin diacetate	7-15 μ	Sol	Spec, Band freq	Eddy	AC	27 (1955)	1067
$C_{31}H_{48}O_6$	20-isomarkogenin diacetate	7-15 μ	Sol	Spec, Band freq	Eddy	AC	27 (1955)	1067

$C_{31}H_{48}O_6$	Rockogenin diacetate	-	-	Ident	Hirschmann	JACS	76 (1954)	4013
$C_{31}H_{48}O_6$	Samogenin acetate	800-1050 700-1400 890-1500	Sol Sol Sol	Freq, Anal Spec, Ident Spec, Group freq, I	Wall Eddy Jones	AC AC JACS	24 (1952) 25 (1953) 75 (1953)	1337 266 158
$C_{31}H_{48}O_6$	22 α ,5 α -Spirostan-2 β ,3 β -diol diacetate	-	Sol	Band freq Band freq	Herran Klass	JACS JACS	76 (1954) 77 (1955)	5531 3829
$C_{31}H_{48}O_6$	22 α ,5 α -Spirostan-3 β ,6 β -diol diacetate	-	Sol	Band freq	Romo	JACS	76 (1954)	5169
$C_{31}H_{48}O_6$	22b-Spirostan-2 ϵ ,3 β -diol 2,3-diacetate	680-1400	Sol	Spec, Struct, Band freq	Wall	JACS	75 (1953)	4437
$C_{31}H_{48}O_7$	3 β ,6 β -Diacetoxy-5 α , hydroxy-22 α -spirostanane	-	Sol	Band freq	Romo	JOC	19 (1954)	1509
$C_{31}H_{48}O_7$	22 α ,5 α -C-Nor-D-homo-spirostan-3 β ,17 α ,18-triol 3,18-diacetate	-	-	Group freq	Hirschmann	JACS	76 (1954)	4013
$C_{31}H_{48}O_7$	5 α ,22a-Spirostan-3 β ,11 α , 12 β -triol 3,11-diacetate	-	-	Iso	Wendler	JACS	77 (1955)	1632
$C_{31}H_{48}O_7$	5 α ,22a-Spirostan-3 β ,11 α , 12 β -triol 3,12-diacetate	-	-	Iso	Wendler	JACS	77 (1955)	1632
$C_{31}H_{49}NO_4$	N,O-Diacetyl tomatidine	2-15 μ	S, Sol	Spec, Struct	Fontaine	JACS	73 (1951)	878
$C_{31}H_{49}NO_4$	6-Nitrostigmasteryl acetate	-	Sol	Band freq	Aragostopoulos	JACS	76 (1954)	532
$C_{31}H_{50}O_2$	3 β -Acetoxy- $\Delta^{5,22}$ -stigma-stadiene	2.5-15 μ	Sol	Spec, Band freq	Hirschmann	JACS	74 (1952)	5357
$C_{31}H_{50}O_2$	Methyl lup-2-en-28-oate	680-3700	Sol	Freq, I	Cole	JCS	- (1957)	1332
$C_{31}H_{50}O_2$	Methyl urs-12-en-28-oate	1350-1500 1350-3700	Sol Sol	Freq Freq, I	Cole Cole	JCS JCS	- (1956) - (1957)	1007 1332

$\Delta^{7,22}$ -Stigmasta-dienol- β -acetate - Sol Freq Jones JACS 74 (1952) 5648

$\Delta^{7,22}$ -Stigmastadienol- β -acetate - Sol Freq Hamilton JACS 74 (1952) 5648

ψ -Taraxasteryl formate - Sol Group freq Ames JACS - (1954) 1905

β -Acetoxy- γ -methoxy-8(14)22- Δ -ergostadiene - - Comparison Fleser JACS 75 (1953) 4404

14-Acetoxy- β -methoxy ergosta-7,22-diene - Sol Freq Page JCS - (1955) 2017

Allobetulin formate 1350-1500 Sol Freq Cole JCS - (1956) 1007

Cholesteryl acetacetate - Sol Freq Carroll Jones JACS 75 (1953) 5400

Eburicoic acid - Sol Freq Holker JCS - (1953) 2422

Methyl β -hydroxy lup-20(29)-en-28-oate 950-3639 Sol Spec, Band study Allsop Cole JCS - (1956) 4868

Methyl β -hydroxy lup-20(29)-en-28-oate 950-3639 Sol Spec, Band study Allsop Cole JCS - (1957) 1332

Methyl β -hydroxyolean-12-en-28-oate 680-3700 Sol Freq, I Cole Cole JCS - (1956) 4868

Methyl β -hydroxyolean-18-en-28-oate 1350-1500 Sol Freq, I Cole Cole JCS - (1957) 1332

Methyl β -hydroxyurs-12-en-24-oate 1600-3700 Sol H bond, Freq Cole Cole JCS - (1959) 1224

Methyl β -hydroxyurs-12-en-24-oate 1600-3700 Sol H bond, Freq Cole Cole JCS - (1959) 1224

$C_{31}H_{50}O_3$	Methyl β -hydroxyurs-12-en-28-oate	1350-1500 680-3700 3600-3650	Sol. Sol. Sol.	Freq, Freq, I Freq, Struct	Cole Cole Cole	JCS JCS JCS	- (1956) (1957) (1959)	1007 1332 1218
$\beta_{31}H_{50}O_3$	Methyl A-nor-2-keto-eburic-oenoate	-	S	Band freq	Holker	JCS	- (1953)	2414
$C_{31}H_{50}O_3$	Methyl oleanolate	1350-1500	-	Ident Freq	Djerassi Cole	JACS JCS	77 (1955) - (1956)	3579 1007
$C_{31}H_{50}O_3$	Methyl- β -oxolupan-28-oate	1350-1500	Sol.	Freq	Cole	JCS	- (1956)	1007
$C_{31}H_{50}O_3$	Δ^5 -Stigmasten- $\beta\beta$ -one-7-acetate	-	S, Sol	Group freq	Tarpley	APS	9 (1955)	69
$C_{31}H_{50}O_3$	Δ^{22} -Stigmasten- $\beta\beta$ -ol-6-one acetate	-	Sol	Band freq	Aragostopoulos	JACS	76 (1954)	532
$C_{31}H_{50}O_4$	Δ^5 -Cholesten- $\beta\beta$ -4 α -diol diacetate	-	Sol	Band freq	Fießer	JACS	76 (1954)	1728
$C_{31}H_{50}O_4$	$\Delta^{8(14)}$ -Cholestene- $\beta\beta$, 7 α -diol diacetate	-	Sol	Band freq, Ident	Fießer	JACS	75 (1953)	4404
$C_{31}H_{50}O_4$	Δ^5 -Cholesten-4 α -ol- $\beta\beta$ -one ethylene ketal acetate	-	Sol	Band freq	Fießer	JACS	76 (1954)	1728
$C_{31}H_{50}O_4$	$\beta\beta,7\alpha$ -Diacetoxy- Δ^5 -cholestene	2.5-15 μ	Sol	Spec, Band freq	Hirschmann	JACS	74 (1952)	5357
$C_{31}H_{50}O_4$	$\beta\beta,7\alpha$ -Diacetoxy- Δ^- -cholestene	β	2.5-15 μ	Spec, Band freq	Hirschmann	JACS	74 (1952)	5357
$C_{31}H_{50}O_4$	Methyl $\beta\beta,19\alpha$ -dihydroxyolean- β -en-28-oate	680-3700 3600-3650	Sol. Sol.	Freq, I Freq, Struct	Cole Cole	JCS JCS	(1957) (1959)	1332 1218

^{31}H	$^{50}\text{O}_4$	Methyl echinocystate	-	-	Ident	Djerassi	JACS	77 (1955)	3579
^{31}H	$^{50}\text{O}_4$	Methyl hederagenin	1600-3700	Sol	Freq, H bond	Cole	JCS	- (1959)	1224
^{31}H	$^{50}\text{O}_4$	Methyl β -hydroxy-12-oxo oleanan-28-oate	1350-1500 3600-3650	Sol Sol	Freq Freq, Struct	Cole Cole	JCS JCS	- (1956) - (1959)	1007 1218
^{31}H	$^{50}\text{O}_4$	Methyl machaevinate	-	-	Ident	Djerassi	JACS	77 (1955)	1825
^{31}H	$^{50}\text{O}_4$	Methyl polypporene	-	Sol	Group freq, Struct	Guider	JCS	- (1954)	3234
^{31}H	$^{50}\text{O}_4$	Methyl siaresinolate	1350-1500	Sol	Freq	Cole	JCS	- (1956)	1007
^{31}H	$^{50}\text{O}_5$	Dihydropsedosarsapsogenin diacetate	-	-	Ident, Iso	Scheer	JACS	77 (1955)	641
^{31}H	$^{50}\text{O}_5$	Dihydropsedosmilagenin diacetate	-	-	Ident, Iso	Scheer	JACS	77 (1955)	641
^{31}H	$^{50}\text{O}_5$	Dihydrotigogenin diacetate	-	Sol	Band study	Doukas	JACS	75 (1953)	5355
^{31}H	$^{50}\text{O}_5$	Dihydrotigogenin diacetate	-	Sol	Group freq	Elks	JCS	- (1954)	1739
^{31}H	$^{50}\text{O}_5$	Methyl β , β -dihydroxy-12-oxo-oleanan-28-oate	1350-1500 3600-1650	Sol Sol	Freq Freq	Callow	JCS JCS	- (1955)	1966
^{31}H	$^{50}\text{O}_5$	Methyl arjunolate	-	Sol	Group freq	Cole	JCS	- (1956)	1007
^{31}H	$^{50}\text{O}_6$	Methyl dihydro-12-oxo- arjunolate	-	S	Group freq	King	JCS	- (1959)	1218
^{31}H	$^{50}\text{O}_6$	Methyl 12, β -epoxy- arjunolate	-	Sol	Group freq	King	JCS	- (1956)	1007
^{31}H	$^{50}\text{O}_6$	Methyl terminolate	-	S,Sol	Group freq	King	JCS	- (1955)	1333
^{31}H	$^{50}\text{O}_6$	Andromedotoxin	-	S	Group freq	Wood	JACS	76 (1954)	5689
^{31}H	$^{50}\text{O}_{10}$	Eburico-8,20-diene	-	Sol	Group freq	Holker	JCS	- (1953)	2422
^{31}H	$^{52}\text{O}_2$	Cyclolaudenol	2.5-15/ μ	Sol Sol Sol	Freq Struct Freq, Struct	Bentley Cole Cole	JCS JCS JCS	- (1955) - (1959) - (1959)	596 1212 1218

$C_{31}H_{52}O$	Euphorbol	-	-	Group study	Barbour	JCS	- (1955)	2194
$C_{31}H_{52}O_2$	Methyl lupan-28-oate	1350-1500	Sol	Freq	Cole	JCS	- (1956)	1007
$C_{31}H_{52}O_2$	Δ^5 -Stigmastenol- β -acetate	-	S, Sol	Group freq	Tarpley	APS	9 (1955)	69
$C_{31}H_{52}O_3$	Cholestanol- β -acetate	-	Sol	Group freq	Jones	JACS	74 (1952)	5648
$C_{31}H_{52}O_3$	Methyl betulinate	-	-	Ident	Djerassi	JACS	76 (1954)	5780
$C_{31}H_{52}O_3$	1-n-Octane-2- μ -octanoic acid methyl ester- β -t-butyl-7-methylchroman	2-15 μ	L	Spec	Sprengling	JACS	74 (1952)	2957
$C_{31}H_{52}O_3$	β ,16 β ,21-trihydroxyeburico-7,9(11)-diene	-	-	Ident	Bowers	JCS	- (1953)	2548
$C_{31}H_{52}O_4$	Δ^5 -Cholestan-4 α -ol- β -one dimethyl ketal acetate	-	Sol	Band freq	Fieser	JACS	76 (1954)	1728
$C_{31}H_{54}O_2$	Stigmastanol- β -acetate	-	S	Group freq Ident, Spec	Jones Idler	JACS	74 (1952) 75 (1953)	5648 1712
$C_{31}H_{54}O_2$	β -stigmast-22-en- β -one β -dimethyl ketal	-	-	Group freq	Slomp	JACS	77 (1955)	1216
$C_{31}H_{56}O_2$	β , β -Diethoxycholestane	-	Sol	Band freq	Page	JCS	- (1955)	2017
$C_{31}H_{60}$	11 α -Decahydronaphthalenehencicosane	1.1-1.25 μ	L	Group Absorption, Anal	Evans	AC	23 (1951)	1604
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<u>C_{32} COMPOUNDS</u>								
$C_{32}H_{18}Cl_2O_3$	cis-meso-4,5-Bis-(2'-Chloro-phenyl)-3',6-diphenyl-phthalic anhydride	-	-	Ident	Shapiro	JACS	75 (1953)	4769

C ₃₂ H ₁₈ Cl ₂ O ₃	trans-4,5-Bis-(2'-Chloro-phenyl)-3,6-diphenyl-phthalic anhydride	-	-	Ident	Shapiro	JACS 75 (1953) 4769
C ₃₂ H ₁₈ N ₈	Phthalocyanine (Metal free)	650-2000	S	Struct, Band study	Cannon	SA 4 (1951) 373
C ₃₂ H ₂₀ O ₄	1,6-Dihydroxy-1,6-di-p-biphenyl-1,3,5-hexatriene-cis-3,4-dioic bislactone	2-15.5μ	S	Spec, Group freq	Klingsberg	CR 54 (1954) 59
C ₃₂ H ₂₂ O ₂	Tetraphenylphthalide	2-16μ	S	Spec	Bonner	JOC 18 (1953) 426
C ₃₂ H ₂₃ N ₅ O ₂	3,3'-Iminobis(4-benzylidene-1-phenyl-5-pyrazolone)	400-4000	-	Freq	Gagnon	CJC 37 (1959) 110
C ₃₂ H ₂₄	1,2,5,6,9,10,13,14-Tetra-benzocyclohexadeca-1,3, 5,7,9,11,13,15-Octene	-	sol	Freq	Bergmann	JACS 75 (1953) 4281
C ₃₂ H ₂₄ N ₀ O ₂	Anthracene-p-quinone dibenzenesulfonimide	-	-	Group freq	Adams	JACS 74 (1952) 2603
C ₃₂ H ₂₄ N ₂ O ₅ S ₂	2-(β-Hydroxy-α-naphthyl)- -1,4-naphthalenedibenzene-sulfonamide	-	-	Group study	Adams	JACS 74 (1952) 5560
C ₃₂ H ₂₄ O	2-Biphenyl trityl ketone	-	S	Spec, Struct Group freq, Ident	Mosher Fusion	JACS 73 (1951) 795 JACS 77 (1955) 1138
C ₃₂ H ₂₄ O	O-(α,α-Diphenyl-α-tolyl)-benzophenone	-	S	Spec, Struct	Mosher	JACS 73 (1951) 795
C ₃₂ H ₂₄ O	9,10,10-Triphenyl-9,10-dihydro-9-phenanthrol	-	S	Spec, Struct, Ident	Mosher	JACS 73 (1951) 795
C ₃₂ H ₂₄ O ₂	O-(o-Benzoylphenyl)-triphenyl carbinol	-	S	Spec, Ident, Struct	Mosher	JACS 73 (1951) 795
C ₃₂ H ₂₄ O ₈	Tetra-m-cresotide	1700-1800	S, Sol	Group freq	Short	JCS - (1952) 206
						1803

$C_{32}H_{24}O_8$	Tetra-o-cresotide	1700-1800	Sol	Group freq	Short	JCS	- (1952)	206
$C_{32}H_{24}O_8$	Tetra-p-cresotide	1700-1800	S	Group freq	Short	JCS	- (1952)	206
$C_{32}H_{26}$	Pentaphenylethane	650-2000	Sol	Spec	Cannon	SA	4 (1951)	373
		-	Sol	Group freq, I	Pinchas	JCS	- (1954)	863
$C_{32}H_{26}O$	Pentaphenylethanol	-	S	Group freq	Mosher	JACS	75 (1953)	4604
$C_{32}H_{26}O$	1-Triphenylacetyl-2-phenyl-1,2-dihydrobenzene enol form	-	S	Band study	Mosher	JACS	75 (1953)	4604
$C_{32}H_{26}O_2$	1,4-Dibenzal-1,4-dibenzoylbutane	-	-	Group freq, Struct	Fusion	JACS	77 (1955)	174
$C_{32}H_{26}O_2$	9,10-Dimethylanthracene photoxide	850-1300	-	Freq	Nikitin	OS	4 (1958)	702
$C_{32}H_{26}O_2$	1,1,8,8-Tetraphenyl-trans-2,trans-6-octadien-4-yne-1,8-diol	-	L	Group freq, I	Allan	JCS	- (1955)	1874
$C_{32}H_{26}O_2$	Tetraphenyl-o-xylylene- α , α' -diol	2-16 μ	S	Spec, Band study	Bonner	JOC	18 (1953)	426
$C_{32}H_{26}O_8$	Bis isocoumarone	-	-	Band freq	Wasserman	JACS	81 (1955)	4615
$C_{32}H_{26}O_8$	O-Tetramethyl-5,5'-di-benzylellagic acid	5-6.15 μ	S	Struct	Stitt	JACS	77 (1959)	973
$C_{32}H_{27}NO$	1-Methyl-5,5-di-(p-phenylbenzylidene)-4-piperidone	-	S	Group freq	Leonard	JACS	77 (1955)	1852
$C_{32}H_{27}NO_3$	1-Methyl-5,5-di-(p-phenylbenzyl)-4-pyridone	-	S	Group freq	Leonard	JACS	77 (1955)	1852
$C_{32}H_{27}NO_3$	Ethyl α -Cyano- β -(o-anisyl) β -(9-fluorenyl)- β -phenyl-proponate	-	-	Freq	Elderfield	JACS	76 (1954)	5439

C ₃₂ H ₂₇ N ₂ O ₂	N-Benzyl-3-(3-benzylureido)-5,6-diphenyl-pyrazinamide	-	Sol	Band freq, Struct	Taylor	JACS	74 (1952)	1651
C ₃₂ H ₃₀	9,10-Dimesitylphenanthrene	-	-	Prod. of react.	Fusion	JOC	16 (1951)	637
C ₃₂ H ₃₂ N ₂ O ₄	p,p'-Bis(N,N-dimethyl-carboxamido)-benzo-pinacol	670-3600	S	Spec, Group freq	Lynn	JOC	16 (1951)	1546
C _z H ₃₂ N ₂ O ₄	1,6(or 7)-Dicyclohexyl-amino-4,9-dihydroxy-perylene-3,10-quinone	754-3333	S	Table	Colderbank	JCS	- (1954)	1285
C ₃₂ H ₃₂ O	α-Benzydryl-γ-phenyl-butyromesitylene	-	-	Group freq	Fusion	JOC	18 (1953)	1263
C ₃₂ H ₃₂ O ₂	9,10-Dihydro-9,10-dihydroxy-9,10-dimesitylphenanthrene	-	-	Ident	Fusion	JOC	19 (1954)	373
C ₃₂ H ₃₂ O ₂	(o-Mesitoylphenoxy)-o-(α-mesitylbenzylalcohol)	-	-	Band freq, Struct Ident	Fusion Fusion	JOC JACS	16 (1951) 77 (1955)	631 5776
C ₃₂ H ₃₄	Cyclodotriaconta-1,3,9, 11,17,19,25,27-octayne	3-15 μ	S	Spec	Wolovsky	JACS	81 (1959)	4600
C ₃₂ H ₃₄ N ₄ O ₄	Deuteroporphyrin dimethyl ester	670-4000	S	Spec, Assign	Falk	AJSR	4A (1951)	579
C ₃₂ H ₃₄ N ₄ O ₄	Rhodoporphyrin free acid	670-4000	S	Spec, Assign	Falk	AJSR	4A (1951)	579
C ₃₂ H ₃₄ O ₈	Gossypol dimethyl ether	2-12 μ	Sol	Spec, Group freq, Struct	O'Connor	JACS	76 (1954)	2368
C ₃₂ H ₃₄ O ₁₂ S ₄	tetra-0-p-toluene-sulfonylerythritol	800-1620	S	Band freq	Tipson	JACS	74 (1952)	1354
C ₃₂ H ₃₄ -36O ₄	Chartreusin	2-14.5 μ	S	Spec	Leach	JACS	75 (1953)	4011
C ₃₂ H ₃₆ OSi	Triphenylsilyloctyl phenyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826

1806	$C_{32}H_{37}NO_4$	Dideoxycorticosterone α -naphthylurethan	-	S	I, Group freq	Werbin	JACS	77 (1955)	4431
	$C_{32}H_{38}N_2O_8$	Canescine	$2-15\mu$ - $2.5-12\mu$	S S Sol	Spec, Group freq Struct Spec	Klohs MacPhillamy Neuss	JACS JACS JACS	77 (1955) 77 (1955) 77 (1955)	4084 4335 4087
	$C_{32}H_{38}N_2O_{10}$	Deserpidinediol	-	S	Ident	MacPhillamy	JACS	77 (1955)	4335
	$C_{32}H_{38}N_2O_{10}$	Isodeserpidinediol	-	S	Ident	MacPhillamy	JACS	77 (1955)	4335
	$C_{32}H_{38}N_4$	Aetioporphyrin	670-4000	S	Spec, Assign	Falk	ASJR	4A (1951)	579
	$C_{32}H_{39}NO_3$	Δ^5 -Pregnolone- α -naphthylurethan	-	S	Group freq, I	Werbin	JACS	77 (1955)	4431
	$C_{32}H_{40}OSi_4$	2,4,6,8-Tetraethyltetraphenylcyclotetrasiloxane	$2-16\mu$	Sol	Spec	Young	JACS	70 (1948)	3758
	$C_{32}H_{40}O_9\cdot$ $7\frac{1}{2}H_2O$	Robinin	-	-	Freq	Inglett	JOC	23 (1958)	93
	$C_{32}H_{42}O_5$	21-Benzylidenepregnane- $\beta\alpha,20\beta$ -diol-11-one diacetate	-	-	Band study	Oliveto	JACS	76 (1954)	6111
	$C_{32}H_{42}O_{11}$	Methyl polyacetylglucosiduronate of $\beta,5$ -androstanediene- β -ol-17-one	650-3700	L	Spec, Assign	Smakula	JACS	81 (1959)	1708
	$C_{32}H_{43}BrO_6$	Methyl monobromodiketopyroquinovadienoate acetate	-	Sol	Group freq	Barton	JCS	- (1953)	3111
	$C_{32}H_{44}OSi$	Triphenylsilyldecylnbutyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826

C ₃₂ H ₄₄ O ₂	(10-p-10-p)-Cyclo- phandione-1, ¹⁷	-	Sol	Group freq.	Schubert	JACS	76 (1954)	5462
C ₃₂ H ₄₄ O ₄	Me thyl ³ ,16-dioxoelburico- 7,9(11),24(28)-triene- 21-oate	-	-	Ident	Bowers	JCS	- (1953)	2548
C ₃₂ H ₄₄ O ₅	⁵ Δ^5 -Pregnene-16 α -benzoyloxy - β ,20-dione bisethylene ketal	-	S	Band freq.	Bernstein	JACS	76 (1954)	5674
C ₃₂ H ₄₄ O ₅	Δ^5 -Pregnene-16 α -benzoyloxy - β ,20-one acetate ethylene ketal	-	S	Band freq.	Bernstein	JACS	76 (1954)	5674
C ₃₂ H ₄₄ O ₁₁	Me thyl polyacetylglucosid duronate of Δ^4 -androsten-17 β -ol- β -one	650-3700	Sol	Spec, Assign	Smakula	JACS	81 (1959)	1708
C ₃₂ H ₄₄ O ₁₁	Methyl polyacetyl- glucopyranosiduronate of Δ^5 - androsten-3 β -ol- 17-one	650-3700	L	Assign, Spec	Smakula	JACS	81 (1959)	1708
C ₃₂ H ₄₆ N ₂ O ₅	Pilocereine acetate	-	Sol	Band freq.	Djerassi	JACS	75 (1953)	3632
C ₃₂ H ₄₆ N ₂ O ₅	B-Norcoprostan- β ,6-dione- β -(2,4-dinitrophenyl- hydrazone	-	Sol	Band freq.	Fieser	JACS	75 (1953)	4386
C ₃₂ H ₄₆ O ₄	Pristimerol dimethyl ether	2-14 μ	S	Spec	Nakanishi	BCSJ	29 (1956)	7
C ₃₂ H ₄₆ O ₅	β -Acetoxylanosta-5,8- dien-7,11,12-trione	2.5-15 μ	Sol	Struct	Cole	JCS	- (1959)	1212
C ₃₂ H ₄₆ O ₅	18-Dehydroglycyrrhetic acid β -acetate	-	Sol	Band freq.	Djerassi	JACS	76 (1954)	4085

$C_{32}H_{46}O_6S$	6-Keto- β - α -p-toluene-sulfonory allocholanic acid, methyl ester	-	Sol	Group freq	Jones	JACS 72 (1950) 956
$C_{32}H_{46}O_6S$	Methyl β - α -p-toluene-sulfonory-12-ketocholanate	-	-	Band freq	Reich	JOC 16 (1951) 1753
$C_{32}H_{46}O_{11}$	Methyl polyacetyl-glucopyranosiduronate of androstan- β -ol-17-one	650-3700	Sol	Spec., Assign	Smakula	JACS 81 (1959) 1708
$C_{32}H_{47}NO$	4 -Phenyl- Δ -4-azet-cholesterone- β	2-12 μ	Sol	Band freq	Woodwards	JACS 74 (1952) 4223
$C_{32}H_{48}Br_2C_5$	β , β -Diacetoxyl-22,23-dibromo-14 β -ergost-8-en-11-one	-	S	Group freq	Grigor	JCS - (1954) 2333
$C_{32}H_{48}Br_2O_5$	22,23-Dibromo- β , β -diacetoxyster-gost-8-en-11-one	-	S	Group freq	Grigor	JCS - (1954) 2333
$C_{32}H_{48}O_3$	Anhydro-oxoelaideny1 acetate-I	-	Sol	Band freq	Halsall	JCS - (1955) 4139
$C_{32}H_{48}O_3$	Anhydro-oxoelaideny1 acetate-II	-	Sol	Band freq	Halsall	JCS - (1955) 4139
$C_{32}H_{48}O_3$	Ergosteryl acetoacetate	-	Sol	Spec., Ident	Bader	JACS 74 (1952) 3992
$C_{32}H_{48}O_4$	β -Acetoxylanosta-5:8-dien-7:11-dione	2.5-15 μ	Sol	Struct	Cole	JCS - (1959) 1212
$C_{32}H_{48}O_4$	Methyl β , β -dioxoelburico-7,9(11)-diene-21-oate	-	S	Band freq Ident	Bowers Cort	JCS - (1953) 2548 JCS - (1954) 3713
$C_{32}H_{48}O_4$	Methyl β -hydroxy-16-oxoelburico-7,9(11),24(28)-triene-21-oate	-	Sol	Band freq, Struct	Bowers	JCS - (1953) 2548
$C_{32}H_{48}O_4$	Methyl polyporene C	-	Sol	Freq, Struct	Bowers	JCS - (1953) 2548

C ₃₂ H ₄₈ O ₄	Thurberogenin acetate	-	-	Ident	Djerassi	JACS	77 (1955)	1200
C ₃₂ H ₄₈ O ₅	3 β -Acetoxy-13 β -hydroxy-12-oxoleanan-28-oic 13(28) lactone	1350-1500	Sol	Freq	Cole	JCS	- (1956)	1007
C ₃₂ H ₄₈ O ₅	3 β -Acetoxyl-23-oxoolean-12-en-28-oic acid	1500-3700	Sol	Freq	Cole	JCS	- (1959)	2005
C ₃₂ H ₄₈ O ₅	3 β ,5 α -Diacetoxyl-9 α ,11 α -epoxyergosta-7,22-diene	-	Sol	Group freq	Bladon	JCS	- (1953)	2921
C ₃₂ H ₄₈ O ₅	3 β ,5 α -Diacetoxyl-9 α ,11 α -epoxyergosta-7,22-diene-11-one	-	Sol	Group freq	Bladon	JCS	- (1953)	2921
C ₃₂ H ₄₈ O ₅	3 β ,5 α -Diacetoxyl-9 α ,11 α -epoxyergosta-8,22-dien-11-one	-	Sol	Group freq	Bladon	JCS	- (1953)	2921
C ₃₂ H ₄₈ O ₅	3 β ,5 α -Diacetoxyl-9 α ,11 α -epoxyergosta-8(9),22-dien-7-one	-	Sol	Group freq	Elks	JCS	- (1954)	463
C ₃₂ H ₄₈ O ₅	3 β ,5 α -Diacetoxyl ergosta-9(11),22-dien-7-one	-	Sol	Group freq	Elks	JCS	- (1954)	463
C ₃₂ H ₄₈ O ₅	3 β ,5 α -Diacetoxyl-9 β -ergosta-7,22-dien-11-one	-	Sol	Group freq	Bladon	JCS	- (1953)	2921
C ₃₂ H ₄₈ O ₅	3 β ,7 α -Diacetoxyl-9 β -ergosta-8,22-dien-11-one	-	L	Group freq	Henbest	JCS	- (1954)	728
C ₃₂ H ₄₈ O ₅	3 β ,7 β -Diacetoxyl-9 β -ergosta-8,22-dien-11-one	-	L	Group freq	Henbest	JCS	- (1954)	728
C ₃₂ H ₄₈ O ₅	3 β ,11 α -Diacetoxyl-9 β -ergosta-5,8(9)-dien-7-one	-	S	Group freq	Bladon	JCS	- (1953)	2916
C ₃₂ H ₄₈ O ₅	Dumortierigenin monoacetate	-	Sol	Group freq	Djerassi	JACS	76 (1954)	2969
C ₃₂ H ₄₈ O ₅	7,14,22 Δ -Ergostatriene-3 β ,5 α ,6 α -triol 3,6-diacetate	-	Sol	Band freq	Fieser	JACS	75 (1953)	4066

$C_{32}H_{48}O_6$	$\beta\alpha,12\alpha$ -Diacetoxyl-7,24-dioxo-26,27-bisnorlanost-8-ene	-	Sol	Band freq	Halsall	JCS	-	(1954)	2385
$C_{32}H_{49}ClO_3$	$\beta\beta$ -Acetoxyolean-12-en-28-oyl chloride	1350-3700	Sol	Freq, I	Cole	JCS	-	(1957)	1332
$C_{32}H_{49}NO_9$	Cevadine	2-13/ μ	Sol	Spec Group freq	Kupchan Barton	JACS JCS	75 -	(1953) (1954)	5519 3950
$C_{32}H_{50}O_2$	Olea-11,13(18)-dienyl acetate	-	Sol	Band freq	Barton	JCS	-	(1955)	876
$C_{32}H_{50}O_2$	19 α (H)-Taraxasta-20(30), 21-dien- β -y1 acetate	-	S	Band freq	Ames	JCS	-	(1954)	1905
$C_{32}H_{50}O_3$	$\beta\beta$ -Acetoxylanosta-8:24-dien-26- α l	2.575/ μ	Sol	Struct	Cole	JCS	-	(1959)	1212
$C_{32}H_{50}O_3$	$\beta\beta$ -Acetoxylup-20(29)-en-30- α l	1350-1500 680-3700	Sol	Freq, I	Cole Cole	JCS JCS	- -	(1956) (1957)	1007 1332
$C_{32}H_{50}O_3$	$\beta\beta$ -Acetoxyolean-18-en-28- α l	1350-1500 680-3700	Sol	Freq, I	Cole Cole	JCS JCS	- -	(1956) (1957)	1007 1332
$C_{32}H_{50}O_3$	$\beta\beta$ -Acetoxyurs-12-en-11-one	1350-1500 680-3700	Sol	Freq, I	Cole Cole	JCS JCS	- -	(1956) (1957)	1007 1332
$C_{32}H_{50}O_3$	Anhydro-oxoelementyl acetate-II	-	S	Band freq	Halsall	JCS	-	(1953)	4139
$C_{32}H_{50}O_3$	7-Ketolanosta-5,8-dien- β -y1 acetate	-	Sol	Freq	Barton	JCS	-	(1953)	1842
$C_{32}H_{50}O_4$	$\beta\beta$ -Acetoxy-13 β -hydroxy-oleanan-28-oic-13(28)-lactone	1350-1500	Sol	Freq	Cole	JCS	-	(1956)	1007
$C_{32}H_{50}O_4$	$\beta\beta$ -Acetoxy-13 β -hydroxy-18 α -oleanan-28-oic-13(28)-lactone	1350-1500	Sol	Freq	Cole	JCS	-	(1956)	1007

$C_{32}H_{50}^0_4$	$\beta\beta$ -Acetoxylanost-5-ene-7,11-dione	$2.5\text{--}15\mu$	Sol	Struct	Cole	JCS	-	(1959)	1212
$C_{32}H_{50}^0_4$	$\beta\beta$ -Acetoxylanost-8-ene-7,11-dione	$2.5\text{--}15\mu$	Sol	Struct	Cole	JCS	-	(1959)	1212
$C_{32}H_{50}^0_4$	$\beta\beta$ -Acetoxylup-20(29)-en-28-oic acid	1500-3700	Sol	Freq	Cole	JCS	-	(1959)	2005
$C_{32}H_{50}^0_4$	$\beta\beta$ -Acetoxylean-12-en-28-oic acid	1500-3700	Sol	Freq	Cole	JCS	-	(1959)	2005
$C_{32}H_{50}^0_4$	$\beta\beta$ -Acetoxy-18-olean-12-en-28-oic acid	1500-3700	Sol	Freq	Cole	JCS	-	(1959)	2005
$C_{32}H_{50}^0_4$	Methyl $\beta\beta$ -hydroxy-16-oxoerburico-7,9(11)-diene-21-oate	-	Sol	Band freq, Struct	Bowers	JCS	-	(1953)	2548
$C_{32}H_{50}^0_4$	Methyl 16 β -hydroxy- β -oxo-erburico-7,9(11)-diene-21-oate	-	Sol	Band freq	Bowers	JCS	-	(1953)	2548
$C_{32}H_{50}^0_4$	Olean-18-ene- β ,28-diol diformate	680-3700	Sol	Freq, I	Cole	JCS	-	(1957)	1332
$C_{32}H_{50}^0_4$	Oleanolic acid acetate	-	-	Band freq, Ident	Djerassi	JACS	75	(1953)	2254
$C_{32}H_{50}^0_4$	18-Isooleanolic acid lactone acetate	-	Sol	Band freq	Djerassi	JACS	76	(1954)	2969
$C_{32}H_{50}^0_4$	Olean-18-en- β ,28-diol diformate	1350-1500	Sol	Freq	Cole	JACS	77	(1955)	1200
$C_{32}H_{50}^0_5$	$\beta\beta$ -Acetoxy-12 α :13 β -dihydroxyoleanan-28-oic 13(28)-lactone	1350-1500 3600-3650	Sol Sol	Freq Freq, Struct	Cole Cole	JCS	-	(1956)	1007
$C_{32}H_{50}^0_5$	$\beta\beta$,11 α -Diacetoxy-5 α ,8 α -epoxyergost-9-ene	-	Sol	Group freq	Clayton	JCS	-	(1953)	2009
$C_{32}H_{50}^0_5$	$\beta\beta$,5 α -Diacetoxyergost-22-en-11-one	-	S	Group freq	Bladon	JCS	-	(1954)	125

$C_{32}H_{50}O_5$	Hecogenin tetrahydro-pyranyl ether	-	-	Band study	Hirschmann	JACS	76 (1954)	4013
$C_{32}H_{50}O_5$	Stellatogenin monoacetate	-	Sol	Freq	Djerassi	JACS	77 (1955)	1200
$C_{32}H_{50}O_5S$	22 α ,5 α -Spirostan-3 β -ol-12-one acetate trimethylene hemithioketal	-	Sol	Ident	Djerassi	JACS	75 (1953)	3704
$C_{32}H_{50}O_3$	Steviolbioside	-	-	Group study	Wood	JOC	20 (1955)	875
$C_{32}H_{51}BrO_3$	11 β -Bromo-12-oxo-18-oleanan-3 β -yl acetate	-	Sol	Group freq	Allan	JCS	- (1955)	2125
$C_{32}H_{52}N_2O_3$	Lycopodine	-	Sol	Group freq	Marion	JACS	73 (1951)	305
$C_{32}H_{52}O_2$	Cycloartenyl acetate	-	Sol	Group study	Cole	JCS	- (1954)	3810
$C_{32}H_{52}O_2$	9,19-Cyclolanost-24-en-3 α -yl acetate	950-3639	-	Spec, Freq	Allsop	JCS	- (1956)	4868
$C_{32}H_{52}O_2$	9,19-Cyclolanost-24-en-3 β -yl acetate	950-3639	-	Spec, Freq	Allsop	JCS	- (1956)	4868
$C_{32}H_{52}O_2$	Isoc euphadienyl acetate	-	Sol	Band freq	Barton	JCS	- (1955)	876
$C_{32}H_{52}O_2$	Lanosta-5,7-dien-3 β -yl acetate	-	Sol	Freq	Barton	JCS	- (1953)	1842
$C_{32}H_{52}O_2$	Lanosta-7,9(11)-dien-3 β -yl acetate	2.5-15 μ	Sol	Struct	Cole	JCS	- (1959)	1212
$C_{32}H_{52}O_2$	Lanosta-8,24-dienyl acetate	3-14 μ	Sol	Spec, Band study	Cole	JCS	- (1954)	3807
$C_{32}H_{52}O_2$	Lanosta-8,24-dien-3 β -yl acetate	2.5-15 μ	Sol	Struct	Cole	JCS	- (1959)	1212
$C_{32}H_{52}O_2$	Methyl eburico-2,8-dienoate	-	S	Group freq	Holker	JCS	- (1953)	2414
$C_{32}H_{52}O_2$	Imp-20(29)-en-3 α -yl-680-3700	950-3639	-	Spec Freq, I	Allsop Cole	JCS JCS	- (1956) (1957)	4868 1332

$C_{32}H_{52}O_2$	Lup-20(29)-en- β -yl acetate	950-3639 1350-1500 680-3700	Sol Sol Sol	Spec Freq Freq, I	Allsop Cole Cole	JCS JCS JCS	- (1956) (1956) (1957)	1007 1007 1332
$C_{32}H_{52}O_2$	Methyl dehydrodeoxy-dihydrotumulosate	- -	- Ident	Ident	Cort	JCS	- (1954)	2713
$C_{32}H_{52}O_2$	Olean-12-en- β -yl acetate	950-3639	- Spec	Spec	Allsop	JCS	- (1956)	4868
$C_{32}H_{52}O_2$	Olean-12-en- β -yl acetate	950-3639	Sol Spec, Band study	Spec, Band study	Allsop	JCS	- (1956)	4868
$C_{32}H_{52}O_2$	Phyllanthyl acetate	-	Sol Freq	Freq	Cole	JCS	- (1954)	3810
$C_{32}H_{52}O_2$	19 α (H)-Taraxast-20-en- β -yl acetate	-	S Ident	Ident	Ames	JCS	- (1954)	1905
$C_{32}H_{52}O_2$	γ -Taraxasteryl acetate	-	Sol Group freq	Group freq	Ames	JCS	- (1954)	1905
$C_{32}H_{52}O_2$	Taraxeryl acetate	-	S Freq	Freq	Brooks	JCS	- (1955)	1675
$C_{32}H_{52}O_2$	Urs-12-en- β -yl acetate	950-3639	- Spec, Freq	Spec, Freq	Allsop	JCS	- (1956)	4868
$C_{32}H_{52}O_2$	Urs-12-en- β -yl acetate	950-3639 1350-1500 680-3700	Sol Freq, I	Spec, Band study Freq, I	Allsop Cole Cole	JCS JCS JCS	- (1956) (1956) (1957)	4868 1007 1332
$C_{32}H_{52}O_3$	β -Acetoxy-7 α -ethoxy- Δ -8,14,22-Ergostadiene	-	S,Sol	Group freq, Ident	Fieser	JACS	75 (1953)	4404
$C_{32}H_{52}O_3$	β -Acetoxylanost-8-en-7-one	- 2.5-15 μ	Sol Sol	Freq Struct	Barton Cole	JCS JCS	- (1953) (1959)	1842 1212
$C_{32}H_{52}O_3$	β -Acetoxylanost-8-en-11-one	2.5-15 μ	Sol	Struct	Cole	JCS	- (1959)	1212
$C_{32}H_{52}O_3$	β -Acetoxylup-20(29)-en-28-ol	3600-3650	Sol	Struct, Freq	Cole	JCS	- (1959)	1218
$C_{32}H_{52}O_3$	β -Acetoxylean-12-one	1350-1500	Sol	Freq	Cole	JCS	- (1956)	1007

$C_{32}H_{52}O_3$	$\beta\beta$ -Acetoxylean-18-en-28-ol	3600-3650	Sol	Struct, Freq	Cole	JCS	- (1959)	1218
$C_{32}H_{52}O_3$	11-Keto- Δ^9 -lanostenol-2 acetate	-	Sol	Struct, Group freq	McGhie	JCS	- (1952)	3176
$C_{32}H_{52}O_3$	Lup-20(29)-ene- $\beta\beta$:28-diol β -acetate	680-3700	Sol	Freq, I	Cole	JCS	- (1957)	1332
$C_{32}H_{52}O_3$	Methyl 16 α -hydroxyeburico-7,9(11)-dien-21-oate	-	S	Freq	Bowers	JCS	- (1954)	3070
$C_{32}H_{52}O_3$	Methyl 16 α -hydroxy-20-isoburico-7,9(11)-dien-21-oate	-	S	Freq	Bowers	JCS	- (1954)	3070
$C_{32}H_{52}O_3$	Olean-18-ene- $\beta\beta$:28-diol β -acetate	680-3700	Sol	Freq, I	Cole	JCS	- (1957)	1332
$C_{32}H_{52}O_3$	11-Oxoeph-8-enyl acetate	-	S	Group freq	Barton	JCS	- (1955)	876
$C_{32}H_{52}O_4$	$\beta\beta$ -Acetoxylanostane-7;11-dione	2.5-15 μ	Sol	Struct	Cole	JCS	- (1959)	1212
$C_{32}H_{52}O_4$	$\beta\beta,5\beta$ -Diacetoxyster-14-one	-	-	Group freq	Bladon	JCS	- (1954)	736
$C_{32}H_{52}O_4$	$\beta\beta,11$ -Diacetoxyster-9(11)-ene	-	Sol	Group freq	Cramshaw	JCS	- (1954)	731
$C_{32}H_{52}O_5$	$\beta\beta,11\alpha$ -Diacetoxy-9 α -epoxyergostane	-	-	Group freq	Cramshaw	JCS	- (1954)	731
$C_{32}H_{52}O_5$	$\beta\beta,5\beta$ -Diacetoxy-9 β -ergostan-11-one	-	Sol	Group freq	Bladon	JCS	- (1955)	2921
$C_{32}H_{52}O_8(14)$	$\Delta^{8(14)}$ -Ergostene- $\beta\beta,5\alpha,6\alpha$ -triol $\beta,6$ -diacetate	-	Sol	Band freq, Ident	Fieser	JACS	75 (1953)	4066
$C_{32}H_{53}N_3O_3$	Cholesteryl acetooacetate semicarbazone	-	-	Freq	Bader	JACS	73 (1951)	4195

C ₃₂ H ₅₃ O ₂	Methyl betulatate	1350-1500	Sol	Freq	Cole	JCS	-	(1956)	1007
C ₃₂ H ₅₄	5-(7-Tetrahydronaphthyl)-n-docosene-5	5400-8900	Sol	Assign, Spec	Rose	JRNB	19	(1937)	143
C ₃₂ H ₅₄ O ₂	Cycloartanyl acetate	9-11 μ	Sol Sol	Spec, Freq	Barton Cole	JCS	-	(1951)	1444
C ₃₂ H ₅₄ O ₂	Isotirucalleny1 acetate	-	-	Group study	Barbour	JCS	-	(1954)	3810
C ₃₂ H ₅₄ O ₂	⁷ Δ -Lanostenol acetate	-	-	Ident	Woodward	JACS	76	(1954)	2852
C ₃₂ H ₅₄ O ₂	Lanostenyl acetate	-	Sol	Struct	Barton	JCS	-	(1951)	3147
C ₃₂ H ₅₄ O ₂	Lanost-7-en-3 β -y1 acetate	2.5-15 μ	Sol	Struct	Cole	JCS	-	(1959)	1212
C ₃₂ H ₅₄ O ₂	Lanost-8-en-3 α -y1 acetate	950-3639	-	Spec, Band study	Allsop	JCS	-	(1956)	4868
C ₃₂ H ₅₄ O ₂	Lanost-8-en-3 β -y1 acetate	950-3639 2.5-15 μ	- Sol	Spec, Band study Struct	Allsop Cole	JCS	-	(1956)	4868
C ₃₂ H ₅₄ O ₂	Lanost-9(11)-en-3 β -y1 acetate	2.5-15 μ	Sol	Struct	Cole	JCS	-	(1959)	1212
C ₃₂ H ₅₄ O ₃	β β -Acetoxylanostan-11-one	2.5-15 μ	Sol	Struct	Cole	JCS	-	(1959)	1212
C ₃₂ H ₅₄ O ₃	7-Oxoephanyl acetate	-	S	Ident	Barton	JCS	-	(1955)	876
C ₃₂ H ₅₄ O ₄	β β ,11 β -Diacetoxysterane	-	Sol	Group freq	Cramshaw	JCS	-	(1954)	731
C ₃₂ H ₅₄ O ₄	ψ -Taraxastane triol β -acetate	-	-	Ident	Halsall	JCS	-	(1954)	1902
C ₃₂ H ₅₆	5-(7-Tetrahydronaphthyl)-n-docosane	5400-8900	Sol	Assign, Spec	Rose	JRNB	19	(1937)	143
C ₃₂ H ₅₆ O ₃	β β -Acetoxylanostan-11-ol	3600-3650	Sol	Freq	Cole	JCS	-	(1959)	1218
C ₃₂ H ₅₆ O ₃	γ β -Acetoxylanostan-11 α -ol	3600-3650	Sol	Freq	Cole	JCS	-	(1959)	1218

1816

$C_{32}H_{62}$	5-(2-Decahydronaphthyl)-n-docosane	5400-8900	Sol	Spec, Assign	Rose	JRNB	19 (1937)	143
$C_{32}H_{64}O$	Dipalmitoylperoxide	-	Sol	Group freq	Davison	JCS	- (1951)	2456
$C_{32}H_{64}O$	Di-n-undecylsebacate	2-16 μ	Sol	Spec	Stahl	JACS	74 (1952)	5489
$C_{32}H_{66}$	n-Ditriacontane	721-732 700-3000	L,S Sol	Temp. effect on bands Molecular Ext. Coefficient	Robert Jones	CPR SA	234 (1952) 9 (1957)	2270 235

 C_{33} COMPOUNDS

$C_{33}H_{24}O$	2,3,6,7-Tetraphenyl- $\Delta^{2,6,8}$ -cyclo- indatrienone	1600-1800	Sol	Group freq	Fusion	JACS	76 (1954)	2526
$C_{33}H_{24}O$	3,3,5,6-Tetraphenyl- indanone	2-16 μ	S	Spec, Struct	*	Allen	JOC 20 (1955)	315
$C_{33}H_{26}N_2O_7S_2$	Ethy1-1,4-naphtho- quinone dibenzene- sulfonimido-2-benzoyl acetate	-	-	Group study	Adams	JACS	74 (1952)	5557
$C_{33}H_{26}O$	p-Benzylphenyl trityl ketone	-	-	Group freq	Fusion	JACS	77 (1955)	1138
$C_{33}H_{26}O$	1,1,2,3,3-Pentaphenyl- 2-propen-1-ol	-	-	Group freq, Ident	Lutz	JACS	77 (1955)	366
$C_{33}H_{28}N_2O_7S_2$	Ethy1-1,4-naphthalene dibenzene sulfonamido- 2-benzoyl acetate	-	-	Group study	Adams	JACS	74 (1952)	5557
$C_{33}H_{28}O$	2-Hydroxy-1,1,3,3-pentaphenylpropane	-	Sol	Group freq, I	Pinchas	JCS	- (1954)	863

C ₃₃ H ₂₉ N ₂ O ⁰	3-Cyano-1,6-diphenyl- 3,4-di-O-toly-1- hexane-1,6-dione	-	-	Band study	Potts	JCS	- (1955)	2466
C ₃₃ H ₃₃ N ₃ O ₃	3,4,6,7,8,10,11,12-Octa- hydro-3,7,11-tribenzy- 2H-benzo[1,2-e,3,4-e', 5,6-e" tris-m-oxazine	2-15 μ	S	Spec	Burke	JACS	72 (1950)	4691
C ₃₃ H ₃₄ N ₄ O ₅	2-Formyldeuteroporphyrin dimethyl ester	670-4000	S	Spec, Assign	Falk	AJSR	4A (1951)	579
C ₃₃ H ₃₄ N ₄ O ₅	4-Formyldeuteroporphyrin dimethyl ester	670-4000	S	Spec, Assign	Falk	AJSR	4A (1951)	579
C ₃₃ H ₃₈ N ₈ O ₁₀	3 α -Hydroxy-11,20-diketo- 17 α -pregnan-21-al-20,21- bis-(2,4-dinitrophenyl- hydrazone)	-	S	Ident	Mattox	JACS	74 (1952)	4340
C ₃₃ H ₃₈ N ₈ O ₁₀	3 α -Hydroxy-11,20-diketo- pregnan-21-al-20,21-bis- (2,4-dinitrophenyl- hydrazone)	-	S	Ident	Mattox	JACS	74 (1952)	4330
C ₃₃ H ₃₈ N ₈ O ₁₀ Si	Triphenylsilylonyl phenyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
C ₃₃ H ₄₀ N ₂ O ₉	Reserpine	2-12 μ	Sol	Spec, Group freq Group freq, Struct Group freq	Djerassi Klohs Neuss	JACS	75 (1953)	5446
		-	Sol	Ident	Djerassi Klohs Neuss	JACS	75 (1953)	4867
		-	-	Ident	Djerassi Klohs Neuss	JACS	75 (1953)	4870
		-	-	Ident	Djerassi Klohs Neuss	JACS	76 (1954)	4463
		-	S	Spec	Djerassi Klohs Neuss	JACS	76 (1954)	1381
		2.5-12 μ	S,Sol	Spec, Struct, Group freq	Djerassi Klohs Neuss	JACS	76 (1954)	2843
		-	-	Stereo	Diassi MacPhillamy Neuss	JACS	77 (1955)	2028
		-	Sol	Ident, Iso Spec	MacPhillamy Neuss	JACS	77 (1955)	4335
		5-12 μ	-	-	MacPhillamy	JACS	77 (1955)	4335

C ₃₃ H ₄₀ N ₀ ⁷	22a-Spirosta-4,8-diene-3,11-dione-3-2,4-dinitrophenylhydrazone	-	Sol	Group freq	Djerassi	JCS	- (1954)	2346
C ₃₃ H ₄₃ N ₀ ⁷	22,26-Imino-5,13,15, 17(17 α)-Jervate traene- $\beta\beta$,23-Diol-11-one triacetate	-	S	Band freq	Wintersteiner	JACS	75 (1953)	4938
C ₃₃ H ₄₅ N ₀ ⁶	Triace ty1 dihydro-11- ketoveratramine	-	-	Band freq, Ident	Wintersteiner	JACS	74 (1952)	4474
C ₃₃ H ₄₆ O ₈ i	Triphenylsilylundecyl butyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
C ₃₃ H ₄₇ N ₀ ⁷	17a,22,26-Nitrilo-jerv- 5-ene- $\beta\beta$,17,23-triol- 11-one- β ,17,23- triacetate	-	S	Band freq	Wintersteiner	JACS	75 (1953)	4938
C ₃₃ H ₄₇ N ₀ ⁷ HC10 ₄	22,26-Imino- $\beta\beta$,17,23- triacetoxyl,13(17a)- jervadiene-11-one perchlorate	-	S	Band freq	Wintersteiner	JACS	76 (1953)	4938
C ₃₃ H ₄₇ N ₀ ⁸	22,26-Imino-5,13(17a)- jervadiene- $\beta\beta$,17,23- triol-11-one- β ,23,N- triacetate	-	S	Band freq	Wintersteiner	JACS	76 (1953)	4938
C ₃₃ H ₄₇ N ₀ ⁸	22,26-Imino-16-jervene- $\beta\beta$,23-diol-11,15-dione- β ,23,N-triacetate	-	S	Band freq	Wintersteiner	JACS	76 (1954)	5609
C ₃₃ H ₄₇ N ₀ ⁸	22,26-Imino-17(20)- isojervene- $\beta\beta$,23- diol-11,16-dione- β ,23,N-triacetate	-	S	Band freq	Wintersteiner	JACS	76 (1954)	5609
C ₃₃ H ₄₇ N ₁₀	Cevagenine C-ortho- acetate diacetate 2-13 μ	Sol	Spec, Group freq, Ident	Kupchan	JACS	77 (1955)	686	

$C_{33}H_{48}N_4O_4$	Δ^1 -Cholesten-3-one-2,4-dinitrophenylhydrazone	-	Sol	Ident	Beereboom	JACS	75 (1953)	3500
$C_{33}H_{48}N_4O_4$	Δ^4 -Cholesten-3-one-2,4-dinitrophenylhydrazone	-	Sol	Band freq, Group freq	Reich	JOC	18 (1953)	822
$C_{33}H_{48}N_4O_5$	Cholestan-3,6-dione-2,4-dinitrophenylhydrazone	-	Sol	Band freq, Ident	Fieser	JACS	75 (1953)	4377
$C_{33}H_{48}N_4O_6$	Ketone-104-2,4-dinitrophenylhydrazone	-	Sol	Band freq	Fieser	JACS	75 (1953)	4418
$C_{33}H_{48}O_5$	Methyl- β^3 -acetoxy-11-oxoolean-12,18-dien-28-oate	1350-1500	Sol	Group freq, Ident	Cole	JCS	- (1956)	1007
$C_{33}H_{49}NO$	4-Benzyl- Δ^5 -4-aza-cholestene-3 μ	2-12 μ	Sol	Band freq	Woodward	JACS	74 (1952)	4223
$C_{33}H_{49}NO_7$	22,26-Lmino-16-jervene- $\beta^3,23$ -diol-11-one-3,23, N -triacetate	-	S	Band freq	Wintersteiner	JACS	76 (1954)	5609
$C_{33}H_{49}NO_7$	22,26-Lmino-17(20)-isojervene- $\beta^3,23$ -diol-11-one-3,23, N -triacetate	-	S	Band freq	Wintersteiner	JACS	76 (1954)	5609
$C_{33}H_{49}NO_7$	16,22,26-Nitrilojervane- $\beta^3,17,23$ -triole-11-one	-	S	Band freq	Wintersteiner	JACS	76 (1954)	5609
$C_{33}H_{49}NO_7$	Veratrosine	-	-	Ident	Klohs	JACS	75 (1953)	2133
$C_{33}H_{49}NO_{10}$	Gevinilal C-orthoacetate diacetate	-	-	Group freq	Kupchan	JACS	77 (1955)	683
$C_{33}H_{49}NO_{10}$	Zygadine triacetate	2-13 μ	Sol Sol	Spec Ident, Band freq	Kupchan Kupchan	JACS	75 (1953) 77 (1955)	1025 689
$C_{33}H_{49}NO_{10}$	Pseudozygadine triacetate	2-13 μ	Sol	Spec	Kupchan	JACS	75 (1953)	1025

C ₃₃ H ₄₉ NO ₁₁	Protocevine triacetate	2-13 μ	Sol	Spec, Ident	Kupchan	JACS 75 (1953) 5519
C ₃₃ H ₅₀ O ₄	β -Acetoxyl-23-hydroxy eburico-8,24(28)-dien- 21-oic-lactone	-	Sol	Group freq	Holker	JCS - (1953) 2422
C ₃₃ H ₅₀ O ₄	β -Acetoxyl-16 β -hydroxy- 20-isoebrico-7,9(11)- dien-21-oic acid lactone	-	Sol	Freq	Bowers	JCS - (1954) 3070
C ₃₃ H ₅₀ O ₄	Methyl- β -acetoxylean- 9(11),12-dien-28-oate	680-3700	Sol	Freq, I	Cole	JCS - (1957) 1332
C ₃₃ H ₅₀ O ₄	Methyl- β -acetoxylean- 11,13(18)-dien-28-oate	680-3700	Sol	Freq, I	Cole	JCS - (1957) 1332
C ₃₃ H ₅₀ O ₄	Methyl- β -acetoxylean- 12,18-dien-28-oate	680-3700	Sol	Freq, I	Cole	JCS - (1957) 1332
C ₃₃ H ₅₀ O ₅	Methyl- β -acetoxyl-11- oxo-18 α -olean-12-en- 28-oate	1350-1500	Sol	Group freq, Ident	Cole	JCS - (1956) 1007
C ₃₃ H ₅₀ O ₅	Methyl- β -acetoxyl-11- oxoolean-12-en-28-oate	1350-1500 680-3700	Sol Sol	Group freq, Ident Freq, I	Cole Cole	JCS - (1956) 1007 JCS - (1957) 1332
C ₃₃ H ₅₀ O ₅	Methyl- β -acetoxyl-11- oxoolean-12-en-29-oate	1350-1500	Sol	Assign	Cole	JCS - (1956) 1007
C ₃₃ H ₅₀ O ₅	Methyl- β -acetoxyl-11- oxoolean-12-en-30-oate	680-3700	Sol	Freq, I	Cole	JCS - (1957) 1332
C ₃₃ H ₅₀ O ₅	Methyl- β -acetoxyl-11- oxo-18-isoolean-12- en-28-oate	680-3700	Sol	Freq, I	Cole	JCS - (1957) 1332
C ₃₃ H ₅₀ O ₅	Methyl- β -acetoxyl-19- oxo-18 α -olean-12-en- 28-oate	1350-1500	Sol	Group freq, Ident	Cole	JCS - (1956) 1007
C ₃₃ H ₅₀ O ₅	Methyl- β -acetoxyl-11- oxours-12-ene-28-oate	1350-1500 680-3700	Sol Sol	Assign Freq, I	Cole Cole	JCS - (1956) 1007 JCS - (1957) 1332

C ₃₃ H ₅₀ O ₆	Methyl acetoxy-dioxolemenate	-	Sol	Band freq, Struct	Halsall	JCS	-	(1953)	4139
C ₃₃ H ₅₀ O ₆	Methyl- β -acetoxy-12,19-dioxolelean-28-oate	1350-1500	Sol	Group freq, Ident	Cole	JACS	-	(1956)	1007
C ₃₃ H ₅₀ O ₈	Digitogenin triacetate	-	Sol	Band freq	Klass	JACS	77	(1955)	3829
C ₃₃ H ₅₀ O ₈	5 α ,22 α -Spirostane- $\beta\beta$,11 α ,12 β -triol triacetate	-	-	Group study	Wendler	JACS	77	(1955)	1632
C ₃₃ H ₅₀ O ₉	22 α ,5 α -Spirostane-2 α ,3 β -diol-15-one dicathylate	-	Sol	Band freq	Klass	JACS	77	(1955)	3829
C ₃₃ H ₅₀ O ₉	22 α ,5 α -14-Iospirostane-2 α ,3 β -diol-15-one dicathylate	-	Sol	Band freq	Klass	JACS	77	(1955)	3829
C ₃₃ H ₅₂ O ₃	$\Delta^{5,22}$ -Stigmastadienol $\beta\beta$ -acetooxate	-	Sol	Group freq	Jones	JACS	74	(1952)	5648
C ₃₃ H ₅₂ O ₄	0-Acetylburicoic acid	-	-	Ident	Cort	JCS	-	(1954)	3713
C ₃₃ H ₅₂ O ₄	Methyl- β -acetoxylup-20(29)-en-28-oate	950-3639 680-3700	Sol Sol	Spec, Freq, Ident	Allsop Cole	JCS	-	(1956)	4868
C ₃₃ H ₅₂ O ₄	Methyl- β -acetoxylup-20(29)-en-28-oate	950-3639 680-3700	Sol Sol	Spec, Freq, Ident	Allsop Cole	JCS	-	(1957)	1332
C ₃₃ H ₅₂ O ₄	Methyl- β -acetoxylup-olean-12-en-28-oate	680-3700	Sol	Freq, I	Cole	JCS	-	(1956)	4868
C ₃₃ H ₅₂ O ₄	Methyl- β -acetoxy-olean-18-en-28-oate	680-3700	Sol	Freq, I	Cole	JCS	-	(1957)	1332
C ₃₃ H ₅₂ O ₄	Methyl- β -acetoxy-18-en-28-oate	680-3700	Sol	Freq, I	Cole	JCS	-	(1957)	1332
C ₃₃ H ₅₂ O ₄	Methyl- β -acetoxy-18-isoolean-12-en-28-oate	680-3700	Sol	Freq, I	Cole	JCS	-	(1957)	1332
C ₃₃ H ₅₂ O ₄	Methyl- β -acetoxy-urs-12-en-28-oate	680-3700	Sol	Spec, Group freq	Barton	JCS	-	(1951)	257

1822

$C_{33}H_{52}O_5$	Methyl- β -acetoxy-19 α -hydroxyolean-12-en-28-oate	680-3700	Sol	Freq, I	Cole	JCS	- (1957)	1332
$C_{33}H_{52}O_5$	Methyl- β -acetoxy-11-oxoolean-28-oate	1350-1500	Sol	Group freq, Ident	Cole	JCS	- (1956)	1007
$C_{33}H_{52}O_5$	Methyl- β -acetoxy-12-oxoolean-28-oate	1350-1500	Sol	Group freq, Ident	Cole	JCS	- (1956)	1007
$C_{33}H_{52}O_5$	Methyl- β -acetoxy-19-oxo-18 α -oleanan-28-oate	1350-1500	Sol	Group freq, Ident	Cole	JCS	- (1956)	1007
$C_{33}H_{52}O_5$	Methyl- β -acetoxy-19-oxoolean-28-oate	1350-1500	Sol	Group freq, Ident	Cole	JCS	- (1956)	1007
$C_{33}H_{52}O_6$	Methyl acetoxydioxo-olemanate	-	Sol	Band freq	Halsall	JCS	- (1953)	4139
$C_{33}H_{52}O_6$	Methyl- β -acetoxy-19 α -hydroxy-12-oxoolean-28-oate	1350-1500 3600-3650	Sol Sol	Group freq, Ident Group freq, Ident	Cole Cole	JCS JCS	- (1956) - (1959)	1007 1218
$C_{33}H_{52}O_8$	Gitogenin dicathylate	-	Sol	Band freq	Klass	JACS	77 (1955)	3829
$C_{33}H_{52}O_9$	Digitogenin 2, β -dicathylate	-	Sol	Band freq	Klass	JACS	77 (1955)	3829
$C_{33}H_{52}O_9$	neodigitogenin-2, β -dicathylate	-	Sol	Band freq	Klass	JACS	77 (1955)	3829
$C_{33}H_{52}O_{11}$	Acetylundromedofixin	-	S	Freq	Wood	JACS	76 (1954)	5689
$C_{33}H_{53}NO_7$	Isombijervosine	2-13 μ	S	Spec	Klohs	JACS	75 (1953)	2133
$C_{33}H_{54}O_2$	Cyclolaudenol acetate	-	Sol	Group freq	Bentley	JCS	- (1955)	596
$C_{33}H_{54}O_2$	9 α 19-Cycloburic-25-en- β -yl acetate	2.5-15 μ	Sol	Struct	Cole	JCS	- (1959)	1212
$C_{33}H_{54}O_3$	Δ^5 -Stigmastenol- β -acetate	-	Sol	Group freq	Jones	JACS	74 (1952)	5648

$C_{33}H_{54}O_6$	Δ^4 -Cholestan- $\beta,6\beta$ -diol dicathylate	-	-	Freq	Fieser	JACS	74 (1952)	3309
$C_{33}H_{54}O_6$	Δ^5 -Cholestan- $\beta,4\beta$ -diol dicathylate	-	-	Freq	Fieser	JACS	74 (1952)	3309
$C_{33}H_{54}O_6$	Δ^5 -Cholestan- $\beta,7\beta$ -diol dicathylate	-	-	Freq	Fieser	JACS	74 (1952)	3309
$C_{33}H_{54}O_6$	7 α -Hydroxycholesterol dicathylate	-	-	Freq	Bentley	JCS	- (1955)	596
$C_{33}H_{56}O_2$	Cyclolaudanyl acetate	-	Sol	Group freq	Cole	JCS	- (1959)	1212
$C_{33}H_{56}O_2$	9:19-Cyclooburican- β -yl acetate	2.5-15 μ	Sol	Struct	Barbour	JCS	- (1955)	2194
$C_{33}H_{56}O_2$	Isoeuphorbenyl acetate	-	-	Group study	Fieser	JACS	74 (1952)	3309
$C_{33}H_{56}O_2$	Coprostan- $\beta,6\alpha$ -diol dicathylate	-	-	Freq	Baer Marinetti	JACS JACS	74 (1952) 76 (1954)	152 1347
$C_{33}H_{66}NO_8P$	L- α -(Dimyristoyl)-Cephalin	2-16 μ 2.5-14.5 μ	S	Spec, Band freq Spec, Struct	Oshefsky	JACS	79 (1957)	2057
$C_{33}H_{68}Si$	Cyclopentamethylene dietradeccylsilane	2-35 μ	L	Assign				
<hr/>								
<u>C_{34} COMPOUNDS</u>								
$C_{34}H_{16}O_2$	Violanthrone	630-2010 -	S	Spec Group	Cannon Hadzi Akamatu Durie	SA JACS JCP AJC	4 (1951) 73 (1951) 20 (1952) 10 (1957)	373 5460 1481 429
$C_{34}H_{16}O_2$	isoviolanthrone	6000-20000 650-2000	S,Sol	Absorption Spec assign	Akamatu Durie	JCP AJC	20 (1952) 10 (1957)	1481 429

$C_{34}H_{18}$	isoviolanthrene	650-2000	S	Spec, Group freq	Durie	AJC	10 (1957)	429
$C_{34}H_{18}O_2$	β,β' -Dibenzanthronyl	-	S	Group freq	Hadzi	JACS	73 (1951)	5460
$C_{34}H_{18}O_2$	$4,4'$ -Dibenzanthronyl	-	S	Group freq	Hadzi	JACS	73 (1951)	5460
$C_{34}H_{24}$	1,2, $\beta,\beta,4$ -Tetraphenyl-fulvalene	650-2000	S	Spec, Group freq	Durie	AJC	10 (1957)	429
$C_{34}H_{26}O$	1-Cyclopentadienyl- te traphenylcyclo- pentadien-1-ol	-	-	Band study Band study	Schreiber Schreiber	JACS	76 (1954)	3354
$C_{34}H_{26}O_{10}$	β,β' -Di-O-methyl- $5,5'$ -di-C-benzylellagic acid diacetate	5.0-6.15 μ	S	Struct	Stitt	JACS	81 (1959)	4615
$C_{34}H_{26}O_{12}$	Diacetylidihydroxy- erythrophan-fb	687-3333	S	Table	Brown	JCS	- (1955)	1144
$C_{34}H_{27}N_5O_4$	β,β' -Imino bis-(4-p- methoxybenzylidene- 1-phenyl-5-pyrazolone)	400-4000	-	Freq, Discussion	Gagnon	CJC	37 (1959)	110
$C_{34}H_{28}O_2$	1-Benzyl-2,2,4,4-tetra- phenyloxetanol	-	S, Sol	Band freq	Holy	JACS	77 (1955)	391
$C_{34}H_{30}Cl_2N_2O_4Si$	N,N-Bis-(β -hydroxyethyl)- m-triphenylsilyl-p-(2,6- dichloro-4-nitrophenylazo) aniline	2-16 μ	Sol	Spec, Freq	Sunthanbar	JOC	18 (1953)	47
$C_{34}H_{30}Cl_2N_2O_4$	Benzidine yellow	2-16 μ	S	Spec	Tyler	AC	25 (1953)	390
$C_{34}H_{30}O_6$	meso-1,6-Di-O-acetoxy- phenyl- β ,4-diphenyl- hexane-1,6-dione	-	-	Group freq	Jack	JCS	- (1954)	3684
$C_{34}H_{30}O_6$	d1-1,6-Di-O-acetoxyphenyl- β ,4-diphenylhexane-1,6-dione	-	-	Group freq	Jack	JCS	- (1954)	3684

C ₃₄ H ₃₁ N ₂ O ₄	β,β' -Imino bis-(4-p-methoxybenzylidene-1-phenyl-1-pyrazalin-5-ol)	400-4000	-	Freq	Gagnon	CJC	37 (1959)	110
C ₃₄ H ₃₂	β -Neopentyl-1,2, β ,4-te traphenylcyclopentadiene	-	-	Group freq	Fusion	JOC	18 (1953)	570
C ₃₄ H ₃₄	9,10-Didurylphenanthrene	-	-	Ident	Fusion	JOC	19 (1954)	373
C ₃₄ H ₃₄ N ₂ O ₄	Protoporphyrin (free acid)	670-4000	S	Spec, Assign	Falk	AJSR	4A (1951)	579
C ₃₄ H ₃₄ N ₂ O ₆	Diformylidenetetraphyrin dimethyl ester	670-4000	S	Spec, Assign	Falk	AJSR	4A (1951)	579
C ₃₄ H ₃₄ O ₂	2,2'-Diduroylbiphenyl	-	-	Ident	Fusion	JOC	19 (1954)	373
C ₃₄ H ₃₄ O ₂	p,p'-Diduroylbiphenyl	-	-	Ident	Fusion	JACS	77 (1955)	3776
C ₃₄ H ₃₆ N ₂ O ₅	Monoacetyldeuterotetraphyrin dimethyl ester	670-4000	S	Spec, Assign	Falk	JACS	76 (1954)	5561
C ₃₄ H ₃₆ O ₂	9,10-Diduryl-9,10-dihydro-9,10-dihydroxyphenanthrene	-	-	Group freq	Fusion	JOC	19 (1954)	373
C ₃₄ H ₃₆ O ₂	O-(O-Duroylphenyl)-phenoxy-1-durylcarbinol	-	-	Ident	Fusion	JACS	77 (1955)	3776
C ₃₄ H ₃₈ N ₂ O ₆ ·H ₂ SO ₄ ·5H ₂ O	Morphine sulfate pentahydrate	650-500C	S	Spec	Manning	APS	10 (1956)	85
C ₃₄ H ₄₀ O ₅ Si	Triphenylsilyldecyl phenoxy-ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
C ₃₄ H ₄₀ O ₂	$\Delta^{20,22}$ - β α ,9 α -Epoxy-22, 22'-diphenylbisanorcholestone-11	1713	Sol	Freq, Struct, Anal	Jones	JACS	71 (1949)	241

1826	$C_{34}H_{42}N_2O_9$	N-Methylreserpine $\Delta^{20,22}-22,22'$ -Diphenylbinorcholanol- 3α -one-11	-	S	Band study	Huebner	JACS 76 (1954) 5792	
	$C_{34}H_{42}O_2$	Apogossypol hexamethyl ether	1713	Sol	Freq, Struct, Anal	Jones	JACS 71 (1949) 241	
	$C_{34}H_{42}O_6$	$\Delta^{17(20)}-21$ -Benzal-pregnene-triol- $3\alpha,12\alpha,20$ -triacetate	2-12 μ	Sol	Spec, Struct, Group freq	O'Connor	JACS 76 (1954) 2368	
	$C_{34}H_{44}O_6$	Dicyclohexylamine 1,4-Di- β -phenyl- α -hydroxy ethyl benzene adduct	1000-3750	S	H bond	Nakagawa	BCSJ 33 (1960) 433	
	$C_{34}H_{45}NO$	N-Methylmorphinan sulfate	-	-	Ident.	Ginsburg	JCS - (1953) 1524	
	$C_{34}H_{46}N_2 \cdot H_2SO_4$	Bis (2,4,6-triisopropylbenzoyl) furoxan	-	S, Sol	Table, Group freq, I	Boyer	JACS 77 (1955) 4238	
	$C_{34}H_{46}N_2O_4$	Atropine sulfate	-	Sol	Quan anal	Marsh	AC 27 (1955) 636	
	$C_{34}H_{46}N_2O_6 \cdot H_2SO_4 \cdot H_2O$	$\beta\beta$ -Benzoyloxy-7,11-dioxo-25,26,27-trisnor-lanostan-24-oic acid	2.5-15 μ	Sol	Struct	Cole	JCS - (1959) 1212	
	$C_{34}H_{46}O_6$	21-Benzylidenepregnane- $3\alpha,11\alpha,20\beta$ -triol triacetate	-	-	Group study	Olivetto	JACS 76 (1954) 6111	
	$C_{34}H_{46}O$	Pristimerin (reductive acetate)	2-14 μ	Sol	Spec	Nakanishi	BCSJ 29 (1956) 7	

C ₃₄ H ₄₆ O ₁₁	Methyl polyacetyl- glucosiduronate of $\Delta^{3,5}$ -pregnadiene- β - ol-20-one	650-3700	L,S	Spec , Assign	Smakula	JACS	81 (1959)	1708
C ₃₄ H ₄₇ NO ₄ S ⁴	Δ^4 -Isorubijervone-p- toluenesulfonate	2-13/ μ	Sol	Spec , Struct	Weisenborn	JACS	75 (1953)	259
C ₃₄ H ₄₈ N ₂ O ₇	16,22-Epoxy coprostan- β -ol-(β , δ ,5-dinitro- benzoate)	-	-	Ident	Wall	JACS	77 (1955)	1230
C ₃₄ H ₄₈ OS	7-Dehydrocholesteryl thiobenzoate	670-3700	S	Spec	Bernstein	JOC	16 (1951)	685
C ₃₄ H ₄₈ O ₃	$\Delta^{9(11)}$ -Cholestenol- β -one-7-benzoate	-	Sol	Group study	Fieser	JACS	75 (1953)	121
C ₃₄ H ₄₈ O ₁₁	Methyl polyacetylgluco- pyranosiduronate of Δ^{5} -pregnene- β -ol-20- one	650-3700	S,L	Spec , Assign	Smakula	JACS	81 (1959)	1708
C ₃₄ H ₄₉ NO ₉	Cevadine orthoacetate	-	Sol	Group freq	Barton	JCS	- (1954)	3950
C ₃₄ H ₅₀ Br ₂ O ₂	$\beta\beta,6\alpha$ -Dibromocholestan- β -y1-benzoate	400-1400	Sol	Group freq	Barton	JCS	- (1956)	331
C ₃₄ H ₅₀ Br ₂ O ₂	5 $\alpha,6\beta$ -Dibromocholestan- β -y1-benzoate	400-1400	Sol	Group freq	Barton	JCS	- (1956)	331
C ₃₄ H ₅₀ Cl ₂ O ₂	5 $\alpha,6\alpha$ -Dichlorocholestanol- β -benzoate	-	Sol	Group freq	Jones	JACS	72 (1950)	956
C ₃₄ H ₅₀ Cl ₂ O ₂	5 $\alpha,6\beta$ -Dichlorocholestanol- β -benzoate	400-1400	Sol	Group freq	Jones Barton	JACS JCS	72 (1950) - (1956)	956 331

C ₃₄ H ₅₀ OS	Cholesteryl thio-benzoate	670-3700	S	Spec	Bernstein	JOC	16 (1951)	685
C ₃₄ H ₅₀ O ₂	⁵ Δ -Cholestenol- β -benzoate	2.5-15 μ	Sol S, Sol	Group freq Spec, Band freq Group freq	Jones Hirschmann Tarpley	JACS JACS APS	72 (1950) 74 (1952) 9 (1955)	956 5357 69
C ₃₄ H ₅₀ O ₂	⁸⁽¹⁴⁾ Δ -Cholestenol- β -benzoate	-	-	Assign	Jones	JACS	70 (1948)	2024
C ₃₄ H ₅₀ O ₂	¹⁴ Δ -Cholestenol- β -benzoate	-	-	Assign	Jones	JACS	70 (1948)	2024
C ₃₄ H ₅₀ O ₂	sym-Di-(p-carbethoxynona-methylephenyl) ethane cyclaclyolin	-	-	Group freq	Fusion	JACS	74 (1952)	1621
C ₃₄ H ₅₀ O ₃	⁵ Δ -Cholestenone diol- β , 4 β -benzoate- β	-	Sol	Group freq	Jones	JACS	72 (1950)	956
C ₃₄ H ₅₀ O ₆	Dumortierigenin diacetate	-	Sol	Group freq	Djerassi	JACS	76 (1954)	2969
C ₃₄ H ₅₁ BrO ₃	5 α -Bromo-6 β -hydroxycholestane- β -y-1-benzoate	400-1400	Sol	Group freq	Barton	JCS	- (1956)	331
C ₃₄ H ₅₁ ClO ₃	5 α -Chloro-6 β -hydroxycholestane- β -y-1-benzoate	400-1400	Sol	Group freq	Barton	JCS	- (1956)	331
C ₃₄ H ₅₁ ClO ₃	6 β -Chloro-5 α -hydroxy-cholestane- β -y-1-benzoate	400-1400	Sol	Group freq	Barton	JCS	- (1956)	331
C ₃₄ H ₅₁ NO ₃ S	3-Desoxy-5,6-dihydro-isorubribjervine tosylate	2-13 μ	Sol	Spec, Struct	Weissenborn	JACS	75 (1953)	259

C ₃₄ H ₅₁ NO ₃ ^S	Solanidine- β -ol tosylate	2-13 μ	sol	Spec, Struct	Weisenborn	JACS	75 (1953)	259
C ₃₄ H ₅₁ NO ₅ ^S	Isorubijervine-p-toluenesulfonate	2-13 μ	sol	Spec, Struct	Weisenborn	JACS	75 (1953)	259
C ₃₄ H ₅₂	5-(ρ -Diphenyl)-n-docosene-5	5400-8900	sol	Assign, Spec	Rose	JRNB	19 (1937)	143
C ₃₄ H ₅₂ ⁰ ₂	Cholestanol-4 β -benzoate	-	sol	Group freq	Jones	JACS	74 (1952)	5648
C ₃₄ H ₅₂ ⁰ ₄	Me H ₁ -3 β -acetoxy- eburico-7,9(11), 24(28)-triene-21-oate	-	-	Ident	Bowers	JCS	- (1953)	2548
C ₃₄ H ₅₂ ⁰ ₄	Oleana-9(11),12-diene- β ,28-diol diacetate	680-3700	sol	Freq, I	Cole	JCS	- (1957)	1332
C ₃₄ H ₅₂ ⁰ ₄	Oleana-11,13(18)-diene- β ,28-diol diacetate	680-3700	sol	Freq, I	Cole	JCS	- (1957)	1332
C ₃₄ H ₅₂ ⁰ ₅	Gummosogenin diacetate	-	sol	Band freq	Djerassi	JACS	76 (1954)	4089
C ₃₄ H ₅₂ ⁰ ₅ ^S	Cholestane- β , β -diol-6-one- β -p-toluene-sulfonate	-	-	Band freq	Reich	JOC	16 (1951)	1753
C ₃₄ H ₅₂ ⁰ ₆	β β :12 α -Diace toxy- β β -hydroxyoleanan-28-oic-13(28)-lactone	1350-1500	sol	Group freq, Ident	Cole	JCS	- (1956)	1007
C ₃₄ H ₅₂ ⁰ ₆	β β ,12 α ,24-Triace toxy- 26,27-bisnorlanosta-8,23-diene	-	sol	Band freq	Halsall	JCS	- (1954)	2385
C ₃₄ H ₅₃ NO ₁₀	Germidine	2-14 μ	s	Freq, I, Struct	Fried Papinean Kupchan Weisenborn	JACS AC JACS JACS	74 (1952) 24 (1952) 76 (1954) 76 (1954)	3041 1918 5545 5543

C ₃₄ H ₅₃ N ₁₀	isogermidine	850-3700	Sol	Spec, Ident	Myers	JACS	77 (1955)	3348
C ₃₄ H ₅₄ O ₄	Lup-20(29)-ene- β -A ₄ -28-diol diacetate	680-3700	Sol	Freq, I	Cole	JCS	- (1957)	1332
C ₃₄ H ₅₄ O ₄	Methyl- β -acetoxyleburico-7,9(11)-diene-21-oate	-	-	Ident	Bowers	JCS	- (1953)	2548
C ₃₄ H ₅₄ O ₄	Methyl- β -acetoxyleburico-7,24(28)-dien-21-oate	-	Sol	Group freq	Holker	JCS	- (1953)	2422
C ₃₄ H ₅₄ O ₄	Methyl-0-acetyleburicoate	-	-	Ident	Cort	JCS	- (1954)	3713
C ₃₄ H ₅₄ O ₄	Olean-9(11)-ene- β ,	680-3700	Sol	Freq, I	Cole	JCS	- (1957)	1332
C ₃₄ H ₅₄ O ₄	Olean-18-ene- β ,	680-3700	Sol	Freq, I	Cole	JCS	- (1957)	1332
C ₃₄ H ₅₄ O ₅	Olean-18-ene- β ,28-diol diacetate	1350-1500	Sol	Assign	Cole	JCS	- (1956)	1007
C ₃₄ H ₅₄ O ₅	β ,28-Diacetoxyleanane-one	3600-3650	Sol	Assign	Cole	JCS	- (1959)	1218
C ₃₄ H ₅₄ O ₆	β ,28-Diacetoxylean-12-en-19 α -ol	3600-3650	Sol	Band study	Barton	JCS	- (1953)	1842
C ₃₄ H ₅₄ O ₆	β ,7 α ,11 α -Triacetoxy-ergost-22-ene	-	Sol	Band study	Barton	JCS	- (1953)	1842
C ₃₄ H ₅₆ O ₄	β ,7 β ,11 α -Triacetoxy-ergost-22-ene	-	S	Group freq	Holker	JCS	- (1953)	2414
C ₃₄ H ₅₆ O ₄	Methyl- β -acetoxyleburic-7-enolate	-	Sol	Band freq	Djerassi	JACS	76 (1954)	2969
C ₃₄ H ₅₈ O ₅	18 β -Oleanane- β A _{13A₂₈-triol-3,28-diacetate}	3600-3650	Sol	Group freq, Ident	Cole	JCS	- (1959)	1218
C ₃₄ H ₆₆ O ₄	Di-n-dodecylsebacate	2-16 μ	Sol	Spec	Stahl	JACS	74 (1952)	5487
C ₃₄ H ₆₈ O ₂	Octadecylpalmitate	710-730	S	Band study	Chapman	JCS	- (1957)	4489

C ₃₄ H ₇₀	11-n-Deoyl tetacosane	1.1-1.25/ μ 3.4-14.7/ μ	L Sol	Group study, Anal Group anal.	Evans Francis	AC AC	23 (1951) 25 (1953)	1604 1466
C ₃₄ H ₇₀	β -Methyltritriacontane	700-1400	Sol	Spec	Stallberg	N	160 (1947)	580
C ₃₄ H ₇₀	4-Methyltritriacontane	700-1400	Sol	Spec	Stallberg	N	160 (1947)	580
C ₃₄ H ₇₀	n-Tetracontane	2.6-3.8/ μ 1470	Sol L,S	Spec, Assign Freq	Fox Stein	PRS JCP	A175 (1940) 22 (1954)	208 1993
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C ₃₅ COMPOUNDS								
C ₃₅ H ₁₈ O ₄	16-Methoxy-17-hydroxy-dibenzanthrone	650-2000	S	Spec, Struct	Durie	AJC	11 (1958)	168
C ₃₅ H ₂₈ O ₃	4,5-Dibenzoyl- β , ⁶ -dimethyl-1,2-diphenyl- β ,6-me thano-7-oxocyclohexene	2-15/ μ	S	Spec	Allen	JOC	20 (1955)	306
C ₃₅ H ₃₀ O ₁₀	β -Methyl-D-glucose tetrabenzoate	8-15/ μ	S	Spec	Kuhn	AC	22 (1950)	276
C ₃₅ H ₃₁ NO ₉	Monohydroxymonopiperidinoerythroporphin-fb	722-7289	S	Table	Brown	JCS	- (1955)	954
C ₃₅ H ₃₄ N ₂ O ₄ S ₂	N,N'-Dibenzyl-N,N'-dibenzene sulfonyldiaminomesitylene	650-4000	S	Iso	Adams	JACS	70 (1948)	4204
C ₃₅ H ₃₅ CIN ₄ O ₅	Chlorocruoroporphyrin-dimethyl ester	670-4000	S	Spec, Assign	Falk	AJSR	4A (1951)	579
C ₃₅ H ₃₆ O ₇	Gossypolmonoisoprene	2-12/ μ	Sol	Spec, Group freq., Struct	O'Connor	JACS	76 (1954)	2368
C ₃₅ H ₃₉ N ₅ O ₄	Ergotinin	-	Sol	Freq	Marion	JACS	73 (1951)	305

$C_{35}H_{40}N_8O_{11}$	3 α -Acetoxy-11,20-diketo-pregnan-21 α -al-20,21-bis-(2,4-dinitrophenylhydrazone)	-	S	Ident	Mattox	JACS	74 (1952)	4340
$C_{35}H_{42}N_2O_9$	Rescinnamine	-	S	Spec Group freq, Struct	Klohs Klohs	JACS JACS	76 (1954) 77 (1955)	2843 2241
$C_{35}H_{42}OSi$	Triphenylsilylundecyl phenyl ether	-	-	Inductive effect	Josien	CPR	249 (1959)	826
$C_{35}H_{42}O_2$	$^{22}\Delta$ -3 α ,9 α -Epoxy-23',23'-diphenylnorchole- none-11	1713	Sol	Freq, Struct anal	Jones	JACS	71 (1949)	241
$C_{35}H_{44}O_3$	3 α ,9 α -Epoxy-23,23'-diphenylnorholanol-23-one-11	1713	Sol	Freq, Struct	Jones	JACS	71 (1949)	241
$C_{35}H_{46}O_6$	Methyl-3 β -benzoyloxy-7,11-dioxo-25,26,27-trisnorlanost-8-en-24-oate	2.5-15 μ	Sol	Struct	Cole	JCS	- (1959)	1212
$C_{35}H_{46}O_5$	Pentaacetylglaucarubin	-	-	Band study	Ham	JACS	76 (1954)	6066
$C_{35}H_{47}N_5O_{11}$	Cevine orthoacetate-2,4-dinitrophenylhydrazone	-	-	Struct, Group freq	Barton	JCS	- (1954)	2137
$C_{35}H_{49}NO_{10}$	Vanillyloylzygadenine	2-13 μ	Sol	Spec Ident	Kupchan Kupchan	JACS JACS	75 (1953) 77 (1955)	1025 755
$C_{35}H_{49}NO_{11}$	Anhydroprotocevine tetraacetate	2-13 μ	Sol	Spec, Ident	Kupchan	JACS	75 (1953)	5519
$C_{35}H_{51}F_3O_{10}$	Digitogenin-2,3-dicathylate -15-trifluoroacetate	-	Sol	Band freq	Klass	JACS	77 (1955)	3829
$C_{35}H_{51}NO_{11}$	Zygadenine tetraacetate	-	Sol	Band freq	Kupchan	JACS	77 (1955)	689
$C_{35}H_{52}O_2$	3β -Benzyl oxyergost-9-ene	-	-	Group freq	Crawshaw	JCS	- (1954)	731

C ₃₅ H ₅₂ O ₅	Lantadene B	-	S, Sol	Group freq, Ident	Barton	JCS	- (1954)	3689
C ₃₅ H ₅₂ O ₅	Rehmannic acid	-	S, Sol	Group freq	Barton	JCS	- (1954)	3689
C ₃₅ H ₅₂ O ₆	Icterojenin	-	-	Struct, Freq	Barton	JCS	- (1954)	887
C ₃₅ H ₅₃ N ₁₀	22,26-Iminojervane-3 β , 16,17,23-tetrol-11-one-3,16,23,N-tetraacetate	-	S	Group freq	Barton	JCS	- (1954)	3689
C ₃₅ H ₅₄ N ₂ O ₂	Cholestan-3-one-2-(p-dimethylamino-phenyl) nitrone	-	Sol	Band freq	Wintersteiner	JACS	76 (1954)	5609
C ₃₅ H ₅₄ O ₃	3 β -Benzoyloxyergostan-11 α -ol	-	Sol	Group freq	Beereboom	JACS	75 (1953)	3500
C ₃₅ H ₅₄ O ₆	Me thyl diacetylcocholate	-	Sol	Band study	Crawshaw	JCS	- (1954)	731
C ₃₅ H ₅₄ O ₆	Me thyl diacetyl-machaerinate	-	-	Ident	Djerassi	JACS	77 (1955)	3579
C ₃₅ H ₅₄ O ₇	Methyl-3 α ,12 α -diacetoxy-24-oxolanost-9-en-26-oate	-	Sol	Band freq	Djerassi	JACS	77 (1955)	1825
C ₃₅ H ₅₄ O ₈ S ₂	22a,5 α -Spirostane-2 α ,3 β -diol-15-one dicathylate ethylene thiolethal	-	Sol	Band freq	Halsall	JCS	- (1954)	2385
C ₃₅ H ₆₄ O ₅	D-1,2-Dipalmitolein	2-15 μ	Sol	Spec, Group freq	Klass	JACS	77 (1955)	3829
C ₃₅ H ₆₈ O ₅	D-1,2-Dipalmitin	2-15 μ	Sol	Spec, Group freq	Hanahan	JACS	76 (1954)	1804
C ₃₅ H ₆₈ O ₅	1,3-Dipalmitin	2-12 μ 0.9-3 μ	Sol Sol	Band study Spec	Hanahan	JACS	76 (1954)	1804
C ₃₅ H ₇₀ O	Stearone	1650-1800 0.9-3 μ 1700	Sol Sol Sol	Group study Spec Freq, I	Goldblatt Holman	JACS	77 (1955) AC 28 (1956)	2477 1533
C ₃₅ H ₇₂	3-Methyltetra-triacontane	700-1400	Sol	Spec	Gross Holman Thompson	TRS AC SA	47 (1951) 28 (1956) 9 (1957)	354 1533 208
					Stallberg	N	160 (1947)	580

C ₃₅ H ₇₂	4-Methyltetra-triacontane	700-1400	Sol	Spec	Stallberg	N	160 (1947)	580
C ₃₅ H ₇₂	5-Methyltetra-triacontane	700-1400	Sol	Spec	Stallberg	N	160 (1947)	580

C₃₆ COMPOUNDS

C ₃₆ H ₂₀ O ₄	16,17-Dimethoxy-dibenzanthrone	650-2000	S	Spec, Group freq	Durie	AJC	10 (1957)	429
C ₃₆ H ₂₀ O ₄	16-Ethoxy-17-hydroxy-dibenzanthrone	650-2000	Sol	Spec, Ident	Durie	AJC	11 (1958)	168
C ₃₆ H ₂₄ C ₄ N ₂ O ₅	N,N,N',N'-Tetrabenzene-sulfonyl-3,3',5,5'-tetra-chlorobenzidine	-	-	Spec	Adams	JACS	74 (1952)	3033
C ₃₆ H ₂₆ N ₂ O ₄ S ₂	Anthracene-1,4-naphthoquinone dibenzene sulfonimide adduct	-	-	Freq	Adams	JACS	74 (1952)	2593
C ₃₆ H ₂₆ O ₁₂	5,5'-Di-C-benzyllellagic acid tetraacetate	5.0-6.15/ μ	S	Struct	Stitt	JACS	81 (1959)	4615
C ₃₆ H ₂₇ C ₁ Si	Tri-2-biphenyl-1-chlorosilane	-	-	Ident	Gilman	JOC	20 (1955)	862
C ₃₆ H ₂₈ O	1-Benzyl-2,3,4,5-tetraphenylcyclopenta-2,4-dien-1-ol	2-15/ μ	Sol	Spec, Group freq	Somtag	JACS	75 (1953)	2283
C ₃₆ H ₂₈ OSi	Tri-2-biphenyl-1-silanol	-	Sol	Group freq	Gilman	JOC	20 (1955)	862
C ₃₆ H ₂₈ Si	Tri-2-biphenylsilane	-	S	Group freq	Gilman	JOC	20 (1955)	862
C ₃₆ H ₃₀ N ₃ B ₃	Hexaphenylborazole	-	S, Sol	Struct	Watnabe	SA	16 (1960)	78

C ₃₆ H ₃₀ O ⁰	4,7-Dimethyl-4,7-me thano-10-oxo-1,2,5,6-te traphenyl 4,7,8,9-te trahydroindene	2-15 μ	S	Group freq	Allen	JOC	20 (1955)	306
C ₃₆ H ₃₀ OSi ₂	Hexaphenyldisiloxane	-	-	Ident	Brook	JACS	76 (1954)	2333
C ₃₆ H ₃₀ Si ₃	Hexaphenylcyclo-trisiloxane	650-1300 2-16 μ 650-1650	Spec Spec Spec	Spec, Group assign	Thompson Young Richards	JCS JACS JCS	- (1947) 70 (1948) - (1949)	289 3758 124
C ₃₆ H ₃₂ O ₄ Si ₃	1,3-Dihydroxyhexa-phenyltrisiloxane	650-1300 500-1650	-	Spec	Thompson Richards	JCS JCS	- (1947) - (1949)	289 124
C ₃₆ H ₃₆	1,4-Di-t-butyl-1,4-dibiphylene-2-butene	-	-	Ident	Fusion	JOC	16 (1951)	21
C ₃₆ H ₃₈ N ₂	Diphenyl ketene-N-n-butylimine dimer	-	-	Freq	Stevens	JACS	76 (1954)	4398
C ₃₆ H ₃₈ N ₄ O ₆	Diacetyldeuterporphyrin dimethyl ester	670-4000	S	Spec, Assign	Falk	AJSR	4A (1951)	579
C ₃₆ H ₄₀	Cyclohexa triaconta-1, δ ,10,12,19,21,28,30-octayne	δ -15 μ	S	Spec	Wolovsky	JACS	81 (1959)	4600
C ₃₆ H ₄₀ N ₂ O ₄	p,p'-Bis(N,N-diethyl-carboxamido)benzopinacol	670-3600	S	Spec, Group freq,	Lynn	JOC	16 (1951)	1546
C ₃₆ H ₄₂ N ₂ O ₆ ·H ₂ SO ₄ ·5H ₂ O	Codeine sulfate pentahydrate	680-5000	S	Spec	Manning	APS	10 (1956)	85
C ₃₆ H ₄₂ N ₂ O ₁₀ P ₂ S ₂	N,N'-Bis-(dibenzyl-phosphoryl)-1-cystine dimethyl ester	δ -15 μ	L,S	Spec, Group freq	Li	JACS	77 (1955)	3519
C ₃₆ H ₄₂ N ₂ O ₄	Mesoporphyrin dimethyl ester	670-4000	S	Spec, Assign	Falk	AJSR	4A (1951)	579

$C_{36}H_{42}N_4O_6$	Haematoporphyrin dimethyl ester	670-4000	S	Spec, Assign	Falk	AJSR	4A (1951)	579
$C_{36}H_{42}O_8$	Gossypol hexamethyl ether (violet, m.p. 146-8°)	2-12 μ	Sol	Spec, Struct, Group freq	O'Connor	JACS	76 (1954)	2368
$C_{36}H_{42}O_6$	Gossypol hexamethyl ether (pale yellow, m.p. 160-2°)	2-12 μ	Sol	Spec, Struct, Group freq	O'Connor	JACS	76 (1954)	2368
$C_{36}H_{42}O_{12}$	Deserpidinediol diacetate ^e	--	S	Assign	Phillamy	JACS	77 (1955)	4335
$C_{36}H_{42}O_{12}$	3-Isodeserpidinediol diacetate	--	S	Assign	Phillamy	JACS	77 (1955)	4335
$C_{36}H_{44}N_2O_9$	N-Allylreserpine	--	S	Band study	Huebner	JACS	76 (1954)	5792
$C_{36}H_{44}O_2$	$\Delta^{23}-3\alpha,9\alpha$ -Epoxy-24, 24'-diphenyl- cholenone-11	1713	Sol	Absorption freq, Struct Group freq	Jones	JACS	71 (1949)	241
$C_{36}H_{46}N_4$	Octaethylporphin	400-4000	S	Spec, H bond	Tarpley	APS	9 (1955)	69
$C_{36}H_{46}O_3$	24,24-Diphenylchol- 23-en-3 α ,12 β -diol- 11-one	--	--	Group freq	Mason	JCS	- (1958)	976
$C_{36}H_{46}O_3$	$3\alpha,9\alpha$ -Epoxy-24,24'- diphenylcholanol- 24-one-11	1713	Sol	Struct, Absorption freq	Jones	JACS	71 (1949)	241
$C_{36}H_{48}N_4$	Octaethylchlorin	400-4000	S, Sol	Spec, H bond	Mason	JCS	- (1958)	976
$C_{36}H_{50}N_2O_6$	$\Delta^{5,24}(28)-Stigmaster-$ dienol- $\beta\alpha$ -3,5- dinitrobenzoate	--	Sol	Group freq	Jones	JACS	74 (1952)	5648
$C_{36}H_{50}N_4$	Octaethyltetrahydro- porphrin	400-4000	S	Spec, H bond	Mason	JCS	- (1958)	976

C ₃₆ H ₅₀ O ₅	$\beta\beta$ -Acetoxy-4 β -benzoyl- Δ^5 -cholestene-7-one	-	-	Ident	Jailer	JACS	74 (1952)	5220
C ₃₆ H ₅₀ O ₅	$\beta\beta$ -Benzoyl-4 β -acetoxyl- Δ^5 -cholestene-7-one	-	-	Ident	Jailer	JACS	74 (1952)	5220
C ₃₆ H ₅₀ O ₈	$\Delta^7,14,22$ -Ergosta-5,6-diene- 3 β ,5 α ,6 α -triol 3,6-diacetate maleic anhydride adduct	-	-	Freq	Cords	JACS	75 (1953)	5416
C ₃₆ H ₅₁ NO ₁₀	Cevadine orthoacetate acetate	-	Sol	Group freq, Struct	Barton	JCS	- (1954)	3950
C ₃₆ H ₅₁ NO ₁₀	Vera trolylgadenine	$\bar{\mu}$ 2-13 μ	Sol Sol	Ident Spec, Ident Ident	Klohs Kupchan Kupchan	JACS	75 (1953) 75 (1953) 77 (1955)	4925 1025 755
C ₃₆ H ₅₂ N ₂ O ₆ S	Hecogenin acetate toluene-p-sulfonyl- hydrazone	-	Sol	Group freq	Elks	JCS	- (1954)	1739
C ₃₆ H ₅₂ O ₂	$\Delta^{5,24(28)}$ -Stigmasta- dienol-3 β -benzoate	-	Sol	Group freq	Jones	JACS	74 (1952)	5648
C ₃₆ H ₅₂ O ₃	$\beta\beta$ -Benzoylory-4,4-dimethyl-15-keto- 8(14)-cholestene	-	-	Group freq	Woodward	JACS	76 (1954)	2852
C ₃₆ H ₅₂ O ₃	Δ^5 -Cholestenol-3 β - benzoyl acetate	-	Sol	Group freq	Jones	JACS	74 (1952)	5648
C ₃₆ H ₅₂ O ₇ S	22a-5 α -Spirostane-3 β , 11 α -diol-3-acetate-11-p-toluenesulfonate	-	Sol	Band freq	Rosenkrantz	JACS	76 (1954)	2227

1838

$C_{36}H_{52}O_8$	Methyl c:d-diketo-polyporenate A a:b-diacetate	-	Sol	Struct	Holsall	JCS	- (1953)	468
$C_{36}H_{53}NO_{10}$	Dihydroevadine ortho-acetate	-	Sol	Group freq	Barton	JCS	- (1954)	3950
$C_{36}H_{55}NO_{11}$	Neogermitrine	$2-14 \mu$	S Sol	Struct, Freq, I Anal	Fried Papinean Kupchan	JACS AC JACS	74 (1952) 24 (1952) 75 (1953)	3041 1918 4641
		-	-	Ident	Klohs	JACS	76 (1954)	1152
		-	-	Ident	Kupchan	JACS	76 (1954)	5545
		-	-	Ident	Kupchan	JACS	77 (1955)	755
$C_{36}H_{56}O_6$	Longispinogenin triacetate	-	Sol	Ident	Djerassi	JACS	76 (1954)	4089
		-	-	Ident	Djerassi	JACS	76 (1954)	5780
		-	-	Ident	Djerassi	JACS	77 (1955)	3579
$C_{36}H_{56}O_6$	Methyl-O-diacyetyl-dehydrodihydrotumulosate	-	Sol	Band freq, Ident	Cort	JCS	- (1954)	3713
$C_{36}H_{56}O_6$	Methyl-O-diacyetyl-tumulosate	-	-	Band freq	Cort	JCS	- (1954)	3713
$C_{36}H_{58}O_4$	Bis (1,3,5-tri-t-butyl-2,5-cyclohexadien-4-one) peroxide	-	Sol	Group freq	Cook	JACS	75 (1953)	6242
$C_{36}H_{58}O_6$	Methyl-O-diacyetyl-dihydrotumulosate	-	-	Freq	Cort	JCS	- (1954)	3713
$C_{36}H_{62}O_6$	Glyceryl triundecylenate	1100-1800	-	Spec	Barnes	IEC	15 (1943)	659
$C_{36}H_{70}O_4$	Distearoyl peroxide	-	Sol	Group freq	Davison	JCS	- (1951)	2456
$C_{36}H_{70}O_4$	Di-n-tridecyl sebacate	$2-16 \mu$	Sol	Spec	Stahl	JACS	74 (1952)	5487
$C_{36}H_{72}N_2O_6S$	Sphingosine sulfate	$2-16 \mu$	Sol	Spec	Mislow	JACS	74 (1952)	5155

$C_{36}H_{72}O_2$	n-Hexatriacontanoic acid	2-15 μ	S	Spec, Quant anal	Meiklejohn	AC	29 (1957)	329
$C_{36}H_{74}$	n-Hexatriacontane	721-732 13.8 μ 700-3000 650-800	L,S S Sol L,S	Band study Spec Ext. coefficient Band freq	Robert Krimm Jones Martin	CPR JCP SA SA	254 (1952) 22 (1954) 9 (1957) 12 (1958)	2270 567 235 12
$C_{36}H_{74}NO_9P$	1- α -(Dimyristoyl) lecithin	2.8-12 μ 2.5-14.5 μ	Sol S	Spec, Group freq, Struct Spec	Baer Marinetto	JACS JACS	75 (1953) 76 (1954)	621 1347
$C_{36}H_{74}S$	Diocadecyl thioether	1100-1400	S	Spec, Band study	Jones	JACS	74 (1952)	2575
$C_{36}H_{74}S_2$	Diocadecyl disulfide	1100-1400	S	Spec, Band study	Jones	JACS	74 (1952)	2575
$C_{36}H_{76}Si$	Di-n-octadecylsilane	2-16 μ	Sol	Group freq	Kriseley	SA	15 (1959)	651
$C_{36}H_{76}Si$	Tri-n-dodecylsilane	2-16 μ	Sol	Group freq	Kriseley	SA	15 (1959)	651
<hr/> <u>C_{37} COMPOUNDS</u> <hr/>								
$C_{37}H_{22}O_4$	16-Methoxy-17-e thoxy-dibenzanthrone	600-2000	L	Spec, Ident	Durie	AJC	11 (1958)	168
$C_{37}H_{28}O$	β , δ -Methano-7-oxo-1,2, 3,5,6-pentaphenyl-cyclohexene	2-15 μ	S	Group freq, Spec	Allen	JOC	20 (1955)	306
$C_{37}H_{30}Si$	Triphenylmethyl- triphenylsilane	-	-	Ident Similarity to Ge compd	Brook Brook	JACS JACS	75 (1953) 76 (1954)	4759 77
$C_{37}H_{30}Si$	p-Triphenylsilylphenyl- diphenylmethane	-	-	Ident	Brook	JACS	75 (1953)	4759
$C_{37}H_{32}Si_2$	Penta phenyl-p-tolyldisilane	-	Sol	Freq, Absorption	Margoshes	AC	27 (1955)	351

$C_{37}H_{48}O_{16}$	Hexaacetylglau-	-	-	Group study	Ham	JACS	76 (1954)	6066
$C_{37}H_{52}O_3$	$\beta\beta$ -Benzoyloxylup-	1350-1500	Sol	Freq	Cole	JCS	(1956)	1007
	20(29)-en-30-ol	680-3700	Sol	Freq, Double bond	Cole	JCS	- (1957)	1332
$C_{37}H_{52}O_4$	$\beta\beta$ -Benzoyloxylanost-	2.5-15 μ	Sol	Struct	Cole	JCS	- (1959)	1212
$C_{37}H_{54}O_2$	Olean-12-en- $\beta\beta$ -y1	1350-1500	Sol	Freq	Cole	JCS	- (1956)	1007
	benzoate	1350-3700	Sol	Freq, I	Cole	JCS	- (1957)	1332
$C_{37}H_{54}O_2$	Olean-18-en- $\beta\beta$ -y1	1350-1500	Sol	Freq, I	Cole	JCS	- (1957)	1332
	benzoate	1350-3700	Sol	Freq, I	Cole	JCS	- (1957)	1332
$C_{37}H_{54}O_2$	Urs-12-en- $\beta\beta$ -y1	1350-1500	Sol	Freq	Cole	JCS	(1956)	1007
	benzoate	1350-3700	Sol	Freq, I	Cole	JCS	- (1957)	1332
$C_{37}H_{54}O_3$	$\beta\beta$ -Benzoyloxy-	1350-1500	Sol	Freq	Cole	JCS	- (1956)	1007
	oleanan-12-one							
$C_{37}H_{54}O_3$	$\beta\beta$ -Benzoyloxy-4 ^a ,	-	-	Group freq	Woodward	JACS	76 (1954)	2852
	14-trimethyl-15-keto-							
	7							
	Δ -cholestene							
$C_{37}H_{54}O_6$	22-(β,β -Dimethyl-	-	Sol	Group freq	Barton	JCS	- (1954)	3689
	acryloyloxy) oleanonic							
	acetic anhydride							
$C_{37}H_{55NO_{12}}$	Triacetylprotover-	-	S,Sol	Spec, Struct	Kupchan	JACS	76 (1954)	5545
	atriidine							
$C_{37}H_{57NO_{10}}$	Germanidine	-	-	Group freq	Klohs	JACS	75 (1953)	4925
$C_{37}H_{59NO_{11}}$	Germerine	β -14 μ	Sol	Freq, I, Struct	Fried PapineauConture	JACS AC	74 (1952) 24 (1952)	3041 1918
$C_{37}H_{59NO_{12}}$	Germbudine	850-3700	Sol	Spec	Myers	JACS	77 (1955)	3348
$C_{37}H_{59NO_{12}}$	Neogermbudine	850-3700	Sol	Spec	Myers	JACS	77 (1955)	3348

$C_{37}H_{67}NO_{13}$	Erythromycin	2.5-12 μ	sol	Spec, Group freq, Struct	Flynn	JACS	76 (1954)	3121
		2.5-12 μ	sol	Spec	Pettinga	JACS	76 (1954)	569
		-	-	Ident	Flynn	JACS	77 (1955)	5104
		-	-	Freq., Anal	Marsh	AC	27 (1955)	636
$C_{37}H_{69}NO_{13}$	Dihydroerythromycin	-	-	Group freq	Wiley	JACS	77 (1955)	3676
$C_{37}H_{74}NO_8P$	L- α -(Dipalmitoyl)-cephalin	2-16 μ	S	Spec, Anal, Band freq	Beer	JACS	74 (1952)	152
$C_{37}H_{76}Si$	Cyclopentamethylene-dihexadecylsilane	2-35 μ	L	Assign	Oshesky	JACS	79 (1957)	2057
C₃₈ COMPOUNDS								
$C_{38}H_{24}O_4$	16,17-Dieithoxy-dibenzanthrone	650-2000	S	Spec, Freq	Durie	AJC	10 (1957)	429
$C_{38}H_{28}O_4$	1-Cyclopentadienyl-tetraphenylcyclopentadien-1-ol maleic anhydride adduct	-	-	Group freq	Schreiber	JACS	76 (1954)	3354
$C_{38}H_{32}O_9S$	Bis-p-phenenylphenacyl-riddellate sulfite	-	S	Group freq	Adams	JACS	75 (1953)	4638
$C_{38}H_{32}O_{12}$	Tetraacetylidihydro-erythroaphin-f _b	-	-	Ident	Brown	JCS	- (1955)	959
$C_{38}H_{34}N_2O_8$	10,10'-Di-(1,2-dimethoxy carbonyl-ethyl)-5,5',10,10'-tetrahydro-5,5'-diacridinylidene	-	S	Ident, Group freq	Acheson	JCS	- (1954)	3240
$C_{38}H_{34}Si_2$	1,1-Di-p-tolyl-1,2,2,2-tetraphenyldisilane	-	sol	Freq, Absorption	Margoshes	AC	27 (1955)	351

1842								
C ₃₈ H ₃₄ Si ₂	1,2-Di-p-tolyl-1,1,2, 2-tetraphenyldisilane	-	Sol	Freq, Absorption	Margoshes	AC	27 (1955)	351
C ₃₈ H ₃₈ O ₂	1,4-Dibenzal-1,4- dimesitoylbutane	-	-	Ident	Fusion	JOC	19 (1954)	1575
C ₃₈ H ₃₈ O ₄	1,4-Dibenzoyl-1,4- dimesitoylbutane	-	-	Ident	Fusion	JOC	19 (1954)	1575
C ₃₈ H ₃₈ O ₁₂	Methylapogossypolone tetraacetate	2-12 μ	Sol	Spec, Struct, Config	Shirley	JACS	77 (1955)	4606
C ₃₈ H ₄₀ N ₂ O ₇	Terlipine	-	Sol	Ident, Spec	Bick	JCS	- (1953)	695
C ₃₈ H ₄₀ O ₂	1,4-Dimesitoyl-2,3- diphenylcyclohexane	-	-	Group freq	Fusion	JACS	77 (1955)	174
C ₃₈ H ₄₀ O ₄	1,2-Diphenyl-1,2- dihydroxy-3,6-dimesi- toylcyclohexane	-	Sol	Iso, Band and Group freq	Fusion	JOC	19 (1954)	1575
C ₃₈ H ₄₆ N ₄ O ₆	Tetramethylhaemato- porphyrin dimethyl ester	670-4000	S	Spec, Assign	Falk	AJSR	4A (1951)	579
C ₃₈ H ₄₇ BrO ₃	12 α -Bromo-24,24- diphenylchol-23-en- 3 α -ol-11-one acetate	-	-	Spec	Hershberg	JACS	74 (1952)	2585
C ₃₈ H ₄₈ O ₃	²⁵ Δ -24,24-Diphenyl- cholenol-3 α -one-11- acetate	-	S,Sol	Group freq	Tarpley	APS	9 (1955)	69
C ₃₈ H ₄₈ O ₄	24,24-Diphenylchol-23- en-3 β ,12 β -diol-11-one acetate	-	-S,Sol	Spec Group freq	Hershberg Tarpley	JACS APS	74 (1952) 9 (1955)	2585 69
C ₃₈ H ₅₀ O ₂	²³ Δ -3 α -Acetoxy-24,24'- diphenylcholene	-	Sol	Group freq	Jones	JACS	72 (1950)	956

C ₃₈ H ₅₂ O ₃	Cholesteryl-1-naphthylcarbonate	5.70-10.60 μ Sol	Table	Tsou	JACS	76 (1954)	6108
C ₃₈ H ₅₂ O ₃	Cholesteryl-2-naphthylcarbonate	-	Sol	Band freq	JACS	76 (1954)	6108
C ₃₈ H ₅₃ NO ₂	Cholesterol- α -naphthylurethan	-	S	Group freq	Werbin	JACS	77 (1955) 4431
C ₃₈ H ₅₃ NO ₁₁	Anhydrocevadine triacetate	2-13 μ	Sol	Spec	Kupchan	JACS	75 (1953) 5519
C ₃₈ H ₅₃ NO ₁₁	Cevadine orthoacetate diacetate	2-13 μ	Sol Sol	Group freq, Struct Spec, Group freq, Struct	Barton Kupchan	JCS JACS	- (1954) 77 (1955) 3950 686
C ₃₈ H ₅₄ O ₃	Cholestanyl-2-naphthyl-carbonate	-	Sol	Band freq	Tsou	JACS	76 (1954) 6108
C ₃₈ H ₅₄ O ₄	Methyl- β -benzoyloxy olean-18-en-28-oate	1350-1500 1350-3700	Sol Sol	Assign Freq, I	Cole Cole	JCS JCS	- (1956) - (1957) 1007 1332
C ₃₈ H ₅₅ NO ₂	β -Cholestanol- α -naphthylurethan	-	S	Group freq, I, Ext. coefficient	Werbin	JACS	77 (1955) 4431
C ₃₈ H ₅₇ NO ₁₂	Monoacetylneo-germitrine	-	S, Sol S	Spec Ident	Kupchan Weisenborn	JACS JACS	76 (1954) 76 (1954) 5545 5543
C ₃₈ H ₆₀ O ₁₈	Stevioside	-	-	Group freq	Wood	JOC	20 (1955) 875
C ₃₈ H ₆₄ O ₄	Methyl- β -elaeo-stearate dimer	-	-	Group freq	Clingman	JCS	- (1954) 1088
C ₃₈ H ₆₅ N ₁₅ O ₁₆ · 6HCl	Roseothricin hydrochloride salt A	600-4000	S	Spec, Struct	Goto	BCSJ	30 (1957) 729
C ₃₈ H ₇₂ O ₇	β -Lactyl- α , γ -dipalmitin	2-12 μ	Sol	Band freq	Goldblatt	JACS	77 (1955) 2477
C ₃₈ H ₇₄ O ₄	Di-n-tetradecyl sebacate	2-16 μ	Sol	Spec	Stahl	JACS	74 (1952) 5487

$C_{38}H_{98}O_5Si_{10}$ Eicosamethyl-3,10,17,
24,31-pentaoxa-2,4,9,
11,16,18,23,25,30,32-
decasilatritriacontane

- - Group freq
JACS 77 (1955) 2482

C_{39} COMPOUNDS

C_{39} COMPOUNDS									
$C_{39}H_{31}N_0O_{20}$	Tri-p-nitrobenzoyl- asperuloside	-	S	Group freq	Briggs	JCS	-	(1954)	4182
$C_{39}H_{34}O_{14}$	Tribenzoyleasperuloside	-	S	Group freq	Briggs	JCS	-	(1954)	4182
$C_{39}H_{36}Si_2$	1,1,1-Triphenyl-2,2,2- tri-p-tolyldisilane	-	SoI	Group freq	Margoshes	AC	27 (1955)	351	
$C_{39}H_{36}Si_2$	1,1,2-Triphenyl-1,2,2- tri-p-tolyldisilane	-	SoI	Group freq	Margoshes	AC	27 (1955)	351	
$C_{39}H_{48}O_3$	(7-p-7-p-7-p) Cyclo- phantrione-1,14,27	-	SoI	Group freq	Schubert	JACS	76 (1954)	5462	
$C_{39}H_{54}$	2-Diphenylmethylen- A-norcholestane	-	S	Band freq	Smith	JACS	76 (1954)	6119	
$C_{39}H_{54}$	3-Diphenylmethylene- A-norcholestane	-	S	Band freq	Smith	JACS	76 (1954)	6119	
$C_{39}H_{54}N_0O_{12}$	22a,5 α -Spirostane-2 α , 3 β -diol-15-one dicathylate-2,4- dinitrophenylhydrazone	-	SoI	Band freq	Klass	JACS	77 (1955)	3829	
$C_{39}H_{54}N_0O_{12}$	22a,5 α -isospirostane-2 α , 3 β -diol-15-one dicathy- late-2,4-dinitrophenyl- hydrazone	-	SoI	Band freq	Klass	JACS	77 (1955)	3829	
$C_{39}H_{57}NO_{11}$	Germinitrine	-	-	Band freq	Klohs	JACS	75 (1953)	4925	
						JACS	75 (1953)	4925	

$C_{39}H_{59}NO_{11}$	Germanitrine	-	-	Band freq	Klohs	JACS 75 (1953)	4925
$C_{39}H_{61}NO_{12}$	Germitrine	2-14 μ - Sol	Freq, I Anal	Fried Papinean	JACS AC 74 (1952) 24 (1952)	3041 1918	
$C_{39}H_{61}NO_{14}$	De sace tylneo- protoveratrine	900-5700 -	Ident Spec, Ident	Klohs Myers	JACS 75 (1953) JACS 77 (1955)	3595 3348	
$C_{39}H_{74}O_6$	Trilaurin	650-4000 720	Spec, Anal Band study	Chapman Chapman	JCS - (1956) JCS - (1957)	2522 4489	
$C_{39}H_{76}O_5$	1;2-Distearin (A,B,C)	670-5500	S,L Struct	Chapman	JCS - (1958)	4680	
$C_{39}H_{76}O_5$	1:3-Distearin (D)	700-3500	S,L Struct	Chapman	JCS - (1958)	4680	
$C_{39}H_{76}O_5$	Glyceryl distearate	-	-	Gray	JPC 53 (1949)	23	
$C_{39}H_{77}O_9^P$	α,β -Distearoyl- α - glyceryldihydrogen- phosphate	-	Assign, Table	Bellamy	JCS - (1953)	728	

C_{40} COMPOUNDS

$C_{40}H_{28}NO_4$	O-Quinonedibenzimidole dimer	-	-	Band freq	Adams	JACS 76 (1954)	2763
$C_{40}H_{29}ClO$	10-Chloro-4,7-methano- 3,5,6,8,10-pentaphenyl- 4,7,8,9-te trahydroindene none	-	S	Group freq, Struct	Allen	JOC 20 (1955)	310
$C_{40}H_{30}$	1,2-Dibenzylyl-1,2- dibiphenylenethane	-	-	Ident	Fusion	JOC 16 (1951)	21
$C_{40}H_{30}O_2$	4,7-Methano-3,5,6,8, 10-pentaphenyl-4,7, 8,9-te trahydroinden- 10-one	-	S	Struct, Band freq	Allen	JOC 20 (1955)	310

C ₄₀ H ₃₈ Br ₂ O ₈ H ₂ O	Dibromopiperidinoerythroaphin-fb hydrate	665-1629	S	Table	Brown	JCS	- (1955)	954
C ₄₀ H ₃₈ N ₄ O ₁₆	Uroporphyrin I octa-carboxylic acid	670-4000	S	Spec, Assign	Falk	AJSR	4A (1951)	579
C ₄₀ H ₃₈ Si ₂	1,1-Diphenyl-1,2,2,2-tetra-p-tolyldisilane	-	Sol	Group freq	Margoshes	AC	27 (1955)	351
C ₄₀ H ₃₈ Si ₂	1,2-Diphenyl-1,1,2,2-tetra-p-tolyldisilane	-	Sol	Group freq	Margoshes	AC	27 (1955)	351
C ₄₀ H ₄₀	Cyclotetraconta-1,3,9,11,17,19,25,27,33,35-decayne	3-15 μ	S	Spec	Wolovsky	JACS	81 (1959)	4600
C ₄₀ H ₄₀ N ₂ O ₈	Dipiperidinoerythroaphin-fb	738-1631	S	Table, Ident	Brown	JCS	- (1955)	954
C ₄₀ H ₄₆ N ₄ O ₈	Coproporphyrin I tetramethyl ester (α & β)	670-4000	S	Spec, Assign	Falk	AJSR	4A (1951)	579
C ₄₀ H ₄₆ N ₄ O ₈	Coproporphyrin III tetramethyl ester	670-4000	S	Spec, Assign	Falk	AJSR	4A (1951)	579
C ₄₀ H ₄₈	Cyclotetraconta-1,3,11,13,21,23,31,33-octayne	3-15 μ	S	Spec	Wolovsky	JACS	81 (1959)	4600
C ₄₀ H ₄₈	Renieratene	2-15 μ	S	Spec, Anal	Yamaguchi	BCSJ	30 (1957)	979
C ₄₀ H ₄₈ N ₄ O ₄ H ₂ SO ₄ ·2H ₂ O	Quinine sulphate dihydrate	650-5000	S	Spec	Manning	APS	10 (1956)	85
C ₄₀ H ₅₂ O ₂₇	α -Cellotriose Hendecaacetate	8-15 μ	S	Spec	Kuhn	AC	22 (1950)	276
C ₄₀ H ₅₄	Dehydrocarotene-I	-	-	Group study	Karmaker	JACS	77 (1955)	55

C ₄₀ H ₅₆	α -Carotene (all trans)	6.8-14 μ	sol	Spec, Band freq	Lunde	JACS	77 (1955)	1647
	neo- α -Carotene B	6.8-14 μ	sol	Spec, Band freq	Lunde	JACS	77 (1955)	1647
C ₄₀ H ₅₆	neo- α -Carotene U	6.8-14 μ	s,sol	Spec, Band freq	Lunde	JACS	77 (1955)	1647
C ₄₀ H ₅₆	β -Carotene	1-14 μ	L	Spec	Stair	JRN	11 (1933)	703
		—	—	Quant mech.	Mulliken	JCP	7 (1939)	364
		1-14 μ	—	Data	Arouoff	CR	47 (1950)	175
C ₄₀ H ₅₆	β -Carotene (central mono-cis)	6.5-14 μ	sol	Spec, Band freq	Lunde	JACS	77 (1955)	1647
C ₄₀ H ₅₆	β -Carotene (all- trans)	2-15 μ	sol	Spec, Group freq	Lunde	JACS	77 (1955)	1647
C ₄₀ H ₅₆	neo- β -Carotene B	6.8-14 μ	sol	Spec, Band freq	Lunde	JACS	77 (1955)	1647
C ₄₀ H ₅₆	neo- β -Carotene U	6.5-14 μ	sol	Spec, Band freq	Lunde	JACS	77 (1955)	1647
C ₄₀ H ₅₆	γ -Carotene (all-trans)	6.8-14 μ	sol	Spec, Band freq	Lunde	JACS	77 (1955)	1647
C ₄₀ H ₅₆	neo- γ -Carotene P	6.8-14 μ	sol	Spec, Band freq	Lunde	JACS	77 (1955)	1647
C ₄₀ H ₅₆	pro- γ -Carotene	6.8-14 μ	sol	Spec, Band freq	Lunde	JACS	77 (1955)	1647
C ₄₀ H ₅₆	Lycopene (all-trans)	6.8-14 μ	sol	Spec, Band freq	Lunde	JACS	77 (1955)	1647
C ₄₀ H ₅₆	neo-Lycopene A	6.8-14 μ	sol	Spec, Band freq	Lunde	JACS	77 (1955)	1647
C ₄₀ H ₅₆	Prolycopene	6.8-14 μ	sol	Spec, Band freq	Lunde	JACS	77 (1955)	1647
C ₄₀ H ₅₆ ⁰ ₂	Zeaxanthin (all-trans)	6.8-14 μ	s,sol	Spec, Band freq	Lunde	JACS	77 (1955)	1647
C ₄₀ H ₅₆ ⁰ ₂	neozeaxanthin A	6.8-14 μ	s,sol	Spec, Band freq	Lunde	JACS	77 (1955)	1647
C ₄₀ H ₅₆ ⁰ ₂	neozeaxanthin B	6.8-14 μ	s,sol	Spec, Band freq	Lunde	JACS	77 (1955)	1647
C ₄₀ H ₅₆ ⁰ ₂	Xanthophyll	1.3-14.2 μ	L	Freq	Stair	PR	33 (1929)	1092
		1-14 μ	L	Spec	Stair	JRN	11 (1933)	703

C ₄₀ H ₆₀ O ₁₂	Methyl polyacetyl-glucosiduronate of △-Cholestadiene-3,5 -ol	650-3700	L,S	Spec, Assign	Smakula	JACS	81 (1959)	1708
C ₄₀ H ₇₄ O ₅	Diethylene glycol oleate	2-15μ	L	Spec	Kendall	APS	7 (1953)	179
C ₄₀ H ₇₈ NO ₉ P	(Dipalmitoyl)-L- α-lecithin	2-15μ	Sol	Spec	Hanahan	JACS	74 (1952)	5070
C ₄₀ H ₇₈ O ₄	Di-n-pentadecyl sebacate	2-16μ	Sol	Spec	Stahl	JACS	74 (1952)	5487
C ₄₀ H ₈₂ NO ₉ P	(Dipalmitoyl)-L-α- lecithin	2-15μ 2.8-12μ	Sol Sol	Spec, Spec, Group freq, Assign	Hanahan Baer	JACS JACS	74 (1952) 75 (1953)	5070 621
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<u>C₄₁ COMPOUNDS</u>								
C ₄₁ H ₂₆ O ₂	Triptycyl triptoate	2-12μ	Sol	Spec, Struct	Bartlett	JACS	76 (1954)	1088
C ₄₁ H ₃₂ O ₂	4,7-Methano-10-me thoxy- 3,5,6,8,10-penta phenyl- 4,7,8,9-tetrahydro- indanone	-	S	Struct	Allen	JOC	20 (1955)	310
C ₄₁ H ₄₀ Si ₂	Penta-p-tolylphenyl- disilane	-	Sol	Freq	Margosses	AC	27 (1955)	351
C ₄₁ H ₄₇ NO ₁₇	Wilforzine	-	S,Sol	Iso	Beroza	JACS	75 (1953)	2136
C ₄₁ H ₄₇ NO ₁₉	Wilforgine	2-16μ	S,Sol	Spec, Band freq	Beroza	JACS	74 (1952)	1585
C ₄₁ H ₄₇ NO ₂₀	Wilfortrine	2-16μ	S,Sol	Spec, Band freq	Beroza	JACS	74 (1952)	1585
C ₄₁ H ₄₈ N ₀ 13	Pseudosmilaginin di-3,5-dinitro- benzoate	660-5000	S,Sol Sol	Spec, Group freq Group freq	Hayden Scheer	AC JACS	26 (1954) 77 (1955)	550 641

$C_{41}H_{48}N_4O_{13}$	Pseudosarsasapogenin di- β ,5-dinitrobenzoate	660-5000	S, Sol Sol	Spec, Group freq Group freq	Hayden Scheer	AC JACS	26 (1954) 77 (1955)	550 641
$C_{41}H_{54}O_4$	$\Delta^{(14)}$ -Cholesten- β , 7 α -diol dibenzoate	-	Sol	Freq	Fleiser	JACS	75 (1955)	4404
$C_{41}H_{54}O_5$	Dihydropsudosarsasa- pogenin dibenzoate	-	-	Iso	Scheer	JACS	77 (1955)	641
$C_{41}H_{54}O_5$	Dihydropsudosmilagenin dibenzoate	-	Sol	Iso	Scheer	JACS	77 (1955)	641
$C_{41}H_{56}N_4O_8$	Lantadene B 2,4-dinitro- phenylhydrazone	-	Sol	Band freq	Barton	JCS	- (1954)	3689
$C_{41}H_{56}N_4O_8$	Rehmannic acid 2,4- dinitrophenylhydrazone	-	Sol	Band freq	Barton	JCS	- (1954)	3689
$C_{41}H_{61}NO_{13}$	Escholericine	-	-	Group freq	Klohs	JACS	76 (1954)	1152
$C_{41}H_{63}NO_{14}$	Protoveratrine A	2-14/ μ 2-13/ μ -	Sol Sol Sol	Struct Spec Analysis	Fried Klohs Coutureg	JACS JACS AC	74 (1952) 74 (1952) 24 (1952)	3041 5107 1918
$C_{41}H_{63}NO_{15}$	Neoprotoveratrine	2-13/ μ 800-3700	Sol Sol	Spec Spec, Ident	Klohs Myers	JACS JACS	74 (1952) 77 (1955)	5107 3348
$C_{41}H_{82}NO_8P$	L- α -(distearoyl)- Cephalin	2-16/ μ	S	Spec, Anal, Band freq	Baer	JACS	74 (1952)	152
$C_{41}H_{84}Si$	Cyclopentamethylene- dioctyldecylsilane	2-35/ μ	L	Assign	Oshesky	JACS	79 (1957)	2057
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<hr/> C_{42} COMPOUNDS								
$C_{42}H_{24}O_{12}$	Hexasalicylide	1700-1800	S	Group freq	Short	JCS	- (1952)	206
$C_{42}H_{26}O_3$	Triptocic anhydride	2-12/ μ	Sol	Spec, Struct	Bartlett	JACS	76 (1954)	1088

$C_{42}H_{26}O_4$	Ditriptyoyl peroxide	2-12 μ	Sol	Spec, Struct	Bartlett	JACS 76 (1954) 1088
$C_{42}H_{30}Cl_2$	1,4-Di-(p-chlorobenzyl)-1,4-dibiphenylene-2-butene	-	Sol	Band study	Lavie	JOC 18 (1953) 367
$C_{42}H_{30}O_8$	Ellagorubin	5.0-6.15 μ	S	Struct	Stitt	JACS 81 (1959) 4615
$C_{42}H_{30}O_8$	O-Tetrabenzyllellagic acid	5.0-6.15 μ	S	Struct	Stitt	JACS 81 (1959) 4615
$C_{42}H_{32}$	1,4-Dibenzyl-1,4-dibiphenylene-2-butene (trans)	-	-	Freq	Lavie	JOC 18 (1953) 367
$C_{42}H_{32}Cl_2$	1,4-Di-(p-Chlorobenzyl)-1,4-dibiphenylenebutane	-	Sol	Freq	Lavie	JOC 18 (1953) 367
$C_{42}H_{34}$	1,4-Dibenzyl-1,4-dibiphenylenebutane	-	-	Group freq	Lavie	JOC 18 (1953) 367
$C_{42}H_{42}N_0O_6 \cdot 2C_2H_5OH$	Gossypoldiphenylhydrazone	2-12 μ	Sol	Spec, Group freq, Struct	O'Connor	JACS 76 (1954) 2368
$C_{42}H_{42}O_{14}$	Gossypol hexaacetate (white)	2-12 μ	Sol	Spec, Group freq, Struct	O'Connor	JACS 76 (1954) 2368
$C_{42}H_{42}O_{14}$	Gossypol hexaacetate (yellow)	2-12 μ	Sol	Spec, Group freq, Struct	O'Connor	JACS 76 (1954) 2368
$C_{42}H_{42}Si_2$	Hexa-p-tolyldisilane	-	Sol	Freq	Margoshes	AC 27 (1955) 351
$C_{42}H_{44}N_2O_8 \cdot C_5H_5N$	Biscyclohexylamino-erythrophan-fb	825-1631	S	Ident	Brown	JCS - (1955) 954
$C_{42}H_{46}O_{12}$	Methylapogossypol hexaacetate	2-12 μ	Sol	Spec, Struct	Shirley	JACS 77 (1955) 4606
$C_{42}H_{67}NO_{16}$	Megnamycin	2-11 μ	Sol	Spec, Struct	Wagner	JACS 75 (1953) 4684

$C_{42}H_{78}O_4$	Diphytyl oxalate	-	L	Band freq	Hirschmann	JACS	76 (1954)	4592
$C_{42}H_{82}O_4$	Di-n-hexadecyl-sebacate	$2\text{-}16/\mu$	Sol	Spec	Stahl	JACS	74 (1952)	5487

C₄₃ COMPOUNDS

$C_{43}H_{30}NO_1S$	Methyl- β , β -dimeethyl-9-oxo-5-phenyl-6,8-diphenylimido-7-(phthalimidooacetoxy)-4-thia-1-azabicyclo[3.4.0]-7-nonene-2-carboxylate	$2\text{-}11/\mu$	Sol	Spec, Band freq	Sheehan	JACS	73 (1951)	4373
$C_{43}H_{48}O_7$	$2\beta,8\beta,11\alpha$ -Tribenzoyloxy-lanalone	-	Sol	Band study	Barnes	JCS	- (1953)	571
$C_{43}H_{48}O_7$	$3\beta,7\beta,11\alpha$ -Tribenzoyloxy-4,14-trimethyl-5 α -androstan-17-one	$2.5\text{-}15/\mu$	Sol	Struct	Cole	JCS	- (1959)	1212
$C_{43}H_{49}NO_{18}$	Wilforine	$2\text{-}16/\mu$ -	S,Sol S,Sol	Spec, Band study Comparison	Beroza Beroza	JACS JACS	73 (1951) 75 (1953)	3656 2136
$C_{43}H_{49}NO_{19}$	Wilfordine	$2\text{-}16/\mu$	S,Sol	Spec, Band study	Beroza	JACS	73 (1951)	3656
$C_{43}H_{61}Cl_3O_4$	$5,16$ -Pregnadien- $\beta\beta$ -ol 20-one 2:1 chloroform adduct	-	-	Freq	Cordes	JACS	75 (1953)	5416
$C_{43}H_{66}N_{12}O_{12}S_2$	Oxytocin	-	-	Ident	duVigneaud	JACS	75 (1953)	4879

C₄₄ COMPOUNDS

$C_{44}H_{26}Cl_4N_4$	Tetra-(<i>p</i> -chlorophenyl)porphine	600-3500	S	Assign	Thomas	JACS	78 (1956)	1358
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C ₄₄ H ₂₆ N ₈ O ₈	Tetra-(p-nitro-phenyl) porphine	600-3500	S	Assign	Thomas	JACS	78 (1956)	1338
C ₄₄ H ₃₀ N ₄	Tetraphenylporphine	600-3500	S	Assign	Thomas	JACS	78 (1956)	1338
C ₄₄ H ₃₀ N ₄	meso-Tetraphenyl-porphine	400-4000	S,Sol	Spec, H bond	Mason	JCS	- (1958)	976
C ₄₄ H ₃₀ O ₄	1,2-Di-9'-(bis-10'-benzoyloxy)-anthranylethane	3-15μ	S	Spec, Group freq	Roitt	JCS	- (1952)	2695
C ₄₄ H ₃₀ O ₁₀	cis-trans-Dibenzoyl-erythroapphin-sl	696-1754	S	Group freq	Brown	JCS	- (1955)	959
C ₄₄ H ₃₄ O ₈	O-Dimethyllellagorubin	5-6.15μ	S	Struct	Stitt	JACS	- (1955)	1144
C ₄₄ H ₃₆	5-Benzyl-5-phenylethyl-1,2,3,4-tetraphenyl-cyclopentadiene	-	-	Group freq, Ident	Fusion	JOC	81 (1959)	4615
C ₄₄ H ₃₈ F ₃₅ N ₃ O ₁₀	Heptafluorobutyric acid-N,N-dimethyl-aniline	-	-	Freq	Hauptchein	JACS	18 (1953)	570
C ₄₄ H ₅₀ O ₂	1,6-Diduryl-2,5-dimesityl-2,4-hexadiene-16-dione	-	-	Group freq	Fusion	JACS	73 (1951)	5139
C ₄₄ H ₅₂ O ₂	1,6-Diduryl-2,5-dimesityl-1,3,5-hexatriene-1,6-diol	-	-	Group freq	Fusion	JACS	75 (1953)	1494
C ₄₄ H ₅₄ O ₆	Dumortierigenin dibenzoate	-	Sol	Band freq	Djerassi	JACS	76 (1954)	2969
C ₄₄ H ₅₆ O ₂₀	Methyl polyacetylglucosiduronate of Δ ^{1,3,5} -estratriene-3, 17β-diol	650-3700	S	Spec, Assign	Smakula	JACS	81 (1959)	1708

C ₄₄ H ₈₆ O ₄	Di-n-heptadecyl- sebacate	2-16 μ	sol	Spec	Stahl	JACS	74 (1952)	5487
C ₄₄ H ₉₀ NO ₉ P	L- α -(Distearoyl)- lecithin	2.8-12 μ	sol	Spec, Group freq	Baer	JACS	75 (1953)	621
<hr/>								
C ₄₅ COMPOUNDS								
C ₄₅ H ₅₂ N ₄ O ₈ S ₄	Bis-(1,4-naphthoquinone- dibenzenesulfonimido- 2)-methane	-	-	Group study	Adams	JACS	74 (1952)	5557
C ₄₅ H ₅₂ O ₄	2-Oxo-1,1,3,3,5,6- hexaphenylindan	-	s	Spec, Struct	Allen	JOC	20 (1955)	315
C ₄₅ H ₅₅ N ₅ O ₁₀ S ₄	Bis-(1,4-naphthalene- dibenzenesulfonamido- 2)-nitrothane	-	-	Group study	Adams	JACS	74 (1952)	5557
C ₄₅ H ₅₆ N ₄ O ₈ S ₄	Bis-(1,4-naphthalene- dibenzenesulfonamido- 2)-methane	-	-	Group study	Adams	JACS	74 (1952)	5557
C ₄₅ H ₄₂ O ₁₀ S ₂	D-Glucose diethyl- mercaptal pentabenzooate	8-15 μ	s	Spec	Kuhn	AC	22 (1950)	276
C ₄₅ H ₅₀	Cyclopentate traconta-1, 3,10,12,19,21,28,30,37, 39-decayne	3-15 μ	s	Spec	Wolovsky	JACS	81 (1959)	4600
C ₄₅ H ₇₀ N ₂ O ₄ S ₂	N,N'-Didodecyl-N,N'- dibenzenesulfonyl-N- diaminomesitylene	650-4000 650-3900	s -	Melting point Spec, Iso	Adams Adams	JACS JACS	62 (1940) 70 (1948)	732 4204
C ₄₅ H ₇₄ O ₁₇	Sarsasaponin	840-1000	s	Spec, Band freq	Rothman	JACS	74 (1952)	4013
C ₄₅ H ₇₈ O ₇	O-Benzyl- β -lactyl- α , γ -dipalmitin	2-12 μ	sol	Band freq	Goldblatt	JACS	77 (1955)	2477

1854							
C ₄₅ H ₈₆ O ₆	Trimyristin	2-16 μ -	Sol Sol	Quant anal Spec Anal	Shreve Shreve Swern	AC AC JAOC	22 (1950) 22 (1950) 27 (1950)
							1261 1498 17
<hr/> C₄₆ COMPOUNDS <hr/>							
C ₄₆ H ₃₄ O ₁₀	Ellagorubin diacetate	5.0-15 μ	S	Struct	Stitt	JACS	81 (1959) 4615
C ₄₆ H ₇₅ NO ₁₇	Gandidin	700-4000	S	Spec, Struct	Vining	CJC	34 (1956) 1163
C ₄₆ H ₈₉ N ₂ PS	N,N-Di-n-decylo- benzenethiolo- phosphonic diamide	2-12 μ	S	Spec, Anal	Daasch	AC	23 (1951) 853
C ₄₆ H ₉₀ O ₄	Di-n-octadecyl- sebacate	2-16 μ	Sol	Spec	Stahl	JACS	74 (1952) 5487
<hr/> C₄₇ COMPOUNDS <hr/>							
C ₄₇ H ₆₆ O ₂₂	Methylpolyacetyl- glucosiduronate of allopregnane- β ,17 α ,21-triol- 20-one	650-3700	S	Spec, Assign	Smakula	JACS	81 (1959) 1708
C ₄₇ H ₇₆ O ₁₈	Sarsasaponin acetate	840-1000	Sol	Spec	Rothman	JACS	74 (1952) 4013
C ₄₇ H ₇₉ N ₂ O ₇ P	α , α' -Dipalmitoyl- β - glyceryl-N,N-diphenyl- phosphordiamide	-	-	Assign	Bellamy	JCS	- (1953) 728

C₄₈ COMPOUNDS

C ₄₈ H ₃₄	m-Octa-phenyl	5-38 μ	S	Spec., Freq., Assign	Stewart	JRNB	60 (1958)	125
C ₄₈ H ₃₄ O ₁₂	Hexa-m-cresotide	1700-1800	S	Group freq	Short	JCS	- (1952)	206
C ₄₈ H ₃₄ N ₄	Tetra-p-tolyl-porphine	600-3500	S	Assign	Thomas	JACS	78 (1956)	1338
C ₄₈ H ₃₈ N ₄ O ₄	Tetra-(p-methoxy-phenyl) porphine	600-3500	S	Assign	Thomas	JACS	78 (1956)	1338
C ₄₈ H ₄₀ O ₄ Si ₄	Octaphenylcyclo-tetrasiloxane	650-1300 2-16 μ 500-1650	- Sol S	Spec. Spec. Spec., Assign	Thompson Young Richards	JCS JACS JCS	- (1947) (1948) (1949)	289 3758 124
C ₄₈ H ₅₄ N ₄ O ₁₆	Uroporphyrin I octamethyl ester (α and β)	670-4000	S	Spec., Assign Ident	Falk MacDonald	AJSR JACS	4A (1951) 75 (1953)	579 3040
C ₄₈ H ₅₄ N ₄ O ₁₆	Uroporphyrin III octamethyl ester (β)	670-4000	S	Spec., Assign	Falk	AJSR	4A (1951)	579
C ₄₈ H ₉₃ NO ₉ ·H ₂ O	Cerebrin	2-16 μ	S	Spec.	Mislow	JACS	74 (1952)	5155
C ₄₈ H ₁₀₂ N ₃ O ₆ F ₃	n-Octyl phosphonitrilate	2-21 μ	L	Spec., Anal	Daasch	AC	23 (1951)	853

C₄₉ COMPOUNDS

C ₄₉ H ₃₆ O ₈	3,3',4-Tri-O-benzyl-5,5'-di-C-ellagic acid	5.0-6.15 μ	S	Struct	Stitt	JACS	81 (1959)	4615
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<u>C₅₀ COMPOUNDS</u>					
C ₅₀ H ₃₂ O ₁₁	2',3',3',4',4'-Penta-benzoxybenzal-acetophenone	1550-4000	S	Group freq	Hergert
C ₅₀ H ₃₉ N	ρ , ρ' -Di-trityl diphenylamine	2.9 μ	-	Ident	Craig
C ₅₀ H ₇₀ O ₈	Bis (methyl-3 β -acetoxysnor-choladiene)	-	Sol	Group freq	Mosetting

C₅₁ COMPOUNDS

<u>C₅₁ COMPOUNDS</u>					
C ₅₁ H ₃₈ O ₉	3,3',4-Tri-O-benzyl-5,5'-di-C-benzyl-ellagic acid acetate	5.0-6.15 μ	S	Struct	Stitt
C ₅₁ H ₈₅ O ₉ ^P	α , β -Distearoyl- α' -glyceryl diphenyl phosphate	670-3500	-	Assign, Spec	Bellamy
C ₅₁ H ₉₈ O ₆	Tripalmitin	1100-1800 650-3500 0.9-3 μ 720	- S, _L Sol S	Spec Spec, Struct Spec Band study	Barnes Chapman Holman Chapman

C₅₂ COMPOUNDS

<u>C₅₂ COMPOUNDS</u>					
C ₅₂ H ₃₄ O ₂	9,10-Diphenylanthracene-photooxide	850-1300	-	Freq	Nikitin
C ₅₂ H ₇₀ O ₅	α -Cellotetraose tetradecaacetate	8-15 μ	S	Spec	Kuhn

$C_{52}H_{77}NO$	17	O,N-Dicarbobenzydrydes-N-methylerythromycin	-	-	Freq	Flynn	JACS	77 (1955)	3104
$C_{52}H_{102}O_6$		1-Stearodipalmitin	720	S	Band study	Chapman	JCS	- (1957)	4489
<hr/> C_{54} COMPOUNDS <hr/>									
$C_{54}H_{86}$		α -Cholesterylene	600-3600	-	Spec	Owades	JACS	73 (1951)	4223
$C_{54}H_{90}O$		$2\alpha-(\Delta^2-\text{Cholesten}-3-\beta-\text{y}1)-\text{cholestan}-3-\beta-\text{one}$	-	-	Group freq	Corey	JACS	77 (1955)	1672
$C_{54}H_{90}O$		Dicholesteryl ether	-	-	Ident	Tsou	JACS	76 (1954)	6108
$C_{54}H_{90}O_2$		Epicholesterol- Δ^4 -cholesten-3-one complex	-	Sol	Band freq, Ident	Fieser	JACS	75 (1953)	4377
$C_{54}H_{90}O_3$		Epicholesterol- Δ^4 -cholesten- $\delta\beta$ -ol-3-one complex	-	S	Bonding study	Fieser	JACS	75 (1953)	4377
$C_{54}H_{92}O_2$		Cholestanoneepicholesterol complex	-	S,Sol	Group freq, Band freq	Fieser	JACS	75 (1953)	4377
$C_{54}H_{110}$		n-Tetrapentacontane	1470	L,S	Freq	Stein	JCP	22 (1954)	1993
<hr/> C_{55} COMPOUNDS <hr/>									
$C_{55}H_{74}NO_5$		Phoophytin	$1-14/\mu$ $1-14/\mu$ 630-3500	L - S,Sol	Spec Spec Spec, Freq, Assign	Stair Aronoff Weigl	JRNBB CR JACS	11 (1953) 47 (1950) 75 (1953)	703 175 2173

$C_{55}H_{106}O_6$	Palmitostearin	$\bar{2}-16\mu$	Sol	Anal Spec Anal	Shreve Shreve Swern	AC AC JAOC	22 (1950) 22 (1950) 27 (1950)	1261 1498 17
$C_{55}H_{106}O_6$	1-Palmitodistearin (β_L form)	720	S	Band study	Chapman	JCS	- (1957)	4489

 C_{56} COMPOUNDS

$C_{56}H_{42}O_8$	O-Tetrabenzyl-5,5'-di-C-benzylellagic acid	$5.0-6.15\mu$	S	Struct	Stitt	JACS	81 (1959)	4615
$C_{56}H_{90}O_7$	5 α -Hydroxy-6-keto-cholestane- $\beta\beta$ -carboxylic anhydride	-	S	Group freq	Roberts	JCS	- (1954)	3178
$C_{56}H_{94}O_5$	5 α -Hydroxycholestane- $\beta\beta$ -carboxylic anhydride	-	S, Sol	Group freq	Roberts	JCS	- (1954)	3178

 C_{57} COMPOUNDS

$C_{57}H_{104}O_6$	Trislauidin	$\bar{2}-16\mu$	Sol	Quant anal Spec Anal Spec	Shreve Shreve Swern Fenge	AC AC JAOC JAOC	22 (1950) 22 (1950) 27 (1950) 28 (1951)	1261 1498 17 420
$C_{57}H_{104}O_6$	Triolein	$\bar{2}-16\mu$	Sol	Spec, Iso Quant anal Spec Anal Spec	Benedict Shreve Shreve Swern Fenge	JACS AC AC JAOC JAOC	72 (1950) 22 (1950) 22 (1950) 27 (1950) 28 (1951)	4356 1261 1498 17 420
$C_{57}H_{110}O_6$	Tristearin	$1050-1800$	-	Spec Struct, Ident Spec	Barnes Gray Fenge	IEC JPC JAOC	15 (1943) 53 (1949) 28 (1951)	659 23 420

<u>C₅₈ COMPOUNDS</u>				
C ₅₇ H ₁₁₀ O ₆	Tristearin (β_L form)	650-3500 720	L,S S	Spec, Struct Band study
C ₅₈ H ₈₂ O ₈	Bis-(β -acetoxy- 22-isopirostadiene)	-	Sol	Group freq
C ₅₉ H ₉₂ O ₄	Chromanol	2-10 μ	Sol	Group freq
<u>C₆₄ COMPOUNDS</u>				
C ₆₄ H ₄₆ N ₁₀ O ₄	β,β' -Iminobis-(4- benzylidene-1-phenyl- 5-pyrazolone) dimer	400-4000	-	Freq
C ₆₄ H ₁₃₀	Tetrahexacontane	S,L, Sol	Spec, Assign	Krinn
<u>C₆₅ COMPOUNDS</u>				
C ₆₅ H ₁₂₄ N ₁₂ O ^P	α,α' -Dilauroyl- kephalin	670-3500	-	Spec, Assign
C ₆₅ H ₁₂₄ N ₁₂ O ^P	α,β -Dilauroylkephalin	670-3500	-	Spec, Assign

1860

C₇₂H₆₀O₄Si₅ Tetraakis triphenyl-siloxysilane

6000-30000

Sol

Spec, Assign

JPC

61 (1957) 1174

Zeitler

IIa. Inorganic Compound of Nonmetals

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



Formula	Name	Range	State	Remarks	Tyler	PRCS	-	(1959)	Reference
CHDN ₂	Cyanamide-d ₁	17900-40300 Mc/Sec	-	Spec., Struct					
CHN	Hydrogen cyanide	3-15 μ	G	Thermo Spec Vib-rot. analysis	Tolman Baker	JACS PR	45 (1923) 23 (1924)	2277 200	
		-	G	Thermo	Badger	JACS PR	37 (1931) 54 (1932)	800 3523	
		3-15 μ	G	Spec	Choi	JACS PR	42 (1932)	777	
		-	G	Freq., Assign	Adel	PR	45 (1934)	277	
		-	G	Spec., Anal	Herzberg	PRS	147 (1934)	434	
		-	G	Freq.	Necke	TFS	30 (1934)	200	
		1-20 μ	G	Mol. Const.	Bartunek	PR	48 (1935)	516	
		-	G	Thermo	Gordon	JCP	3 (1935)	259	
		4.3-5.4 μ	Sol	Spec	Gordy	JCP	3 (1935)	664	
		1.04 μ	G	Pressure effect	Cornell	PR	50 (1936)	279	
		4.2-5.4 μ	Sol	Spec	Gordy	JCP	4 (1936)	85	
		-	G	Pressure broadening	Herzberg	PR	50 (1936)	1186	
		-	-	FC	Penney	PRS	156 (1936)	654	
		-	-	Freq.	Williams	JCP	4 (1936)	85	
		-	-	Pressure effect	Cornell	PR	51 (1937)	739	
		-	-	Thermo	Gordon	JCP	5 (1937)	30	
		-	-	FC	Linnett	JCS	- (1937)	1399	
		-	-	Pressure broadening	Watson	PR	51 (1937)	48	
		-	-	Group study	Herzberg	JCP	8 (1940)	847	
		-	-	FC	Crawford	JCP	9 (1941)	69	
		-	-	Freq.	Redlich	JCP	9 (1941)	298	
		-	-	Pressure broadening	Herzberg	RMP	14 (1942)	219	
		14	G	Bonding	Foley	PR	61 (1942)	545	
		-	-	Quant Mech.	Mecke	TFS	30 (1942)	200	
		-	-	Freq.	Barnes	IEC	15 (1943)	659	
		-	-	Pressure broadening	Nie Lisen	JCP	11 (1943)	160	
		-	-	Bonding	Foley	PR	69 (1946)	616	
		-	-	Quant Mech.	Foley	PR	69 (1946)	628	
		-	-	Freq.	Gordy	JCP	14 (1946)	305	
		-	-	Pressure broadening	Halverson	RMP	19 (1947)	87	
		-	-	Self broadening	Walsh	TFS	43 (1947)	60	
		-	-	FC	Anderson	PR	76 (1949)	647	
		-	-	Struct	Chen	PR	75 (1949)	1113	
		-	-	Quant. Mech., FC	Duchesne	JCP	17 (1949)	586	

79-2100	S	Spec, Assign Bonding	Hoffman Linnett	JCP TFS	17 (1949) 844
-	-	Thermo	Staun	JCP	17 (1949)
-	-	Bonding	Nielsen	PR	78 (1950)
-	-	Microwave	Shulman	PR	77 (1950)
-	-	Potential energy function	Brooks	TFS	421 1152
-	-	Pressure broadening	Mizushima	PR	94
-	-	FC	Thomas	JCP	1162
-	-	I	Crawford	JCP	977
-	-	G	Herzberg	N	997
712-3312	G	Spec, Struct, Mol. Const.	Hyde Rank	JCP PR	83 (1951) 20 (1952) 86 (1952)
-	G	Light velocity measurement	Rank	JOSA	647 799
-	G	Mol. Const.	Thomas	JCP	693
-	-	FC	Thomas	JCS	920
-	-	FC	Weathery	-	2383
0.5-2.5	G	Microwave	Douglas	JCP	517
10	G	Spec, Struct, Anal Microwave	Collier	PR	448
-	-	Thermo	Pennington	JCP	1201
6500	G	Mol. Const.	Rank	PR	1442
5500	G	Bond	Wiggins	JCP	575
1.5	-	Band study	Jaffe	JOSA	547
1.5	G	High resolution interferometry	Jaffe	JOSA	405
-	G	Band study	Rank	PR	636
-	-	Freq, I	Skinner	JCS	993
-	G	Microwave	White	-	487
2-9	G	Anal	Baker	JCP	249
0.8-2	G	Microwave	Burrus	AC	1391
2095	Sol	Freq, I	Penneman	PR	599
2-15	G	Spec	Pierson	JCP	293
1.0-1.6	-	Spec	Rank	AC	1218
-	G	Pressure broadening	Piggott	JOSA	477
-	G	Microwave	Weatherley	JCP	384
-	-	Bond study, I	Wilshurst	DA	1469
-	-	Freq	Caldow	JPC	631
-	G	Band study	Rank	PRS	1
-	-	Molecular Const.	Rank	JMS	518
1-3	G		Rank	JOSA	421

C^{12}HN	Hydrogen cyanide (isotopic)	-	G	Freq		Richardson	JCP	19 (1951)	1213
$\text{C}^{12}\text{HN}^{14}$	Hydrogen cyanide (isotopic)	-	G	Microwave		Simmons	PR	77 (1950)	77
$\text{C}^{13}\text{HN}^{14}$	Hydrogen cyanide (isotopic)	-	G	Microwave		Simmons	PR	77 (1950)	77
C^{13}HN	Hydrogen cyanide (isotopic)	2160-2000	S	Spec	Hoffman	JCP	17 (1949)	1163	
		-	G	Freq	Richardson	JCP	19 (1951)	1213	
		-	L,G	Mol. Const.	Kagarise	JCP	20 (1952)	1437	
		-	-	Freq	Stranks	JACS	75 (1953)	2015	
		4-7.5	G	Freq, Assign	Barr	JCS	- (1956)	3428	
		3-14	Sol	Solvent effect, I	Caldow	PRS	254 (1960)	17	
		1-3	-	Spec, Mol. Const.	Rank	JOSA	50 (1960)	421	
CHNO	Cyanic acid	1.031	G	Spec	Herzberg	PR	50 (1936)	390	
		-	Sol	Freq, I	Davison	JCS	- (1953)	3712	
		-	-	FC	Thomas	TRS	49 (1953)	855	
CHNO	Isocyanic acid	-	-	Microwave	Jones	JCP	18 (1950)	990	
		-	G	Spec, Anal	Reid	JCP	18 (1950)	1544	
		-	-	FC, Freq	Thomas	JCS	- (1952)	2383	
		-	-	Thermo	Luft	JCP	22 (1954)	956	
CHNS	Iothiocyanic acid	-	-	Freq	Jones	JCP	18 (1950)	990	
		-	-	Struct	Jones	JCP	18 (1950)	1511	
		400-4000	G	Spec, Assign	Reid	JCP	18 (1950)	1512	
		-	-	FC	Thomas	JCS	- (1952)	2383	
		-	-	FC	Thomas	TRS	49 (1953)	855	
CH_2N_2	Cyanamide	2-15	S	Spec, Struct	Sukhorukov	OS	7 (1959)	9	
		-	-	Spec, Struct	Tyler	PRCS	- (1959)	153	
CH_3NSi	Silyl cyanide	300-3500	G	Assign, Struct	Linton	DA	19 (1958)	687	
CH_3OB	Borine carbonyl	2-25	-	Theoretical	Cowan	JCP	17 (1949)	218	
		-	-	Microwave	Strandberg	JCP	17 (1949)	429	
		2-25	G	Spec, Assign, NCA	Cowan	JCP	18 (1950)	1101	
		-	-	Thermo	Galbraith	JCP	22 (1954)	1461	

2164	-	-	Freq.	Mol. Const.	Margoshes	JCP	22 (1954)	381
200-3200	S, G	-	Spec, Assign, NCA	Meal	JCP	24 (1956)	1126	
-	-	FC	Spec, Assign, NCA	Be thke	JCP	26 (1957)	1118	
CH ₄ N ₂ O	Ammonium isocyanate	250-3000	S	Spec, Freq., Assign, H bond	Bethke	JCP	27 (1957)	978
CH ₄ N ₂ S	Ammonium thiocyanate	200-3200	S	Spec, Freq., Assign, H bond	Waddington	JCS	- (1958)	4340
CH ₅ NO ₃	Ammonium bicarbonate	400-4000	S	Spec	Waddington	JCS	- (1959)	2499
CH ₅ N ₃ O.HCl	Semicarbazide hydrochloride	205-75μ	Sol	Spec	Gordy	JCP	3 (1935)	664
CH ₅ N ₃ S	Thiosemicarbazide	2-16μ	S	Spec, Anal	Miller	AC	24 (1952)	1253
CH ₆ N ₂ O ₂	Ammonium carbamate	250-4000	S	Freq., Assign, H bond	Waddington	JCS	- (1958)	4340
CH ₈ N ₂ O ₃	Ammonium carbonate	300-880	S	Spec, Struct	Tramer	CPR	249 (1959)	2755
CDN	Hydrogen cyanide-d ₁	2-16μ	S	Spec	Miller	SA	16 (1960)	135
CH ₅ N ₃ S	Thiosemicarbazide	300-880	S	Spec	Miller	AC	24 (1952)	1253
CH ₅ N ₃ O ₂	Ammonium carbamate	700-3500	S	Ident, Assign	Davison	SA	16 (1960)	135
CH ₅ N ₃ S	Thiosemicarbazide	700-1700	S	Spec, Struct, Config. Assign, Taut	Lieber	CJC	36 (1958)	801
CH ₅ N ₃ O ₂	Ammonium carbamate	2-9μ	Sol	Spec, Freq	Jenccks	ABB	88 (1960)	193
CH ₈ N ₂ O ₃	Ammonium carbonate	300-880	S	Spec	Melocine	J INC	6 (1958)	104
CDN	Hydrogen cyanide-d ₁	17.5μ	-	Freq.	Miller	SA	16 (1960)	135
CH ₅ N ₃ S	Thiosemicarbazide	1-20μ	G	Mol. Const.	Adel	PR	45 (1934)	277
CH ₅ N ₃ O ₂	Ammonium carbamate	-	G	Spec, Const.	Bartunek	PR	47 (1935)	330
CH ₈ N ₂ O ₃	Ammonium carbonate	-	-	Thermo	Bartunek	PR	48 (1935)	516
CDN	Hydrogen cyanide-d ₁	-	-	FC	Gordon	JCP	5 (1937)	30
CH ₅ N ₃ S	Thiosemicarbazide	-	-	-	Linnett	JCS	- (1937)	1399
CH ₅ N ₃ O ₂	Ammonium carbamate	-	-	FC	Crawford	JCP	9 (1941)	69
CH ₈ N ₂ O ₃	Ammonium carbonate	-	-	Anal	Halverson	RMP	19 (1947)	87
CDN	Hydrogen cyanide-d ₁	-	I	I	Crawford	JCP	20 (1952)	977
CH ₅ N ₃ S	Thiosemicarbazide	-	I	I	Hyde	JCP	20 (1952)	647
CH ₅ N ₃ O ₂	Ammonium carbamate	-	G	Microwave	Weatherly	PR	87 (1952)	517
CH ₈ N ₂ O ₃	Ammonium carbonate	-	G	Spec, FC	Douglas	JCP	21 (1953)	448
CDN	Hydrogen cyanide-d ₁	0.5-2.5μ	G	Freq	Allen	JCP	23 (1955)	1356
CH ₅ N ₃ S	Thiosemicarbazide	1900-8000	G					

3020	G	Rot. Anal	Checkland	TFS	51 (1955)	1
-	G	Microwave	White	JCP	23 (1955)	249
-	-	Freq, I	Skinner	JCS	- (1955)	487
-	G	Microwave	Burrus	PR	101 (1956)	599
-	-	Struct	Amat	JMS	2 (1958)	163
-	G	Freq	Caldow	PRS	254 (1960)	1
C ¹² D _N	-	G	Freq, FC	Richardson	JCP	19 (1951) 1213
C ¹³ D _N	-	G	Freq, FC	Richardson	JCP	19 (1951) 1213
C ¹² D _N ¹⁴	-	G	Microwave	Simmons	PR	77 (1950) 77
C ¹³ D _N ¹⁴	-	G	Microwave	Simmons	PR	77 (1950) 77
CD ₂ N ₂	-	-	Spec, Struct	Tyler	PRCS	- (1959) 155
CD ₃ F	2-13 μ	G	Struct	Edgell	JACS	78 (1956) 2358
CD ₃ NSi	300-3500	G	Assign, Struct	Linton	DA	19 (1958) 687
CB ₄ FO	300-2200	G	Spec	Patty	SA	15 (1959) 60
CB ₄ N	-	-	FC	Penny	PRS	156 (1936) 654
	-	-	FC	Linnett	JCS	- (1937) 1399
	-	-	FC	Gordy	JCP	14 (1946) 305
	-	-	Microwave	Feld	PR	72 (1947) 1116
	-	-	Microwave	Gordy	PR	72 (1947) 259
	-	-	Microwave	Torones	PR	71 (1947) 644
	-	-	FC	Torones	PR	72 (1947) 513
	-	-	Microwave	Walsh	TFS	43 (1947) 60
	-	-	FC	Bardine	PR	73 (1948) 97
	-	-	Microwave	Bardine	PR	73 (1948) 627
	-	-	Quant. Mech., FC	Duchesne	JCP	17 (1949) 586
	-	-	FC	Linnett	TFS	45 (1949) 844
	-	-	Pressure broadening	Mizushima	PR	83 (1951) 94

	-	-	FC	Thomas	JCP	19 (1951)	1162	
	-	-	FC	Thomas	JCP	20 (1952)	920	
	-	G	Microwave	Trambarulo	PR	95 (1954)	622	
	300-3200	G, S	Spec, Assign	Freitag	JCP	24 (1956)	109	
C ¹² Br ⁷⁹ N ¹⁵	Cyanogen bromide Isotopic	-	G	Microwave	Tettenbaum	PR	86 (1952)	440
C ¹³ Br ⁷⁹ N ¹⁴	Cyanogen bromide (isotopic)	-	G	Microwave	Smith	PR	74 (1948)	370
C ¹³ Br ⁸¹ N ¹⁴	Cyanogen bromide (isotopic)	-	G	Microwave	Tettenbaum	PR	86 (1952)	440
C ¹² Br ⁷⁹ N ¹⁴	Cyanogen bromide (isotopic)	-	G	Microwave	Smith	PR	74 (1948)	370
C ¹² Br ⁸¹ N ¹⁴	Cyanogen bromide (isotopic)	-	G	Microwave	Townes	PR	74 (1948)	370
CBr ⁷⁹ N	Cyanogen bromide (isotopic)	-	G	Microwave	Tettenbaum	PR	86 (1952)	440
C ¹² Br ⁸¹ N ¹⁵	Cyanogen bromide (isotopic)	-	G	Microwave	Burrus	PR	101 (1956)	599
CBr ⁸¹ N	Cyanogen bromide (isotopic)	-	G	Microwave	Smith	PR	74 (1948)	370
CClFO	Carbonyl chlorofluoride	2-40 μ	G, L	Spec, Assign NCA, FC, Thermo Freq	Nielsen Lovell Kogarise	JCP	20 (1952)	596
CClN	Cyanogen chloride	-	-	-	Penney Linnett Gordy Townes	JCS JCP PR	22 (1954) 77 (1955)	1953 1377

-	-	-	FC		TWS	43	(1947)	60	
-	-	-	Microwave	PR	73	(1948)	97		
-	-	-	FC, Quant. Mech.	JCP	17	(1949)	586		
-	-	-	FC	TFS	45	(1949)	844		
2-20 μ	G	-	Spec	JCP	18	(1950)	1361		
-	-	-	Hybridization	JCP	19	(1951)	246		
-	-	-	Microwave, Pressure broadening	PR	83	(1951)	94		
-	-	-	Pressure broadening	Thomas	19	(1951)	1162		
-	-	-	FC	Thomas	20	(1952)	920		
-	Sol	G,S	Freq, I	Skinner	-	(1955)	487		
300-2200	-	-	Spec, Assign Ident	Freitag	24	(1956)	109		
-	-	-	Baker	TFS	53	(1957)	1397		
CN	1μ	-	Microwave	Townes	PR	71	(1947)	64	
CN	0.2μ	G	Microwave	Burrus	PR	101	(1956)	599	
CN	1μ	-	Microwave	Townes	PR	71	(1947)	64	
CN	-	G	Microwave	Smith	PR	74	(1948)	370	
CN	-	G	Microwave	Townes	PR	74	(1948)	1113	
CN	0.2μ	G	Microwave	Burrus	PR	101	(1956)	599	
CCl ³⁵ N	Cyanogen chloride (isotopic)	-	G	Townes	PR	72	(1947)	513	
CCl ³⁷ N	Cyanogen chloride (isotopic)	-	G	Smith	PR	74	(1948)	370	
CCl ³⁵ N ¹⁴	Cyanogen chloride (isotopic)	-	G	Yarmus	PR	105	(1957)	928	
CCl ³⁷ N ¹⁴	Cyanogen chloride (isotopic)	-	G	Townes	PR	74	(1958)	1113	
C ¹² C ₁ ³⁵ N ¹⁴	Cyanogen chloride (isotopic)	-	G	Microwave	Smith	PR	74	(1948)	370
C ¹³ C ₁ ³⁷ N ¹⁴	Cyanogen chloride (isotopic)	-	G	Microwave	Townes	PR	74	(1948)	1113
C ¹⁴ C ₁ N	Cyanogen chloride (isotopic)	2-16 μ	G	Freq, FC	Richardson	JCP	18	(1950)	155
C ¹³ C ₁ ³⁵ N ¹⁴	Cyanogen chloride (isotopic)	-	G	Microwave	Townes	PR	72	(1947)	513
C ¹³ C ₁ ³⁷ N ¹⁴	Cyanogen chloride (isotopic)	-	G	Microwave	Smith	PR	74	(1948)	370
CC ₁ NS	Thiocyanogen chloride	400-2210	Sol	Spec	Nelson	JCS	-	(1960)	604

CCl_2^0	Carbonyl chloride	-	-	Mol. Const. Struct Thermo Freq., Thermo Spec	Villars Milliken Stevenson Thompson Barnes Walsh Torkington Nielsen Duchesne Johannesen Margoshes Kagarise Pierson Catalano Lovell Robinson	11 (1932) 3 (1935) 6 (1938) 25 251 659 43 (1947) 206 (1951) 20 (1952) 22 (1954) 53 (1954) 22 (1954) 77 (1955) 28 (1956) 80 (1958) 4 (1960) 21 (1953)	369 564 25 251 659 158 17 596 1464 197 381 1377 1281 1054 173 1741
$1300\text{--}1800$		-	-	FC			
$2\text{--}40 \mu$	G, L	-	-	Spec, Assign Potential function			
1827	-	-	-	Freq			
$2\text{--}15 \mu$	G	-	-	Freq			
$500\text{--}5500$	G	-	-	Spec, Assign			
$c^{12}\text{Cl}_2^{35}16$	Carbonyl chloride (isotopic)	-	-	I, FC			
$c^{12}\text{Cl}_2^{37}16$	Carbonyl chloride (isotopic)	-	-	Microwave	Robinson	JCP	21 (1953)
CCl_2S	Thiophosgene	-	-	Microwave	Robinson	JCP	21 (1953)
CCl_3NS	Thiocyanogen trichloride	4000-40000	L,G, Sol	Spec, Struct	Bacon	JCS	- (1958)
CF	Carbon fluoride	-	-	FC	Wu	PR	71 (1947)
CFN	Cyanogen fluoride	105.2-2294	-	FC, Freq Thermo Struct Spec	Thomas Inuft Aynsley Sheridan	JCP JCP PRCS N	20 (1952) 21 (1953) - (1959) 185 (1959)
CF ₂	Carbon difluoride	-	-	Vibrations	Duchesne	JCP	21 (1953)
CF_2^0	Carbonyl fluoride	$7\text{--}74 \mu$ $2\text{--}40 \mu$	G L,G -	Anal Spec, Assign Ident	Nielson Nielsen Callomon	JCP JCP JCS	19 (1951) 20 (1952) - (1953)

FC			PR	95	(1954)	300
NCA, FC, Thermo			JCP	22	(1954)	1953
Ident			JCS	-	(1955)	1881
Freq			JACS	77	(1955)	1377
CIN	Cyanogen iodide		PR	156	(1936)	654
			JCS	-	(1937)	1399
			PR	72	(1947)	259
			TFS	43	(1947)	60
			Walsh	73	(1948)	627
			Bardeen	73	(1948)	635
			Gilliam	17	(1949)	580
			Duchesne	45	(1949)	844
			Linnett	78	(1950)	140
			Gilliam	83	(1951)	94
			Mizushima	19	(1951)	1162
			Thomas	20	(1952)	920
			Hazeldine	-	(1954)	4145
			Glusker	-	(1955)	471
			Javan	99	(1955)	1302
			Low	97	(1955)	1664
			Freitag	24	(1956)	109
			Caldow	254	(1960)	17
			Smith	74	(1948)	370
			Townes	74	(1948)	1113
			Smith	74	(1948)	370
			Brige	1	(1925)	12
			Morse	34	(1929)	57
			Badger	2	(1934)	128
			Pekeris	45	(1934)	98
			Linnett	-	(1937)	1399
			Linnett	36	(1940)	1123
			Clark	37	(1941)	299
			Linnett	TFS	38	(1942)
			Wu	PR	71	(1947)
			Benedict	PR	83	(1951)
			White	JCP	21	(1953)
						1399

1870

CNO	Isocyanate ion	$500-3800$	S,Sol	Freq	Maki	JCP	52 (1954)	57
CNS	Isothiocyanate ion	-	-	FC	Penney	PRS	53 (1954)	161
CNS	Thiocyanate ion	-	-	FC	Linnett	JCS	24 (1956)	293
CO	Carbon monoxide	-	-	-	Kemble	PR	8 (1916)	689
		-	-	-	Kemble	PR	8 (1916)	701
		-	-	-	Kemble	PR	15 (1920)	95
		-	-	-	Tolman	JACS	45 (1923)	2277
		-	-	-	Urey	JACS	45 (1923)	1445
		-	-	-	Lowry	JOSA	8 (1924)	647
		-	-	-	David	TFS	22 (1926)	273
		-	-	-	Brige	PR	30 (1927)	365
		-	-	-	Garner	TFS	24 (1928)	470
		-	-	-	Bailey	TFS	25 (1929)	29
		-	-	-	Bailey	JCS	- (1929)	51
		-	-	-	Garner	JCS	- (1929)	1123
		-	-	-	Langer	PR	33 (1929)	1097
		-	-	-	Morse	PR	34 (1929)	57
		-	-	-	Rideal	TFS	25 (1929)	921
		-	-	-	Snow	TFS	25 (1929)	930
		-	-	-	Shearin	PR	35 (1930)	973
		-	-	-	Snow	PR	35 (1930)	563
		-	-	-	Lochte	TFS	28 (1932)	698
		-	-	-	Matheson	PR	40 (1932)	813
		-	-	-	Gordon	JCP	1 (1933)	297
		-	-	-	Kassel	JCP	1 (1933)	576
		-	-	-	Matheson	PR	44 (1933)	604
		-	-	-	Badger	JCP	2 (1934)	128
		-	-	-	Cross	JCP	2 (1934)	6
		-	-	-	Johnston	JACS	56 (1934)	271
		-	-	-	Mecke	TFS	30 (1934)	2000
		-	-	-	Mulliken	JCP	2 (1934)	1400
		-	-	-	Pekelis	PR	45 (1934)	98
		-	-	-	Sutherland	PRS	148 (1935)	250
		-	-	-	Thompson	JCS	- (1937)	1384

G	FC	Thompson	JCS	-	(1937)
-	-	Bailey	JCP	6	(1938)
-	-	Whitcomb	PR	55	(1939)
-	-	Geydon	PRS	176	(1940)
-	-	Linnett	TRS	36	(1940)
-	-	Pitzer	CR	27	(1940)
-	-	Clark	TRS	37	(1941)
-	-	Gaydon	PRS	178	(1941)
-	-	Hulbert	JCP	9	(1941)
-	-	Gaydon	PRS	181	(1942)
-	-	Lagermann	JCP	10	(1942)
-	-	Linnett	TRS	38	(1942)
-	-	Barnes	IEC	15	(1943)
-	-	Nielsen	HMP	16	(1944)
-	-	O'Bryan	JOSA	35	(1945)
-	-	Coggeshall	JAP	17	(1946)
-	-	Coggeshall	JCP	15	(1947)
-	-	Seyfried	IEC	19	(1947)
-	-	Walsh	TRS	43	(1947)
-	-	Walsh	TRS	43	(1947)
-	-	Wu	PR	71	(1947)
-	-	Emission, Absorption	JOP	16	(1948)
-	-	Ident	PR	75	(1949)
-	-	CO in atmosphere	Adel	PR	75
-	-	Emission band	Herman	JCP	17
-	-	Spec	Herzberg	JCP	17
-	-	CO-O ₂ explosion	Bullock	JCP	18
-	-	Spec	Chapman	PR	78
-	-	Emission	Penner	JAP	21
-	-	Freq	Rao	JCP	18
-	-	Absorption	Penner	JOP	19
-	-	I	Penner	JCP	19
-	-	I	Penner	JCP	19
-	-	Freq	Penner	JCP	19
-	-	Unpressurized lime	Penner	JCP	19
-	-	width	Penner	JAP	21
-	-	Spec	Penner	(1951)	685
2.34-4.66 μ	G				
0.6-1 μ	G				
4.66 μ	-				
4.7 μ	G				
1.2-2.5 μ	-				
1-1.5 μ	G				
6 μ	G				
2100-6400	G				
2142-4270	G				
4270	G				
2.3-4.7 μ	G				

-	G	Spec	Plyler	41 (1951)
2-6 μ	G	Anal	Roberts	867 73 (1951)
2.3-2.6 μ	G	CO-O ₂ flame	Silverman	618 82 (1951)
-	G	Emission, Absorption	Silverman	337 23 (1951)
2142	G	Absorption	Weber	1047 19 (1951)
2.3-2.4 μ	G	CO in atmosphere	JCP	974 85 (1952)
2.3-2.33 μ	G	CO in atmosphere	Goldberg	140 85 (1952)
2.3 μ	G	Telluric CO	Goldberg	481 87 (1952)
-	-	Polarizability	Howard	679 PR
-	-	Emission	Matossi	819 20 (1952)
-	-	Emission	Penner	256 JAP
-	G	Spec	Penner	825 23 (1952)
4.1-5.5 μ	G	Vibrations	Plyler	825 JCP
-	G	Absorption	Schwartz	1178 JCP
2.3-4.7 μ	G	Telluric CO	Shaw	1591 PR
4.7 μ	G	Spec	Shaw	654 PR
2.3 μ	G	Double monochrome	Silverman	380 PR
4.7 μ	G	Spec	Walsh	214 JOSA
2150-2170	G	I	Benesch	96 43 (1952)
-	-	Caliberation of prism	Bulllock	1119 43 (1953)
2040-2220	G	Emission	Downie	389 43 (1953)
-	G	Rotation line width	Lee	941 JOSA
2143	G	Spec	Weber	619 JCP
2053-2198	G	I	White	1503 JCP
-	-	Line shape	Aroeste	1399 JCP
-	G	Freq	Benedict	1273 PR
1-2.6 μ	G	Pressure broadening	Benedict	752 JNB
-	G	Spec	Blau	57 PR
4.5-6 μ	-	I	Eischeus	360 JCP
-	-	G	Herman	1164 JCP
-	G	I	Herman	481 PR
2143	-	Freq	Margoshes	752 JCP
-	-	Emission	Penner	381 JRNBB
4300	-	Spec	Silverman	75 JRNBB
-	G	Emission	Smith	361 PR
-	G	Spec	VincentGeisse	251 CPR
-	-	Collision detection	deWette	1620 JCP
-	-	Emission, Spec	Williams	361 PR
2.4 μ	G			

$2-11.5\mu$	G	Spec	Donovan	JCP	23 (1955)
-	G	I	Herman	JCP	23 (1955)
-	-	Potential function	Lippincott	JCP	23 (1955)
-	I	Anal	Patterson	AC	27 (1955)
-	G	Mol. Const.	Penner	JCP	23 (1955)
2169	G	Spec, Mol. Const.	Plyler	JOSA	45 (1955)
4.67μ	G	Emmission	Plyler	JRNB	55 (1955)
$1-5.5\mu$	G	Emmission	Wilkinson	AC	25 (1955)
$1-5\mu$	G	Spec	Dickey	JCP	25 (1955)
$2-15\mu$	G	Spec	Eischiens	JPC	60 (1956)
$2.5-7.5\mu$	-	Spec	Neu	JPC	60 (1956)
-	G	Spec	Palik	JCP	25 (1956)
100-600	G	Spec	Pierson	AC	28 (1956)
$2-15\mu$	G	Spec	Baughan	TFS	53 (1957)
-	-	FC	Rank	JOSA	47 (1957)
4.260μ	G	Freq	Eischiens	JCE	35 (1958)
1700-2100	G	Spec	Jones	DA	19 (1958)
-	-	Vibrations	Plyler	JRNB	61 (1958)
4000-4360	G	Mol. Const.	Smith	AC	30 (1958)
-	-	Chrometography	Garland	JPC	63 (1959)
1800-2100	S	Spec	Lascombe	BSCF	- (1959)
-	Sol	Struct	Singleton	DA	19 (1959)
-	-	Band study	Mould	SA	16 (1960)
2100-2300	G	Spec	Rank	JMS	4 (1960)
-	-	Band study			518
$c^{12}O$	G	Mol. Const.	Lagemann	PR	72 (1947)
Carbon monoxide (isotopic)	-	Spec	Migeotte	PR	75 (1949)
4.7μ	G	Microwave	Gilliam	PR	78 (1950)
$0.2-0.3\mu$	G	Spec	Eischiens	JPC	60 (1956)
$4.7-5.1\mu$	-				194
$c^{12}O^{16}$	G	Spec, Mol. Const.	Plyler	JCP	20 (1952)
Carbon monoxide (isotopic)	-	Microwave	Bedard	PR	92 (1953)
$1.58-2.35\mu$	G	Spec, Mol. Const.	Mills	TFS	49 (1953)
-	G	Mol. Const.	Plyler	JOSA	43 (1953)
2140	G	Spec	Plyler	JCP	20 (1952)
$4.5-5.2\mu$	G	Spec, Mol. Const.	Mills	TFS	49 (1953)
$4.5-5.2\mu$	G	Mol. Const.	Plyler	JOSA	43 (1953)
$4-6\mu$	G	Spec, Mol. Const.	Plyler	JRNB	55 (1955)

859-2079	G	I	Mol. Const. I	Robinson	AC	23 (1951)	1044
-	-	PC		Robinson	JCP	19 (1951)	1162
-	-	Polarizability		Thomas	JCP	19 (1951)	1162
-	G	I		Matossi	JCP	20 (1952)	619
-	G	Vibrations		McKean	JCP	20 (1952)	520
-	G	FC, Freq		Schwartz	JCP	20 (1952)	1591
-	-	Freq		Thomas	JCS	- (1952)	2383
-	-	Microwave		Margoshes	JCP	22 (1954)	381
-	G	I		Peter	PR	95 (1954)	622
-	G	Microwave		Wingfield	JCP	22 (1954)	1949
-	G	Microwave		Anderson	PR	97 (1955)	1654
-	-	Microwave	Law	PR	97 (1955)	1664	
-	G	Microwave	Burrus	PR	101 (1956)	599	
-	-	Rot. Const.	Allen	JCP	26 (1957)	400	
-	-	Microwave, I	Dymamus	P	25 (1959)	859	
-	-	Band study, Mol. Const.	Saksena	DA	20 (1959)	701	
-	-	Mol. Const.	Saksena	JCP	31 (1959)	839	
-	-	FC	Verdier	JCP	30 (1959)	1372	
-	G	Microwave	Townes	PR	72 (1947)	513	
-	G	Microwave	Townes	PR	74 (1948)	1113	
-	G	Microwave	Shulman	PR	77 (1950)	500	
-	G	Microwave	Burrus	PR	93 (1954)	897	
-	G	Microwave	King	PR	93 (1954)	407	
-	G	Microwave	Dymamus	JCP	32 (1960)	717	
-	G	Microwave	Townes	PR	72 (1947)	513	
-	G	Microwave	Townes	PR	74 (1948)	1113	
-	G	Spec., Mol. Const.	Calloman	PR	222 (1954)	431	
-	G	Spec., Mol. Const.					
-	G	Microwave	Townes	PR	72 (1947)	513	
-	G	Microwave	Townes	PR	74 (1948)	1113	
-	G	Microwave	Shulman	PR	77 (1950)	500	
-	G	Microwave	Townes	PR	74 (1948)	1113	
-	G	Microwave	Townes	PR	74 (1948)	1113	
-	G	Microwave	Shulman	PR	77 (1950)	500	
-	G	Microwave	Townes	PR	74 (1948)	1113	
C ¹² O ¹⁶ S ³²	Carbonyl sulfide (isotopic)	-					
C ¹² O ¹⁶ S ³³	Carbonyl sulfide (isotopic)	-					
C ¹² O ¹⁶ S ³⁴	Carbonyl sulfide (isotopic)	-					
C ¹² O ¹⁸ S ³²	Carbonyl sulfide (isotopic)	-					
C ¹³ O ¹⁶ S ³²	Carbonyl sulfide (isotopic)	-					
C ¹³ O ¹⁶ S ³⁴	Carbonyl sulfide (isotopic)	-					

C ¹⁴ O 16S ³²	Carbonyl sulfide (isotopic)	-	G	Microwave	Townes	PR	74 (1948)	1113
COSe	Carbonyl selenide	-	-	Quant. Mech., FC	Duchesne	JCP	17 (1949)	586
COSe 76	Carbonyl selenide (isotopic)	0.8-2 μ	G	Microwave	Burrus	PR	101 (1956)	599
COSe 77	Carbonyl selenide (isotopic)	0.8-2 μ	G	Microwave	Burrus	PR	101 (1956)	599
COSe 79	Carbonyl selenide (isotopic)	0.8-2 μ	G	Microwave	Burrus	PR	101 (1956)	599
COSe 80	Carbonyl selenide (isotopic)	0.8-2 μ	G	Microwave	Burrus	PR	101 (1956)	599
COSe 82	Carbonyl selenide (isotopic)	0.8-2 μ	G	Microwave	Burrus	PR	101 (1956)	599
CO ₂	Carbon dioxide	6.7 μ	-	Thermo Spec	Tolman Ellis	JACS	45 (1923)	2277
		-	G	Bunsen's flame	Ellis	PR	26 (1925)	283
		-	G	Spec	Dickinson	PR	26 (1925)	469
		-	G	Comparison with Raman	Langer	PR	34 (1929)	582
		-	-	Rotator theory	Bailey	TFS	33 (1929)	1097
		-	-	Vibrations	Yates	PR	26 (1930)	197
		-	-	Atmospheric temp.	Hulbert	PR	36 (1930)	555
		-	G	Spec	Sleator	PR	38 (1931)	1876
		15 μ	-	Thermo.	Badger	JACS	54 (1932)	147
		-	-	Vibrations	Dennison	PR	41 (1932)	3523
		-	-	Struct., Thermo.	Lochte	TFS	28 (1932)	304
	4.3-15 μ	-	G	Spec, Mol. Const.	Martin	PR	41 (1932)	698
		-	-	Thermo.	Rodebush	PR	40 (1932)	291
		-	G	Dispersion	Smallwood	PR	41 (1932)	113
				Mol. Const.	Villars	CR	11 (1932)	164

-	G	Spec	Weber	PR	40	(1932)
-	G	Vib	Adel	PR	44	(1933)
-	G	Band study	Barker	PR	44	(1933)
10μ	-	Thermo	Gordon	JCP	1	(1933)
-	-	Perturbation theory	Kassel	JCP	1	(1933)
-	-	Spec	Baker	PR	45	(1934)
$1.4\text{--}5\mu$	G	Potential field	Goodeve	TRS	30	(1934)
-	-	Thermo	Kassel	JACS	56	(1934)
-	-	Quant. Mech.	Wilson	JCP	2	(1934)
-	-	Absorption	Adel	PR	47	(1935)
-	G	Excited electronic state	Duncan	JCP	3	(1935)
$5\text{--}21\mu$	-					
$1.2031\text{--}1\mu$	G	Band study	Herzberg	PR	48	(1935)
-	-	FC	Sutherland	PRS	148	(1935)
-	G	Refractive Index	Key's	CR	19	(1936)
$4\text{--}24.3\mu$	G	Anal	McAlister	PR	49	(1936)
-	G	FC	Penney	PRS	156	(1936)
-	G	FC	Thompson	JCS	-	(1937)
-	G	FC	Thompson	JCS	-	(1937)
-	-	Quant. Mech.	Weinberg	JCP	5	(1937)
4.3μ	G	Rotational Anal	Cameron	PR	53	(1938)
$1650\text{--}5000$	-	Calibration	Gershinowitz	JCP	6	(1938)
$4.2\text{--}15\mu$	G	Freq	Shearin	JOSA	28	(1938)
-	-	Coriolis coupling theory	Jahn	PR	56	(1939)
$13.9\text{--}15.4\mu$	G	Freq	Dennison	RMP	12	(1940)
-	G	Thermo	Fitzter	CR	27	(1940)
-	G	Solar Spec.	Adel	PR	59	(1941)
$2\text{--}14\mu$	G	Spec	McAlister	RSI	12	(1941)
-	-	Quant. Mech.	Redlich	JCP	9	(1941)
-	-	^3req	Barker	RMP	14	(1942)
-	-	L-type doubling	Herzberg	RMP	14	(1942)
-	-	Spec	Getjen	RSI	13	(1942)
-	-	FC	Glockler	RMP	15	(1943)
-	-	Quant. Mech.	Nielsen	JCP	11	(1943)
-	G	Spec	Babrovnikoff	RMP	16	(1944)
-	-	Absorption	Nielsen	RMP	16	(1944)
-	-	Vibrations	Shaffer	RMP	16	(1944)
-	-	Quant. Mech.	Glockler	JCP	13	(1945)
$2300\text{--}2400$	G	Band study	Nielsen	PR	68	(1945)
-	-	Vib. Anal	Carter	JCP	14	(1946)

-	G	Anal	Coggeshall	JAP	17	(1946)	450
-	-	FC	Gordy	JCP	14	(1946)	305
-	-	Vib. Anal	Kron	JCP	14	(1946)	19
-	-	Spec	Adel	PR	72	(1947)	538
2μ	G	Spec	Bell	RST	18	(1947)	48
$4.3-13\mu$	-	Pressure broadening	Coggeshall	JCP	15	(1947)	65
-	-	Quant. Mech.	Kaplan	JCP	15	(1947)	809
$14-16\mu$	-	Struct	Nielsen	JOSA	37	(1947)	296
15μ	G	Anal, Pressure broadening	Seyfried	IEC	19	(1947)	298
-	-	I	Thord	JCP	15	(1947)	868
-	-	FC	Walsh	TFS	43	(1947)	60
-	-	FC	Walsh	TFS	43	(1947)	158
-	-	Thermo	Crawford	JCP	16	(1948)	233
$1-24\mu$	G	Spec	Plyler	JRNBB	40	(1948)	113
$1.7-24\mu$	G	Spec	Plyler	JRNBB	40	(1948)	449
-	-	Absorption	Silverman	JCP	16	(1948)	155
-	-	Absorption	Adel	PR	75	(1949)	1262
-	-	Atmosphere	Adel	PR	75	(1949)	1262
2.08μ	-	Quant. Mech., FC	Duchesne	JCP	17	(1949)	586
-	-	Emission	Glassburg	PR	75	(1949)	1317
-	-	FC	Limentt	TFS	45	(1949)	844
-	-	Performance of	McMath	JOSA	39	(1949)	903
-	-	Cashmancell	-	-	-	-	-
-	G	Absorption	Mohler	PR	75	(1949)	520
-	G	Acetylene flame	Plyler	JRNBB	42	(1949)	567
$0.8-5\mu$	-	Band study	Sheline	JCP	17	(1949)	747
$2-16\mu$	-	Absorption	Welsh	PR	76	(1949)	580
$1286-1388$	G	Spec	Chapman	PR	78	(1950)	333
6μ	G	Anal	Coggeshall	AC	22	(1950)	381
-	-	Spec	Goldberg	PR	78	(1950)	74
-	-	Freq	Jones	PR	77	(1950)	1004
2.7μ	G	I	Kaplan	JCP	18	(1950)	186
15μ	G	Rad. Equilibria	Plass	PR	78	(1950)	334
$9-10\mu$	G	Spec	Shaw	PR	79	(1950)	1017
2.7μ	G	Spec	Benedict	JRNBB	46	(1951)	246
4.2μ	G	R-Branch Heads	Benedict	JCP	19	(1951)	1325
I	-	I	Eggers	JCP	19	(1951)	1554
I	-	G	Eggers	AC	23	(1951)	1045
I	-	G	Herrick	AC	23	(1951)	661
4μ	-	Caliberation of twin beam meter	Koppins	AC	23	(1951)	-

1.5 μ	G	Absorption	Plass	PR	85 (1951)
2-6 μ	G	Anal	Roberts	JACS	73 (1951)
-	-	I	Robinson	AC	23 (1951)
15 μ	G	Spec	Taylor	JCP	19 (1951)
-	G	FC	Thomas	JCP	19 (1951)
4.3-14.9 μ	G	Anal	Weigl	JACS	73 (1951)
7000	G	Spec	Gaiilar	JRMB	48 (1952)
-	G	Spec	Gaiilar	PR	86 (1952)
2.7 μ	G	Spec	Goulden	JSI	29 (1952)
4.3-25 μ	G	Inst. perform.	Ham	JOSA	42 (1952)
1-21 μ	G	Emission	Holm	JAP	23 (1952)
-	G	Absorption	Howard	JOSA	42 (1952)
1-7 μ	G	Spec. Freq	Marrison	JSI	29 (1952)
15-25 μ	G	Polarizability	Matoszi	JCP	20 (1952)
-	-	Spec, Assign	Osberg	JCP	20 (1952)
600-3800	S	Spec	Plyller	JCP	20 (1952)
4.1-5.5 μ	G	Band study	Plyller	JOSA	42 (1952)
4-5 μ	G	Vib.	Schwartz	JCP	20 (1952)
-	G	Spec	Talley	JOSA	42 (1952)
2000-5000	G	Atmospheric	Taylor	JCP	20 (1952)
4.5-25 μ	G	transmission			
4-25 μ	G	Spec	Taylor	JOSA	42 (1952)
2.4-25 μ	G	Spec	Taylor	JCP	20 (1952)
-	-	FC	Thomas	JCS	- (1952)
2.8-4.3 μ	G	Spec	Tourin	JCP	20 (1952)
4.3-15 μ	G	Struct	Walsh	TFS	43 (1952)
-	G	Anal	Watkins	AC	24 (1952)
618-5109	G	Absorption	Weber	JCP	20 (1952)
4.3 μ	G	Spec	Yarnell	JSI	29 (1952)
15 μ	G	Line width	Adel	PR	90 (1953)
-	G	Band study	Adel	JOSA	43 (1953)
4.25 μ	G	Cathode ray tube	Brown	JSI	30 (1953)
-	G	presentation			5
280-5435	G	I	Bullock	JOSA	43 (1953)
-	G	Calibration data	Downie	JOSA	43 (1953)
		for prism			389
		Distributed rotation	Van Dranen	JCP	21 (1953)
12.5 μ	G	Spec, Assign	Herzberg	JOSA	43 (1953)
-	G	Emission	Lee	JOSA	43 (1953)
15 μ	G	Thermo	Plaso	PR	91 (1953)
4.25 μ	G	Spec	Roberts	JSI	30 (1953)

-	-	Energy exchange	Widom	JCP	21	(1953)	1670
2349	G	Spec	White	JCP	21	(1953)	1399
-	G	Line shape	Benedict	PR	94	(1954)	752
4900	G	Band study	Benedict	JRNBB	52B	(1954)	57
-	-	Anal	Bertton	CPR	238	(1954)	477
1.28 μ	G	Microwave	Birnbaum	PR	95	(1954)	622
640-700	G	I	Cole	JOSA	44	(1954)	741
-	G	Transmission	Fahrenfort	JCP	22	(1954)	1631
-	G	Absorption	Fahrenfort	JP	15	(1954)	617
2-7 μ	G	Spec	France	PR	94	(1954)	1423
-	-	Anal	Garvin	JACS	76	(1954)	1523
-	G	Ident	Haszeldine	JCS	-	(1954)	4026
-	-	Band freq	Johannesen	JRNBB	53	(1954)	197
-	G	Band study	Kendrick	JOSA	44	(1954)	501
-	G	Emissivity calculations	Penner	JAP	25	(1954)	660
-	-	FC	Teranishi	JCP	22	(1954)	896
2.8-4.3 μ	G	Spec	Tourin	JRNBB	52B	(1954)	87
-	G	Thermo.	Woolley	JRNBB	52	(1954)	289
-	G	Fermi resonance	Courttoy	JCP	23	(1955)	975
2-11.5 μ	G	Spec	Donovan	JCP	23	(1955)	1592
2.7 μ	G	Anal, Spec	France	JCP	23	(1955)	471
10.4 μ	G,L,S	Absorption, Freq	Gaizauskas	PR	99	(1955)	1639
3-5 μ	G	Band study	Kostkowski	JOSA	45	(1955)	406
-	-	Random errors	Lord	AC	27	(1955)	327
4-6 μ	G	Anal	Patterson	AC	27	(1955)	574
3-16 μ	G	Spec, Mol. Const.	Plyler	JRNBB	55	(1955)	183
13.8-15.6 μ	G	Spec	Sloan	JOSA	45	(1955)	455
-	-	Spec	Yates	JOSA	45	(1955)	192
-	-	Fermi resonance	Amat	JCP	24	(1956)	44
2-15 μ	G	Spec	Neu	JPC	60	(1956)	320
2.7-15 μ	G	Spec, Anal	Pierson	AC	28	(1956)	1218
721-742	S	I	Rossmann	JCP	24	(1956)	1007
800	-	Spec, Freq, Assign	Kostkowski	JCP	26	(1957)	1252
-	-	Pressure modulation	Dows	SA	13	(1958)	308
11000-20000	G,L	Spec	Gilfert	JOSA	48	(1958)	765
-	-	Absorption	Binder	JACS	81	(1959)	3608
450-3000	Sol	Spec	Singleton	DA	19	(1959)	2372
3-6 μ	G	Absorption	Jacob	CPR	249	(1959)	523
-	-	Spec	Edwards	JOSA	50	(1960)	617
-	-	Spec	Mould	SA	16	(1960)	479

			Nielsen	JPR	21 (1960)	24
		Schurin	JCP	33 (1960)	1878	
		Mitatz	JCP	19 (1951)	887	
		Nelson	JCP	22 (1954)	36	
		Nielsen	PR	53 (1938)	983	
		Goldberg	PR	74 (1948)	1881	
		Goldberg	PR	76 (1949)	1848	
		Destier	JCP	20 (1952)	101	
		Rossmann	JCP	24 (1956)	103	
		Courtoy	CJP	35 (1957)	608	
		Orssmann	DA	19 (1958)	341	
		Goldberg	PR	74 (1948)	1881	
		Goldberg	PR	76 (1949)	1848	
		Beegers	JCP	27 (1957)	1405	
		Beegers	JCP	28 (1958)	512	
		Nielsen	JPR	68 (1945)	173	
		Glockler	JCP	17 (1949)	388	
		Sheline	JCP	17 (1949)	747	
		Mitatz	JCP	19 (1951)	887	
		Nielsen	JCP	22 (1954)	36	
		PR	53 (1938)	983		
		PR	74 (1948)	1881		
		PR	76 (1949)	1848		
		PR	79 (1950)	1004		
		JRN	55 (1955)	183		
		Nielsen	PR	83 (1951)	245	
		Sheline	JCP	17 (1949)	747	
		Nielsen	JCP	22 (1954)	36	
		Mizushima	JACS	75 (1953)	4870	
		Nielsen	PR	32 (1928)	773	
		Wilson	JCP	2 (1934)	432	
		Cassie	PRS	148 (1935)	87	
		Halford	JCP	14 (1946)	8	
1020-1100	G	Struct				
-	-	I				
Carbon dioxide (isotopic)	4.5-15.8 μ	G	Anal			
c ¹² O ₂			Spec., Anal.			
Carbon dioxide (isotopic)	-	G	Study of isotopes			
c ¹² O ₁₆			Isotope study			
Carbon dioxide (isotopic)	2 μ	G	Spec.			
c ¹² O ₂	1.5-2.5 μ	G	Doubling theory			
Carbon dioxide (isotopic)	-	-	Spec.			
c ¹² O ₁₆	15 μ	G	Anal., Mol. Const.			
Carbon dioxide (isotopic)	3500-8000	G	Band study			
c ¹² O ₁₆	-	-				
Carbon dioxide (isotopic)	2 μ	G	Isotopes			
c ¹² O ₁₈	1.5-2.5 μ	G	Spec.			
Carbon dioxide (isotopic)	-	-	I			
c ¹² O ₁₈	-	-	Freq			
Carbon dioxide (isotopic)	2240-2320	G	Quant. Mech.			
c ¹² O ₁₈	-	-	Vibrations			
Carbon dioxide (isotopic)	-	-	Freq			
c ¹² O ₁₈	4.5-15.8 μ	G	Isotopes, Anal			
Carbon dioxide (isotopic)	4.5-15.8 μ	G	Spec., Anal.			
c ¹³ O ₂	-	-				
Carbon dioxide (isotopic)	1.37 μ	G	Vib.			
c ¹³ O ₂	2 μ	G	Isotopes			
Carbon dioxide (isotopic)	1.5-2.5 μ	G	Spec.			
c ¹³ O ₂	2.7 μ	G	Freq			
Carbon dioxide (isotopic)	4-6 μ	G	Spec., Mol. Const.			
c ¹³ O ₂	-	G	Freq			
Carbon dioxide (isotopic)	2-16 μ	-	Freq			
c ¹⁴ O ₂	4.5-15.8 μ	G	Spec., Anal.			
Carbon dioxide (isotopes)	-	S	Freq			
Carboxylate ion	-	-	Vib.			
CO ₂	-	-	Quant. Mech.			
Carbonate ion	-	-	FC			
CO ₃ ⁻²	-	-	Selection rule			

CO_3	-	-	FC	Heath	TFS	44 (1948)	873
	-	-	Quant. Mech.	Hornig	JCP	16 (1948)	1063
	-	-	FC	Linnett	TFS	48 (1952)	592
	-	-	FC	Venkateswarlu	JCP	23 (1955)	2368
CP	-	-	Band study	Tagirov	DANS	116 (1957)	797
CS	-	-	FC	Linnett	TFS	38 (1942)	1
	-	-	FC	Wu	PR	71 (1947)	118
	-	-	FC	Lochte	TFS	28 (1932)	698
	-	-	FC	Badger	JCP	2 (1934)	128
	-	-	FC	Badger	PR	48 (1935)	284
	-	-	FC	Linnett	TFS	38 (1942)	1
	-	-	FC	Wu	PR	71 (1947)	118
$\text{C}^{12}\text{S}^{32}$	-	-	Microwave	Mockler	PR	98 (1955)	1837
	-	-	Microwave	Mockler	PR	98 (1955)	1837
$\text{C}^{12}\text{S}^{33}$	-	-	Microwave	Mockler	PR	98 (1955)	1837
$\text{C}^{12}\text{S}^{34}$	-	-	Microwave	Mockler	PR	98 (1955)	1837
$\text{C}^{13}\text{S}^{32}$	-	-	Microwave	Mockler	PR	98 (1955)	1837
CSSe	2-15 μ	L,G	Spec, Ident	Wentik	JCP	29 (1958)	188
CSTE	2-15 μ	Sol	Spec, Ident	Hardy Wentik	PR JCP	95 (1954) 29 (1958)	385 188
CS ₂	2μ 5.2μ $0.4-2.0 \mu$	L	Dispersion Transparency Refractive index	Nichols Hollnagel	PR PR	1 (1893) 11 (1918)	1 505
	-	L	Magnetic rotation	Coblentz	JOSA	4 (1920)	432
	$0.8-2.0 \mu$	-	Magnetic rotation	Ingersoll	JOSA	5 (1921)	156
	$3-6.5 \mu$	L	Spec	Ingersoll	JOSA	6 (1922)	663
	-	-	Freq, Thermo.	Daniels	JACS	47 (1925)	2856
	-	-	Vibrations	Lecomte	TFS	25 (1929)	864
	-	-		Yates	PR	36 (1930)	555

25 μ	G	Assign	PR	38 (1931)	2077
0.5-2 μ	L	Kerr Effect	PR	37 (1931)	1184
6.7-33 μ	G	Transmission	PR	37 (1931)	1565
-	-	Assign	Strong	39 (1932)	1020
20.7-41 μ	G	Spec	Bhagvantam	PR	39 (1932)
-	-	Struct.	Dennison	PR	41 (1932)
20.7-41 μ	G	Isotope effect	Lochte	TFS	304
4.61 μ	-	Spec	Salant	PR	42 (1932)
2 μ	L	Spec	Strong	PR	42 (1932)
25.2 μ	G	Spec	Bailey	PHS	605
-	-	Quant. Mech.	Ingersoll	PR	44 (1933)
4.61 μ	-	Thermo.	Strong	PR	45 (1934)
2 μ	-	Thermo.	Wilson	JCP	877
25.2 μ	-	Excited electronic state	Cross	JCP	2 (1934)
-	-	state	Duncan	JCP	3 (1935)
-	-	Struct	Milliken	JCP	432
1-12 μ	L	Dispersion	Pfund	JCSA	829
52-152 μ	L	Dispersion	Cartwright	PRS	384
-	-	FC	Penney	PHS	384
0.6-9.0 μ	L	Refractive index	Pfund	JOSA	384
4.54-4.62 μ	G	Spec, Anal	Sanderson	PR	384
1-2.5 μ	L	Spec	Kinsey	JOSA	384
-	-	Dispersion	Davis	PR	384
-	-	FC	Glockler	RMP	384
-	-	Absorption	Nielsen	RMP	384
-	-	Quant. Mech.	Glockler	JCP	384
3-20 μ	L	Spec	Torkington	TFS	384
-	-	FC	Gordy	JCP	384
-	-	FC	McDowell	TFS	384
2-24 μ	L,G	Spec, Assign	Plyler	JRNBB	384
24-40 μ	-	Freq	Plyler	JCP	384
2-15 μ	-	Instrument callibration	Crooker	PR	384
-	-	Quant. Mech., FC	Duchesne	JCP	384
-	-	FC	Linnett	TFS	384
3 μ	-	Dispersion	Lecomte	JFR	384
650-1400	L	Spec	Cannon	SA	384
4-7 μ	Sol	Anal	Weeks	AC	384
-	-	I	Robinson	AC	384
1523	G	I	Robinson	JCP	384
8-15 μ	-	Spec	Scott	JACS	384
-	-	FC	Thomas	JCP	384
2.2 μ	L	Freq	Acquista	JRNBB	384

$\text{C}^{2.2}\mu$	G	Spec, Freq	Gailar	PR	86	(1952)	586		
-	G	Spec, Freq	Gailar	JRN	48	(1952)	392		
-	-	Polarizability	Matossi	JCP	20	(1952)	819		
1523	G	I	McKeen	JCP	20	(1952)	520		
23-27 μ	L	Prism performance	Plyler	JRN	49	(1952)	61		
2-15 μ	L	Spec	Pristera	APS	6	(1952)	29		
2-15 μ	L	Spec	Tarpley	AC	24	(1952)	315		
-	-	FC	Thomas	JCS	-	(1952)	2383		
382.5-469.7	G	Spec	Hadni	CPR	236	(1953)	1761		
7-13.5 μ	L	Spec	Eckstein	JCP	22	(1954)	28		
1200-1800	Sol	Band study, I	Ketelaar	JCP	23	(1955)	749		
1500-2100	Sol	Solutes effect	Ketelaar	JCP	23	(1955)	1549		
-	Sol	Spec	Sirkar	JCP	23	(1955)	2439		
-	G	Anal., Struct	Allen	JACS	78	(1956)	4843		
-	-	FC	Baughan	TFS	53	(1957)	1046		
-	-	Depolarizing light theory	Buckingham	TFS	53	(1957)	884		
1-13 μ	L	Dispersion	Jaffe	JOSA	47	(1957)	782		
380-415	G	Spec	Lord	JOSA	47	(1957)	689		
15-150 μ	-	Spec	Lord	JOSA	47	(1957)	340		
-	-	Freq	Pinhas	AC	29	(1957)	334		
2.2 μ	G	Freq, Mol. Const.	Guenther	JCP	28	(1958)	682		
1200-2500	G	Freq	Jones	JCP	28	(1958)	995		
2-25.27 μ	G,L	Assign, Freq	Schatz	JCP	29	(1958)	959		
2-15 μ	L,G	Spec, Ident	Wentik	JCP	29	(1958)	188		
4530-4575	-	Freq, Struct, Mol. Const.	Guenther	JCP	31	(1959)	1095		
-	G	I	Smirnov	OS	7	(1959)	193		
700-1400	S	I, Assign, Spec	Whalley	CJC	38	(1960)	2105		
C^{13}S_2	-	Quant. Mech.	Glockler	JCP	13	(1945)	388		
Carbon disulfide (isotopic)									
CS_{E}_2	800-2500	-	Spec	Treiber	ACS	11	(1957)	752	
	2-15 μ	L,G	Spec, Ident	Wentik	JCP	29	(1958)	188	
	7.6-7.9 μ	Sol,G	I	Wentik	JCP	31	(1959)	834	
Si	Carbon diselenide	-	S	Emissivity	Pirani	JSI	16	(1939)	372
	-	-	Spec	Ramdas	FLAS	37	(1953)	571	
	1-15 μ	-	Spec	Stewart	JRN	59	(1957)	405	
	1-25 μ	-	Freq	Spitzer	PR	113	(1959)	127	
	1-15 μ	I	Anal	Spitzer	PR	113	(1959)	153	

C_2	Carbon	0.778-2.14 μ	S	Transmission	Nichols	PR	1 (1893)
		0.8-8 μ	-	Spec	Nichols	PR	2 (1895)
		2.4 μ	-	Emission	Barker	PR	7 (1916)
		-	-	Spec	King	PR	14 (1919)
		0.9-2 μ	-	Spec	Ingram	PR	33 (1929)
		0.9-2 μ	-	Freq	Ingram	PR	34 (1929)
		-	-	Morse potential	Norse	PR	34 (1929)
		5-50 μ	-	Absorption	Cartwright	PR	35 (1930)
		6-7-33 μ	-	Transmission	Strong	PR	37 (1931)
		20-130 μ	-	Spec	Barnes	PR	39 (1932)
		-	-	FC	Badger	JCP	562 (1934)
		0.5-2.2 μ	S	Transmission	Hulbert	ESI	128 (1934)
		-	-	Mol. Const.	Pekeris	ESI	415 (1935)
		1-120 μ	S	Spec	Barnes	JOSA	1565 (1936)
		-	-	Particle size	Gamble	IJC	562 (1937)
		0.83-1.13 μ	S	Spec	Kiess	JRN	128 (1938)
		-	-	Potential function	Linnnett	TFS	33 (1938)
		-	-	FC	Clark	TFS	85 (1940)
		-	-	Potential function	Clark	TFS	1123 (1940)
		-	-	Thermo	Hulbert	TFS	36 (1941)
		2-25 μ	S	Spec	Wells	TFS	37 (1941)
		-	-	FC	Linnnett	TFS	293 (1941)
		1-17 μ	S	Emissive power	Smith	TFS	37 (1941)
		1-2 μ	-	Solar atomic lines	McMath	JCP	299 (1941)
		-	-	FC	Wu	JPC	61 (1941)
		1-39 μ	S	Spec	Flyler	TFS	1055 (1941)
		1-16 μ	G	Oxyacetylene flame	Benedict	TFS	38 (1942)
		2-11 μ	S	Spec	Waldock	ESI	1 (1942)
		1-2.6 μ	G	Band freq	Benedict	PR	63 (1942)
		-	-	Thermo.	Glockler	JRN	644 (1942)
		-	-	Freq, Spec	Minnhagen	AMAF	71 (1947)
		7900-8300	G	Spec	Benedict	JRN	118 (1947)
		20.7-152 μ	G	Spec	Strong	JRN	161 (1948)
		-	-	Spec	Woo	JRN	988 (1948)
		-	-	Assign	Shochow Woo	JCP	267 (1932)
		-	-	-	-	-	932 (1932)
		-	-	-	-	-	541 (1935)
C_2	Dicarbon radical	-	-	-	-	-	-
C_2N_2	Cyanogen	-	-	-	-	-	-

C ₄ N ₄ S ₄ Si	Silicon tetraiso-thiocyanate	-	-	Spec., Struct.	Goubean	ZAUA	294 (1958)	96
HD	Hydrogen-d ₁	-	G	Spec	Herzberg	N	166 (1950)	563
HDClN	Monochloramine-d ₁	-	G	Mol. Const.	Moore	JACS	74 (1952)	6076
HDO	Water-d ₁	-	G	Quant. Mech.	VanVleck	JCP	1 (1933)	357
	1-7 μ	L	Spec	Casselman	PR	45 (1934)	221	
	1-10 μ	-	Assign	Ellis	JCP	2 (1934)	559	
	-	-	Spec	Rank	JCP	2 (1934)	464	
	-	-	Quant. Mech.	Wilson	JCP	2 (1934)	432	
	1375-1475	-	Spec., Assign	Barker	JCP	3 (1935)	660	
	2.6-3.8 μ	Sol	Spec	Borst	JCP	6 (1938)	61	
	23-135 μ	G	D-Q Study	Fusion	PR	56 (1939)	982	
	3 μ	Sol	Spec., H bond	Errera	JCP	8 (1940)	63	
	-	-	Quant. Mech.	Shaffer	JCP	12 (1944)	504	
	-	-	Quant. Mech.	Glockler	JCP	13 (1945)	388	
	1	G	Microwave	Townes	PR	70 (1946)	558	
	-	-	Anal	Halverson	HMP	19 (1947)	87	
	-	-	Microwave	King	PR	71 (1947)	433	
	1-2.5 μ	-	Spec., Microwave	Strandberg	PR	73 (1948)	188	
	3.67 μ	G	Absorption	Gebbie	PR	76 (1949)	1534	
	-	-	Microwave	Strandberg	JCP	17 (1949)	901	
	3.7 μ	G	Spec	Chapman	PR	78 (1950)	71	
	6 μ	G	Spec	Chapman	PR	78 (1950)	333	
	1-14 μ	G	Atmospheric transmission	Gebbie	PRS	206 (1951)	87	
	1.5-4.2 μ	G	Spec., Anal	Benedict	JCP	21 (1953)	1302	
	-	-	Microwave	Jen	JCP	21 (1953)	520	
	-	-	Microwave	Posener	JCP	21 (1953)	1401	
	-	-	Thermo	Friedman	PR	94 (1954)	1423	
	-	-	Freq	Jones	JCP	22 (1954)	217	
	-	-	Centrifugal distortion theory	Posener	PR	95 (1954)	374	
	0-35 μ	G	Spec., Microwave	Rogers	PR	95 (1954)	622	
	475-3500	G	Microwave	Walsbaum	JCP	23 (1955)	1601	
	1.25-4.1 μ	G	Spec., Mol. Const.	Benedict	JCP	24 (1956)	1139	
	3.98 μ	Sol	Anal	Spell	AC	29 (1957)	166	
	1300-7500	-	Spec., H bond	Waldron	JCP	26 (1957)	809	

	-	-	Struct Band shift	Gailar Saumagne Gailar Haas	DA BSCF JMS JCP	19 (1958) - (1958) 4 (1960) 32 (1960)	839 813 1 1763
	3350-3800	Sol G	Anal, Freq				
	1190-1720		Freq				
	1000-7000	L					
HDO ₂	Hydrogen peroxide-d ₁	-	G	Microwave	Massey	PR	95 (1954) 622
HDS	Hydrogen sulfide-d ₁	-	-	Quant. Mech. Freq, Assign Spec, Freq, Assign	Wilson Bailey Nielsen Glockler Halverson King	JCP JCP JCP RMP PR JA	2 (1934) 432 4 (1936) 625 5 (1937) 277 13 (1945) 388 19 (1947) 87 71 (1947) 433 4 (1954) 611
	1-15 μ	G		Quant. Mech.			
	1.5-12 μ	G		Freq, Assign			
	-	-		Spec, Freq, Assign			
	-	-		Anal, Freq, Assign			
	-	-		Anal. Mech.			
	-	-		Microwave			
	-	-		Spec			
	6-140 μ	G		Anal, Spec	Crosby Haar	JCP PR	23 (1955) 1660 99 (1955) 638
	-	-		Thermo			
HDS ³²	Hydrogen sulfide-d ₁ (isotopic)	-	-	Microwave	Hillger	PR	83 (1951) 575
HDS ³³	Hydrogen sulfide-d ₁ (isotopic)	-	-	Microwave	Hillger	PR	83 (1951) 575
HDS ³⁴	Hydrogen sulfide-d ₁ (isotopic)	-	-	Microwave	Hillger	PR	83 (1951) 575
HDSe	Hydrogen selenide-d ₁	-	-	Struct Spec, Freq, Assign	Sears Cameron Halverson Veselago	PR JCP RMP IANS	53 (1938) 7 (1939) 19 (1947) 22 (1958)
	1610-2385	-		Anal			
	4-12 μ	G		Struct			
	-	-					
	8000-43000	-					
HD N	Ammonia-d ₂	-	-	Freq	Howard Migoette Wall	JCP PR JCP	3 (1935) 207 50 (1936) 418
	800-1000	G		Spec	Halverson	RMP	5 (1937) 314
	-	-		Quant. Mech.	Burgess	PR	19 (1947) 87
	-	-		Anal	Bigeleisen	JCP	76 (1949) 1267
	-	-		Ident	Reding	JCP	20 (1952) 718
	733-982	G		Ident	Palik	JCP	23 (1955) 1053
	800-3500	S		Spec, Assign, NCA	Thyagarajan	JCP	26 (1957) 1093
	30-200	-		Spec, Mol. Const.		JMS	5 (1960) 307
	-	-		Thermo			

HD ₂ P	Phosphine-d ₂	-	G	Freq	Weston	JCP	20	(1952)	1820
		-	G	Microwave	Sirve tz	JCP	21	(1953)	898
	50-100	G	Freq	Strong	Strong	JCP	21	(1953)	2092
	-	-	Thermo		Thyagarajan	JMS	5	(1960)	307
HD ₂ As	Arsine-d ₂	-	-	Thermo	Thyagarajan	JMS	5	(1960)	307
HD ₃ FN	Ammonium fluoride-d ₃	800-3600	S	Freq, Spec	Plumb	JCP	23	(1955)	447
HD ₃ Ge	Germane-d ₃	2112	G	Spec, Freq, Anal	Lindeman	JCP	22	(1954)	1723
HD ₃ Si	Silane-d ₃	4250-4400 2-16 μ -	G	Spec, Anal Spec, Assign, FC, Anal Mol. Const.	Boyd Meal Meal	JCP	23	(1955)	922
HD ₃ Si ²⁹	Silane-d ₃ (isotopic)	4300	G	Rotation lines	Boyd	JCP	24	(1956)	385
HD ₃ Si ³⁰	Silane-d ₃ (isotopic)	4300	G	Rotation lines	Boyd	JCP	24	(1956)	1126
HD ₅ B ₂	Diborane-d ₅	2-15 μ	G	Spec, Freq, Assign	Lehmann	JCP	29	(1958)	1248
HT	Tritium hydride	-	-	Thermo	Jones	JCP	16	(1948)	1077
HTO	Water-t ₁	-	-	Quant. Mech.	Libby	JCP	11	(1943)	101
		-	-	Thermo	Friedman	PR	94	(1954)	1423
		700-7000	G	Freq, Assign	Staats	JCP	24	(1956)	916
HTS	Hydrogen sulfide-t ₁	-	-	Thermo	Haar	PR	99	(1955)	638
HT ₂ N	Ammonia-t ₂	-	-	Thermo	Thyagarajan	JMS	5	(1960)	307
HT ₂ P	Phosphine-t ₂	-	-	Thermo	Thyagarajan	JMS	5	(1960)	307
HT ₂ As	Arsine-t ₂	-	-	Thermo	Thyagarajan	JMS	5	(1960)	307
HBr	Hydrogen bromide	3.9 μ	G	Theory of harmonics Struct	Kemble Randall	PR	15	(1920)	95
						PR	15	(1920)	152

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-	G	Ionization potential	Kemble	PR	19	(1922)
-	-	Thermo	Urey	JACS	45	(1923)
-	-	Freq.	Rideal	TFS	25	(1929)
-	-	Freq., Spec	Snow	TFS	25	(1929)
-	-	Freq.	Breit	PR	36	(1930)
-	L,G	I	Shearin	PR	35	(1930)
-	G	I	Salant	PR	37	(1931)
-	L	Freq.	Salant	PR	37	(1931)
-	-	Freq.	Gordon	JCP	1	(1933)
4850	-	Thermo	Plyler	PR	44	(1933)
-	G	Mol. Const.	Mulliken	JCP	2	(1934)
-	-	Electronic moment	Plyler	JCP	2	(1934)
-	-	Spec	Kemble	JCP	3	(1935)
-	-	I	Barr	JCP	4	(1936)
2-4 μ	-	Assign.	Leberknight	PR	51	(1937)
-	-	Solvent effect	Plyler	PR	51	(1937)
-	-	Strong, & weak acid			316	692
-	-	study			92	984
1.5-2.8 μ	-	Solvent effect	Williams	PR	51	(1937)
2300-3100	-	Quant. Mech.	Sutherland	JCP	8	(1940)
5.4-5.75 μ	-	FC	Sutherland	JCP	8	(1940)
-	-	Thermo	Hulbert	JCP	9	(1941)
-	-	FC	Warhurst	TFS	40	(1944)
-	-	FC	Gordy	JCP	14	(1946)
-	-	Quant. Mech.	Davies	JCP	17	(1949)
-	-	Bond study	Warhurst	TFS	45	(1949)
-	-	FC	Heath	TFS	46	(1950)
-	-	Emission	Perner	JAP	21	(1950)
-	-	FC	Platt	JCP	18	(1950)
-	-	FC	Sheline	JCP	18	(1950)
-	G	I	Perner	AC	23	(1951)
2600	G	Spec	Bullock	JCP	20	(1952)
-	-	FC	Moller	JCP	20	(1952)
-	-	Calibration of prism	Downie	JOSA	43	(1953)
2410-2675	G	Spec	Harsler	JCP	21	(1953)
40-140 μ	G	Bond study	Huggins	JACS	75	(1953)
-	-	I	Perner	JCP	21	(1953)
-	G	Line width	Weber	JCP	21	(1953)
2559	-	I	Aroeste	JCP	22	(1954)
-	G	Microwave	Birnbaum	PR	95	(1954)
1.28 μ	-	Thermo	Pennington	JCP	22	(1954)
300-4000	S	Spec, Assien, Struct.,	Hornlie	JCP	23	(1955)
		TC			662	

HBr_3Si	$2-15 \mu$	G	Potential function	Lippincott Pierson Baughan Coulon Horning Falk Lascombe Vu	JCP AC TPS CPR JCP CJC BSCF CPR	23 (1955) 28 (1956) 53 (1957) 245 (1957) 27 (1957) 35 (1957) - (1959) 249 (1959)
	-	Spec			RMP JCP	19 (1947) 23 (1955)
	-	FC				87 2451
	-	Spec				
1900-2800	-	S	Spec			
$2-25 \mu$	-	S	Iso., Spec, Struct			
	-	Sol	Struct			
	-	G, L, S	Perturbation of fundamental of HBr			
	-	Sol	Solvent effect	Grange Flyler	SA JRNB	16 (1960) 64 (1960)
	-	-	Spec, Mol. Const.	Mould	SA	16 (1960)
H^{81}Br	-	G	Spec, Mol. Const.	Mould	SA	16 (1960)
						479
Hydrogen bromide (isotopic)	-	G	Spec, Mol. Const.			
Hydrogen bromide (isotopic)	-	-	Anal Freq, FC	Halverson Murata	RMP JCP	19 (1947) 23 (1955)
Tribromosilane	-	-	Spec	Callow Kemble	JCS PR	109 (1916) 8 (1916)
	-	-	Rotation	Kemble	PR	55 689
	-	-	Theory of harmonics	Kemble	PR	8 (1916)
	-	-	Theory of harmonics	Kemble	PR	701
	-	-	Struct	FRandall	PR	15 (1920)
	3.4μ	G	Struct	FRandall	PR	95
	$1.76-3.46 \mu$	G	Struct	FRandall	PR	152
	$3-5 \mu$	G	I	Bourgin	PR	541
	-	G	Ionization potential	Kemble	PR	29 (1921)
	3.5μ	-	I	Kemble	PR	794
	$3.2-3.85 \mu$	G	Struct	Kemble	PR	394
	$3.3-3.7 \mu$	G	Absorption	Handall	PR	21 (1923)
	-	-	Thermo	Spence	JOSA	713
	3.46μ	G	Thermo	Tolman	JOSA	45 (1923)
	-	-	Struct	Urey	JACS	45 (1923)
	-	-	Duration in upper state	Lowny	JOSA	169 (1923)
	3.46μ	-	I	Tolman	PR	23 (1924)
	-	G	I	Kemble	PR	2277
	-	-	Thermo	Hicks	JACS	25 (1925) 48 (1926)
	-	-	Dielectric const.	VanVleck	PR	1520 (1926)
	-	-	Band study, I	Bourgin	PR	30 (1927)
	-	-	I	Dennison	PR	31 (1928)
	-	-	-			503

-	-	Thermo Spec	JACS TFS	50 (1928) 25 (1929)	1859 912
3.46μ	G	I	Barker Colby	34 (1929)	53
$2.5-1.8 \mu$	G	I	Dunham	34 (1929)	438
1.76μ	G	-	Ellis	33 (1929)	625
-	-	Quantum theory Spec	Langer	33 (1929)	1097
-	-	I	Meyer	34 (1929)	44
$1.8-3.5 \mu$	G	Freq.	Rideal	25 (1929)	921
-	-	I	Salant	PR	1096
-	-	L	Snow	TFS	(1929)
-	-	G	Wood	PR	921
-	-	L, G	Breit	PR	1097
-	-	I	Dunham	PR	871
-	-	G	Shearin	PR	1347
-	-	I	Wood	PR	973
-	-	G	Salant	PR	1355
-	-	Freq.	Salant	PR	708
-	-	I	Hardy	PR	37 (1931)
-	-	Spec	Hardy	PR	373
-	-	G	Strong	PR	471
-	-	Spec	Strong	PR	42 (1932)
-	-	G	Gordon	JCP	279
-	-	Thermo	Badger	JCP	267
-	-	FC	Mulliken	JCP	297
-	-	-	Mulliken	JCP	128
-	-	-	Mulliken	JCP	400
-	-	-	Mulliken	JCP	712
-	-	-	Pekeris	PR	98
-	-	-	Pekeris	JCP	306
-	-	Spec, Anal	Strong	PR	877
-	-	FC	Badger	PR	284
-	-	-	Cleaves	PR	850
-	-	G	Kemble	JCP	316
-	-	3rd Harmonic	Rollefson	PR	779
-	-	I	Shearin	PR	299
-	-	Dispersion	Barr	JCP	92
$1-10 \mu$	G	Spec	Bell	TFS	1013
3.7μ	S	Assign	Herzberg	PR	1186
$1.5-7.8 \mu$	-	Quant. Mech.	Williams	PR	719
-	-	Pressure broadening	Plyler	PR	215
-	-	Transmission curve	West	JCP	14
$2-4.2 \mu$	-	Solvent effect	West	PR	405
1.76μ	Sol	Solvent effect	Cartwright	JCP	776
$3-4 \mu$	-	Solvent effect	Gordy	PR	1075
$50-150 \mu$	Sol	Band study	Spec	PR	52 (1937)
$2.6-5.8 \mu$	Sol	Spec			

2300-3100 5.4-5.75 μ	-	Solvent effect Strong & weak acid study	Leberknight Plyler	PR PR	51 (1937) 51 (1937)	430 685
2000-3700	Sol	Spec, H bond H bond	Buswell	JACS JCP RMP	60 (1938) 6 (1938) 10 (1938)	2528 497 72
3.5 μ 1.7-3.5 μ 2.6-5.4 μ 3.5 μ	G G G, Sol G	Spec Spec Freq Solvent effect Spec H bond	Freymann Randall Shearin Gordy Randall Rodebush West	JOSA JCP JCP JAP JPC JCP	28 (1938) 7 (1939) 7 (1939) 10 (1939) 43 (1939) 7 (1939)	61 99 768 219 795
5300-5000 2500-3500 2600-2800	- Sol S	- Spec, H bond Spec	Buswell Lee	JCP PR TFS	8 (1940) 176 (1940) 36 (1940)	362 362 493
-	-	Entropy Quant. Mech. FC	Linnett Milliken	JCP JCP TFS	8 (1940) 8 (1940) 36 (1940)	527 382 889
-	-	H bond	Sutherland	JCP	9 (1941)	161
-	-	-	Gordy	JCP	9 (1941)	215
-	-	Solvent effect	Hulbert	JCP	9 (1941)	61
-	-	Thermo	Obrien	JACS	63 (1941)	2709
3 μ 2.7 μ	Sol G	Band study Spec	Smith	RSI	13 (1942)	54
3-4 μ 3.46 μ	Sol G	FC Dispersion Spec	Warhurst Wright Barnes	TFS RSI JAP	40 (1944) 15 (1944) 16 (1945)	26 22 77
3.5 μ	G	Pressure broadening FC	Foley Gordy Bell	PR JCP RSI	69 (1946) 14 (1946) 18 (1947)	616 305 48
-	-	FC	Coggeshall Coggeshall Nielsen	JCP JCP JOSA	15 (1947) 15 (1947) 37 (1947)	65 65 296
-	-	Sol	Parnell	PR	74 (1948)	123
-	-	G	Pressure broadening	PR	76 (1949)	647
-	-	G	Quant. Mech.	JCP	17 (1949)	374
-	-	-	Bond lengths	TFS	45 (1949)	461
-	-	FC	Warhurst	TFS	45 (1949)	476
-	-	FC	Heath	TFS	46 (1950)	137
100-600 μ	G	Spec Emission	McCurbin Penner	JOSA JAP	40 (1950) 21 (1950)	537 685
-	-	FC	Platt	JCP	18 (1950)	927
-	-	FC	Sheline	JCP	18 (1950)	932
100-700 μ	-	Spec	McCurbin	JOSA	41 (1951)	289

-	G	I	Penner	AC	23	(1951)	1048
2.700 μ	G	S	Ham	JOSA	42	(1952)	496
100-700 μ	G	Isotopic dilution	Hiebert	JCP	20	(1952)	918
-	-	Spec	McCubbin	JCP	20	(1952)	668
-	-	Chemical binding	Mecke	JCP	20	(1952)	1935
300-5900	G	FC	Moller	JCP	20	(1952)	203
-	-	Spec	Newman	JCP	20	(1952)	749
3.5 μ	G	Emissivity	Penner	JAP	23	(1952)	825
3.46 μ	G	Instrument performance	Walsh	JOSA	42	(1952)	96
2725-3060	G	Pressure broadening	Benesch	PR	91	(1953)	308
40-140 μ	G	Calibration of prism	Downie	JOSA	43	(1953)	941
-	-	Spec	Hansler	JCP	21	(1953)	1340
-	-	Line width	Huggins	JACS	75	(1953)	4126
2886	G	I	Penner	JCP	21	(1953)	649
-	-	Line width	Weber	JCP	21	(1953)	1503
-	-	I	Aroeste	JCP	22	(1954)	1273
-	-	Line shape	Benedict	PR	94	(1954)	752
1.28 μ	G	Microwave	Birnbaum	PR	95	(1954)	622
3.4 μ	G	Spec	Gaunt	JSI	31	(1954)	315
-	-	Freq	Herbrandson	JACS	76	(1954)	4046
-	-	I	Herman	PR	94	(1954)	752
5668	Sol	Freq	Johannessen	JRNBB	53	(1954)	197
-	Sol	Freq	Josien	JCP	22	(1954)	1169
-	Sol	Association	Josien	CPR	238	(1954)	2525
-	-	FC	Mitra	JCP	22	(1954)	564
-	G	Ident	Moore	JACS	76	(1954)	5253
-	G	Band study	Randall	JAP	10	(1954)	768
-	G	Emission	Smith	PR	93	(1954)	361
-	-	Collision deactivation theory	dewette	JCP	22	(1954)	1620
-	-	Line shape	Benedict	PR	98	(1955)	1551
-	G	I	Herman	JCP	23	(1955)	637
300-4000	S	Spec, Assign, Spec, Struct	Hornig	JCP	23	(1955)	662
-	-	Potential function	Lippincott	JCP	23	(1955)	1131
186-267	G	Calibration of prism	Mills	JOSA	45	(1955)	785
1-5.5 μ	G	Emission, Spec	Wilkinson	AC	27	(1955)	162
2-15 μ	G	Spec	Pierson	AC	28	(1956)	1218
-	G	Freq, Spec, Mol. Const.	Yarmus	PR	104	(1956)	365
-	-	FC	Baughan	TFS	53	(1957)	1046
2-25 μ	Sol	Spec	Falk	CJC	35	(1957)	1195

		Hornig Cameo-BOSCO	JCP JPR	27 (1957) 19 (1958)	752 688	
1900-2800	-	Spec pressure effect line width	Kimel Lascombe Schuller Vu	JCP BSCF OPR OPR GPR Atwood Grange Herman Mould Oksengorn Flyler Schuller	31 (1959) - (1959) 248 (1959) 248 (1959) 250 (1960) SA 16 (1960) JCP 32 (1960) SA 16 (1960) GPR 250 (1960) ZE 64 (1960) SA 16 (1960)	
	-	Spec Struct			81 1175 2194 2469 3816 981 1393 479 1016 717 789	
1.76 μ	G					
	Sol					
-	-	Freq				
-	Sol	Band shift-study				
5660	G	I				
	Sol	Absorption				
-	-	I				
1800-2800	G	Spec., Mol. Const.				
	-	Freq				
-	G	Mol. Const.				
-	Sol	Solvent effect, Freq				
HCl35	Hydrogen chloride (isotopic)	1.8-3.5 μ 1.71-1.75 μ 3.45 μ	G G G	I Isotope effect Spec., Anal I Spec., Mol. Const.	Meyer Hardy Mills Herman Still	PR 34 (1929) PR 41 (1932) PRS 218 (1953) PR 98 (1955) JOSA 50 (1960)
	1000-3400	G				
HCl37	Hydrogen chloride (isotopic)	1.8-3.5 μ 1.71-1.75 μ 3.45 μ	G G G	I Isotope effect Spec., Anal I Spec., Mol. Const.	Meyer Hardy Mills Herman Still	PR 34 (1929) PR 41 (1932) PRS 218 (1953) PR 98 (1955) JOSA 50 (1960)
	1000-3400	G				
HCl ⁺	Hydrogen chloride ion	-	-	Doubling theory	Milliken Wh	PR 28 (1931) PR 71 (1947)
	-	-	FC			
HClF ₄	Chlorine trifluoride hydrofluoride	2.4-2.6 μ	G	Mol. Complexes	Burke	JMS 3 (1959)
HClO	Hydrogen hypochlorite	1-15 μ	G	Spec., Assign	Hedberg	JCP 19 (1951)
HClO ₄	Perchloric acid	-	-	H ₃ O ion study	Bethell	JCP 21 (1953)
		2-25 μ 600-4000	S	I ₆₀ , Spec., Struct Group study	Palk Braunholtz	CJC 35 (1957) JCS - (1959)
HCl ₂ ^N	Dichloramine	1.4-25 μ	G	Mol. Const., Assign	Moore Huggins	JACS 74 (1952) JACS 75 (1953)
	-	-		Band study		6076 4126
HCl ₂ ^B	Dichloroborane	1-15 μ	G	Anal	Nadeau	AC 32 (1960)
						1480
						1895

HCl ₂ ²⁹ Si	Trichlorosilane	-	-	Anal Band freq Spec, Assign	Halverson Richards Gibian Hawkins West Smith	RMP JCS JACS JCP JACS SA	19 (1947) - (1949) 73 (1951) 21 (1953) 75 (1953) 15 (1959)	87 124 1431 1122 1002 412
		-	G,L					
	650-5000	G						
	450-700	-						
	-	Sol						
	2050-2250							
HCl ₂ ²⁸ Si ²⁸	Trichlorosilane (isotopic)	-	-	Microwave	Mockler	JCP	21 (1953)	1710
HCl ₂ ³⁷ Si ²⁸	Trichlorosilane (isotopic)	-	-	Microwave	Mockler	JCP	21 (1953)	1710
HF	Hydrogen fluoride (monomer)	2.5 μ	G	Struct Thermo Freq Freq Freq, Spec	Randall Urey Mecke Rideal Snow	PR JACS TFS TFS TFS	15 (1920) 45 (1923) 25 (1929) 25 (1929) 25 (1929)	152 1445 936 921 930
		-	-		Villars	JACS	51 (1929)	2374
		-	-	Thermo	Badger	JCP	2 (1934)	128
		-	-	FC	Pekeris	PR	45 (1934)	98
		-	-	Mol. Const.	Kirkpatrick	PR	48 (1935)	945
		-	G	Freq Bond energy	Davies	JCP	15 (1947)	739
		-	-	FC	Wu	PR	71 (1947)	118
		-	-	Association	Evans	JCP	16 (1948)	324
		-	-	Bond length	Warhurst	TFS	45 (1949)	461
		-	-	FC	Westrum	JACS	71 (1949)	476
		-	-	Thermo	Heath	TFS	46 (1950)	1940
		-	-	FC	Penner	JAP	21 (1950)	137
		-	G	Emission	Platt	JCP	18 (1950)	685
		-	-	FC	Sheline	JCP	18 (1950)	932
	7700	G			Talley	PR	77 (1950)	927
	0.86-2.7 μ	G		Mol. Const. Spec	Moller	JCP	20 (1952)	521
	-	-			Moller	JCP	20 (1952)	203
	2.5 μ	G			Pensler	JCP	22 (1954)	1834
	500-4000	Sol		Complex study H bond	Adams	JMS	1 (1957)	306
	-	-		FC	Baughan	TFS	53 (1957)	1046
	-	Sol	I, Freq		Wenograd	JACS	79 (1957)	5844

HF	300-5000	Sol	Spec, I	Giguere	CJC	36	(1958)	1013
	3000-4000	Sol	Polymerization	Josien	CPR	246	(1958)	3339
-	-	G	Spec, I	Kuipers	JMS	2	(1958)	75
-	-	-	Band study	Smith	SA	12	(1958)	224
-	-	Sol	Solvent effect	Grange	SA	16	(1960)	981
-	-	Freq		Okssengorn	CPR	250	(1960)	1016
HF	3810-4000	G	Spec	Smith	JMS	3	(1959)	473
	3845-4000	G	Spec	Hergert	JOSA	50	(1960)	1264
HF	Hydrogen fluoride (dimer)	-	-	Tolman	PR	33	(1924)	693
HF	Hydrogen fluoride (polymer)	-	Duration in upper state	Flyler	JCP	2	(1934)	306
	-	-	Spec	Buswell	JCP	7	(1939)	856
	-	-	H bond	Murphy	JCP	7	(1939)	806
	-	-	Thermo	Buswell	JCP	8	(1940)	362
	-	-	H bond, Spec	Malliken	JCP	8	(1940)	382
	-	-	Quant. Mech.	Sutherland	JCP	8	(1940)	161
	-	-	FC	Sutherland	JCP	36	(1940)	889
	-	G	H bond	Vodar	JCP	8	(1940)	161
	-	-	Window material to resist HF	Wahrhaftig	JCP	8	(1940)	349
	-	L, Sol	Freq	Hulbert	JCP	9	(1941)	61
	-	-	Thermo	Clockler	JCP	10	(1942)	606
	-	-	FC	Gordy	JCP	14	(1946)	305
	-	-	FC	Evans	JCP	16	(1948)	324
	-	-	Association	Davies	JCP	17	(1949)	374
	-	-	Quant. Mech.	Westnem	JACS	71	(1949)	1940
	-	-	H bond, Thermo	H bond, Thermo	JCS	19	(1951)	1312
	3000-4250	G	Spec	Shelton	JACS	75	(1953)	4126
	-	-	Bond study	Huggins	JCP	22	(1954)	781
	-	Sol	Spec	Jones	JCP	22	(1954)	564
	-	-	FC	Mitra	JCP	22	(1954)	1834
	-	2.5 μ	Spec	Pemsler	PR	99	(1955)	1624
	400-10000	G	Complex study	Kuipers	JCP	23	(1955)	1277
	-	L, Sol	Spec	Maybury	JCP	23	(1955)	1281
	-	G	Vibration relation time	Penny	PR	99	(1955)	1624
	16-23 μ	G	Spec	Smith	PR	99	(1955)	1624
HF ₃ Si	Trifluorosilane	-	Spec	Heath	TPS	50	(1954)	779
	200-2400	G	Microwave	Newman	SA	15	(1959)	793

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$\text{HF}_3\text{Si}^{28}$	Trifluorosilane (isotopic)	-	G	Microwave Mol. Const.	Sheridan Burrus	PR JCP	77 (1950) 26 (1957)	719 391
$\text{HF}_3\text{Si}^{29}$	Trifluorosilane (isotopic)	-	G	Microwave	Sheridan	PR	77 (1950)	719
$\text{HF}_3\text{Si}^{30}$	Trifluorosilane (isotopic)	-	G	Microwave	Sheridan	PR	77 (1950)	719
HI	Hydrogen iodide	-	-	The rmo Freq	Urey Rideal	JACS TFS	45 (1923) 25 (1929)	1445 921
		-	-	Freq	Snow	TFS	25 (1929)	930
		-	-	Thermo	Villars	JACS	52 (1930)	1733
		-	-	Freq	Salant	PR	37 (1931)	373
		-	-	Freq	Salant	PR	37 (1931)	108
		4262-6262	L	Electric moment	Mulliken	JCP	2 (1934)	400
			-	Electric moment	Mulliken	JCP	2 (1934)	712
			-	I	Kemble	JCP	3 (1935)	316
			-	Spec. Mol. Const.	Nielsen	PR	47 (1935)	585
			-	Freq	Kirkpatrick	PR	49 (1936)	104
			-	Thermo	Murphy	JCP	4 (1936)	344
			-	Solvent	Williams	PR	51 (1937)	288
			-	I	Mulliken	JCP	7 (1939)	20
			-	Quant. Mech.	Mulliken	JCP	8 (1940)	382
			-	FC	Sutherland	JCP	8 (1940)	161
			-	Thermo	Hulbert	JCP	9 (1941)	61
			-	FC	Wahrurst	TFS	40 (1944)	26
		2260-4416	G	Calibration check	Cooley	PR	67 (1945)	296
			-	FC	Gordy	JCP	14 (1946)	305
			-	Quant. Mech.	Davies	JCP	17 (1949)	374
			-	Bond study	Wahrurst	TFS	45 (1949)	461
		260-1020	G	Heath	Heath	TFS	46 (1950)	137
			-	G	Penner	JAP	21 (1950)	685
			-	FC	Platt	JCP	18 (1950)	932
			-	FC	Sheline	JCP	18 (1950)	927
			-	FC	Boyd	SA	5 (1952)	308
			-	4 μ	Moller	JCP	20 (1952)	203
			-	FC	Huggins	JACS	75 (1953)	4126
			-	Bond study	Green	JACS	76 (1954)	2127
		300-4000	S	Ident	Hornig	JCP	23 (1955)	662
			-	Spec. Assign, Struct,				
			-	FC				

		Potential function	Lippincott	JCP	23 (1955)	1151		
		Freq	Palik	JCP	23 (1955)	217		
		FC	Baughan	TFS	53 (1957)	1046		
		Spec, Freq	Falk	CJC	35 (1957)	1195		
		Struct	Lascombe	BSCF	- (1959)	1175		
		Solvent effect	Grange	SA	16 (1960)	981		
HIO ₃	Iodic acid	S	Spec, Struct	Dasset	JCS	- (1960)	2429	
HN	Nitrogen hydride	-	-	Mecke	TFS	25 (1929)	936	
		-	Freq	Platt	JCP	18 (1950)	932	
		-	FC	Sheline	JCP	18 (1950)	927	
		-	FC	Mitra	JCP	22 (1954)	564	
HNO ₂	Nitroxyl	1000-3800	S	Struct	Brown	JCP	29 (1958)	883
	Nitrous acid	6950-7060 2-23 μ 2-25 μ	G G G, Sol	Spec Spec, Iso Spec, Struct, Thermo Freq	Jones Dor Jones O'Sullivan	JACS	65 (1943)	2274
		-	-	Dissociation	Kinsey	PR	35 (1930)	284
		-	-	Dilution effect	Kinsey	PR	36 (1930)	603
		-	-	Spec	Flyler	JCP	2 (1934)	306
		-	-	Spec	Badger	JCP	4 (1936)	711
		-	-	Anal	Bauer	JCP	5 (1937)	852
		6-15 μ	G	Spec, Struct, Assign	Williams	JACS	61 (1939)	2987
		6850-7000	G	Spec	Jones	JACS	65 (1943)	2274
		-	-	Assign	Redlich	JACS	69 (1947)	2240
		-	-	Assign, Struct	Ingold	JCS	- (1950)	2612
		400-3500 550-4000	G S	Spec, Assign, Thermo H ₂ O ion study	Cohn	JCS	- (1952)	4272
		1.4 μ	G	Decomposition rate	Bethell	JCP	21 (1953)	142
		-	-	Spec	Ellis	JACS	3 (1953)	318
		-	-	Assign	Nightingale	JPC	58 (1954)	1047
		-	-	Thermo	Fayson	JCP	22 (1954)	2000
		-	-	Freq, Assign	Palm	JCP	23 (1955)	1562
		2-15 μ	G	Spec	Dodd	TFS	52 (1956)	145
		2-25 μ	Sol	Spec	Pierson	AC	28 (1956)	1218
		700-4000	-	Spec, Freq	Falk	CJC	35 (1957)	1195
		600-4000	S	Group study	Marcus	JCP	27 (1957)	564
		8000-35000	-	Microwave, Assign	Braunholtz	JCS	- (1959)	868
				Millen	JCS	- (1960)	1523	

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$\text{HNO}_3 \cdot \text{H}_2\text{O}$	Nitric acid monohydrate	550-4000	S,L	Ton study	Bethell	JCP	21 (1953)	1421
HN_3	Hydrazoic acid	2000-3800 2-21 μ	Sol G	Spec, H bond Spec, Struct, FC Freq, Assign, Quant. Mech.	Buswell Davies Eyster	JACS TFS JCP	61 (1939) 35 (1939) 8 (1940)	2809 1184 135
		2-20 μ 2μ	G	Freq, Assign, Thermo Freq FC, Freq FC	Eyster Lieber Thomas Thomas Whittle	JCP AC JCS TFS JCP	8 (1940) 23 (1951) - (1952) 49 (1953) 22 (1954)	369 1594 2383 855 1943
		-	-	Study of unstable species	Dows	JCP	23 (1955)	1258
		400-3500	G,S, Sol	Spec, Anal, Assign, Thermo	Dows	JCP	23 (1955)	1606
		2-15 μ	S	Spec Band freq	Sawicki Gray Fujita	JACS TFS JACS	77 (1955) 53 (1957) 78 (1956)	957 901 3295
		-	-	FC				
		-	-	Freq				
		1900-2100	S					
$\text{HN}^{15}\text{N}^{14}\text{N}^{14}$	Hydrazoic acid (isotopic)	-	-	Microwave	Amble	JCP	18 (1950)	1422
$\text{HN}^{14}\text{N}^{15}\text{N}^{14}$	Hydrazoic acid (isotopic)	-	-	Microwave	Amble	JCP	18 (1950)	1422
$\text{HN}^{14}\text{N}^{14}\text{N}^{15}$	Hydrazoic acid (isotopic)	-	-	Microwave	Amble	JCP	18 (1950)	1422
HN_3^{14}	Hydrazoic acid (isotopic)	-	-	Microwave	Amble	JCP	18 (1950)	1422
HO	Hydroxy radical	-	-	-	Mecke Mulliken Badger Pekkeris Hulbert Wu Plyler Platt Sheline Hornbeck	TFS PR JCP PR JCP PR JRNBB JCP JCP JCP	25 (1929) 38 (1931) 2 (1934) 45 (1934) 9 (1941) 71 (1947) 42 (1949) 18 (1950) 18 (1950) 19 (1951)	936 85 128 98 61 118 567 932 927 512
				Freq Doubling theory				
				FC				
				Mol. Const.				
				Thermo				
				FC				
		0.8-5 μ	G	Acetylene flame				
		-	-	FC				
		-	-	FC				
		7450-7900	G	Spec				

G	Spec	Penner	JCP	20	(1952)	522		
-	G	Plyler	JCP	20	(1952)	1178		
3-3.8 μ	G	Benedict	JCP	21	(1953)	398		
1.4-1.7 μ	G	Dejardin	PR	90	(1953)	359		
0.75-0.95 μ	-	Penner	JCP	21	(1953)	31		
-	-	Benedict	JRNBB	52B	(1954)	57		
1-2.6 μ	G	Elliott	JCP	22	(1954)	101		
-	G	Haar	PR	95	(1954)	614		
-	-	Mitra	JCP	22	(1954)	564		
-	-	Penner	JRNBB	52B	(1954)	35		
-	-	Dousmanis	PR	100	(1955)	1735		
-	-	Dows	JCP	23	(1955)	499		
-	-	Haar	JCP	23	(1955)	869		
-	-	Jones	PR	99	(1955)	1637		
-	-	Lippincott	JCP	23	(1955)	1131		
-	-	Madden	JCP	23	(1955)	408		
-	-	McKinley	JCP	23	(1955)	784		
-	-	Rogge	JCP	33	(1960)	453		
490-660	G	Evidence for existence	Giguere	JCP	22	(1954)	2085	
10000-16000	G							
1.5 μ	-							
1035	S							
Hydrogen dioxide radical								
HO ₂								
Boronhydride	-	Doubling theory	Mulliken	PR	38	(1931)	85	
HB	-	FC	Platt	JCP	18	(1950)	932	
	-	FC	Sheline	JCP	18	(1950)	927	
	-	FC	Mitra	JCP	22	(1954)	564	
Phosphorous monohydride	-	-	Platt	JCP	18	(1950)	932	
HP	-	FC	Sheline	JCP	18	(1950)	932	
	-	FC	Mitra	JCP	22	(1954)	564	
Sulfur hydride	-	-	Platt	JCP	18	(1950)	932	
HS	-	FC	Sheline	JCP	18	(1950)	927	
	-	FC	Mitra	JCP	22	(1954)	564	
	-	Thermo	Haar	JCP	23	(1955)	869	
Arsenic hydride	-	-	FC	JCP	18	(1950)	927	
As			Sheline					
Helium hydride molecule ion	-	Quant. Mech.	Milliken	JCP	7	(1936)	20	
He	I		Beach	JCP	4	(1939)	353	
	Freq.	Quant. Mech.	Evett	JCP	23	(1955)	1169	

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HSe	Selenium hydride	-	-	FC		Sheline	JCP	18 (1950)	927
HSi	Silicon monohydride	-	-	-	Doubling theory	Mulliken	PR	38 (1931)	85
		-	-	FC	Wu	PR	71 (1947)	118	
		-	-	FC	Platt	JCP	18 (1950)	932	
		-	-	FC	Sheline	JCP	18 (1950)	927	
		-	-	FC	Mitra	JCP	22 (1954)	564	
		G	Mol. Const.	Douglas	Douglas	CJP	35 (1957)	71	
H ₂	Hydrogen	-	-	-	Specific heat theory	Kemble	PR	11 (1918)	156
		-	-	-	Specific heat	Tolman	PR	22 (1923)	470
		-	-	-	Thermo	Grey	JACS	45 (1923)	1445
		-	-	-	Emission	Pfund	JOSA	9 (1924)	193
		-	-	-	Combustion rate	David	TFS	22 (1926)	273
		G	Spec	Poettker	Babcock	PR	30 (1927)	418	
		G	Spec	I	McAllister	PR	32 (1928)	327	
		-	-	-	Quant. Mech.	Wang	PR	31 (1928)	917
		G	Freq	Bailey	Bailey	TFS	31 (1928)	579	
		G	Freq	Bailey	JCS	PR	25 (1929)	29	
		G	Spec, I	Morse	Richardson	PR	- (1929)	51	
		G	Electronic levels	Richardson	TFS	PR	34 (1929)	57	
		G	Emission curves	Garner	TFS	PR	25 (1929)	686	
		-	-	Thermo	Villars	JACS	26 (1930)	36	
		-	-	Doubling theory	Mulliken	PR	52 (1930)	1733	
		-	-	Wave mechanics	Rosen	PR	38 (1931)	85	
		-	-	Rotating vibrator	Dunham	PR	38 (1931)	2099	
		-	-	theory	Dunham	PR	41 (1932)	721	
		G	Dispersion	Korff	RMP	4 (1932)	471		
		-	Freq	Rosen	PR	43 (1933)	5		
		-	FC	Badger	JCP	2 (1934)	128		
		-	-	Thermo	Johnston	JCP	2 (1934)	389	
		-	G	Anal	Diele	PR	47 (1935)	261	
		-	-	Quant. Mech.	Mulliken	JCP	3 (1935)	375	
		-	G	Pressure broadening	Watson	JPC	41 (1937)	61	
		-	-	Anal	Richardson	PRS	164 (1938)	316	
		G	I	Mulliken	JCP	7 (1939)	20		
		-	G	Thermo	Pitzer	CR	27 (1940)	39	
		-	G	Spec, Anal	Ginsburg	PR	59 (1941)	632	
		-	-	Thermo	Hullbart	JCP	9 (1941)	61	
		G	Spec	Gaydon	PRS	181 (1942)	197		

H_2^+	Hydrogen molecule ion	-	Morse potential	Morse	PR	34 (1929)	57	
	I	-	Mulliken	JCP	7 (1939)	20		
	FC	-	Glockler	JCP	10 (1942)	606		
	Quant. Mech.	-	Coulson	TFS	41 (1945)	141		
	Potential energy	-	Frost	JCP	22 (1954)	1017		
	function	-						
	Potential function	-	Lippincott	JCP	23 (1955)	603		
	Electric-nuclear	-	Wu	JCP	24 (1956)	48		
	motion coupling	-						
H_2DN	Ammonia-d ₁	-	Freq	Howard	JCP	3 (1935)	207	
	800-1000	G	Spec	Migoette	PR	50 (1936)	418	
	-	-	Quant. Mech.	Wall	JCP	5 (1937)	314	
	-	-	Anal	Halverson	RMP	19 (1947)	87	
	-	-	Group study	Burgess	PR	76 (1949)	1267	
	-	-	Criticism	Bigeleisen	JCP	20 (1952)	1495	
	735-982	G	Isotope properties	Stedman	JCP	20 (1952)	718	
	800-3500	S	Spec, Assign, NCA	Reding	JCP	23 (1955)	1053	
	30-2000	-	Spec, Mol. Const.	Palik	JCP	26 (1957)	1093	
	10-80 μ	G	Spec	Loewenstein	JOSA	50 (1960)	1163	
				Hammond	JACS	77 (1955)	2444	
	Deutero hypophosphorous acid	-	Freq					
$\text{H}_2\text{DO}_2^{\text{P}}$	Phosphine-d ₁	-	G	Weston	JCP	20 (1952)	1820	
	50-100	-	Freq	Sirvetz	JCP	21 (1953)	898	
	-	-	Microwave	Stroup	JCP	21 (1953)	2092	
	Arsine-d ₁	-	Freq	Thyagarajan	JMS	5 (1960)	307	
		-	Thermo	Thyagarajan	JMS	5 (1960)	307	
H_2^{DP}	Arsine-d ₁ (isotopic)	-	-	Ja she	PR	95 (1954)	299	
$\text{H}_2^{\text{DAS}75}$	Silane-d ₂	2-16 μ	G	Spec, Assign, FC, Anal	Meal	JCP	24 (1956)	385
$\text{H}_2^{\text{D}}\text{Si}$	Ammonium dihydrogen phosphate-d ₄	300-3000	S	Freq, Spec	Blinc	MP	1 (1959)	381
$\text{H}_2^{\text{D}}\text{NO}_4^{\text{P}}$	Diborane-d ₄	2-15 μ	G	Spec	Lehmann	JCP	29 (1958)	1248

H ₂ TN	Ammonia-t ₁	-	-	Thermo	Thyagarajan	JMS	5 (1960)	307
H ₂ TP	Phosphine-t ₁	-	-	Thermo	Thyagarajan	JMS	5 (1960)	307
H ₂ TAs	Arsine-t ₁	-	-	Thermo	Thyagarajan	JMS	5 (1960)	307
H ₂ Br ₂ Si	Dibromosilane	-	-	Freq, Assign Spec, Assign, Thermo Freq, FC	Hawkins Mayo Murata	JCP JCP JCP	21 (1953) 23 (1955) 23 (1955)	1122 1344 2451
H ₂ CIN	Chlorcamine	2-25 μ	G	Quant. Mech. Spec, Assign	Wilson Moore	JCP JACS	2 (1934) 74 (1952)	432 6076
H ₂ Cl ₂ Si	Dichlorosilane	1.4-25 μ	G	Spec, Assign, Thermo Freq, Assign, Thermo Freq, Struct	Hawkins Hawkins Smith	JCP JCP SA	21 (1953) 21 (1953) 15 (1959)	360 1122 412
H ₂ Cl ₄ OSi ₂	1,1,3,3-Tetrachloro-disiloxane	400-5000	G	Spec, Freq Freq, Struct	West Smith	JACS SA	75 (1953) 15 (1959)	1002 412
H ₂ F ₂ Si ²⁸	Difluorosilane (isotopic)	2050-2250	Sol	Spec, Mol. Const.	Laure	JCP	26 (1957)	1359
H ₂ F ₂ Si ²⁹	Difluorosilane (isotopic)	12000-38000	G	Spec, Mol. Const.	Laurie	JCP	26 (1957)	1359
H ₂ N	Amine free radical	-	-	Struct	Milliken	JCP	1 (1933)	492
H ₂ N ₂	Diimide	2-15 μ	S	Spec	Dows	JCP	23 (1955)	1606
H ₂ O	Water	0.77-2.82 μ 9 μ - 2-4 μ 1-6 μ 0.6-1.35 μ	L G L L L L	Transmission curves Spec Absorption Spec Freq Activity vs concentration	Nichols Rubens Rubens Angstrom Coblentz Hulbert	PR AP AP PR PR JPC	1 (1893) 300 (1898) 300 (1898) 3 (1914) 10 (1917) 21 (1917)	1 584 602 47 96 150
		1-3 μ	L	Spec	Gromtham	PR	18 (1921)	339

0.4-1.3 μ	L	Polarization	Ingersoll	JOSA	5	(1921)
0.7-2.1 μ	L	Temperature effect	Collins	PR	20	(1922)
0.75-18 μ	G	Scattering loss	Fowle	JOSA	6	(1922)
0.8-2.0 μ	L	Magnetic rotation	Ingersoll	JOSA	6	(1922)
6 μ	G	Spec	Sleator	PR	19	(1922)
-	L,S,G	Absorption	Brown	PR	21	(1923)
0.4-2.7 μ	L	Refractive index	Tear	PR	21	(1923)
310 μ	L	Transmission	Wenger	JOSA	7	(1923)
-	-	Freq	Ellis	JOSA	8	(1924)
0.75-1.4 μ	S	Optical properties	Plyler	JOSA	9	(1924)
0.8-2.3 μ	L,G	Spec	Collins	PR	26	(1925)
-	G	Burners flame	Ellis	PR	26	(1925)
0.7-1.4 μ	L	Photochemistry	Franklin	JPC	29	(1925)
0.3-7 μ	S	Reflectivities	Hulbert	JOSA	17	(1928)
0.9727 μ	L	Freq	Lamby	PR	31	(1928)
-	G	Freq	Bailey	TFS	25	(1929)
5-8 μ	G	Freq	Bailey	TFS	25	(1929)
0.4-3 μ	G	Transmission of fog	Granath	PR	33	(1929)
0.4-3 μ	G	Absorption curves for fog	Granath	PR	34	(1929)
-	L	Spec	Lecomte	TFS	25	(1929)
-	-	Freq	Mecke	TFS	25	(1929)
-	-	Mol. Const.	Rideal	TFS	25	(1929)
-	-	Water of crystallization	Schaefer	TFS	25	(1929)
-	-	Electric moment	Williams	CR	6	(1929)
-	-	Freq	Bailey	TFS	26	(1930)
-	G	Spec	Bairley	TFS	26	(1930)
3-4 μ	G	Absorption	Barnes	PR	36	(1930)
1.4-1.9 μ	G	Spec	Brackett	RSI	1	(1930)
0.7-1.05 μ	L	Spec	Collins	PR	36	(1930)
0.2-2.4 μ	L	Body fluids	Forsythe	JOSA	20	(1930)
0.3-2.6 μ	G	Transmission	Anderson	PR	37	(1931)
-	G	Atmospheric temp.	Hulbert	PR	38	(1931)
1.13-1.45 μ	G	Spec, Ident	McAlister	PR	37	(1931)
7-9 μ	G	Band study	Nielson	PR	37	(1931)
1.87-6.26 μ	G	Spec, Freq	Plyler	PR	37	(1931)
1.4-1.9 μ	G	Band study	Plyler	PR	38	(1931)
6.7 μ	G	Spec	Firestone	RSI	3	(1932)
0-8.7 μ	-	Dispersion	Korff	TFS	46	(1932)
1.4-1.9 μ	G	Spec, Freq, Assign	Plyler	PR	39	(1932)
6.26 μ	G	Band study	Silverman	PR	41	(1932)

20.7-152 μ	G	Spec	Strong	PR	42	(1932)
-	G	Spec	Villars	CR	11	(1932)
10-25 μ	G	Spec	Weber	PR	40	(1932)
0.7-2.7 μ	G	Spec	Ellis	RSI	4	(1933)
-	-	Thermo	Gordon	JCP	1	(1933)
-	-	Struct	Mulliken	JCP	1	(1933)
-	-	Quant. Mech.	VanVleck	JCP	1	(1933)
60-125 μ	G	Spec	Wright	PR	44	(1933)
-	G	FC	Bonner	PR	46	(1934)
1-7 μ	L	Spec	Casselman	PR	45	(1934)
1-10 μ	-	Assign	Ellis	JCP	2	(1934)
-	G	Thermo	Gordon	JCP	2	(1934)
0.4-7 μ	G	Absorption	Hulbert	P	5	(1934)
-	-	Freq.	Mecke	TPS	30	(1934)
-	-	Electronic moment	Mulliken	JCP	2	(1934)
2.5-6.5 μ	L	Spec	Flyler	JCP	2	(1934)
-	-	Spec	Hank	JCP	2	(1934)
13-22 μ	G	Spec	Strong	PR	45	(1934)
-	-	Quant. Mech.	Wilson	JCP	2	(1934)
5-21 μ	G	Absorption	Adel	PR	47	(1935)
-	-	Comparison	Barker	JCP	3	(1935)
38-170 μ	G	Absorption	Barnes	PR	47	(1935)
-	-	Vibrations	Duncan	JCP	3	(1935)
1.2-7.5 μ	Sol	Spec	Gordy	JCP	3	(1935)
-	-	Anal	Flyler	JCP	3	(1935)
1.5-2.8 μ	-	Assign	Barr	JCP	4	(1936)
50-200 μ	L	Absortion	Cartwright	PR	49	(1936)
15-150 μ	L	Struct	Cartwright	PR	49	(1936)
5.2-152 μ	S, Sol,	Dispersion	Cartwright	PRS	154	(1936)
L	-	-	Gordy	JCP	4	(1936)
-	-	H bond	Gordy	JCP	4	(1936)
2.5-6.5 μ	L	H bond	Kinsey	PR	49	(1936)
1-2.5 μ	L	Spec	Penney	PRS	156	(1936)
-	-	FC	Williams	PR	49	(1936)
4-10 μ	L	Freq.	Williams	JCP	4	(1936)
4-5 μ	Sol	Quant. Anal	Williams	JCP	4	(1936)
2.7-6.3 μ	L, Sol	Spec	Williams	JCP	4	(1936)
-	-	Thermo	Wilson	JCP	4	(1936)
9000-11000	L	Spec, H bond	Badger	JCP	5	(1937)
-	G	Pressure effect	Collins	PR	51	(1937)
1.79 μ	L	Absorption	Connell	PR	51	(1937)
-	S	Struct	Cross	JACS	59	(1937)

-	-	Absorption Spec	Gordy Kellner	JCP 5 ('1937)
-	-	Theoretical Theoretical	King King	PRS 159 ('1937)
-	-	Rotation	Kinsey Randal	JCP 5 ('1937)
1.25-3 μ	L	Spec	Randal Williams	PR 51 ('1937)
18-75 μ	G	Spec	Williams	PR 52 ('1937)
2-8 μ	L	Spec, Freq	Williams	JACS 59 ('1937)
2.8-6.2 μ	L,Sol	Spec, Freq	Badger	JCP 41 ('1937)
-	-	Quant. Mech.	Borst	JCP 6 ('1938)
2.6-3.8 μ	Sol	Spec	Borst	PR 6 ('1938)
2.6-3.8 μ	G,L	Rotation	Ellis	JCP 54 ('1938)
-	-	Spec	Ellis	JCP 6 ('1938)
-	-	Freq	Ellis	JCP 6 ('1938)
-	-	Absorption Stray light correction	Elssasser Errera	PR 53 ('1938)
3250-3600	Sol	Spec, H bond	JFS 34 ('1938)	
2.5-3.5 μ	L,Sol	Spec	JACS 60 ('1938)	
3-5.4 μ	-	Spec	JCP 6 ('1938)	
63-98 μ	G	Spec	RSI 9 ('1938)	
18-80 μ	G	Spec	RMP 10 ('1938)	
2.6-23.8 μ	L	Freq	JOSA 28 ('1938)	
2.6-3.5 μ	L	Spec, Freq	JPC 43 ('1939)	
2-2.65 μ	L	Absorption	Collins Ellis	PR 55 ('1939)
1.5-2 μ	L	Group study	PR 55 ('1939)	
-	-	Heat transfer	Elssasser	PR 56 ('1939)
23-135 μ	G	Study of D ₂ O	Fuson	PR 56 ('1939)
4.7 μ	L	Solute effect	Gautier	PR 56 ('1939)
-	-	Coriolis coupling theory	Jahn	PR 56 ('1939)
0.5-1.2 μ	L	Optical filters	Pfund	JOSA 29 ('1939)
-	-	H bond, Freq	Rodebush	JPC 43 ('1939)
53-106	L	Dispersion	Skolil	PR 55 ('1939)
-	-	Statistical mechanics	Stephenson	JCP 7 ('1939)
10410-10480	-	Spec	Zumwalt	JCP 7 ('1939)
-	-	H bond, Freq	Badger	JCP 8 ('1940)
-	-	Vibration-Rotation Theory	Darling	PR 57 ('1940)
-	G	Freq	Dennison	RMP 12 ('1940)
3 μ	Sol	Spec, H bond	Errera	JCP 8 ('1940)
2.5-7.5 μ	-	Spec	Fox	PRS 174 ('1940)
-	G	Thermo	Pitzer	CR 27 ('1940)
1-12 μ	G	Transmission	Sanderson	JOSA 30 ('1940)

1-10 μ	G	Transmission	Smith	30	(1940)
-	G	Spec	Adel	59	(1941)
2.8-3.3 μ	Sol	Reflection	Buswell	PR	915
0.3-15 μ	L	Dispersion	Centeno	45	543
3.3-6.26 μ	G	Spec, Anal	Elsasser	31	(1941)
6 μ	G	Spec	McAlister	PR	244
-	G	Emission	Nielsen	RSI	218
-	-	Quant. Mech.	Bedlich	PR	514
-	-	Freq	Barker	JCP	565
-	G	Spec	Gaydon	RMP	9
0.6-1 μ	C	Absorption	Haworth	PRS	1941
1.4-1.87 μ	C	H ₂ O in crystal	Lyon	PR	14
3 μ	-	Spec, Anal	Nielsen	PR	1942
1.4-2.7 μ	G	Spec	Oetjen	PR	62
5-18 μ	G	-	Schaffer	RSI	1942
-	G	Spec	Smith	JCP	13
7 μ	-	FC	Glockler	RSI	10
-	-	Ratio Rule	Noether	RMP	405
-	G	Spec	Bobrovnikoff	JCP	9
-	G	Absorption	Nielsen	RMP	1942
-	-	Quant. Mech.	Schaffer	RMP	54
-	-	Transmission	Williams	JCP	15
1-7 μ	L	Spec	Barnes	PR	11
6 μ	G	Spec	Foster	JAP	97
0.4-1.1 μ	-	Spec	Glockler	JOSA	271
-	-	Quant. Mech.	Linnett	TTS	307
-	-	FC	Oetjen	JOSA	504
5.7-6.7 μ	G	Resolving power	Roess	RSI	6
6.25 μ	G	Amplifier performance	Becker	JCP	77
1 μ	G	Microwave	Gordy	JCP	601
-	-	FC	King	JCP	388
-	-	Quant. Mech.	Simpson	PR	223
16-18.6 μ	G	Microwave	Townes	JCP	743
3-5 μ	Sol	Line width	Adel	PR	170
-	-	Spec	Bell	RSI	315
-	-	Anal	Benning	IAC	35
-	-	Refractive index	Brown	PR	294
-	-	Anal	Halverson	RMP	558
1.5-24 μ	L	Vibrations	Johnson	PR	87
-	-	Microwave	King	PR	158
-	-	Moment of Inertia	King	JCP	433
2.6-4.2 μ	Sol	Spec	Martin	N	85
					403

-	-	Microwave	VanVleck	PR	71	(1947)	425
1.9μ	G	Spec	Badger	RSI	19	(1948)	861
1.35μ	G	Anal	Benedict	PR	74	(1948)	1264
-	-	Rotational levels	Ginsburg	PR	74	(1948)	1052
-	-	Spec, Microwave	Golden	PR	73	(1948)	92
-	-	FC	Heath	TFS	44	(1948)	556
6μ	G	Spec	Hovorka	RSI	19	(1948)	915
$1.42-25\mu$	G	Absorption	Mohler	PR	74	(1948)	702
-	-	Anal	Nelson	PR	74	(1948)	703
$1-24\mu$	G	Spec	Plyler	JRNBB	40	(1948)	113
$1.7-24\mu$	G	Spec	Plyler	JRNBB	40	(1948)	125
$22-40\mu$	G	Spec	Plyler	JRNBB	40	(1948)	449
-	-	FC	Richards	TFS	44	(1948)	40
-	-	Microwave	Townes	PR	74	(1948)	1113
-	-	Config.	Benedict	PR	75	(1949)	1317
-	-	Spec	Gore	AC	21	(1949)	382
-	-	FC	Limentt	TFS	45	(1949)	844
-	-	Pressure broadening	Matossi	PR	76	(1949)	1845
$0.8-5\mu$	-	Acetylene flame	Plyler	JRNBB	42	(1949)	567
1.25μ	-	Absorption	Saxton	N	163	(1949)	871
-	-	Quant. Mech.	Torkington	JCP	17	(1949)	357
-	-	Thermo	Westrum	JACS	71	(1949)	1940
-	-	Experimental check	Chapman	PR	77	(1950)	741
-	-	of theory	Heath	TFS	46	(1950)	137
-	-	FC	Plass	PR	78	(1950)	334
-	-	Stratospher radiation					
6μ	G	equilibria					
$1.7-2.2\mu$	G	Spec	Wood	RSI	21	(1950)	764
$2.43-2.87\mu$	G	Anal	Badin	JACS	73	(1951)	1550
$0.7-2.5\mu$	L	Emission	Bass	AC	23	(1951)	1047
$2800-4200$	Sol	Spec	Benedict	JRNBB	46	(1951)	246
-	-	Spec	Curcio	JOSA	41	(1951)	302
-	-	Bond interaction	Coulson	JCS	-	(1951)	2125
$1-14\mu$	G	theory	Duchesne	JCP	19	(1951)	1191
$100-700\mu$	-	Transmission	Gebbie	PRS	206	(1951)	87
2.7μ	Sol	Spec	McCurbin	JOSA	41	(1951)	298
$35-75\mu$	G	Anal	Weeks	AC	23	(1951)	792
50μ	G	Transmission	Wusser	PR	82	(1951)	765
-	G	Absorption	Plass	PR	85	(1951)	708
-	G	Freq, Spec	Plyler	JOSA	41	(1951)	867

8-13 μ	G	Spec	Shaw	559
6 μ	G	Spec	Tetlow	82 (1951)
4.9-6.2 μ	G	Spec	Tilton	28 (1951)
4.5-13 μ	G	Spec, Assign	Benedict	47 (1951)
0.9-2 μ	G	H ₂ O in atmosphere	Calfee	49 (1952)
2.7 μ	G	Spec	Goulden	88 (1952)
6 μ	G	Instrument performance	Ham	29 (1952)
1.87 μ	G	Pressure dependency	Howard	42 (1952)
0.93-1.13 μ	G	Freq, I	Kiess	42 (1952)
0.7-2.5 μ	L	Spec, Freq	Lauer	48 (1952)
15-25 μ	G	Spec	Marrison	6 (1952)
100-700 μ	G	Spec	McCubbin	29 (1952)
16-120 μ	G	Freq, Spec	McCubbin	20 (1952)
0.4-22.5 μ	G,L	Freq	McCubbin	668 (1952)
-	-	Chemical binding	Mecke	42 (1952)
44-110 μ	G	FC	Moller	42 (1952)
1-2 μ	G	Spec	Oetjen	29 (1952)
23.6-37.5 μ	G	Spec, Freq	Plyler	48 (1952)
6.5-7.5 μ	G	Freq, Spec	Plyler	49 (1952)
0.1 μ	G	Spec	Roberts	49 (1952)
-	-	Emission	Sinton	29 (1952)
4.5-25 μ	G	Spec, Transmission	Talbey	86 (1952)
4-25 μ	G	Spec	Taylor	42 (1952)
2.4-25 μ	G	Spec	Taylor	20 (1952)
-	-	Struct	Torkington	56 (1952)
2.7-3.3 μ	Sol	H bond	Tsuboi	25 (1952)
6 μ	G	Instrument performance	Walsh	160 (1952)
6.3 μ	G	Spec	Yarnell	42 (1952)
25-52 μ	-	Calibration of prism	Acquista	29 (1952)
200-440	G	Spec	Acquista	43 (1953)
-	G	Band study	Adel	43 (1953)
0.6 μ	G	Dispersion	Birnbaum	96 (1953)
600-2000	G	Spec	Blout	352 (1953)
130-440	G	Spec	Bohn	43 (1953)
2.8 μ	G	Spec	Cole	333 (1953)
280-5435	G	Calibration data for prism	Downie	977 (1953)
			JOSA	43 (1953)
				941 (1953)

-	G	Spec	JOSA	43 (1953)	929
6μ	G	Resolution	JOSA	43 (1953)	929
-	-	Band study	JACS	75 (1953)	4126
1170-8700	G	Spec	JCP	21 (1953)	545
-	-	Microwave	JCP	21 (1953)	520
-	-	Band study	JOSA	43 (1953)	619
$1-15\mu$	L	Reflection	JOSA	43 (1953)	823
$2.6-6\mu$	G	Spec	JSI	30 (1953)	441
$38-52\mu$	G	Spec	JOSA	43 (1953)	212
6μ	G	Struct	JSI	30 (1953)	199
-	Sol	Anal	JCP	21 (1953)	1311
-	-	Vibration interaction	AC	25 (1953)	528
		theory	JCP	21 (1953)	83
-	L	Anal	APS	7 (1953)	166
800-3600	S	Spec, Struct, Freq	Trenner	75 (1953)	6079
2.7μ	G	Spec	Waldron	JACS	75 (1953)
$1.7-2.2\mu$	G	Spec, Assign, I	Walsh	JOSA	43 (1953)
$1-2.6\mu$	G	Band study, I	Benedict	JRNB	52 (1954)
-	-	Anal	Benedict	JRNB	52 (1954)
6.3μ	G	Absorption	Burton	CPR	238 (1954)
1550-1800	G	Instrument performance	Blue	JCP	22 (1954)
3650-3950	G	Instrument performance	Burch	PR	94 (1954)
-	L	Ident	Cole	JOSA	44 (1954)
$2.7-6\mu$	G	Spec	Cole	JOSA	44 (1954)
-	G	Absorption	Cox	JCS	- (1954)
$2.8-6\mu$	-	Thermo.	Dalby	PR	94 (1954)
$2.8-6\mu$	G	Spec	Daw	PR	94 (1954)
1300-1800	G	Spec	Friedman	PR	94 (1954)
2600-3800	S, L, G	Spec, Freq	Gaunt	JSI	31 (1954)
-	G	Spec	Holiday	JSI	31 (1954)
$5-7.5\mu$	G	Spec	Jones	JCP	22 (1954)
$0.1-0.2\mu$	G	Microwave	Kaye	SA	6 (1954)
-	Sol	Ident	Kendricks	JOSA	44 (1954)
$2-4.2\mu$	L	Thermo.	King	PR	93 (1954)
-	-	Spec	Malley	AC	26 (1954)
		Centrifugal distortion	Pennington	JCP	22 (1954)
		theory	Plyler	JOSA	44 (1954)
			Posener	PR	95 (1954)
15-27 μ	G	Freq, Spec	Roberts	JSI	31 (1954)
$0-60\mu$	G	Microwave, Spec	Rogers	PR	95 (1954)
-	-	Ident	Tobin	JACS	76 (1954)
					3249

2μ	S	Crystal forms	428
$0.6-2.7\mu$	S	Dispersion	3249
$2-8\mu$	G	Spec	61
$2-11.5\mu$	G	Spec	1592
$1400-2100$	G	Spec	499
-	-	Transmission	451
-	S	H bond	1099
523-540	G	Spec	408
202.8-420	G	Calibration for prism	785
-	-	Vibration	737
-	-	Anal	574
100-450	G	Spec	752
$3-16\mu$	G	Spec	455
-	-	FC	1933
$2.5-11\mu$	L	Spec	105
-	G	Mol. Const.	1139
$0.9-3\mu$	Sol	Spec	1533
$1330-2100$	G	Spec, Freq	1250
-	-	Coriolis coupling	1126
		theory	
-	-	Spec	
-	S	H bond	
-	-	Vibrations	
$2.5-12\mu$	L	Spec	
-	-	FC	
$0.08-36\mu$	G	Absorption	
1.4μ	Sol	Spec	
$1.8-2.1\mu$	Sol	Anal	
$9.68-9.46\mu$	G	Alcohols in water	
$1-18\mu$	L	Dispersion	
$55-1600$	-	Spec	
$15-150\mu$	-	Spec, Struct	
2.8μ	Sol	Quant. Anal	
-	Sol	Anal	
$60-120\mu$	-	Spec	
$1500-3500$	-	H bond, Spec, Struct	
-	-	Zero potential energy	
		difference	
-	-	Thermo, Anal	
-	-	H bond, Freq	
$0.5-3800$	G,S	Spec	
Vanderberg	AC	(1954)	428
Vanderberg	JCP	(1954)	3249
Ahlers	JSI	(1955)	61
Donovan	JCP	(1955)	1592
Dows	JCP	(1955)	499
Johnson	JOSA	(1955)	451
Lippincott	JCP	(1955)	1099
Madden	JCP	(1955)	408
Mills	JOSA	(1955)	785
Morino	JCP	(1955)	737
Patterson	AC	(1955)	574
Plyler	JCP	(1955)	752
Sloan	JOSA	(1955)	455
Slowirovski	JCP	(1955)	1933
Wright	APS	(1955)	9
Benedict	JCP	(1956)	105
Holman	AC	(1956)	28
Jones	JCP	(1956)	24
Meal	JCP	(1956)	24
Neu	JPC	(1956)	320
Pimental	JCP	(1956)	639
Polo	JCP	(1956)	1133
Potts	AC	(1956)	1255
Smith	TFS	(1956)	891
Theissing	JAP	(1956)	538
White	AC	(1956)	1538
Cordes	AC	(1957)	485
Friedel	AC	(1957)	1362
Jaffe	JOSA	(1957)	782
Lord	JOSA	(1957)	689
Lord	JOSA	(1957)	486
Matsuyama	AC	(1957)	340
Spell	AC	(1957)	196
Strong	JOSA	(1957)	166
Thiel	JCP	(1957)	354
Whalley	TFS	(1957)	486
Zenchelsky	AC	(1957)	167
Drinkard	JPC	(1958)	1494
Ockman	PRS	(1958)	434

H_2O	$100-300 \mu$	G	Spec	Plyler	JRN	60 (1958)	55
	2800-3600	S	Spec	Price	PRS	247 (1958)	467
-	-	Freq		Sartori	JINC	8 (1958)	119
3350-3800	Sol.	Band shift		Sauvage	BSCF	- (1958)	813
50-1500	G	Freq		Yaroslavskii	TANS	22 (1958)	1145
50-1500	-	Spec		Yaroslavskii	OS	5 (1958)	384
1500-1700	S	Struct, Freq, Spec		Catalano	JCP	30 (1959)	45
5.8-7.1 μ	Sol	Anal		Cirillo	AC	31 (1959)	959
-	-	Mol. Const., Spec		Kachkurozov	OS	6 (1959)	463
-	S	Spec		Mitter	ZPC	19 (1959)	83
-	G	I vs Temp.		Smirnov	OS	7 (1959)	193
40-2500	G	Spec		Yaroslavskii	OS	6 (1959)	799
4-500	G	Spec		Decamps	OS	7 (1959)	676
50-2500	G	Spec		Fabri	CPR	250 (1960)	1827
3200-3700	L	Band study, Solute effect		Heas	ANCR	50 (1960)	3
-	-	Struct		Lippincott	JCP	32 (1960)	1763
700-4000	S	Struct		JCP	JCP	32 (1960)	612
H_2O_2	Hydrogen peroxide	-	-	Mecke	TPS	30 (1934)	200
	-	-	Freq	Penney	TPS	30 (1934)	898
	-	-	Struct	Frost	JCP	4 (1936)	781
	G	Anal		Bailey	TPS	34 (1938)	1131
2-12 μ	L,G	Spec, FC		Zumwalt	JCP	9 (1941)	458
10150-10400	G	Spec, Quant. Mech.		Decius	JCP	16 (1948)	1025
-	-	Quant. Mech.		La sette	JCP	17 (1949)	317
-	-	Hindered rotation		Badin	JACS	72 (1950)	1550
2-21 μ	G,L	Spec, Assign		Giguere	JCP	18 (1951)	898
-	G	Anal		Taylor	JCP	18 (1951)	88
400-3800	S,L	Anal		Giguere	JPC	56 (1952)	340
660-1029	G	FC, Freq		Huggins	JACS	75 (1953)	4126
-	-	Bond study		Massey	JCP	22 (1954)	442
-	G	Microwave		Taylor	JCP	24 (1956)	41
-	L,Sol	Spec		Hirota	JCP	28 (1958)	839
900-3500	G	Freq, Struct		Giguere	JMS	3 (1959)	36
2.5-25 μ	S	H bond, Freq		Falk	CJC	36 (1958)	1680
2-30 μ	S	Struct, Assign		Simon	ZAU	301 (1959)	246
-	-	Spec, Struct, FC		Hunt	AC	22 (1950)	1478
$\text{H}_2\text{O}_3\text{Se}$	Selenious acid	2-16 μ	S	Miller	AC	24 (1952)	1253
		2-16 μ	S	Pimental	JACS	75 (1953)	803
$\text{H}_2\text{O}_3\text{Si.xH}_2\text{O}$	Silica gel	2200-2750	S				

H_2O_4S	Sulfuric acid	1-13 μ	Sol	Spec	Leconte	TFS	25	(1929)
		8.7 μ	Sol	Freq	Taylor	TFS	25	(1929)
		-	L	Dispersion	Korff	RMP	4	(1932)
		50-150 μ	Sol	Spec	Plyler	JCP	2	(1934)
		9000-11000	-	H bond	Bernal	PRS	151	(1935)
		-	L, Sol	Spec	Cartwright	JCP	4	(1936)
		50-150 μ	Sol	Spec , H bond	Badger	JCP	5	(1937)
		2-25 μ	Sol	Spec	Badger	JCP	5	(1937)
		700-4000	-	Band study	Cartwright	JCP	5	(1937)
		800-4000	S	Spec	Falk	CJC	35	(1957)
		2-30 μ	Sol	Group study	Marcus	JCP	27	(1957)
		-	Sol	Spec , Struct	Braunholtz	JCS	-	(1959)
		2-30 μ	Sol	Spec , Struct	Giguere	CJC	38	(1960)
		-	-	Giguere	Giguere	CJC	38	(1960)
		2-30 μ	Sol	Spec, Struct	Giguere	CJC	38	(1960)
$H_2O_4S \cdot 2H_2O$	Sulfuric acid monohydrate	2-30 μ	Sol	Spec, Struct	Giguere	CJC	38	(1960)
H_2S	Hydrogen sulfide	3.7 μ	G	Spec	Barker	TFS	25	(1929)
		4.2-8 μ	G	Spec , Freq	Rollefson	PR	34	(1929)
		1-10 μ	G	Spec , Anal	Nielsen	PR	37	(1931)
		7-9 μ	G	Band study	Nielsen	PR	37	(1931)
		20-35 μ	G	Transmission	Strong	PR	37	(1931)
		6.7-35 μ	G	Transmission	Strong	PR	37	(1931)
		-	-	Isotope effect	Salant	PR	42	(1932)
		20.7-15.2 μ	G	Spec	Strong	PR	42	(1932)
		1.9-3.8 μ	G	Spec	Sprague	PR	43	(1933)
		-	-	Quant. Mech.	Wilson	JCP	2	(1934)
		-	G	Thermo	Cross	JCP	3	(1935)
		-	G	Anal, Mol. Const.	Cross	PR	47	(1935)
		1-15 μ	G	Freq, Assign	Barker	JCP	4	(1936)
		-	-	PC	Penney	PRS	156	(1936)
		-	-	Thermo	Wilson	JCP	4	(1936)
		-	G	Assign	Caroian	JCP	5	(1937)
		9875-9975	-	Spec	Crawford	JCP	5	(1937)
		-	-	Freq, Assign	Crawford	JCP	5	(1937)
		-	-	Quant. Mech.	Cross	JCP	5	(1937)
		1.5-12 μ	G	Spec , Freq , Assign	Nielsen	JCP	5	(1937)
		7.2-8.3 μ	G	Spec , Freq , Assign	Sprague	JCP	5	(1937)

-	-	Quant. Mech.	Badger	JCP	6	(1938)
-	-	Freq	Redlich	JCP	9	(1941)
-	-	FC	Glockler	RMP	15	(1943)
-	-	Ratio rule	Noether	JCP	11	(1943)
-	-	Quant. Mech.	Glockler	JCP	13	(1945)
-	-	FC	Linnett	TFS	41	(1945)
-	-	FC	Gordy	JCP	14	(1946)
-	-	FC	King	JCP	14	(1946)
-	-	Quant. Mech.	Simpson	JCP	14	(1946)
-	-	Moment of Inertia	Hainer	JCP	15	(1947)
-	-	Anal	Halverson	RMP	19	(1947)
-	-	Microwave	King	PR	71	(1947)
-	-	Assign	Noble	PR	71	(1947)
-	-	Spec	Wilson	JCP	15	(1947)
-	-	Anal	King	PR	74	(1948)
-	-	Emission	Ginsburg	PR	75	(1949)
-	-	Mol. Const.	Grady	PR	75	(1949)
-	-	FC	Linnett	TFS	45	(1949)
-	-	Band anal	Allen	JCP	18	(1950)
-	-	Spec, Struct	Allen	JCP	18	(1950)
-	-	Vibrational energy	Allen	JCP	18	(1950)
-	-	FC	Heath	TFS	46	(1950)
-	-	Freq, Assign	Lohman	PR	79	(1950)
-	-	Spec	Noble	JCP	18	(1950)
-	-	Band study	Allen	JCP	19	(1951)
-	-	Bond interaction	Duchesne	JCP	19	(1951)
-	-	Theory			1191	
-	-	Spec	Lohman	JCP	19	(1951)
-	-	Spec	McCurbin	JOSA	41	(1951)
-	-	I	Nielsen	PR	83	(1951)
-	-	G	Noble	JCP	19	(1951)
-	-	G	Allen	JCP	20	(1952)
-	-	Band study	Bell	PR	88	(1952)
-	-	Anal	McCurbin	JCP	20	(1952)
-	-	Anal	Moller	JCP	20	(1952)
-	-	Anal	Burrus	PR	92	(1953)
-	-	Spec	Huggins	JACS	75	(1953)
-	-	FC	Innes	JCP	21	(1953)
-	-	Microwave	Allen	JCP	22	(1954)
-	-	G	Allen	JRNIB	52	(1954)
-	-	Band study	Haar	PR	99	(1955)
-	-	Spec, Anal	Ordway	JCP	23	(1955)
-	-	2 μ				
-	-	G				
-	-	Spec, Freq, Assign				
-	-	Thermo				
-	-	G				
-	-	Spec, Anal				
1190-2550	S					
100-700 μ	-					
3.8 μ	G					
1183	G	Band study				
5000-5250	G	Anal				
65-250	G	Anal				
100-700 μ	G	Spec				
0.1-0.2 μ	G	FC				
8700-1100	G	Microwave				
2 μ	G	Spec, Anal				
6140-6430	G	Spec, Freq, Assign				
-	-	Thermo				
7480-7880	G	Spec, Anal				

H_2S	2200-2800 7.5-12 μ 2-15 μ	G G G -	Spec, Anal Spec, Mol. Const. Spec FC	Allen Allen Pierson Smith Rao Reding Savage Emerson
	-	-	Dipole moment	
	-	-	Spec, Struct, Freq	
	2500-2700 3730-4030	L -	Spec, Assign I, Freq	
	-	-		
H_2S	Hydrogen disulfide	- 1.5-15 μ -	FC Spec, Assign Freq, Assign Spec, Freq assign	Gordy Wilson Hooge Zengin
		290-5000	S	
H_2B	Boron dihydride	-	FC	Linnett
H_2Se	Hydrogen selenide	2300-2380 4-12 μ	Struct Spec, Freq, Assign Ratio rule FC	Sears Cameron Noether Gordy Halverson King Linnett Heath Moller Lefevre
	-	-	-	
	-	-	Anal	
	-	-	Microwave	
	-	-	FC	
	-	-	FC	
	-	-	FC	
	950-1140	G	Assign, I, Spec, Mol. Const.	
	-	-	Band study	
	50-250 μ	G	Spec, Mol. Const.	
	-	-	FC	Huggins Palik Slowinski Smith Palik
	-	-	FC	
	40-250 μ	G	Spec, Config., Mol. Const.	
H_3DBrNO	Deuterohydroxylammonium bromide	400-4000	S Sol	Frasco Frasco
H_3DClNO	Deuterohydroxylammonium chloride	400-4000	S	Frasco
H_3DINO	Deuterohydroxylammonium iodide	400-4000	Sol	Frasco

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$H_3^D Si$	Silane-d ₁	1600	G	Spec, Anal Vibrations	Polo Meal	JCP JCP	22 (1954) 24 (1956)	1559 1126
$H_3^D_2 B_2$	Diborane-d ₂	2-15 μ	G	Spec	Lehmann	JCP	79 (1958)	1248
$H_3^D BrO$	Oxonium bromide	500-4000 500-4000	S S	Spec, Freq Spec, Assign	Ferriso Ferriso	JACS JCP	75 (1953) 23 (1955)	4113 1464
$H_3^D BrSi$	Bromosilane	2-25 μ - 400-4000	G - G	Spec, Assign, Thermo. Freq, FC Spec, Assign, Struct Mol. Const.	Mayo Mizuta Newman	JCP JCP JCP	23 (1955) 23 (1955) 25 (1956)	1344 2451 855
$H_3^D Br^{79} Si$	Bromosilane (isotopic)	-	-	Microwave	Maye	JCP	20 (1952)	1695
$H_3^D ClO$	Oxonium chloride	500-4000 500-4000	S S	Spec, Freq Spec, Assign	Ferriso Ferriso	JACS JCP	75 (1953) 23 (1955)	4113 1464
$H_3^D ClSi$	Monochlorosilane	650-2200	G	FC Freq, Assign, Mol. Const.	Gordy Monfils	JCP JCP	14 (1946) 19 (1951)	305 138
$H_3^D Cl_2 Si$	-	-	-	Freq, FC	Monfils	CPR	236 (1953)	795
$H_3^D Cl_3 Si$	-	-	-	Freq, Mol. Const., FC	Anderson	ACS	8 (1954)	738
$H_3^D Cl_4 Si$	510-2400	G	-	Freq Spec, Assign Assign	Lord Newman Newman	JCP JCP SA	22 (1954) 25 (1956) 10 (1959)	542 855 793
$H_3^D Cl_5 Si$	Monochlorosilane (isotopic)	-	-	Microwave	Maye	JCP	20 (1952)	1703
$H_3^D Cl_6 Si^{28}$	Monochlorosilane (isotopic)	-	-	Microwave	Maye	PR	76 (1949)	136
$H_3^D Cl_7 Si^{30}$	Monochlorosilane (isotopic)	-	-	Microwave	Maye	PR	76 (1949)	136
$H_2^D Cl_2 N_2 B_2$	B-trichloroboraz Ole	-	-	Microwave	Dailey	PR	76 (1949)	136
			Sol	NCA, I, Assign, Freq	Nakagawa	SA	16 (1960)	78

H_3FO	500-4000	S	Spec, Assign	Ferriso	JCP	23 (1955)	1464
H_3FSi	667-3000	G	Freq, Assign, FC	Anderson	ACS	8 (1954)	738
H_3FSi	670-5000	G	Spec, Assign, Mol. Const.	Newman	JCP	25 (1956)	855
	-	-	Assign	Newman	SA	10 (1959)	793
H_3IO	500-4000	S	Spec, Assign	Ferriso	JCP	23 (1955)	1464
H_3ISi	2-20 μ	G	Microwave, Spec, Struct	Sharbaugh	N	171 (1953)	87
H_3ISi	500-5000	G	Freq Spec, Mol. Const., Thermo.	Dixon	JCP	23 (1955)	215
	-	-	Freq	Dixon	TFS	53 (1957)	282
H_3N				Linton	DA	19 (1958)	687
NH_3				Spence	JOSA	10 (1925)	127
				Colby	PR	29 (1927)	927
				Badger	PR	31 (1928)	919
				Barker	PR	31 (1928)	1131
				Badger	PR	33 (1929)	692
				Barker	TFS	25 (1929)	912
				Barker	PR	33 (1929)	684
				Ellis	PR	33 (1929)	27
				Ellis	TFS	25 (1929)	888
				Mecke	TFS	25 (1929)	936
				Stinchcomb	PR	33 (1929)	305
				Wood	PR	33 (1929)	1097
				Badger	PR	35 (1930)	1038
				Ellis	PR	35 (1930)	595
				Villars	JACS	52 (1930)	1733
				Randall	RSI	2 (1931)	585
				Sleator	PR	38 (1931)	147
				Strong	PR	37 (1931)	1003
				Strong	PR	37 (1931)	1565
				Dennison	PR	41 (1932)	313
				Dennison	PR	39 (1932)	938
				Hardy	PR	40 (1932)	1039
				Rosen	PR	42 (1932)	210
				Quant. Mech.	PR	42 (1932)	267
				Strong	PR	42 (1932)	11 (1932)
				Spec	CR		
				Spec			

-	-	-	Spec	Weber	PR	40	(1932)
-	-	-	Secular equation	Eyring	JCP	1	(1933)
-	-	G	Struct	Milliken	JCP	1	777
-	G	Spec	Unger	JCP	1	492	
-	1-2 μ	Quant. Mech.	Vavleock	JCP	43	123	
-	60-125 μ	Spec	Wright	PR	44	219	
-	-	Vibrations	Andrews	JCP	2	391	
-	G	Spec	Clinton	PR	45	624	
-	G	Freq	Mecke	TFS	30	234	
-	-	Quant. Mech.	Wilson	JCP	2	200	
-	-	Spec	Barnes	PR	47	432	
-	-	Vibrations	Duncan	JCP	3	658	
-	-	Vibrations, Freq	Howard	JCP	3	384	
-	-	Rotational spacing	Johnston	PR	48	207	
-	-	Symmetrical double min.	Mauning	JCP	3	868	
-	-	Quant. Mech.	Wilson	JCP	3	136	
-	-	Freq, Anal	Chao	PR	50	276	
-	G	Spec	Migeotte	PR	50	27	
-	40-170 μ	Thermo	Wilson	JCP	4	418	
-	-	Pressure effect	Cornell	PR	51	526	
-	-	Pressure broadening	Margenon	PR	51	739	
-	-	theory	Randall	RMP	10	748	
-	-	Spec	Barker	PR	55	276	
-	-	Perpendicular vibrations	Barker	PR	56	27	
-	6 μ	Band study	Haupt	JCP	7	418	
-	10-16 μ	Thermo	Lee	TFS	35	1366	
-	-	Freq	Pitzer	JCP	7	251	
-	-	Thermo	Slawsky	JCP	7	509	
-	-	Quant. Mech.	Sutherland	PR	56	836	
-	3400	Freq	Sutherland	TFS	35	1373	
-	-	Struct	Dennison	RMP	12	175	
-	-	Freq	Foley	PR	59	171	
-	232-298 μ	Spec	McAllister	RSI	12	314	
-	10 μ	Spectrometer calibration	Sheng	PR	60	1941	
-	10-16 μ	Spec, Anal	Thompson	TFS	37	786	
-	-	Freq, Thermo	Oetjen	RSI	13	344	
-	7.8-14 μ	Spectrometer calibration	-	-	13	515	
-	-	Spec	Bobrownikoff	RMP	16	271	

G	Absorption laws	Nielsen	RMP	16 (1944)
G	Spec	Barnes	JAP	16 (1945) 77
-	Rotationrule	Edgell	JCP	13 (1945) 539
FC		Linnett	TFS	41 (1945) 223
-	Thermocouple	Roess	RSI	16 (1945) 164
10-12 μ	G			
-	G	Microwave	PR	70 (1946) 775
-	G	Microwave	PR	70 (1946) 213
-	G	FC	JCP	14 (1946) 305
-	-	Microwave	PR	70 (1946) 780
-	-	Photoelectric effect	JCP	14 (1946) 295
-	G	Microwave	PR	70 (1946) 665
1.25 μ	G	Planetary atmosphere	PR	72 (1947) 538
0.79-2.5 μ	G	Instrument performance	JOSA	37 (1947) 754
2-16 μ	G	Microwave	PRS	189 (1947) 358
1.1-1.6 μ	G	Microwave	PR	72 (1947) 1116
-	-	Microwave	PR	71 (1947) 640
1.25 μ	G	Anal	RMP	19 (1947) 87
-	-	Microwave	PR	72 (1947) 715
-	G	Spec	AC	19 (1947) 25
2-16 μ	G	Instrument performance	JOSA	37 (1947) 296
9.7-14 μ	G	Microwave	PR	72 (1947) 974
-	-	Instrument performance	JOSA	37 (1947) 211
2-14 μ	G	Microwave	PR	73 (1948) 1053
-	-	Absorption	PR	74 (1948) 352
2 μ	G	Quant. Mech.	JCP	16 (1948) 310
-	-	FC	TFS	44 (1948) 40
-	G	Pressure broadening	Anderson	PR 76 (1949) 647
-	-	Microwave	Anderson	PR 75 (1949) 1450
-	-	Theoretical	Burgess	PR 76 (1949) 1267
-	-	Bond study	Richards	PR 76 (1949) 1261
790-2600	G	Assign	Burgess	PR 76 (1949) 1354
-	-	G	Duchesne	JCP 17 (1949) 1354
-	-	Theoretical	Duchesne	JACS 71 (1949) 1245
-	-	Bond study	Ginsburg	JACS 71 (1949) 1245
-	-	Emission	Gordon	PR 75 (1949) 1317
-	G	Pressure broadening	Margenau	PR 76 (1949) 121
-	G	Atmospheric ammonia	Migoette	PR 75 (1949) 1611
-	G	IR Fundamental	Wood	PR 75 (1949) 1113
-	-	Pressure broadening	Anderson	PR 80 (1950) 511
-	-	theory		
920-975	G	Theoretical	Duchesne	JPR 11 (1950) 119
-	-	FC	Heath	TFS 46 (1950) 137

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528-3380	S	Band study, Freq Spec	Hornig McCurbin	PR JOSA	78 (1950) 40 (1950)	348 537
100-600 μ	G	Band study	Muller	AC	22 (1950)	19
9.5-122 μ	G	Pressure shift	Nehercot	PR	79 (1950)	225
-	-	Spec	McCurbin	JOSA	41 (1951)	289
100-700 μ	-	Microwave, Pressure broadening theory	Mezushima	PR	83 (1951)	94
300-5000	S	Spec, Assign, FC Spectrometer performance	Reding Tellow	JCP JSI	19 (1951) 28 (1951)	594 161
10 μ	G	Criticism	Bigeleisen Costain	JCP JPC	20 (1952) 56 (1952)	1495 321
-	-	FC	Hamm	JOSA	42 (1952)	496
10 μ	G	Instrument performance	McCurbin	N	169 (1952)	977
10 μ	G	Band study	McCurbin	JCP	20 (1952)	668
Spec	-	Spec	Moller	JCP	20 (1952)	203
FC	-	Spec	Oetjen	JOSA	42 (1952)	559
-	-	Properties of deuterated products	Stedman	JCP	20 (1952)	718
733-982	G	Spec, I	Adel	JOSA	43 (1953)	1053
17-10-3 μ	G	Spec, Microwave	Birnbaum	JCP	21 (1953)	1744
-	-	Cathode ray tube	Brown	JSI	30 (1953)	5
3 μ	G	presentation				
720-3510	G	Calibration data for prism	Downie	JOSA	43 (1953)	941
-	-	Bond study	Hansler	JCP	21 (1953)	1340
4-140 μ	G	Spec	Huggins	JACS	75 (1953)	4126
-	-	Vibrations	Torkington	JCP	21 (1953)	83
-	-	Spec, Struct, H bond, Freq	Waldron	JACS	75 (1953)	6079
-	-	Ident	Brown	JACS	76 (1954)	2645
-	-	Anal	Chapman	AC	26 (1954)	435
9-11 μ	G	Instrument performance	Cole	JOSA	44 (1954)	741
2-15 μ	G	Spec, Freq	French	JPC	58 (1954)	805
-	-	Vibrations	Gamo	CPR	239 (1954)	1478
2-15 μ	G	Spec	Katayama	JCP	22 (1954)	1373
-	-	Polarization theory	Kendrick	JOSA	44 (1954)	501
2.5-7.5 μ	-	Spec	Mapes	JPC	58 (1954)	1059
-	-	Anal	Merrill	JACS	76 (1954)	4522
-	-	Spec, Assign	Reding	JCP	22 (1954)	1926
-	-	Freq	Weston	JACS	76 (1954)	2645

	S	Study of unstable species	Whittle	JCP	22 (1954)	1943
	G	Freq., Mol. Const.	Cumming	CJP	33 (1955)	635
	G	Spec., Absorption	Dows	JCP	23 (1955)	499
	S	Spec.	Dows	JCP	23 (1955)	1606
	G	Spec.	Colay	JOSA	45 (1955)	430
	G	Spec.	Kabayashi	JCP	23 (1955)	1354
-	-	Freq.	Mills	JOSA	45 (1955)	785
	G	Calibration of prism	Reding	JCP	23 (1955)	1053
	S	Spec., Assign	Romer	PR	99 (1955)	532
	-	-	Line width reduction	JCP	23 (1955)	1980
	-	-	Spec., H bond	JOSA	45 (1955)	192
	G	Spec.	Yates	JCP	24 (1956)	904
	G	Stretching	Benedict	JACs	78 (1956)	2295
	G	Spec., Assign	Flyita	JCP	24 (1956)	316
	S	Spec., I	McKean	JCP	24 (1956)	1126
	G	Vibrations	Meal	AC	28 (1956)	1218
	G	Spec.	Pierson	CJP	35 (1957)	1255
	G	Mol. Const., Spec.	Benedict	JCP	27 (1957)	898
	G	Pressure broadening	Feeny	JOSA	47 (1957)	642
	G	Spectrometer	Greenler			
	G	Performance				
	G	Spec.	Lord	JOSA	47 (1957)	689
	G	Anal., I	Benedicts	JCP	29 (1958)	829
	G	Spec., Freq., Mol. Const.	Benedict	JBNB	61 (1958)	123
	G	Spec., H bond	Cromwell	JACs	80 (1958)	4573
	G,L	Spec., H bond	Demidenkova	IANS	22 (1958)	1122
	L,Sol	Freq., Band study	Tsuboi	SA	13 (1958)	80
	G	Freq., Mol. Const.	Coates	SA	15 (1959)	820
	G	Assign., Spec.	Garing	JMS	3 (1959)	496
	G	Mol. Const., Spec., Absorption				
	G	Spec.	Givaudon	CPR	248 (1959)	1494
	G	Spec., Pressure broadening	Kaye	AC	31 (1959)	1127
	G	Freq., Mol. Const.	Mould	SA	15 (1959)	313
	G	Spec.	Flyter	JBNB	62 (1959)	7
	S	Spec.	Staats	JCP	31 (1959)	553
	G	Temp. effect, Struct.	Benedict	JCP	32 (1960)	32
	G	Pressure effect on line	Genzel	ZE	64 (1960)	594
	G	Spec.	Loewenstein	JOSA	50 (1960)	1163
	G	Energy distribution	Nicholson	N	186 (1960)	630
	G	Mol. Struct.	Nielsen	JPR	21 (1960)	24

H_3N^{14}	Ammonia (Isotopic)	-	G	Microwave	Dailey	PR	70 (1946)	984
		-	-	Microwave	Good	PR	71 (1947)	383
		-	G	Microwave	Jowres	PR	74 (1948)	1113
H_3N^{15}	Ammonia (Isotopic)	-	G	Microwave	Dailey	PR	70 (1946)	984
		-	-	Microwave	Good	PR	71 (1947)	383
		-	G	Quant. Mech.	Newton	JCP	16 (1948)	310
		1500-4000	-	Freq	Norgan	JCP	27 (1957)	1212
H_3NO	Hydroxylamine	-	-	Bond Dist.	Huggins	JACS	75 (1953)	4126
		500-4000	S	Ident	Nightingale	JACS	75 (1953)	4092
		500-4000	S	Spec, Assign	Nightingale	JCP	22 (1954)	203
$\text{H}_3\text{NO}_3\text{S}$	Sulphamic acid	2.7-3.7 μ	S	H bond	Buswell	JACS	62 (1940)	2759
		-	-	Freq	Bicelli	AC	47 (1957)	1380
		500-4000	S	Assign	Vuaenat	JCP	26 (1957)	77
		350-1600	S	Assign, FC	Nakagawa	SA	12 (1958)	239
H_3O^+	Hydronium ion	-	-	Freq, Assign	Gordy	JCP	14 (1946)	305
		550-4000	-	Freq	Bethell	JCP	21 (1953)	1421
			L	Group freq	Hammond	JACS	77 (1955)	2444
$\text{H}_3\text{O}_2^{\text{P}}$	Hypophosphorous acid	-	L	Group freq				
$\text{H}_3\text{O}_3^{\text{B}}$	Boric acid	2-16 μ	S	Spec	Miller	AC	24 (1952)	1253
		500-3600	S, Sol	Spec, Assign	Bethell	TFS	51 (1955)	9
		600-3400	S	Spec	Horing	JCP	26 (1957)	637
		400-3000	S	Spec, Assign	Servoss	JCP	26 (1957)	1175
		-	-	Ident	Bader	JPC	62 (1958)	331
		2-15 μ	S	Freq, Struct	Krogh-Mol	ARK	12 (1958)	1958
		250-4000	-	Spec, Assign	Goubeau	ZPC	20 (1959)	1959
		300-880	S	Spec	Miller	SA	16 (1960)	135
$\text{H}_3\text{O}_4^{\text{P}}$	Orthophosphoric acid	9000-11000 2-25 μ	L Sol -	Spec, H bond Spec FC	Badger Folk Pi storious	JCP CJC JCP	5 (1937) 35 (1957) 28 (1958)	839 1195 514

H_3^0B_3	Metaboric acid	250-4000 430-4000	-	Spec., Assign	Goubeau Parsons	ZPC JCP	20 (1959) 33 (1960)	15 1860
$\text{H}_3^0\text{B}_3^{10}$	Metaboric acid (isotopic)	430-4000	S	Assign	Parsons	JCP	33 (1960)	1860
H_3^0As	Arsine	1.63 μ	G	Freq., Struct	Norris Howard Lee Sutherland Gordy Halverson McConaghie Duchesne Duchesne McConaghie Duchesne Heath Costain Moller Nielsen Nielsen Emeleus Huggins Strong Torkington Gamo Weston Strong Blevins	PR JCP TFS TFS JCP RMP PR JCP JCP PR JPR TFS JPC JCP JCP JCP JCP JCP JCP JCS JACS JOSA JCP CPH JACS DA	45 (1934) 3 (1935) 35 (1939) 35 (1939) 14 (1946) 19 (1947) 73 (1948) 17 (1949) 17 (1949) 73 (1949) 11 (1950) 46 (1950) 56 (1952) 20 (1952) 20 (1952) 20 (1952) 20 (1952) - (1953) 75 (1953) 43 (1953) 21 (1953) 239 (1954) 76 (1954) 20 (1957)	68 207 1366 1373 305 87 1250 1354 1354 623 119 137 321 203 759 1955 1552 4126 1096 83 1478 2645 336
$\text{H}_3^0\text{As}^{75}$	Arsine (isotopic)	-	-	Theory	Castellan	JCP	22 (1954)	536
H_3^0B	Borine	-	-	Theory	Wright Fung Howard Lee Slawsky Sutherland Stevenson	PR PR JCP TFS JCP TFS JCP	44 (1933) 45 (1934) 3 (1935) 35 (1939) 7 (1939) 35 (1939) 9 (1941)	391 238 207 1366 509 1373 403
H_3^0P	Phosphine	60-125 μ 4.3-10 μ	G	Spec., Assign				

1926

FC	FC	Linnett	TFS	41	(1945)	225
FC	FC	Gordy	JCP	14	(1946)	305
Vib.	Vib.	Halverson	RMP	19	(1947)	87
Spec	Spec	McConaghie	PR	73	(1948)	1250
FC	FC	Heath	TFS	46	(1950)	157
Theory	Theory	Costain	JPC	56	(1952)	321
FC	FC	Moller	JCP	20	(1952)	203
Struct	Struct	Nielsen	JCP	20	(1952)	759
Freq, FC	Freq, FC	Weston	JCP	20	(1952)	1820
Bond, Dist.	Bond, Dist.	Huggins	JACS	75	(1953)	4126
Spec	Spec	McConaghie	JCP	21	(1953)	1836
Group freq	Group freq	Stroup	JOSA	43	(1953)	1096
Microwave	Microwave	Bennett	JCS	-	(1954)	3896
Freq	Freq	Burrus	PR	95	(1954)	706
Anal	Anal	Gamo	CPR	239	(1954)	1478
Freq	Freq	Nielsen	JCP	22	(1954)	1383
Spec	Spec	Weston	JACS	76	(1954)	2645
Rot.	Rot.	McKean	JCP	24	(1956)	316
Theory	Theory	Meal	JCP	24	(1956)	1126
Spec	Spec	Rao	TFS	53	(1957)	1160
Group freq	Group freq	Stroup	DA	20	(1957)	336
Spec	Spec	Nielsen	JCP	28	(1958)	427
Struct	Struct	Blinc	JPR	21	(1960)	24
$4\cdot2-10 \mu$	$4\cdot2-10 \mu$		Blinc		1 (1957)	391
$50-200 \mu$	$50-200 \mu$		Blinc		1 (1957)	391
$900-1200$	$900-1200$	S	Group freq		MP	
$3000-30000$	$3000-30000$	S	Group freq		MP	
$\text{H}_4\text{D}_2\text{NO}_4\text{P}$	$\text{Ammonium dihydrogen phosphate-d}_2$		Lehmann	JCP	29 (1958)	1248
$\text{H}_4\text{D}_2\text{NO}_4\text{As}$	$\text{Ammonium di deuterio arsenate}$		Weniger	JOSA	7 (1923)	517
$\text{H}_4\text{D}_2\text{B}_2$	Diborane-d_2	2-15 μ	Schaefer	TFS	25 (1929)	841
H_4BrN	Ammonium bromide	55-62 μ	Korff	RMP	4 (1932)	471
		8.7 μ	-	PRS	148 (1935)	407
		3-6.5 μ	-	PR	51 (1937)	1017
		3-5.4 μ	Spec	JCP	6 (1938)	316
		2-8 μ	Spec	JACS	64 (1942)	857
		5.4-7.6 μ	Spec	JCP	12 (1944)	71

H_4BrNO	Hydroxylammonium bromide	400-4000	S	Spec, Freq, NC	Hornig Wagner Wagner Bouey Disk Quant. Mech. Band freq	JCP JCP JCP JOSA JSI JCP JCP J INC SA SA	16 (1948) 17 (1949) 18 (1950) 41 (1951) 31 (1954) 22 (1954) 23 (1955) 6 (1958) 16 (1960) 16 (1960)	1063 105 305 836 338 643 947 104 58 135
H_4BrNB	Ammonium tetrabromo-borate	600-3500	S	Spec	Kynaston	DA JCP	19 (1958) 30 (1959)	1219 1124
$\text{H}_4\text{ClF}_3\text{PB}$	Phosphonium chloro-trifluoroborate	400-4000	S	Struct	Waddington	JCS	- (1960)	1772
H_4ClN	Ammonium chloride	46-54 μ	S	Residual rays	Weniger Schaefter	JOSA TPS	7 (1923) 25 (1929)	517 841
		8.7 μ	S	Residual rays	Korff	HMP	4 (1932)	471
		3-9 μ	-	Dispersion	Pfund	PR	39 (1932)	64
		-	-	Spec	Menzies	PRS	148 (1935)	407
		-	-	Spec	Freymann	JCP	6 (1938)	497
		3-5.4 μ	Sol	Spec	Plyler	JCP	6 (1938)	316
		2-8 μ	S, Sol	Spec	Williams	JACS	64 (1942)	857
		5.4-7.6 μ	S	Spec	Beck	JCP	12 (1944)	71
		-	-	Selection rules	Halford	JCP	14 (1946)	8
		-	-	Quant. Mech.	Hornig	JCP	16 (1948)	1063
		-	-	Struct	Wagner	JCP	17 (1949)	105
		3-8 μ	S	Spec	Wagner	JCP	18 (1950)	296
		3-15 μ	S	Low temp. spec	Walsh	JCP	18 (1950)	552
		3-2-7 μ	S	Reflection	Bouey	JOSA	41 (1951)	381
		1300-3500	S	Spec	Bouey	JOSA	41 (1951)	836
		2-16 μ	S	Spec	Miller	AC	24 (1952)	1253
		2-16 μ	S	Spec	Anderson	AC	25 (1953)	1906
		-	-	Disk	Ford	JSI	31 (1954)	338
		-	-	Quant. Mech.	Gutowsky	JCP	22 (1954)	643
		-	-	Ident	Soffer	JACS	76 (1954)	3580

H_4ClNO	Hydroxyammonium chloride	-	S, L	Thermo Group freq Comparison Freq Spec	Altshuller Plumb Melloche Lippincott Miller	JACS JCP J INC SA SA	77 ('1955) 23 ('1955) 6 ('1958) 16 ('1960) 16 ('1960)	3480 947 104 58 135
H_4ClNO_4	Ammonium perchlorate	$2-10 \mu$ $5-15 \mu$ $300-880$	S	Spec, FC Spec Freq	Frasco Frasco Wilmhurst	DA JCP CJC	1219 '9 ('1959) 38 ('1960)	1219 1124 467
$\text{H}_4\text{C1}_4\text{NB}$	Ammonium tetrachloro- borate	400-4000 400-4000 -	S	Spec, FC Spec Freq	Hovath Miller Waddington Miller	JCP AC JCS SA	857 ('1948) 24 ('1952) - ('1958) 16 ('1960)	1253 4340 135
H_4FN	Ammonium fluoride	$3-6.5 \mu$ $3-5.4 \mu$ $2-8 \mu$ $1400-3300$ $800-3600$	-	Solvent effect Spec Spec Struct	Plyler Plyler Williams Bovey Plumb	PR JCP JACS JOSA JCP	1017 ('1957) 51 ('1957) 6 ('1938) 64 ('1942) 41 ('1951) 23 ('1959)	1017 316 857 836 947
H_4FNOS	Ammonium fluorosulphate	550-2400 250-4000	S	Baran Spec	Sharp Waddington	JCS JCS	- ('1957) - ('1958)	3761 4340
$\text{H}_4\text{F}_2\text{NO}_2\text{P}$	Ammonium difluoro- phosphate	-	S	Group freq	Corbridge	JCS	- ('1954)	4555
H_4F_4	Hydrogen fluoride	900-4000	G	Spec	Smith	JCP	28 ('1958)	1040
$\text{H}_4\text{F}_4\text{NB}$	Ammonium tetrafluoro- borate	1500-3600 -	S	Spec Band freq Freq Freq	Cote Cox Plumb Waddington	PRS JCS JCP JCS	200 ('1951) - ('1954) 23 ('1955) - ('1958)	217 1798 947 4340
$\text{H}_4\text{F}_6\text{NP}$	Ammonium hexafluoro- phosphate	250-4000	S	Spec	Waddington	JCS	- ('1958)	4340
H_4IN	Ammonium iodide	$2-8 \mu$ $1500-3400$	S, Sol S	Spec Spec	Williams Bovey	JACS JOSA	64 ('1942) 41 ('1951)	857 836

-	-	-	-	Rot.	Plumb	JCP	21	(1953)	366
-	-	-	Disk	Ford	JSI	31	(1954)	338	
-	-	-	Quant. Mech.	Gatowsky	JCP	22	(1954)	645	
-	-	S	Freq	Plumb	JCP	23	(1955)	947	
-	2-16 μ	S	Spec	Meloche	JINC	6	(1958)	104	
300-880	S	Spec	Miller	SA	16	(1960)	135		
H_4NO	Hydroxylammonium iodide	400-4000	S	Spec, Freq, NCA	Frasco	DA	19	(1958)	1219
		400-4000	L	Spec	Frasco	JCP	30	(1959)	1124
H_4NO_3	Ammonium iodate	-	S	Spec	Dasent	JCS	-	(1960)	2429
H_4NO_4	Ammonium periodate	-	-	Freq	Siebert	ZAU	-	(1960)	303
H_4IP	Phosphonium iodide	400-4000	S	Spec	Martiney	JCP	27	(1957)	1110
H_4N^+	Ammonium ion	-	-	Freq	Schaefer	TFS	25	(1929)	841
		-	-	Theory	Milliken	JCP	1	(1933)	492
		-	-	FC	Linnett	TFS	41	(1945)	223
		-	-	Theory	Cordy	JCP	14	(1946)	305
		-	-	Force field	Heath	TFS	44	(1948)	561
		-	-	Quant. Mech.	Horwath	JCP	16	(1948)	857
		-	-	FC	Heath	TFS	46	(1950)	137
		1400-3200	S	Band freq	Waldron	JACS	75	(1953)	6079
		-	-	Freq	Robayashi	JCP	23	(1955)	1354
		500-3500	S	Spec	Fujita	JACS	78	(1956)	3295
		-	-	Bond length	Woodward	TFS	52	(1956)	1458
		-	-	FC	Pistorius	JCP	27	(1957)	965
		-	S, Sol	I, Bond moment	Ferrico	JCP	32	(1960)	1240
H_4N^{15+}	Ammonium ion (Isotopic)	1500-4000	-	Freq	Morgan	JCP	27	(1957)	1212
H_4NO^+	Hydroxylammonium ion	-	-	Freq	Edsall	JCP	5	(1937)	225
H_4N_2	Hydrazine	-	-	Struct	Mecke	TFS	30	(1934)	200
		-	-	Group freq	Penney	TFS	30	(1934)	898
		-	-	Thermo	Scott	JACS	71	(1949)	2293
7300	L,S	Rotational Iso	Wagner	JCP	19	(1951)	1210		
1.5-25 μ	G,L,S	Spec	Giguere	JCP	20	(1952)	136		

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$\text{H}_4\text{N}_2\text{O}_2$	Ammonium nitrite	250-4000	S	Freq, Assign	Waddington	JCS	-	(1958)	4340	
$\text{H}_4\text{N}_2\text{O}_3$	Ammonium nitrate	0.8-2.3 μ	Sol	Spec	Collins	PR	20	(1922)	486	
		-	-	Freq	Harvath	JCP	16	(1948)	857	
1.9 μ	Sol	680-3600	S	Temp.	Keller	JCP	17	(1949)	26	
260-460	G	-	S	Spec	Halford	PR	78	(1950)	348	
250-750	G	700-3400	S	Assign	Neman	JCP	18	(1950)	1276	
		700-1500	S	Spec	Neman	JCP	18	(1950)	1291	
		3-15 μ	S	Low temp. spec	Walsh	JCP	18	(1950)	552	
		2-16 μ	S	Spec	Miller	AC	24	(1952)	1253	
		-	S	Freq	Plumb	JCP	23	(1955)	947	
		2-16 μ	S	Spec	Melooche	JINC	6	(1958)	104	
		250-4000	S	Spec, Assign	Waddington	JCS	-	(1958)	4340	
		300-880	S	Spec	Miller	SA	16	(1960)	135	
				Theory	Whittle	JCP	22	(1954)	1943	
			S	Spec	Dows	JCP	23	(1955)	1475	
		600-4000	S	Spec	Dows	JCP	23	(1955)	1606	
		2-15 μ	S	Freq	Fujita	JACS	78	(1956)	3295	
		1900-2100	S	H bond	Pimental	JCP	24	(1956)	639	
		-	S	Spec	Gray	TPS	53	(1957)	901	
		635-3100	S	Spec	Waddington	JCS	-	(1958)	4340	
		250-4000	S	Spec						
				Band freq	Lippincott	JACS	73	(1951)	4990	
		280-3700	S	Spec	Lippincott	JCP	21	(1953)	1559	
		250-3500	S	Spec	Mutschin	ZAC	160	(1958)	80	
			-	Bond length	Woodward	TPS	52	(1956)	1458	
						Pistorius	JCP	27	(1957)	965
$\text{H}_4\text{N}_4\text{S}_4$	Cyclotetraethio-tetraimine	1-40 μ	Sol	Spec						
$\text{H}_4\text{O}_7\text{P}_2$	Pyrophosphoric acid	-	-	-						
H_4B^-	Borohydride	-	-	-						
H_4P^+	Phosphonium ion	-	-	-						

H_4Si	Silane	G	Spec	PR	47	(1935)
-	$1-13/\mu$	-	Freq, Assign	JCP	4	(1936)
-	-	-	Assign	JCP	8	1940
-	$9-11/\mu$	-	Freq	PR	58	1940
-	$9-13/\mu$	G	Rot.	PR	60	1941
-	-	-	Forbidden bands	Tindal	60	1941
-	-	-	Quant. Mech.	Wen	9	1941
-	-	-	Band freq.	Rugassi	46	1942
-	$9-12/\mu$	G	Spec	Tindal	PR	62
-	-	-	FC	Gardy	JCP	14
-	-	-	Force Field	Heath	TFS	44
-	-	-	FC	Simanouti	JCP	17
-	-	-	FC	Heath	TFS	46
-	-	-	FC	Burgess	JOSA	43
-	-	-	Band freq.	Huggins	JACS	75
-	-	-	Bond dist.	-	JACS	76
-	$2-16/\mu$	G	-	White	JCP	76
-	-	-	Thermo	Altshuller	JCP	23
-	-	-	Spec	Boyd	JCP	23
-	-	-	FC	Murata	JCP	23
-	-	-	FC	Venkateswarlu	JCP	23
-	-	-	FC	Neal	JCP	24
-	-	-	Vib.	Neal	JCP	24
-	-	-	Bond length	Woodward	TFS	52
-	-	-	FC	Pistorius	JCP	27
-	-	-	-	Lehmann	JCP	29
-	$2-15/\mu$	G	Spec	Decius	JACS	75
-	-	-	-	Decius	JACS	75
-	$400-3500$	S,L	Spec	Wilmshurst	CJC	38
Diborane-d ₁					(1960)	467
H_5DB_2	Hydrazine monohydro-			Lieber	AC	23
H_5BrN_2	bromide			Decius	JACS	75
H_5CIN_2	Amino ammonium chloride	-	Freq	Cox	JCS	-
H_5CIN_2	Hydrazine monohydro-	$2-15/\mu$	Spec	Ketelaar	JCP	24
	chloride	670-3500	Spec	Waddington	JCS	-
$\text{H}_5\text{F}_2\text{N}$	Ammonium hydrogen	-	Freq		(1954)	1798
	difluoride	-	Spec		(1956)	624
	250-4000	S	Freq		(1958)	4340
			Assign			
H_5NO	Ammonium hydroxide	$1-3/\mu$	Sol	Spec	Grantam	PR
					18	(1921)
						339

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H_5NO_2	Ammonium hydroperoxide	800-2400	S	H bond	Knop	CJC	37 (1959)	1794
$\text{H}_5\text{NO}_4\text{S}$	Ammonium bisulfate	2-16 μ 300-880	S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
H_5N_2^+	Hydrazine ion	-	-	FC	Linnett	TFS	41 (1945)	223
$\text{H}_5\text{N}_2\text{O}_2\text{P}$	Diamido phosphoric acid	-	-	Bond	Steiger	ZE	61 (1957)	1004
H_5PSi	Silyl phosphine	300-4000	G	Assign	Linton	SA	15 (1959)	146
$\text{H}_6\text{Cl}_2\text{N}_2$	Hydrazine dihydrochloride	400-3500	S	Assign	Snyder	SA	13 (1959)	280
$\text{H}_6\text{F}_4\text{N}_2\text{Si}$	Silicon tetrafluoride ammonia	2-15 μ	S	Spec	Piper	JACS	76 (1954)	4318
H_6F_6	Hydrogen fluoride (hexamer)	900-4000	G	Spec	Smith	JCP	28 (1958)	1040
$\text{H}_6\text{NO}_4\text{P}$	Ammonium dihydrogen phosphate	2-16 μ 1-25 μ 2-15 μ 400-10000	S	Spec Reflection Group freq Assign	Miller Oberly Carbridge	AC JCP JCS	24 (1952) 20 (1952) - (1954)	1253 740 493
$\text{H}_6\text{NO}_4\text{As}$	Ammonium dihydrogen arsenate	350-10000 300-3000	S	Group freq Assign Spec	Murphy Blinc Miller	JCP MP SA	22 (1954) 1 (1957) 16 (1960)	1322 391 135
$\text{H}_6\text{N}_3\text{OP}$	Phosphoryl triamide	-	-	Bond	Oberly Murphy Blinc	JCP JCP MP	20 (1952) 22 (1954) 1 (1957)	740 1332 391
$\text{H}_6\text{N}_3\text{OS}$	Thiophosphoric triamide	-	-	Bond	Steiger	ZE	61 (1957)	1004
$\text{H}_6\text{N}_3\text{B}_3$	Borazole	2.5-24.5 μ	L	Spec Assign Freq Freq FC	Steiger	ZE	61 (1957)	1004
					Grawford Bauer Bell Price Spurr	JCP CR TFS JCP JCP	7 (1939) 31 (1942) 41 (1945) 17 (1949) 19 (1951)	225 43 293 1044 518
							JACS	78 (1956)

H_6OSi_2	Disiloxane	L	Spec, Freq	Lord
640-5000	-	Spec	JACS	78 (1956)
600-4000	-	Spec	JACS	80 (1958)
600-1200	S,G	FC	SA	2371 13 (1958)
50-100 μ	G	Spec	JCP	35 33 (1960)
$\text{H}_6\text{S Si}_2$	Diisilyl sulphide	-	Assign	687 921
200-4000	-	Spec	JCP	19 (1958)
400-4000	L,G,S	Spec	JCP	55 (1959)
400-4000	G	Spec	JCP	9 (1941)
400-4000	-	Assign	CR	780 43
-	-	Struct	JCS	- (1942)
-	-	Struct	PRS	- (1943)
-	-	Freq, Assign	Bell	183 (1945)
-	-	FC	Bell	183 (1945)
-	-	Struct	Gordy	14 (1946)
-	-	Assign	Milliken	41 (1947)
-	-	Quant. Mech.	Price	15 (1947)
-	-	Speco	Kilpatrick	16 (1948)
1.5-15 μ	-	Speco	Price	16 (1948)
3.7-3 μ	G	Speco	Anderson	76 (1949)
-	-	Anal.	Cowan	17 (1949)
-	-	Freq	Price	17 (1949)
-	-	Freq	Price	17 (1949)
-	-	Thermo	Webb	17 (1949)
-	-	Spec	Anderson	18 (1950)
250-3800	G	Spec	Lord	19 (1951)
2-15 μ	G	Spec	Lacher	74 (1952)
974	G	Spec	Maybury	21 (1953)
-	-	Shady	Rifkin	75 (1953)
-	-	Thermo	Castellan	22 (1954)
2-13 μ	G	Theory	McCarthy	26 (1954)
-	-	Spec	Shepp	76 (1954)
4500-10500	L	Thermo	Beachell	23 (1955)
-	-	Spec	Simpson	24 (1956)
2-15 μ	G	Freq	Lehmann	29 (1958)
1500-2850	-	Spec	Shapiro	29 (1958)
1-15 μ	G	Group freq	Nadeau	32 (1960)
$\text{H}_6\text{B}_2^{10}$	Diborane-isotopic	G	Spec	Lord
250-3800	-	FC	PIAS	19 (1951)
$\text{H}_6\text{B}_2^{11}$	Diborane-isotopic	-	FC	48A (1958)
$\text{H}_6\text{B}_2^{12}$	-	-	PIAS	48A (1958)

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$\text{H}_6\text{Se Si}_2$	Diethyl selenide	400-4000	G	Spec	Ebsworth	TFS	55 (1959)	211
H_6Si_2	Disilane	-	-	FC Spec, Assig. Anal.	Gordy Gutowsky White Bethke	JCP JCP JACS JCP	14 (1946) 22 (1954) 76 (1954) 26 (1957)	305 939 3897 1107
$\text{H}_7\text{N}_2\text{O}_3\text{P}$	Monocammonium phosphoramidate	2-15 μ	S	Group freq	Corbridge	JCS	- (1954)	493
H_8BrB_5	Bromopentaborane	400-3000	Sol.	Struct	Figgis	SA	15 (1959)	331
$\text{H}_8\text{FN}_2\text{O}_3\text{P.H}_2\text{O}$	Diammonium mono fluorophosphate monohydrate	-	S	Group freq	Corbridge	JCS	- (1954)	4555
$\text{H}_8\text{F}_6\text{N}_2\text{Si}$	Diammonium silicon hexafluoride	-	S	Band freq	Cox	JCS	- (1954)	1798
$\text{H}_8\text{N}_2\text{O}_3\text{S.H}_2\text{O}$	Ammonium sulfite monohydrate	2-16 μ 300-880	S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
$\text{H}_8\text{N}_2\text{O}_3\text{S}_2$	Ammonium thiosulfate	2-16 μ 300-880	S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
$\text{H}_8\text{N}_2\text{O}_4\text{S}$	Ammonium sulphate	- 2-16 μ 2-16 μ 300-880	S	Quant. Mech. Spec Spec Spec	Horvath Miller Felche Miller	JCP AC JINC SA	16 (1948) 24 (1952) 6 (1958) 16 (1960)	857 1253 104 135
$\text{H}_8\text{N}_2\text{O}_4\text{S}_2$	Ammonium hyposulfite	-	-	Quant. Mech.	Horvath	JCP	16 (1948)	857
$\text{H}_8\text{N}_2\text{O}_4\text{Se}$	Ammonium selenate	2-16 μ 220-3500 300-880	S	Spec Spec Spec	Miller Duval Miller	AC ZE SA	24 (1952) 64 (1960) 16 (1960)	1253 582 135
$\text{H}_8\text{N}_2\text{O}_5\text{Se}_2$	Ammonium pyroselenite	-	S	Freq	Simon	ZAU	303 (1960)	39
$\text{H}_8\text{N}_2\text{O}_5\text{S}_2$	Ammonium peroxy disulfate	300-880	S	Spec	Miller	SA	16 (1960)	135
$\text{H}_8\text{N}_2\text{O}_8\text{S}_2$	Ammonium persulfate	2-16 μ	S	Spec	Miller	AC	24 (1952)	1253

$\text{H}_9\text{N}_2\text{O}_4\text{P}$	Diammonium hydrogen phosphate	2-16 μ 2-15 μ 600-4000	S S S	Spec Group freq Discuss	Miller Corbridge Braunholtz	AC JCS JCS	24 (1952) - (1954) - (1959)	1253 493 868
$\text{H}_9\text{N}_2\text{O}_4\text{P}\cdot 12\text{H}_2\text{O}$	Ammonium hydrogen phosphate dodecahydrate	300-880	S	Spec	Miller	SA	16 (1960)	135
H_9NSi_3	Trisilyl amine	400-4000 - 600-1200 60-4000	G G, Sol S,G G	Assign Assign, Struct FC Freq, Assign	Ebsworth Kriegsmann McKean Robinson	SA ZAU A SA JACS	13 (1958) 298 (1958) 13 (1958) 80 (1958)	202 212 38 5924
H_9B_5	Pentaborane	3-25 μ 568-3285 - 2-15 μ - 5-14 μ - 400-3000	G G G G G - Sol	Spec Spec Microwave Spec Spec Exchange Study Struct	Taylor Hrostowski Hrostowski McCarty Baden Kaufman Baden Higgs	PR JACS JCP AC JPC JCP JCP SA	79 (1950) 76 (1954) 22 (1954) 26 (1954) 59 (1955) 24 (1956) 62 (1958) 15 (1959)	234 998 262 1027 287 403 331 331
$\text{H}_{10}\text{N}_2\text{O}_6\text{P}_2$	Diammonium dihydrogen hypophosphate	694-3200	S	Group freq	Corbridge	JCS	- (1954)	4555
$\text{H}_{10}\text{N}_2\text{O}_7\text{P}_2\cdot \text{XH}_2\text{O}$	Diammonium dihydrogen pyrophosphate (x-hydrate)	2-15 μ	S	Group freq	Corbridge	JCS	- (1954)	493
H_{10}B_4	Tetraborane	2-15 μ	G	Spec	McCarty	AC	26 (1954)	1027
H_{10}B_6	Hexaborane	2-15 μ	G	Spec	Gibbins	JCP	30 (1959)	1483
$\text{H}_{11}\text{N}_2\text{O}_6\text{I}$	Ammonium trihydrogen periodate	-	-	H bond	Rundle	JCP	20 (1952)	1487
$\text{H}_{11}\text{N}_2\text{O}_6\text{I}$	Diammonium paraperiodic acid	700-3000	-	Group freq	Blinc	MP	1 (1957)	391
H_{11}B_5	Dihydropentaborane	2-15 μ	G	Spec	McCarty	AC	26 (1954)	1027
$\text{H}_{12}\text{N}_2\text{Si}_4$	Tetrasilyl hydrazine	400-5000	G, S	Spec, Freq	Nylett	SA	16 (1960)	747

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H ₁₄ N ₆ O ₈ P ₄	Diammonium tetrephospho-nitrilate	785-3125	S	Group freq	Corbridge	JCS	-	(1954)	4555	
H ₁₄ B ₁₀	Decaborane	2-25 μ	S, Sol	Thermo	Keller	JCP	20	(1952)	1749	
H ₁₆ N ₄ O ₇ P ₂	Tetra ammonium pyrophosphate	2-15 μ -	S Sol	Group freq Struct	Corbridge Simon	JCS ZAUA	- 301	(1954) (1959)	493 154	
H ₁₆ N ₄ O ₁₂ P ₄	Ammonium tetra metaphosphate	-	-	Struct	Steiger	ZAUA	294	(1958)	1	
DT	Tritium deuteride	-	-	Thermo	Jones	JCP	17	(1949)	1062	
DTO	Water-d ₁ , t ₁	-	700-7000	G	Thermo Freq, Assign	Friedman Staats	PR JCP	94 24	(1954) (1956)	1422 916
DTS	Hydrogen sulphide-d ₁ , t ₁	-	-	Thermo	Haar	PR	99	(1955)	638	
DT ₂ N	Ammonia-d ₁ , t ₂	-	-	Thermo, Freq	Thyagarajan	JMS	5	(1960)	307	
DT ₂ P	Phosphine-d ₁ , t ₂	-	-	Thermo, Freq	Thyagarajan	JMS	5	(1960)	307	
DT ₂ As	Arsine-d ₁ , t ₂	-	-	Thermo, Freq	Thyagarajan	JMS	5	(1960)	307	
DBr	Hydrobromic acid-d ₁	0.1 μ 45-170 μ 0.93-1.18	G G -	Microwave Freq., Mol. Const. Dipole moment Spec., Mol. Const.	Gordy Palik Burrus Mould	PR JCP JCP SA	93 23 31 16	(1954) (1955) (1957) (1960)	419 217 1270 479	
DBr ⁷⁹	Hydrobromic acid-d ₁ (isotopic)	1850-3650	G	Mol. Const., Spec Freq., Mol. Const.	Keller Cowan	PR PR	91 111	(1953) (1958)	255 209	
DBr ⁸¹	Hydrobromic acid-d ₁ (isotopic)	1850-3650	G	Mol. Const., Spec Freq., Mol. Const.	Keller Cowan	PR PR	91 111	(1953) (1958)	255 209	
DBr ₃ Si	Tribromosilane-d ₁	-	-	Anal	Halverson	RMP	19	(1947)	87	
DCl	Hydrogen chloride-d ₁	2.5-9 μ	-	Quant. Mech. Spec	Bell Williams	TFS JACS	32 59	(1936) (1937)	1013 319	

1940-2000	S	Spec H bond	Lee Sutherland Hiebert	PRS TPS JCP	176 (1940) 36 (1940) 20 (1952)
-	S	Isotopic dilution technique	Hansler Falk Burrus Herman Mould	JCP CJC JCP JCP SA	21 (1953) 35 (1957) 31 (1959) 32 (1960) 16 (1960)
2700	S	Freq Spec Dipole moment I, Band study Spec, Mol. Const.			
40-140 μ	S				
2-25 μ	Sol				
0.93-1.5 μ	G				
-	-				
1800-2200	-				
DC135	Hydrogen Chloride-d ₁ (isotopic)	4.8 μ 5 μ -	G G -	Spec Spec, Anal I	Hardy Pickworth Herman VanHome Cowan Still
		1.6-2.4 μ -	G	Spec, Freq, Anal Mol. Const., Spec Spec, Mol. Const.	JCP PR JCP PR JOSA
		1000-3400	G		111 (1958) 50 (1960)
DC137	Hydrogen chloride-d ₁ (isotopic)	4.8 μ 5 μ -	G G -	Spec Spec, Anal I	Hardy Pickworth Herman VanHome Cowan Still
		1.6-2.4 μ -	G	Spec, Freq, Anal Mol. Const., Spec Spec, Mol. Const.	JCP PR JOSA
		1000-3400	G		111 (1958) 50 (1960)
DC140	Hydrogen hypochlorite-d ₁	1-15 μ	G	Spec, Assign	Hedberg
DC142	Dichloramine-d ₁	1.4-25 μ	G	Mol. Const., Assign	JCP
DC135 Si	Trichlorosilane-d ₁	-	-	Anal	Halverson
DF	Hydrogen fluoride-d ₁	2900-5700	G	Mol. Const.	Talley
DF Si	Trifluorosilane-d ₁	-	G	Microwave Spec, Anal	RMP TPS SA
DI	Deuterium iodide	0.1-0.2 μ 45-170 μ 1500-1700 0.11-0.26 μ 0.093-0.15 μ	G G G G	Microwave Freq, Mol. Const. Spec, Mol. Const. Spec, Mol. Const. Stark effect	Heath Newman Burrus Palik Jones Burns Burrus
					50 (1954) 10 (1959)
					92 (1953) 23 (1955) 1 (1957) 28 (1958) 31 (1959)
					779 793

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D <small>127</small>	Deuterium iodide (isotopic)	-	G	Spec, Mol. Const.	Cowan	PR	111 (1958)	209
D <small>103</small>	Iodic acid-d ₁	-	S	Spec, Struct	Dasent	JCS	- (1960)	2429
D <small>NO₃</small>	Nitric acid-d ₁	700-3000	G	Spec, Freq, Thermo Thermo Mol. Const., Assign	Cohn Palm Millen	JCS JCP JCS	- (1952) 23 (1955) - (1960)	4272 1562 1523
D <small>N₃</small>	Hydrazoic acid-d ₁	8000-35000 Mc/sec	G	Spec, Anal, Assign	Dows	JCP	23 (1955)	1258
D <small>N¹⁴₃</small>	Hydrazoic acid-d ₁ (isotopic)	20000-25000	SoI	Spec, H bond Microwave, Struct	Buswell Amble	JACS JCP	61 (1939) 18 (1950)	2809 1422
D <small>O</small>	Hydroxy-d-radical	-	-	Microwave Thermo	Dousmanis Haar	PR JCP	100 (1955) 23 (1955)	1735 869
D <small>S</small>	Sulfur deuteride radical	-	-	Thermo	Haar	JCP	23 (1955)	869
D ₂	Deuterium	-	-	Thermo Anal, Mol. Const. Thermo FC	Johnston Dieke Hullurt Glockler Halverson Proto Beckel	JCP PR JCP JCP RMP JOSA JCP	2 (1934) 47 (1935) 9 (1941) 10 (1942) 19 (1947) 45 (1955) 24 (1956)	389 261 61 686 87 447 553
D ₂ IN	Ammonia-d ₂ -t ₁	-	-	Freq, Thermo	Thyagarajan	JMS	5 (1960)	307
D ₂ IP	Phosphine-d ₂ -t ₁	-	-	Freq, Thermo	Thyagarajan	JMS	5 (1960)	307
D ₂ TAs	Arsine-d ₂ -t ₁	-	-	Freq, Thermo	Thyagarajan	JMS	5 (1960)	307
D ₂ FSi ₂₈	Difluorosilane-d ₂ (isotopic)	12000-38000 Mc/Sec	G	Struct	Laurie	JCP	26 (1957)	1359
D ₂ FSi ₂₉	Difluorosilane-d ₂ (isotopic)	12000-38000 Mc/Sec	G	Struct	Laurie	JCP	26 (1957)	1359

D ₂ ³⁰ F ₂ Si ³⁰	Difluorosilane-d ₂ (isotopic)	12000-38000 Mo/Sec	G	Struct	Laurie	JCP	26 (1957) 1359
D ₂ O	Water-d ₂	-	-	Freq	Bonner	PR	46 (1934) 458
	1-7 μ	L	Spec	Casselman	PR	45 (1934) 221	
	1-10 μ	-	Assign	Ellis	JCP	2 (1934) 559	
	-	-	Spec	Bank	JCP	2 (1934) 464	
1075-2900	-	Spec, Assign	Barker	JCP	3 (1935) 660		
15-150 μ	L	Struct	Cartwright	PR	49 (1936) 470		
52-152 μ	L, Sol	Transmission	Cartwright	PRS	154 (1936) 138		
1.5-2.91 μ	G	Band study	Morris	PR	49 (1936) 272		
-	-	FC	Penney	PRS	156 (1936) 654		
2.6-6.6 μ	L	Spec	Flyer	JCP	4 (1936) 157		
-	L, S	Struct	Cross	JACS	59 (1937) 1134		
1.2-2.1 μ	L	Spec, Assign	Kellner	PRS	159 (1937) 410		
-	-	Theoretical	King	JCP	5 (1937) 405		
-	-	Quant. Mech.	King	JCP	5 (1937) 413		
2-9 μ	L	Spec	Williams	JACS	59 (1937) 319		
2.6-3.8 μ	Sol	Spec	Borst	JCP	6 (1938) 61		
-	-	Spec	Ellis	JCP	6 (1938) 723		
1.985 μ	L, G	Rotation in solution	Ellis	PR	54 (1938) 599		
3-3.6.1 μ	Sol, L	Spec, H bond	Gordy	JACS	60 (1938) 605		
3-12 μ	L	Bond study	Gordy	PR	53 (1938) 851		
3.76-4.18 μ	L, Sol	Band study	Gordy	JCP	7 (1939) 93		
23-135 μ	G	Spec, Anal	Fusion	PR	56 (1939) 982		
31-38 μ	-	Spec	Bandall	JAP	10 (1939) 768		
-	L	Association	Shearin	PR	56 (1939) 845		
-	-	Vibration-rotation	Darling	PR	57 (1940) 128		
		theory					
	-	-	Solvent effect on band	Gordy	JCP	9 (1941) 215	
	-	-	Quant. Mech.	Shatter	JCP	10 (1942) 405	
	-	-	Ratio rule	Moether	JCP	11 (1943) 97	
	-	-	Quant. mech.	Shatter	JCP	12 (1944) 504	
12138-2787	G	Quant. Mech., FC, Freq	Glockler	JCP	13 (1945) 388		
-	-	Freq	Dickey	PR	70 (1946) 109		
-	-	Anal	Halverson	RMP	19 (1947) 87		
1.5-24 μ	L	Vibrations	Johnson	PR	72 (1947) 158		
8.5 μ	-	Moment of inertia	King	JCP	15 (1947) 85		
-	-	Microwave	King	PR	71 (1947) 453		
-	G	Spec	Dickey	PR	73 (1948) 1164		
-	-	Rotational levels	Ginsburg	PR	74 (1948) 1052		

	-	-	Vibration theory	Heath	556
400-4000	L	-	Centrifugal stretching	Benedict	(1948)
	Spec	-		Gore	517
	Quant. Mech.	-		Torkington	1317
	Spec	-		Chapman	382
	Spec	-		Heath	357
	FC	-		PR	74
3.7/ μ	G	-		TFS	78
	Anal	-		AC	1949
2787-5373	G	-		JCP	21
6533	G	-		JCP	17
1.25-4.2/ μ	G	-		PR	1949
600-2000	L	-		TFS	46
	Spec	-		AC	1950
	Spec	-		JCP	23
	Freq	-		JCP	673
	Spec	-		JCP	19
	Spec	-		JCP	1086
	Dickey	-		JCP	20
	Benedict	-		JCP	375
	Blout	-		JCP	21
	Jen	-		JOSA	1953
	Pimentel	-		JCP	43
	Anal	-		JAC S	1953
	Thermo	-		JAC S	1301
	Spec	-		PR	1953
2-14/ μ	L	-		JSI	1953
	Thermo	-		JCP	21
	Anal	-		JCP	5203
	Freq	-		JAC S	75
	Anal	-		APS	1953
	Centrifugal distortion	-		JCP	7
	theory	-		JCP	1953
56-67/ μ	-	-	Spec	JOSA	166
	-	-	Anal	JAC S	22
1180	G	-	Anal, Spec	JCP	1954
	-	-	Freq	JCP	280
1.25-4.1/ μ	G	-	Spec, Mol. Const.	JCP	5263
	Sol	-		JOSA	1954
	Anal	-		JAC S	1954
	Freq	-		PR	1423
	Anal	-		JSI	31
	Jones	-		JCP	315
	Patterson	-		JCP	22
	Posener	-		AC	217
				PR	1391
				JCP	1954
				PR	374
				JOSA	97
			Randall	JAC S	1954
			Trenner	JCP	1196
			Dickey	JCP	1955
			Slowinski	JCP	1718
			Benedict	JCP	1955
			Pollock	PRS	1956
			Smith	TFS	1139
			Ward	TFS	149
			Whalley	TFS	1956
			Sauvage	BSCF	891
			Haas	JCP	1957
				TFS	1406
				BSCF	1578
				JCP	813
				JCP	1960
				JCP	1763
Water-d ₂ (isotopic)	1100-3700	G,L	Freq, Assign	Pinchas	1692
Deuterium peroxide	400-3800	L	Freq, Assign	Taylor	18
	-	G	FC, Freq	Giguere	(1950)
	-	G	Microwave, Freq	Massey	998
				JPC	340
				JMS	405
Hydrogen sulfide-d ₂	1-15/ μ	G	Freq assign	Bailey	4
	1.5-12/ μ	G	Spec, Freq assign	Nielsen	(1936)
				JCP	625
				JCP	5 (1937)
					277

-	-	-	Ratio rule	JCP	11	(1943)	
-	-	-	Quant. Mech.	JCP	13	(1945)	
-	-	-	Anal	RMP	19	(1947)	
-	-	-	FC	TRS	46	(1950)	
-	-	S	Spec	JCP	19	(1951)	
-	-	G	Spec, Assign	JRN	53	(1954)	
840-1860	4535-4657	-	Thermo.	PR	99	(1955)	
$\lambda 6.5 \mu$	800-2000	G	Assign	TRS	52	(1956)	
$15-170 \mu$	-	-	Spec, Freq	JCP	59	(1957)	
D_2O	D_2Se	Sulfuric acid-d ₂	Spec, Bond study	DA	19	(1959)	
D_3^{C10}	D_3^{CSi}	$2-6.2 \mu$	Spec	Williams	JACS	59	(1937)
H_2O	H_2Se	760-1700 $4-12 \mu$	Struct	Sears	PR	53	(1938)
-	-	-	Spec, Freq assign	Cameron	JCP	7	(1939)
-	-	-	Ratio rule	Noether	JCP	11	(1943)
-	-	-	Anal	Halverson	RMP	19	(1947)
-	-	-	FC	Heath	TRS	46	(1950)
-	-	-	FC	Slowinski	JCP	23	(1955)
-	-	-	FC	Smith	TRS	52	(1956)
-	-	680-820	Assign, Mol. Const.	Falik	JMS	3	(1959)
-	-	500-4000	S	Ferriso	JCP	23	(1955)
$Oxonium chloride-d_3$	$Monochlorosilane-d_3$	667-3000 - 400-1700	Assign	Anderson	ACS	8	(1954)
-	-	-	Freq, FC	Bak	ACS	8	(1954)
-	-	-	Freq	Newman	SA	15	(1959)
D_3FSi	$Monofluorosilane-d_3$	667-3000 - 300-1700	Spec	Anderson	ACS	8	(1954)
-	-	-	Freq, FC	Bak	ACS	8	(1954)
-	-	-	Freq	Newman	JCP	25	(1956)
-	-	-	Struct	Newman	SA	15	(1959)
D_3^{ISi}	$Moniodosilane-d_3$	300-4000 300-4000	Spec, Assign, FC, Freq	Linton	SA	12	(1958)
-	-	-	Assign, Mol. Const.	Linton	DA	19	(1958)
D_3N	$Ammonia-d_3$	$40-170 \mu$ - -	Assign	Silverman	PR	44	(1933)
-	-	-	Spec	Barnes	PR	47	(1935)
-	-	-	Freq	Howard	JCP	3	(1935)
-	-	-	Rotational spacing	Johnston	PR	48	(1935)
-	-	-	Double minima	Mauning	JCP	3	(1935)

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D_3N^{14}	Ammonia-d ₃ (isotopic)	1500-1620 Mc/sec	-	Spec., Struct.	Herrman	JCP	29 (1958)	875
D_3NO	Hydroxylamine-d ₃	-	S	Anal Spec., Assign, Struct	Nightingale Nightingale	JACS JCP	75 (1953) 22 (1954)	4092 203
$\text{D}_3\text{NO}_2\text{S}$	Sulphamic acid-d ₃	500-4000	S	Assign	Vuagnat	JCP	26 (1957)	77
$\text{D}_3\text{O}_2\text{B}$	Boric acid-d ₃	500-3600 250-4000	S	Spec., Assign, Struct Spec., Freq., Assign	Bethell Gonbeau	TFS ZPC	51 (1955) 20 (1959)	9 15
$\text{D}_3\text{O}_4\text{P}$	Orthophosphoric acid-d ₃	2-6.2 μ	sol	Spec	Williams	JACS	59 (1957)	319
$\text{D}_3\text{O}_6\text{B}_3$	Metaboric acid-d ₃	250-4000 430-4000	-	Spec., Assign Assign	Goubeau Parsons	ZPC JCP	20 (1959) 33 (1960)	15 1660

D_3^P	Phosphine-d ₃	500-2500	G	Spec, FC Struct Anal	Lee Sutherland Halverson Heath Weston Stroup Burnes Stroup	TFS TFS RMP TFS JCP JOSA PR DA	35 (1939) 35 (1939) 19 (1947) 46 (1950) 20 (1952) 43 (1953) 95 (1954) 20 (1959)	1366 1373 87 137 1820 1096 706 556
D_3As	Arsine-d ₃	500-2500	G	Spec, FC Struct Anal	Lee Sutherland Halverson McConaghie McConaghie Heath Costain Stroup	TFS TFS RMP PR PR TFS JPC JOSA	35 (1939) 35 (1939) 19 (1947) 73 (1948) 75 (1949) 46 (1950) 56 (1952) 43 (1953)	1366 1373 87 1250 633 137 321 1096
D_3As^{75}	Arsine-d ₃ (isotopic)	-	-	Microwave	Blevins	PR	97 (1955)	684
D_4BrN	Ammonium bromide-d ₄	3-10 μ	S	Spec, Assign Band study	Wagner Plumb	JCP JCP	18 (1950) 23 (1955)	305 947
D_4ClN	Ammonium chloride-d ₄	3-10 μ	S	Anal Spec, Assign Band width Vibration	Wagner Wagner Plumb Marshall	JCP JCP JOP TFS	17 (1949) 18 (1950) 23 (1955) 52 (1956)	105 296 947 19
D_4FN	Ammonium fluoride-d ₄	-	S	Spec, Assign, Struct	Plumb	JCP	23 (1955)	947
D_4IP	Phosphonium iodide-d ₄	400-4000	Sol	Spec, Assign	Martinez	JCP	27 (1957)	1110
D_4IN	Ammonium ion-d ₄	-	-	FC	Pistorius	JCP	27 (1957)	965
D_4B10	Borohydride ion-d ₄ (isotopic)	30000	Sol	Spec, NCA, Assign	Emery	JCP	28 (1958)	1029
D_4B11	Borohydride ion-d ₄ (isotopic)	30000	Sol	Spec, NCA, Assign	Emery	JCP	26 (1958)	1029

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D ₄ Si	Silane-d ₄	2-16 μ	G	Spec, Assign, FC	Meal	JCP	24 (1956)	385
D ₅ BrN ₂	Hydrazinebromide-d ₅	400-3500	S	Spec, H bond	Decius	JACS	75 (1953)	2436
D ₅ CIN ₂	Hydrazinechloride-d ₅	670-3500	S	Spec, H bond	Decius	JACS	75 (1953)	2436
D ₆ NO ₄ P	Ammonium dihydrogen phosphate-d ₆	700-3500	S	Quant. Mech.	Blinc	MP	1 (1958)	391
D ₆ N ₂	Hydrazine ion-d ₆	-	-	FC	Linnett	TFS	41 (1945)	223
D ₆ OSi	Disiloxane-d ₆	640-5000	G,L	Freq assign, Spec	Lord	JACS	78 (1956)	1327
D ₆ SSi ₂	Disilylsulfide-d ₆	200-4000 350-3150 400-4000	- S,G G	Mol. Const. Spec, Freq assign Spec, Struct	Linton Linton Ebsworth	DA JCP TFS	19 (1958) 29 (1958) 55 (1959)	687 921 211
D ₆ B ₂	Diborane-d ₆	2-15 μ 974 - 5-14 μ - 2-15 μ	G G - G - G	Spec, Assign Exchange study Assign, Thermo Exchange reaction Freq Spec	Webb Maybury Shepp Kaufman Simpson Lehman	JCP JCP JACS JCP JCP JCP	17 (1949) 21 (1953) 76 (1954) 24 (1956) 24 (1956) 29 (1958)	1007 742 265 403 1108 1248
D ₆ B ¹⁰ ₂	Diborane-d ₆ (isotopic)	250-3800	L,G	Spec, Assign	Lord	JCP	19 (1951)	1
D ₆ Si ₂	Disilane-d ₆	200-3200	G	Spec, Assign	Bethke	JCP	26 (1957)	1107
D ₉ NSi ₃	Trisilylamine-d ₉	400-4000 60-4000	G G	Freq assign, FC Freq assign, Spec	Ebsworth Robinson	SA JACS	13 (1958) 80 (1958)	202 5924
D ₉ B ₅	Pentaborane-d ₉	430-2600	G	Microwave Spec, I, Assign	Hrostowski Hrostowski	JCP JACS	22 (1954) 76 (1954)	262 998
D ₁₂ NSi ₄	Tetrasilyl hydrazine-d ₁₂	400-500	G,S	Spec, Freq, Config	Aylett	SA	16 (1960)	747
TBr	Tritium bromide	1400-1600	-	Microwave Spec, Anal	Rosenblum Jones	PR JCP	97 (1955) 24 (1956)	84 1246

T_{Br79}	Tritium bromide (isotopic)	0.136-0.174 μ G	Microwave	Burnes	PR	97 (1955)	1661
T_{Br81}	Tritium bromide (isotopic)	0.136-0.174 μ G	Microwave	Burnes	PR	97 (1955)	1661
$TCl35$	Tritium chloride (isotopic)	1600-1850	G Spec	Burnes Jones	JCP	97 (1955) 24 (1956)	1246
$TCl37$	Tritium chloride (isotopic)	1600-1850	G Spec	Burrus Jones	JCP	97 (1955) 24 (1956)	1246
TF	Tritium fluoride	2200-5000	G	Spec, FC, Mol. Const.	JMS	1 (1957)	43
TO	Hydroxy-t ₁ radical	-	-	Thermo.	Haar	JCP	23 (1955)
TS	Sulfur tritium radical	-	-	Thermo.	Haar	JCP	23 (1955)
T_2	Tritium	-	-	Thermo. Potential function	Jones Beckel	JCP JCP	16 (1948) 24 (1956)
T_2^0	Water-t ₂	700-7000	-	Thermo. Freq. assign	Friedman Staats	JCP JCP	94 (1954) 24 (1956)
T_2S	Tritium sulfide	-	-	Thermo.	Haar	PR	1077 553
T_3N	Ammonia-t ₃	-	-	Mol. Const., Thermo.	Sundaram	JMS	5 (1960)
T_3P	Phosphine-t ₃	-	-	Mol. Const., Thermo.	Sundaram	JMS	5 (1960)
T_3AS	Arsine-t ₃	-	-	Mol. Const., Thermo.	Sundaram	JMS	5 (1960)
T_4ClN	Ammonium chloride-t ₄	800-3000	L	Ident, Freq	Morgan	JCP	61
$BrCl$	Bromine chloride	1.5-16 μ	L	Spec Freq	Marvin Clark	PR TPS	161 1390
		-	-	G	Mattraw	JCP	1117
		439.5	G	Freq	Brooks	JCP	363
		439.5	G	I	Baughan	TPS	1046
		-	-	Thermo.			

Br ⁷⁹ C ₁ ³⁵	Chlorine bromide (isotopic)	-	-	Microwave	Smith	PR	79 (1950) 1007
Br ⁸¹ C ₁ ³⁵	Chlorine bromide (isotopic)	-	-	Microwave	Smith	PR	79 (1950) 1007
Br ⁸¹ C ₁ ³⁷	Chlorine bromide (isotopic)	-	-	Microwave	Smith	PR	79 (1950) 1007
Br ⁷⁹ C ₁ ³⁷	Chlorine bromide (isotopic)	-	-	Microwave	Smith	PR	79 (1950) 1007
BrCl ₂ P	Phosphorous dichloride bromide	-	-	Quant. Mech.	Wilson	JCP	2 (1934) 432
BrCl ₂ B ¹⁰	Boron bromide dichloride (isotopic)	300-3000	G	Spec	Lindeman	JCP	24 (1956) 242
BrCl ₂ B ¹¹	Boron bromide dichloride (isotopic)	300-3000	G	Spec	Lindeman	JCP	24 (1956) 242
BrF	Bromine fluoride	350-1400	-	Freq Spec	Clark Stein	TFS JACS	33 (1937) 81 (1959) 1273
Br ⁷⁹ F	Bromine fluoride (isotopic)	-	G	Microwave	Smith	PR	77 (1950) 420
Br ⁸¹ F	Bromine fluoride (isotopic)	-	G	Microwave	Smith	PR	77 (1950) 420
BrFO ₂ S	Sulfuryl bromo fluoride	2-38 μ	G	Freq	Crow	SA	12 (1958) 143
BrF ₂ B ¹⁰	Boron bromide difluoride (isotopic)	300-3000	G	Spec	Lindeman	JCP	24 (1956) 242

$\text{BrF}_2^{\text{B}^{11}}$	Boron bromide difluoride (isotopic)	300-3000	G	Spec	Lindeman	JCP	24 (1956)	242
BrF_3	Bromine trifluoride	2.5-9.5 μ 400-1100 400-1400	G,L G G	Freq Spec Spec	Haendler Claassen Stein	JCP JCP JACS	22 (1954) 28 (1958) 81 (1959)	1939 285 1273
$\text{Br}^{79}\text{F}_3\text{Si}^{28}$	Trifluoro bromo silane (isotopic)	-	G	Microwave	Sheridan	PR	77 (1950)	719
$\text{Br}^{81}\text{F}_3\text{Si}^{28}$	Trifluoro bromo silane (isotopic)	-	G	Microwave	Sheridan	PR	77 (1950)	719
BrF_5	Bromine pentafluoride	400-700 - 2-25 μ 2.5-9.5 μ 350-1400	L,G - G G,L -	Spec Spec Spec Freq Struct Spec	Burke Stephenson Akers Haendler Mellish Stein	JCP JCP PR JCP TFS JACS	19 (1951) 20 (1952) 95 (1954) 22 (1954) 51 (1955) 81 (1959)	1611 1830 300 1939 1311 1273
BrI	Iodine monobromide	- - - - - - - -	G G G G G G G	Thermo Anal Coupling FC FC Spec Struct	Badger Brown Mulliken Gordy Baughan Jaseja Selin	PR PR PR JCP TFS 	37 (1951) 42 (1952) 46 (1954) 14 (1946) 53 (1957) 5 (1960) 47 (1960)	1548 355 549 1046 445 104
BrNO	Nitrosyl bromide	400-5303	G	Spec Freq Group freq Group freq	Burns Woltz Jander O'Sullivan	JCP JCP JCS JCS	18 (1950) 20 (1952) - (1954) - (1957)	1669 378 919 4144
Br^{79}NO	Nitrosyl bromide (isotopic)	-	G	Microwave	Williams	PR	98 (1955)	1159
Br^{81}NO	Nitrosyl bromide (isotopic)	-	G	Microwave	Williams	PR	98 (1955)	1159
BrO	Bromine monoxide	2600-3100	G	Spec	Durie	CJP	36 (1958)	35

1948

BrO_3^-	Bromate ion	-	L	FC	-	Shen	PR	51 (1937)	235
Br_2	Bromine	0.93-137 μ	-	Spec	Kiess	JRNBB	4 (1930)	667	
		-	-	FC	Lochte	TFS	28 (1932)	698	
		-	-	Thermo	Gordon	JCP	1 (1933)	297	
		-	-	Thermo	Gordon	JCP	1 (1933)	692	
		-	-	FC	Badger	JCP	2 (1934)	128	
		-	-	Coupling theory	Mulliken	PR	46 (1934)	549	
		-	-	FC	Pekelis	PR	45 (1934)	98	
		-	-	FC	Badger	PR	48 (1935)	284	
		-	-	Morse eqn	Aston	JCP	4 (1936)	474	
		-	-	Quant. Mech.	Mulliken	JCP	4 (1936)	620	
		-	-	Freq	Clark	TFS	33 (1937)	1394	
		-	-	Freq	Clark	TFS	33 (1937)	1398	
		-	-	G	Darbyshire	PRS	159 (1937)	93	
		-	-	Theory	Mulliken	JCP	7 (1939)	20	
		-	-	Quant. Mech.	Mulliken	JCP	8 (1940)	234	
		-	-	Quant. Mech.	Mulliken	JCP	8 (1940)	382	
		-	-	Electronic transition	Mulliken	PR	57 (1940)	500	
		-	-	FC	Sutherland	JCP	8 (1940)	161	
		-	-	Thermo	Hulbert	JCP	9 (1941)	61	
		-	-	FC	Linnett	TFS	38 (1942)	1	
		-	-	FC	Gordy	JCP	14 (1946)	305	
		-	-	Freq	Huggins	JACS	75 (1953)	4126	
		1200-1800	Sol	Bond dist	Ke te laar	JCP	23 (1955)	749	
		-	-	Thermo	Baughan	TFS	53 (1957)	1046	
		275-350	Sol	Spec	Person	JCP	27 (1957)	1211	
		-	-	Reaction	Morcillo	ARS	55B (1959)	629	
			-	-	Quant. Mech.	Wilson	JCP	2 (1934)	432
Br_2ClP	Phosphorous chloride dibromide	-	-	Spec	Lindeman	JCP	24 (1956)	242	
	Boron dibromide chloride (isotopic)	300-3000	G	Spec	Lindeman	JCP	24 (1956)	242	
$\text{Br}_2\text{ClB}^{10}$	Boron dibromide chloride (isotopic)	300-3000	G	Spec	Lindeman	JCP	24 (1956)	242	
$\text{Br}_2\text{ClB}^{11}$	Boron dibromide fluoride (isotopic)	300-3000	G	Spec	Lindeman	JCP	24 (1956)	242	
$\text{Br}_2\text{FB}^{10}$	Boron dibromide fluoride (isotopic)	300-3000	G	Spec	Lindeman	JCP	24 (1956)	242	
$\text{Br}_2\text{FB}^{11}$	Boron dibromide fluoride (isotopic)	300-3000	G	Spec	Lindeman	JCP	24 (1956)	242	

Br_2S_2	Sulfur monobromide	-	-	Freq, Assign	Hooge	RIC	77 (1958)	902
Br_3OP	Phosphoryl tribromide	2-21 μ	S	Spec	Daasch	AC	23 (1951)	853
		-	-	Freq	Daasch	JCP	19 (1951)	22
		-	-	Group freq	Bell	JACS	76 (1954)	5185
		1100-1300	S	Band freq	Sheldon	JACS	80 (1958)	4775
Br_3P	Phosphorous tribromide	-	-	Freq	Howard	JCP	2 (1934)	630
		-	-	Thermo	Stevenson	JCP	9 (1941)	403
		-	-	FC	Gordy	JCP	14 (1946)	305
		-	-	Freq	Daasch	JCP	19 (1951)	22
		-	-	Freq	Weston	JACS	76 (1954)	2645
		1500-2100	Sol	Transition	Ketelaar	JCP	23 (1955)	1549
		-	-	Freq	Hahn	JCP	24 (1956)	921
		85-550	L	Assign	Davies	JMS	2 (1958)	253
Br_3SP	Thiophosphoryl bromide	-	-	Freq	Daasch	JCP	19 (1951)	22
Br_3B	Boron tribromide	-	-	Thermo	Anderson	JCP	4 (1936)	703
		-	-	Assign	Spencer	JCP	14 (1946)	729
		-	-	Force field	Heath	TPS	44 (1948)	873
		-	-	Force field	Linnett	TPS	48 (1952)	592
		-	-	FC	Venkateswarlu	JCP	23 (1955)	2368
		2-24 μ	G,L, Sol	Spec, Freq	Wentink	JCP	28 (1958)	826
Br_3B^{10}	Boron tribromide (isotopic)	300-3000	G	Spec	Lindeman	JCP	24 (1956)	242
Br_3B^{11}	Boron tribromide (isotopic)	300-3000	G	Spec	Lindeman	JCP	24 (1956)	242
Br_4Si	Silicon tetrabromide	-	-	FC	Gordy	JCP	14 (1946)	305
		-	-	Force field	Heath	TPS	44 (1948)	561
		-	-	Force field	Heath	TPS	44 (1948)	878
		-	-	FC, Freq	Simanouti	JCP	17 (1949)	848
		-	-	Force field	Linnett	TPS	48 (1952)	592
		-	-	FC	Gaunt	TPS	50 (1954)	546
		-	-	FC	Murata	JCP	23 (1955)	2451
		-	-	FC	Pistorius	JCP	28 (1958)	514

1950

$\text{Br}_6\text{N}_3\text{P}_3$	Trimeric phospho-nitrilic bromide	1150–1350	–	Freq	Shaw	CIL	–	(1959)	54
$\text{Br}_8\text{N}_4\text{P}_4$	Tetrameric phospho-nitrilic bromide	1150–1350	–	Freq	Shaw	CIL	–	(1959)	54
ClF	Chlorine fluoride	–	–	Freq	Clark Parkinson Potter Jones Baughan	TFS PR JCP JCP TFS	33 76 17 18 53	(1937) (1949) (1949) (1950) (1957)	1390 199 957 235 1046
Cl^{35}F	Chlorine monofluoride (isotopic)	–	G	Microwave	Gilbert	PR	76	(1949)	1723
Cl^{37}F	Chlorine monofluoride (isotopic)	–	G	Microwave	Gilbert	PR	76	(1949)	1723
$\text{Cl}^{35}\text{F}_{19}$	Chlorine monofluoride (isotopic)	725–1550	G	Spec	Nielsen	JCP	19	(1951)	1117
$\text{Cl}^{37}\text{F}_{19}$	Chlorine monofluoride (isotopic)	725–1550	G	Spec	Nielsen	JCP	19	(1951)	1117
ClFO_3	Perchloryl fluoride	600–3000	–	Spec	Engelbrecht	JINC	2	(1956)	348
$\text{Cl}^{35}\text{F}_2\text{OP}$	Phosphoryl difluoro chloride (isotopic)	–	G	Spec	Goll	DA	19	(1959)	1930
$\text{Cl}^{37}\text{F}_2\text{OP}$	Phosphoryl difluoro chloride (isotopic)	–	G	Spec	Goll	DA	19	(1959)	1930
$\text{ClF}_2\text{B}^{10}$	Boron chloride difluoride (isotopic)	300–3000	G	Spec	Lindeman	JCP	24	(1956)	242
$\text{ClF}_2\text{B}^{11}$	Boron chloride difluoride (isotopic)	300–3000	G	Spec	Lindeman	JCP	24	(1956)	242

C ₁ F ₃	Chlorine trifluoride	2-25 μ	G	Spec	Jones	JCP	17 (1949)	501
		-	-	Thermo	Weber	JCP	20 (1952)	1497
		2-5 μ	G	Complex study	Pemsler	JCP	22 (1954)	1834
		300-1500	G	Spec	Classen	JCP	28 (1958)	285
C ₁ ³⁵ F ₃	Chlorine trifluoride (isotopic)	-	G	Microwave	Smith	JCP	21 (1953)	609
C ₁ ³⁷ F ₃	Chlorine trifluoride (isotopic)	-	G	Microwave	Smith	JCP	21 (1953)	609
C ₁ F ₃ NOB	Nitrosyl chloro trifluoro borate	400-4000	S	Struct	Waddington	JCS	- (1960)	2359
C ₁ ³⁵ F ₃ Si ²⁸	Trifluorochlorosilane (isotopic)	-	G	Microwave	Sheridan	PR	77 (1950)	719
C ₁ ³⁷ F ₃ Si ²⁸	Trifluorochlorosilane (isotopic)	-	G	Microwave	Sheridan	PR	77 (1950)	719
C ₁ F ₃ IP	Phosphorous chloride iodide trifluoride	-	-	Quant. Mech.	Wilson	JCP	2 (1934)	432
C ₁ F ₃ B ⁻	Chlorotrifluoro borate ion	400-4000	-	Struct	Waddington	JCS	- (1960)	2359
C ₁ F ₃ NOB	Nitrosyl boron trifluorochloride	400-4000	-	Struct, Assign	Waddington	JCS	- (1960)	2359
C ₁ F ₅ S	Sulphur chloride pentafluoride	2-20 μ	G	Spec	Cross	TPS	56 (1960)	945
		-	G	Microwave	Kewley	TPS	56 (1960)	1732
C ₁ I	Iodine monochloride	1.5-16 μ	L	Spec	Marvin	PR	34 (1912)	161
		-	G	Spec	Darbyshire	PR	40 (1932)	366
		-	-	FC, Bond dist	Badger	JCP	2 (1934)	128
		-	-	Coupling theory	Mulliken	PR	46 (1934)	549
		-	-	Coupling constant	Pekeris	PR	45 (1934)	198
		-	-	FC, Bond dist	Badger	PR	48 (1935)	284
		-	-	I	Mulliken	PR	57 (1940)	500
		-	-	FC	Sutherland	JCP	8 (1940)	161
		-	-	Thermo	Hulbert	JCP	9 (1941)	61

1952

-	-	G	FC, Bond dist Microwave	Gordy Weidner	JCP PR	14 (1946) 72 (1947)	305 1268	
-	-	G	Microwave	Bardien	PR	73 (1948)	627	
-	-	G	Microwave	Weidner	PR	73 (1948)	254	
-	-	G	Microwave	Mizushima	PR	83 (1951)	94	
-	-	G	Bond dist	Huggins	JACS	75 (1953)	4126	
381.5	-	G	I	Brooks	JCP	23 (1955)	363	
-	-	-	Pot func FC	Lippincott	JCP	23 (1955)	1131	
-	-	-	Spec	Baughan	TFS	53 (1957)	1046	
-	-	Sol	Complex	Hulthen	AF	14 (1958)	31	
290-390	-	-	Sndry	Person	JACS	80 (1958)	2049	
-	-	-	-	Morcillo	ARS	- (1959)	5513	
C1 ³⁵ I	Iodine monochloride (isotopic)	-	G	Spec Microwave	Darbyshire Townes Townes	PR PR PR	40 (1932) 73 (1948) 74 (1948)	366 1334 1113
C1 ³⁷ I	Iodine monochloride (isotopic)	-	G	Spec Microwave	Darbyshire Townes	PR PR	40 (1932) 73 (1948)	366 1334
C1NO	Nitrosyl chloride	4.64-15.8 μ	-	Freq, FC Thermo	Bailey Beeson	PRS JCP	145 (1934) 7 (1939)	356 44
-	-	400-5303	G	Spec, Assign	Burns	JCP	18 (1950)	1669
-	-	594-4000	G	Microwave	Pieternpol	PR	77 (1950)	7414
-	-	2-25 μ	G	Freq, Assign	Wise	JCP	18 (1950)	1411
-	-	1-40 μ	G	Spec, FC	Pulford	TFS	47 (1951)	347
-	-	-	-	Band freq, FC	Eberhardt	JCP	20 (1952)	529
-	-	5-10 μ	G	Freq	Woltz	JCP	20 (1952)	378
-	-	2-15 μ	G	Band freq	Haszeldine	JCS	- (1954)	691
-	-	-	-	Group freq	Jander	JCS	- (1954)	919
-	-	-	-	Spec	Pierson	AC	28 (1956)	1218
-	-	-	G,Sol	Freq	O'Sullivan	JCS	- (1957)	4144
-	-	-	-	Microwave	Yajima	JPS	55 (1960)	1668
C1 ³⁵ NO	Nitrosyl chloride (isotopic)	-	-	Microwave Spec	Rogers Eberhardt	PR JCP	83 (1951) 20 (1952)	431 529
C1 ³⁷ NO	Nitrosyl chloride (isotopic)	30 μ	G	-	Microwave Spec	PR JCP	83 (1951) 20 (1952)	431 529
C1N ¹⁴ O	Nitrosyl chloride (isotopic)	300-6000	G	Freq	Landau	JMS	4 (1960)	276
C1N ¹⁵ O	Nitrosyl chloride (isotopic)	300-6000	G	Freq	Landau	JMS	4 (1960)	276

C1NO	Nitryl chloride	2-16 μ	G	Reaction study	Ogg	JCP	18 (1950)	900
		300-4000	G	Assign, Spec	Ryason	JCP	22 (1954)	2000
		-	-	Freq, Assign	Dodd	TFS	52 (1956)	145
		-	G	Microwave	Millen	JCS	- (1958)	350
		-	-	Anal	Weathery	JCP	30 (1959)	1328
C1O	Chlorine monoxide	-	G	Spec	Durie	CJP	36 (1958)	35
		-	-	Microwave	Jackson	PRCS	- (1959)	10
C1O ₂	Chlorine dioxide	-	-	Theory	Salant	PR	42 (1952)	812
		1-19 μ	-	Freq, FC	Bailey	PRS	140 (1953)	605
		-	-	Freq, FC	Ku	PR	44 (1953)	376
		-	-	Vib	Duncan	JCP	3 (1955)	384
		-	-	Assign	Coon	JCP	14 (1946)	665
		-	-	FC	McDowell	PRS	187 (1946)	398
		-	-	Quant. Mech.	Torkington	JCP	17 (1949)	357
		1-15 μ	G	Freq, FC	Hedberg	JCP	19 (1951)	509
		-	-	Pot func	Duchesne	JCP	20 (1952)	1968
		2-40 μ	G	Spec, Assign	Nielsen	JCP	20 (1952)	1878
		-	-	Pot const.	Ward	PR	96 (1954)	845
		-	-	Theory	Smith	TFS	52 (1956)	891
		-	G	Microwave	Baird	BAPS	2 (1956)	99
		-	G	Microwave	Curl	PR	121 (1961)	1119
		-	-	Vib	Duchesne	JCP	21 (1953)	2005
C1 ³⁵ O ₂	Chlorine dioxide (isotopic)	-	L	Spec, FC	Shen	PR	51 (1957)	235
C1O ₃ ⁻	Chlorate ion	-	-	Perchlorate ion	Taylor	TFS	25 (1929)	314
C1O ₄ ⁻	-	-	-	Freq	Urey	PR	38 (1931)	1969
	-	-	-	Vib	Rosenthal	PR	46 (1934)	730
	-	-	-	Force field	Heath	TFS	44 (1948)	884
	-	-	-	Force field	Linnett	TFS	48 (1952)	592
	-	-	-	FC	Venkateswarlu	JCP	23 (1955)	2365
	935	-	-	Freq	Hahn	JCP	24 (1956)	921
	-	-	-	FC	Pistorius	JCP	28 (1958)	514
C1 ₂	Chlorine	0.4-0.97 μ	-	Thermo	Urey	JACS	45 (1923)	1445
		-	-	Spec	Kiess	JRNB	2 (1929)	1117
		-	-	Theory	Villars	JACS	52 (1930)	1733

			Quant. Mech.	Wilson	JCP	22 (1934)	432
$\text{Cl}_2\text{F}_3\text{P}$	Phosphorous dichloride trifluoride	-	-				
Cl_2O	Chlorine Oxide	-	-	Villars Bailey Penney Sutherland Gordy Torkington Hedberg Torkington Slowinski Smith	JACS PR PR PR JCP JCP JCP JPC JCP TFS	52 (1930) 142 (1933) 129 (1936) 654 (1936) 678 (1936) 14 (1946) 17 (1949) 19 (1951) 509 (1952) 336 (1955) 23 (1955) 52 (1956) 891	1733 129 654 678 305 357 509 336 1933 891
Cl_2OS	Thionyl chloride	-	-	Mol. Const. Spec Spec, Freq Iso. Assign Freq	CR AC JCP JCP JCS TFS	11 (1932) 21 (1949) 22 (1954) 23 (1955) - (1955) 51 (1955)	369 1168 1193 1549 2901 778
Cl_2OSe	Selenium oxychloride	-	-	Freq	Rolfe TFS	51 (1955) 776	
$\text{Cl}_2\text{O}_2\text{S}$	Sulphuryl chloride	-	-	Quant. Mech. Spec Spec, Assign Assign	Shatter Schreiber Martz Haszeldine Rolfe TFS	12 (1944) AC JCP JCP - (1955)	494 1168 1193 1549 2901
Cl_2S	Sulphur dichloride	-	-	FC, Bond dist Thermo Spec Freq Freq, Assign	Gordy McDowell Herndon Stammreich Hooge JCP PR PR JCP RTC	14 (1946) 187 (1946) 99 (1955) 23 (1955) 77 (1958)	305 398 1624 972 902
Cl_2S_2	Sulfur monochloride	1.5-16 μ - 2-25 μ - 1500-2100	L - L, Sol - -	Spec Freq Spec, Assign Thermo Study Freq assign	Marvin McDowell Bernstein Luft Ketelaar Hooge PR PR JCP JCP RTC	34 (1912) 187 (1946) 18 (1950) 21 (1953) 23 (1955) 77 (1958)	161 398 1018 2225 1549 902

Cl ₃ FOP	Phosphorous oxychloride boron trifluoride	400-4000	S,L	Struct, Assign	Waddington	JCS	-	(1960)	2539
Cl ₃ N	Nitrogen trichloride	1.4-25 μ	G	Assign	Moore	JACS	74 (1952)	6076	
Cl ₃ OP	Phosphorous oxychloride	2-21 μ	L	Thermo Spec, Anal	Stevenson Daasch Daasch Bell	JCP AC JCP JACS	9 (1941) 23 (1951) 19 (1951) 76 (1954)	403 853 22 5185	
		-	-	Group freq	Ziomek Downs	PR	98 (1954)	243	
		-	-	Freq	JACS	JCS	77 (1955)	2098	
		-	-	Group freq	Emeleus	JCS	- (1955)	563	
		-	-	Group freq	H bond, I	JACS	77 (1955)	4472	
		1160-2998	Sol	Band freq	Halfen	JACS	80 (1958)	4775	
		1100-1300	L	Sheldon					
Cl ₃ OP	Phosphoryl chloride (isotopic)	-	G	Microwave	Williams	JCP	20 (1952)	164	
Cl ₃ O ¹⁷ P	Phosphoryl chloride (isotopic)	-	G	Microwave	Williams	JCP	20 (1952)	164	
Cl ₃ P	Phosphorous trichloride	1.5-16 μ	L	Spec Freq Quant. Mech. Vib.	Marilyn Howard Wilson Deenban Anderson Stevenson Gordy Daasch Daasch O'Loane Weston Ketelaar Hahn Davies Loverzelli	PR JCP JCP JCP JCP JCP AC JCP JCP JCP JCP JMS CPR	54 (1912) 2 (1934) 2 (1934) 3 (1935) 4 (1936) 9 (1941) 14 (1946) 23 (1951) 19 (1951) 21 (1953) 76 (1954) 23 (1955) 24 (1956) 2 (1958) 248 (1959)	161 630 432 384 529 403 305 853 22 669 2645 1549 921 253 1980	
Cl ₃ PS32	Thiophosphoryl chloride (isotopic)	-	G	Microwave	Williams	JCP	20 (1952)	164	
Cl ₃ PS34	Thiophosphoryl chloride (isotopic)	-	G	Microwave	Williams	JCP	20 (1952)	164	

$\text{Cl}_3^{\text{37}}\text{PS}^{\text{32}}$	Thiophosphoryl chloride (isotopic)	-	G	Microwave	Williams	JCP	20 (1952)	164
Cl_3^{PS}	Thiophosphoryl chloride	-	-	Thermo	Stevenson	JCP	9 (1941)	403
		400-1600	-	Freq	Cilento	JACS	71 (1949)	2753
		-	-	Band freq	Deasch	AC	23 (1951)	853
		-	-	Freq	Deasch	JCP	19 (1951)	22
		-	-	Freq	Ziomek	PR	98 (1955)	243
Cl_3^{As}	Arsenic trichloride	1.5-16 μ	L	Spec	Marvin	PR	34 (1912)	161
		-	-	Freq	Howard	JCP	2 (1934)	630
		-	-	Quant. Mech.	Wilson	JCP	2 (1934)	432
		-	-	FC	Gordy	JCP	14 (1946)	305
		410	-	Freq	Hahn	JCP	24 (1956)	921
		85-550	L	Assign	Davies	JMS	2 (1958)	253
Cl_3^{B}	Boron trichloride	1-18 μ	G	Spec	Cassie	PRS	148 (1935)	87
		-	-	Spec	Anderson	JCP	4 (1936)	703
		-	-	Thermo	Spencer	JCP	14 (1946)	729
		-	-	Force field	Heath	TFS	44 (1948)	873
		$3-15 \mu$	G	Spec, Assign	Scriby	JCP	19 (1951)	386
		$2-15 \mu$	G	Spec	Laoher	JACS	74 (1952)	5292
		-	-	Force field	Linnett	TFS	48 (1952)	592
		955	G	Reaction	Huggins	JCP	23 (1955)	1544
		-	-	Vib	Morino	JCP	23 (1955)	737
		-	-	FC	Santhamma	CS	24 (1955)	262
		-	-	FC	Venkateswarlu	JCP	23 (1955)	2368
		-	-	Freq	Lehmann	JCP	30 (1959)	1219
		1-15 μ	G	Assign	Nadeau	AC	32 (1960)	1480
$\text{Cl}_3^{\text{B}10}$	Boron triohloride (isotopic)	300-3000	G	Spec	Lindeman	JCP	24 (1956)	242
$\text{Cl}_3^{\text{B}11}$	Boron trichloride (isotopic)	300-3000	G	Spec	Lindeman	JCP	24 (1956)	242
Cl_4^{S}	Sulfur tetrachloride	-	-	Quant. Mech.	Wilson	JCP	2 (1934)	432
$\text{Cl}_4^{\text{F}^-}$	Tetrachloroborate ion	400-4000	-	Struct	Weddington	JCS	- (1960)	2339

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Cl_4B_2	Tetrachloro diborine	20–50 μ	G	Spec., Assign	Mann	JCP	26 (1957)	1665
Cl_4Si	Silicon tetrachloride	1.5–16 μ	L	Spec Assign	Marvin	PR	34 (1952)	161
		—	—	Vib.	Marvin	PR	33 (1929)	952
		—	—	Freq	Urey	PR	38 (1951)	1969
		—	—	Vib.	Willars	CR	11 (1952)	369
		—	—	Quant. Mech.	Rasenthal	PR	46 (1954)	730
		—	—	FC	Wilson	JCP	2 (1954)	432
		—	—	Thermo	Rasenthal	PR	49 (1956)	535
		—	—	FC	Herman	JCP	6 (1938)	406
		—	—	FC	Gordy	JCP	14 (1946)	305
		—	—	Force field	Heath	TFS	44 (1948)	561
		—	—	Force field	Heath	TFS	44 (1948)	878
		—	—	FC	Simonouti	JCP	17 (1949)	848
		—	—	Assign	Shimanouchi	JCP	18 (1950)	1306
		8–15 μ	Sol	Spec	Scott	JACS	73 (1951)	2599
		—	—	Force field	Linnett	TFS	48 (1952)	592
		—	—	FC	Bowers	JCP	21 (1953)	1117
		2–25 μ	G	Spec., Assign	Smith	JCP	21 (1953)	1997
		—	—	FC	Gaunt	TFS	50 (1954)	546
		—	—	Band freq	Johannesen	JRNBB	53 (1954)	197
		424	—	Freq	Hahn	JCP	24 (1956)	921
		—	—	Assign	Forneris	ZE	62 (1958)	1130
		—	—	FC	Pistorius	JCP	28 (1958)	514
				Struct, Assign	Waddington	JCS	— (1960)	2339
				Struct, Assign	Waddington	JCS	— (1960)	2339
$\text{Cl}_5\text{F}_3\text{PB}$	Tetrachloro phosphonium chloro trifluoroborate	400–4000	S	Struct, Assign				
$\text{Cl}_5\text{O}_3\text{SP}$	Tetrachloro phosphonium chlorosulphate	400–4000	S	Struct, Assign				
Cl_5P	Phosphorous pentachloride	—	—	Thermo, Raman	Anderson	JCP	4 (1956)	529
		—	—	Thermo	Stevenson	JCP	9 (1941)	403
		—	—	Group freq	Downes	JACS	77 (1955)	2098
		300–1400	G, Sol	Assign, FC	Wilmshurst	JCP	27 (1957)	661
$\text{Cl}_6\text{N}_3\text{P}_3$	Trimeric phosphonitrilic chloride	2–21 μ	Sol	Spec	Daasch	AC	23 (1951)	853
		—	—	Assign, FC	Iribarne	JCP	20 (1952)	346
		4–33 μ	S, Sol	Spec, I	Daasch	JACS	76 (1954)	3403
		1150–1350	—	Freq, Struct	Shaw	CIL	— (1959)	54

C ₁ OSi ₂	Hexachlorodisiloxane	2-16 μ	L	Spec	Schumb	JACS	76 (1954)	2091
C ₁ Si ₂	Hexachlorodisilane	-	G,L, S,Sol	Config.	Mizushima	JPC	56 (1952)	324
		2-16 μ	L	Spec	Schumb	JACS	76 (1954)	2091
		-	-	Diffusion	Swick	JCP	23 (1955)	1499
		15-25 μ	G	Struct	Morino	JCP	24 (1956)	164
C ₁ N ₄ P ₄	Phosphonitrilic chloride tetramer	2-21 μ 4-31 μ 1150-1350	Sol S,Sol -	Spec Spec, I Freq	Daasch Daasch Shaw	AC JACS CIL	23 (1951) 76 (1954) - (1959)	853 3403 54
C ₁ O ₁₀ Si ₄	β -Oxadecachloro- pentasilane	2-16 μ	L	Spec, Group freq	Schumb	JACS	76 (1954)	2091
C ₁ Si ₁₈ O ₃ Si ₈	3,6,9-Trioxaocta- decachlorohendeca- silane	2-16 μ	L	Spec, Group freq	Schumb	JACS	76 (1954)	2091
FI	Iodine fluoride	-	-	Freq	Clark	TPS	33 (1937)	1390
FNO	Nitrosyl fluoride	1844-766	G	Spec, Mol. Const. FC, Thermo	Magnuson	JCP	20 (1952)	380
		-	-	Spec, Freq, Assign	Stephenson	JCP	20 (1952)	135
		2-30 μ	G	Freq	Woltz	JCP	20 (1952)	378
		-	-	Freq	Jauder	JCS	- (1954)	919
		-	G,Sol	Freq	O'Sullivan	JCS	- (1957)	4144
FNO ₂	Nitryl fluoride	400-5000	G	Spec, Assign	Dodd	TPS	52 (1956)	145
FNS	Thionitrogen fluoride	2-15 μ	G	Assign	Callug	JPC	64 (1960)	395
FB	Boron monofluoride	-	-	FC	Linnett	TPS	38 (1942)	1
FSi	Silicon fluoride	-	G	Spec, FC	Linnett Johns	TPS PRS	38 (1942) 71 (1958)	1 476
F ₂	Fluorine	-	-	Morse potential	Norse	PR	34 (1929)	57
		-	-	FC	Locke-Hallgreen	TPS	28 (1932)	698
		-	-	FC	Badger	JCP	2 (1934)	128
		-	-	I	Milliken	JCP	7 (1939)	20
		-	-	Thermo	Murphy	JCP	7 (1939)	806

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-	-	Quant. Mech.	JCP 8 (1940)	234
-	-	FC	PR 57 (1940)	500
-	-	I	JCP 8 (1940)	161
-	-	FC	JCP 14 (1946)	305
-	-	FC	PR 71 (1947)	118
F ₂ N ₂	1,1-Difluorodiazine	300-3400	G I, Assign, NCA	JCP 33 (1960) 1855
F ₂ N ₂	Trans-1,2-Difluorodiazine	300-3400	G I, Assign, NCA	JCP 33 (1960) 1855
F ₂ N ₂ S	Thiodinitrogen difluoride	2-15 μ	G Assign	Gallup JPC 64 (1960) 395
F ₂ O	Fluorin oxide	-	FC Assign	Penny PRS 156 (1936) 654
F ₂	-	-	FC	Sutherland PRS 156 (1936) 678
-	-	-	-	Gordy JCP 14 (1946) 305
-	-	-	-	Patter JCP 17 (1949) 957
-	-	-	-	Torkington JCP 17 (1949) 357
-	2.5-25 μ	G	Thermo	Bernstein JCP 18 (1950) 685
-	2.5-25 μ	G	Quant. Mech.	Duchesne JCP 19 (1951) 1191
-	2.5-25 μ	G	Band study	Jones JCP 19 (1951) 337
-	2.5-25 μ	G	Bond-bond interaction	Linnett TFS 48 (1952) 592
-	3-13 μ	G	Spec, Assign	Schnizlein JPC 56 (1952) 233
-	-	-	Anal, FC	Aroeste JCP 21 (1953) 870
-	-	-	Spec	Collisional excitation JACS 75 (1953) 4126
-	-	-	Collisional excitation	Huggins JCP 23 (1955) 1933
-	-	-	Band study	Slowinski TFS 52 (1956) 891
-	-	-	Band study	Smith JCP 23 (1955) 1316
-	-	-	FC	Bender JCS - (1955) 2901
-	-	-	FC	Haszeldine JCP 23 (1955) 1313
-	-	-	FC	O'Loane TFS 51 (1955) 778
-	-	-	FC	Rolle TFS 51 (1955) 778
F ₂ OS	Thionyl fluoride	-	L Freq	Bender TFS 51 (1955) 778
-	7-10 μ	G Assign	Haszeldine JCS - (1955) 2901	
240-5000	240-4000	G Spec, Assign	O'Loane JCP 23 (1955) 1313	
-	-	Thermo	Rolle TFS 51 (1955) 778	
F ₂ Se	Selenium oxyfluoride	-	Freq, Assign	Rolle TFS 51 (1955) 778
F ₂ O ₂ S	Sulfuryl fluoride	240-4000	G Spec, Assign	Perkins JCP 20 (1952) 1791
F ₂ O ₂ S	-	G Spec, Assign	Bender JCP 23 (1955) 1316	
-	6-9 μ	G Assign	Haszeldine JCS - (1955) 2901	
F ₂ O ₂ S ^{3/2}	Sulfuryl fluoride (isotopic)	-	G Microwave	Fristrom JCP 20 (1952) 1
-	-	G Spec, Assign	Lide JCP 26 (1957) 734	

$F_2^0 S^{34}$	Sulfuryl fluoride (isotopic)	-	G	Microwave	Fristrom	JCP	20 (1952)	1
$F_2^0 S_3$	Fluorine fluorosulfonate	2-40 μ	G	Spec	Dudley	JACS	78 (1956)	290
$F_2^0 S_{2,2}$	Sulfur monofluoride	-	-	Freq., Assign	Hooge	RHC	77 (1958)	902
$F_3^0 Br$	Bromine trifluoride	-	-	Spec	Magnuson	JCP	27 (1957)	223
$F_3^0 N$	Nitrogen trifluoride	-	-	Freq., Assign Microwave	Bailey Sheridan Wilson	JCP PR JCP	5 (1957) 79 (1950) 20 (1952)	274 513 1716
$F_3^0 N^{14}$	Nitrogen trifluoride (isotopic)	-	-	Spec, Assign Thermo	Pace Pierce Schatz	JCP JCP JCP	23 (1955) 23 (1955) 24 (1958)	1248 551 475
$F_3^0 N^{15}$	Nitrogen trifluoride (isotopic)	-	-	Microwave	Sheridan	PR	79 (1950)	513
$F_3^0 OP$	Phosphoryl trifluoride	-	-	Microwave	Sheridan	PR	79 (1950)	513
$F_3^0 P$	Phosphoryl fluoride (isotopic)	-	G	Spec	Daasch	JCP AC	19 (1951) 23 (1951)	22 853
$F_3^0 P$	Phosphoryl fluoride (isotopic)	-	G	Microwave	Daasch Cutowsky Bell	JCP JACS	20 (1952) 76 (1954)	1652 5185
$F_3^0 P$	Phosphorous trifluoride	-	-	Freq. Band study	Emeleus Ziomek Pemsler Burrus	JCS PR JCP JCP	- (1955) 98 (1955) 24 (1956) 26 (1957)	563 243 920 391
				Freq.	Williams	JCP	20 (1952)	164
				Freq.	Howard Stevenson	JCP JCP	20 (1952)	164
				Freq.	JCP	JCP	2 (1934) 9 (1941)	630 403

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				Gordy	JCP	14 (1946)	305
-	-	FC	Dailey	AC	JCP	21 (1949)	540
-	-	Spec	Gilliam	PR	JCP	75 (1949)	1014
-	-	Microwave	Burnette	JCP	18 (1950)	1300	
-	-	Vib.	Daasch	AC	JCP	23 (1951)	853
-	-	Band study	Daasch	JCP	19 (1951)	22	
-	-	Freq.	Mizushima	PR	JCP	83 (1951)	94
-	-	Pressure broadening	Gutowsky	JCP	20 (1952)	1652	
-	-	Spec, Assign, FC	Wilson	JCP	20 (1952)	1716	
486-891	G	Spec, Assign, FC,	Weston	JACS	76 (1954)	2645	
250-5000	G	Freq.	Hahn	JCP	24 (1956)	921	
-	-	Freq.	Ziomek	PR	JCP	98 (1955)	243
890	-	-					
F_3PS		Thiophosphoryl trifluoride					
	-						
F_3PS^{32}		Thiophosphoryl trifluoride (isotopic)	G	Microwave	Williams	JCP	20 (1952)
	-						164
F_3PS^{33}		Thiophosphoryl trifluoride (isotopic)	G	Microwave	Williams	JCP	20 (1952)
	-						164
F_3PS^{34}		Thiophosphoryl trifluoride (isotopic)	G	Microwave	Williams	JCP	20 (1952)
	-						164
F_3As		Arsenic fluoride	-	-	Howard	JCP	2 (1934)
	-				Wilson	JCP	2 (1934)
	-				Gordy	JCP	14 (1946)
	-				Burnett,e	JCP	18 (1950)
	-				Huggins	JACS	75 (1953)
	-				Kisliuk	JCP	21 (1953)
707	-	Freq.	Hahn	JCP	24 (1956)	921	
F_3B		Boron trifluoride	-	-	Anderson	JCP	4 (1936)
	-				Bailey	JCP	5 (1937)
	-				Bailey	PRS	161 (1937)
	-	Freq assign			Spec, Assign, FC	JCP	6 (1938)
400-3000	G	Assign			Freq, Assign	JCP	7 (1939)

		Ratio rule	JCP	13 (1945)
-	-	Thermo	JCP	14 (1946)
-	-	FC	TFS	44 (1948)
-	-	Quant. Mech.	JCP	17 (1949)
-	-	FC	TFS	48 (1952)
-	-	FC	TFS	49 (1953)
-	-	NCA, FC	CS	22 (1953)
-	-	Spec	Nielsen	298
-	-	FC	Nielsen	592
-	-	Spec	Linnett	1262
-	-	FC	Heslop	1468
-	-	Vib.	Santhanama	2368
-	-	Bond study	Nightingale	1126
-	-	Freq, Assign	Venkateswarla	631
-	-	Freq, Assign	Meal	1637
-	-	S	Wilmshurst	1948
-	-	S	Dows	1958
-	-	S	Vanderryn	1959
1500	-	-	JCP	30 (1959)
-	-	-	Bailey	107
-	-	-	Heslop	1262
-	-	G	Nielsen	659
-	-	G	Lindeman	242
-	-	G	McKean	1002
-	-	-	PR	161 (1937)
-	-	-	TFS	49 (1953)
-	-	G	JCP	22 (1954)
-	-	G	JCP	24 (1956)
-	-	G	JCP	24 (1956)
-	-	-	PR	161 (1937)
-	-	-	TFS	49 (1953)
-	-	G	JCP	22 (1954)
-	-	G	JCP	24 (1956)
-	-	G	JCP	24 (1956)
-	-	-	PR	161 (1937)
-	-	-	TFS	49 (1953)
-	-	G	JCP	22 (1954)
-	-	G	JCP	24 (1956)
-	-	G	JCP	24 (1956)
-	-	-	PR	161 (1937)
-	-	-	TFS	49 (1953)
-	-	G	JCP	22 (1954)
-	-	G	JCP	24 (1956)
-	-	G	JCP	24 (1956)
-	-	-	PR	161 (1937)
-	-	-	TFS	49 (1953)
-	-	G	JCP	22 (1954)
-	-	G	JCP	24 (1956)
-	-	G	JCP	24 (1956)
-	-	-	PR	161 (1937)
-	-	-	TFS	52 (1956)
-	-	G	JCP	62 (1958)
-	-	-	PR	161 (1937)
-	-	-	TFS	52 (1956)
-	-	G	JACS	77 (1955)
-	-	-	ZE	64 (1960)
-	-	-	JCS	- (1960)
-	-	-	Yost	266
-	-	-	Bailey	641
-	-	-	Bailey	2339
-	-	-	JCP	325
-	-	-	JCP	274
-	-	-	PRS	555
-	-	-	JCP	14 (1946)
-	-	-	TFS	305
-	-	-	JCP	561
-	-	-	TFS	848
-	-	-	JCP	17 (1949)

F_5I	Iodine pentafluoride	250-3300	G	Spec 1-type doubling theory	Lord deHeer	JACS PR	72 (1950) 83 (1951)	522 741
F_5P	Phosphorous pentafluoride	534-1760 2-23 μ	G	Quant. Mech. Freq., Assign Freq	Wilson Gutowsky Pemsler	JCP JCP JCP	2 (1934) 20 (1952) 24 (1956)	432 1652 920
F_5As	Arsenic pentafluoride	2-25 μ 2-41 μ	G	Spec Spec	Akers Akers	PR PR	95 (1954) 99 (1955)	300 1624
$\text{F}_6\text{NO}_2\text{P}$	Nitronium hexafluoro phosphate	2-16 μ	S	Spec, Struct	Cook	JCP	33 (1960)	1669
$\text{F}_6\text{N}_3\text{P}_3$	Phosphonitrilic fluoride (trimer)	-	L	Spec, Struct, Assign	Becher	ZAU	305 (1960)	148
F_6S	Sulfur hexafluoride	-	-	-	Wilson VanVleck	JCP JCP	2 (1934) 7 (1939)	432 72
		-	-	-	Heath	TFS	45 (1949)	264
		-	G	Freq	Edelson	JCP	19 (1951)	1311
		2-25 μ	G	Spec, Assign	Lagermann	JCP	19 (1951)	534
1560-2510		G		Freq, Assign	deLattre	JCP	20 (1952)	520
-		-		FC	Linnett	TFS	48 (1952)	592
400-5000		G		Spec, Assign, Thermo	Gaunt	TFS	49 (1953)	1122
615-947		G		I	Schatz	JCP	21 (1953)	1516

	-	-	FC	Gaunt	TMS	50	(1954)
	-	-	Vib.	Morino	JCP	23	(1955)
	-	-	Emission	Dickey	JCP	25	(1956)
	-	-	Freq	Hahn	JCP	24	(1956)
	-	-	Transmission	McKean	JCP	24	(1956)
	-	-	FC	Woodward	TPS	53	(1957)
	-	-	Bond dipole moment	Wilmshurst	JPC	62	(1958)
	-	-	FC	Califano	AAN	25	(1958)
	-	-	Jahn-Teller effect	Weinstock	JCP	31	(1959)
	-	-	Quant. Mech.	Wilson	JCP	2	(1934)
	-	-	Quant. Mech.	Vanbleck	JCP	7	(1939)
	-	-	FC	Heath	TPS	45	(1949)
	-	-	FC	Linnett	TPS	48	(1952)
	-	-	Spec., Assign, Thermo	Gaunt	TPS	49	(1953)
	-	-	FC	Gaunt	TPS	50	(1954)
	-	-	Freq	Hahn	JCP	24	(1956)
	-	-	FC	Califano	AAN	25	(1958)
	-	-	Jahn-Teller effect	Weinstock	JCP	31	(1959)
	-	-	Freq	Hahn	JCP	24	(1956)
	-	-	Spec	Lord	JACS	72	(1950)
	-	-	Spec	Becher	ZAU A	305	(1960)
	-	-	Spec, Struct, Assign				
	-	-	Spec, Freq	Edelson	JCP	19	(1951)
	-	-	Spec, Freq	Edelson	JACS	74	(1952)
	-	-	Assign	Dodd	TPS	53	(1957)
	-	-	Spec, Freq, Assign,	Wilmshurst	CJC	35	(1957)
	-	-	NCA	Woodward	TPS	53	(1957)
	-	-	FC, I				
	-	-	Spec	Durie	CJP	36	(1958)
	-	-	FC	Shen	PR	51	(1937)
	-	-	FC	Pistorius	JCP	28	(1958)
	-	-	FC				
	I ₂	Iodine monoxide	-				
	I ₂ O ₃	Iodate ion	-				
	I ₂ O ₄	Periodate ion	-				

-	-	-	J-type doubling theory	PR	38	(1931)	85
-	G	G	Badger	JACS	54	(1932)	3523
20.7-152 μ	G	G	Strong	PR	42	(1932)	267
-	Thermo	Spec	Gordon	JCP	1	(1933)	297
-	Thermo	FC	Badger	JCP	2	(1934)	128
-	Freq	-	Macke	TWS	30	(1934)	200
-	-	Mol. Const.	Pekeris	PR	45	(1934)	98
-	-	Double separation	Witmer	PR	46	(1934)	629
1800-1950	G	Spec, Anal	Gillette	PR	56	(1939)	1113
2.7-5.3 μ	G	Spec, Mol. Const.	Nielsen	PR	56	(1939)	781
-	-	Potential function	Linnett	TFS	36	(1940)	1123
-	FC	-	Sutherland	JCP	8	(1940)	161
-	-	Potential function	Clark	TFS	37	(1941)	299
-	-	Thermo	Hulbert	JOP	9	(1941)	61
-	-	FC	Linnett	TFS	38	(1942)	1
-	-	FC	Wu	PR	71	(1947)	118
-	-	Emission	Benitez	JAP	21	(1950)	907
-	G	I	Penner	AC	23	(1951)	1048
400-6000	S,L,G	Spec	Smith	JCP	19	(1951)	189
-	-	-	Matosi	JCP	20	(1952)	819
0.1-0.2 μ	G	Microwave	Burnes	PR	92	(1953)	1437
-	G	Spec	Cowan	JOSA	43	(1953)	710
-	G	Spec	Cowan	JCP	21	(1953)	1397
-	G	Band study	Nichols	JOSA	43	(1953)	331
-	G	I	Penner	JCP	21	(1953)	649
1876	G	Rotation line width	Weber	JCP	21	(1953)	1503
-	-	I	Aroeste	JCP	22	(1954)	1273
-	G	Freq	Hornbeck	JRNB	52B	(1954)	9
1800-2000	G	Spec	Nightingale	JPC	58	(1954)	1047
2-9 μ	G	Spec, Ident	Riley	JACS	76	(1954)	3301
1200-2400	G	Spec, Anal	Saior	AC	26	(1954)	1079
-	G	I	Vincent-Geisse	CPR	239	(1954)	251
-	-	Potential function	Lippincott	JCP	23	(1955)	1131
1.8-2.69 μ	G	Spec, Mol. Const.	Nichols	JCP	23	(1955)	57
100-600 μ	G	Spec	Palik	JCP	25	(1956)	1174
2-15 μ	G	Spec	Pierson	AC	28	(1956)	1218
5.3 μ	G	Spec	Shaw	JCP	24	(1956)	399
0.12-0.2 μ	G	Stark effect	Burnes	PR	109	(1957)	1553
-	-	I	Smith	AC	30	(1958)	1217

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		G	Microwave, Mol. Const.	Favro	PR	114 (1959)	1534
	-	SoI.	Struct	Lasecombe	BSCF	- (1959)	1175
	-	G	Microwave, Absorption	Maryott	JCP	31 (1959)	617
	1600-2000	-	Spec	Ternin	SA	15 (1959)	946
	-	G	Spec, Struct	Lin	PR	119 (1960)	1027
	-	G	Spec, Mol. Const.	Mould	SA	16 (1960)	479
				Gallagher	PR	93 (1954)	
				Gallagher	PR	103 (1956)	
0.117 μ	-	G	Microwave Spec, Mol. Const.	Fletcher	JCP	27 (1957)	579
	-	G		Gallagher	PR	103 (1956)	1727
N ¹⁴ 16	Nitric oxide (isotopic)	-	G	Goulden	JCS	- (1950)	2620
N ¹⁵ 16	Nitric oxide (isotopic)	1700-2000	G	Strong	PR	42 (1932)	267
NO ⁺	Nitrosonium ion	-	G	Schaffert	JCP	1 (1933)	507
NO ₂	Nitrogen dioxide	20.7-152 μ	G	Sutherland	PRS	141 (1933)	342
	2-16 μ	L	Spec	Harris	JCP	2 (1934)	51
	-	-	Freq	Sutherland	PRS	145 (1934)	278
	1-4 μ	-	Mol. Struct	Penney	PRS	156 (1936)	654
	14 μ	G	Freq, Assign	Sutherland	PRS	- (1936)	678
	-	-	FC	Harris	JCP	8 (1940)	765
	-	-	Assign	Milliken	RMP	14 (1942)	204
	-	-	Freq, Assign	Linnett	TFS	45 (1949)	844
	-	-	Review	Torlington	JCP	17 (1949)	357
	-	-	Force field	Wilson	PR	76 (1949)	472
	-	-	Quant. Mech.	Kaplan	PR	78 (1950)	82
	-	-	Freq	Cowan	JCP	21 (1953)	1397
	-	G	Night sky	Moore	JOSA	43 (1953)	1045
1630	G	Spec	Reactions study	Nightingale	JCP	21 (1953)	1398
	1.4-3.4 μ	G	Spec, Assign	Brown	JCP	22 (1954)	955
	1600-1800	G	Reactions study	Grenier-Besson	CPR	238 (1954)	2067
	640-920	G	Spec, Mol. Const.	Weuburger	JCP	22 (1954)	1693
	-	G	Mol. Const.	Nightingale	JPC	58 (1954)	1047
	-	-	Assign, Spec	Vincent-Geisse	CPR	239 (1954)	251
	700-1800	G	Spec	Whittle	JCP	22 (1954)	1943
	-	G	I	Keller	PR	99 (1955)	1624
	-	S	Unstable species				
			studied				
			Freq				
750	G						

-	-	-	Struct	Lan	PR	99	(1955)
1320	-	-	Freq	Hahn	JCP	24	(1956)
$2\text{-}15\mu$	G	Spec	Keller	JCP	24	(1956)	
$2\text{-}15\mu$	G	Spec	Pierson	AC	28	(1956)	
$50\text{-}200\mu$	G	Spec	Bird	SA	12	(1958)	
-	G	Mol. Const.	Jacob	JCP	56	(1959)	
-	-	FC	Hisatsune	SA	16	(1960)	
N^{15}O_2	Ni-trogen dioxide (isotopio)	1630	G	Cowan	JCP	21	(1953)
		-	-	Weston	JCP	26	(1957)
NO_2^-	Nitrite ion	700-5000	-	Penney	PRS	156	(1936)
		-	S, Sol	Weston	JCP	27	(1957)
		-	-	Hisatsune	SA	16	(1960)
NO_3^-	Nitrate ion	-	-	Wilson	JCP	2	(1934)
		-	-	Mizushima	JACS	75	(1935)
		-	-	Heath	TPS	44	(1948)
		-	-	Hornig	JCP	16	(1948)
		-	-	Linnett	TPS	48	(1952)
		-	S	Mizushima	JACS	75	(1953)
		700-1500	Sol	Venkateswarlu	JCP	23	(1955)
		-	-	Ryskin	OS	6	(1959)
NO_4	Nitrogen tetraoxide	-	G	No evidence for NO_4	JCP	24	(1956)
NP	Phosphorous nitride	-	-	Badger	JCP	2	(1934)
		-	FC	Badger	PR	48	(1935)
		-	FC	Clark	TPS	33	(1937)
		-	-	Linnett	TPS	38	(1942)
		-	FC	Wu	PR	71	(1947)
	Arsenic nitride	-	-	Clark	TPS	33	(1937)
NB	Boron nitride	$2\text{-}16\mu$	S	Nichols	PR	21	(1923)
		-	S	Miller	AC	24	(1952)
		-	Spec	Newell	JCP	23	(1955)
		-	Thermo	Newell	JCP	24	(1956)
		-	-	Newell	JCP	27	(1957)
		300-880	S	Miller	SA	16	(1960)

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Si	Silicon nitride	-	Morse potential	Morse	PR 34 (1929)	57
		FC	Badger	JCP 22 (1934)	128	
		Mol. Const.	Pekeris	PR 45 (1934)	98	
		FC	Linnett	TFS 38 (1942)	1	
		FC	Wu	PR 71 (1947)	118	
N ₂	Nitrogen	-	Thermo	Tolman	JACS 45 (1923)	2277
		G	Thermo	Urey	JACS 45 (1923)	1445
		G	Emission	Pfund	JOSA 9 (1924)	193
		G	Law of force	Birge	PR 27 (1925)	107
		G	Emission	Poetker	PR 30 (1927)	812
		G	First positive group	Poetker	PR 31 (1928)	152
		Spec	Ingram	PR 33 (1929)	1092	
		Freq	Ingram	PR 34 (1929)	421	
		Morse	Morse	PR 34 (1929)	57	
		Thermo	Villars	JACS 52 (1930)	1733	
		FC	Badger	JCP 2 (1934)	128	
		G	Thermo	Johnston	JACS 56 (1934)	271
		G	Freq	Necke	TFS 30 (1934)	200
		G	Mol. Const.	Pekeris	PR 45 (1934)	98
		G	Spec	Frost	PR 48 (1935)	66
		G	Potential function	Linnett	TFS 36 (1940)	1123
		G	Potential function	Clark	TFS 37 (1941)	299
		G	Thermo	Hulbert	JCP 9 (1941)	61
		G	Freq	Barker	RMP 14 (1942)	198
		G	FC	Linnett	TFS 38 (1942)	1
		G	Line width	Adel	RMP 16 (1944)	236
		G	Absorption law	Nielsen	RMP 16 (1944)	307
		G	Night sky	Stebbins	PR 66 (1944)	225
		G	Microwave	Beringer	PR 70 (1946)	53
		G	FC	Gordy	JCP 14 (1946)	305
		G	Spec	Herman	JPR 7 (1946)	203
		G	Spec	Coggeshall	JCP 15 (1947)	65
		G	FC	Wu	PR 71 (1947)	118
		G	Absorption	Worley	JCP 16 (1948)	533
		G	Absorption	Crawford	PR 75 (1949)	1607
		G	Zeeman effect	Kies	JRN 42 (1949)	183
		I	Liquid air band	Ostholt	PR 76 (1949)	151
		-	Spec	Petrie	PR 77 (1950)	720
		G	Spec	Smith	PR 79 (1950)	728
		G	Homopolar diatomic	VanAssett	PR 79 (1950)	1016

1.1 μ	G	Active N ₂	PR	82 (1951)
4.5 μ	G	I	PRS	208 (1951)
1-14 μ	G	Transmission	PRS	206 (1951)
Anal			PRS	209 (1951)
Goody			PR	83 (1951)
Murray			PRS	208 (1951)
Thompson			PR	83 (1951)
Welsh			PR	88 (1952)
Adel			PR	86 (1952)
Herman				570
Spec				
Short duration after				
g _{low}				
-	G	Vibration relaxation	Schwarz	20 (1952)
-	FC		Thomas	1591
-	-		Gaebler	- (1952)
-	G	Spec	JOSA	2383
2994-4670	G	Transmission	PR	43 (1953)
-	-	Potential function	JCP	705
-	G	Vibration relaxation	Lippincott	22 (1954)
-			JCP	1631
-			JCP	23 (1955)
-			JCP	1131
-			JCP	1281
-	-	Law of force	Birge	20 (1952)
-	-	Morse potential	Morse	1 (1925)
-	-	1-type doubling theory	Milliken	12
-	-	Mol. Const.	Pekeris	57
-	-	Potential function	PR	34 (1929)
-	-	Potential function	TFS	38 (1931)
-	-	FC	Linnett	85
-	-		Clark	45 (1934)
-	-		TFS	36 (1940)
-	-		Linnett	1123
-	-		Clark	37 (1941)
-	-		TFS	299
-	-		Linnett	38 (1942)
Nitrogen ion				1
N ₂ ⁺				
2.5 μ	G	Thermo	PR	50 (1928)
2-5 μ	G	Spec	JCS	937
-	G	Spec	- (1929)	51
-	-	Freq	PR	34 (1929)
-	-	Thermo	PR	582
20 μ	G	Spec, Assign, Mol. Const.	Snow	563
20.7-33 μ	G	Transmission	Villars	1723
6.7-33 μ	G	Transmission	Plyler	38 (1931)
-	-	Struct., FC	Strong	1827
-	-	Thermo	Strong	
20.7-152 μ	G	Spec	PR	37 (1931)
-	G	Spec	PR	1003
-	-	Thermo	PH	37 (1931)
-	-	Quant. Mech.	PR	1565
-	G	Thermo	PR	534
-	-	Spec	PR	39 (1932)
Nitrous oxide				113
N ₂ ⁰				

	-	G	Isotope effect	Rosenthal	JCP	5 ('1937)	465
	-	G	Spec	Adel	PR	59 ('1941)	915
	-	G	Absorption	Adel	PR	59 ('1941)	944
	-	I		Wells	JCP	9 ('1941)	659
590-2224	-	I	Microwave	Coles	PR	72 ('1947)	972
	-	G	I, Assign	Thorndike	JCP	15 ('1947)	157
	-	G		Wilson	PR	71 ('1947)	479
	-	G	Dispersion	Hammer	PR	74 ('1948)	1262
	-	G	Earth's atmosphere	Migoette	JOSA	38 ('1948)	1094
	-	G	Atmosphere of earth	Shaw	PR	74 ('1948)	978
	-	G	Pressure broadening	Thorndike	JCP	16 ('1948)	211
	-	G	Emission	Ginsburg	PR	75 ('1949)	1317
	-	G	Force field	Linnétt	TFS	45 ('1949)	844
	-	G	Freq	Rhodes	PR	76 ('1949)	1273
2224	-	G	Spec	Chapman	PR	78 ('1950)	333
	-	G	Anal	Herzberg	JCP	18 ('1950)	1551
	-	G	Spec	McMath	PR	78 ('1950)	65
	-	G	Spec	Shaw	PR	78 ('1950)	497
	-	G	I	Egers	AC	23 ('1951)	1045
	-	G	I	Egers	JCP	19 ('1951)	1554
	-	G	Refraction	Lieber	JACS	73 ('1951)	1313
579-4734	-	G	Vib., FC	Taylor	JCP	19 ('1951)	1314
	-	G	Band study	Thomas	JCP	19 ('1951)	1162
	-	G	Polarizability	Matossi	JCP	20 ('1952)	819
	-	G	Band study	Adel	JOSA	43 ('1953)	1053
	-	G	Spec	Goldberg	JOSA	43 ('1953)	1033
	-	G	Spec, Mol. Const.	Thompson	PRS	220 ('1953)	435
2200-2800	-	G	Spec	White	JCP	21 ('1953)	1399
	-	G	Spec	Amarat	JPR	15 ('1954)	636
2198	-	G	Mol. Const.	Christensen	TFS	50 ('1954)	1027
	-	G	I	Christensen	JACS	76 ('1954)	4522
	-	G	Spec	Nightingale	JPC	58 ('1954)	1047
2.5-5/ μ	-	G	Spec, Ident	Riley	JACS	76 ('1954)	3301
600	-	G	Spec	Saier	AC	26 ('1954)	1079
	-	G	Spec	Teranishi	JCP	22 ('1954)	896
1200-2300	-	G		Bigeleisen	JCP	23 ('1955)	2264
	-	G	Spec, Struct	Lakshmi	JCP	23 ('1955)	1887
2-9/ μ	-	G		Burrus	PR	101 ('1956)	599
1200-2400	-	G		Lakshmi	JCP	24 ('1956)	811
	-	G		Pierson	AC	28 ('1956)	1218
	-	G	Freq, Struct	Plyler	JCP	24 ('1956)	95
4.5/ μ	-	G	Microwave				
0.08-0.2/ μ	-	G	Spec				
1.7/ μ	-	G	Spec				
2-15/ μ	-	G	Spec				

1800-2000	G	Struct, Spec Spec, Assign, Mol. Const.	Thompson Dows	SA JCP	8 (1956) 26 (1957)	129 745		
500-4000	S	I Assign, Spec Spec, Freq, Assign Pressure effect	Eggers Giguere Dow	JCP SA JOSA	27 (1957) 9 (1957) 13 (1958)	1405 204 308		
2-25 μ	G	-	Gilfert Clough	JCP	48 (1958)	765		
700	S	Sol	Pateley	JCP	30 (1959)	1359		
-	-	-	Singleton	JCP	31 (1959)	204		
2300-3360	G	Spec, Freq	Verdier	JCP	19 (1959)	2572		
1740-1883	S	Spec, Struct Absorption	Mould	SA	30 (1959)	1572		
-	-	FC	Nielsen	JPR	16 (1960)	479		
-	-	Spec	-	-	21 (1960)	24		
565-615	G	Struct	-	-	-	-		
2224	G	FC Mol. Const.	Richards Douglas	JCP JCP	18 (1950) 22 (1954)	694 275		
4000-5000	G	-	Coles Bigeleisen Richardson Begin	PR JCP JCP JCP	72 (1947) 18 (1950) 18 (1950) 28 (1958)	973 1656 694 414		
-	-	Microwave Assign	-	-	-	-		
-	-	FC	-	-	-	-		
2224	G	2.5-20 μ	Freq, FC	-	-	-		
2.5-20 μ	G	-	-	-	-	-		
$\text{N}^{14}\text{N}^{14}\text{O}^{16}$	Nitrous oxide (isotopic)	-	Assign Spec, Mol. Const.	Bigeleisen Douglas Begin	JCP JCP JCP	18 (1950) 22 (1954) 28 (1958)	1656 275 414	
$\text{N}^{14}\text{N}^{15}\text{O}^{16}$	Nitrous oxide	-	Spec, Mol. Const.	-	-	-		
-	-	FC	-	-	-	-		
4000-5000	G	4000-5000	Assign Spec, Mol. Const.	Bigeleisen Douglas Begin	JCP JCP JCP	18 (1950) 22 (1954) 28 (1958)	1656 275 414	
2.5-20 μ	G	2.5-20 μ	Freq, FC	Begin	JCP	28 (1958)	414	
$\text{N}^{15}\text{N}^{14}\text{O}^{16}$	Nitrous oxide (isotopic)	-	Spec, Struct	Pateley	JCP	31 (1959)	204	
2.5-20 μ	G	2.5-20 μ	-	-	-	-	-	
1740-1883	S	1740-1883	Spec, Struct	-	-	-	-	
N_2O_2	Nitric oxide (dimer)	-	Assign	Goulden	JCS	- (1950)	2620	
N_2O_3^+	Nitrosonium nitrogen dioxide ion	-	-	-	-	-	-	
N_2O_3	Nitrogen trioxide	1550-1950	Sol	Spec, Struct	JCP	31 (1959)	204	
$\text{N}_2^{14}\text{O}_3$	Nitrogen trioxide (isotopic)	3-24 μ	S	Assign	Hisatsune	JCP	33 (1960)	714
$\text{N}_2^{15}\text{O}_3$	Nitrogen trioxide (isotopic)	3-24 μ	S	Assign	Hisatsune	JCP	33 (1960)	714

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$N_2^{14}O_4$	1-16 μ	L, G	Spec, Assign, FC, Thermo.	Schaffert Sutherland	JCP PRS	1 (1953) 141 (1953)	507 342
	1-4 μ	-	Struct Bond study	Harris Fugassi	JCP JPC	2 (1934) 46 (1942)	57 630
	-	-	Temperature effect	Wilson	PR	76 (1949)	472
	1.5-25 μ	-	Freq, Assign	Perkins	PR	85 (1952)	755
	240-5000	-	Reaction study	Nightingale	JCP	21 (1953)	1398
	1600-1800	G	Spec	Nightingale	JPC	58 (1954)	1047
	700-1800	G	Spec	Keller	JCP	24 (1956)	636
	700-800	G	FC	Smith	TFS	52 (1956)	891
	-	-	Spec, I	Miller	JCS	- (1957)	1369
	800-2600	Sol	Absorption	Snyder	JCP	26 (1957)	960
	320-5500	G,L,S	Spec, Assign	Snyder	JMS	1 (1957)	139
	320-5500	I,G,S, Sol	Spec, Struct	Fateley	JCP	31 (1959)	204
	700-1900	S	Assign	Hisatsune	JCP	31 (1959)	1130
	450-2600	S	FC	Hisatsune	SA	16 (1960)	450
	-	-	Freq, I, Assign	Begin	JMS	4 (1960)	388
	340-5500	L,G 3-24 μ	Assign	Hisatsune	JCP	33 (1960)	714
	340-5500	L,G 3-24 μ	Freq, I, Assign	Begin	JMS	4 (1960)	388
	340-5500	L,G 3-24 μ	Assign	Hisatsune	JCP	33 (1960)	714
$N_2^{15}O_4$	1-10 μ	G	Spec	Daniels	JACS	48 (1926)	607
	-	G	Photochemical effect	Taylor	JACS	48 (1926)	577
	-	G	Photochemical effect	Mayer	JACS	49 (1927)	3033
	-	G	Photochemical data	Daniels	CR	5 (1928)	39
	1 μ	-	Thermo	Villars	JACS	52 (1930)	1733
	-	-	Assign, Struct	Ingold	JCS	- (1950)	2612
	1730	G	Spec	Cowan	JOSA	43 (1953)	710
	-	G	Spec	Cowan	JOSA	43 (1953)	710
	3.5-25 μ	S	Freq, Assign	Teranishi	JCP	21 (1953)	1116
	700-1800	G	Spec	Nightingale	JPC	58 (1954)	1047
	2-15 μ	G	Spec	Pierson	AC	28 (1956)	1218
	700-1800	S	Spec	Fateley	JCP	31 (1954)	204
$N_2^{14}O_5$	500-2600	S	Spec, Assign, FC	Teranishi	JCP	22 (1954)	896
$N_2^{15}O_5$	500-2600	S	Spec, Assign, FC	Teranishi	JCP	22 (1954)	896

N_3^-	Nitrogen ion	-	-	FC Force field	Penney Linnett	PRS TFS	156 (1936) 45 (1949)	654 844
N_4S_4	Ni trogen tetrasulfide	250-3500	S, Sol	Spec., Struct., Assign	Lippincott	JCP	21 (1953)	1559
OP	Phosphorous monoxide	-	-	FC	Badger Linnett	JCP TFS	2 (1934) 38 (1942)	128 1
OS	Sulfur monoxide	-	-	FC	Lochte-Holtgreven Badger Pekeris	TFS JCP PR	28 (1932) 2 (1934) 45 (1934)	698 128 98
		-	-	FC	Badger	PR	48 (1935)	284
		-	-	Mol. Const.	Clark	TFS	33 (1937)	1390
		-	-	FC	Hulbert	JCP	9 (1941)	61
		-	-	Freq	Gordy	JCP	14 (1946)	305
		-	-	Thermo.	Wu	PR	71 (1947)	118
		-	-	FC	Jones	JCP	18 (1950)	1263
		-	-	FC	Lippincott	JCP	23 (1955)	1131
		400-2000	G	Struct	Meschi	JMS	3 (1959)	405
		-	-	Potential function				
			-	G	Spec., Struct			
			-	Morse potential	Morse	PR	34 (1929)	57
			-	1-type doubling theory	Mulliken	PR	38 (1931)	85
			-	FC	Badger	JCP	2 (1934)	128
			-	Mol. Const.	Pekeris	PR	45 (1934)	98
			-	Potential function	Linnett	TFS	36 (1940)	1123
			-	Potential function	Clark	TFS	37 (1941)	299
			-	FC	Linnett	TFS	38 (1942)	1
			-	FC	Wu	PR	71 (1947)	118
			-	Freq	Clark	TFS	33 (1937)	1390
			-	Freq	Clark	TFS	33 (1937)	1394
			-					
			-	FC	Badger	JCP	2 (1934)	126
			-	Mol. Const.	Pekeris	PR	45 (1934)	98
			-	FC	Badger	PR	48 (1935)	284
			-	FC	Linnett	TFS	38 (1942)	1
		-	-	FC	Wu	PR	71 (1947)	118
		0.2-10 μ	S	Spec	JOSA	JOSA	39 (1949)	179
		0.4-14 μ	S	Absorption	Hass	JOSA	43 (1953)	326
		0.2-14 μ	S	Spec	Hass	JOSA	44 (1954)	181

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O_2^{16}S	-	-	Anal	Duchesne	JCP	15	(1947)
	-	-	Spec	Dailey	AC	21	(1949)
	-	-	Force field	Linnett	TFS	45	(1949)
	-	-	Quant. Mech.	Torkington	JCP	17	(1949)
	-	-	Pressure broadening	Coggeshall	AC	22	1950
	-	-	Struct	Torkington	JPC	56	1952
	-	-	Vib.	Duchesne	JCP	21	1953
	-	-	Ident	Haszeldine	JCS	-	2005
470-8000	G	-	Assign, FC, Freq	Shelton	JCP	21	1953
	G	-	FC	Kivelson	JCP	22	1954
	G	-	Ident	Moore	JACS	76	1954
	-	-	Spec	Nielsen	JPR	15	1954
	-	G	FC	Polo	JCP	22	1954
6-9 μ	G	-	Assign	Haszeldine	JCS	-	904
400-10000	I,Sol	-	Spec, Assign	Maybury	JCP	23	1955
	-	-	Freq	Slowinski	JCP	23	1955
	-	-	Spec, Assign	Gignere	CJC	34	1956
500-13400	S	-	Spec	Pierson	AC	28	1956
2-15 μ	G	-	Spec	Wiener	JCP	25	1956
500-2500	S	-	Spec, Assign	Mayhood	CJP	35	1957
	-	G	I, NCA	Wertheimer	CPR	245	1957
	-	-	Spec	Jones	JCP	28	(1958)
1200-2500	Sol,G	-	Freq	Polo	JCP	22	1954
	-	-	FC	Polo	JCP	22	1954
500-2500	G	-	Freq, FC	Polo	JCP	22	(1954)
Sulfur dioxide (isotopic)				Polo	JCP	22	(1954)
$\text{O}^{16}_2\text{S}^{18}$	500-2500	G	Freq, FC	Polo	JCP	22	(1954)
O^{16}_2S	500-2500	G	Freq, FC	Polo	JCP	22	(1954)
Sulfur dioxide (isotopic)				Polo	JCP	22	(1954)
Sulfur dioxide (isotopic)				Polo	JCP	22	(1954)
Sulfur dioxide (isotopic)				Smith	AJP	12	(1959)
Sulfur dioxide (isotopic)				Smith	AJP	12	(1959)
Metaborate ion	-	-	Anal, Assign	Nielsen	JCP	4	(1937)
Boron dioxide	1200-3000	G	Struct	White	JCP	28	(1958),
$\text{O}_2^{\beta\beta}$	-	-		Duchesne	JCP	12	1947(2)
$\text{O}_2^{\beta 4}$	-	-		Duchesne	JCP	12	1947(2)
O-Si	-	-					61
Selenium dioxide	400-1900	-					

O_2Se	Selenium dioxide	-	Anal Freq	Duchesne Giguere	JCP SA	15 (1947) 16 (1960)	631
O_3	Ozone	400-1900	S,G	Hibben Villars Hulbert	JACS JACS PR	50 (1928) 52 (1930) 38 (1931)	931 1733 1876
		9.6 μ	G	Photochemical effect Thermo.			
		-	-	Atmospheric temperature			
		-	-	Struct, Assign	Badger	PR	43 (1932)
		4.7-11.38 μ	G	Spec, Struct	Gerhard	PR	42 (1932)
		-	-	Struct, Assign	Benedict	PR	43 (1933)
		-	G	Assign	Kassel	JCP	1 (1933)
		5-21 μ	G	Absorption	Adel	PR	47 (1935)
		-	G	Vib.	Duncan	JCP	3 (1935)
		9-10 μ	G	Freq	Adel	PR	49 (1936)
		-	-	FC	Penney	PRS	156 (1936)
		-	-	Assign	Sutherland	PRS	156 (1936)
		9.66 μ	G	Pressure effect	Strong	PR	57 (1940)
		-	G	Spec	Adel	PR	59 (1941)
		9.6 μ	G	Pressure effect	Summerfield	PR	59 (1941)
		9.6 μ	G	Pressure effect	Summerfield	PR	60 (1941)
		-	-	Review	Mulliken	RMP	14 (1942)
		-	-	Assign	Simpson	TPS	41 (1945)
		9.75-14.2 μ	-	Struct	Adel	JCP	14 (1946)
		-	-	Struct	Glockler	JCP	14 (1946)
		-	G	FC	Glockler	JCP	14 (1946)
		-	-	Atmospheric temperature	Adel	PR	71 (1947)
		-	-	Struct	Simpson	JCP	15 (1947)
		-	-	Struct	Dewar	JCS	- (1948)
		1.5-15 μ	G	Freq, Assign	Wilson	JCP	16 (1948)
		9.6 μ	G	Atmospheric temperature	Benesch	PR	76 (1949)
		-	-	Quant. Mech.	Torkington	JCP	17 (1949)
		-	G	Theoretical	Badger	JCP	18 (1950)
		-	G	Assign	Badger	JCP	18 (1950)
		9-10 μ	G	Spec	Gutowsky	JCP	18 (1950)
		1043-2108	G	Spec, Assign	Plass	PR	78 (1950)
		-	G	Radiation equilibria	Shaw	PR	79 (1950)
		1043	G	Pressure broadening	Wilson	JCP	18 (1950)
		-	-	Assign, FC, Thermo.	Klein	JCP	19 (1951)
		-	G	Struct	Williamson	AS	39 (1951)

1980

O_3P	2-15 μ	G	Kinetics of reaction	Cadle	JACS 74 (1952)	6002
1040	G	Sstruct	Darling	JCP 20 (1952)	747	
4.75 μ	G	Spec	Yarnell	JSI 29 (1952)	252	
9.2-10.1 μ	G	Concentration	Adel	PR 92 (1953)	1080	
1040	G	Reaction kinetics	Cadle	JCP 21 (1953)	163	
1110	G	Freq	Howard	JCP 21 (1953)	558	
-	G	Microwave	Trambarulo	JCP 21 (1953)	851	
-	G	Thermo.	Birdsall	JCP 23 (1955)	441	
-	G	Microwave	Gora	PR 99 (1955)	666	
-	G	Microwave	Pierce	PR 99 (1955)	666	
3-16 μ	G	Spec	Sloan	JOSA 45 (1955)	455	
-	G	Microwave	Hughes	JCP 24 (1956)	131	
9.6 μ	G	Spec	Kaplan	JCP 24 (1956)	1183	
-	G	FC	Pierce	JCP 24 (1956)	139	
-	-	FC	Smith	TFS 52 (1956)	891	
2-25 μ	S	Spec, Assign	Harvey	JMS 2 (1958)	405	
12000 Mc/Sec.	G	Spec, Mol. Const.	Gora	JMS 3 (1959)	78	
Phosphite radical	-	-	FC	Venkateswarlu	JCP 23 (1955)	2368
Sulfite ion	-	-	FC	Venkateswarlu	JCP 23 (1955)	2368
O_3S^{-2}	947-1290	Sol	Spec	Antikainen	SK 31 (1958)	223
Sulfur trioxide	-	-	Thermo.	Stockmayer	JCP 12 (1944)	408
-	-	-	Force field	Heath	TFS 44 (1948)	873
1069	-	-	Freq	Hahn	JCP 24 (1956)	921
Thiosulfate ion	947-1290	Sol	Spec	Antikainen	SK 31 (1958)	223
O_3S_2	2-16 μ	S	Spec	Miller	AC 24 (1952)	1253
Arsenic trioxide	2.5-40 μ	S	Spec, Struct	Cheremisinov	OS 7 (1959)	454
300-880	S	Spec	Miller	SA 16 (1960)	135	
-	S	Spec, Struct	Sobolev	OS 9 (1960)	446	
Borate radical	-	-	FC	Venkateswarlu	JCP 23 (1955)	2368
O_3B_2	Boric anhydride	-	-	Markin	IANS 22 (1958)	1097
-	-	-	Solid-liquid transmission	Taylor	JCP 28 (1958)	625
1200-3000	G	Sstruct	White	JCP 28 (1958)	508	
-	-	Spec	Markin	OS 9 (1960)	587	
700-4000	G	Sstruct, FC, Assign	White	JCP 32 (1960)	481	
Se_2	Selenium trioxide	-	-			921

O_3Se	Selenium trioxide	862	-	Freq	Hahn	JCP	24 (1956)	921
O_4	Tetraoxygen	-	-	Proposed O_4 molecule	Smith	JCP	20 (1952)	1972
O_4P^{-3}	Phosphate ion	-	-	Force field	Heath	TFS	44 (1948)	884
O_4		-	-	Force field	Linnett	TFS	48 (1952)	592
		-	-	FC	Venkateswarlu	JCP	23 (1955)	2365
O_4S^{-2}	Sulfate ion	-	-	Taylor	TFS	25 (1929)	314	
		-	-	Taylor	TFS	25 (1929)	830	
		-	-	Vib.	PR	38 (1931)	1969	
		-	-	Vib.	PR	46 (1934)	730	
		-	-	FC	PR	49 (1936)	525	
		-	-	FC	TFS	44 (1948)	884	
		-	-	Quant. Mech.	JCP	16 (1948)	1063	
		-	-	FC	TFS	48 (1952)	592	
		-	-	S	Mizushima	JACS	75 (1953)	4875
		-	-	Freq	Venkateswarlu	JCP	23 (1955)	2365
		-	-	FC	Antikainen	SK	31 (1958)	223
		-	-	Spec	Pistorius	JCP	28 (1958)	514
		-	-	FC				
O_4As^{-2}	Arsenate ion	837	-	Freq	Hahn	JCP	24 (1956)	921
O_4Se^{-2}	Selenate ion	-	-	Freq	Taylor	TFS	25 (1929)	314
		-	-	FC	Heath	TFS	44 (1948)	884
		-	-	FC	Linnett	TFS	48 (1952)	592
		-	-	FC	Venkateswarlu	JCP	23 (1955)	2365
		-	-	FC	Pistorius	JCP	28 (1958)	514
O_4Si	Silica radical	-	-	Freq	Taylor	TFS	25 (1929)	314
		2-4.2 $\mu\ell$	S	Effect of H_2O during fusing	Garino-Cannina	CPR	239 (1954)	705
		-	-	FC	Venkateswarlu	JCP	23 (1955)	2365
O_4Si^{-2}	Silicate ion	800-1050	S	Spec	Wickersheim	JCP	32 (1960)	271
O_5As_2	Arsenic pentoxide	300-880	S	Spec	Miller	SA	16 (1960)	135
O_6P_4	Phosphorous trioxide	-	-	Bond study	Huggins	JACS	75 (1953)	4126
$O_6S_4^{-2}$	Tetrathionate ion	947-1290	Sol	Spec	Antikainen	SK	31 (1958)	223

1982

O_6B_4	Boron oxide glass	-	-	FC Freq Reflection and transmission	Woolley Fajans Anderson	PR JACS JOSA	74 (1948) 74 (1952) 44 (1954)	1247 2761 826
$\text{O}_7\text{P}_2\text{Si}$	Silicon pyrophosphate	-	-	Spec	Steger	ZAU	303 (1960)	169
O_{10}P_4	Phosphorous pentoxide	2-21/ μ	S	Spec	Daasch	AC	23 (1951)	853
PAs	Arsenic phosphide	-	-	Freq	Clark	TFS	33 (1957)	1390
P_2	Phosphorous (diatomic)	-	-	FC Mol. Const. Thermo.	Badger Pekeris Anderson Clark	JCP PR JCP TFS	2 (1934) 45 (1934) 4 (1936) 33 (1937)	128 98 529 1398
P	Phosphorous (tetraatomic)	5-50/ μ 0.22-1.08	S	Absorption Spec Thermo.	Sutherland Stevenson Linnett Lippincott	JCP TFS JCP	8 (1940) 9 (1941) 38 (1942) 23 (1955)	161 403 1 1131
P_4	Phosphorus (tetraatomic)	2-25/ μ 400-1300	L G,L,S, Sol	Spec, Assign Spec, Assign	Carterright Kiss Anderson Stevenson Bernstein Gutowsky	PR JRNB JCP JCP JCP JACS	35 (1930) 8 (1932) 4 (1936) 9 (1941) 18 (1950) 72 (1950)	415 393 529 403 1018 5751
P_4S_3	Phosphorus sulphide	200-1200	S,Sol	Spec, FC	Slater	TFS	50 (1954)	207
SB	Boron monosulfide	-	G	Mol. Const.	Gerding	RTC	76 (1957)	757
SSe	Selenium sulfide	-	-	Freq Freq	Zeeman	CJP	29 (1951)	336
S_2	Sulfur (diatomic)	4-15/ μ	G	Emission Spec FC FC	Clark Clark	TFS TFS	33 (1937) 33 (1937)	1390 1394
		-	-	Thermo.	Johansen Taylor Lochte Holtzgreen Badger Cross	JCS TFS TFS JCP JCP	102 (1912) 25 (1929) 28 (1932) 2 (1934) 3 (1935)	102 929 698 128 168

S_2B_2	Boron disulfide	650-3500	G	Assign, Thermo.	JCP	33 (1960)	296
S_3As_2	Arsenic trisulfide	-	S	Properties Glasses study	Fraser	43 (1953)	332
		$1-15\mu$	S	Spec	Fraser	43 (1953)	823
		$1-6\mu$	S	Refractive index	Frerichs	43 (1953)	1153
					Jaffee	47 (1957)	782
S_3B_2	Boron trisulfide	650-3500	G	Assign, Thermo.	Sommer	JCP	33 (1960)
S_4As-3	Arsenic tetrasulfide ion	-	-	FC	Pistorius	JCP	28 (1958)
S_8	Sulfur (rhombic)	10-130 μ	S	Spec Selection rule Dispersion Spec., Assign	Barnes Halford Lapeschkin Bernstein	PR JCP JPC JCP	39 (1932) 14 (1946) 51 (1947) 18 (1950)
		1.05μ	-	Spec	Agnew	JOSA	43 (1953)
		$2-25\mu$	L,S	Reflectance	Barrow	JCP	21 (1953)
		700-1500	S	Assign, Thermo., Struct	Guthrie	JACS	76 (1954)
		$0.8-20\mu$	S	-	NCA, FC	Pistorius	1488
		86-532	G	-		JMS	
						3 (1959)	101
As_2Se_3	Arsenic triselenide	-	S	Glasses	Fraser	JOSA	43 (1953)
Re_2	Helium molecule	-	-	1-type doubling theory	Milliken	PR	38 (1951)
Se_2	Selenium	$0.5-2.4\mu$	S	Photoconductivity Photoelectric properties	Nicholson Coblentz	PR BBS	3 (1914) 15 (1919)
		107μ	S	Transmission	Weniger Lochte-Holtgreven	JOSA TFS	7 (1923) 28 (1932)
		-	-	FC			517 698

1984

0.6-1.2 μ	S	Spec	Nix	RMP	4 (1952)
1-11 μ	S	Transmission	Pfund	JOSA	23 (1953)
-	-	Spec	Ruedy	PR	375
45-125 μ	S	Spec	Barnes	JOSA	46 (1954)
-	-	Freq	Clark	TFS	880
20.7-152 μ	S	Freq	Clark	TFS	26 (1956)
-	-	Transmission	Seifert	RSI	428
-	-	FC	Sutherland	JCP	33 (1957)
-	-	Polarizer	Pfund	JOSA	1394
-	-	Polarizer	Ames	TFS	33 (1957)
1-25 μ	S	Spec	Gebbie	RSI	1398
0.8-20 μ	S	Reflectance	Agnev	JCP	11 (1940)
0.8-20 μ	S	Reflectance	Agnev	JOSA	365
-	-	Polarization	Conn	JCP	8 (1940)
0-80 μ	L,S	Spec	Caldwell	JOSA	161
-	-	Potential function	Lippincott	PR	36 (1946)
				JCP	715
				JSI	26 (1949)
				JOSA	132
				42 (1952)	277
				JOSA	43 (1953)
				JOSA	823
				JOSA	43 (1953)
				JOSA	999
				44 (1954)	553
				100 (1955)	1251
				JCP	23 (1955)
					1131

IIb. Inorganic Compounds of Metals

(Containing elements other than those in IIa)

Formula	Name	Range	State	Remarks	Reference
<u>Ag COMPOUNDS</u>					
AgCHF ₃ OAs	Monosilver trifluoro-methyl acid arsonate	-	-	Freq	Emeleus JCS - (1954) 881
AgCH ₃ N ₂ O ₂	Silver methyl nitramide	670-4000	S	Assign, Struct	Jonathan JMS 5 (1960) 101
AgCF ₃ O ₂ S	Silver trifluoro-methanesulfonate	7-10 μ	-	Group freq Assign, Correlation	Haszeldine Haszeldine JCS - (1955) 4228 JCS - (1955) 2901
AgCN	Silver cyanide	0-8.7 μ 1800-2500 2100 2164 300-880	S S, Sol S S	Residual rays Dispersion formula Spec, Anal Spec Freq Spec	Weniger Korff Stallcup Jones Penneman Miller JOSA RMP JCP JCP JCP SA 7 (1923) 4 (1932) 10 (1942) 22 (1954) 24 (1956) SA 16 (1960) 517 471 199 965 293 135
AgCNO	Silver cyanate	2-16 μ 300-880	S S	Spec "highest purity" Spec	Miller Miller AC 24 (1952) 1253 SA 16 (1960) 135
AgCNO	Silver isocyanate	400-4000	S	Spec	Waddington JCS - (1959) 2499
AgCNS	Silver thiocyanate	-	S	Group freq, Band freq, Config.	Mitchell JCS - (1960) 1912
AgC ₂ H ₃ N ₂ S ₂	Silver rubeaate	400-4000	Sol	Struct	Barcelo SA 10 (1958) 245
AgC ₂ H ₆ O ₄ PO	Dimethylsilver phosphate	-	-	Spec	Maarsen RHC 76 (1957) 724
AgC ₂ F ₆ O ₂ P	Silver bis trifluoro-methyl phosphinate	-	-	Group freq	Emeleus Emeleus JCS - (1955) 563
AgC ₂ F ₆ O ₂ As	Silver bis trifluoro-methyl arsonate	-	-	Group freq Group freq	Emeleus Emeleus JCS - (1954) 1552 JCS - (1954) 1881
AgC ₂ N ₂	Silver dicyanide ion	- 2135 250-2200	- Sol S	Group freq Spec, Freq Freq, I Spec, Assign	Linnett Jones Penneman Hidalgo JOS JCP JCP ARS 56A (1960) 1399 22 (1954) 24 (1956) 56A (1960) 965 22 (1954) 24 (1956) 56A (1960) 293 9
AgC ₂ N ₂ K	Potassium silver cyanide complex	4422-5.4 μ 2135	Sol Sol, S	Spec Freq	Gordy Jones JCP 5 (1935) JCP 22 (1954) 664 JCP 22 (1954) 965

1986

$\text{AgC}_3\text{H}_4\text{NO}_2$	1900–4500	S	Spec, Assign, Struct, Correlation, Force constant	Jones	JCP	26 (1957)	1578
	250–2200	–	Assign	Hidalgo	CPR	249 (1959)	233
$\text{AgC}_3\text{H}_5\text{N}_2\text{O}_2$	β -Isooxazolidinone silver salt	β -14 μ	Spec	Hidy	JACS	77 (1955)	2345
$\text{AgC}_3\text{H}_5\text{N}_2\text{O}_2$	Cycloserine silver salt	β -14 μ	Spec, Band freq, Group freq	Hidy	JACS	77 (1955)	2345
$\text{AgC}_3\text{F}_5\text{O}_2$	Silver pentafluoro propionate	–	Ident	Haszeldine	JCS	– (1953)	2075
AgC_3N_3	Silver tricyanide ion	2100 2105	Sol Sol	Spec, Freq Freq, I	Jones Penneman	JCP JCP	22 (1954) 24 (1956)
$\text{AgC}_4\text{H}_8\text{Cl}_4\text{O}_2$	Silver perchlorate dioxane complex	–	S	Symmetry, Thermo	Daasch	SA	15 (1959)
$\text{AgC}_4\text{H}_{10}\text{O}_4^P$	Diethyl silver phosphate	–	–	Spec	Maarsen	RTC	76 (1957)
AgC_4N_4	Silver tetracyanide ion	2100 2092	Sol Sol	Spec, Freq Freq, I	Jones Penneman	JCP JCP	22 (1954) 24 (1956)
$\text{AgC}_4\text{N}_4\text{K}_3$	Potassium silver tetracyanide ion	2100	S, Sol	Freq	Jones	JCP	22 (1954)
$\text{AgC}_5\text{H}_7\text{O}_2$	Silver(I)-acetyl acetone complex	625–5000	S	Spec, Struct	West	JINC	5 (1958)
$\text{AgC}_6\text{H}_4\text{ClN}_2\text{O}_3\text{S}$	Silver- α -chloro-benzendiazo-sulfonate	600–1800	S	Spec, Assign	LeFevre	AJC	6 (1953)
$\text{AgC}_6\text{H}_4\text{ClN}_2\text{O}_3\text{S}$	Silver-p-chloro-benzendiazo-sulfonate	600–1800	S	Spec, Assign	LeFevre	AJC	6 (1953)
$\text{AgC}_6\text{H}_6\text{ClO}_4$	Silverperchlorate benzene complex	650–5000	S	Symmetry, Thermo	Daasch	SA	15 (1959)

$\text{AgC}_6\text{H}_{14}\text{O}^{\text{P}}$	D1-1-propyl silver phosphate	-	-	Spec	Maaesen	RTC	76 (1957)	724
$\text{AgC}_8\text{H}_8\text{ClO}_4$	Silverperchlorate benzene complex	650-5000	S	Symmetry, Thermo	Daasch	SA	15 (1959)	726
$\text{AgC}_8\text{H}_{15}\text{O}$	n-Octanoic acid, silver soap	-	S	Anal	Meiklejohn	AC	29 (1957)	329
$\text{AgC}_8\text{H}_{16}\text{O}^{\text{P}}$	Silver di-n-butyl phosphate	670-3500	-	Spec, Assign	Bellamy	JCS	- (1955)	728
$\text{AgC}_9\text{H}_{17}\text{O}_2$	n-Nonoic acid, silver soap	-	S	Anal	Meiklejohn	AC	29 (1957)	329
$\text{AgC}_{10}\text{H}_{19}\text{O}_2$	n-Decanoic acid, silver soap	-	S	Anal	Meiklejohn	AC	29 (1957)	329
$\text{AgC}_{11}\text{H}_{21}\text{O}_2$	n-Hendecanoic acid, silver soap	-	S	Anal	Meiklejohn	AC	29 (1957)	329
$\text{AgC}_{12}\text{H}_{16}\text{Cl}_6\text{O}^{\text{P}}$	Silver-di-2,4,6-trichlorophenyl phosphate	-	-	Group freq	Bellamy	JCS	- (1952)	1701
$\text{AgC}_{12}\text{H}_{10}\text{O}^{\text{P}}$	Silver diphenyl phosphate	-	-	Group freq	Bellamy	JCS	- (1952)	1701
$\text{AgC}_{12}\text{H}_{11}\text{NO}_3\text{P}$	Silver phenyl anilinophosphonate	-	-	Group freq	Bellamy	JCS	- (1952)	1701
$\text{AgC}_{12}\text{H}_{12}\text{ClO}_4$	Silver perchlorate benzene complex	650-5000	S	Symmetry, Thermo	Daasch	SA	15 (1959)	726
$\text{AgC}_{12}\text{H}_{12}\text{N}_2\text{O}_2\text{P}$	Silver dianilino phosphinate	-	-	Group freq	Bellamy	JCS	- (1952)	1701
$\text{AgC}_{12}\text{H}_{25}\text{O}_2$	n-Dodecanoic acid, silver soap	-	S	Anal	Meiklejohn	AC	29 (1957)	329
$\text{AgC}_{12}\text{H}_{24}\text{ClO}_{10}$	Silver perchlorate dioxane complex	-	S	Symmetry, Thermo	Daasch	SA	15 (1959)	726

1988

$\text{AgC}_{13}^{\text{H}} 25^{\text{O}}_2$	n-Tridecanoic acid, silver soap	-	S	Anal		Meiklejohn	AC	29 (1957)	329
$\text{AgC}_{14}^{\text{H}} 14^{\text{O}}_4^{\text{P}}$	Silver dibenzyl phosphate	670-3500	-	Group freq Spec, Assign	Bellamy Bellamy	JCS JCS	- (1952) - (1953)	1701 728	
$\text{AgC}_{14}^{\text{H}} 27^{\text{O}}_2$	n-Heptadecanoic acid, silver soap	-	S	Anal	Meiklejohn	AC	29 (1957)	329	
$\text{AgC}_{16}^{\text{H}} 31^{\text{O}}_2$	n-Hexadecanoic acid, silver soap	-	S	Anal	Meiklejohn	AC	29 (1957)	329	
$\text{AgC}_{16}^{\text{H}} 34^{\text{O}}_4^{\text{P}}$	Silver bis-2-ethyl- hexyl phosphate	670-3500	-	Spec, Assign	Bellamy	JCS	- (1953)	728	
$\text{AgC}_{17}^{\text{H}} 33^{\text{O}}_2$	n-Heptadecanoic acid, silver soap	-	S	Anal	Meiklejohn	AC	29 (1957)	329	
$\text{AgC}_{18}^{\text{H}} 18^{\text{ClO}}_4$	Silver perchlorate benzene complex	650-5000	S	Symmetry, Thermo	Daasch	SA	15 (1959)	726	
$\text{AgC}_{18}^{\text{H}} 35^{\text{O}}_2$	n-Octadecanoic acid, silver soap	-	S	Anal	Meiklejohn	AC	29 (1957)	329	
$\text{AgC}_{18}^{\text{H}} 35^{\text{O}}_2$	Silver stearate	710-730	S	Correlation	Chapman	JCS	- (1957)	4489	
$\text{AgC}_{19}^{\text{H}} 37^{\text{O}}_2$	n-Nonadecanoic acid, silver soap	-	S	Anal	Meiklejohn	AC	29 (1957)	329	
$\text{AgC}_{20}^{\text{H}} 39^{\text{O}}_2$	n-Eicosanoic acid, silver soap	-	S	Anal	Meiklejohn	AC	29 (1957)	329	
$\text{AgC}_{24}^{\text{H}} 16^{\text{ClNO}}_4^{\text{O}}$	Silver (I)-1;10- phenanthroline complex perchlorate	600-2000	S	Spec	Schitt	JINC	9 (1959)	211	
$\text{AgC}_{65}^{\text{H}} 123^{\text{NO}}_{12}^{\text{P}}$	α, β -Dilauroyl- kephalin silver salt	-	-	Assign	Bellamy	JCS	- (1953)	728	
AgH	Silver hydride	-	-	-	Rot-vib coupling Force constant, Bond distance	Pekelis Platt	PR JCP 18 (1950)	45 (1934) 98 932	

-	-	Force constant, Bond distance		Sheline		JCP	18 (1950)
		S	Freq., Assign	Bicelli	AC	47 (1957)	1380
		S	Vibration freq. Residual ray Residual ray Dispersion formula	Nichols Weniger Schaefer Kroff	PR JOSA TPS RMP	21 (1923) 7 (1923) 25 (1929) 4 (1952)	712 517 841 471
		S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 1355
		S	Vibration freq. theory Residual rays Residual ray Dispersion formula Preparation, Transmission	Nichols Weniger Schaefer Kroff Fugassi	PR JOSA TPS RMP RSI	21 (1923) 7 (1923) 25 (1929) 4 (1932) 13 (1942)	712 517 841 471 335
		S	Transmission Transmission Index of refraction Reflection, Transmission, Spec	Fuoss Billings Hyde Hayman	RSI JOSA JOSA JOSA	16 (1945) 37 (1947) 37 (1947) 37 (1947)	154 119 984A 113
		S	Spec Transmission Photoconductivity Photoconductivity Transmission, Spec	Kremers Axilrod Banks Cadwell Pylyer	JOSA JAP PR PR JRNB	37 (1947) 19 (1948) 74 (1948) 74 (1948) 41 (1948)	337 213 1207 1207 125
		S	Cold flow Refractive index Lenses for micro samples Errors in dichroic ratio from AgCl polarizers	Combes Titton Anderson Charney	JOSA JOSA JOSA JOSA	39 (1949) 40 (1950) 43 (1953) 45 (1955)	635 540 777 980
		-	New arrangement for AgCl polarizer	Makas	JOSA	45 (1955)	998
		-	Technique for polishing AgCl plates	Mitzner	JOSA	47 (1957)	328

$\text{AgCl} + \text{Ag}_2\text{S}$	Silverchloride filter, covered with film of silver sulfide	1-16 μ	S	Spec	Eastman	AC	26 (1954)	31
AgClO_4	Silver perchlorate	400-4000	Sol	Spec	Pullin	TFS	54 (1958)	11
AgFO_3	Silver fluoro sulphate	550-2400	S	Assign	Sharp	JCS	- (1957)	3761
AgNO_2	Silver nitrite	2-16 μ 700-4000 300-880	S	Spec Spec, Force constant Spec	Miller Weston Miller	AC JCP SA	24 (1952) 27 (1957) 16 (1960)	1253 683 135
AgNO_3	Silver nitrate	0.8-2.3 μ	Sol	Solute effect on water spec	Collins	PR	20 (1922)	486
		6-9 μ	S	Reflection from compressed powder	Sanderson	JOSA	30 (1940)	566
		2-16 μ	S	Spec, Band study	Miller Meloche Addison	AC JINC	24 (1952) 6 (1958)	1253 104
		2-16 μ	S	Spec	Anber	JCS	- (1960)	613
		2-15 μ	-	Freq	Ferraro	JMS	- (1960)	1242
		-	S	Absorp freq, Assign	Miller	SA	5 (1960) 16 (1960)	99 135
		700-1600	S	Spec				
		300-800	S					
$\text{Ag}_2\text{CH}_3\text{O}_3\text{P}$	Disilver methyl- phosphonate	704-3330	S	I, Group freq	Corbridge	JCS	- (1954)	4555
$\text{Ag}_2\text{CF}_3\text{O}_3\text{As}$	Disilver trifluoro- methylarsonate	-	-	Group freq	Emeleus	JCS	- (1954)	881
Ag_2CO_3	Silver carbonate	2-16 μ 300-800	S	Spec Spec	Meloche Miller	JINC SA	6 (1958) 16 (1960)	104 135
$\text{Ag}_2\text{C}_2\text{H}_5\text{O}_3\text{P}$	Disilver phenyl phosphate	-	-	Group freq	Bellamy	JCS	- (1952)	1701
$\text{Ag}_2\text{H}_2\text{NO}_3\text{P}$	Disilver phosphoramidate	2-15 μ 650-5000	S	Group freq, I, Assign Spec	Corbridge Pustinger	JCS SA	- (1954) 15 (1959)	493 909
$\text{Ag}_2\text{H}_3\text{IO}_6$	Disilver para- -	300-3000	S	Freq, Spec	Blinc	MP	1 (1957)	391

$\text{Ag}_2\text{H}_{12}\text{N}_4\text{O}_4\text{S}$	Silver (I) ammonia complex sulphate	740-2300 650-1650	S, Sol S	Assign, Freq Group freq, Symmetry Freq	Powell Swatos Wilmshurst	JCS JACS CJC	- (1956) 79 (1957) 38 (1960)
$\text{Ag}_2\text{D}_{10}\text{S}_6$	Disilver paraperiodic acid-d ₃	300-3000	S	Freq, Spec	Blinc	MP	1 (1957)
$\text{Ag}_2\text{D}_{12}\text{N}_4\text{O}_4\text{S}$	Silver (I) ammonia complex sulphate-d ₆	950	Sol	Assign, Freq	Powell	JCS	- (1956)
$\text{Ag}_2\text{F}_0\text{P}$	Disilver monofluorophosphate	720-1210 650-5000	S S	I, Group freq Spec	Corbridge Pustinger	JCS SA	- (1954) 15 (1959)
$\text{Ag}_2\text{O}_4\text{S}$	Silver sulfate	300-880	S	Spec	Miller	SA	16 (1960)
$\text{Ag}_2\text{O}_4\text{Se}$	Silver selenate	290-650 220-3500	S S	Assign Spec, Struct	Daval Daval	CPR ZE	239 (1954) 64 (1960)
Ag_2S	Silver sulfide	25750 4-24/ μ 1-1.8/ μ	- S S	Absorption Reflectance spec, Filter study Temp. dependence of absorption	Cartwright Plyler Lebovec	PR JOSA JCP	35 (1930) 42 (1952) 21 (1953)
$\text{Ag}_3\text{H}_2\text{N}_2\text{O}_7\text{P}_3$	Silver diimido trimetaphosphate	650-5000	S	Spec	Pustinger	SA	15 (1959)
$\text{Ag}_3\text{H}_2\text{N}_2\text{O}_7\text{P}_3$	Silver trimeta-phosphimate	650-5000	S	Spec	Pustinger	SA	15 (1959)
$\text{Ag}_3\text{H}_2\text{N}_2\text{O}_7\text{P}_3$	Trisilver triphosphonitritate	787-1338	S	I, Group freq	Corbridge	JCS	- (1954)
$\text{Ag}_3\text{O}_4\text{P}$	Silver orthophosphate	2-15/ μ 290-650	S	Band & Group freq, I, Assign Assign	Corbridge Daval	JCS CPR	- (1954) 239 (1954)

1992

Ag_3OAs	Silver arsenate	2-16 μ 650-5000	S Spec	Spec Spec	Melache Pustinger	JINC SA	6 (1958) 15 (1959)	104 909
$\text{Ag}_3\text{O}_9\text{P}_3$	Trisilver trimeta-phosphate	2-15 μ 650-5000	S Spec	Assign Group freq, I, Assign Spec	Duval Corbridge Pustinger	CPR JCS SA	239 (1954) - (1954) 15 (1959)	249 493 909
$\text{Ag}_4\text{HNO}_6\text{P}_2$	Tetrasilver imidodiphosphate	650-5000	S Spec	Spec	Pustinger	SA	15 (1959)	909
$\text{Ag}_4\text{H}_4\text{N}_4\text{O}_8\text{P}_4$	Silver tetrameta-phosphimate	650-5000	S Spec	Spec	Pustinger	SA	15 (1959)	909
$\text{Ag}_4\text{H}_4\text{N}_4\text{O}_8\text{P}_4$	Tetrasilver tetra-phosphonitrilate	710-1387	S	Table, I, Group freq	Corbridge	JCS	- (1954)	4555
$\text{Ag}_4\text{O}_7\text{P}_2$	Tetrasilver pyrophosphate	2-15 μ 650-5000	S Spec	Table, I, Group freq Spec	Corbridge Pustinger	JCS SA	- (1954) 15 (1959)	493 909
$\text{Ag}_4\text{O}_{12}\text{P}_4$	Silver tetrameta-phosphate	650-5000	S Spec	Spec	Pustinger	SA	15 (1959)	909
$\text{Ag}_4\text{O}_{12}\text{P}_4 \cdot 2\text{H}_2\text{O}$	Tetrasilver tetra-metaphosphate dihydrate	2-15 μ	S	Group freq, I, Assign	Corbridge	JCS	- (1954)	493
$\text{Ag}_5\text{NO}_6\text{P}_2$	Pentasilver imido diphosphate	650-5000	S Spec	Spec	Pustinger	SA	15 (1959)	909
$\text{Ag}_5\text{O}_{10}\text{P}_3$	Pentasilver triphosphate	2-15 μ 650-5000	S Spec	Group freq, I, Assign Spec	Corbridge Pustinger	JCS SA	- (1954) 15 (1959)	493 909

Al COMPOUNDS

AlC	Aluminium monocarbide	-	G	Freq analysis	Zeeman	CJP	32 (1954)	9
$\text{AlCH}_3\text{Br}_3\text{NO}_2$	Nitromethane: Aluminium-bromide adduct	-	-	Spec	Gagnaux	HCA	41 (1958)	1322

$\text{AlCH}_6\text{N}_3\text{O}_8\text{S}_2 \cdot 6\text{H}_2\text{O}$	Guanidine-aluminium sulfate hexahydrate	-	-	Spec, Struct	Iaafon	CPR	247 (1958)	2120
$\text{AlCD}_6\text{N}_3\text{O}_8\text{S}_2 \cdot 6\text{H}_2\text{O}$	Guanidine-d ₆ -aluminium sulphate hexahydrate-d ₆	-	-	Spec, Struct	Iaafon	CPR	247 (1958)	2120
$\text{AlC}_2\text{H}_3\text{Cl}_4\text{O}$	Liquid complex of AlCl_3 with CH_3COCl	350-4000	L,Sol	Band assign, Struct, Spec	Cook	CJC	37 (1959)	48
AlC_3H_9	Trimethylaluminium	3.38-14.35 μ 800-4000	G -	Table Spec, Freq anal Force constant	Fitzer Fitzer Sheline	JACS JCP JCP	68 (1946) 16 (1948) 18 (1950)	2204 552 602
$\text{AlC}_3\text{H}_{12}\text{N}$	Aluminium hydride trimethylamine	-	Sol	Spec, Freq	Schomburg Dantel	ZE ZE	61 (1957) 64 (1960)	1110 1234
$\text{AlC}_3\text{H}_{16}\text{Br}_2\text{N}$	Dibromoaluminium hydride triethylamine	-	Sol	Spec, Freq	Schomburg	ZE	61 (1957)	1110
$\text{AlC}_3\text{H}_{18}\text{N}$	Aluminium hydride triethylamine	-	Sol	Spec, Freq	Schomburg	ZE	61 (1957)	1110
$\text{AlC}_4\text{H}_8\text{Cl}_3\text{O}_2$	Aluminium (III) dioxane complex chloride	500-1500	S	Spec, Struct	Hendara	JCS	- (1960)	5105
$\text{AlC}_4\text{H}_{10}\text{D}$	Diethyl aluminium hydride-d ₁	-	-	Spec	Hoffman	ZE	61 (1957)	1101
$\text{AlC}_4\text{H}_{11}$	Diethyl aluminium hydride	4.85-7.50 μ	Sol	Spec Quant anal	Hoffman Hudson	ZE AC	61 (1957) 29 (1957)	1101 1895
$\text{AlC}_4\text{H}_{11}\text{Br}_2\text{O}$	Dibromo aluminium hydride ethyl ether adduct	-	Sol	Freq, Spec	Schomburg	ZE	61 (1957)	1110
$\text{AlC}_4\text{H}_{11}\text{O}$	Monooethylmonoethoxy aluminium hydride	-	-	Spec	Hoffman	ZE	61 (1957)	1101

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$\text{AlC}_4\text{H}_{11}\text{O}$	Aluminium hydride in tetrahydrofuran	-	-	Spec	Dautel	ZE	64 (1960)	1234
$\text{AlC}_4\text{H}_{11}\text{J}_3$	Aluminium hydride dioxane	-	-	Spec	Dautel	ZE	64 (1960)	1234
$\text{AlC}_4\text{H}_{13}\text{O}$	Aluminium hydride ether	-	-	Spec	Dautel	ZE	64 (1960)	1234
$\text{AlC}_6\text{H}_4\text{Br}_3\text{ClNO}_2$	p-Chloronitrobenzene: AlBr_3 adduct	-	-	Spec	Gagnaux	HCA	41 (1958)	1322
$\text{AlC}_6\text{H}_{15}\text{K}_3$	Aluminium (III)-oxalate (Potassium salt) trihydrate	2-15/ μ	S	Spec, Freq, Assign	Schmelz	SA	9 (1957)	51
$\text{AlC}_6\text{H}_{15}$	Triethylaluminium	4/ μ	-	Spec	Hoffman Hudson	ZE	61 (1957)	1101
$\text{AlC}_6\text{H}_{15}\text{O}$	Diethylaluminium ethoxide	4.85-9.08/ μ	Sol	Anal	Hudson	AC	29 (1957)	1895
$\text{AlC}_6\text{H}_{16}\text{C}_2\text{N}$	Dichloro aluminium hydride triethyl- amine	-	Sol	Spec, Freq	Schomburg	ZE	61 (1957)	1110
$\text{AlC}_6\text{H}_{17}\text{BrN}$	Mono aluminium bromohydride	-	Sol	Spec, Freq	Schomburg	ZE	61 (1957)	1110
$\text{AlC}_6\text{H}_{21}\text{N}$	Aluminium hydride triethylamine	-	-	Spec	Dautel	ZE	64 (1960)	1234
$\text{AlC}_6\text{H}_{21}\text{N}_2$	Aluminium hydride trimethylamine	-	S	Spec, Freq	Schomburg Dautel	ZE	61 (1957)	1110
$\text{AlC}_6\text{O}_{12}\text{K}_3 \cdot$ $3\text{H}_2\text{O}$	Aluminium (III)- oxalate complex (K-salt) trihydrate	-	-	Struct	Gaufers	CPR	248 (1959)	81
$\text{AlC}_7\text{H}_7\text{Br}_3\text{NO}_2$	p-Methylnitrobenzene: AlBr_3 adduct	-	-	Spec	Gagnaux	HCA	41 (1958)	1322

$\text{AlC}_8\text{H}_{19}$	Di-sec-butyl aluminum hydride	-	-	Spec	Hoffman	ZE	61 (1957)	1101
$\text{AlC}_8\text{H}_{21}\text{Cl}_2\text{O}_2$	Diodo aluminum hydride ether	-	Sol	Freq, Spec	Schomburg	ZE	61 (1957)	1110
$\text{AlC}_9\text{H}_{12}\text{O}_1\text{K}_3 \cdot 3\text{H}_2\text{O}$	Al (III) melanic acid complex (K-salt)	2-15 μ	S	Spec, Freq assign, Metal bond	Schmelz	JACS	81 (1959)	287
$\text{AlC}_9\text{H}_{21}\text{O}_3$	Aluminum triisopropoxide	2-15 μ	Sol	Spec, Group freq, Band freq, I	Bell	AC	25 (1953)	1720
$\text{AlC}_{10}\text{H}_{12}\text{N}_2\text{O}_8\text{Na} \cdot x\text{H}_2\text{O}$	Aluminum (III)-ethylenediamine tetraacetic acid complex (sodium salt) polyhydrate	800-1800	S	Spec, Bonding	Donald	JACS	82 (1960)	4191
$\text{AlC}_{10}\text{H}_{13}\text{Br}_3\text{NO}_2$	p-Ter-butyl-nitrobenzene: AlBr ₃ adduct	-	-	Spec	Gagnau	HCA	41 (1956)	1322
$\text{AlC}_0\text{H}_{25}\text{O}$	Triethyl aluminum ethyl ether adduct	-	-	Spec, Assign	Hoffman	ZE	64 (1960)	616
$\text{AlC}_{15}\text{H}_{21}\text{O}_6$	Aluminum (III)-acetyl acetone complex	625-5000 280-1700	S -	Spec, Struct Bond study	West Nakamoto	J INC N	5 (1958) 183 (1959)	295 459
$\text{AlC}_{18}\text{H}_{16}\text{Cl}_4\text{N}$	Aluminum chloride triphenyl ammonium chloride adduct	-	S	H bond, Band freq	Nuttall	JCS	- (1960)	4965
$\text{AlC}_{24}\text{H}_{54}\text{O}_{12}\text{P}_3$	Aluminum-di-n-butyl phosphate	714-5000	S	Interaction study	Smith	J INC	9 (1959)	150
$\text{AlC}_{27}\text{H}_{18}\text{N}_3\text{O}_3$	Aluminum (III)-8-hydroxyquinoline chelate	8-15 μ 700-800	S L	Spec Spec Bonding, Struct	Charles Charles Sidorov	AC SA OS	25 (1953) 8 (1956) 6 (1959)	530 1 812

1996	$\text{AlC}_3\text{H}_27^0_6$	Aluminum (III)-benzoylacetone complex	280-1700	-	Bond study	Nakamoto	N	183 (1959) 459
	$\text{AlC}_3\text{H}_69^0_6$	Aluminum trilaurate	2-16 μ	Sol	Struct, Assign	Leger	CJC	35 (1957) 799
AlH	Aluminum monohydride	-	-	π -type doubling theory Force constants, Bond distance Rot-vib coupling constants	Milliken Badger	PR JCP	38 (1951) 2 (1934)	85 128
	-	-	-	Pekelis	PR	45 (1934)	98	
	-	-	-	Wa	PR	71 (1947)	118	
	-	-	-	Platt	JCP	18 (1950)	932	
	-	-	-	Sheline	JCP	18 (1950)	927	
	42.41 Å	G	-	Zeeman Mitra	CJP JCP	32 (1954) 22 (1954)	535 564	
	-	-	-	Woodward	TFS	52 (1956)	1458	
AlH ₄	Aluminum hydride ion	-	-	Band study, Force constants Force constant	Pistorius	JCP	27 (1957)	965
	-	-	-	Group and Band freq	Cox	JCS	- (1954)	1798
AlH ₁₂ ^B ₃ ^N	Triammonium aluminum hexafluoride	-	S	Spec, Anal, Assign Absorp freq	Price Price	JCP JCP	17 (1949) 17 (1949)	1044 217
	Aluminum boro hydride	2-15 μ	G	Solute effect on H ₂ O Force const Absorp, Emission, Freq	Collins Venkateswarlu Klemperer	PR JCP JCP	20 (1922) 23 (1955) 24 (1956)	486 2368 353
AlCl ₃	Aluminum chloride	8-2.3 μ	Sol	Hydrates studied	Lucchesi	JACS	78 (1956)	1347
	-	-	-					
AlCl ₃ .6H ₂ O	Aluminum chloride hexahydrate	325-1200	G					
	800-4000	S						
AlCl ₄ NO	Nitrosonium tetra chloroaluminate	800-2600	S, Sol	Freq	Miller	JCS	- (1957)	1369

AlF_4^{K}	Aluminium mono-fluoride	6670–8175 \AA°	G	Freq anal, Molecular constants	Maude	CJP	31 (1953)	1106
		—	G	Rotational analysis	Maude	CJP	32 (1954)	246
		—	G	Band study, Thermo	Barrow	TPS	52 (1956)	913
AlF_4	Aluminium (III)-fluoride complex anion	—	S	Freq, Struct	Peacock	JCS	— (1959)	2762
	Potassium aluminium fluoride	—	—	Freq	delattre	JCP	20 (1952)	1180
AlN_3O_9	Aluminium nitrate	0.8–2.3 μ 2–16 μ	Sol S	Solute effect on H_2O Spec	Collins Meloche	PR JMC	20 (1922) 6 (1958)	486 104
$\text{AlN}_3\text{O}_9 \cdot 9\text{H}_2\text{O}$	Aluminium nitrate nonahydrate	400–800	S	Variation of H_2O fundamentals with the nature of the hydrates	Iuccchesi	JACS	78 (1956)	1347
		300–880	S	Spec	Miller	SA	16 (1960)	135
AlO	Aluminium oxide	—	—	Morse potential Force constant, Bond distance Rot-vib coupling constants	Morse Badger	PR JCP	34 (1929) 2 (1934)	57 128
		—	—		Pekeris	PR	45 (1934)	98
	Aluminium monooxide	—	—	Rotational analysis	Largerquist	AP	12 (1957)	543
AlO_2Na	Sodium aluminate	410–1200	S	Assign	Kolesova	OS	6 (1959)	38
$\text{AlO}_8\text{S}_2\text{K}\cdot 12\text{H}_2\text{O}$	Potassium aluminium sulfate dodeca-hydrate	800–900	S	Band study, H bond	Fujita	JACS	78 (1956)	3963
Al_2C_2	Aluminium carbide	—	—	Freq, Thermo	Chupka	JPC	62 (1958)	611
$\text{Al}_2\text{C}_4\text{H}_8\text{Br}_6\text{O}_2$	Aluminium (III)-dioxane complex bromide	500–1500	S	Spec, Struct	Hendra	JCS	— (1960)	5105
$\text{Al}_2\text{C}_4\text{H}_{12}\text{Cl}_2$	Bis-dimethyl aluminium chloride	—	—	Spec, Assign	Hoffman	ZE	64 (1960)	616

1998

$\text{Al}_2\text{C}_6\text{H}_{18}$	Bis-trimethyl aluminium	-	-	Spec, Assign	Hoffman	ZE	64 (1960)	616
$\text{Al}_2\text{C}_8\text{H}_{20}\text{Cl}_2$	Bis-diethyl aluminium chloride	-	-	Spec, Assign	Hoffman	ZE	64 (1960)	616
$\text{Al}_2\text{C}_{12}\text{H}_{30}$	Bis-triethyl aluminium	-	-	Spec, Assign	Hoffman	ZE	64 (1960)	616
$\text{Al}_2\text{C}_{16}\text{H}_{36}\text{Cl}_2$	Bis-di-n-butyl aluminium chloride	-	-	Spec, Assign	Hoffman	ZE	64 (1960)	616
$\text{Al}_2\text{C}_{16}\text{H}_{36}\text{Cl}_2$	Bis-di-sec-butyl aluminium chloride	-	-	Spec, Assign	Hoffman	ZE	64 (1960)	616
$\text{Al}_2\text{C}_{16}\text{H}_{42}$	Bis-tripropyl aluminium	-	-	Spec, Assign	Hoffman	ZE	64 (1960)	616
$\text{Al}_2\text{C}_{24}\text{H}_{54}$	Bis-tributyl aluminium	-	-	Spec, Assign	Hoffman	ZE	64 (1960)	616
$\text{Al}_2\text{C}_{24}\text{H}_{54}$	Bis-tri-sec-butyl aluminium	-	-	Spec, Assign	Hoffman	ZE	64 (1960)	616
$\text{Al}_2\text{C}_{48}\text{H}_{92}\text{O}_8$	Aluminium dilaurate	2-16 μ	Sol	Struct, Assign	Leger	CJC	35 (1957)	799
$\text{Al}_2\text{H}_8\text{N}_2\text{O}_1\text{S}$	Ammonium aluminium sulfate	•779-2.82 μ	Sol	Transmission curves	Nichols	PR	1 (1893)	1
Al_2Br_6	Aluminium hexabromide	-	-	Freq	Bell	PRS	183 (1945)	357
Al_2Cl_6	Aluminium hexachloride	325-1200	G	Absorp and emiss freq, Force const	Klemperer	JCP	183 (1945) 24 (1955)	357
Al_2I_6	Aluminium hexaiodide	-	-	Freq	Bell	PRS	183 (1945)	357
Al_2O_3	Aluminium oxide	-	S	IR, Emissivity Force constant, Bond distance	Pirani Wu	JIS PR	16 (1939) 71 (1947)	372 118
$0.2-10 \mu$	S	-	-	Al soap study Spec	Gray Hass	JPCC JOSA	53 (1949) 39 (1949)	23 532

$\text{Al}_2\text{O}_3 \cdot \text{H}_2\text{O}$	Aluminium oxide monohydrate	1.5-15/ μ	-	Reflecting surfaces Reflect and trans spec	Haas Harris	JOSA JOSA	45 (1955) 45 (1955)	945 27
$\text{Al}_2\text{O}_3 \cdot \text{H}_2\text{O}$	α -Alumina mono-hydrate	2.5-3.5/ μ	S	Spec	Glemser	ZAUU	297 (1958)	175
$\text{Al}_2\text{O}_3 \cdot \text{H}_2\text{O}$	β -Alumina mono-hydrate	2.5-3.5/ μ	S	Spec	Frederickson	AC	26 (1954)	1883
$\text{Al}_2\text{O}_3 \cdot \text{H}_2\text{O}$	Alumina trihydrate (α and β)	2.5-3.5/ μ	S	Spec	Frederickson	AC	26 (1954)	1883
$\text{Al}_2\text{O}_{12}\text{S}_3$	Aluminium sulphate	0.8-2.3/ μ	Sol	Solute effect on H_2O spec	Plyler	JCP	2 (1922)	470
		2.8-6.1/ μ	Sol	Spec, Assign	Collins	PR	20 (1934)	486
		7.5-10.5/ μ	S	Spec, Quant. anal	Tai	AC	29 (1957)	1430
		300-880	S	Spec	Miller	SA	16 (1960)	135
$\text{Al}_2\text{O}_{12}\text{S}_3 \cdot x\text{H}_2\text{O}$	Aluminium sulphate polyhydrate	2-16/ μ	S	Spec	Miller	AC	24 (1952)	1253
$\text{Al}_2\text{O}_{12}\text{Cr}_3$	Aluminium chromate	220-3500	S	Spec	Duval	ZE	64 (1960)	582
$\text{Al}_2\text{O}_{12}\text{Se}_3$	Aluminium selenate	2-15/ μ	S	Table, Group freq, Assign	Corbridge	JCS	- (1954)	493
$\text{Al}_4\text{O}_{36}\text{P}_{12}$	Tetraaluminium tetrametaphosphate	-	S	Freq, Struct	Steger	ZAUU	294 (1958)	1
AlSb	Aluminium antimonide	-	-	Spec	Briggs	PR	93 (1954)	912
		-	S	Spec	Blunt	PR	94 (1954)	1431
		-	S	Spec	Blunt	PR	96 (1954)	578
<hr/>								
<u>Al COMPOUNDS</u>		Force constant, Freq,			Jones	JCP	23 (1955)	2105
$\text{AlC}_6\text{H}_6\text{O}_2\text{Na}$	Sodium amersayl acetate	400-3000	S					

AmCl ₂ O ₁₀	Americium perchlorate	800-1600	Sol	Spec, Force constant	Jones	JCP	21 (1953)	542
AmF ₃	Americium trifluoride	3500-20000A	S	Spec	Asprey	JINC	7 (1958)	27
AmF ₄	Americium tetrafluoride	3500-20000A	S	Spec	Asprey	JINC	7 (1958)	27

At COMPOUNDS

AtH	Astatine hydride	-	-	FC, Bond study FC, Bond study	Platt Shelline	JCP JCP	18 (1950) 18 (1950)	932 927
AtBr	Astatine bromide	-	-	Freq	Clark	TFS	33 (1937)	1398
AtCl	Astatine chloride	-	-	Freq, Calc.	Clark	TFS	33 (1937)	1398
AtF	Astatine fluoride	-	-	Freq	Clark	TFS	33 (1937)	1398
At ₂	Astatine	-	-	Freq	Clark	TFS	33 (1937)	1398

Au COMPOUNDS

AuCN	Gold cyanide	2261 2261	S S	Freq Freq Absorption	Jones Penneman Penneman	JCP JCP JCP	22 (1954) 24 (1956) 28 (1958)	965 293 169
AuC ₂ N ₂	Gold dicyanide ion	2140 2147 250-2200	Sol Sol S	Freq Freq, I Spec, Assign	Jones Penneman Hidalgo	JCP JCP ARS	22 (1954) 24 (1956) 56A (1960)	965 293 9
AuC ₂ N ₂ K	Gold(I)cyanide complex potassium salt	400-4000 2140 2000-3000 250-2200	S S,Sol S -	Spec, Assign Freq Spec, FC, Freq, Struct Assign	Jones Jones Jones Hidalgo	JCP JCP JCP CPR	21 (1953) 22 (1954) 27 (1957) 249 (1959)	1891 965 468 233
AuC ₄ H ₈ C ₁ S ₂	Gold(III)-dithiane complex	500-1500	S	Spec, Struct	Hendra	JCS	- (1960)	5105

AuC_4N_4	Gold(II) tetracyanide complex ion	250-2200	S	Spec, Assign	Hidalgo	ARS	56A (1960)	9
$\text{AuC}_4\text{N}_4\text{K}$	Gold(III) cyanide complex potassium salt	250-2200	-	Assign	Hidalgo	CPR	249 (1959)	233
$\text{AuC}_8\text{H}_{14}\text{N}_4\text{O}_4$	Gold(I) bisdimethylglyoxime ion	-	S	Struct, Spec	Rundle	JACS	76 (1954)	3101
AuH	Gold hydride	-	-	Mol. Const. FC, Bond study	Pekeris Platt Sheline	PR JCP JCP	45 (1934) 18 (1950) 18 (1950)	98 932 927
AuF_4	Gold(III) fluoride complex ion	-	S	Freq, Struct	Peacock	JCS	- (1959)	2762
Ba COMPOUNDS								
$\text{Ba}_1/2\text{C}_9\text{H}_{13}\text{O}_7 \cdot \text{H}_2\text{O}$	Barium-1,2-o-isopropylidene-D-glucofuranuronate	2-15 μ	S	Spec	Tipson	JRNB	62 (1959)	257
$\text{BaCH}_3\text{O}_3\text{P}$	Barium methyl phosphonate	759-1421	S	I, Freq	Corbridge	JCS	- (1954)	4555
BaCO_3	Barium carbonate	2-16 μ	-	Freq, Assign	Schaefer Miller Underwood Meloche Harkins Miller	TFS AC JACS JINC AC SA	25 (1929) 24 (1952) 77 (1955) 6 (1958) 31 (1959) 16 (1960)	841 1253 317 104 541 135
$\text{BaC}^{12}\text{O}_3$	Barium carbonate (isotopic)	11.3-12.5 μ	S	Intermol. coupling Spec, FC	Decius Decius	JCP JCP	22 (1954) 23 (1955)	1946 1290
$\text{BaC}^{13}\text{O}_3$	Barium carbonate (isotopic)	840 11.3-12.5 μ	S	Intermol. Coupling Spec, FC	Decius Decius	JCP JCP	22 (1954) 23 (1955)	1946 1290

2002

$\text{BaC}_2\text{F}_6\text{O}_2\text{S}_2$	Barium bis trifluoro-methane sulfonate	$7\text{-}10\ \mu$	-	Group freq Assign	Hazzeldine Hazzeldine	JCS JCS	- (1954) (1955)	4228 2901
BaC_2N	Barium cyanide	$4\text{-}2\text{-}5\cdot4\ \mu$ $300\text{-}880$	Sol S	Spec Spec	Gordy Miller	JCP SA	$\frac{3}{16}$ (1935) (1960)	664 135
$\text{BaC}_2\text{N}_2\text{O}_2\cdot 2\text{H}_2\text{O}$	Barium thiocyanate dihydrate	$2\text{-}16\ \mu$ $300\text{-}880$	S S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
$\text{BaC}_2\text{N}_2\text{S}_2\cdot 2\text{H}_2\text{O}$	Barium iso-thiocyanate dihydrate	-	S	Freq, Assign	Mitchell	JCS	- (1960)	1912
$\text{BaC}_2\text{O}_4\cdot\text{H}_2\text{O}$	Barium oxalate monohydrate	$343\text{-}3500$	S	Assign	Schmelz	SA	9 (1957)	51
$\text{BaC}_4\text{H}_{12}\text{O}_4\text{P}_2\cdot \text{XH}_2\text{O}$	Barium bis-dimethyl phosphinate x hydrate	$735\text{-}3200$	S	I, Group freq	Corbridge	JCS	- (1954)	4555
$\text{BaC}_4\text{H}_{12}\text{O}_8\text{P}_2$	Dimethyl barium phosphate	-	-	Spec	Maarsen	RTC	76 (1957)	724
$\text{BaC}_6\text{H}_3\text{N}_5\text{O}_2$	Xanthopterin barium salt	$8\text{-}15\ \mu$	-	Spec	Crowe	APS	8 (1954)	57
$\text{BaC}_6\text{Cl}_6\text{O}_4$	Barium trichloro-acrylate	$700\text{-}1600$	-	Spec	Dival	RTC	69 (1950)	391
$\text{BaC}_8\text{H}_{20}\text{O}_8\text{P}_2$	Diethyl barium phosphate	-	-	Spec	Maarsen	RTC	76 (1957)	724
$\text{BaC}_9\text{H}_{12}\text{N}_2\text{O}_1\text{P}_2$	Barium uridine-5 diphosphate (natural)	$2\text{-}15\cdot5\ \mu$	S	Spec, Ident	Anand	JCS	- (1952)	3665
$\text{BaC}_9\text{H}_{12}\text{N}_2\text{O}_1\text{P}_2$	Barium uridine-5 pyrophosphate (synthetic)	$2\text{-}15\cdot5\ \mu$	S	Spec, Ident	Anand	JCS	- (1952)	3665

$\text{BaC}_{10}\text{H}_{12}\text{N}_2\text{O}_8\text{Na}_2 \cdot 1.5\text{H}_2\text{O}$	Barium(II)-ethylene diamine tetra acetic acid complex (sodium salt)-1.5 hydrate	800-3000	S	Spec., Freq.	Sawyer	JACS	80 (1958)	1597
$\text{BaC}_{12}\text{H}_8\text{Cl}_2\text{N}_2\text{O}_6\text{S}_2$	Barium-o-chlorobenzene diazosulfonate	600-1800	S	Spec., Assign	LeFevre	AJC	6 (1953)	341
$\text{BaC}_{12}\text{H}_8\text{Cl}_2\text{N}_2\text{O}_6\text{S}_2$	Barium-p-chloro-benzenediazosulfonate	600-1800	S	Spec., Assign	LeFevre	AJC	6 (1953)	341
$\text{BaC}_{12}\text{H}_{28}\text{O}_8\text{P}_2$	Di-i-propyl barium phosphate	-	-	Spec	Maarsen	RFC	76 (1957)	724
$\text{BaC}_{16}\text{H}_3\text{O}_4$	n-Octanoic acid barium soap	7-9 μ	S	Qual. Anal.	Meiklejohn	AC	29 (1957)	329
$\text{BaC}_{16}\text{H}_3\text{O}_8\text{P}_2$	Barium-di-n-hutyl phosphate	714-5000	S	Interaction study	Smith	JINC	9 (1959)	150
$\text{BaC}_{18}\text{H}_3\text{O}_4$	n-Monoic acid barium soap	7-9 μ	S	Qual. Anal.	Meiklejohn	AC	29 (1957)	329
$\text{BaC}_{20}\text{H}_3\text{O}_4$	n-Decanoic acid barium soap	7-9 μ	S	Qual. Anal.	Meiklejohn	AC	29 (1957)	329
$\text{BaC}_{22}\text{H}_{42}\text{O}_4$	n-Hendecanoic acid barium soap	7-9 μ	S	Qual. Anal.	Meiklejohn	AC	29 (1957)	329
$\text{BaC}_{24}\text{H}_{20}\text{N}_2\text{O}_6\text{S}_2$	Diphenylamine p-sulfonic acid, barium salt	2-16 μ	S	Spec	Hunt	AC	22 (1950)	1478
$\text{BaC}_{24}\text{H}_{46}\text{O}_4$	n-Dodecanoic acid, barium soap	7-9 μ	S	Qual. Anal.	Meiklejohn	AC	29 (1957)	329
$\text{BaC}_{24}\text{H}_{50}\text{O}_6\text{S}_2$	Ba Dodecane-1-sulfonate	2-15.6 μ	S	Assign, Ident	Jenkins	AC	31 (1959)	1056

2004

BaC ₂₆ H ₅₀ O ₄	n-Tridecanoic acid, barium soap	7-9 μ	S	Qual. Anal	Meiklejohn	AC	29 (1957)	329
BaC ₂₈ H ₅₄ O ₄	n-Tetradecanoic acid barium soap	7-9 μ	S	Qual. Anal	Meiklejohn	AC	29 (1957)	329
BaC ₃₀ H ₅₈ O ₄	n-Pentadecanoic acid barium soap	7-9 μ	S	Qual. Anal	Meiklejohn	AC	29 (1957)	329
BaC ₃₂ H ₆₂ O ₄	n-Hexadecanoic barium soap	7-9 μ	S	Qual. Anal	Meiklejohn	AC	29 (1957)	329
BaC ₃₄ H ₆₆ O ₄	n-Heptanoic acid barium soap	7-9 μ	S	Qual. Anal	Meiklejohn	AC	29 (1957)	329
BaC ₃₆ H ₇₀ O ₄	n-Octadecanoic acid barium soap	7-9 μ 6-8 μ	S	Qual. Anal Spec	Meiklejohn Ellis	AC N	29 (1957) 181 (1958)	329 181
BaC ₃₈ H ₇₄ O ₄	n-Nonadecanoic acid barium soap	7-9 μ	S	Qual. Anal	Meiklejohn	AC	29 (1957)	329
BaC ₄₀ H ₇₈ O ₄	n-Eicosanoic acid barium soap	7-9 μ	S	Qual. Anal	Meiklejohn	AC	29 (1957)	329
BaC ₄₄ H ₈₆ O ₄	n-Docosanoic acid barium soap	7-9 μ	S	Qual. Anal	Meiklejohn	AC	29 (1957)	329
BaC ₄₈ H ₄₂ C ₂ N ₈ O ₈ ·4H ₂ O	Barium (II)-1:10- phenanthroline complex perchlorate tetrahydrate	600-2000	S	Spec	Schilt	JINC	9 (1959)	211
BaC ₄₈ H ₉₄ O ₄	n-Tetracosanoic acid barium soap	7-9 μ	S	Qual. Anal	Meiklejohn	AC	29 (1957)	329
BaC ₅₂ H ₁₀₄ O ₄	n-Hexacosanoic acid barium soap	7-9 μ	S	Qual. Anal	Meiklejohn	AC	29 (1957)	329
BaC ₅₆ H ₁₁₀ O ₄	n-Octacosanoic acid barium soap	7-9 μ	S	Qual. Anal	Meiklejohn	AC	29 (1957)	329
BaC _— H _— O _—	—	—	—	—	Meiklejohn	AC	29 (1957)	329

BaC ₆₀ H ₁₁₈ O ₄	n-Triacanthoic acid barium soap	7-9 μ	S	Qual. Anal	Meiklejohn	AC	29 (1957)	329
BaC ₆₈ H ₁₃₄ O ₄	n-Tetratriacanthoic acid barium soap	7-9 μ	S	Qual. Anal	Meiklejohn	AC	29 (1957)	329
BaC ₇₂ H ₁₄₂ O ₄	n-Hexatricanthoic acid barium soap	7-9 μ	S	Qual. Anal	Meiklejohn	AC	29 (1957)	329
BaC ₈₁ H ₁₃₁ O ₁₂ P ₃	Barium vitamin D ₃ phosphate	-	S	I	Milas	JACS	77 (1955)	1640
BaH	Barium hydride	-	-	Freq G	Watson Koontz	PR	43 (1933) 48 (1935)	9 937
		-	-	Freq, Mol. Const. Anal	Watson	PR	47 (1935)	213
		-	-	FC	Flatt	JCP	18 (1950)	932
		-	-	FC	Sheline	JCP	18 (1950)	927
BaHPO ₃	Barium ortho- phosphate	2-15 μ	S	Group freq, I, Assign, Spec	Corbridge	JCS	- (1954)	493
BaHPO ₄	Barium acid phosphate	2-16 μ 600-4000 300-880 420-3600	S	Spec Group study Spec Spec, H bond	Miller Braunholtz Miller Ryskin	AC JCS SA OS	24 (1952) - (1959) 16 (1960) 8 (1960)	1253 868 135 606
BaH ₂ NO ₃ P ₂ H ₂ O	Barium monoamido phosphate mono- hydrate	-	-	Bond study	Steiger	ZE	61 (1957)	1004
BaH ₃ N ₃ O ₆ P ₃ Na _{1.5} H ₂ O	Sodium barium triphospho- nitrilate 1.5 hydrate	823-3150	S	I, Group freq	Corbridge	JCS	- (1954)	4555
BaH ₄ O ₈ P ₂	Barium phosphinate	2-15 μ	S	Group freq, I, Assign	Corbridge	JCS	- (1954)	4555
BaH ₆ N ₂ O ₆ P ₂	Barium biphosphora- medate	-	-	Bond study	Steiger	ZE	61 (1957)	1004
BaCl ₂ ·2H ₂ O	Barium chloride dihydrate	2.5 μ 2-16 μ	S	Absorption Spec	Lyon Miller	PR AC	61 (1942) 24 (1952)	482 1253

2006

$\text{BaCl}_2 \cdot 6 \cdot \text{H}_2\text{O}$	Barium chloride monohydrate	300-880	S	Spec	Miller	SA	16 (1960)	135
$\text{BaF}_2 \cdot \text{P}$	Barium mono-fluoro-phosphate	745-1163	S	I, Group freq	Corbridge	JCS	- (1954)	4555
BaF_2	Barium fluoride	-	-	Polarizability theory Properties	Szigeti Ballard Friedel	TFS JOSA AC	45 (1949) 42 (1952) 29 (1957)	155 684 1362
$\text{BaN}_2 \cdot 2$	Barium hypo-nitrite	400-4000	S	Freq	LeFevre	AJC	10 (1957)	361
$\text{BaN}_2 \cdot 4 \cdot \text{H}_2\text{O}$	Barium nitrite monohydrate	2-16 μ 81-3500	S	Spec Spec, Struct Spec	Miller Tramer Miller	AC CPR SA	24 (1952) 249 (1959) 16 (1960)	1253 392 1355
$\text{BaN}_2 \cdot 6$	Barium nitrate	2-16 μ	S	Spec, Freq, Qual. Anal	Miller	AC	24 (1952)	1253
		2-16 μ 700-1600	S	Spec Freq, Assign Spec	Meloche Ferraro Miller	JINC JMS SA	6 (1958) 4 (1960) 16 (1960)	104 99 135
BaN_6	Barium azide	635-3100	S	Freq, FC	Gray	TFS	53 (1957)	901
BaO	Barium oxide	0.5-2.5 μ	S	Spec	Dash	PR	92 (1953)	68
BaO_2	Barium dioxide	2-16 μ	S	Spec, Struct	Brame	JINC	4 (1957)	90
$\text{BaO}_3 \cdot \text{S}$	Barium sulfite	2-16 μ 300-880	S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 1355
$\text{BaO}_3 \cdot \text{SPNa} \cdot 8\text{H}_2\text{O}$	Barium sodium phosphoromono-thionate octahydrate	2-15 μ	S	Spec, I, Group freq	Corbridge	JCS	- (1954)	4555
$\text{BaO}_3 \cdot \text{S}_2 \cdot \text{H}_2\text{O}$	Barium thioulate monohydrate	2-16 μ 300-880	S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 1355

RaO ₃ ^{T1}	Barium Titanate	S 2-33 μ 1-12 μ 0.6-8 μ 0.5-25 μ -	S S S S -	Phase change Pyroelectric effect Transmission Temp. effect on spec	Field Mara Hilsum Chynoweth Abramovitch Yatsenko	PR PR JOSA JAP CJC IANS	72 (1947) 96 (1954) 45 (1955) 27 (1956) 36 (1958) 24 (1960)	1119 801 771 78 151 1308
BaO ₄ ^S	Barium sulfate	S 5-11 μ 0.6-9.0 μ -	S S -	Freq Emission of Powd. Film Refr. Ind. Particle size by IR Selection rule Interpretation of spec	Hollaender Pfund Pfund Bailey Couture Duval Hunt Hunt Duval Ramas Meloche Harkins Miller	PR JOSA JOSA IEC JCP CPR AC AC CPR PIAS A391 JINC AC SA	34 (1929) 23 (1933) 26 (1936) 18 (1946) 15 (1947) 227 (1948) 22 (1950) 25 (1953) 239 (1954) (1954) 6 (1958) 31 (1959) 16 (1960)	994 270 230A 365 1532 1153 1478 1169 249 81 104 541 135
BaO ₄ ^B	Barium metaborate	680-1420	S	Spec., Struct	Duval	JOSA	44 (1954)	261
BaO ₄ ^{Cr}	Barium chromate	2-16 μ 290-650	S	Spec Assign	Miller Duval	AC CPR	24 (1952) 239 (1954)	1253 249
BaO ₄ ^{Mo}	Barium molybdate	290-650	S	Assign	Duval	CPR	239 (1954)	249
BaO ₄ ^{Se}	Barium selenate	290-650 220-2500	S	Assign Spec., Struct	Duval Duval	CPR CPR	239 (1954) ZE 64 (1960)	249 582
BaO ₈ ^{Mn₂}	Barium permanganate	2-16 μ	S	Spec	Miller	AC	24 (1952)	1253
Ba ₂ C ₁₀ H ₁₂ N ₂ ^P ₁ ₂	Barium thymidine- β , β -diphosphate	-	-	Ident	Dekker	JCS	- (1953)	947
Ba ₂ C ₁₀ H ₁₂ N ₂ ^P ₁ ₂	Adenosine triphosphate dibarium salt	8.5-10.5 μ	S	Band freq	Schwarz	APS	6 (1952)	15

2008

$\text{Ba}_2\text{H}_4\text{N}_0\text{P}_4 \cdot 2\text{H}_2\text{O}$	Dibarium tetrephospho-nitrilate dihydrate	796-3400	S	I, Group freq	Corbridge	JCS	- (1954) 4555
$\text{Ba}_2\text{O}_6\text{P}_2$	Dibarium hypophosphate	2-15 μ	S	Spec, I, Group freq	Corbridge	JCS	- (1954) 4555
$\text{Ba}_2\text{O}_7\text{P}_2$	Dibarium pyrophosphate	2-15 μ	S	Spec, Group freq, I, Assign	Corbridge	JCS	- (1954) 493
$\text{Ba}_2\text{O}_8\text{P}_2\text{H}_2\text{O}$	Dibarium peroxydiphosphate \times hydrate	730-3250	S	I, Group freq	Corbridge	JCS	- (1954) 4555
$\text{Ba}_2\text{O}_{12}\text{P}_4 \cdot 4\text{H}_2\text{O}$	Dibarium tetra-metaphosphate tetrahydrate	2-15 μ	S	Spec, Group freq, I	Corbridge	JCS	- (1954) 493
$\text{Ba}_3\text{C}_{20}\text{H}_{24}\text{N}_{10} \cdot 0_{20}\text{P}_4$	Adenosine diphosphate tribarium salt	9-11 μ	S	Band freq	Schwarz	APS	6 (1952) 15
$\text{Ba}_3\text{O}_8\text{P}_2$	Orthophosphate barium	2-15 μ 290-650	S	Group freq, I, Assign Assign Spec	Corbridge Duval Meloche	JCS CPR JINC	- (1954) 493 239 (1954) 6 (1958) 249 104
$\text{Ba}_3\text{O}_{18}\text{P}_6 \cdot 4\text{H}_2\text{O}$	Tribarium trimetaphosphate tetrahydrate	2-15 μ	S	Spec, Group freq	Corbridge	JCS	- (1954) 493

Be COMPOUNDS

$\text{BeCO}_7 \cdot 5\text{H}_2\text{O}$	Basic beryllium carbonate	2-16 μ	S	Spec	Meloche	JINC	6 (1958) 104
BeC_2	Beryllium carbide	-	-	Freq, Thermo.	Chupka	JPC	62 (1958) 611
$\text{BeC}_{10}\text{H}_{14}\text{O}_4$	Beryllium acetyl acetone +	625-5000	S	Spec, Struct	West	JINC	5 (1958) 295
$\text{BeC}_{14}\text{H}_{10}\text{O}_4$	Beryllium tetracarbonate	-	S-O-L	Band freq	Brayant	JOC	19 (1954) 1089

$\text{BeC}_{14}\text{H}_{10}^0$	Beryllium tropolonate	-	Sol	Band freq	Bryant	JOC	19	(1954)	1889
BeH	Beryllium hydride	-	-	-	-type doubling theory	Mulliken	38	(1931)	85
		-	-	-	Mol. Const.	Pekeris	45	(1934)	98
		-	-	-	Bond distance	Wu	71	(1947)	118
		-	-	-	FC	Platt	18	(1950)	932
		-	-	-	FC	Sheline	18	(1950)	927
		-	-	-	FC	Mitra	22	(1954)	564
BeH^+	Beryllium hydride ion	-	-	-	FC, Bond distance	Badger	JCP	2	(1934)
		-	-	-	Mol. Const.	Pekeris	PR	45	(1934)
		-	-	-	Struct	Mulliken	JCP	1	(1933)
BeH_2	Beryllium hydride	-	-	-	Band freq	Fox	JCS	-	(1954)
$\text{BeH}_8\text{F}_4\text{N}_2$	Diammonium beryllium tetrafluoride	-	S	-	-	-	-	-	1798
BeH_8B_2	Beryllium borohydride	-	-	-	Freq	Price, Price	JCP	17	(1949)
		-	-	-	Spec	Buchler	JCP	17	(1949)
BeCl_2	Beryllium chloride	200-2000	G	Spec, Freq, FC	-	-	JCP	19	(1958)
BeF	Beryllium fluoride	-	-	-	FC, Bond distance	Badger	JCP	2	(1934)
		-	-	-	Mol. Const.	Pekeris	PR	45	(1934)
		-	-	-	Potential function	Linnett	TFS	36	(1940)
		-	-	-	FC, Bond distance	Clark	TFS	37	(1941)
		-	-	-	-	Linnett	TFS	38	(1942)
BeF_2	Beryllium fluoride	700-2300	G	Spec, Freq, FC	Buchler	JCP	29	(1958)	121
BeF_4^{2-}	Beryllium (II) fluoride complex ion	-	S	Struct, Freq	Peacock	JCS	-	(1959)	2762
BeF_4^{K}	Beryllium (II) fluoride complex (Potassium salt)	300-1500	S	Spec	Iecomte	CPR	249	(1949)	1991
BeO	Beryllium oxide	1-8 μ	S	Spec, Coblenz	Coblenz	BBS	5	(1908)	159
		-	-	Quantum mechanics,	Morse	PR	34	(1929)	57
				Morse potential					

2010

$\text{BeO}_4\text{Se} \cdot 4\text{H}_2\text{O}$	Beryllium sulphate Beryllium selenate tetrahydrate	650-290 220-3500	S S	- Interpretation of spec Assign Spec, Struct	Badger Pekeris Clark Linnett Gordy Wu Duval Duval	JCP PR TFS TFS JCP PR CPR CPR	2 ('1934) 45 ('1934) 37 ('1941) 38 ('1942) 14 ('1946) 71 ('1947) 227 ('1948) 239 ('1954)	128 98 299 1 305 118 1153 249
<u>Bi COMPOUNDS</u>								
BiC_3H_9	Trimethyl bismuthine	- 1193	- -	- FC, Bond distance Theory, FC CH_3 freqs	Gordy Sheline Sheppard	JCP JCP TFS	14 ('1946) 18 ('1950) 51 ('1955)	305 602 1465
$\text{BiC}_8\text{H}_{18}\text{O}_5\text{P}$	Bismethyl-di-n-butyl phosphate	714-5000	S	Interaction study	Smith	JINC	9 ('1959)	150
$\text{BiC}_{10}\text{H}_{12}\text{N}_2\text{O}_8$	Bismuth (III)-ethylene diaminetetraacetic acid	800-1800	S	Spec, Bonding	Donald	JACS	82 ('1960)	4191
$\text{BiC}_{18}\text{H}_{15}$	Triphenyl bismuthine	1056 625-900	sol sol	Substitution effect Substitution effect	Kross Margoshes	JACS SA	77 ('1955) 7 ('1955)	5858 14
$\text{BiC}_{27}\text{H}_{18}\text{N}_2\text{O}_3$	Bismuth 8-quino-linolate	2-16 μ	S	Spec	Stone	JACS	76 ('1954)	4997
$\text{BiC}_{27}\text{H}_{18}\text{N}_2\text{O}_3 \cdot \text{H}_2\text{O}$	Bismuth 8-quino-linolate monohydrate	2-16 μ	S	Spec	Stone	JACS	76 ('1954)	4997

$\text{BiC}_3\text{H}_{24}\text{Cl}_1\text{N}_6\text{O}_{12}$	Bismuth-1:10 phenanthroline complex perchlorate	600-2000	S	Spec, Assign	Schilt	JINC	9 (1959)	211
BiH	Bismuth hydride	-	-	Mol. Const.	Pekeris	PR	45 (1934)	98
		-	-	FC, Bond distances	Platt	JCP	18 (1950)	932
		-	-	FC, Bond distances	Sheeline	JCP	18 (1950)	927
BiClO	Bismuth oxychloride	300-880	S	Spec	Miller	SA	16 (1960)	135
BiCl ₃	Bismuth chloride	-	-	Calc. of vibration freq	Howard	JCP	2 (1934)	630
		-	-	FC, Bond distances	Gord	JCP	14 (1946)	305
		3-1.5 μ	-	Mol. Consts.	Happ	ZP	147 (1957)	567
		300-880	S	Spec	Miller	SA	16 (1960)	135
BiN	Bismuth nitride	-	-	Freq	Clark	TFS	33 (1937)	1390
BiNO ₄ •H ₂ O	Bismuth subnitrate monohydrate	2-16 μ 300-880	S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
BiN ₃ O ₉	Bismuth(III) nitrate	2-16 μ	S	Spec	Meloche	JINC	6 (1958)	104
BiN ₃ O ₉ •5H ₂ O	Bismuth nitrate pentahydrate	300-880	S	Spec	Miller	SA	16 (1960)	135
BiO ₃ Na	Sodium bismuthate	300-880	S	Spec	Miller	SA	16 (1960)	135
BiO ₄ P	Bismuth phosphate (anhydrous)	2-16 μ	S	Spec	Meloche	JINC	6 (1958)	104
BiP	Bismuth phosphide	-	-	Freq	Clark	TFS	33 (1937)	1390
Bi ₂ CO ₅	Bismuth subcarbonate	2-16 μ	S	Spec	Hunt	AC	22 (1950)	1478
Bi ₂ O ₁₂ S ₃	Bismuth sulphate	300-880	S	Spec	Miller	SA	16 (1960)	135
Bi ₂ S ₃	Bismuth sulphide	.8-2 μ	S	Photoelectric props.	Coblentz	BBS	15 (1919)	231
Bi ₃ O ₈ P ₂	Bismuth orthophosphate	650-290	S	Assign	Duval	CPR	239 (1954)	249
BiAs	Bismuth arsenide	-	-	Freq	Clark	TFS	33 (1937)	1390

2012

BiSb	Bismuth antimonide	-	-	Freq	Clark	TFS	33 (1937)	1390
<u>Ca COMPOUNDS</u>								
$\frac{1}{2}\text{Ca}_2\text{C}_9\text{H}_{13}\text{O}_7 \cdot 2\text{H}_2\text{O}$	Calcium 1-2-O-isopropylidene-L-idoformuronate-dihydrate	2-15 μ	S	Spec	Tipson	JRNB	62 (1959)	257
$\text{CaCH}_3\text{O}_3\text{P} \cdot 2\text{H}_2\text{O}$	Calcium methyl phosphonate dihydrate	768-3350	-	I, Freq	Corbridge	JCS	- (1954)	4555
CaCO_3	Calcium carbonate	3-5 μ - 2-16 μ 8-15 μ - - 11-12.5 μ - 1-22 μ 2-16 μ 2-15 μ 300-880	S - S S S - S S S S S	Spec, Fine struct Freq, Assign Spec Spec Quant. Anal Anal Spec Usage Assign Spec Spec Spec	Randall Schaefer Hunt Louisfert Kuentzel Kuentzel Underwood Wiberly Sakseña Meloche Harkins Miller	PR TFS AC CPR AC AC JACS AC PIAS JINC AC SA	31 (1928) 25 (1929) 22 (1950) 235 (1952) 287 (1954) 434A (1954) 27 (1955) 77 (1955) 29 (1957) 30 (1949) 6 (1958) 31 (1959) 16 (1960)	1131A 841 1478 287 434A 301 317 210 128 104 541 135
$\text{CaC}_2\text{O}_4 \cdot \text{H}_2\text{O}$	Calcium oxalate monohydrate	2-16 μ 305-3400	S	Spec Assign	Hunt Schmetz	AC SA	22 (1950) 9 (1957)	1478 51
$\text{CaC}_4\text{H}_{12}\text{O}_4\text{P}_2 \cdot x\text{H}_2\text{O}$	Calcium bisdimethyl phosphinate hydrate	738-3030	S	I	Corbridge	JCS	- (1954)	4555
$\text{CaC}_6\text{Cl}_6\text{O}_4$	Calcium trichloro-acrylate	1600-700	-	Spec	Duval	RTC	69 (1950)	381

$\text{CaC}_{10}\text{H}_{12}\text{N}_2\text{O}_8$	Ethylene diamine tetracetic acid	800–3000	S	Spec, Freq	Sawyer	JACS	80 (1958)	1597
$\text{Na}_2\cdot 3\cdot 5\text{H}_2\text{O}$	monocalcium disodium salt 3.5 hydrate							
$\text{CaC}_{10}\text{H}_{12}\text{N}_2\text{O}_8\text{Na}_2\cdot 5\text{H}_2\text{O}$	Ethylenediamine tetracetic acid monocalcium disodium salt pentahydrate	800–3000	S	Spec, Freq	Sawyer	JACS	80 (1958)	1597
$\text{CaC}_{10}\text{H}_{14}\text{O}_4$	Calcium acetyl acetone	625–5000	S	Spec, Struct	West	JINC	5 (1958)	295
$\text{CaC}_{12}\text{H}_{18}\text{O}_4$	Calcium galacturonate	5.5–6.5 μ	S	Spec, Band freq	Vltce	AC	27 (1955)	557
$\text{CaC}_{18}\text{H}_{12}\text{N}_2\text{O}_2$	Calcium(II)-8-hydroxy-quinolate	8–15 μ	S	Spec Spec	Charles Charles	AC SA	25 (1953) 8 (1956)	530A 1
$\text{CaC}_{32}\text{H}_{62}\text{O}_4$	Calcium palmitate	650–4000	S	Spec	Kawano	NKZ	81 (1960)	1805
$\text{CaC}_{36}\text{H}_{70}\text{O}_4$	Calcium stearate	6–8 μ 650–4000	S	Spec Spec	Ellis Kawano	N NKZ	181 (1958) 81 (1960)	181 1805
$\text{CaC}_{48}\text{H}_{38}\text{Cl}_{12}\text{N}_8\text{O}_{11}$	Calcium(II)-1:10 phenanthroline complex per chlorate trihydrate	600–2000	S	Spec	Schiltt	JINC	9 (1959)	211
$\text{CaC}_{48}\text{H}_{78}\text{O}_4$	Calcium 9-(or 10)phenyl stearate	2–15 μ	S	Spec	Kagarise	JPC	59 (1955)	271
CaH	Calcium hydride	—	—	— type coupling theory Mol. Consts.	Milliken Pekeris Platt Sheline	PR PR JCP JCP	38 (1931) 45 (1934) 18 (1950) 18 (1950)	85 98 932 927
$\text{CaHO}_{3/2}\text{P}\cdot \text{H}_2\text{O}$	Calcium orthophosphate monohydrate	2–15 μ	S	Assign	Corbridge	JCS	— (1954)	493
CaHO_4^{P}	Calcium acid phosphate	2–16 μ 2–15 μ	S	Spec Assign	Hunt Corbridge	AC JCS	22 (1950) — (1954)	1478 493

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$\text{CaHO}_4\text{P}\cdot 2\text{H}_2\text{O}$	Calcium hydrogen phosphate dihydrate	2-16 μ 300-880	S S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
CaH_2O_2	Calcium hydroxide	1400-4500 -	- -	H bond, H bond	Rundle Petch	JCP PR	20 (1952) 99 (1955)	1487 1635
$\text{CaH}_2\text{O}_7\text{P}_2$	Calcium dihydrogen pyrophosphate	2-15 μ	S	Assign	Corbridge	JCS	- (1954)	493
$\text{CaH}_3\text{N}_3\text{O}_6\text{P}_3\text{Na}\cdot 4\text{H}_2\text{O}$	Sodium calcium triphosphonitrilate tetrahydrate	847-3200	S	I	Corbridge	JCS	- (1954)	4555
$\text{CaH}_4\text{O}_4\text{P}_2$	Calcium phosphinate	2-15 μ	S	I	Corbridge	JCS	- (1954)	493
$\text{CaH}_4\text{O}_8\text{P}_2$	Calcium biphosphate	2-15 μ	S	I	Corbridge	JCS	- (1954)	493
$\text{CaH}_4\text{O}_8\text{P}_2\cdot \text{H}_2\text{O}$	Calcium biphosphate monohydrate	300-880	S	Spec	Miller	SA	16 (1960)	135
$\text{CaH}_4\text{O}_8\text{P}_2\cdot \text{H}_2\text{O}$	Calcium diacid phosphate monohydrate	2-16 μ 2-15 μ	S S	Spec I	Miller Corbridge	AC JCS	24 (1952) - (1954)	1253 493
CaDO_4P	Calcium hydrogen phosphate-d ₁	420-3600	-	Spec	Ryskin	OS	7 (1960)	320
CaD_2O_2	Calcium hydroxide-d ₂	1400-4500	-	H bond, Spec	Rundle	JCP	20 (1952)	1487
CaCl_2	Calcium chloride	1-9 μ 2-4 μ 6.8-2.3 μ 2.6-3.5 μ	S Sol Sol Sol	Reflection spectra Spec Spec Spec	Coblenz Angstrom Collins Buswell	BBS PR PR JPC	2 (1907) 3 (1914) 20 (1922) 43 (1939)	457 47 486 1181
$\text{CaFO}_3\text{P}\cdot \text{X}_2\text{O}$	Calcium monofluorophosphate xhydrate	-	S	I	Corbridge	JCS	- (1954)	4555
CaF_2	Calcium fluoride	-	S	Spec	Pefilov	OS	6 (1959)	234
CaF_4	Calcium(II)-fluoride complex ion	-	S	Freq, Struct	Peacock	JCS	- (1959)	2762

$\text{CaI}_2\text{O}_6 \cdot 6\text{H}_2\text{O}$	Calcium iodate hexahydrate	2-16 μ 300-880	S S	Spec Spec	Miller Miller	AC SA	24 16	(1952) (1960)	1253 135
CaN_2O_6	Calcium nitrate	2-16 μ 700-1600	S S	Spec Freq, Assign	Miller Ferraro	AC JMS	24 4	(1952) (1960)	1253 99
$\text{CaN}_2\text{O}_6 \cdot 4\text{H}_2\text{O}$	Calcium nitrate tetrahydrate	700-1600 300-880	S S	Freq, Assign Spec	Ferraro Miller	JMS SA	4 16	(1960) (1960)	99 135
CaN_6	Calcium azide	3100-635	S	Freq, FC	Gray	TFS	53	(1957)	901
$\text{CaN}_6\text{O}_{12}\text{K}_2\text{Ni} \cdot 3\text{H}_2\text{O}$	Calciumdipotassium nickel nitrite trihydrate	-	-	Struct	Puget	CPR	250	(1960)	4141
CaO	Calcium oxide	1-8 μ - -	S - -	Spec Polarizability, Theory Freq Band study	Coblentz Szegedi Szegedi Hultin	BBS TFS PRS N	5 45 204 166	(1908) (1949) (1950) (1950)	159 155 51 190
CaO_2	Calcium dioxide	2-16 μ	S	Spec, Struct	Brame	JINC	4	(1957)	90
$\text{CaO}_2 \cdot 8\text{H}_2\text{O}$	Calcium dioxide octahydrate	2-16 μ	S	Spec, Struct	Brame	JINC	4	(1957)	90
$\text{CaO}_3\text{S} \cdot 2\text{H}_2\text{O}$	Calcium sulphite dihydrate	2-16 μ 300-880	S S	Spec Spec	Miller Miller	AC SA	24 16	(1952) (1960)	1253 135
$\text{CaO}_3\text{PSNa} \cdot 2\text{H}_2\text{O}$	Sodium calcium phosphoromonothioate α octahydrate	865-3040	S	I	Corbridge	JCS	-	(1954)	4555
CaO_4S	Calcium sulphate	1-8 μ 1-7.5 μ 0.5-7 μ 7.9 μ 2-16 μ 650-290 7.5-10.5 μ	S S S - S S	Spec Spec Relative reflectance Christiansen filter Spec Assign Spec	Coblentz Coblentz Hulbert Barnes Hunt Duval Tai	BBS BBS JOSA PR AC CPR AC	2 7 17 49 22 239 29	(1907) (1911) (1928) (1936) (1950) (1954) (1957)	457 619 23 732 1478 249 1430

$\text{CaO} \cdot \text{S} \cdot \frac{1}{2}\text{H}_2\text{O}$	Calcium sulphate $\frac{1}{2}$ hydrate	5-15/ μ	S	I, Freq	Lippincott	SA	16 (1960)	58
$\text{CaO} \cdot \text{S} \cdot 2\text{H}_2\text{O}$	Calcium sulphate dihydrate	2-16/ μ 0.6-2.1/ μ 2-16/ μ 300-880	S	Spec Dispersion Spec Spec	Miller Venderberg Melchke Miller	AC AC JINC SA	24 (1952) 26 (1954) 6 (1958) 16 (1960)	1253 428A 104 135
$\text{CaO} \cdot \text{S} \cdot x\text{H}_2\text{O}$	Calcium sulphate polyhydrate	2-15/ μ 300-880	S	Spec Spec	Hartkins Miller	AC SA	31 (1959) 16 (1960)	541 135
$\text{CaO} \cdot \text{B}_2$	Calcium metaborate	250-4000	-	Spec, Freq, Assign	Goubeau	ZPC	20 (1959)	15
$\text{CaO} \cdot \text{Se}_4$	Calcium selenate	650-290	S	Assign	Daval	CPK	239 (1954)	249
$\text{CaO} \cdot \text{Cr}_2 \cdot 3\text{H}_2\text{O}$	Calcium dichromate trihydrate	2-16/ μ	S	Spec	Miller	AC	24 (1952)	1253
$\text{CaO} \cdot \text{PNa} \cdot 3\text{H}_2\text{O}$	Calcium sodium trimesaphosphate trihydrate	2-15/ μ	S	I, Assign	Corbridge	JCS	- (1954)	493
$\text{Ca}_2\text{H}_4\text{N}_0\text{P}_4 \cdot 4\text{H}_2\text{O}$	Dicalcium tetra- phosphonitrilate tetrahydrate	798-3550	S	I	Corbridge	JCS	- (1954)	4555
$\text{Ca}_2\text{O}_6\text{P}_2 \cdot 2\text{H}_2\text{O}$	Dicalcium hypophosphate dihydrate	860-3100	S	I	Corbridge	JCS	- (1954)	4555
$\text{Ca}_2\text{O}_7\text{P}_2$	Dicalcium pyrophosphate	2-15/ μ	S	I, Assign	Corbridge	JCS	- (1954)	493
$\text{Ca}_2\text{O}_8\text{P}_2 \cdot x\text{H}_2\text{O}$	Dicalcium peroxy- diphosphate xhydrate	2-15/ μ	S	Spec, I	Corbridge	JCS	- (1954)	4555
$\text{Ca}_2\text{O}_{12}\text{P}_4 \cdot 5\text{H}_2\text{O}$	Dicalcium tetrameda- phosphate pentahydrate	2-15/ μ	S	I, Assign	Corbridge	JCS	- (1954)	493
$\text{Ca}_3\text{O}_8\text{H}_12\text{O}_{12}\text{P}_3$	Calcium vitamin D phosphate	-	S	I	Milas	JACS	77 (1955)	1640
$\text{Ca}_3\text{O}_8\text{P}_2$	Calcium orthophosphate	1-8/ μ	S	Spec	Coblenz	BBS	5 (1908)	159

$2-16 \mu$	S	Spec	Wilkes	AC	24 (1952)
$2-15 \mu$	S	I, Assign	Corbridge	JCS	- (1954)
650-296	S	Assign	Duval	CPR	493 (1954)
$2-16 \mu$	S	Spec	Meloche	JINC	249 (1954)
-	-	Freq	Pobegien	CPR	104 (1958)
300-880	S	Spec	Miller	SA	2220 (1959)
					135 (1960)
Ca_3As_2	Tricalcium ortho-arsenate	$2-16 \mu$	Miller	AC	24 (1952)
		300-886	Miller	SA	1253 (1960)
$\text{Ca}_{10}\text{CO}_{27}\text{P}_6$	Carbonatoapatite (synthetic)	$2-16 \mu$	Romo	JACS	135 (1954)
		-			3924
<hr/>					
<u>Cb COMPOUNDS</u>					
CbO	Columbium oxide	-	G	Spec	Rao
					LJP
					27 (1953)
					399
<hr/>					
<u>Cd COMPOUNDS</u>					
CdCO_3	Cadmium carbonate	$2-16 \mu$	S	Spec	Meloche
		300-886	S	Spec	Miller
CdC_2H_6	Dimethyl cadmium	-	-	Assign	JINC
		-	-	FC	SA
$\text{CaC}_3\text{H}_7\text{Cl}_2\text{NO}$	Cadmium(II)-methyl acetamide complex chloride	650-4000	L,S	Spec, Assign	Gutowsky
					Sheline
$\text{CdC}_4\text{H}_8\text{Cl}_2\text{O}_2$	Cadmium(II)-dioxane complex chloride	500-1500	S	Spec, Struct	Martinette
$\text{CdC}_4\text{H}_8\text{Cl}_2\text{S}_2$	Cadmium(II)-dithiane complex chloride	500-1500	S	Spec, Struct	Hendra
$\text{CdC}_4\text{H}_{10}$	Diethyl cadmium	650-3500	L	Spec, Assign	Kaesz

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$\text{CdC}_4\text{H}_{10}\text{Cl}_2\text{N}_2$	Cadmium(II)-piperazine complex chloride	500-1500	S	Spec, Struct	Hendra	JCS	- (1960)	5105
$\text{CdC}_4\text{H}_{12}\text{Cl}_2\text{N}_2\text{S}_2$	Cadmium(II)-methyl thiourea complex chloride	2-15 μ	S	Spec	Lane	JACS	81 (1959)	3824
$\text{CdC}_4\text{H}_{12}\text{Cl}_2\text{O}_2\text{S}_2$	Cadmium(II)-dimethyl sulfidecomplex chloride	650-4000	S	Assign, Spec	Cotton	JPC	64 (1960)	1534
$\text{CdC}_4\text{H}_{12}\text{N}_6\text{O}_2$	Cadmium(II)-iso thiocyanate complex (Ammonium salt)	-	S	Freq, Assign	Mitchell	JCS	- (1960)	1912
CdC_4N_4	Cadmium(II)-tetra-cyanide complex ion	250-2200	S	Spec, Assign	Hidalgo	ARS	56A (1960)	9
$\text{CdC}_4\text{N}_4\text{K}_2$	Cadmium(II) cyanide complex(Potassium salt)	250-2200	-	Assign	Hidalgo	CPR	249 (1959)	233
$\text{CdC}_6\text{Cl}_6\text{O}_4$	Cadmium trichloro-acrylate	700-1600	-	Spec	Duval	RFC	69 (1950)	391
$\text{CdC}_7\text{H}_5\text{O}_2$	Salicylaldehyde cadmium chelate	-	S	Freq.	Bellamy	JCS	- (1954)	4491
$\text{CdC}_8\text{H}_4\text{F}_3\text{O}_2\text{S}$	Phenyltrifluoroacetone cadmium chelate	-	Sol	Freq.	Bellamy	JCS	- (1954)	4491
$\text{CdC}_8\text{H}_{10}\text{Cl}_3\text{N}_3 \cdot \text{H}_2\text{O}$	P-Dimethylamino benzene dizonium chloride cadmium chloride monohydrate	3-14 μ	S	Freq.	Gremillion	JACS	81 (1959)	6134
$\text{CdC}_{10}\text{H}_{12}\text{N}_2\text{O}_2\text{Na}_2 \cdot 2\text{H}_2\text{O}$	Cadmium(II)ethylene diamine tetraacetic acid complex(sodium salt)dihydrate	800-1800	S	Freq, Assign	Sawyer	JACS	81 (1959)	816

			Lumme	SK	$\delta^{1}\text{B}$ (1958)	294
$\text{CdC}_{12}\text{H}_8\text{N}_2\text{O}_4$	Cadmium(II)-2-pyridine carboxylic acid chelate	-	Struct			
$\text{CdC}_{12}\text{H}_{10}\text{N}_4\text{S}_2$	Cadmium(II)-pyridine complex thiocyanate	-	S	Freq assign	Mitchell	JCS - (1960) 1912
$\text{CdC}_{14}\text{H}_{10}\text{O}_4$	Cadmium tropolonate	-	S	Freq, Band freq	Bryant	JOC 19 (1954) 1889
$\text{CdC}_{17}\text{H}_{19}\text{INO}_3$	Morphine-cadmium iodide complex	650-4000	-	Spec	Levy	AC 29 (1957) 470
$\text{CdC}_{18}\text{H}_{12}\text{N}_2\text{O}_2$	Cadmium(II)-8-hydroxy quinolate	8-15 μ	S	Assign, Spec Spec	Charles Charles	SA 8 (1956) 1 AC 25 (1953) 530
$\text{CdC}_{20}\text{H}_{12}\text{N}_2\text{O}_4$	Cadmium(II)-8-quinoline carboxylic acid chelate	-	-	Struct	Lumme	SK $\delta^{1}\text{B}$ (1958) 294
$\text{CdC}_{20}\text{H}_{22}\text{O}_4$	Cadmium isopropyl tropolonate	-	S	Band freq	Bryant	JOC 19 (1954) 1889
$\text{CdC}_{36}\text{H}_{24}\text{Cl}_2\text{N}_6\text{O}_8$	Cadmium(II)-1:10 phenanthroline complex perchlorate	600-2000	S	Spec	Schilt	JINC 9 (1959) 211
$\text{CdC}_{36}\text{H}_{30}\text{I}_2\text{O}_2\text{P}_2$	Cadmium(II)-Triphenyl phosphine oxide complex iodide	900-1300	S	Freq	Cotton	JCS - (1960) 2199
CdH	Cadmium hydride	-	-	-type doubling theory Mol. Const. Thermo.	Fuller Pekeris Hulbert Platt Sheeline	PR 38 (1931) 85 PR 45 (1934) 498 JCP 9 (1941) 61 JCP 18 (1950) 932 JCP 18 (1950) 927
CdH^+	Cadmium hydride ion	-	-	Mol. Consts.	Pekeris	PR 45 (1934) 98
$\text{CdH}_4\text{F}_3\text{N}$	Ammonium fluoride cadmium fluoride	1400-4000	S	Spec	Crockett	JACS 82 (1960) 4158
$\text{CdH}_4\text{N}_2\text{O}_6\text{S}_2$	Cadmium sulfamate	-	S	Freq, Assign	Bicelli	AC 47 (1957) 1380

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CdH ₁₈ ^N	Hexamine cadmium ion	-	-	Freq., FC	Schultz	JCP	10 (1942)	194
CdBr ₄ ⁻²	Cadmium tetra bromide ion	-	-	FC	Pistorius	JCP	28 (1958)	514
CdCl ₂	Cadmium chloride	4.75 μ	S	Absorption Crystal study	Barr West	JCP JOSA	7 (1939) 35 (1945)	8 26
CdCl ₂ ·5/2H ₂ O	Cadmium chloride 5/2 hydrate	300-880	S	Spec	Miller	SA	16 (1960)	135
CdF ₂	Cadmium fluoride	0.2-13 μ	S	Table	Haendler	JOSA	43 (1953)	215
CdI ₄ ⁻	Cadmium tetraiodide	-	-	FC	Pistorius	JCP	28 (1958)	514
CdN ₂ ⁰ ₆	Cadmium nitrate	1000-1500 2-16 μ 2-15 μ	S	Absorption band Spec Spec	Addison Meloche Addison	CIL JINC JCS	6 (1958) 6 (1958) - (1960)	464 104 613
CdN ₂ ⁰ ₆ ·4H ₂ O	Cadmium nitrate tetrahydrate	700-1600	S	Freq., Assign	Ferraro	JMS	4 (1960)	99
CdO ₃ Ti	Cadmium titanate	300-1000	S	Spec, Struct, I	Last	PR	105 (1957)	1740
CdO ₄ S· ₃ H ₂ O	Cadmium sulfate 8/3 hydrate	2-16 μ	S	Spec	Meloche	JINC	6 (1958)	104
CdS	Cadmium sulfide	-	S	Phosphors Photoconductivity Photoconductivity Photoconductivity Refractive index Struct Spec	Frerichs Bube Lambe Lambe Czyzak Mitsubishi Miller	PR PR PR PR JOSA JPSJ SA	72 (1947) 99 (1955) 98 (1955) 100 (1955) 47 (1957) 13 (1958) 16 (1960)	594 1105 909 1586 7240 1235 135
CdSe	Cadmium selenide	-	S	Phosphors Photoconductivity Struct	Frerichs Bube Mitsubishi	PR PR LPSJ	72 (1947) 99 (1955) 13 (1958)	594 1105 1235
CdTe	Cadmium teluride	-	S	Phosphors Struct	Frerichs Mitsubishi	PR LPSJ	72 (1947) 13 (1958)	594 1235

$\text{Cd}_3\text{O}_8\text{P}_2$	Cadmium orthophosphate $2-16 \mu$	S S	Assign Spec	Duval Meloche	CPR J INC	239 (1954) 6 (1958)	249 104
$\text{Cd}_3^{\text{D}}\text{As}_8$	Cadmium arsenate-d ₈	S	Assign	Duval	CPR	239 (1954)	249
<u>Ce COMPOUNDS</u>							
$\text{CeC}_{10}\text{H}_{12}\text{N}_2\text{O}_8 \cdot \text{Na} \cdot 2\text{H}_2\text{O}$	Cerium(III)-ethylene diamine tetracetic acid complex (sodium salt)dihydrate	800-1800	S	Spec, Bonding	Donald	JACS 82 (1960)	4191
$\text{CeC}_{24}\text{H}_{54}\text{O}_{12}\text{P}_3$	Cerium(III)-di-n-butyl phosphate	714-5000	S	Group study	Smith	J INC 9 (1959)	150
$\text{CeC}_{32}\text{H}_{72}\text{O}_{16}\text{P}_4$	Cerium(IV)-di-n-butyl phosphate	714-5000	S	Group study	Smith	J INC 9 (1959)	150
$\text{CeH}_8\text{N}_8\text{O}_{18}$	Ammonium hexanitratocerate(IV)	2-16 μ 700-1600 300-880	S S S	Spec Freq, Assign Spec	Miller Ferraro Miller	AC JMS SA 24 (1952) 4 (1960) 16 (1960)	1253 99 135
CeF_3	Cerium(III)-fluoride	1950-2700	S	Electronic transitions	Mandel	JCP 33 (1960)	192
CeN_3O_9	Cerium nitrate	0.56-2.3 μ	Sol	Magnetic rotation	Ingersoll	JOSA 6 (1922)	663
$\text{CeN}_3\text{O}_9 \cdot 6\text{H}_2\text{O}$	Cerium nitrate hexahydrate	- 700-1550 700-1600	S, Sol S S	Spec Freq Freq, Assign	Hafele Ryskin Ferraro	ZP OS JMS 148 (1957) 6 (1959) 4 (1960)	262 113 99
$\text{CeN}_6\text{O}_{18}\text{K}_2$	Potassium hexanitratocerate(IV)	700-4000 700-4000 700-1600	S S S	Assign Assign Freq, Assign	Gatehouse Gatehouse Ferraro	JCS J INC JMS - (1957) 8 (1958) 4 (1960)	4222 75 99
CeO_2	Cerium dioxide	0.4-1.6 μ	-	Reflectance	Haas	JOSA 45 (1955)	945

CeO_8S_2	Cerium(IV)sulfate	300–880	S	Spec	Miller	SA	16 (1960)	135
<u>Co COMPOUNDS</u>								
CoF_3	Curium(III)fluoride	—	S	Spec	Asprey	JINC	7 (1958)	27
CoF_3	Curium(IV)fluoride	—	S	Spec	Asprey	JINC	7 (1958)	27

<u>Co COMPOUNDS</u>								
$\text{CoCH}_6\text{N}_4\text{O}_7\text{K}\cdot\text{H}_2\text{O}$	Cobalt (III)-ammonia carbonate, nitrite complex (potassium salt) hydrate	—	—	Spec	Kyno	NKZ	80 (1959)	724
$\text{CoCH}_{12}\text{Cl}_1\text{N}_4\text{O}_3$	Cobalt (III)-ammonia carbonate complex chloride	400–5000 650–1650 2–15 μ	S S S	Spec Freq Spec, Assign., Struct	Nakamoto Svatos Bertin	JACS JACS JACS	79 (1957) 79 (1957) 81 (1959)	4904 3313 3818
$\text{CoCH}_{12}\text{Cl}_1\text{N}_6\text{O}_2\text{S}$	Cobalt (III)-ammonia, isothiocyanate, nitrite complex chloride	1900–2100	S	Freq	Fujita	JACS	78 (1956)	3295
$\text{CoCH}_{12}\text{Cl}_1\text{N}_6\text{O}_2\text{S}\cdot\text{AgNO}_3$	Cobalt (III)-ammonia isothiocyanate, nitrite complex chloride silver-nitrate	1900–2100	S	Freq	Fujita	JACS	78 (1956)	3295
$\text{CoCH}_{16}\text{C}_1\text{N}_6\text{O}_2\text{S}\cdot\text{HgCl}_2$	Cobalt (III)-ammonia isothiocyanate, nitrite complex chloride mercuric chloride	1900–2100	S	Freq	Fujita	JACS	78 (1956)	3295
BIBLIOGRAPHY								
$\text{CoCH}_{12}\text{N}_5\text{O}_6$	Coatal (III)-ammonium carbonate complex	2–15 μ	S	Assign.	JACS	JACS	— (1956)	2549

<chem>CoCH12N5O6</chem>	Cobalt (III)-ammonia, carbonate complex nitrate	2-15 μ 700-4000	S S	Assign Assign	Beattie Gatehouse	JCS JINC	- 8 (1956) (1958)	2549 75
<chem>CoCH12N5O6*2H2O</chem>	Cobalt (III)-ammonia, carbonate complex nitrate hemihydrate	2-15 μ 700-4000	S S	Band freq Assign	Merritt Gatehouse	JPC JCS	59 (1955) - (1957)	55 4222
<chem>CoCH15Cl2N6S</chem>	Cobalt (III)-ammonia, isothiocyanate complex chloride	680-4000	S	Struct	Chamberlain	JACS	81 (1959)	6412
<chem>CoCH15IN5O3</chem>	Cobalt (III)-ammonia, carbonate complex iodide	2-15 μ	S	Spec, Struct	Bertin	JACS	81 (1959)	3818
<chem>CoCH15N6O6</chem>	Cobalt (III)-ammonia, carbonate complex nitrate	650-1650	S	Freq	Svatos	JACS	79 (1957)	3313
<chem>CoCH15N8O6S</chem>	Cobalt (III)-ammonia, isothiocyanate complex nitrate	1900-2100 680-4000	S S	Freq Struct	Fuji ta Chamberlain	JACS JACS	78 (1956) 81 (1959)	3295 6412
<chem>CoCH15N9O9SAg</chem>	Cobalt (III)-ammonia, isothiocyanate complex nitrate silver nitrate	680-4000	S	Freq assign Struct	Mitcheil Chamberlain	JCS JACS	- (1960) 81 (1959)	1912 6412
<chem>CoCH18Cl1N6O3</chem>	Cobalt (III)-ammonia complex chloride carbonate	400-5000	S	Spec	Nakamoto	JACS	79 (1957)	490
<chem>CoCO3</chem>	Cobaltous carbonate	2-16 μ 2-16 μ	S S	Spec Spec	Miller Meloche	AC JINC	24 (1952) 6 (1958)	1253 104
<chem>CoC2H3N2S2</chem>	Cobalt rubenate	400-4000	sol	Struct	Barcelo	SA	10 (1958)	245
<chem>CoC2H6N2O6K.H2O</chem>	Cobalt (III)-ammonia, carbonate complex (potassium salt) monohydrate	-	-	Spec	Kyuno	NKZ	80 (1959)	849

$\text{CoC}_2\text{H}_6\text{N}_4\text{O}_8^{\text{K}}$	Cobalt (III)-ammonia nitrite, oxalate complex (potassium salt)	-	-	Spec	Kyuno	NKZ	81 (1960)	728
$\text{CoC}_2\text{H}_6\text{N}_4\text{O}_8 \cdot \text{H}_2\text{O}$	Cobalt (III)- ammonia, nitrite, oxalate complex (potassium salt) monohydrate	-	-	Spec	Kyuno	NKZ	80 (1959)	724
$\text{CoC}_2\text{H}_7\text{N}_4\text{O}_8 \cdot \text{H}_2\text{O}$	Cobalt (III)- ammonia, nitrite, oxalate complex (hydrogen salt) monohydrate	-	-	Spec	Kyuno	NKZ	80 (1959)	852
$\text{CoC}_2\text{H}_8\text{N}_6\text{O}_8^{\text{Ag}}$	Cobalt (III)- ethylenediamine nitrite complex (silver salt)	-	-	Spec	Kyuno	NKZ	80 (1959)	722
$\text{CoC}_2\text{H}_8\text{N}_6\text{O}_8^{\text{K}}$	Cobalt (III)- ethylenediamine, nitrite complex (potassium salt)	-	-	Spec	Kyuno	NKZ	80 (1959)	722
$\text{CoC}_2\text{H}_{12}\text{ClN}_4\text{O}_4$	Cobalt (III)- ammonia, oxalate complex chloride	400-5000	-	Spec	Nakamoto	JACS	79 (1957)	4904
$\text{CoC}_2\text{H}_{12}\text{ClN}_4\text{S}_2$	Cobalt (III)- ammonia isothiocyanate complex chloride	680-4000	S	Struct	Chamberlain	JACS	81 (1959)	6412
$\text{CoC}_2\text{H}_{12}\text{Cl}_3\text{N}_2\text{O}_2$	Cobalt (III)- chloride, ethylene diamine, water complex chloride	-	-	Spec	Kyuno	NKZ	80 (1959)	724
$\text{CoC}_2\text{H}_{13}\text{N}_7\text{O}_2\text{S}_2$	Cobalt (III)-ammonia, isothiocyanate nitrite complex	1900-2100	S	Freq	Fujita	JACS	78 (1956)	3295

$\text{CoC}_2\text{H}_{15}\text{BrN}_5\text{O}_4 \cdot \text{H}_2\text{O}$	Cobalt (III)-ammonia, oxalate complex bromide 1.5 hydrate	400-5000	S	Spec	Nakamoto	JACS 79 (1957) 4904
$\text{CoC}_2\text{H}_{15}\text{BrN}_5\text{O}_4 \cdot \text{HBr}$	Cobalt (III)-ammonia, oxalate complex bromide hydrogen bromide	650-1650	S	Freq	Svatos	JACS 79 (1957) 3313
$\text{CoC}_2\text{H}_{16}\text{Br}_2\text{N}_5\text{O}_4$	Cobalt (III)-ammonia, bioxalate complex bromide	400-5000	S	Spec	Nakamoto	JACS 79 (1957) 4904
$\text{CoC}_2\text{H}_{18}\text{Cl}_2\text{N}_5\text{O}_10$	Cobalt (III)-ammonia, acetate complex perchlorate	400-5000	S	Spec	Nakamoto	JACS 79 (1957) 4904
$\text{CoC}_2\text{O}_6\text{K} \cdot 4\text{H}_2\text{O}$	Potassium carbonato cobalt (II) tetrahydrate	700-4000	S	Freq assign	Gatehouse	JCS - (1958) 3137
$\text{CoC}_3\text{H}_8\text{N}_4\text{O}_7 \cdot \text{H}_2\text{O}$	Cobalt (III)-carbonate, ethylene diamine, nitrite complex (potassium salt) monohydrate	-	-	Spec	Kyuno	NKZ 80 (1959) 724
$\text{CoC}_3\text{H}_{18}\text{N}_5\text{O}_6\text{S}$	Cobalt (III)-ammonia, β -aminopropionate complex sulfate	-	-	Spec	Ogawa	NKZ 81 (1960) 72
$\text{CoC}_3\text{H}_9\text{K} \cdot 3\text{H}_2\text{O}$	Potassium carbonate cobaltate (III)-trihydrate	700-4000	S	Freq assign	Gatehouse	JCS - (1958) 3137
CoC_4HO_4	Cobalt hydrocarbonyl	703-2121 2-24 μ	Sol,G Sol,G	I Spec, I, Struct, Assign	Sternberg Friedel	JACS 75 (1953) 2717 JACS 75 (1955) 3951

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$\text{CoC}_4\text{H}_6\text{N}_2\text{O}_8\text{Ag} \cdot \text{H}_2\text{O}$	Cobalt (III)-ammonia, oxalate complex (silver salt) monohydrate	-	-	Spec	Kyuno	NKZ	80 (1959)	852
$\text{CoC}_4\text{H}_6\text{N}_2\text{O}_8\text{K} \cdot \text{H}_2\text{O}$	Cobalt (III)-ammonia, oxalate complex (potassium salt) monohydrate	-	-	Spec	Kyuno	NKZ	80 (1959)	849
$\text{CoC}_4\text{H}_7\text{N}_2\text{O}_8 \cdot \text{H}_2\text{O}$	Cobalt (III)-ammonia, oxalate complex (hydrogen salt) monohydrate	-	-	Spec	Kyuno	NKZ	80 (1959)	852
$\text{CoC}_4\text{H}_8\text{N}_2\text{O}_6\text{K}$	Cobalt (III)-carbonate, ethylene diamine complex (potassium salt)	-	-	Spec	Kyuno	NKZ	80 (1959)	849
$\text{CoC}_4\text{H}_8\text{N}_4\text{O}_8\text{K} \cdot \text{H}_2\text{O}$	Cobalt (III)-ethylene diamine, nitrite, oxalate complex (potassium salt)	-	-	Spec	Kyuno	NKZ	80 (1959)	724
$\text{CoC}_4\text{H}_{16}\text{BrCl}_2\text{N}_4$	cis-Cobalt (III)-400-4000 S	Freq., Spec	Baldwin	JCS	- (1960)	4369		
$\text{CoC}_4\text{H}_{16}\text{BrCl}_2\text{N}_4 \cdot \text{HBr} \cdot 2\text{H}_2\text{O}$	trans-Cobalt (III)-ethylenediamine, chloride complex bromide	400-5000 S	Freq., Spec	Baldwin	JCS	- (1960)	4369	
$\text{CoC}_4\text{H}_{16}\text{Br}_3\text{N}_4$	trans-Cobalt (III)-ethylenediamine complex hydrobromide dihydrate	1000-2000 -	Group study	Curtis	PRCS	- (1960)	410	
$\text{CoC}_4\text{H}_{16}\text{ClN}_4\text{O}_3$	trans-Cobalt (III)-ethylenediamine complex hydrobromide dihydrate	20-75 /L S						

$\text{CoC}_4\text{H}_{16}\text{Cl}_4\text{N}_4\text{O}_3 \cdot \text{H}_2\text{O}$	cis-Cobalt (III)-carbonate, ethylene diamine complex chloride monohydrate	2-15 μ	S	Band freq	Merritt	JPC	59 (1955)	55
$\text{CoC}_4\text{H}_{16}\text{Cl}_4\text{N}_6\text{O}_4$	cis-Cobalt (III)-ethylenediamine, nitrite complex chloride	800-1500 800-1500 700-3500	S Sol S	Bonding Freq., Struct Spec., Freq., Assign., Config.	Gatehouse Chatt Morris	J INC JCS JACS	8 (1958) - (1959) 82 (1960)	79 4073 1521
$\text{CoC}_4\text{H}_{16}\text{Cl}_4\text{N}_6\text{O}_4$	trans-Cobalt (III)-ethylenediamine, nitrite complex chloride	800-1500 800-1500 700-3500	S Sol S	Bonding Freq., Struct Spec., Freq., Assign., Config.	Gatehouse Chatt Morris	J INC JCS JACS	8 (1958) - (1959) 82 (1960)	79 4073 1521
$\text{CoC}_4\text{H}_{16}\text{Cl}_2\text{IN}_4$	cis-Cobalt (III)-ethylenediamine, chloride complex iodide	400-4000	S	Spec., Freq	Baldwin	JCS	- (1960)	4369
$\text{CoC}_4\text{H}_{16}\text{Cl}_2\text{IN}_4$	trans-Cobalt (III)-ethylenediamine, chloride complex iodide	400-4000	S	Spec., Freq	Baldwin	JCS	- (1960)	4369
$\text{CoC}_4\text{H}_{16}\text{Cl}_2\text{N}_4$	cis-Cobalt (III)-chloride, ethylene diamine complex	-	-	Spec., Config.	Morris	DA	19 (1958)	223
$\text{CoC}_4\text{H}_{16}\text{Cl}_2\text{N}_4$	trans-Cobalt (III)-chloride, ethylene diamine complex	-	-	Spec., Config.	Morris	DA	19 (1958)	223
$\text{CoC}_4\text{H}_{16}\text{Cl}_2\text{N}_4\text{O}_2$	cis-Cobalt (III)-chloride, ethylene diamine complex	400-4000	S	Spec., Freq	Baldwin	JCS	- (1960)	4369
$\text{CoC}_4\text{H}_{16}\text{Cl}_2\text{N}_4\text{O}_2$	trans-Cobalt (III)-chloride, ethylene diamine complex	400-4000	S	Spec., Freq	Baldwin	JCS	- (1960)	4369

$\text{CoC}_4\text{H}_{16}\text{Cl}_2\text{N}_5\text{O}_2$	cis-Cobalt (III)-chloride, ethylene diamine, nitrite complex chloride	-	-	Struct, Freq	Chatt	JCS	- (1959)	4073
$\text{CoC}_4\text{H}_{16}\text{Cl}_2\text{N}_5\text{O}_3$	trans-Cobalt (III)-chloride, ethylene diamine, complex nitrate	400-4000	S	Spec, Freq	Baldwin	JCS	- (1960)	4369
$\text{CoC}_4\text{H}_{16}\text{Cl}_2\text{N}_4$	cis-Cobalt (III)-chloride, ethylene diamine complex chloride	2-15 μ 700-3500	S	Band study Spec, Freq, Config.	Merritt Morris	JPC JACS	59 (1955) 82 (1960)	55 1521
$\text{CoC}_4\text{H}_{16}\text{Cl}_3\text{N}_4 \cdot \text{HCl} \cdot 2\text{H}_2\text{O}$	trans-Cobalt (III)-chloride, ethylene diamine complex hydrochloride, dihydrate	2-15 μ 700-3500	S	Band freq Spec, Freq, Config.	Merritt Morris	JPC JACS	59 (1955) 82 (1960)	55 1521
$\text{CoC}_4\text{H}_{16}\text{Cl}_3\text{N}_4$	trans-Cobalt (III)-chloride, ethylene diamine complex perchlorate	1000-2000	-	Group study	Curtis	PRCS	- (1960)	410
$\text{CoC}_4\text{H}_{16}\text{Cl}_3\text{N}_4 \cdot \text{HCl} \cdot 2\text{H}_2\text{O}$	trans-Cobalt (III)-chloride, ethylene diamine complex perchlorate	400-4000	S	Spec, Freq	Baldwin	JCS	- (1960)	4369
$\text{CoC}_4\text{H}_{16}\text{Cl}_3\text{N}_4\text{O}_2$	cis-Cobalt (III)-chloride, ethylene diamine complex iodide	400-4000	S	Spec, Freq	Baldwin	JCS	- (1960)	4369
$\text{CoC}_4\text{H}_{16}\text{IN}_6\text{O}_4$	cis-Cobalt (III)-ethylenediamine, nitrite complex	800-1500 800-1500	S Sol	Bonding Freq, Struct	Gatethouse Chatt	JINC JCS	8 (1958) - (1959)	79 4073

$\text{CoC}_4\text{H}_{16}\text{IN}_6^0$	trans-Cobalt (III)-ethylenediamine, nitrite complex iodide	800-1500 800-1500	Sol Sol	Bonding Freq, Struct	Gatehouse Chatt	JINC JCS	8 (1958) - (1959)	79 4073
$\text{CoC}_4\text{H}_{16}\text{N}_4^0\text{O}_3$	Cobalt (III)-ethylenediamine, thiophosphate complex	850-1250	S	Spec, Struct	Hidaka	BCSJ	32 (1959)	1317
$\text{CoC}_4\text{H}_{16}\text{N}_4^0\text{O}_3\text{PS}$	Cobalt (II)-ethylenediamine, thiophosphate dihydrate	850-1250	S	Spec, Struct	Hidaka	BCSJ	32 (1959)	1317
$\text{CoC}_4\text{H}_{16}\text{N}_4^0\text{O}_6^{\text{P}}\text{S}_2\text{H}_2\text{O}$	Cobalt (III)-ethylenediamine, thiophosphate complex (sodium salt) octahydrate	850-1250	S	Spec, Struct	Hidaka	BCSJ	32 (1959)	1317
$\text{CoC}_4\text{H}_{16}\text{N}_4^0\text{O}_6^{\text{P}}\text{S}_2\text{Na}\cdot 8\text{H}_2\text{O}$	Cobalt (III)-ethylenediamine, thiophosphate complex (sodium salt)	1000-1250	S	Spec, Struct	Hidaka	BCSJ	32 (1959)	1317
$\text{CoC}_4\text{H}_{16}\text{N}_4^0\text{O}_6^{\text{P}}\text{S}_4\text{Na}$	cis-Cobalt (III)-ethylenediamine, thiolsulfonate complex (sodium salt)	-	-	Config., Spec	Morris	DA	19 (1958)	223
$\text{CoC}_4\text{H}_{16}\text{N}_6^0$	cis-Cobalt (III)-ethylenediamine, nitrite complex	-	-	Config., Spec	Morris	DA	19 (1958)	223
$\text{CoC}_4\text{H}_{16}\text{N}_6^0$	trans-Cobalt (III)-ethylenediamine, nitrite complex	-	-	Config., Spec	Morris	DA	19 (1958)	223
$\text{CoC}_4\text{H}_{16}\text{N}_7^0$	cis-Cobalt (III)-ethylenediamine, nitrite complex nitrite	800-1500 800-1500 700-3500	Sol S	Bonding Freq, Struct Spec, Freq, Config.	Gatehouse Chatt Morris	JINC JCS JACS	8 (1958) - (1959) 82 (1960)	79 4073 1521
$\text{CoC}_4\text{H}_{16}\text{N}_7^0$	trans-Cobalt(III)-ethylenediamine, nitrite complex	800-1500 800-1500 700-3500	Sol S	Bonding Freq, Struct Spec, Freq, Config.	Gatehouse Chatt Morris	JINC JCS JACS	8 (1958) - (1959) 82 (1960)	79 4073 1521

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$\text{CoC}_4\text{H}_{16}\text{N}_7\text{O}_7$	cis-Cobalt (III)- ethylendiamine, nitrite complex nitrate	2-15 μ 800-1500 800-1500 700-3500	S S Sol S	Band freq, Spec Bonding Freq Spec, Freq, Config.	Merritt Gatehouse Chatt Morris	JPC JINC JCS JACS	59 (1955) 8 (1958) - (1959) 82 (1960)	55 79 4073 1521
$\text{CoC}_4\text{H}_{16}\text{N}_7\text{O}_7$	trans-Cobalt (III)- ethylendiamine, nitrite complex nitrate	2-15 μ 800-1500 800-1500 700-3500	S S Sol S	Spec, Band study Bonding Freq, Struct Spec, Freq, Config.	Merritt Gatehouse Chatt Morris	JPC JINC JCS JACS	59 (1955) 8 (1958) - (1959) 82 (1960)	55 79 4073 1521
$\text{CoC}_4\text{H}_{18}\text{Br}_3\text{N}_4\text{O}$	cis-Cobalt (III)- bromide, ethylene diamine, water complex bromide	2-15 μ	S	Band freq	Merritt	JPC	59 (1955)	55
$\text{CoC}_4\text{H}_{19}\text{Br}_2\text{N}_4\text{O}_2$	trans-Cobalt (III)- ethylendiamine, hydroxide, water complex bromide	2-15 μ	S	Band freq	Merritt	JPC	59 (1955)	55
$\text{CoC}_4\text{H}_{20}\text{Cl}_6\text{N}_4$	Cobalt (III)- chloride, ethylene diamine complex chloride	-	S	Freq	Schultz	JACS	71 (1949)	1288
CoC_4DO_4	Cobalt deutero- carbonyl	703-2121	G	I	Sternberg	JACS	75 (1953)	2717
CoC_4NO_5	Cobalt (0)-carbon monoxide, nitric oxide complex	1700-2050	G	Freq	Lewis	JINC	7 (1958)	32
$\text{CoC}_4\text{N}_4\text{S}_4\text{Ba}$	Cobalt (II)-isothio- cyanate complex (Barium salt)	2-14 μ	S,Sol	Band study	Brubaker	JACS	80 (1958)	5073
$\text{CoC}_4\text{N}_4\text{S}_4\text{Hg}$	Cobalt (II)-isothio- cyanate complex (mercury (II) salt)	-	S	Freq assign	Mitchell	JCS	- (1960)	1912
CoC_4O_4	Cobalt carbonyl ion	2-24 μ	Sol	Spec, I, Assign	Friedel	JACS	77 (1955)	3951

$\text{CoC}_5\text{H}_3\text{N}_5\text{O}_2\text{K}$	Cobalt (III)-cyanide, hydroxide complex monohydrate (Potassium salt)	2100-2150	S	Struct	Griffith	JINC	7 (1958)	295
$\text{CoC}_5\text{H}_4\text{N}_6\text{O}_3\text{K}_3$	Cobalt (III)-cyanide, nitric oxide complex (Potassium salt) monohydrate	2100-2150	S	Struct	Griffith	JINC	7 (1958)	295
$\text{CoC}_5\text{H}_7\text{O}_2$	Cobalt (II)-acetyl acetone complex	-	Sol	Group freq	Bellamy	JCS	- (1954)	4491
$\text{CoC}_5\text{H}_{16}\text{BrClN}_5$	trans-Cobalt (III)-ethylenediamine, chloride, isothiocyanate complex bromide	680-4000	S	Struct, Iso, Assign	Chamberlain	JACS	81 (1959)	6412
$\text{CoC}_5\text{H}_{16}\text{BrN}_4\text{O}_3$	Cobalt (III)-ethylenediamine, carbonate complex bromide	400-5000 700-4000	S S	Spec Freq assign	Nakamoto Gatehouse	JACS JCS	79 (1957) - (1958)	4904 3157
$\text{CoC}_5\text{H}_{16}\text{ClN}_4\text{O}_3$	Cobalt (III)-ethylenediamine, carbonate complex chloride	700-4000	S	Freq assign	Gatehouse	JCS	- (1958)	3137
$\text{CoC}_5\text{H}_{16}\text{ClN}_6\text{O}_2\text{S}$	cis-Cobalt (III)-ethylenediamine, nitrite thiocyanate complex chloride	800-1500	Sol	Struct, Freq	Chat	JCS	- (1959)	4073
$\text{CoC}_5\text{H}_{16}\text{ClN}_6\text{O}_2\text{S}$	trans-Cobalt (III)-ethylenediamine, nitrite thiocyanate complex chloride	800-1500	Sol	Struct, Freq	Chatt	JCS	- (1959)	4073

$\text{CoC}_5\text{H}_{16}\text{Cl}_2\text{N}_6\text{O}_2\text{S}$	trans-Cobalt (III)-chloride, ethylene diamine, nitrite complex thiocyanate	800-1500	Sol	Freq, Struct	Chatt	JCS	- (1959)	4073
$\text{CoC}_5\text{H}_{16}\text{Cl}_2\text{N}_5\text{O}$	trans-Cobalt (III)-ethylenediamine, chloride complex isocyanate	400-4000	S	Spec, Freq	Baldwin	JCS	- (1960)	4369
$\text{CoC}_5\text{H}_{16}\text{Cl}_2\text{N}_5\text{O}_4\text{S}$	cis-Cobalt (III)-chloride, ethylene diamine, isothiocyanate complex perchlorate	680-4000	S	Struct, Iso, Assign	Chamberlain	JACS	81 (1959)	6412
$\text{CoC}_5\text{H}_{16}\text{Cl}_2\text{N}_5\text{O}_4\text{S}$	trans-Cobalt (III)-chloride, ethylene diamine, isothiocyanate complex perchlorate	2-15 μ	S	Band freq	Merritt	JPC	59 (1955)	55
$\text{CoC}_5\text{H}_{16}\text{Cl}_2\text{N}_5\text{S}$	cis-Cobalt (III)-chloride, ethylene diamine complex thiocyanate	400-4000	S	Freq, Spec	Baldwin	JCS	- (1960)	4369
$\text{CoC}_5\text{H}_{16}\text{Cl}_2\text{N}_5\text{S}$	trans-Cobalt (III)-chloride, ethylene diamine complex thiocyanate	400-4000	S	Freq, Spec	Baldwin	JCS	- (1960)	4369
$\text{CoC}_5\text{H}_{16}\text{Cl}_2\text{N}_5\text{S}$	cis-Cobalt (III)-chloride, ethylene diamine, isothiocyanate chloride	2-15 μ	S	Band freq	Merritt	JPC	59 (1955)	55
$\text{CoC}_5\text{H}_{16}\text{Cl}_2\text{N}_4\text{O}_3$	trans-Cobalt (III)-chloride, ethylene diamine complex isothiocyanate	680-4000	S	Struct, Iso, Assign	Chamberlain	JACS	81 (1959)	6412

$\text{CoC}_5\text{H}_{16}\text{IN}^0\text{J}_3$	Cobalt (III)-carbonate, ethylene diamine complex iodide	700-4000	S	Freq assign	Gatehouse	JCS	- (1958)	3157
$\text{CoC}_5\text{H}_{16}\text{N}^0\text{S}_7\text{J}_4$	cis-Cobalt (III)-ethylenediamine, nitrite, thiocyanate complex nitrite	800-1500	Sol	Struct, Freq	Chatt	JCS	- (1959)	4073
$\text{CoC}_5\text{H}_{16}\text{N}^0\text{S}_7\text{J}_4$	cis-Cobalt (III)-ethylenediamine, nitrite complex thiocyanate	800-1500 800-1500	S S	Bonding Struct, Freq	Gatehouse Chatt	J INC JCS	8 (1958) - (1959)	79 4073
$\text{CoC}_5\text{H}_{16}\text{N}^0\text{S}_7\text{J}_4$	trans-Cobalt (III)-ethylenediamine, nitrite complex thiocyanate	800-1500 800-1500	S S	Bonding Struct, Freq	Gatehouse Chatt	J INC JCS	8 (1958) - (1959)	79 4073
$\text{CoC}_5\text{H}_{16}\text{N}^0\text{S}_7\text{J}_4$	trans-Cobalt (III)-ethylenediamine, nitrite, thiocyanate complex nitrite	800-1500	Sol	Freq, Struct	Chatt	JCS	- (1959)	4073
$\text{CoC}_5\text{N}^0\text{S}_3\text{K}_2\text{J}_4$	Cobalt (III)-cyanide, thio-sulphate complex (potassium salt)	1000-1250	S	Spec, Struct	Hidaka	BCSJ	32 (1959)	1317
$\text{CoC}_5\text{N}^0\text{OK}_3$	Cobalt (II)-cyanide nitric oxide complex (potassium salt)	600-2200	S	Struct	Griffith	J INC	7 (1958)	38
$\text{CoC}_6\text{H}_4\text{BrCl}_3\text{N}_2$	p-Bromobenzene-diazonium chloride cobalt (II)-chloride double salt	-	-	Struct	Kazitsyns	IANS	- (1960)	1523
$\text{CoC}_6\text{H}_8\text{N}^0\text{O}_2\text{K}_2\text{H}_2\text{O}$	Cobalt (III)-ethylene diamine, oxalate complex (potassium salt) monohydrate	-	-	Spec	Kyuno	NKZ	80 (1959)	849

$\text{CoC}_6\text{H}_{12}\text{N}_2\text{O}_8 \cdot \text{H}_2\text{O}$	Cobalt (III)-ethylene diamine, oxalate complex (hydrogen salt) monohydrate	-	-	Spec	Kyno	NKZ	80 (1959)	652
$\text{CoC}_6\text{H}_{12}\text{N}_2\text{O}_8 \cdot 4\text{H}_2\text{O}$	Cobalt (II) dimethyl-thiocarbamate	1700-2050	S	Freq	Lewis	JINC	7 (1958)	32
$\text{CoC}_6\text{H}_{12}\text{N}_2\text{O}_6 \cdot \text{H}_2\text{O}$	Cobalt (III)-glycine complex monohydrate	2-15 μ	S	Spec, Assign	Saraceno	JACS	80 (1958)	5018
$\text{CoC}_6\text{H}_{12}\text{N}_2\text{O}_6 \cdot 2\text{H}_2\text{O}$	Cobalt (III)-glycine complex dihydrate	2-15 μ	S	Spec, Assign	Saraceno	JACS	80 (1958)	5018
$\text{CoC}_6\text{H}_{16}\text{ClN}_6\text{O}_4\text{S}_2$	cis-Cobalt (III)-ethylenediamine, isothiocyanate complex perchlorate	680-4000	S	Struct, Iso, Assign	Chamberlain	JACS	81 (1959)	6412
$\text{CoC}_6\text{H}_{16}\text{ClN}_6\text{S}_2$	cis-Cobalt (III)-chloride, ethylene diamine, isothiocyanate complex perchlorate	2-15 μ	S	Band freq	Merritt	JPC	59 (1955)	55
$\text{CoC}_6\text{H}_{16}\text{ClN}_6\text{S}_2$	trans-Cobalt (III)-chloride, ethylene diamine, isothiocyanate complex isothiocyanate	680-4000	S	Struct, Iso, Assign	Chamberlain	JACS	81 (1959)	6412
$\text{CoC}_6\text{H}_{16}\text{ClN}_6\text{S}_2 \cdot \text{H}_2\text{O}$	Cobalt (III)-chloride, ethylene diamine isothiocyanate complex isothiocyanate monohydrate	680-4000	S	Struct, Iso, Assign	Chamberlain	JACS	81 (1959)	6412

$\text{CoC}_6\text{H}_{16}\text{ClN}_6\text{S}_2 \cdot \text{H}_2\text{O}$	cis -Cobalt (III)-ethylenediamine, isothiocyanate complex chloride monohydrate	680-4000	S	Struct, Iso, Assign	Chamberlain	JACS	81 (1959)	6412
$\text{CoC}_6\text{H}_{16}\text{ClN}_6\text{S}_2 \cdot \text{H}_2\text{O}$	trans-Cobalt (III)-ethylenediamine, isothiocyanate complex chloride monohydrate	680-4000	S	Struct, Iso, Assign	Chamberlain	JACS	81 (1959)	6412
$\text{CoC}_6\text{H}_{16}\text{ClN}_6\text{S}_4 \cdot \text{H}_2\text{O}$	Cobalt (III)-ethylenediamine, isothiocyanate complex chloride monohydrate	1900-2100	S	Freq	Fujita	JACS	78 (1956)	3295
$\text{CoC}_6\text{H}_{16}\text{Cl}_2\text{N}_6\text{S}_2 \cdot \text{Ag}_8$	Cobalt (III)-ethylenediamine, isothiocyanate complex perchlorate, silver perchlorate	680-4000	S	Struct, Iso, Assign	Chamberlain	JACS	81 (1959)	6412
$\text{CoC}_6\text{H}_{17}\text{N}_7\text{O}_2\text{S}_2$	trans-Cobalt (III)-ethylenediamine, nitrite, thiocyanate complex thiocyanate	800-1500	Sol	Freq, Struct	Chatt	JCS	- (1959)	4073
$\text{CoC}_6\text{H}_{18}\text{Br}_2\text{O}_2\text{S}_3$	Cobalt (II)-dimethyl sulfoxide complex bromide	650-4000	S	Assign, Spec	Cotton	JPC	64 (1960)	1534
$\text{CoC}_6\text{H}_{18}\text{Cl}_2\text{O}_2\text{P}_2$	Cobalt (II)-trimethyl phosphineoxide complex chloride	800-1400	S	Freq	Cotton	JCS	- (1960)	2199
$\text{CoC}_6\text{H}_{18}\text{Cl}_2\text{O}_2\text{S}_3$	Cobalt (II)-dimethyl sulfoxide complex chloride	650-4000	S	Assign, Spec	Cotton	JPC	64 (1960)	1534

$\text{CoC}_6\text{H}_{18}\text{I}_2\text{S}_3$	Cobalt (II)-dimethyl sulfide complex iodide	650-4000	S	Assign, Spec	Cotton	JPC	64 (1960)	1534
$\text{CoC}_6\text{H}_{24}\text{Br}_3\text{N}_6$	Cobalt (III)-ethylenediamine complex bromide	2-15 μ 400-4000	S	Spec, Freq Spec, Freq	Hill Baldwin	JCP JCS	24 (1956) - (1960)	1219 4369
$\text{CoC}_6\text{H}_{24}\text{Cl}_3\text{N}_6$	Cobalt (III)-ethylene diamine complex chloride	400-1750 400-4000 700-3500	S	Spec, Config. Spec, Freq Spec, Freq assign, Config.	Powell Baldwin Morris	JCS JCS JACS	- (1959) - (1960) 82 (1960)	791 4369 1521
$\text{CoC}_6\text{H}_{24}\text{Cl}_3\text{N}_6$	cis-Cobalt (III)-ethylenediamine complex chloride	2-15 μ 2-15 μ	S	Band freq Spec, Freq	Merritt Hill	JPC JCP	59 (1955) 24 (1956)	55 1219
$\text{CoC}_6\text{H}_{24}\text{ClN}_6\text{O}_4$	Cobalt (III)-ethylene diamine complex perchlorate	400-4000	S	Freq, Spec	Baldwin	JCS	- (1960)	4369
$\text{CoC}_6\text{H}_{24}\text{I}_3\text{N}_6$	Cobalt (III)-ethylene diamine complex iodide	2-15 μ 400-4000	S	Spec, Freq Spec, Freq	Hill Baldwin	JCP JCS	24 (1958) - (1960)	1219 4369
CoC_6N_6	Cobalt (III)-hexacyanide complex ion	250-2200	S	Spec, Assign	Hidalgo	ARS	56A (1960)	9
$\text{CoC}_6\text{N}_6\text{K}_3$	Cobalt (III)-cyanide complex (potassium salt)	- 2143 250-2200	S, Sol S -	Assign Struct Assign	Bonino Griffith Hidalgo	AAN JINC CIR	21 (1956) 7 (1958) 249 (1959)	246 295 233
$\text{CoC}_6\text{O}_{12}\text{K}_3 \cdot 3\text{H}_2\text{O}$	Cobalt (III)-oxalate complex (potassium salt) trihydrate	445-3450	S	Assign	Schmelz	SA	9 (1957)	51
$\text{CoC}_7\text{H}_5\text{O}_2$	Cobalt (I)-cyclopenta-dienyldicarbon monoxide	1700-2200 600-5000	Sol Sol	Spec, Struct Spec, Config., Struct, Freq	Cotton Piper	JINC JINC	1 (1955) 1 (1955)	175 165

$\text{CoC}_7\text{H}_5\text{O}_2$	Salicylaldehyde cobalt chelate	-	S	Group freq	Bellamy	JCS	- (1954)	4491
$\text{CoC}_7\text{H}_7\text{O}_3$	Cobalt (III)-carbonyl butadiene complex	-	-	Config	Jonassen	JACS	80 (1958)	2586
$\text{CoC}_7\text{H}_{14}\text{Cl}_2\text{N}_5\text{O}_2 \cdot 2\text{H}_2\text{O}$	Cobalt (III)-amino-propionate, ethylene-diamine complex chloride, dihydrate	-	-	Spec	Ogawa	NKZ	81 (1960)	72
$\text{CoC}_7\text{H}_{16}\text{N}_7\text{S}_3$	cis-Cobalt (III)-ethylenediamine, isothiocyanate complex isothiocyanate	680-4000	S	Struct	Chamberlain	JACS	81 (1959)	6412
$\text{CoC}_7\text{H}_{16}\text{N}_7\text{S}_3$	trans-Cobalt (III)-ethylenediamine, isothiocyanate complex isothiocyanate	680-4000	S	Struct, Iso, Assign	Chamberlain	JACS	81 (1959)	6412
$\text{CoC}_7\text{H}_{24}\text{N}_7\text{S}$	Cobalt (I)-ethylene diamine complex thiocyanate	400-4000	S	Freq, Spec	Baldwin	JCS	- (1960)	4369
$\text{CoC}_8\text{H}_{43}\text{O}_2\text{S}$	Thienyltrifluoroacetone cobalt chelate	-	Sol	Group freq	Bellamy	JCS	- (1954)	4491
$\text{CoC}_8\text{H}_{11}\text{BrN}_2\text{O}_7\text{Na} \cdot \text{Na}\cdot\text{H}_2\text{O}$	Cobalt (III)-bromide, hydroxy, ethylene-diamine triacetic acid complex (sodium salt) monohydrate	800-3600	S	Struct, Ident	Morris	JACS	78 (1956)	5178
$\text{CoC}_8\text{H}_{11}\text{N}_2\text{O}_7\text{Na} \cdot 1.5\text{H}_2\text{O}$	Cobalt (III)-hydroxy, ethylenediamine tri-acetic acid complex (sodium salt) 1.5 hydrate	800-3600	S	Struct, Ident	Morris	JACS	78 (1956)	5178

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$\text{CoC}_8\text{H}_{12}\overset{\text{D}}{\beta}\text{Cl}_2^- \text{N}_2^0$	Cobalt (III)-chloride, dimethyl oxime-d ₁ complex (deuterium salt)	2-15 μ	S	Spec	Nakahara	BCSJ	29 (1956)	296
$\text{CoC}_8\text{H}_{12}\overset{\text{D}}{\beta}_2\text{Cl}_2^- \text{N}_4^0$	Cobalt (III)-dimethyl glyoxime-d ₁ , chloride complex (hydrogen salt)	2-15 μ	S	Spec	Nakahara	BCSJ	29 (1956)	296
$\text{CoC}_8\text{H}_{14}\text{N}_6^0 \text{Na}$	Cobalt (III)-dimethyl glyoxime, nitrite complex (sodium salt)	1740 5-7 μ	S	Band study Spec	Fujiita Nakahara	JCP BCSJ	23 (1955) 29 (1956)	1541 296
$\text{CoC}_8\text{H}_{15}\text{Br}_2\text{N}_4^0$	Cobalt (III)-bromide, dimethyl glyoxime complex (hydrogen salt)	1685 5-7 μ	S	Band study Spec	Fujiita Nakahara	JCP BCSJ	23 (1955) 29 (1956)	1541 296
$\text{CoC}_8\text{H}_{15}\text{Cl}_2\text{N}_4^0$	Cobalt (III)-chloride dimethyl glyoxime	1725 2-6 μ 2-15 μ	S	Band study Spec Spec	Fujiita Nakahara Nakahara	JCP BCSJ BCSJ	23 (1955) 28 (1955) 29 (1956)	1541 473 296
$\text{CoC}_8\text{H}_{15}\text{N}_6^0$	Cobalt (III)-dimethyl glyoxime, nitrite complex (hydrogen salt)	5-7 μ	S	Spec	Nakahara	BCSJ	29 (1956)	296
$\text{CoC}_8\text{H}_{16}\text{N}_5^0$	Cobalt (III)-dimethyl glyoxime, water, nitrite complex	5-7 μ	S	Spec	Nakahara	BCSJ	29 (1956)	296
$\text{CoC}_8\text{H}_{17}\text{ClN}_5^0$	Cobalt (III)-ammonia, dimethyl glyoxime complex	5-7 μ	S	Spec	Nakahara	BCSJ	29 (1956)	296
$\text{CoC}_8\text{H}_{17}\text{N}_6^0$	Cobalt (III)-dimethyl nitrite complex	5-7 μ	S	Spec	Nakahara	BCSJ	29 (1956)	296

$\text{CoC}_{10}\text{H}_{12}\text{BrN}_2$	Pyridinium tetrabromo-cobaltate (II)	-	-	Freq	Schultz	JACS	71 (1949)	1288
$\text{CoC}_{10}\text{H}_{12}\text{ClN}_2\text{O}_8\text{Na}_2$	Cobalt (III)-chloride, ethylenediamine tetraacetic acid complex (sodium salt)	800-3600	S	Struct, Ident Spec	Morris Morris	JACS DA	78 (1956) 5178 19 (1958) 223	
$\text{CoC}_{10}\text{H}_{12}\text{N}_2\text{O}_8\text{Na} \cdot 2\text{H}_2\text{O}$	Cobalt (III)-ethylenediamine tetraacetic acid complex (sodium salt) dihydrate	800-1800	S	Spec, Bond	Donald	JACS	82 (1960)	4191
$\text{CoC}_{10}\text{H}_{12}\text{N}_2\text{O}_8\text{Na}_2 \cdot 1.5\text{H}_2\text{O}$	Cobalt (II)-ethylenediamine tetraacetic acid complex (sodium salt) 1.5 hydrate	800-1800	S	Spec, Freq	Sawyer	JACS	81 (1959)	816
$\text{CoC}_{10}\text{H}_{12}\text{N}_3\text{O}_10\text{Na}_2$	Cobalt (III)-ethylenediamine tetraacetic acid, nitrate complex (sodium salt)	-	-	Spec	Morris	JACS DA	19 (1958)	223
$\text{CoC}_{10}\text{H}_{12}\text{N}_3\text{O}_10\text{Na}_2 \cdot \text{H}_2\text{O}$	Cobalt (III)-ethylenediamine tetraacetic acid, nitrocomplex (sodium salt) monohydrate	800-3600	S	Struct, Ident	Morris	JACS	78 (1956)	5178
$\text{CoC}_{10}\text{H}_{13}\text{BrN}_2\text{O}_8\text{Na}$	Cobalt (III)-bromide, ethylenediamine tetraacetic acid (pentadentate) complex (sodium salt)	-	-	Spec, Struct	Morris	JACS DA	19 (1958)	223

$\text{CoC}_{10}\text{H}_{13}\text{ClN}_2^-$ O_8Na	Cobalt (III)-chloride, ethylene-diamine tetracetic acid (pentadentate) complex (sodium salt)	-	-	Spec, Struct	Morris	DA	19 (1958)	223
$\text{CoC}_{10}\text{H}_{13}\text{ClN}_2^-$ $\text{O}_8\text{Na} \cdot \frac{1}{2}\text{H}_2\text{O}$	Cobalt (III)-chloride, ethylene-diamine tetracetic acid complex (sodium salt)	-	-	Spec, Struct	Kyno	NKZ	81 (1960)	223
$\text{CoC}_{10}\text{H}_{13}\text{N}_2\text{O}_8$	Cobalt (III)-ethylenediamine tetracetic acid (hydrogen salt)	800-3600	S	Struct, Ident	Morris	JACS	78 (1956)	5178
$\text{CoC}_{10}\text{H}_{13}\text{N}_2\text{O}_8 \cdot 4\text{H}_2\text{O}$	Cobalt (III)-ethylenediamine tetracetic acid complex (hydrogen salt) tetrahydrate	-	-	Spec, Struct	Kyno	NKZ	81 (1960)	232
$\text{CoC}_{10}\text{H}_{13}\text{N}_2\text{O}_8 \cdot \text{Na}$	Cobalt (II)ethylenediamine tetracetic acid (pentadentate), nitrite complex (sodium salt)	-	-	Spec, Struct	Morris	DA	19 (1958)	223
$\text{CoC}_{10}\text{H}_{13}\text{N}_2\text{O}_8 \cdot \text{H}_2\text{O}$	Cobalt (III)-ethylenediamine tetracetic acid, nitrite complex (sodium salt) monohydrate	800-3600	S	Struct, Ident	Morris	JACS	78 (1956)	5178

$\text{CoC}_{10}\text{H}_{14}\text{ClN}_2\text{O}_8$	Cobalt (III)-chloride, ethylenediamine tetraacetic acid complex (hydrogen salt) dihydrate	-	-	Spec, Struct	Kyunno	81 (1960)	232
$\text{CoC}_{10}\text{H}_{14}\text{O}_4$	Cobalt (III)-acetyl acetone	625-5000	S	Spec, Struct	West	JINC 5 (1958)	295
$\text{CoC}_{10}\text{H}_{15}\text{BrN}_2\text{O}_7\text{Na}_7$	Cobalt (III)-bromide, hydroxyethyl, ethylenediamine triacetic acid complex (sodium salt)	-	-	Spec, Struct	Morris	DA 19 (1958)	223
$\text{CoC}_{10}\text{H}_{15}\text{ClN}_2\text{O}_7\text{Na}_7$	Cobalt (III)- chloride, hydroxy- ethyl, ethylene- diamine triacetic acid complex (sodium salt)	-	-	Spec, Struct	Morris	DA 19 (1958)	223
$\text{CoC}_{10}\text{H}_{15}\text{N}_3\text{O}_9\text{Na}_7$	Cobalt (III)-hydroxy- ethyl, ethylene- diamine triacetic acid complex (sodium salt)	-	-	Spec, Struct	Morris	DA 19 (1958)	223
$\text{CoC}_{10}\text{H}_{19}\text{N}_6\text{O}_8$	Cobalt (III)-methyl dimethyl glyoxime, nitrite complex (hydrogen salt)	2-15 μ	S	Spec	Makahara	BGSJ 29 (1956)	296
$\text{CoC}_{10}\text{H}_{24}\text{N}_4\text{S}_6$	Cobalt (III)- dimethyl sulfoxide complex thiocyanate	650-4000	S	Assign, Spec	Cotton	JPC 64 (1960)	1534
$\text{CoC}_{12}\text{H}_8\text{Cl}_4\text{N}_6\text{O}_4$	p-Nitrobenzene diazonium chloride, cobalt (II) chloride double salt	-	-	Struct	Kazitsyna	IANS - (1960)	1523

CoC ₁₂ H ₈ C ₁ N ₄ O ₂	Cobalt-iodide, nitric oxide, o-phenanthroline complex	1700-2050	S	Freq	Lewis	JINC	IANS - (1960)	32
CoC ₁₂ H ₈ N ₂ O ₄	Cobalt (II)-2- pyridine carboxylic acid chelate	-	-	Struct	Lunne	31B (1958)	294	
CoC ₁₂ H ₂₁ N ₆ O ₆	Cobalt-dimethyl glyoxime complex	2-6 μ 2-15 μ	S	Spec Spec	Nakahara Nakahara	BCSJ 28 (1955) BCSJ 29 (1956)	473 296	
CoC ₁₂ H ₂₁ N ₆ O ₆ · 2·5H ₂ O	Cobalt-dimethyl glyoxime complex 2·5 hydrate	2-6 μ	S	Spec	Nakahara	BCSJ 28 (1955)	473	
CoC ₁₂ H ₃₀ I ₂ N ₁₂	Cobalt (III)- biacetyl dihydrazone complex iodide	600-3500	S	Spec, Assign	Stoufer	JACS 82 (1960)	3491	
CoC ₁₂ H ₃₆ C ₁ ₂ - O ₁₂ P ₄	Cobalt (II)- trimethyl phosphine oxide complex perchlorate	800-1400	S	Freq	Cotton	JCS - (1960)	2199	
CoC ₁₂ H ₃₆ C ₁ ₂ - O ₁₄ S ₆	Cobalt (III)- dimethyl sulfoxide perchlorate complex	650-4000	S	Assign, Spec	Cotton	JPC 64 (1960)	1534	
CoC ₁₂ H ₃₆ I ₂ O ₆ S ₂	Cobalt (II)- dimethyl sulfoxide complex iodide	650-4000	S	Assign, Spec	Cotton	JFC 64 (1960)	1524	

$\text{CoC}_{13}\text{H}_{10}\text{Cl}_3$	Cobalt (II)-cyclopentadienyl trichloro-methyl complex	-	-	Struct	Katz	JACS	80 (1958)	64
$\text{CoC}_{14}\text{H}_{14}\text{Cl}_2\text{N}_4\text{O}$	Cobalt (II)-bis(pyridinal-ethylenediamine complex chloride hydrate	600-4000	S	Assign	Bush	JACS	78 (1956)	1137
$\text{CoC}_{14}\text{H}_{14}\text{Cl}_4\text{N}_4$	p-Methylbenzene diazonium chloride, cobalt (II) chloride double salt	-	-	Struct	Kazitsyna	IANS	- (1960)	1523
$\text{CoC}_{15}\text{H}_{21}\text{O}_6$	Cobalt (III)-acetyl acetone	625-5000	S	Spec, Struct	West	JINC	5 (1958)	295
$\text{CoC}_{18}\text{H}_{10}\text{Cl}_4\text{N}_4^0$	p-Carboxethoxy benzene diazonium chloride, cobalt (II) chloride double salt	-	-	Struct	Kazitsyna	IANS	- (1960)	1523
$\text{CoC}_{18}\text{H}_{12}\text{N}_2\text{O}_2$	Cobalt (III)-8-hydroxy quinoline chelate	- 8-15 μ	S	Assign, Spec Spec	Charles Charles	AC SA	25 (1953) 8 (1956)	530 1956
$\text{CoC}_{18}\text{H}_{14}\text{Br}_3$	Dibenzcobalticinium tribromide	6-15 μ	S	Spec	Pauson	JACS	76 (1954)	2024
$\text{CoC}_{18}\text{H}_{14}\text{ClO}_4$	Dibenzcobalticinium perchlorate	3-15 μ	S	Spec	Pauson	JACS	76 (1954)	2024
$\text{CoC}_{18}\text{H}_{16}\text{Br}_4\text{N}_2$	Quinoline tetrabromo-cobaltate (II)	-	S	Freq	Schultz	JACS	71 (1949)	1288
$\text{CoC}_{19}\text{H}_{15}\text{NO}_2\text{P}$	Cobalt (o)-Carbon monooxide, nitric oxide, triphenyl phosphine complex	1700-2050	Sol	Freq	Lewis	JINC	7 (1958)	32

$\text{CoC}_{20}\text{H}_{12}\text{N}_{2}\text{O}_4$	Cobalt (II)-8-quinoline carboxylic acid chelate	-	-	Struct	Lumine	SK	λ_{B} (1958)	294
$\text{CoC}_{20}\text{H}_{16}\text{ClN}_{2}\text{O}_4$	Cobalt (I)-dipyridyl complex perchlorate	-	Sol	Extinction curves	Csaszar	MWS	46 (1959)	488
$\text{CoC}_{20}\text{H}_{16}\text{N}_{2}\text{O}_2$	Cobalt (II)-2-methyl-8-hydroxyquinoline chelate	$8-15\mu$	S	Assign, Spec	Charles	SA	8 (1956)	1
$\text{CoC}_{20}\text{H}_{16}\text{N}_{2}\text{O}_2$	Cobalt (II)-4-methyl-8-hydroxyquinoline chelate	$8-15\mu$	S	Assign, Spec	Charles	SA	8 (1956)	1
$\text{CoC}_{20}\text{H}_{22}\text{O}_4$	Cobalt-Y-isopropyl tropolonate	-	S	Band freq	Bryant	JOC	19 (1954)	1889
$\text{CoC}_{23}\text{H}_{21}\text{NO}_3\text{As}$	Cobalt-carbon-monoxide, nitric oxide, tritypylum arsine complex	1700-2050	Sol	Freq	Lewis	JINC	7 (1958)	32
$\text{CoC}_{23}\text{H}_{21}\text{NO}_3\text{Sb}$	Cobalt-carbon-monoxide, nitric oxide, tritypylum stibene complex	1700-2050	Sol	Freq	Lewis	JINC	7 (1958)	32
$\text{CoC}_{22}\text{H}_{16}\text{N}_8$	Cobalt phthalocyanine	$3-15\mu$	S	Spec	Ebert	JACS	74 (1952)	2806
$\text{CoC}_{26}\text{H}_{24}\text{Cl}_2\text{N}_6\text{O}_8$	Cobalt (III)-1:10-phenanthroline complex perchlorate	600-2000	S	Spec	Schilt	JINC	9 (1959)	211

$\text{CoC}_{36}\text{H}_{24}\text{Cl}_3\text{N}_6\text{O}_{12}$	Cobalt (III)-1:10-phenanthroline complex perchlorate	600-2000	S	Spec	Schilt	JINC	9 (1959)	211
$\text{CoC}_{36}\text{H}_{30}\text{Br}_2\text{O}_2\text{P}_2$	Cobalt (II)-triphenyl phosphineoxide complex bromide	900-1300	S	Freq	Cotton	JCS	- (1960)	2199
$\text{CoC}_{36}\text{H}_{30}\text{Cl}_2\text{O}_2\text{P}_2$	Cobalt (II)-triphenyl phosphineoxide complex chloride	900-1300	S	Freq	Cotton	JCS	- (1960)	2199
$\text{CoC}_{36}\text{H}_{30}\text{I}_2\text{O}_2\text{P}_2$	Cobalt (II)-triphenyl phosphineoxide complex iodide	900-1300	S	Freq	Cotton	JCS	- (1960)	2199
$\text{CoC}_{38}\text{H}_{30}\text{NO}_9\text{P}_2$	Cobalt-t-carbonmono-oxide, nitric oxide, triphenoxy phosphine complex	1700-2050	Sol	Freq	Lewis	JINC	7 (1958)	32
$\text{CoC}_{63}\text{H}_{90}\text{N}_{14}\text{O}_{14}\text{P}$	Vitamin B ₁₂	700-3500	-	Band freq Spec Ident	Kaczka Jackson Armitage	JACS JACS JCS	73 (1951) 73 (1951) - (1953)	335 337 3849
$\text{CoC}_{72}\text{H}_{60}\text{Cl}_2\text{O}_2\text{I}_{12}\text{P}_4$	Cobalt (II)-triphenyl phosphine oxide complex perchlorate	900-1300	S	Freq	Cotton	JCS	- (1960)	2199
CoH	Cobalt hydride	-	-	FC, Bond distance FC, Bond distance	Platt Sheline	JCP JCP	18 (1950) 18 (1950)	932 927
CoHF	Cobalt hydrogen-fluoride	-	G	Freq	Bellamy	JCS	- (1957)	4294
CoHN_5Na_2	Cobalt (III)-hydroxide, nitrite, nitric oxide complex (sodium salt)	600-2200	S	Struct	Griffith	JINC	7 (1958)	38
$\text{CoH}_4\text{F}_3\text{N}$	Cobalt (III)-ammonium-fluoride	1400-4000	S	Spec	Crockett	JACS	82 (1960)	4158

$\text{CoH}_4\text{N}_2\text{O}_2\text{S}_2$	Cobalt sulfamate	-	S	Freq, Assign	Bicelli	AC	47 (1957)	1380
$\text{CoH}_6\text{N}_6\text{O}_8$	1,6-Cobalt (III)-ammonia, nitrite complex anion	400-5000	S	Spec, Freq, Assign	Nakamoto	JACS	80 (1958)	4817
$\text{CoH}_6\text{N}_6\text{O}^{\text{K}}_8$	trans-Cobalt (III)-ammonia, nitrite complex (potassium salt)	2-15 μ 650-1650 -	S S -	Assign Freq Freq	Beattie Svatos Wilmshurst	JCS JACS CJC	- (1956) 79 (1957) 38 (1960)	2849 3313 467
$\text{CoH}_8\text{Cl}_2\text{N}_4$	Cobalt (II)-hydrazine, chloride complex	15-35 μ	S	Freq	Saconi	N	186 (1960)	549
$\text{CoH}_8\text{N}_2\text{O}_2\text{S}_2$	Cobalt ammonium sulfate	0.8-1.25 μ	Sol	Magnetic rotation	Ingersoll	JOSA	6 (1922)	663
$\text{CoH}_9\text{N}_6\text{O}_6$	Cobalt (III)-ammonia, nitrite complex	650-1650 -	S -	Freq Struct Freq	Svatos Majumdar Wilmshurst	JACS CPR CJC	79 (1957) 247 (1958) 38 (1960)	3313 302 467
$\text{CoH}_9\text{N}_6\text{O}_6$	trans-Cobalt (III)-ammonia, nitrite complex	2-15 μ	S	Assign	Beattie	JCS	- (1956)	2849
$\text{CoH}_9\text{N}_6\text{O}_6$	1,2,3-Cobalt (III)-ammonia, nitrite complex	400-5000	S	Spec, Freq, Assign, Struct	Nakamoto	JACS	80 (1958)	4817
$\text{CoH}_9\text{N}_6\text{O}_6$	1,2,4-Cobalt (III)-ammonia, nitrite complex	400-5000	S	Spec, Freq, Assign, Struct	Nakamoto	JACS	80 (1958)	4817
$\text{CoH}_9\text{N}_{12}$	Cobalt (III)-ammonia, azide complex	1900-2100	S	Freq	Fujita	JACS	78 (1956)	3295
$\text{CoH}_{10}\text{N}_7\text{O}_8$	trans-Cobalt (III)-ammonia nitrite complex (Ammonium salt)	2-15 μ	S	Assign	Beattie	JCS	- (1956)	2849

$\text{CoH}_{12}\text{ClN}_6\text{O}_4$	cis-Cobalt (III)-ammonia nitrite complex chloride	2-15 μ 2-15 μ 2-15 μ	S S S	Band freq Assign Spec, Assign	Faust Merritt Beattie	JACS JPC JCS	76 (1954) 59 (1955) - (1956)	5346 55 2849
$\text{CoH}_{12}\text{ClN}_6\text{O}_4$	trans-Cobalt (III)-ammonia, nitrite complex chloride	2-15 μ 2-15 μ 2-15 μ 650-1650 -	S S S -	Group freq, Spec Band freq Assign Freq Freq	Faust Merritt Beattie Svatos Wilmshurst	JACS JPC JCS JAC S CJC	76 (1954) 59 (1955) - (1956) 79 (1957) 38 (1960)	5346 55 2849 3313 467
$\text{CoH}_{12}\text{Cl}_2\text{N}_5\text{O}_3$	Cobalt (III)-ammonia, chloride nitrate complex chloride	700-4000	S	Assign	Gatehouse	JINC	8 (1958)	75
$\text{CoH}_{12}\text{Cl}_2\text{N}_5\text{O}_3 \cdot \frac{1}{2}\text{H}_2\text{O}$	Cobalt (III)-ammonia, nitrate, chloride complex chloride hemihydrate	700-4000	S	Assign	Gatehouse	JCS	- (1957)	4222
$\text{CoH}_{12}\text{Cl}_2\text{N}_4$	cis-Cobalt (III)-ammonia, chloride complex chloride	2-15 μ	S	Band freq	Merritt	JPC	59 (1955)	55
$\text{CoH}_{12}\text{Cl}_2\text{N}_4$	trans-Cobalt (III)-ammonia, chloride complex chloride	2-15 μ	S	Band freq	Merritt	JPC	59 (1955)	55
$\text{CoH}_{12}\text{N}_4\text{O}_4 \cdot 2\text{H}_2\text{O}$	Cobalt (III)-ammonia complex phosphate dihydrate	640-4000	S	Assign	Siebert	ZAU A	296 (1958)	280
$\text{CoH}_{12}\text{N}_6\text{O}_4$	1,2-Cobalt (III)-ammonia nitrite complex cation	400-5000	S	Spec, Freq, Assign, Struct	Nakamoto	JACS	80 (1958)	4817
$\text{CoH}_{12}\text{N}_6\text{O}_4$	1,6-Cobalt (III)-ammonia, nitrite complex cation	400-5000	S	Spec, Freq, Assign, Struct	Nakamoto	JACS	80 (1958)	4817

$\text{CoH}_{12}\text{N}_7\text{O}_7$	cis-Cobalt (III)-ammonia nitrite complex nitrate	$2-15 \mu$ $2-15 \mu$	S S	Band freq Assign	Merritt Beattie	JPC JCS	59 (1955) - (1956)	55 2849
$\text{CoH}_{12}\text{N}_7\text{O}_7$	trans-Cobalt (III)-ammonia nitrite complex nitrate	$2-15 \mu$	S	Band freq	Merritt	JPC	59 (1955)	55
$\text{CoH}_{12}\text{N}_7\text{O}_9$	Cobalt (III)-ammonia, nitrate complex nitrate	700-1400	S	Assign	Gatehouse	JINC	8 (1958)	75
$\text{CoH}_{12}\text{N}_7\text{O}_9 \cdot \text{H}_2\text{O}$	Cobalt (III)-ammonia, nitrate complex nitrate monohydrate	700-4000	S	Assign	Gatehouse	JCS	- (1957)	4222
$\text{CoH}_{12}\text{O}_6$	Hexaquo cobaltous ion	-	S, Sol	Freq, FC	Schultz	JCP	10 (1942)	194
$\text{CoH}_{14}\text{ClN}_4\text{O}_5\text{S}$	Cobalt (III)-ammonia chloride, water complex sulfate	-	-	Spec	Ogawa	NKZ	81 (1960)	72
$\text{CoH}_{15}\text{BrCl}_2\text{N}_5$	Cobalt (III)-ammonia, bromide complex chloride	$2-15 \mu$	S	Freq Freq, Spec	Hill Hill	JCP JCP	22 (1954) 24 (1956)	148 1219
$\text{CoH}_{15}\text{BrN}_5\text{O}_3$	Cobalt (III)-ammonia, carbonate complex bromide	400-5000	S	Spec	Nakamoto	JACS	79 (1957)	4904
$\text{CoH}_{15}\text{BrN}_5\text{O}_4\text{S}$	Cobalt (III)-ammonia, sulfate complex bromide	400-5000	S	Spec	Nakamoto	JACS	79 (1957)	4904
$\text{CoH}_{15}\text{Br}_2\text{ClN}_5$	Cobalt (III)-ammonia, chloride complex bromide	650-1650	S -	Freq Freq	Svatos Wilmshurst	JACS CJC	79 (1957) 38 (1960)	3313 467

2050	$\text{CoH}_{15}\text{Br}_2\text{FN}_5$	Cobalt (III)-ammonia, fluoride complex bromide	$\bar{\text{--}}15/\mu$	S S	Freq Freq, Spec	Hill Hill	JCP JCP	22 (1954) 24 (1956)	148 1219
	$\text{CoH}_{15}\text{Br}_2\text{N}_6\text{O}$	Cobalt (II)-ammonia, nitric oxide complex bromide	600-2200	S	Struct	Griffith	JINC	7 (1958)	38
	$\text{CoH}_{15}\text{Br}_2\text{N}_8$	Cobalt (III)-ammonia, azide complex bromide	$\bar{\text{--}}15/\mu$	S S	Freq Freq, Spec	Hill Hill	JCP JCP	22 (1954) 24 (1956)	148 1219
	$\text{CoH}_{15}\text{Br}_3\text{N}_5$	Cobalt (III)-ammonia, bromide complex bromide	830-1530 $\bar{\text{--}}15/\mu$ 650-1650 -	S S S -	Freq Freq Freq Freq	Hill Mizushima Hill Svatos Wilmhurst	JCP JCP JCP JACS CJC	22 (1954) 23 (1955) 24 (1956) 79 (1957) 38 (1960)	148 1367 1219 3313 467
	$\text{CoH}_{15}\text{ClN}_5\text{O}_3\text{S}$	Cobalt (III)-ammonia, sulfate complex chloride	$\bar{\text{--}}15/\mu$	S	Spec, Struct	Bertin	JACS	81 (1959)	3818
	$\text{CoH}_{15}\text{ClN}_5\text{O}_3\text{S}_2$	Cobalt (III)-ammonia, chlorido complex thiosulfate	$\bar{\text{--}}15/\mu$	S	Spec, Struct	Bertin	JACS	81 (1959)	3818
	$\text{CoH}_{15}\text{ClN}_5\text{O}_3\text{S}_2$	Cobalt (III)-ammonia, thio-sulfate complex chloride	2-15/ μ 1000-1250	S S	Spec, Struct Spec, Struct	Bertin Hidaka	JACS BCSJ	81 (1959) 32 (1959)	3818 1317
	$\text{CoH}_{15}\text{ClN}_5\text{O}_4\text{S}$	Cobalt (III)-ammonia, sulfate complex chloride	650-1650 $\bar{\text{--}}15/\mu$	S S	Freq Spec, Struct	Svatos Bertin	JACS JACS	79 (1957) 81 (1959)	3313 3818
	$\text{CoH}_{15}\text{Cl}_2\text{FN}_5$	Cobalt (III)-ammonia, fluoride complex chloride	$\bar{\text{--}}15/\mu$	S	Freq Freq, Spec	Hill Hill	JCP JCP	22 (1954) 24 (1956)	148 1219

$\text{CoH}_{15}\text{Cl}_2\text{N}_5^+$	Cobalt (III)-ammonia, water complex chloride	840-1610	-	Freq	Mizushima	JCP	23 (1955)	1367
$\text{CoH}_{15}\text{Cl}_2\text{N}_6^0$	Cobalt (II)-ammonia, nitric oxide complex chloride	600-2200	S	Struct	Griffith	JINC	7 (1958)	38
$\text{CoH}_{15}\text{Cl}_2\text{N}_6^2$	Cobalt (III)-ammonia, nitrite complex chloride	- 2-15 μ 2-15 μ 5-12 μ 650-1650 -	S - S S -	Struct Assign ISO Spec., Assign Freq Freq	Penland Beattie Beattie Penland Svatos Wilmshurst	AC JCS TRS JACS JACS CJC	27 (1955) - (1956) 52 (1956) 78 (1956) 79 (1957) 38 (1960)	325 2849 1590 887 3313 467
$\text{CoH}_{15}\text{Cl}_2\text{N}_6^0$	Cobalt (III)-ammonia, nitrate complex chloride	650-1650 2-15 μ	S	Freq Spec., Assign	Svatos Bertin	JACS JACS	79 (1957) 81 (1959)	3313 3818
$\text{CoH}_{15}\text{Cl}_2\text{N}_8$	Cobalt (III)-ammonia, azide complex chloride	- 2-15 μ	S	Freq Freq, Spec	Hill Hill	JCP JCP	22 (1954) 24 (1956)	148 1219
$\text{CoH}_{15}\text{Cl}_3\text{N}_5$	Cobalt (III)-ammonia, chloride complex chloride	- 1600-845 2-15 μ 2-15 μ 450-3250	S - S S	Freq Freq Assign Freq, Spec Assign	Hill Mizushima Beattie Hill Powell	JCP JCP JCS JCP JCS	22 (1954) 23 (1955) - (1956) 24 (1956) - (1956)	148 1367 2849 1219 3108
$\text{CoH}_{15}\text{Cl}_4\text{N}_6\text{O}_3\text{Pt}$	Nitratotetraminino cobalt (III)-tetrachloroplatinate	700-4000 700-4000	S	Assign Assign	Gatehouse Gatehouse	JCS JINC	- (1957) 8 (1958)	4222 75
$\text{CoH}_{15}\text{Fl}_2\text{N}_5$	Cobalt (III)-ammonia, fluoride, complex iodide	- 2-15 μ	S S	Freq Freq, Spec	Hill Hill	JCP JCP	22 (1954) 24 (1956)	148 1219

$\text{CoH}_{15}\text{I}_2\text{N}_6^0$	Cobalt (III)-ammonia, nitric oxide complex iodide	600-2200	S	Struct	Griffith	JINC	7 (1958)	38
$\text{CoH}_{15}\text{I}_2\text{N}_8$	Cobalt (III)-ammonia, azide complex iodide	2-15 μ 1900-2100	S	Freq Freq, Spec Freq	Hill Hill Fuji ta	JCP JCP JACS	22 (1954) 24 (1956) 78 (1956)	148 1219 3295
$\text{CoH}_{15}\text{N}_6^0\text{O}_2$	Cobalt (III)-ammonia, nitrite complex cation	400-5000	S	Spec, Freq, Struct, Assign	Nakamoto	JACS	80 (1958)	4817
$\text{CoH}_{15}\text{N}_6^0\text{O}_5\text{S}$	Cobalt (III)-ammonia, nitric oxide complex sulfate	600-2200	S	Struct	Griffith	JINC	7 (1958)	38
$\text{CoH}_{15}\text{N}_8^0\text{O}_7$	Cobalt (III)-ammonia, nitric oxide complex nitrate	600-2200	S	Struct	Griffith	JINC	7 (1958)	38
$\text{CoH}_{15}\text{N}_8^0\text{O}_9$	Cobalt (III)-ammonia, nitrate complex nitrate	700-4000 700-4000	S	Assign Assign	Gatehouse Gatehouse	JCS JINC	- (1957) 8 (1958)	4222 75
$\text{CoH}_{15}\text{N}_{14}$	Cobalt (III)-ammonia, azide complex azide	2-15 μ	S	Spec, Freq	Hill	JCP	24 (1956)	1219
$\text{CoH}_{16}\text{Br}_2\text{N}_5^0$	Cobalt (III)-ammonia, hydroxide complex bromide	650-1650	S	Freq Freq	Svatos Wilmshurst	JACS CJC	79 (1957) 38 (1960)	3313 467
$\text{CoH}_{16}\text{Cl}_3\text{N}_4^0\text{O}_2$	Cis-Cobalt (III)-ammonia, water complex chloride	650-1650	S	Freq	Svatos	JACS	79 (1957)	3313

$\text{CoH}_{17}^{\text{Br}}\text{Cl}_3\text{N}_5^0$	Cobalt (III)-ammonia, water complex bromide	-	-	S	Freq, Spec	Hill Hill	JCP JCP	22 (1954) 24 (1956)	148 1219
$\text{CoH}_{17}^{\text{Cl}}\text{Cl}_3\text{N}_5^0$	Cobalt (III)-ammonia, water complex chloride	-	-	S	Freq, Spec	Hill Hill	JCP JCP	22 (1954) 24 (1956)	148 1219
$\text{CoH}_{17}^{\text{F}}\text{Br}_2\text{N}_5^-$	Cobalt (III)-ammonia, fluoride complex fluoride dihydrofluoric acid	-	-	S	Freq, Spec	Hill	JCP	24 (1956)	467
$\text{CoH}_{17}\text{I}\text{Cl}_3\text{N}_5^0$	Cobalt (III)- ammonia, water complex iodide	-	-	S	Freq, Spec	Hill Hill	JCP JCP	22 (1954) 24 (1956)	148 1219
$\text{CoH}_{18}^{\text{Br}}\text{Cl}_2\text{N}_6^-$	Cobalt (II)-ammonia complex bromide	-	-	S	Spec, NCA, Assign	Bertin	JACS	80 (1958)	525
$\text{CoH}_{18}^{\text{Br}}\text{Cl}_3\text{N}_6^-$	Cobalt (III)-ammonia complex bromide	-	-	S	Spec, Freq, Spec	Hill	JCP	22 (1954) JACS 78 (1956)	148 3295
$\text{CoH}_{18}^{\text{Cl}_2}\text{N}_6^-$	Cobalt (II)-ammonia complex chloride	-	-	S	Spec, Freq, Spec	Fujita	JCP	24 (1956)	1219
$\text{CoH}_{18}^{\text{Cl}_2}\text{N}_6^-$	Cobalt (III)-ammonia complex chloride	-	-	S	Spec, Freq, Spec	Hill	JACS	80 (1958)	525
$\text{CoH}_{18}^{\text{Cl}_2}\text{N}_6^-$	Cobalt (II)-ammonia complex chloride	-	-	S	Spec, Freq, Spec	Bertin	JCS	- (1958)	2283
$\text{CoH}_{18}^{\text{Cl}_2}\text{N}_6^-$	Cobalt (III)-ammonia complex chloride	-	-	S	Spec, Freq, Spec	Irwing	JCS	- (1958)	2283
$\text{CoH}_{18}^{\text{Cl}_2}\text{N}_6^-$	Cobalt (II)-ammonia complex chloride	-	-	S	Assign, Freq	Powell	JCS	- (1956)	3108
$\text{CoH}_{18}^{\text{Cl}_2}\text{N}_6^-$	Cobalt (III)-ammonia complex chloride	-	-	S	Spec, Freq, NCA, Freq	Svatos	JACS	79 (1957)	3313
$\text{CoH}_{18}^{\text{Cl}_2}\text{N}_6^-$	Cobalt (II)-ammonia complex chloride	-	-	S	Spec, Freq, NCA, Freq	Bertin	JACS	80 (1958)	525
$\text{CoH}_{18}^{\text{Cl}_2}\text{N}_6^-$	Cobalt (III)-ammonia complex chloride	-	-	S	Spec, Group freq	Wilmshurst	CJC	38 (1960)	467
$\text{CoH}_{18}^{\text{Cl}_2}\text{N}_6^-$	Cobalt (II)-ammonia complex chloride	-	-	S	Spec, Freq, Assign	Faust	JACS	76 (1954)	5346
$\text{CoH}_{18}^{\text{Cl}_2}\text{N}_6^-$	Cobalt (III)-ammonia complex chloride	-	-	S	Spec, Freq, Assign	Hill	JCP	22 (1954)	148
$\text{CoH}_{18}^{\text{Cl}_2}\text{N}_6^-$	Cobalt (II)-ammonia complex chloride	-	-	S	Spec, Freq, Assign	Kobayashi	JCP	23 (1955)	1554
$\text{CoH}_{18}^{\text{Cl}_2}\text{N}_6^-$	Cobalt (III)-ammonia complex chloride	-	-	S	Spec, Assign	Barrow	JINC	2 (1956)	340

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$\text{CoD}_{18}^{+1}\text{N}_6$	Cobalt (III)-ammonia complex chloride-d ₁₈	300-4000 450-1700	S	Spec, Assign Assign, Freq	Barrow Powell	J INC JCS	2 (1956) - (1956)	340 3108
$\text{CoD}_{18}^{\text{N}6}$	Hexammine cobalt (III)-ion-d ₁₈	- 2-15 μ	S	Freq Spec, Freq, NCA	Mizushima Block	JCP TPS	23 (1955) 55 (1959)	1367 867
CoBr_2	Cobalt bromide	-	G	Freq	Bellamy	JCS	- (1957)	4294
CoClF	Cobalt chloro fluoride	-	G	Freq	Bellamy	JCS	- (1957)	4294
CoCl_2	Cobalt chloride	0.6-1.35 μ	Sol	Activity vs concentration	Hulbert	JPC	21 (1917)	150
		0.6-1.5 μ 0.56-2.3 μ	Sol L G	Spec Mol. rotation Freq	Coblenz Ingersoll Bellamy	BBS JOSA JCS	14 (1918) 6 (1922) - (1957)	653 663 4294
$\text{CoCl}_2 \cdot 6\text{H}_2\text{O}$	Cobalt chloride hexahydrate	5-15 μ	S	Freq, I	Lippincott	SA	16 (1960)	58
CoF_2	Cobalt fluoride	-	G	Freq	Bellamy	JCS	- (1957)	4294
CoF_4	Cobalt (II)-complex fluorion	-	S	Freq, Struct	Peacock	JCS	- (1959)	2762
CoF_4	Cobalt (III)-complex fluorion	-	S	Freq, Struct	Peacock	JCS	- (1959)	2762
CoF_4K_2	Cobalt (II)-fluoride complex (potassium salt)	300-1500	S	Spec	Lecomte	CPR	249 (1959)	1991
CoIN_2O_2	Cobalt (I)-Iodide nitric Oxide complex	1700-2050	S	Struct	Lewis	J INC	7 (1958)	32
CoN_2O_2	Cobalt hyponitrite	400-4000	S	Freq	LeFevre	AJC	10 (1957)	361

$\text{CoN}_6^{0-} \text{Na}_2^{+}$	Cobalt nitrate	0.8-1.25 μ	Sol	Magnetic rotation	Ingersoll Melchoe Addison	JOSA JINC JCS	6 (1922) 6 (1958) - (1960)	663 104 613
$\text{CoN}_6^{0-} \text{K}_2^{+}$	Cobalt nitrate hexahydrate	2-16 μ	S	Spec	Miller	AC JMS SA	24 (1952) 4 (1960) 16 (1960)	1253 99 135
$\text{CoN}_6^{0-} \text{S}_4 \text{K}_2$	Cobalt (II)-nitric oxide, thiosulfate complex (potassium salt)	2050-11700	S	Freq	Ferraro Miller Lewis	JINC	7 (1958)	32
$\text{CoN}_6^{0-} \text{K}_{12}^{-}$	Cobalt (II)-nitrite complex ion	-	S	Spec, Freq, Assign, Struct	Nakamoto	JACS	80 (1958)	4817
$\text{CoN}_6^{0-} \text{K}_3^{-}$	Cobalt (III)-nitrate complex (potassium salt)	2-15 μ	S	Spec, Freq	Hill	JCP	24 (1956)	1219
$\text{CoN}_6^{0-} \text{K}_3^{-}$	Cobalt (III)-nitrite complex (potassium salt)	2-15 μ	S	Assign	Beattie	JCS	- (1956)	2849
$\text{CoN}_6^{0-} \text{Cs}_2 \text{Na}$	Cobalt (III)-nitrate complex (monosodium dicesium salt)	2-15 μ	S	Spec, Freq	Hill	JCP	24 (1956)	1219
$\text{CoN}_6^{0-} \text{K}_2 \text{Cs}_2^{-}$	Cobalt (III)-nitrate complex (cesium salt)	-	-	Struct	Paget	CPR	250 (1960)	4141
$\text{CoN}_6^{0-} \text{K}_2 \text{Na}_2^{+}$	Cobalt (III)-nitrate complex (dipotassium sodium salt)	-	-	Struct	Paget	CPR	250 (1960)	4141
$\text{CoN}_6^{0-} \text{NaRb}_2^{-}$	Cobalt (III)-nitrate complex (sodium, dirubidium salt)	2-15 μ	S	Spec, Freq	Hill	JCP	24 (1956)	1219

CoN₆O₁₂K₂Na₃ Cobalt (III)-nitrate complex-
 CoN₆O₁₂K₃ Cobalt (III)-nitrate complex-
 CoN₆O₁₂Na₂ Cobalt (III)-nitrate complex-
 CoN₆O₁₂NaRb₂ Cobalt (III)-nitrate complex (sodium, dirubidium salt)

$\text{CoN}_6\text{O}_{12}\text{Na}_3$	Cobalt (III)-nitrite complex (sodium salt)	2-16 μ 2-15 μ 2-15 μ 600-2200 300-880	S S S S	Spec Spec, Freq Spec, Freq Struct Spec	Miller Faust Hill Griffith Miller	AC JACS JCP J INC SA	24 (1952) 76 (1954) 24 (1956) 7 (1958) 16 (1960)
CoO_4S	Cobalt sulphate	0.8-1.25 μ - 1-15 μ	Sol - Sol	Magnetic rotation Interpretation of spec Spec	Ingersoll Duval Lagerqvist	JOSA CPR AF	6 (1922) 227 (1948) 12 (1957)
$\text{CoO}_4\text{S} \cdot 7\text{H}_2\text{O}$	Cobalt (II)-sulphate heptahydrate	2-16 μ 300-880	S S	Spec Spec	Meloche Miller	J INC SA	6 (1958) 16 (1960)
$\text{CoO}_4\text{Se} \cdot 6\text{H}_2\text{O}$	Cobalt selenate hexahydrate	220-3500	S	Spec, Struct	Duval	ZE	64 (1960)
CoO_4Fe_2	Cobalt ferrite	10-500	-	Reflection and transmission	Mitsuiichi	JPSJ	13 (1958) 104 135
$\text{Co}_2\text{C}_2\text{H}_{24}\text{N}_8\text{S} \cdot 0_{10}\text{S} \cdot 3\text{H}_2\text{O}$	Cobalt (III)-ammonia, carbonate complex sulfate trihydrate	700-4000	S	Freq assign	Gatehouse	JCS	- (1958) 1236
$\text{Co}_2\text{C}_3\text{H}_{18}\text{N}_6\text{O}_9$	Hexamincobalt (III) carbonato cobaltate-(III)	700-4000	S	Freq, Assign	Gatehouse	JCS	- (1958) 3137
$\text{Co}_2\text{C}_8\text{O}_8$	Dicobalt octacarbonyl	1859-2066 2.5-15 μ - 2-24 μ 1800-2200 1800-2200	Sol Sol - Sol Sol	I Spec, Struct Freq Spec, I, Assign Spec, Config. Spec, Struct	Sternberg Coble Sternberg Friedel Bor Cotton	JACS JACS JACS JACS SA JCS	75 (1953) 2717 76 (1954) 3373 76 (1954) 1457 77 (1955) 3951 15 (1959) 747 - (1960) 1882
$\text{Co}_2\text{C}_8\text{O}_8 \cdot \text{AlBr}_3$	Cobalt (0)-octa-carbonyl aluminium bromide	1800-2200.	S	Spec	Cotton	JCS	- (1960) 1882
$\text{Co}_2\text{O}_{10}\text{N}^{+}\text{K}^{+}$	Cobalt (II)-cyanide complex (potassium salt)	2000-2150	S	Struct	Griffith	J INC	7 (1958) 295

$\text{Co}_2\text{C}_{12}\text{H}_{36}\text{Cl}_4^-$	Cobalt (II)-dimethyl sulfoxide, chloride complex	650-4000	S	Assign, Spec	Cotton	JPC	64 (1960)	1534
$\text{Co}_2\text{C}_{12}^{\text{D}}\text{H}_{36}\text{Cl}_4^-$	Cobalt (II)-dime thyl sulfoxide chloride complex- d_{36}	650-4000	S	Assign, Spec	Cotton	JPC	64 (1960)	1534
$\text{Co}_2\text{C}_{36}\text{H}_{30}\text{I}_4^-$ $\text{N}_{12} \cdot 2\text{H}_2\text{O}$	Cobalt (II)-pyridinalazine complex iodide dilydrate	1400-1700	S	Freq, Struct	Stratton	JACS	82 (1960)	4834
$\text{Co}_2\text{H}_{26}\text{Cl}_4\text{N}_9\text{O}_2$	Cobalt (III)-ammonia, amine, peroxide complex perchlorate	800-1450	S	Binding	Gatehouse	JINC	8 (1958)	79
$\text{Co}_2\text{H}_{26}\text{Cl}_4\text{N}_9\text{O}_2 \cdot$ $4\text{H}_2\text{O}$	Tetraammine cobalt (III)- μ -peroxo- μ -amido tetramine cobalt (III) chloride hydrate	800-1500	S	Freq, Struct	Chatt	JCS	- (1959)	4073
$\text{Co}_2\text{H}_{26}\text{Cl}_4\text{N}_{10}\text{O}_2 \cdot$ H_2O	Tetrammine cobalt (III)- μ -nitro- μ -amido tetramine cobalt (III) chloride hydrate	800-1500	S	Freq, Struct	Chatt	JCS	- (1959)	4073
$\text{Co}_2\text{H}_{26}\text{N}_9\text{O}_4\text{S}$	Cobalt-ammonia, amine, sulphate complex (bridge complex)	400-5000	S	Spec	Nakamoto	JACS	79 (1957)	490
$\text{Co}_2\text{H}_{30}\text{Cl}_4\text{N}_{12}\text{O}_2$	Cobalt (III)-ammonia, nitric oxide complex chloride	600-2200	S	Struct	Griffith	JINC	7 (1958)	38

$\text{Co}_2\text{H}_{30}\text{N}_{16}^0\text{O}_{16}$	Cobalt (III)-ammonia, nitric oxide complex ni trate	600-2200	S	Struct	Griffith	J INC	7 (1958)	38
$\text{Co}_2\text{H}_{36}\text{N}_{12}^0\text{O}_{12}^- \cdot 5\text{H}_2\text{O}$	Cobalt (III)-ammonia complex sulfate penta-hydrate	400-5000	S	Spec	Nakamoto	JACS	79 (1957)	490
$\text{Co}_2\text{B}_2\text{O}_5$	Cobalt pyroborate	2-15 μ	S	Freq, Struct	KroghMbe	ARK	12 (1958)	475
$\text{Co}_3^0\text{P}_2\text{S}_2$	Tricobalt bis-phosphoromonothioate	897-3250	S	I, Freq	Corbridge	JCS	- (1954)	4555
Co_3^0P_2	Cobaltic ortho-phosphate	650-290	S	Assign	Duval	CPR	239 (1954)	249
$\text{Co}_3^0\text{P}_2 \cdot 8\text{H}_2\text{O}$	Cobalt (II)-phosphate octa-hydrate	2-16 μ	S	Spec	Meloche	J INC	6 (1958)	104
$\text{Co}_4\text{C}_{12}^0$	Tetracobalt dodeca-carbonyl	2-24 μ	Sol	Spec, I, Assign, Struct	Friedel	JACS	77 (1955)	3951
$\text{Co}_4\text{C}_{20}\text{H}_{28}^0\text{O}_8$	Cobalt (II)-acetyl acetone complex (tetramer)	1700-280	-	Band study	Nakamoto	N	183 (1959)	459
$\text{Co}_4\text{C}_{40}\text{H}_{36}^0\text{O}_8$	Cobalt (II)-benzoyl acetone complex (tetramer)	1700-280	-	Band study	Nakamoto	N	183 (1959)	459
<hr/> <u>Cr COMPOUNDS</u>								
$\text{Cr(OH)}_6\text{NO}_8\text{Se}_2$	Methylammonium selenate alum	-	S	Freq, Assign, Spec	Krans	JCP	9 (1941)	133

$\text{CrCH}_1\text{N}_8\text{O}_6\text{S}$	Chromium (III)-ammonia, isothiocyanate, complex nitrate	1900-2100	S	Freq	Fujita	JACS	78 (1956)	3295
$\text{CrC}_4\text{H}_4\text{O}_{10}\text{K} \cdot 3\text{H}_2\text{O}$	Chromium (III)-oxalate, water (potassium salt) trihydrate	2-35 μ	S	Assign	Schmelz	SA	9 (1957)	51
$\text{CrC}_4\text{H}_4\text{O}_{10}\text{Na} \cdot 5\text{H}_2\text{O}$	trans-chromium (III)-oxalate, water complex (potassium salt) trihydrate	800-1100	S	Freq, H bond	Fujita	JACS	78 (1956)	3963
$\text{CrC}_4\text{H}_6\text{NSBa}$	Chromium (III)-oxalate, water complex (sodium salt) pentahydrate	315-3430	S	Assign	Schmelz	SA	9 (1957)	51
$\text{CrC}_4\text{H}_6\text{NSHg}$	Chromium (II)-ammonia, isothiocyanate complex (barium salt)	1900-2100	S	Freq	Fujita	JACS	78 (1956)	3295
$\text{CrC}_4\text{H}_6\text{O}_4$	Chromium (II)-acetate	1900-2100	S	Freq	Fujita	JACS	78 (1956)	3295
$\text{CrC}_4\text{H}_10\text{N}_7\text{S}_4$	Chromium (III)-ammonia, isothiocyanate complex (ammonium salt)	600-3000	S	Spec, Assign	Costa	GCI	87 (1957)	885
$\text{CrC}_5\text{H}_5\text{BrN}_2\text{O}_2$	Chromium bromide, cyclopentadienyl, nitric oxide complex	1700-2050	Sol	Freq	Fujita, Mitchell	JACS JCS	78 (1956) - (1960)	3295 1912
					Lewis	JINC	7 (1958)	32

$\text{CrC}_5\text{H}_5\text{ClN}_2\text{O}_2$	Chromium chloride cyclopentadienyl, nitric oxide complex	5.6-6.8 μ 1700-2050	Sol Sol	Freq Freq	Piper Lewis	JINC JINC	2 (1956) 7 (1958)	38 32
$\text{CrC}_5\text{IN}_6\text{OK}_3 \cdot \text{H}_2\text{O}$	Chromium (III)-cyanide, iodide, nitric oxide complex (potassium salt) hydrate	800-3500	S	Freq, Assign, Struct	Griffith	JCS	- (1959)	872
$\text{CrC}_6\text{H}_5\text{ClN}_2\text{O}_2\text{S}$	Chromium cyclo- pentadienyl, nitric oxide, thiocyanate complex	5.6-6.8 μ 1700-2050	Sol Sol	Freq Freq	Piper Lewis	JINC JINC	2 (1956) 7 (1958)	38 32
$\text{CrC}_6\text{H}_7\text{ClN}_2\text{O}_2$	Chromium-chloro- methyl cyclo- pentadienyl, nitric oxide complex	5.6-6.8 μ 1700-2050	Sol Sol	Freq Freq	Piper Lewis	JINC JINC	2 (1956) 7 (1958)	38 32
$\text{CrC}_6\text{H}_8\text{N}_2\text{O}_2$	Chromium-cyclo- pentadienyl, methyl, nitric oxide complex	450-4000 1700-2050	Sol Sol	Spec, Freq Freq	Piper Lewis	JINC JINC	3 (1956) 7 (1958)	104 32
$\text{CrC}_6\text{H}_{16}\text{ClN}_6\text{S}_2 \cdot \text{H}_2\text{O}$	Chromium (III)- ethylenediamine, isothiocyanate complex chloride, monohydrate	-	S	Freq, Assign	Mitchell	JCS	- (1960)	1912
$\text{CrC}_6\text{H}_{16}\text{ClN}_6\text{S}_4 \cdot \text{H}_2\text{O}$	trans-chromium (III)- ethylenediamine, isothiocyanate complex chloride monohydrate	1900-2100	S	Freq	Fujita	JACS	78 (1956)	3295

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$\text{CrC}_6\text{H}_{24}\text{Cl}_3\text{N}_6$	Chromium (III)-ethylenediamine complex chloride	450-1750	S	Spec., Config.	Powell	JCS	- (1959)	791
CrC_6N_6	Chromium (III)-hexacyanide ion	-	-	Freq. Spec., NCA	Coglioti	AAN	22 (1957)	266
		-	-	Freq.	Coglioti	AAN	23 (1957)	355
		-	-	Freq.	Coglioti	AAN	25 (1958)	260
		450-2200	-	Freq.	Coglioti	JINC	8 (1958)	87
		250-2200	S	Spec., Assign	Hidalgo	ARS	56A (1960)	9
$\text{CrC}_6\text{N}_6\text{K}_3$	Chromium (III)-cyanide complex (potassium salt)	250-2200	-	Assign	Hidalgo	CPR	249 (1959)	233
$\text{CrC}_6\text{N}_6\text{K}_3 \cdot 4\text{H}_2\text{O}$	Chromium (III)-cyanide complex (potassium salt) tetrahydrate	-	-	Quant. Mech.	VanVleck	JCP	7 (1939)	72
CrC_6O_6	Chromium hexacarbonyl	2-40/ μ 4.5-15.5/ μ	G G	Spec., Assign, Thermo. Spec., Struct NCA	Hawkins Shufler Murata Kawai	JCP JACS JCP BCCSJ	23 (1955) 78 (1956) 27 (1957) 33 (1960)	2422 2678 605 1008
		-	-	Assign, Thermo., NCA				
$\text{CrC}_6\text{O}_{12}\text{K}_3 \cdot 3\text{H}_2\text{O}$	Chromium (III)-oxalate complex (potassium salt) trihydrate	900-1100 409-3450	S S	H bond Assign	Fujita Schmelz	JACS SA	78 (1956) 9 (1957)	3963 51
$\text{CrC}_7\text{H}_{10}\text{N}_2\text{O}_2$	Chromium-cyclopentadienyl-ethyl, nitric oxide complex	450-4000 1700-2050	SoI SoI	Spec., Freq. Freq.	Piper Lewis	JINC JINC	3 (1956) 7 (1958)	104 32
$\text{CrC}_7\text{H}_{13}\text{N}_3\text{O}_2$	Diethylenetriamine chromium tricarbonyl	1700-2100	S	Freq.	Abel	JCS	- (1959)	2323
$\text{CrC}_8\text{H}_{24}\text{Cl}_3\text{O}_4\text{S}$	Chromium (III)-dimethyl sulfoxide complex chloride	650-4000	S	Assign, Spec	Cotton	JPC	64 (1960)	1534

$\text{CrC}_9\text{H}_6\text{O}_{12}\text{K}_3 \cdot 3\text{H}_2\text{O}$	Chromium (III)-malonic acid complex (potassium salt) trihydrate	2-15 μ	S	Freq, Assign	Schmelz	JACS 81 (1959)	287
$\text{CrC}_9\text{H}_8\text{O}_3$	Chromium-carbonmono oxide, cyclopenta-dienyl, methyl complex	450-4000	Sol	Spec, Freq	Piper	JINC 3 (1956)	104
$\text{CrC}_9\text{H}_{20}\text{N}_2\text{O}_7 \cdot 4$	Chromium (III)-ammonia, isothiocyanate complex (choline salt)	1900-2100	S	Freq	Fujita Mitchell	JACS 78 (1956) JCS - (1960)	3295 1912
$\text{CrC}_{10}\text{H}_{10}\text{N}_2\text{O}_2$	Chromium-cyclo-pentadienyl, nitric oxide complex	1450-4000 1700-2050	Sol Sol	Spec, Freq	Piper Lewis	JINC 3 (1956) JINC 7 (1958)	104 32
$\text{CrC}_{10}\text{H}_{12}\text{N}_2 \cdot \text{O}_8 \text{Na} \cdot 2\text{H}_2\text{O}$	Chromium (III)-ethylenediamine tetracetic acid (sodium salt) dihydrate	800-1800	S	Spec, Bonding	Donald	JACS 82 (1960)	4191
$\text{CrC}_{11}\text{H}_{10}\text{N}_2\text{O}_2$	Chromium-cyclo-pentadienyl, nitric oxide, phenyl complex	450-4000 1700-2050	Sol Sol	Spec, Freq	Piper Lewis	JINC 3 (1956) JINC 7 (1958)	104 32
$\text{CrC}_{12}\text{H}_{12}$	Dibenzene chromium	350-3500	S	Spec, Freq, Assign	Snyder	SA 15 (1959)	807
$\text{CrC}_{12}\text{H}_{12}\text{I}$	Dibenzene chromium (I) iodide	700-1100	S	Freq	Yamada	BCSJ 30 (1957)	647
$\text{CrC}_{12}\text{H}_{36}\text{Cl}_3\text{S}_6$	Chromium (III)-dimethyl sulfoxide complex perchlorate	650-4000	S	Assign, Spec	Cotton	JPC 64 (1960)	1534
$\text{CrC}_{12}\text{D}_{12}$	Dibenzene chromium-D ₁₂	350-3500	S	Spec, Freq, Assign	Snyder	SA 15 (1959)	807

$\text{CrC}_{15}\text{H}_{21}^0$	Chromium acetyl-acetone complex	625-5000	S	Spec, Struct	West	JINC	5 (1958)	295
$\text{CrC}_{18}\text{H}_{16}\text{N}_3\text{O}_3$	Chromium (III)- 8-hydroxy-quinolate	-	S	Spec	Charles	AC	25 (1953)	530
$\text{CrC}_{25}\text{H}_{25}\text{Br}$	Pentaphenyl chromium (VI) bromide	-	-	impurity	Cotton	CR	55 (1955)	551
$\text{CrC}_{26}\text{H}_{26}^0$	Pentaphenyl chromium (VI) hydroxide	-	-	Group study	Cotton	CR	55 (1955)	551
CrH	Chromium hydride	-	-	Config.	Kleeman	CJP	37 (1959)	537
$\text{CrH}_4\text{NO}_8\text{S}_2$	Ammonium sulphate alum	-	S	Spec, Freq, Assign	Kraus	JCP	9 (1951)	133
$\text{CrH}_4\text{NO}_8\text{Se}_2$	Ammonium selenate alum	-	S	Spec, Freq, Assign	Kraus	JCP	9 (1941)	133
$\text{CrH}_4\text{NO}_9\text{S}_2$	Hydroxylammonium sulfate alum	-	S	Freq assign, Spec	Kraus	JCP	9 (1941)	133
$\text{CrH}_8\text{N}_2\text{O}_4$	Ammonium chromate	$2-16 \mu$ 300-880	S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 1335
$\text{CrH}_9\text{N}_{12}$	Chromium (III)- ammonia azide complex	1900-2100	S	Freq	Fujita	JACS	78 (1956)	3295
$\text{CrH}_{12}\text{F}_6\text{N}_3$	Chromium-(III)- fluoride complex (ammonium salt)	-	S	Freq	Cox	JCS	- (1954)	1798
$\text{CrH}_{15}\text{Cl}_2\text{N}_6\text{O}_2$	Chromium (III)- ammonia, nitrite complex chloride	650-1650	S	Freq Freq	Svatos Wilmshurst	JACS CJC	79 (1957) 38 (1960)	3313 467

$\text{CrH}_{15}\text{Cl}_3\text{N}_5$	Chromium (III)-ammonia, chloride complex chloride	650-1650 -	-	Freq Freq	Svatos Wilmshurst	JACS CJC	79 (1957) 38 (1960)	3213 467
$\text{CrH}_{15}\text{I}_2\text{N}_8$	Chromium (III)-ammonia, azide complex iodide	1900-2100	S	Freq	Fujita	JACS	78 (1956)	3295
$\text{CrH}_{15}\text{N}_6\text{O}_2$	Chromium (III)-ammonia, nitrite complex cation	400-5000	S	Spec, Freq, Struct	Nakamoto	JACS	80 (1958)	4817
$\text{CrH}_{17}\text{Cl}_3\text{N}_5\text{O}_{13}$	Chromium (III)-ammonia, water complex perchlorate	900-1100	S	H bond	Fujita	JACS	78 (1956)	3963
$\text{CrH}_{18}\text{Cl}_3\text{N}_6$	Chromium (III)- ammonia complex chloride	2-15 μ 650-1650	S	FC, Freq assign Freq	Kobayashi Svatos	JCP JACS	23 (1955) 79 (1957)	1354 3513
$\text{CrH}_{18}\text{Cl}_3\text{N}_6\text{O}_{12}$	Chromium (III)-ammonia complex perchlorate	500-3500	S	Spec, Freq, Assign	Fujita	JACS	78 (1956)	3295
CrClO_3	Chromium chlorotrioxide	-	-	Spec	Dupuis	CPR	246 (1958)	3332
CrClO_3K	Potassium chlorochromate	1000	Sol	Freq	Barracough	JCS	- (1959)	3552
CrCl_2O_2	Chromylchloride	250-5000 1000 120-3000	G G Sol	Assign Freq Assign, Thermo.	Hobbs Barracough Miller	JCP JCS SA	28 (1958) - (1959) 15 (1959)	1220 3552 709
CrCl_3	Chromium chloride	1-15 μ	Sol	Spec	Lagerqvist	AF	12 (1957)	491
CrCl_5OK_2	Potassium chromium oxyphthalato-chloride	1000	Sol	Freq	Barrachlough	JCS	- (1959)	3552
CrFO_3	Chromium fluoro-trioxide	-	-	Spec	Dupuis	CPR	246 (1958)	3332

CrF_2O_2	Chromyl fluoride	250-5000 1000	G G	Spec, Assign Freq	Hobbs Barracough	JCP JCS	28 (1958) - (1959)	1220 3552
CrF_4	Chromium (II)-complex fluoride ion	-	S	Freq, Struct	Peacock	JCS	- (1959)	2762
CrF_4	Chromium (IV)-fluoride	-	S	Freq, Struct	Peacock	JCS	- (1959)	2762
CrN_3O_9	Chromium (III)-nitrate	0.8-1.2 μ 2-16 μ	Sol S	Magnetic rotation Spec	Ingersoll Meloche	JOSA JINC	6 (1922) 6 (1958)	663 104
$\text{CrN}_3\text{O}_9 \cdot 9\text{H}_2\text{O}$	Chromium nitrate monohydrate	300-880	S	Spec	Miller	SA	16 (1960)	135
CrO_3	Chromium trioxide	-	S	Spec Freq	Dupuis Barracough	CPR JCS	246 (1958) - (1959)	3332 3552
CrO_4^{2-}	Chromate ion	1000	-	Freq FC Freq Spec FC	Taylor Venkateswarlu Hahn Dupuis Pistorius	TFS JCP JCP CPR JCP	25 (1929) 23 (1955) 24 (1956) 246 (1958) 28 (1958)	314 2365 921 3332 514
$\text{CrO}_4^{\text{P}} \cdot 6\text{H}_2\text{O}$	Chromium phosphate monohydrate	2-16 μ 300-880	S S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
$\text{CrO}_4^{\text{P}} \cdot 6\text{H}_2\text{O}$	Chromium orthophosphate hexahydrate	2-16 μ	S	Band freq, I, Assign	Corbridge	JCS	- (1954)	493
CrO_4Ba	Barium chromate	300-880	S	Spec	Miller	SA	16 (1960)	135
CrO_4K_2	Potassium chromate	0.8-1.25 μ $\bar{\lambda}$ -14.5 μ 8-13.0 μ 2-16 μ	Sol S S Sol	Magnetic rotation Spec, Assign Spec Spec Freq Spec	Ingersoll Taylor Sanderson Miller Barracough Miller	JOSA TFS JOSA AC JCS SA	6 (1922) 25 (1929) 30 (1940) 24 (1952) - (1959) 16 (1960)	663 856 566 1253 3552 135
$\text{CrO}_4\text{Mg} \cdot 7\text{H}_2\text{O}$	Magnesium chromate hepta hydrate	300-880	S	Spec	Miller	SA	16 (1960)	135

$\text{CrO}_4 \text{Na}_2$	Sodium chromate	8.9 μ 2-16 μ 300-880	- S S	Spec Spec Spec	Taylor Miller Miller	TFS AC SA	25 (1929) 24 (1952) 16 (1960)	856 1253 135
$\text{CrO}_4 \text{Na}_2 \cdot 10\text{H}_2\text{O}$	Sodium chromate decahydrate	5-15 μ	S	Freq, I	Lippincott	SA	16 (1960)	58
$\text{CrO}_4 \text{Pb}$	Lead chromate	2-16 μ 290-650 300-880	S S	Spec, Qual. Anal Assign Spec	Miller Duval Miller	AC CPR SA	24 (1952) 239 (1954) 16 (1960)	1253 249 135
$\text{CrO}_4 \text{Zn} \cdot 7\text{H}_2\text{O}$	Zinc chromate heptahydrate	300-880	S	Spec	Miller	SA	16 (1960)	135
$\text{CrO}_8 \text{S}_2^K$	Potassium sulfate alum	0.6-1.5 μ -	Sol S	Spec Freq, Assign, Spec	Coblenz Krants	BBS JCP	14 (1918) 9 (1941)	653 133
$\text{CrO}_8 \text{S}_2^K \cdot 12\text{H}_2\text{O}$	Potassium chromium sulfate dodecahydrate	800-900 -	S -	Freq, H bond Struct	Fujita Harmelin	JACS CPR	78 (1956) 247 (1958)	3963 1123
$\text{CrO}_8 \text{Se}_2^K$	Potassium selenate alum	-	S	Freq, Assign, Spec	Kraus	JCP	9 (1941)	133
$\text{CrO}_8 \text{Se}_2^{\text{Rb}}$	Rubidium selenate alum	-	S	Freq, Assign, Spec	Kraus	JCP	9 (1941)	133
$\text{Cr}_2\text{H}_8\text{N}_2\text{O}_7$	Ammonium dichromate	2-16 μ 2-16 μ 400-1200	S S S	Spec Spec Freq, Assign, FC, Struct	Miller Meloche Stammreich	AC JMC SA	24 (1952) 6 (1958) 13 (1958)	1253 104 192
Cr_2O	Dichromium oxide	300-880	S	Spec	Miller	SA	16 (1960)	135
Cr_2O_3	Chromium oxide	1-8 μ	S	Emission	Dupuis	CPR	246 (1958)	3332
$\text{Cr}_2\text{O}_7 \text{Ca} \cdot 3\text{H}_2\text{O}$	Calcium dichromate trihydrate	300-880	S	Spec	Coblenz Miller	BBS SA	5 (1908) 16 (1960)	159 135
$\text{Cr}_2\text{O}_7 \text{Cu} \cdot 2\text{H}_2\text{O}$	Copper dichromate dihydrate	2-16 μ 300-880	S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135

$\text{Cr}_2\text{O}_7\text{K}_2$	Potassium dichromate	0.8-1.25 μ 2-16 μ 400-1200	Sol S S	Magnetic rotation Spec Freq, Assign, Struct, FC	Ingersoll Miller Stammreich	JOSA AC SA	6 (1922) 24 (1952) 13 (1958)
		1000 300-880	Sol S	Freq Spec	Barraclough Miller	JCS SA	- (1959) 16 (1960)
$\text{Cr}_2\text{O}_7\text{Na}_2 \cdot 2\text{H}_2\text{O}$	Sodium dichromate dihydrate	2-16 μ 400-1200	S	Spec Freq, Assign, Struct, FC	Miller Stammreich	AC SA	24 (1952) 13 (1958)
		5-15 μ 300-880	S	I, Freq Spec	Lippincott Miller	SA SA	16 (1960) 16 (1960)
$\text{Cr}_2\text{O}_7\text{S}_3 \cdot 18\text{H}_2\text{O}$	Chromium sulphate 18 hydrate	0.6-1.5 μ 0.56-2.3 μ	Sol L	Spec Magnetic rotation	Coblenz Ingersoll	BBS JOSA	14 (1918) 6 (1922)
$\text{Cr}_2\text{O}_4\text{SK}_2 \cdot 24\text{H}_2\text{O}$	Chrom alum	300-880	S	Spec	Miller	SA	16 (1960)
$\text{Cr}_3\text{O}_12\text{Al}_2$	Aluminium chromate	300-880	S	Spec	Miller	SA	16 (1960)
<u>Cs COMPOUNDS</u>							
CsCNO	Cesium isocyanate	400-4000	S	Spec	Waddington	JCS	- (1959)
$\text{CsC}_5\text{H}_5\text{O}_2$	Cesium acetyl acetone	625-5000	S	Spec, Struct	West	JINC	5 (1958)
CsH	Cesium hydride	-	FC		Gordy Platt Sheline Baughan	JCP JCP JCP TTS	14 (1946) 18 (1950) 18 (1950) 53 (1957)
CsHO	Cesium hydroxide	1-3 μ 6-33 μ	Sol G	Spec Absorption	Grantham Spinar	PR SA	18 (1921) 12 (1958)
CsBr	Cesium bromide	-	-	Christianson filter Freq	Barnes Huggins	PR JCP	339 49 (1936) 5 (1937)

-	-	-	FC	Gordy	JCP 14 (1946)	305
-	-	S	Polarizability theory	Szigeti	IJS 45 (1949)	155
-	-	Freq		Roberts	PR 77 (1950)	258
-	-	S	Transmission	Szigeti	PRS 204 (1950)	51
-	-	S		Plyler	JOSA 41 (1951)	209
-	-	Freq		Rittner	JCP 19 (1951)	1080
-	-	S	Mol. properties	Ballard	JOSA 42 (1952)	65
-	0-40 μ	S	Mol. properties	Plyler	JNBB 49 (1952)	61
-	15-38 μ	S		Rodney	JCSA 42 (1952)	451
-	0.365-1.0139 μ	S	Ref. Index	Rodney	JOSA 42 (1952)	875
-	0.349-39.22 μ	S	Ref. Index	Rodney	JOSA 43 (1953)	977
-	21-52 μ	-	Spec	Acquista	JOSA 43 (1953)	977
-	-	S	Calibration data	Downie	JOSA 43 (1953)	941
-	-	G	Microwave	Honig	PR 92 (1953)	901
-	0.365-39.22 μ	S	Ref. Index	Rodney	JNBB 51 (1953)	123
-	-	S	Crystal study	Smakula	JOSA 43 (1953)	822
-	-	S	Pressed disk	Ford	JSI 31 (1954)	338
-	40-230 μ	S	Spec	Sinton	JOSA 44 (1954)	1954
-	24-54 μ	S	Iso.	Plyler	AC 27 (1955)	161
-	-	S	Reaction with thiourea	Stewart	JOSA 47 (1955)	318
-	-	S	Spec	Lord	JCP 27 (1957)	689
-	-	S	Freq	Rice	SA 15 (1959)	573
-	450-3800	Sol	Freq	Frevel	JNBB 64C (1960)	557
-	17-55 μ	S	Transmission	Plyler		55
CsBr ₃	Cesium tribromide	8-15 μ	Spec	Bonner	JACS 74 (1952)	5078
CsCl	Cesium chloride	-	S	Barnes	PR 49 (1936)	732
		-	-	Huggins	JCP 5 (1937)	143
		-	-	Gordy	JCP 14 (1946)	305
		-	-	Polarization	IJS 45 (1949)	155
		S	Theory	Roberts	PR 77 (1950)	258
		-	Freq	Szigeti	PRS 204 (1950)	51
		-	Freq	Rittner	JCP 19 (1951)	1030
		G	Microwave	Honig	PR 92 (1953)	901
		-	Disk	Ford	JSI 31 (1954)	338
		G	Freq, Spec, Mol. Const.	Rice	JCP 27 (1957)	573
CsF	Cesium fluoride	-	Freq	Huggins	JCP 5 (1937)	143
		S	Freq	Roberts	PR 77 (1950)	258
		-	Freq	Rittner	JCP 19 (1951)	1030
		G	Microwave	Honig	PR 92 (1953)	901

CsFO_3S	Cesium fluoro-sulfate	2400-550	S	Spec, Assign	Sharp	JCS	- (1957)	3761
CsF_3	Cesium trifluoride	-	S	Spec	Freed	JCP	8 (1940)	840
CsI	Cesium iodide	-	-	Freq FC	Huggins Gordy	JCP	5 (1937)	143
	-	-	S	Freq	Roberts	JCP	14 (1946)	305
	-	-	S	Freq	Rittner	PR	77 (1950)	258
	0.2-38 μ	S	Spec	Prism performance	Plyler	JCP	19 (1951)	1030
	25-52 μ	S	Spec	Acquista	JOSA	42 (1952)	432	
	21-52 μ	-	Spec	Acquista	JOSA	43 (1953)	333	
	-	S	Spec	Ballard	JOSA	43 (1953)	977	
	-	S	Spec	Smakula	JOSA	43 (1953)	975	
	-	S	Spec	Ford	JSI	31 (1954)	822	
	-	-	IR measurements	Plyler	JPC	15 (1954)	338	
	25-55 μ	S	Calibration	Mills	JOSA	45 (1955)	519	
	24-54 μ	S	Iso.	Plyler	AC	27 (1955)	785	
	0.29-50 μ	S	Optical properties,	Rodney	JOSA	45 (1955)	161	
	0.29-53 μ	-	Freq	Refraction index, Dispersion	Rodney	JOSA	45 (1955)	410
	-	-	Freq	Transmission	Rice Plyler	JCP	27 (1957)	573
	17-55 μ	S	Spec, Struct	Dasent	JRN	64C (1960)	55	
CsIO_3	Cesium iodate	-	S	Spec, Struct	Siebert	ZAU	- (1960)	2429
CsIO_4	Cesium periodate	-	-	Freq, Struct	West	JOSA	303 (1960)	162
CsNO_3	Cesium nitrate	-	S	Growing oriented crystal sections	Frevel	SA	13 (1945)	26
	450-3800	Sol	Freq	Assign, Temp. effect	Greenberg	JCP	33 (1960)	557
	2-15 μ	S	Assign, FC	Gray	TFS	53 (1957)	901	
CsN_3	Cesium azide	635-3100	S	Freq assign, Spec	Kraus	JCP	9 (1941)	133
$\text{Cs}_8\text{S}_2\text{Cr}$	Cesium sulfate alum	-	S	Freq assign, Spec	Kraus	JCP	9 (1941)	133
$\text{Cs}_8\text{Se}_2\text{Cr}$	Cesium selenate alum	-	S	Freq assign, Spec	Kraus	JCP	9 (1941)	133
Cs_2	Cesium	0.85-1.01 μ	S	Spec Freq	Meggers Rosen	JRN	10 (1933)	669
	-	-	-			PR	43 (1933)	5

$\text{Cs}_2\text{C}_{22}^0$	Cesium carbonyl	G	Freq	Loomis	PR	46 (1934)	292
		-	-	Clark	TFS	33 (1937)	1594
		-	-	Gordy	JCP	14 (1946)	315
		-	-	Lippincott	JCP	23 (1955)	1131
		-	-	Baughan	TFS	53 (1957)	1046
$\text{Cs}_2\text{B}_{47}^0$	Cesium tetraborate	600-4000	S	Spec, Struct	CPR	238 (1954)	2472
		2-15 μ	S	Freq, Struct	Krogh-Moe	12 (1958)	475
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<u>Cu COMPOUNDS</u>							
CuCH_3	Copper methyl	600-3000	S	Spec, Freq, FC	Costs	GCI	87 (1957)
CuCN	Copper cyanide	2020-2160 300-800	Sol S	Spec Spec	Penneman Miller	JCP SA	24 (1956) 16 (1960)
$\text{CuC}_2\text{H}_5\text{BrNS}$	Thioacetamide cuprous bromide	650-3100	S	Freq	Rosenthal	JACS	82 (1960) 4169
$\text{CuC}_2\text{H}_5\text{ClNS}$	Thioacetamide cuprous chloride	650-3100	S	Freq	Rosenthal	JACS	82 (1960) 4169
$\text{CuC}_2\text{H}_8\text{N}_2\text{O}_4 \cdot 3\text{H}_2\text{O}$	Copper (II)- ethylenediamine complex sulfate trihydrate	700-850	S	H bond	Fujita	JACS	78 (1956) 3963
$\text{CuC}_2\text{H}_{12}\text{N}_6\text{S}_2$	Copper (II)- ammonia, isothiocyanate complex	-	S	Freq	Mitchell	JCS	- (1960) 1912
CuC_2N_2	Copper dicyanide ion	2020-2160	Sol	Spec	Penneman	JCP	24 (1956) 293
CuC_2O_4^0	Copper (II)-oxalate	700-1700	S	Spec, Freq	Kuroda	JPC	64 (1960) 759
$\text{CuC}_2\text{O}_4 \cdot \frac{1}{2}\text{H}_2\text{O}$	Copper (II)-oxalate hemihydrate	2-16 μ	S	Spec	Hunt	AC	22 (1950) 1478

$\text{CuC}_2\text{O}_6\text{Na}_2 \cdot 3\text{H}_2\text{O}$	Copper carbonate complex (sodium salt) trihydrate	700-4000	S	Freq assign	Gatehouse	JCS	- (1958)	3137
$\text{CuC}_3\text{H}_2\text{O}_4$	Copper (II)-malonate	700-1700	S	Spec, Freq	Kuroda	JPC	64 (1960)	759
CuC_3N_3	Copper tricyanide ion	2020-2160	Sol	Spec	Penneman	JCP	24 (1956)	293
$\text{CuC}_4\text{H}_4\text{O}_4$	Copper (II)-succinate	700-1700	S	Spec, Freq	Kuroda	JPC	64 (1960)	759
$\text{CuC}_4\text{H}_4\text{O}_{10}\text{Na}_2$	Copper (II)-oxalate, water complex (sodium salt)	346-3500	S	Assign	Schmelz	SA	9 (1957)	51
$\text{CuC}_4\text{H}_6\text{D}_2\text{N}_2\text{O}_4 \cdot \text{H}_2\text{O}$	Copper (II)-C-d ₂ -glycine complex monohydrate	-	-	Assign	Nakamira	NKZ	80 (1959)	113
$\text{CuC}_4\text{H}_6\text{O}_4$	Cupric acetate	600-3000	S	Spec, Assign	Costa	GCI	87 (1957)	885
$\text{CuC}_4\text{H}_8\text{Cl}_2\text{O}_2$	Copper (II)-dioxane complex chloride	500-1500	S	Spec, Struct	Hendra	JCS	- (1960)	5105
$\text{CuC}_4\text{H}_8\text{Cl}_2\text{S}$	Copper (II)-dithiane complex chloride	500-1500	S	Spec, Struct	Hendra	JCS	- (1960)	5105
$\text{CuC}_4\text{H}_8\text{N}_2\text{O}_4 \cdot \text{H}_2\text{O}$	Copper (II)-glycine complex monohydrate	2-15.5 μ 900-1100 μ 2-7 μ 2-15 μ -	S	Spec, Group freq H bond Chelation const. Assign Assign	Sen Fujita Rosenberg Saraceno Nakamura	JACS JACS ACS JACS NKZ	77 (1955) 78 (1956) 10 (1956) 80 (1958) 80 (1959)	211 3963 840 5018 113
$\text{CuC}_4\text{H}_8\text{N}_2\text{O}_4 \cdot \text{H}_2\text{O}$	cis-Copper glycinate monohydrate	-	-	Iso.	Tomi ta	BCSJ	34 (1960)	280

$\text{CuC}_4\text{H}_8\text{N}_2\text{O}_4 \cdot 2\text{H}_2\text{O}$	trans-Copper glycinate dihydrate	-	-	$\text{I}_{\text{so.}}$	Tomi ta	BCSJ	34 (1960)	280
$\text{CuC}_4\text{H}_{12}\text{Br}_2\text{O}_2\text{S}_2$	Copper (II)-dimethyl sulfoxide complex bromide	650-4000	S	Spec., Assign	Cotton	JPC	64 (1960)	1534
$\text{CuC}_4\text{H}_{12}\text{Cl}_2\text{O}_2\text{S}_2$	Copper (III)-dimethyl sulfoxide complex chloride	600-4000	S	Spec., Assign	Cotton	JPC	64 (1960)	1534
$\text{CuC}_4\text{H}_{16}\text{Cl}_4\text{N}_4\text{Pt}^{\text{Pt}}$	Bis-ethylenediamine copper (II)-tetrachloroplatinate (II)-anion	400-1750	S	Spec., Config.	Powell	JCS	- (1959)	791
$\text{CuC}_4\text{H}_{16}\text{N}_4\text{O}_4\text{S} \cdot 2\text{H}_2\text{O}$	Copper (II)-ethylenediamine complex sulfate dihydrate	700-850	S	H bond	Fuji ta	JACS	78 (1956)	3963
CuC_4N_4	Copper (I) tetracyanide ion	2050-2200 250-2200	Sol S	Spec., Spec., Assign	Penneman Hidalgo	JCP ARS	24 (1956) 56A (1960)	2939
$\text{CuC}_4\text{N}_4\text{K}_3$	Copper (I) cyanide complex (potassium salt)	- 250-5000 250-2200 200-2200	S S S,Sol	Spec., Freq. Freq., Assign, FC Assign Assign	Bonino Jones Hidalgo Poulet	AAN JCP CPR SA.	22 (1957) 29 (1958) 249 (1959) 15 (1959)	402 463 233 932
$\text{CuC}_5\text{H}_7\text{O}_2$	Acetylacetone copper chelate	-	Sol	Freq	Bellamy	JCS	- (1954)	4491
$\text{CuC}_6\text{H}_4\text{BrCl}_3\text{N}_2$	p-Bromobenzene diazonium chloride, cupric chloride double salt	-	-	Struct	Kazitsyna	IANS	- (1960)	1523

$\text{CuC}_6\text{H}_8\text{O}_{10}\text{Na}_2$	Copper (II)-malonic acid. water complex (sodium salt)	2-15 μ	S	Freq, Assign	Schmelz	JACS	81 (1959)	287
$\text{CuC}_6\text{H}_9\text{O}_3$	Ethyl acetoacetate copper chelate	-	Sol	Freq	Bellamy	JCS	- (1954)	4491
$\text{CuC}_6\text{H}_{10}\text{O}_2\text{S}_4$	Ethyl copper diethanethate	2.8-15 μ	S	Spec	Pearson	APS	12 (1958)	116
$\text{CuC}_6\text{H}_{12}\text{N}_2\text{O}_4$	Copper (II)-alanine complex (1 & dl)	650-4000	S	Freq, Assign	Segnini	SA	16 (1960)	540
$\text{CuC}_6\text{H}_{12}\text{N}_2\text{O}_4 \cdot \text{H}_2\text{O}$	Copper (II)-alanine complex monohydrate	2-7 μ	S	Cheletion const.	Rosenberg	ACS	10 (1956)	840
$\text{CuC}_6\text{H}_{18}\text{Br}_2\text{NO}_4$	Copper (II)-ethyl alcohol, nitric oxide complex bromide	-	S	Struct	Griffith	JCS	- (1958)	3993
$\text{CuC}_6\text{H}_{18}\text{Cl}_2\text{NO}_4$	Copper (II)-ethyl alcohol, nitric oxide complex chloride	-	S	Struct	Griffith	JCS	- (1958)	3993
$\text{CuC}_7\text{H}_5\text{O}_2$	Salicylaldehyde copper chelate	-	S	Freq	Bellamy	JCS	- (1954)	4491
$\text{CuC}_7\text{H}_9\text{O}_2$	2-Formylcyclohexanone copper chelate	-	Sol	Group freq	Bellamy	JCS	- (1954)	4491
$\text{CuC}_8\text{H}_4\text{F}_3\text{O}_2\text{S}$	Phenoyl trifluoroacetone copper chelate	-	Sol	Freq	Bellamy	JCS	- (1954)	4491
$\text{CuC}_8\text{H}_{12}\text{Cl}_2\text{N}_2\text{O}_4\text{S}$	Copper perchlorate tetracetonitrile	1000-2500	S	Spec	Hathaway	JCS	- (1960)	3705

			Bellamy	JCS	-	(1954)	4491
CuC ₈ H ₁₃ O ₃	Ethyl 2-oxocyclohexane carboxylate copper chelate	-	Sol	Freq			
CuC ₈ H ₁₄ O ₄	Cupric isobutyrate	-	S	Struct	Yamada	BCSJ	31 (1958) 303
CuC ₈ H ₁₄ O ₄	Cupric n-butyrate	-	S	Struct	Yamada	BCSJ	31 (1958) 303
CuC ₈ H ₁₆ C ₁ ₂ O ₂ S ₂	Copper (II)-thioxane complex chloride	500-1500	S	Spec., Struct	Hendra	JCS	- (1960) 5105
CuC ₈ H ₁₈ N ₄ O ₆ ·3H ₂ O	Glycylglycine complex tri-hydrate	-	S, Sol	Spec	Rosenberg	ACS	11 (1957) 1390
CuC ₈ H ₂₀ C ₁ N ₄ S ₄	Tetrakis(thioacetamide) cuprous chloride	650-3100	S	Freq	Rosenthal	JACS	82 (1960) 4169
CuC ₈ H ₂₄ C ₁ N ₄ S ₄	Copper (I)-methyl thiourea complex chloride	2-15/ μ	S	Spec	Lane	JACS	81 (1959) 3824
CuC ₈ H ₂₄ C ₁ ₂ -O ₁₂ S ₄	Copper (II)-dimethyl sulfoxide complex perchlorate	650-4000	S	Spec., Assign	Cotton	JFC	64 (1960) 1534
CuC ₉ H ₁₀ NO ₆ S	Copper (II)-8-hydroxy-quinoline-5-sulfonic acid, water complex	-	S	Struct	Nortia	SK	32B (1959) 83
CuC ₉ H ₁₄ NO ₈ ·2H ₂ O	Copper (II)-8-hydroxy-quinoline-5-sulfonic acid water complex dihydrate	-	S	Struct	Nortia	SK	32B (1959) 83

$\text{CuC}_{10}\text{H}_2\text{F}_{12}^0\text{O}_4$	Copper (II)-sym-hexafluoro-acetylacetone complex	280-1700	-	Band study	Nakamoto	N	183 (1959)	459
$\text{CuC}_{10}\text{H}_8\text{F}_6^0\text{O}_4$	Copper (II)-1,1,1-trifluoroacetyl-acetone complex	1700-280	-	Band study	Nakamoto	N	183 (1959)	459
$\text{CuC}_{10}\text{H}_9^0\text{O}_2$	Benzoylacetone copper chelate	1780-280	-	Freq Assign	Bellamy Nakamoto	JCS N	- (1954) 183 (1959)	4491 459
$\text{CuC}_{10}\text{H}_{12}^D\text{N}_2^0\text{O}_4$	Copper (II)-allylglycine complex-N-d ₂	2-15 μ	S	Assign	Moreno	SA	16 (1960)	1368
$\text{CuC}_{10}\text{H}_{14}^0\text{O}_4$	Copper (II)-acetyl acetone	600-5000 280-1700	S -	Spec, Struct Band study	West Nakamoto	JINC N	5 (1958) 183 (1959)	295 459
$\text{CuC}_{10}\text{H}_{15}\text{BrN}_2^0\text{O}_4$	Copper (II)-γ-bromo allylglycine complex	2-15 μ	S	Assign	Moreno	SA	16 (1960)	1368
$\text{CuC}_{10}\text{H}_{15}\text{ClN}_2^0\text{O}_4$	Copper (II)-γ-chloroallylglycine complex	2-15 μ	S	Assign	Moreno	SA	16 (1960)	1368
$\text{CuC}_{10}\text{H}_{16}\text{N}_2^0\text{O}_4$	Copper (II)-allylglycine complex	2-15 μ	S	Assign	Moreno	SA	16 (1960)	1368
$\text{CuC}_{10}\text{H}_{18}\text{N}_2^0\text{O}_2$	Copper (II)-4-amino-β-pentene-2-one complex	650-4000	L, Sol	Spec, Assign	Holtzclaw	JACS	80 (1958)	1100
$\text{CuC}_{10}\text{H}_{18}^0\text{O}_4$	Cupric isovalerianate	-	S	Struct	Yamada	'BOSJ	31 (1958)	303
$\text{CuC}_{10}\text{H}_{18}^0\text{O}_4$	Cupric-n-valerianate	-	S	Struct	Yamada	BOSJ	31 (1958)	303

$\text{CuC}_{10}\text{H}_{20}\text{Cl}_2\text{O}_{13}$	Copper perchlorate 2.5 ethyl acetate	1000-1700	S	Spec	Hathaway	JCS	-	(1960)	3705
$\text{CuC}_{12}\text{H}_{14}\text{Cl}_4\text{N}_6\text{O}_4$	p-Nitrobenzene diazonium chloride, cupric chloride double salt	-	-	Struct	Kazitsyna	IANS	-	(1960)	1523
$\text{CuC}_{12}\text{H}_8\text{Cl}_6\text{N}_4$	p-Chlorobenzene diazonium chloride, cupric chloride double salt	-	-	Struct	Kazitsyna	IANS	-	(1960)	1523
$\text{CuC}_{12}\text{H}_{10}\text{N}_2\text{O}_4$	Copper (II)-2-pyridine carboxylic acid chelate	-	-	Struct	Lumme	SK	31B	(1958)	294
$\text{CuC}_{12}\text{H}_{10}\text{N}_4\text{O}_2$	Pyridine-copper cyanate complex	2.5-16 μ	S	Spec	Levi	AC	28	(1956)	1591
$\text{CuC}_{12}\text{H}_{10}\text{N}_4\text{S}_2$	Copper (II)-isothiocyanate pyridine complex	-	S	Freq, Assign	Mitchell	JCS	-	(1960)	1912
$\text{CuC}_{12}\text{H}_{16}\text{D}_4\text{N}_2\text{O}_4$	Copper (II)- γ -methyl allyl-glycine complex- ND_2	2-15 μ	S	Assign	Moreno	SA	16	(1960)	1368
$\text{CuC}_{12}\text{H}_{18}\text{N}_4\text{O}_4$	Copper (II)-cyclohexane 1:2-dione dioxime complex	800-3200	S	Spec, Assign, H bond	Blinc	JCS	-	(1958)	4536
$\text{CuC}_{12}\text{H}_{20}\text{N}_2\text{O}_4$	Copper (II)- γ -methyl allyl-glycine complex	2-15 μ	S	Assign	Moreno	SA	16	(1960)	1368

$\text{CuC}_{12}\text{H}_{22}\text{N}_2\text{O}_2$	Copper (II)-4-methylamino- β -pentene-2-one complex	600-4000	L,S	Spec, Assign	Holtzclaw	JACS	80 (1958)	1100
$\text{CuC}_{12}\text{H}_{22}\text{O}_4$	Cupric-n-capronate	-	S	Struct	Yamada	BCSJ	31 (1958)	303
$\text{CuC}_{12}\text{H}_{24}\text{N}_2\text{O}_4$	Copper (II)-leucine complex	2-7 μ	S	Chelation effect	Rosenberg	ACS	10 (1956)	840
$\text{CuC}_{12}\text{H}_{24}\text{N}_9\text{OS}_4$	Copper (I)-ethylene thiocarbamide complex nitrate	2-15 μ	S	Spec, Assign	Lane	JCP	22 (1954)	1855
$\text{CuC}_{13}\text{H}_{13}\text{O}_3$	Ethyl 1-oxotetralin-2-carboxylate copper chelate	-	Sol	Freq	Bellamy	JCS	- (1954)	4491
$\text{CuC}_{14}\text{H}_{10}\text{O}_4$	Copper tropolonate	-	S	Freq	Bryant Panson	JOC CR	19 (1954) 55 (1955)	1889 9
$\text{CuC}_{14}\text{H}_{14}\text{Cl}_2\text{N}_4 \cdot 2\text{H}_2\text{O}$	α -Copper (II)-bis-(pyridinal)-ethylene-diamine complex chloride polyhydrate	600-4000	S	Assign	Bush	JACS	78 (1956)	1137
$\text{CuC}_{14}\text{H}_{14}\text{Cl}_2\text{N}_4 \cdot 2\text{H}_2\text{O}$	β -Copper (II)-bis-(pyridinal) ethylene-diamine complex chloride dihydrate	600-4000	S	Assign	Bush	JACS	78 (1956)	1137
$\text{CuC}_{14}\text{H}_{14}\text{Cl}_4\text{N}_4$	p-Methyldiazonium chloride cupric chloride double salt	-	-	Struct	Kazitsyna	IANS	- (1960)	1523
$\text{CuC}_{14}\text{H}_{20}\text{O}_4$	Copper (II)-methacryl acetone complex	1200-1800	S	Assign	Charette	SA	16 (1960)	689
$\text{CuC}_{15}\text{H}_{11}\text{O}_2$	Dibenzoylmethane copper chelate	-	Sol	Freq	Bellamy	JCS	- (1954)	4491

$\text{CuC}_{16}\text{H}_{28}\text{O}_4$	Copper-pivaloyl-acetone complex	1200-1800	S	Assign	Charette	SA	16 (1960)	689
$\text{CuC}_{16}\text{H}_{30}\text{O}_4$	Cupric-n-caprylate	-	S	Struct	Yamada	BCSJ	31 (1958)	303
$\text{CuC}_{16}\text{H}_{36}\text{O}_8\text{P}_2$	Cupric-di-n-butyl phosphate	714-5000	S	Group study	Smith	J INC	9 (1959)	150
$\text{CuC}_{18}\text{H}_{10}\text{C}_1\text{N}_4\text{O}_4$	p-Propionoxy benzene diazonium chloride, cupric double salt	-	-	Struct	Kazitsyna	IANS	- (1960)	1523
$\text{CuC}_{18}\text{H}_{12}\text{N}_2\text{O}_2$	Copper (II)-8-hydroxy-quinolate	$8-15 \mu$	S	Spec Assign, Spec	Charles Charles	AC SA	25 (1953) 8 (1956)	530 1
$\text{CuC}_{20}\text{H}_{12}\text{N}_2\text{O}_4$	Copper (II)-8-quinoline carboxylic acid chelate	-	-	Struct	Lumme	SK	31 (1958)	294
$\text{CuC}_{20}\text{H}_{12}\text{N}_4$	Copper porphin	400-4000	S	Spec, H bond	Mason	JCS	- (1958)	976
$\text{CuC}_{20}\text{H}_{14}\text{N}_4$	Copper chlorin	400-4000	S	Spec, H bond	Mason	JCS	- (1958)	976
$\text{CuC}_{20}\text{H}_{16}\text{N}_2\text{O}_2$	2-Methyl-8-hydroxy-quinoline copper (II)-chelate	$8-15 \mu$	S	Assign, Spec	Charles	SA	8 (1956)	1
$\text{CuC}_{20}\text{H}_{16}\text{N}_2\text{O}_2$	4-Methyl-8-hydroxy-quinoline copper (II)-chelate	$8-15 \mu$	S	Assign, Spec	Charles	SA	8 (1956)	1
$\text{CuC}_{20}\text{H}_{18}\text{O}_4$	Copper-benzoylacetone complex	280-1700	-	Band study	Nakamura	N	183 (1959)	459
$\text{CuC}_{20}\text{H}_{20}\text{N}_2\text{O}_2$	Copper (II)-1-phenyl- β -amino-2-butene complex	650-4000	S,L	Spec, Assign	Holtzclaw	JACS	80 (1958)	1100

$\text{CuC}_{20}\text{H}_{22}\text{O}_4$	Copper γ -isopropyl tropolonate	-	S	Freq	Bryant	JOC	19 (1954)	1889
$\text{CuC}_{22}\text{H}_{26}\text{N}_2\text{O}_2$	Copper (II)-(4-anilino-3-pentene-2-one) complex	650-4000	L,S	Spec, Assign	Holtzclaw	JACS	80 (1958)	1100
$\text{CuC}_{24}\text{H}_{16}\text{ClN}_4\text{O}_4$	Copper-1:10-phenanthroline complex perchlorate	600-2000	S	Spec	Schilt	JINC	9 (1959)	211
$\text{CuC}_{24}\text{H}_{16}\text{ClN}_4\text{O}_8$	Copper (II)-1:10-phenanthroline complex perchlorate	600-2000	S	Spec	Schilt	JINC	9 (1959)	211
$\text{CuC}_{24}\text{H}_{20}\text{N}_4$	Copper meso-tetramethyl porphrin	400-4000	S	Spec, H bond	Mason	JCS	- (1958)	976
$\text{CuC}_{24}\text{H}_{26}\text{O}_8$	Copper butylphthalate	0.4-2.2 μ	sol	Optical properties	Pfund	JOSA	29 (1939)	56
$\text{CuC}_{26}\text{H}_{34}\text{N}_4\text{O}_4$	Cupric N-benzylidene-1-lysinate	-	S	Freq, I, Ident	Witkop	JACS	76 (1954)	5589
$\text{CuC}_{28}\text{H}_{22}\text{N}_4$	Copper octamethyl chlorin	400-4000	S	Spec, H bond	Mason	JCS	- (1958)	976
$\text{CuC}_{28}\text{H}_{28}\text{N}_4$	Copper octamethyl porphrin	400-4000	S	Spec, H bond	Mason	JCS	- (1958)	976
$\text{CuC}_{28}\text{H}_{32}\text{N}_6\text{O}_6$	Barbital-copper-pyridine complex	2.5-16 μ	S	Spec	Levi	AC	28 (1956)	1591

$\text{CuC}_{28}\text{H}_{36}\text{N}_6^0$	Ipral-Copper pyridine complex	$2.5\text{-}16 \mu$	S	Spec	Levi	AC	28 (1956)	1591
$\text{CuC}_{30}\text{H}_{22}\text{O}_4$	Copper (II)- ω -benzoyl aceto-phenone complex	280-1700	-	Band study	Nakamoto	N	183 (1959)	459
$\text{CuC}_{30}\text{H}_{32}\text{N}_6^0$	Dial-Copper-pyridine complex	$2.5\text{-}16 \mu$	S	Spec	Levi	AC	28 (1956)	1591
$\text{CuC}_{30}\text{H}_{36}\text{N}_6^0$	Alurate-Copper-pyridine complex	$2.5\text{-}16 \mu$	S	Spec	Levi	AC	28 (1956)	1591
$\text{CuC}_{30}\text{H}_{40}\text{N}_6^0$	Neonal-Copper-pyridine complex	$2.5\text{-}16 \mu$	S	Spec	Levi	AC	28 (1956)	1591
$\text{CuC}_{32}\text{H}_{16}\text{N}_8$	Copper phthalocyanine	$3\text{-}15 \mu$ 650-4000 $2\text{-}16 \mu$	S	Spec, Spec, Spec	Ebert, Kendall, Tyler	JACS AC AC	74 (1952) 25 (1953) 25 (1953)	2806 382 390
$\text{CuC}_{32}\text{H}_{28}\text{N}_6^0$	Rutonal-Copperpyridine complex	$2.5\text{-}16 \mu$	S	Spec	Levi	AC	28 (1956)	1591
$\text{CuC}_{32}\text{H}_{44}\text{N}_6^0$	Amytal-Copper-pyridine complex	$2.5\text{-}16 \mu$	S	Spec	Levi	AC	28 (1956)	1591
$\text{CuC}_{32}\text{H}_{44}\text{N}_6^0$	Nembutal-Copper-pyridine complex	$2.5\text{-}16 \mu$	S	Spec	Levi	AC	28 (1956)	1591
$\text{CuC}_{32}\text{H}_{62}\text{O}_4$	Cupric-n-palmitate	-	S	Struct	Yamada	BCSJ	31 (1958)	303
$\text{CuC}_{34}\text{H}_{32}\text{N}_6^0$	Luminal-Copper-pyridine complex	$2.5\text{-}16 \mu$	S	Spec	Levi	AC	28 (1956)	1591
$\text{CuC}_{34}\text{H}_{44}\text{N}_6^0$	Seconal-Copper-pyridine complex	$2.5\text{-}16 \mu$	S	Spec	Levi	AC	28 (1956)	1591
$\text{CuC}_{36}\text{H}_{32}\text{N}_6^0$	Alphenal-Copper-pyridine complex	$2.5\text{-}16 \mu$	S	Spec	Levi	AC	28 (1956)	1591

CuC ₃₆ H ₅₆ N ₆ ⁰	Mebanal-Copper-pyridine complex	2.5-16 μ	S	Spec	Levi	AC	28 (1956)	1591
CuC ₃₆ H ₄₀ Br ₂ N ₄ O ⁰	Copper 2,4',5'-Trimethyl-3',4'-dicarboxy-5'-bromo dipyrromethane	2700-3500	Sol	Spec, H bond	Vestting	JACS	61 (1939)	3511
CuC ₃₆ H ₄₈ N ₄	Copper (II)-octaethylchlorin	400-4000	S	Spec, H bond	Mason	JCS	- (1958)	976
CuC ₄₄ H ₃₀ N ₄	Copper-meso-tetraphenylporphin	400-4000	S	Spec, H bond	Mason	JCS	- (1958)	976
CuC ₇₂ H ₆₀ Cl ₂ -O ₁₂ P ₄	Copper (II)-triphenyl phosphoric oxide complex perchlorate	900-1300	S	Freq	Cotton	JCS	- (1960)	2199
CuC ₁₈₀₈ H ₃₀₁₀ O ⁰	Copper-polymer-thiacryol acetone complex	1200-1800	S	Assign	Charette	SA	16 (1960)	689
CuH	Copper hydride	-	-	Size & Law of force Rotation, quantum theory	Birge Birge	BAPS PR	1 (1925) 27 (1926)	12 245
		-	-	Mol. Const.	Pekelis Platt Sheline	PR JCP JCP	45 (1934) 18 (1950) 18 (1950)	98 932 927
CuHC10	Cupric hydroxychloride	270-4000	S	Freq	Tarte	SA	13 (1958)	107
CuHFO	Cupric hydroxyfluoride	270-4000	S	Freq	Tarte	SA	13 (1958)	107

CuH_2O_2	Cupric hydroxide	270–4000	S	Freq	Tarte	SA	13 (1958)	107
$\text{CuH}_4\text{F}_3\text{N}$	Ammonium fluoride cupric fluoride	1400–4000	S	Spec	Crockett	JACS	82 (1960)	4158
$\text{CuH}_8\text{C}_{12}\text{N}_4$	Copper (II)–hydrazine complex chloride	15–35 / ^t	–	Freq	Sacconi	N	186 (1960)	549
$\text{CuH}_8\text{F}_4\text{N}_2$	Diammonium copper tetrافluoride	300–1500	S	Spec	Lecomte	CPR	249 (1959)	1991
$\text{CuH}_8\text{O}_8\text{S.H}_2\text{O}$	Copper (II)–water complex sulfate monohydrate	700–850	S	H bond	Fujita	JACS	78 (1956)	3963
$\text{CuH}_{12}\text{Cl}_2\text{N}_4$	Copper (III)–ammonia complex chloride	300–4000	S	Spec, Assign	Barrows	JINC	2 (1956)	340
$\text{CuH}_{12}\text{N}_4$	Tetraamine cupric ion	–	–	Freq, FC	Schulitz	JCP	10 (1942)	194
$\text{CuH}_{12}\text{N}_4\text{O}_4\text{S} \cdot \text{H}_2\text{O}$	Copper (II)–ammonia complex sulfate monohydrate	700–3350 650–1650	S, Sol S –	Assign, Freq Freq Freq	Powell Svatos Wilmshurst	JCS JACS CJC	– (1956) 79 (1957) 38 (1960)	3108 3213 467
$\text{CuD}_8\text{O}_8\text{S.D}_2\text{O}$	Copper (II)–deuterium oxide complex sulfate-d ₂ monohydrate	700–850	S	H bond	Fujita	JACS	78 (1956)	3963
$\text{CuD}_{12}\text{N}_4\text{O}_4\text{S} \cdot \text{D}_2\text{O}$	Copper (II)–ammonia complex sulfate-d ₁₂ monohydrate-d ₂	982	Sol	Assign, Freq	Powell	JCS	– (1956)	3108

CuBr	Copper bromide	-	-	Polarizability theory Freq	Szigetti Szigetti	TFS PRS	45 (1949) 204 (1950)	153 51
CuBr ₂	Cupric bromide	4.75 μ	Sol	Absorption	Barr	JCP	7 (1939)	8
CuCl ₂	Cupric chloride	1.4 μ 0.8-1.1 μ 1-15 μ	Sol L.Sol Sol	Spec Beer's law Spec	Coblentz Chatterjee Lagerqvist	BBS JCP AF	7 (1941) 20 (1952) 12 (1957)	619 344 491
CuCl ₂ ·2H ₂ O	Cupric chloride dihydrate	5.75-7 μ	S	Struct	Rundle	JCP	23 (1955)	2450
CuCl ₂ ·6H ₂ O	Copper (II)-perchlorate hexahydrate	700-850	S	H bond	Fujita	JACS	78 (1956)	3963
CuF ₄	Copper (II)-complex fluorination	-	S	Freq, Struct	Peacock	JCS	- (1959)	2762
CuF ₆ Si	Copper fluosilicate	488-735	-	Band study	DeLattre	JCP	20 (1952)	1180
CuN ₂ O ₆	Cupric nitrate	0.8-1.1 μ 1000-1500 2-16 μ 2-15 μ	L.Sol S S S	Beer's law Band study Spec Spec	Chatterjee Addison Meloche Addison	JCP CIL JINC JCS	20 (1952) (1958) 6 (1958) - (1960)	344 468 104 613
CuN ₂ O ₆ ·3H ₂ O	Cupric nitrate trihydrate	2-16 μ 700-1600 300-880	S S S	Spec, Freq Freq, Assign Spec	Miller Ferraro Miller	AC JMS SA	24 (1952) 4 (1960) 16 (1960)	1253 99 135
CuO	Copper oxide	5-50 μ	-	Absorption	Cartwright	PR	35 (1930)	415
CuO ₃ Se·2H ₂ O	Copper selenite dihydrate	2-16 μ	S	Spec	Miller	AC	24 (1952)	1253
CuO ₄ S	Copper sulfate	2-4 μ 8-10 μ 0.5-1.3 μ	Sol L Sol	Spec Reflection Optical properties	Angstrom Plyler Pfund	PR PR JOSA	3 (1914) (1926) 29 (1939)	47 284 56

-	-	Interpretation of spec Beer's law	Duval Chatterjee	CPR JCP	237 (1948) 20 (1952)	1153 344		
0.8-1.1 μ	L	Spec , Freq	Miller	AC	24 (1952)	1253		
2-16 μ	S	Assign	Duval	CPR	239 (1954)	249		
290-650	S	H bond	Fujita	JACS	78 (1956)	3963		
800-900	S							
$\text{CuO}_4\text{S}\cdot 5\text{H}_2\text{O}$	Cupric sulfate pentahydrate	Freq 5-50 μ 2-16 μ	- S S	Hollaender Cartwright Meloche	PR PR J INC	34 (1929) 35 (1930) 6 (1958)	994 415 104	
CuO_4Mn_2	Copper manganite	350-5800	S	Dasgupta	TFS	53 (1956)	909	
$\text{CuO}_4\text{Se}\cdot 5\text{H}_2\text{O}$	Copper selenite pentahydrate	2-16 μ 300-880	S	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135	
CuO_4W	Cupric tungstate	290-650	S	Duval	CPR	239 (1954)	249	
CuS	Copper sulfide	5-50 μ	-	Cartwright	PR	35 (1930)	415	
$\text{Cu}_2\text{CH}_2\text{O}_5$	Basic cupric carbonate	1-6 μ	S	Hunt	AC	22 (1950)	1478	
$\text{Cu}_2\text{CH}_2\text{O}_5\cdot \text{H}_2\text{O}$	Basic copper carbonate hydrate	2-16 μ	S	Spec	Meloche	J INC	6 (1958) 104	
$\text{Cu}_2\text{O}_8^{\text{H}}\text{H}_2\text{O}_8\cdot 2\text{H}_2\text{O}$	Copper acetate (dimer) dihydrate	700-850 4000-50000	S	H bond Spec	Fujita Nakamoto	JACS JACS	78 (1956) 79 (1957) 4904	3963 3963 4904
$\text{Cu}_2\text{C}_{12}\text{H}_{10}\text{Cl}_4\text{N}_4$	Pyridinaldazine-di-Copper (II) chloride	1400-1700	S	Freq, Struct	Stratton	JACS	82 (1960) 4834	
$\text{Cu}_2\text{H}_3\text{BrO}_3$	Cupric trihydroxy-bromide	270-4000	S	Freq	Tarte	SA	13 (1958) 107	
$\text{Cu}_2\text{H}_3\text{ClO}_3$	Cupric trihydroxy-chloride	270-4000	S	Freq	Tarte	SA	13 (1958) 107	
$\text{Cu}_2\text{H}_4\text{N}_4\text{O}_8\text{P}_4\cdot 4\text{H}_2\text{O}$	Dicopper tetra-phosphonitrilate tetrahydrate	705-3390	S	Freq, I	Corbridge	JCS	- (1954) 4555	

Cu_2Cl_2	Cuprous chloride	-	-	Polarizability theory	Szigetti Szigetti	TFS PRS	45 (1949) 204 (1950)	155 51
Cu_2O	Copper (I) oxide	25μ $6-24\mu$	S	Struct Valence zone study	Pastryryak Lisitsa	OS FTT	6 (1959) 20 (1960)	107 2117
$\text{Cu}_2\text{O}_{12}\text{P}_2 \cdot 8\text{H}_2\text{O}$	Dicupric tetra-metaphosphate octahydrate	$2-15\mu$	S	Freq, I, Assign	Corbridge	JCS	- (1954)	493
$\text{Cu}_3\text{O}_8\text{P}_2$	Cupric ortho-phosphate	290-650	S	Assign	Duval	CPR	239 (1954)	249
$\text{Cu}_3\text{O}_8\text{P}_2 \cdot 3\text{H}_2\text{O}$	Cupric phosphate trihydrate	$2-16\mu$ $2-16\mu$ 300-880	S	Spec Spec Spec	Miller Meloche Miller	AC JINC SA	24 (1952) 6 (1958) 16 (1960)	1253 104 135

Er COMPOUNDS

Er_2O_3	Erbium oxide	$1-8\mu$	S	Spec	Coblentz	BBS	5 (1908)	159
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Eu COMPOUNDS

$\text{EuC}_{15}\text{H}_{21}\text{O}_6$	Europium acetyl acetoneate	-	Sol	Spec	Freed	JCP	8 (1940)	840
EuH	Europium hydride	-	-	FC	Platt	JCP	18 (1950)	932
EuCl_3	Europium chloride	-	Sol	Spec Vibrations	Freed Weissman	JCP JCP	8 (1940) 8 (1940)	840 227
EuF_3	Europium fluoride	-	S	Spec	Freed	JCP	8 (1940)	840
EuN_3O_9	Europium nitrate	-	Sol	Spec	Freed	JCP	8 (1940)	840

Fe COMPOUNDS

FeCO ₃	Iron carbonate	22-310 μ	S	Reflectivity Freq., Assign Spec	Weniger Schaefter Meloche	JOSA TRS JINC	7 (1923) 25 (1929) 6 (1958)	517 841 104
FeC ₄ H ₁₂ C ₁ ₃ O ₂ S ₂	Iron (III)-dimethyl sulfoxide complex chloride	650-4000	S	Spec., Assign	Cotton	JPC	64 (1960)	1534
FeC ₅ H ₂ N ₅ ONa ₃	Iron (III)-cyanide, water complex (sodium salt)	1600-3400	S	Freq	Herrington	JCS	- (1955)	3555
FeC ₅ H ₂ N ₅ ONa ₃ · H ₂ O	Iron (II)-cyanide, water complex (sodium salt) monohydrate	1600-3400	S	Freq	Herrington	JCS	- (1955)	3555
FeC ₅ H ₃ N ₆ Na ₂ · H ₂ O	Iron (III)-ammonia, cyanide complex (sodium salt) monohydrate	700-3600	S	Freq	Herrington	JCS	- (1955)	3555
FeC ₅ H ₃ N ₆ Na ₃ · 6H ₂ O	Iron (II)-ammonia, cyanide complex (sodium salt) hexahydrate	700-3600	S	Freq	Herrington	JCS	- (1955)	3555
FeC ₅ H ₇ O	Acetylacetone iron chelate	-	Sol	Freq	Bellamy	JCS	- (1954)	4491
FeC ₅ N ₆ ONa ₂	Iron (III)-cyanide, nitric oxide, complex (sodium salt)	1700-2050	S	Freq	Lewis	JINC	7 (1958)	32
FeC ₅ N ₆ ONa ₂ · 2H ₂ O	Iron (III)-cyanide, nitric oxide complex (sodium salt)dihydrate	600-3600 300-880	S	Freq, Struct Spec	Herrington Miller	JCS SA	- (1955) 16 (1960)	3555 155

		Lewis	JINC	7 (1958)	32
		Freq			
$\text{FeC}_5\text{N}_6\text{OK}_2 \cdot \text{H}_2\text{O}$	Iron (III)-cyanide, nitric oxide complex (potassium salt) monohydrate	1700-2050	S		
FeC_6N_5	Iron carbonyl	-	-		
	2-22 μ	G, L	FC	Sheeline	JCP 18 (1950)
	2.5-4.5 μ	-	Spec, Assign	Sheeline	JACS 72 (1950)
	-	Sol	Spec	Sternberg	JACS 75 (1953)
	-	-	Freq	Sternberg	JACS 77 (1955)
	-	-	Struct	Cotton	JCP 29 (1958)
	-	-	NCA	Fateley	SA 10 (1958)
	400-4000	G, L	NCA, Spec, Assign	O'Dwyer	JMS 2 (1958)
	-	-	NCA, Assign	Kawai	NKZ 81 (1960)
FeC_6N_6	Ferricyanide ion	-	-	Caglioti	AAN 22 (1957)
	450-2200	-	Freq	Caglioti	JINC 8 (1958)
	250-2200	S	Spec, Assign	Hidalgo	ARS 56A (1960)
FeC_6N_6	Ferricyanide ion	-	-	Caglioti	AAN 22 (1957)
	450-2200	-	Freq	Caglioti	JINC 8 (1958)
	250-2200	-	Spec, Assign	Hidalgo	ARS 56A (1960)
$\text{FeC}_6\text{N}_6\text{Ca}_2 \cdot 12\text{H}_2\text{O}$	Calcium ferrocyanide dodecahydrate	2-16 μ	S	Miller	AC 24 (1952)
	300-880	S	Spec	Miller	SA 16 (1960)
$\text{FeC}_6\text{N}_6\text{K}_3$	Potassium ferricyanide	0.8-1.25 μ	Sol	Ingersoll	JOSA 6 (1922)
	4.8-5.4 μ	Sol	Spec	Gordy	JCP 3 (1935)
	2-16 μ	S	Spec	Miller	AC 24 (1952)
	4.7-5.75 μ	S	Usage	Wibert	AC 29 (1957)
	250-2200	-	Assign	Hidalgo	CPR 249 (1959)
	300-880	S	Spec	Miller	SA 16 (1960)
$\text{FeC}_6\text{N}_6\text{K}_4$	Potassium ferrocyanide	0.8-1.25 μ	Sol	Ingersoll	JOSA 6 (1922)
	2-5 μ	S	Spec	Bonino	AAN 25 ((1958))

$\text{FeC}_6\text{N}_6\text{K} \cdot 3\text{H}_2\text{O}$	Potassium ferrocyanide trihydrate	250-2200	-	Assign	Hidalgo	CPR	249 (1959)	233
$\text{FeC}_6\text{N}_6\text{Na}_4$	Sodium ferrocyanide	2-16 μ	S	Spec	Miller	AC	24 (1952)	1253
		300-880	S	Spec	Miller	SA	16 (1960)	135
$\text{FeC}_6\text{N}_6\text{Na}_4 \cdot 10\text{H}_2\text{O}$	Sodium ferrocyanide decahydrate	4.2-5.4 μ	Sol	Spec	Gordy	JCP	3 (1935)	664
$\text{FeC}_6\text{O}_{12}\text{K}_3 \cdot 3\text{H}_2\text{O}$	Iron (III)-oxalate complex (potassium salt) trihydrate	2-16 μ	S	Spec	Miller	AC	24 (1952)	1253
		300-880	S	Spec	Miller	SA	16 (1960)	135
$\text{FeC}_6\text{O}_{12}\text{K}_3$	Iron (III)-oxalate complex (potassium salt) trihydrate	493-3450	S	Assign	Schmelz	SA	9 (1957)	51
$\text{FeC}_7\text{H}_4\text{O}_3$	Cyclopentadienon iron dicarbonyl	600-4000	S	Spec, Freq	Green	JCS	- (1960)	989
$\text{FeC}_7\text{H}_5\text{ClO}_2$	Cyclopentadienyl dicarboanoxide chloro iron (II)	600-5000	Sol	Spec, Freq, Config.	Piper	J INC	1 (1955)	165
$\text{FeC}_8\text{H}_4\text{F}_2\text{O}_2\text{S}$	Thenoyl trifluoroacetone iron chelate	-	Sol	Freq	Bellamy	JCS	- (1954)	4491
$\text{FeC}_8\text{H}_4\text{O}_2$	Cyclopentadienon iron tricarbonyl	600-4000	S	Spec, Freq	Green	JCS	- (1960)	989
$\text{FeC}_8\text{H}_5\text{NO}_2$	Cyclopentadienyl dicarboanoxide cyano iron (II)	600-5000	Sol	Spec, Freq, Config., Struct	Piper	J INC	1 (1955)	165
$\text{FeC}_8\text{H}_8\text{O}_2$	Cyclopentadienyl dicarboanoxide methyl iron (II)	450-4000	Sol	Spec, Freq	Piper	J INC	3 (1956)	104

$\text{FeC}_8\text{H}_{10}\text{Cl}_4\text{N}_3$	p-Dimethylamino-benzene diazonium chloride iron chloride	$3-14\mu$	S	Freq	Gremillion	JACS 81 (1959)	6134
$\text{FeC}_6\text{H}_{24}\text{I}_2\text{O}_4\text{S}_4$	Iron (II)-dimethyl sulfoxide complex iodide	650-4000	S	Assign, Spec	Cotton	JPC 64 (1960)	1534
$\text{FeC}_9\text{H}_{10}\text{O}_2$	Iron (II)-carbon-monooxide cyclo-pentadienyl, ethyl complex	450-4000	Sol	Spec, Freq	Piper	JINC 3 (1956)	104
$\text{FeC}_9\text{H}_{10}\text{O}_{12}\text{K}_3 \cdot 4\text{H}_2\text{O}$	Iron (III)-malonic acid complex (potassium salt) tetrahydrate	$2-15\mu$	S	Freq assign	Schmelz	JACS 81 (1959)	287
$\text{FeC}_9\text{H}_{13}\text{INO}_8\text{S} \cdot \text{H}_2\text{O}$	Iron (II)-7-iodo-8-hydroxyquinoline-5-sulfonic acid, water complex monohydrate	-	S	Struct	Nortia	SK 32B (1959)	83
$\text{FeC}_9\text{F}_8\text{O}_3$	Iron-carbonmonoxide, perfluorocyclohexa-1,3-diene complex	2000-2120	-	Freq	Watterson	CIL - (1959)	991
$\text{FeC}_{10}\text{H}_8\text{O}_3$	Norbornadiene iron tricarbonyl	600-4000	Sol	Spec, Freq	Green	JCS - (1960)	989
$\text{FeC}_{10}\text{H}_{10}$	Ferrocene	700-4000 $2-25\mu$	S - S,Sol	Spec, Band freq Band freq Freq assign	Kaplan Woodward Lippincott	JACS 74 (1952) JACS 74 (1952) JCP 21 (1953)	5531 3458 1307
		$2-14\mu$ 817-1420	-	Spec, Band freq Band freq Freq assign	Dunn 1953	JACS 74 (1952) JCP 21 (1953)	1974 1953 1307

$\text{FeC}_{10}\text{H}_{10}\text{Cl}_4\text{Ga}$	Ferricinium tetra-chlorogallate	2-16 μ	-	Spec	Wilkinson	JACS	76 (1954)	1970
817-1420		-	Struct	Dunitz	JCP	23 (1955)	954	
600-3200	S	-	Spec	Wilkinson	JINC	2 (1956)	95	
300-3600	Sol,G	Spec	Struct, NCA,	Lippincott	SA	10 (1958)	307	
			Freq assign					
1800-6600	S	Freq	Kazitsyna	DANS	127 (1959)	333		
	S	Spec	Winter	SA	15 (1959)	1085		
$\text{FeC}_{10}\text{H}_{10}\text{N}_2\text{O}_8 - \text{Na}_2\text{H}_2\text{O}$	Iron (III)-ethylenediamine tetracetate complex (sodium salt) monohydrate	2-15 μ	S	Spec	Wilkinson	JACS	76 (1954)	4281
800-1800	S							
$\text{FeC}_{10}\text{H}_{20}\text{N}_2\text{O}_4$	Nitrosoyl derivative of Iron (II) diethylidithiocarbamate	1700-2050	S	Struct	Lewis	JINC	7 (1958)	32
$\text{FeC}_{10}\text{H}_{10}\text{Cl}_3\text{NO}_6$	Iron (III)-ethyl alcohol nitric oxide complex chloride	-	Sol	Struct	Griffith	JCS	- (1958)	3993
$\text{FeC}_{10}\text{H}_{10}\text{O}^{10}$	Ferrocene-d ₁₀	300-3600	Sol,G	Spec, Struct, Assign, NCA	Lippincott	SA	10 (1958)	307
$\text{FeC}_{11}\text{H}_6^0\text{O}_5$	Reppe organo iron complex	600-4000	S	Spec assign	Green	JCS	- (1960)	989
$\text{FeC}_{11}\text{H}_{11}^D$	Benzene-(1-endodeutero cyclopenta-diene) iron (0)	600-4000	Sol	Spec	Green	JCS	- (1960)	989
$\text{FeC}_{11}\text{H}_{12}$	Benzene cyclopenta-diene iron (0)	600-4000	Sol	Spec	Green	JCS	- (1960)	989
$\text{FeC}_{11}\text{H}_{12}$	Methyl ferrocene	-	-	Band study	Nesmeyanow	DANS	125 (1959)	1037

$\text{FeC}_{11}\text{H}_{12}^0$	Ferrocetyl carbinol	-	Sol	H bond	Trifan	JACS	82 (1960)	5010
$\text{FeC}_{12}\text{H}_{10}\text{N}_4\text{S}_2$	Iron (II)-pyridine, isothiocyanate complex	-	S	Freq, assign	Mitchell	JCS	- (1960)	1912
$\text{FeC}_{12}\text{H}_{10}^0_2$	Iron-carbonmonoxide cyclopentadiene complex	450-4000	Sol	Spec, Freq	Piper	JINC	3 (1956)	104
$\text{FeC}_{12}\text{H}_{12}^0$	Acetylferrocene	5.97 μ	-	Freq	Woodward	JACS	74 (1952)	3458
$\text{FeC}_{12}\text{H}_{12}^0_2$	Ferrocene mono-carboxylic acid methyl ester	5.82 μ	-	Freq	Woodward	JACS	74 (1952)	3458
$\text{FeC}_{12}\text{H}_{14}$	Dimethylferrocene	-	-	Band study	Nesmeyanov	DANS	125 (1959)	1037
$\text{FeC}_{12}\text{H}_{14}$	Ethylferrocene	9-11.5 μ	-	Struct Band study	Rosenblum Nesmeyanov	CIL DANS	7 (1958) 125 (1959)	953 1037
$\text{FeC}_{12}\text{H}_{14}^0$	Ferrocetyl methyl carbinol	-	Sol	H bond	Trifan	JACS	82 (1960)	5010
$\text{FeC}_{12}\text{H}_{14}^0$	α -Hydroxy ethyl ferrocene	-	Sol	H bond	Kuhn	JACS	79 (1957)	6566
$\text{FeC}_{12}\text{H}_{14}^0$	2-Ferrocetyl ethanol	-	Sol	H bond	Trifan	JACS	82 (1960)	5010
$\text{FeC}_{12}\text{H}_{18}\text{Cl}_2\text{N}_6$	Hexamethyl ferrocyanide chloride	-	-	Freq, Assign, Struct	Fabbri	ANCR	48 (1958)	909
$\text{FeC}_{12}\text{H}_{30}\text{I}_2\text{N}_6$	Iron (II)-biacetyl, dihydrazone complex iodide	-	S	Spec, Assign	Stonfer	JACS	82 (1950)	3491

$\text{FeC}_{12}\text{H}_{36}\text{O}_6$	Hexaethanolo iron (II)	-	Sol	Spec	Furlani	GCI	87 (1957)	371
$\text{FeC}_{13}\text{H}_{10}\text{O}_2$	Iron-carbonmonoxide cyclopentadienyl phenyl complex	450-4000	Sol	Spec, Freq	Piper	JINC	3 (1956)	104
$\text{FeC}_{13}\text{H}_{16}$	iso-Propylferrocene	-	-	Band freq	Nesmeyanov	DANS	125 (1959)	1037
$\text{FeC}_{13}\text{H}_{16}^0$	Ferrocetyl dimethyl carbinol	-	Sol	H bond	Trifan	JACS	82 (1960)	5010
$\text{FeC}_{14}\text{H}_{14}\text{C}_{12}\text{N}_4 \cdot \text{xH}_2\text{O}$	Iron (II)-bis-(pyridinal)-ethylene-diamine complex chloride polyhydrate	600-4000	S	Assign	Bush	JACS	78 (1956)	1137
$\text{FeC}_{14}\text{H}_{16}$	Tetrahydroindenyl cyclopentadienyl iron	-	-	Band study	Nesmeyanov	DANS	125 (1959)	1037
$\text{FeC}_{14}\text{H}_{16}$	Tetramethylene ferrocene	-	-	Band study	Nesmeyanov	DANS	125 (1959)	1037
$\text{FeC}_{14}\text{H}_{16}^0$	1-Acetyl-1'-ethyl-ferrocene	9-11.5 μ	-	Struct	Rosenblum	CIL	- (1958)	953
$\text{FeC}_{14}\text{H}_{16}^0$	1-Acetyl-2'-ethyl-ferrocene	9-11.5 μ	-	Struct	Rosenblum	CIL	- (1958)	953
$\text{FeC}_{14}\text{H}_{16}^0$	1-Acetyl-3'-ethyl-ferrocene	9-11.5 μ	-	Struct	Rosenblum	CIL	- (1958)	953
$\text{FeC}_{14}\text{H}_{16}^0$	1:1'-Dimethyl-2-acetylferrocene	9-11.5 μ	-	Struct	Rosenblum	CIL	- (1958)	953

FeC ₁₄ H ₁₆ ⁰	1:1'-Dimethyl-3'-acetylferrocene	9-11.5 μ	-	Struct	Rosenblum	CIL	-	(1958)	953
FeC ₁₄ H ₁₈	t-Butyl-ferrocene	-	-	Band study	Ne smeyanov	DANS	125	(1959)	1037
FeC ₁₄ H ₁₈	Diethylferrocene	-	-	Band study	Ne smeyanov	DANS	125	(1959)	1037
FeC ₁₄ H ₁₈	Mesitylene cyclopentadiene iron (O)	600-4000	Sol	Spec	Green	JCS	-	(1960)	989
FeC ₁₄ H ₄₂ C ₁₃ ⁰ S ₁₉ ⁷	Iron (III)-dimethylsulfoxide complex perchlorate dimethylsulfide	650-4000	S	Assign, Spec	Cotton	JPC	64	(1960)	1534
FeC ₁₅ H ₂₁ ⁰	Iron (III)-acetyl acetone	625-5000	S	Spec, Struct	West	JINC	5	(1958)	295
FeC ₁₆ H ₁₄	Phenylferrocene	3-16 μ 9-11.5 μ -	Sol -	Spec Struct Band study	Panson Rosenblum Ne smeyanov	JACS CIL DANS	76 - 125	(1954) (1958) (1959)	2187 953 1037
FeC ₁₆ H ₁₈ ⁰	1:1'-Diacetyl-2-ethyl-ferrocene	9-11.5 μ	-	Struct	Rosenblum	CIL	-	(1958)	953
FeC ₁₆ H ₁₈ ⁰	1:1'-Diacetyl-3-ethyl-ferrocene	9-11.5 μ	S	Struct	Rosenblum	CIL	-	(1958)	953
FeC ₁₆ H ₂₂	Diisopropylferrocene	-	-	Band study	Ne smeyanov	DANS	125	(1959)	1037
FeC ₁₈ H ₁₄	Dibenzferrocene	2-15 μ	Sol	Spec	Panson	JACS	76	(1954)	2024
FeC ₁₈ H ₁₆ ⁰	1-Acetyl-1'-phenyl-ferrocene	9-11.5 μ	-	Struct	Rosenblum	CIL	-	(1958)	953
FeC ₁₈ H ₁₆ ⁰	1-Acetyl-2-phenyl-ferrocene	9-11.5 μ	-	Struct	Rosenblum	CIL	-	(1958)	953
FeC ₁₈ H ₁₆ ⁰	1-Acetyl-3-phenyl-ferrocene	9-11.5 μ	-	Struct	Rosenblum	CIL	-	(1958)	953

$\text{FeC}_{18}\text{H}_{16}^0$	2-Acetyl-2'-phenyl-ferrocene	9-11.5 μ	-	Struct	Rosenblum	C.I.L.	-	(1958)	953
$\text{FeC}_{18}\text{H}_{16}^0$	2-Acetyl-1- β -phenyl-ferrocene	9-11.5 μ	-	Struct	Rosenblum	C.I.L.	-	(1958)	953
$\text{FeC}_{18}\text{H}_{16}^0$	2-Acetyl-1-4-phenyl-ferrocene	9-11.5 μ	-	Struct	Rosenblum	C.I.L.	-	(1958)	953
$\text{FeC}_{18}\text{H}_{18}$	Ethylphenylferrocene	-	-	Band study	Nesmeyanov	DANS	125	(1959)	1037
$\text{FeC}_{18}\text{H}_{24}^0$	1;1'-Diisopropyl-2-acetylferrocene	9-11.5 μ	-	Struct	Rosenblum	C.I.L.	-	(1958)	953
$\text{FeC}_{18}\text{H}_{24}^0$	1;1'-Diisopropyl-3-acetylferrocene	9-11.5 μ	-	Struct	Rosenblum	C.I.L.	-	(1958)	953
$\text{FeC}_{18}\text{H}_{26}$	Di-t-butylferrocene	-	-	Band study	Nesmeyanov	DANS	125	(1959)	1037
$\text{FeC}_{18}\text{H}_{36}\text{I}_2\text{N}_6$	Iron (II)-bis-methylimine complex iodide	600-4000	S	Assign	Bush	JACS	78	(1956)	1137
$\text{FeC}_{18}\text{H}_{48}^0$	Hexakisopropenyl iron (II)	-	SoI	Spec	Furiani	GCI	87	(1957)	371
$\text{FeC}_{19}\text{H}_{16}^0$	(O-Carbomethoxy-phenyl)-ferrocenyl ketone	6.02 μ	-	Freq	Woodward	JACS	74	(1952)	3458
$\text{FeC}_{19}\text{H}_{23}^N$	1-Cyano-1-dicyclo-pentaryl iron-2-phenyl ethylene	4.5-14.32 μ	-	Band study	Howser	JOC	23	(1958)	2006
$\text{FeC}_{21}\text{H}_{15}^0$	Iron (III)-tropolonate	-	S	Band freq	Bryant	JOC	19	(1954)	1889
$\text{FeC}_{21}\text{H}_{24}\text{I}_2\text{N}_2 \cdot \text{H}_2\text{O}$	Iron (II)-pyridinal methylimine complex iodide monohydrate	600-4000	S	Assign	Bush	JACS	78	(1956)	1137

$\text{FeC}_{22}\text{H}_{18}$	Diphenylferrocene	-	-	Band study	Nesmeyanov	DANS	125 (1959)	1037
$\text{FeC}_{22}\text{H}_{18}$	1:1'-Diphenylferrocene	3-16 μ	Sol	Spec	Panson	JACS	76 (1954)	2187
$\text{FeC}_{24}\text{H}_{20}^0$	1:1'-Diphenyl-2-acetyl- ferrocene	9-11.5 μ	S	Struct	Rosenblum	CIL	- (1958)	953
$\text{FeC}_{24}\text{H}_{20}^0$	1:1'-Diphenyl-3-acetyl- ferrocene	9-11.5 μ	-	Struct	Rosenblum	CIL	- (1958)	953
$\text{FeC}_{24}\text{H}_{22}$	Di tolylferrocene	-	-	Band study	Nesmeyanov	DANS	125 (1959)	1037
$\text{FeC}_{24}\text{H}_{12}\text{P}_3$	Ferric-di-n-butyl- phosphate	714-5000	S	Interaction study	Smith	JINC	9 (1959)	150
$\text{FeC}_{24}\text{H}_{60}^0$	Hexaisobutanol-o- iron (II)	-	Sol	Spec	Furlani	GCI	- (1957)	371
$\text{FeC}_{27}\text{H}_{18}\text{N}_3\text{O}_3$	Iron (III)-8-hydroxy- quinolate	8-15 μ	S	Spec Assign, Spec	Charles Charles	AC SA	25 (1953) 8 (1956)	530A 1
$\text{FeC}_{29}\text{H}_{28}\text{N}_4\text{O}_3$	4-Monoformyl deutero- haem dimethyl ester	600-1800	Sol	Spec, Assign	Falk	AJSR	4A (1951)	579
$\text{FeC}_{30}\text{H}_{24}\text{Cl}_2\text{N}_6\text{O}_8$	Iron (II)-2,2'- bipyridine complex perchlorate	600-4000 600-2000	S	Assign Interpretation	Bush Schilt	JACS JINC	78 (1956) 9 (1959)	1137 211
$\text{FeC}_{30}\text{H}_{24}\text{Cl}_2\text{N}_6\text{O}_{12}$	Iron (III)-2,2'- bipyridine complex perchlorate	600-2000	S	Interpretation	Schilt	JINC	9 (1959)	211
$\text{FeC}_{32}\text{H}_{32}\text{N}_4\text{O}_4$	Deuterohaem dimethyl ester	670-4000	S	Spec, Assign	Falk	AJSR	4A (1951)	579
$\text{FeC}_{34}\text{H}_{26}$	1,3',3'-Tetraphenyl- ferrocene	3-16 μ	S	Spec	Panson	JACS	76 (1954)	2187
$\text{FeC}_{34}\text{H}_{32}\text{N}_4\text{O}_4$	Protohaem free acid	670-4000	S	Spec, Assign	Falk	AJSR	4A (1951)	579

$\text{FeC}_{34}\text{H}_{32}\text{N}_4\text{O}_6$	Diformyl deuterohaem dimethyl ester	670-4000	S	Spec, Assign	Falk	AJSR	4A (1951)	579
$\text{FeC}_{34}\text{H}_{34}\text{N}_4\text{O}_5$	Monaacetyl deuterohaem dimethyl ester	670-4000	S	Spec, Assign	Falk	AJSR	4A (1951)	579
$\text{FeC}_{34}\text{H}_{36}\text{N}_4\text{O}_4$	Rhodohaem dimethyl ester	670-4000	S	Spec, Assign	Falk	AJSR	4A (1951)	579
$\text{FeC}_{36}\text{H}_{24}\text{Cl}_2\text{N}_6 \cdot 6\text{H}_2\text{O}$	Iron (II)-1,10-phenanthroline complex chloride hexahydrate	600-4000	S	Assign	Bush	JACS	78 (1956)	1137
$\text{FeC}_{36}\text{H}_{24}\text{Cl}_2\text{N}_6\text{O}_8$	Iron (II)-1,10-phenanthroline complex perchlorate	600-4000	S	Spec	Schilt	JINC	9 (1959)	211
$\text{FeC}_{36}\text{H}_{24}\text{Cl}_3 \cdot \text{N}_2\text{O}_{12} \cdot \text{H}_2\text{O}$	Iron (III)-1,10-phenanthroline complex perchlorate monohydrate	600-2000	S	Spec	Schilt	JINC	9 (1959)	211
$\text{FeC}_{36}\text{H}_{30}$	$^{1,1'}\text{-Dibenzohydryl}$ ferrocene	$3\text{--}16 \mu$	Sol	Spec	Panson	JACS	76 (1954)	2187
$\text{FeC}_{36}\text{H}_{30}\text{Br}_2\text{O}_2\text{P}_2$	Iron (II)-bromide-triphenylphosphine oxide addition compound	1100-1300	S	Assign	Sheldon	JACS	80 (1958)	4775
$\text{FeC}_{36}\text{H}_{30}\text{N}_2\text{O}_2$	Iron-nitric oxide, triphenylphosphine complex	1700-2050	Sol	Freq	Lewis	JINC	7 (1958)	32

2098

$\text{FeC}_{36}\text{H}_{34}\text{N}_4\text{O}_6$	Diacetyl deuterohaem dimethyl ester	670-4000	S	Spec, Assign	Falk	AJSR	4A (1951)	579
$\text{FeC}_{36}\text{H}_{36}\text{N}_4\text{O}_4$	Protohaem dimethyl ester	670-4000	S	Spec, Assign	Falk	AJSR	4A (1951)	579
$\text{FeC}_{36}\text{H}_{38}\text{N}_4\text{O}_4$	Protoporphyrin dimethyl ester	670-4000	S	Spec, Assign	Falk	AJSR	4A (1951)	579
$\cdot\text{FeC}_{36}\text{H}_{40}\text{N}_4\text{O}_4$	Mesohaem dimethyl ester	670-4000	S	Spec, Assign	Falk	AJSR	4A (1951)	579
$\text{FeC}_{36}\text{H}_{40}\text{N}_4\text{O}_6$	Haenatchaem dimethyl ester	670-4000	S	Spec, Assign	Panson	JACS	76 (1954)	579
$\text{FeC}_{46}\text{H}_{34}$	$1,2,4,1',2',4'$ -Hexa-phenylferrrocene	$3-16\mu$	S	Spec		Cotton	- (1960)	2187
$\text{FeC}_{48}\text{H}_{52}\text{N}_4\text{O}_{16}$	Urchaeum (I) octamethyl ester	670-4000	S	Spec, Assign	Falk	AJSR	4A (1951)	579
$\text{FeC}_{72}\text{H}_{60}\text{Cl}_3\text{O}_{16}\text{P}_4$	Iron (III)-triphenyl-phosphine oxide complex perchlorate	900-1300	S	Freq		Cotton	- (1960)	2199
FeH	Iron hydride	-	-	FC	Platt	JCP	18 (1950)	932
$\text{FeHNO}_5\text{P}\cdot\text{xH}_2\text{O}$	Nitrosoferrous hydrogen phosphate hydrate	-	Sol	Struct	Griffith Lewis	JCS JINC	- (1958) 7 (1958)	3993 32
			S	Struct				

$\text{FeH}_4\text{NO}_4\text{P}\cdot\text{H}_2\text{O}$	Ferrous ammonium orthophosphate monohydrate	2-15 μ	S	Freq, I, Assign	Corbridge	JCS	- (1954)	493
$\text{FeH}_5\text{N}_6\text{O}_5\text{S}$	Iron (II)-ammonia, nitric oxide complex sulfate	1700-1875	S	Struct	Griffith	JCS	- (1958)	3993
$\text{FeH}_8\text{C}_{12}\text{N}_4\text{S}$	Iron (II)-hydrazine complex chloride	15-35 μ	-	Freq	Sacconi	N	186 (1960)	549
$\text{FeH}_8\text{N}_2\text{O}_8\text{S}_2$	Ferrous ammonium sulfate	0.5-1.3 μ 0.8-1.1 μ	Sol _L	Optical properties Beer's law	Pfund Chatterjee	JOSA JCP	29 (1939) 20 (1952)	56 344
$\text{FeH}_{10}\text{C}_{12}\text{N}_6\text{O}_6$	Iron (II)-nitric oxide, water complex chloride	-	-	Struct	Griffith	JCS	- (1958)	3993
$\text{FeH}_{10}\text{NO}_{10}\text{S}$	Iron (II)-nitric oxide, water complex sulfate	-	Sol	Struct	Griffith	JCS	- (1958)	3993
$\text{FeH}_{10}\text{NO}_{10}\text{Se}$	Iron (II)-nitric oxide, water complex selenate	1700-1875	-	Struct	Griffith	JCS	- (1958)	3993
$\text{FeH}_{12}\text{F}_6\text{N}_3$	Ammonia hexafluoroferrate (III)	1400-4000	S	Spec	Crockett	JACS	82 (1960)	4158
$\text{FeH}_{12}\text{O}_6$	Hexaquo-iron (II)	-	-	Freq, FC Spec	Schultz Furlani	JCP GCI	10 (1942) - (1957)	194 371

2100	$\text{FeH}_{15}\text{Cl}_2\text{N}_6^0$	Iron (II)-ammonia, nitric oxide complex chloride	1700-1875	S	Struct	Griffith	JCS	-	(1958)	3993
	$\text{FeH}_{15}\text{N}_6^0\text{S}$	Iron (II)-ammonia, nitric oxide complex sulfate	1700-1875	S	Struct	Griffith	JCS	-	(1958)	3993
	$\text{FeH}_{18}\text{N}_6$	Hexamine iron (II)	-	Sol	Spec	Furlani	GCI	-	(1957)	371
	$\text{FeBr}_8\text{O}_2\text{P}_2$	Phosphorous oxybromide iron (II) bromide	1100-1300	S	Bonding	Sheldin	JACS	80	(1958)	4775
	FeCl_3	Ferric chloride	0.8-1.25 μ 1-15 μ 190-700	Sol Sol G	Magnetic rotation Spec Spec	Ingersoll Lagerqvist Wilmshurst	JOSA AF JMS	6 12 5	(1922) (1957) (1960)	663 491 343
	FeCl_6	Hexachloro iron (II)	-	Sol	Spec	Furlani	GCI	-	(1957)	571
	FeF_4	Iron (II)-complex fluoro ion	-	S	Freq, Struct	Peacock	JCS	-	(1959)	2762
	FeF_4	Iron (II)-complex fluoro ion	-	S	Freq, Struct	Peacock	JCS	-	(1959)	2762
	FeI_3O_9	Ferric iodate	-	S	Spec, Struct	Dasent	JCS	-	(1960)	2429
	$\text{FeN}_2\text{O}_2\text{SK}$	Iron (III)-nitric oxide, sulfide complex (potassium salt)	1700-2050	S	Freq	Lewis	J INC	7	(1958)	32
	FeN_3O_9	Ferric nitrate	2-16 μ	S	Spec	Meloche	J INC	6	(1958)	104

$\text{FeN}_3\text{O}_9 \cdot 9\text{H}_2\text{O}$	Ferric nitrate monohydrate	2-16 μ 700-1600 300-880	S S S	Spec, Freq Freq, Assign Spec	Miller Ferraro Miller	AC JMS SA	24 (1952) 4 (1960) 16 (1960)	1253 99 135
FeN_4O_4	Iron (III)-nitrate, nitric oxide complex	1700-1875	S	Struct	Griffith	JCS	- (1958)	3993
FeO	Iron monoxide	7000-14000	-	Spec	Bass	PR	87 (1952)	214
$\text{FeO}_4\text{P} \cdot 2\text{H}_2\text{O}$	Iron orthophosphate dihydrate	2-15 μ	S	Band freq, I, Assign	Corbridge	JCS	- (1954)	493
$\text{FeO}_4\text{P} \cdot 4\text{H}_2\text{O}$	Iron (III)-phosphate tetrahydrate	2-16 μ	S	Spec	Meloche	J INC	6 (1958)	104
FeO_4S	Ferrous sulfate	0.8-1.25 μ 0.8-1.1 μ	Sol L	Magnetic rotation Beer's law	Ingersoll Chatterjee	JOSA JCP	6 (1922) 20 (1952)	663 344
$\text{FeO}_4\text{S} \cdot 7\text{H}_2\text{O}$	Ferrous sulfate heptahydrate	2-16 μ 300-880	S S	Spec, Freq Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
FeO_4Mg	Magnesium ferrite	280-4000	S	Spec, Assign, FC, I, Thermo.	Waldron	PR	99 (1955)	1727
$\text{Fe}_2\text{C}_4\text{H}_{10}\text{N}_4\text{O}_4\text{S}_2$	Nitrosylthioethyanato iron	1700-2050	S	Struct	Lewis	J INC	7 (1958)	32
$\text{Fe}_2\text{C}_9\text{O}_9$	Iron enneacarbonyl	2-21 μ 2-12.5 μ	S S	Spec, Assign Spec	Sheline Sheline	JACS JACS	72 (1950) 73 (1951)	1107 1615
$\text{Fe}_2\text{C}_{10}\text{H}_4\text{O}_6$	Reple Organo iron complex	600-4000	Sol	Spec, Assign	Green	JCS	- (1960)	989

$\text{FeC}_{12}\text{H}_{10}\text{O}_2$	Carbonylmonoxide Iron-cyclopentadiene complex	600–5000	S	Struct	Piper	JINC	1 (1955)	165
$\text{Fe}_2\text{C}_{12}\text{H}_{30}\text{Cl}_4\text{N}_{12}$	Tris-(biacetyl dihydrazone)-iron (II)-tetra-chloroferrate (III)	600–4000	S	Assign	Bush	JACS	78 (1956)	1137
$\text{Fe}_2\text{C}_{14}\text{H}_{10}\text{O}_8$	Di-(77-cyclopenta-dienyl iron) tetracarbonyl	4.5–6 μ	S	Struct	Stammerreich	JINC	9 (1959)	3
$\text{Fe}_2\text{C}_{22}\text{H}_{22}$	Dimethylene diferroocene	—	—	Band study	Nesmeyanov	DANS	125 (1959)	1037
$\text{Fe}_2\text{C}_{32}\text{H}_{30}$	Diphenyl dimethylene diferrocene	—	—	Band study	Nesmeyanov	DANS	125 (1959)	1037
$\text{Fe}_2\text{H}_8\text{N}_2\text{O}_{16}\text{S}_4$	Ferric ammonium sulfate	0.777–2.8 μ 0.8–1.25 μ	Sol Sol	Transmission curves Magnetic rotation	Nichols Ingersoll	PR JOSA	1 (1893) 6 (1922)	1 663
$\text{Fe}_2\text{H}_8\text{N}_2\text{O}_{28}\text{S}_7$	Ammonium iron alum	0–1.4 μ	Sol	Spec	Coblentz	BBS	7 (1911)	619
$\text{Fe}_2\text{NO}_9\text{S}_2 \cdot 13\text{H}_2\text{O}$	Iron (II)-sulphate, nitric oxide complex tridecahydrate	1700–1875	S	Struct	Griffith	JCS	— (1958)	3993
Fe_2O_3	α -Ferric oxide	4000–14500	S	Spec	Morin	PR	93 (1954)	1195
$\text{Fe}_2\text{O}_3 \cdot \text{H}_2\text{O}$	Ferric oxide hydrate	—	—	H bond	Glemser	ZAUJ	297 (1958)	175
$\text{Fe}_2\text{O}_4\text{Co}$	Cobalt ferrite	280–4000	S	Spec, Assign, FC, I, Thermo.	Waldron	PR	99 (1955)	1727

$\text{Fe}_2\text{O}_4\text{Mn}$	Manganese ferrite	280-4000	S	Spec, Assign, FC, I, Thermo.	Waldron	PR	99 (1955)	1727
$\text{Fe}_2\text{O}_{12}\text{S}_3$	Ferric sulfate	0.8-1.25 μ	Sol	Magnetic rotation	Ingersoll	JOSA	6 (1922)	663
$\text{Fe}_2\text{O}_{12}\text{S}_3 \cdot \text{xH}_2\text{O}$	Ferric sulfate polyhydrate	300-880	S	Spec	Miller	SA	16 (1960)	135
$\text{Fe}_3\text{C}_{12}\text{O}_{12}$	Iron tetracarbonyl (trimer)	2-12.5 μ 1818-2105-	S,Sol S	Spec, Struct Spec, Struct	Sheline Dahl	JACS JCP	73 (1951) 27 (1957)	1615 323
Fe_3O_4	Iron ferrite	280-4000	S	Spec, Assign, FC, I, Thermo.	Waldron	PR	99 (1955)	1727
$\text{Fe}_4\text{H}_2\text{N}_{18}\text{S}_3$	Roussin's black salt	1700-2050	S	Struct	Lewis	JINC	7 (1958)	32
$\text{Fe}_7\text{C}_{18}\text{N}_{18}$	Ferric ferrocyanide	2-15 μ	S	Spec	Harkins	AC	31 (1959)	541
<u>Fr COMPOUNDS</u>								
FrH	Francium hydride	-	-	FC	Sheline	JCP	18 (1950)	927
Fr ₂	Francium	-	-	Freq	Clark	TFS	33 (1937)	1398
<u>Ga COMPOUNDS</u>								
$\text{GaC}_{27}^{\text{H}0}$	Dimethyl gallium hydroxide	2-16 μ	S,Sol	Spec	Kenny	JACS	76 (1954)	4839

$\text{GaC}_{27}\text{H}_{18}\text{N}_3\text{O}_3$	Gallium (III)-8-hydroxyquinolate	-	S	Spec	Charles	AC	25 (1953)	530
GaH	Gallium monohydride	-	-	FC	Sheline	JCP	18 (1950)	927
GaBr	Gallium bromide	-	-	Microwave	Mandel	BAPS	2 (1956)	284
$^{69}\text{Br}^{79}\text{Ga}$	Gallium bromide (isotopic)	-	-	Spec, Mol. Const.	Barrett	PR	109 (1958)	1572
GaCl	Gallium chloride	-	-	Microwave	Mandel	BAPS	2 (1956)	284
$^{69}\text{Cl}^{35}\text{Ga}$	Gallium chloride (isotopic)	-	-	Spec, Mol. Const.	Barrett	PR	109 (1958)	1572
GaF_4	Gallium (III)-complex fluoro ion	-	S	Freq, Struct	Peacock	JCS	- (1959)	2762
GaI	Gallium iodide	-	-	Microwave	Mandel	BAPS	2 (1956)	284
$^{69}\text{I}^{127}\text{Ga}$	Gallium iodide (isotopic)	-	-	Spec, Mol. Const.	Barrett	PR	109 (1958)	1572
GaP	Gallium phosphide	6-26 μ	S	Freq, Assign	Kleinman	PR	118 (1960)	110
GaAs	Gallium arsenide	-	-	Spec	Briggs	PR	93 (1954)	912
		-	S	Spec	Braunstein	PR	99 (1955)	1892
		0.85-25 μ	S	Absorption measurement	Spitzer	PR	114 (1959)	59
GaSb	Gallium antimonide	-	-	Spec	Briggs	PR	93 (1954)	912A
		-	S	Spec	Blunt	PR	96 (1954)	576
		-	S	Spec	Collins	PR	98 (1955)	227A
		-	S	Spec	Braunstein	PR	99 (1955)	1892
Ga_2C_2	Gallium carbide	-	-	Freq, Thermo.	Chupka	JPC	62 (1958)	611
Ga_2O_3	Gallium oxide	410-1200	S	Assign	Kolesova	OS	6 (1959)	38
Ga_2Te_3	Gallium telluride	-	-	Activation energy	Harbecke	ZN	139 (1958)	775

Ge COMPOUNDS

GeCH ₃ C ₁ ₃	Methyl trichlorogermane	-	-	Mol. Const.	Irisova	IANS	22 (1958)	1307
GeCH ₆	Methylgermane	-	-	Band study	Barchukov	OS	5 (1958)	530
		-	-	Mol. Const.	Laurie	JCP	30 (1959)	1210
GeC ₂ H ₈	Dimethylgermane	-	G	Group freq	West	JACS	75 (1953)	6080
GeC ₃ H ₇ C ₁ ₃	Isopropylgermanium trichloride	-	Sol	Spec	Rochao	JACS	73 (1951)	5486
GeC ₃ H ₇ C ₁ ₃	n-Propylgermanium trichloride	-	Sol	Spec	Rochao	JACS	73 (1951)	5486
GeC ₄ H ₁₂	Tetramethylgermane	-	-	Freq	French	JCP	14 (1946)	389
		600-6000	G	Spec, Freq	Young	JACS	69 (1947)	1410
		-	-	FC	Sheeline	JCP	18 (1950)	595
		-	-	FC	Sheline	JCP	18 (1950)	602
	598-3720	G,L	I	Assign	Lippincott	JACS	75 (1953)	4141
	1242	-	Freq		Sheppard	TFS	51 (1955)	1465
GeC ₄ H ₁₂ O ₄	Tetramethoxygermane	580-2955	L,Sol	Spec, I	Johnson	JACS	75 (1953)	718
GeC ₈ H ₂₀ O ₄	Tetraethoxygermane	695-2930	L,Sol	Table, I	Johnson	JACS	75 (1953)	718
GeC ₈ H ₂₀	Tetraethylgermane	1-16 μ	G	Spec	Kattering	P	4 (1933)	39
GeC ₁₆ H ₃₆ O ₄	Tetra-n-butoxygermane	699-2920	L,Sol	Table, I	Johnson	JACS	75 (1953)	718
GeC ₁₈ H ₁₆	Triphenylgermane	1002-4200	Sol	Freq	West	JACS	75 (1953)	6080
GeC ₁₈ H ₁₆	Triphenylgermanol	-	-	Ident H bond	Brock West	JACS	76 (1954)	77
	Methyltriphenylgermane-carboxylate	-	Sol	Ident H bond	Brook	JACS	82 (1960)	6269
GeC ₂₀ H ₁₈ O ₂	Tetra-n-pentoxysilane	699-2910	L,Sol	I	Johnson	JACS	76 (1954)	77
GeC ₂₀ H ₄₄ O ₄					Johnson	JACS	75 (1953)	718

GeC ₂₄ H ₂₀	Tetraphenylgermane	1089 625-900 8-11 μ	Sol S	Freq Substitution Band freq	Kross Margoshes Nottos	JACS SA CIL	77 (1955) 7 (1955) - (1959)	5858 14 298
GeC ₂₄ H ₄₄ O ₄	Tetracyclohexylsilane	670-2946	Sol, L	I	Johnson	JACS	75 (1953)	718
GeC ₂₄ H ₅₂ O ₄	Tetra-n-hexoxygermane	687-2895	L, Sol	I	Johnson	JACS	75 (1953)	718
GeC ₂₅ H ₂₀ O	Benzoyltriphenyl- germane	-	Sol	Freq	Brook	JACS	82 (1960)	5102
GeC ₃₇ H ₃₀	Triphenylmethyl- triphenylgermane	-	-	Comparison	Brook	JACS	76 (1954)	77
GeH	Germanium hydride	-	-	FC	Platt Sheline	JCP JCP	18 (1950) 18 (1950)	932 927
GeHCl ₃	Trichlorogerманe	300-4000	G	FC Spec	Krishnamachari Lindeman	IJP SA	29 (1955) 9 (1957)	384 47
Ge ⁷⁰ HC ₁₃ ³⁵	Trichlorogerманe (isotopic)	-	-	Microwave	Venkateswarlu	JCP	21 (1953)	1713
Ge ⁷² HC ₁₃ ³⁵	Trichlorogerманe (isotopic)	-	-	Microwave	Venkateswarlu	JCP	21 (1953)	1713
Ge ⁷⁴ HC ₁₃ ³⁵	Trichlorogerманe (isotopic)	-	-	Microwave	Venkateswarlu	JCP	21 (1953)	1713
Ge ⁷⁰ HC ₁₃ ³⁷	Trichlorogerманe (isotopic)	-	-	Microwave	Venkateswarlu	JCP	21 (1953)	1713

Ge ⁷² H ₃ C ³⁷	Trichlorogerманe (isotopic)	-	-	Microwave	Venkateswarlu	JCP	21 (1953)	1713
Ge ⁷⁴ H ₃ C ³⁷	Trichlorogerманe (isotopic)	-	-	Microwave	Venkateswarlu	JCP	21 (1953)	1713
GeH ₃ D	Germane-d ₁	1520	G	Spec, Freq, Anal	Lindeman	JCP	22 (1954)	1723
GeH ₃ Br ⁷⁹	Bromogerманe (isotopic)	-	-	Microwave	Mays	JCP	20 (1952)	1695
GeH ₃ C1	Monochlorogerманe	-	G	Spec, Assign, Thermo. Mol. Const.	Lord	JCP	22 (1954)	542
Ge ⁷⁰ H ₃ C ³⁵	Monochlorogerманe (isotopic)	-	G	Microwave	Dailey	PR	76 (1949)	136
Ge ⁷² H ₃ C ³⁵	Monochlorogerманe (isotopic)	-	G	Microwave	Dailey	PR	76 (1949)	136
Ge ⁷⁴ H ₃ C ³⁵	Monochlorogerманe (isotopic)	-	G	Microwave	Dailey	PR	76 (1949)	136
Ge ⁷⁴ H ₃ C ³⁷	Monochlorogerманe (isotopic)	-	G	Microwave	Dailey	PR	76 (1949)	136
Ge ⁷⁶ H ₃ C ³⁷	Monochlorogerманe (isotopic)	-	G	Microwave	Dailey	PR	76 (1949)	136

	-	-	FC	Krishnamachari Venkateswarlu	IJP JCP	29 (1955) 23 (1955)
	-	-	FC	Hahn	JCP	24 (1956)
396	-	-	Freq	Lindeman	SA	9 (1957)
300-4000	G	Spec	Spec	Pistorius	JCP	28 (1958)
	-	-	FC			514
 GeF_4	 Germanium tetra-fluoride	 5-15 μ	G	Band study	Caunt	 N
			G	Spec, Freq, Assign, FC	Caunt	168 (1951)
		-	-	Thermo.	Voelz	48 (1952)
		2-38 μ	G	Spec, Freq, Assign	Woltz	20 (1952)
						1662
						307
 GeO	 Germanium monoxide	-	-	FC	TFS	53 (1957)
		-	-	Spec	RIC	79 (1960)
						1046
 $\text{GeO}\cdot\text{H}_2^0$	 Germanium monoxide monohydrate	-	-	Spec, Struct	Dupuis	518
					Dupuis	79 (1960)
						518
 GeO_2	 Germanium dioxide	0.185-8.5 μ	-	Spec	PR	51 (1937)
		300-1650	S	Spec	PR	100 (1956)
		-	-	Freq	PCS	1264
		300-4000	S	Spec, Assign, Freq	JRN	7 (1958)
		2-15 μ	S	Freq, Spec	JPC	301
					JRN	61 (1958)
					JPC	64 (1960)
						174
 $\text{GeO}_2 \cdot \text{H}_2^0$	 Germanium dioxide monohydrate	-	-	Spec	Dupuis	79 (1960)
						518
 $\text{Ge}_2\text{C}_6\text{H}_{18}^0$	 Bistrimethylgermanium oxide	400-1500	L	Freq, Assign	Brown	 SA 16 (1960)
						595
 $\text{Ge}_2\text{C}_{37}\text{H}_{30}^0_2$	 Triphenylgermyl triphenylgermane carboxylate	-	-	Ident	Brook	 JACS 76 (1954) 77
 $\text{Ge}_6^{\text{H}}_2$	 Digermane	-	-	FC	Gordy	14 (1946)
		400-4000	G, S	FC	Dows	205
		2078-2114	G	Spec, Freq	Dows	24 (1956)
						1029
						24 (1956)
						1117
 $\text{Ge}_3\text{C}_6\text{H}_{18}^0\text{S}_3$	 Dimethylgermanium sulfide trimer	400-1500	S, Sol	Freq, Assign	Brown	 SA 16 (1960)
						595

Hf COMPOUNDS

HfH	Hafnium hydride	-	-	Force const.	Platt	JCP	18 (1950)	932
HfN ₄ O ₁₂ ·4H ₂ O	Hafnium nitrate tetrahydrate	700-1600	S	Freq, Assign	Ferraro	JMS	4 (1960)	99

Hg COMPOUNDS

HgCH ₃ Br	Methyl mercury bromide	-	-	Microwave	Gordy	JCP	22 (1954)	92
HgCH ₃ Cl	Methyl mercury chloride	-	-	Microwave	Gordy	JCP	22 (1954)	92
HgCClF ₃ S	Trifluoromethyl thio mercuric chloride	-	-	Ident	Haszeldine	JCS	- (1953)	3219
HgC ₂ H ₃ N ₂ S ₂	Mercuric rubaneate	400-4000	Sol	Struct	Barcelo	SA	10 (1958)	8245
HgC ₂ H ₆	Dimethyl mercury	-	-	FC	Thompson Gutowsky Sheline	PRS JCP JCP	A160 (1937) 17 (1949) 18 (1950)	539 128 602
HgC ₂ H ₈ Cl ₂ N ₂	Mercury (III)-ethylenediamine complex chloride	280-5000	-	Struct	Brodersen	ZAU A	298 (1958)	142
HgC ₂ F ₆ S ₂	Bis (trifluoro-methyl thio) mercury	-	-	Ident	Haszeldine	JCS	- (1953)	3219
HgC ₂ N ₂	Mercuric cyanide	2100-2800 250-2200	- S -	Spec, FC, Freq, Struct Assign	Linnett Jones Hidalgo	JCS JCP CPR	- (1937) 27 (1957) 249 (1959)	1398 665 223

$\text{HgC}_2\text{N}_2\text{S}_2$	—	S, Sol	Struct	Poulet Hidalgo Miller	CPR AFS SA	249 (1959) 56A (1960) 16 (1960)	2079 9 135
	250–2200 300–880	S	Spec, Assign				
		S	Spec				
$\text{HgC}_3\text{H}_3\text{ClO}_{10}$	Mercuric thiocyanate	2–16 μ 300–880 —	S S S	Spec Spec Freq, Assign	Miller Miller Miller Mitchell	AC SA JCS	24 (1952) 16 (1960) — (1960)
	1,1,2,2-Tetra deuterio- 2-methoxy ethyl mercuric iodide	650–4000	S, L	Assign, Freq	Kreevoy	JACS	1253 135 1912
$\text{HgC}_3\text{H}_5\text{ClO}$	Acetonyl mercuric chloride	5–11 μ	Sol	Spec	Morton	JACS	82 (1960) 6124
$\text{HgC}_3\text{H}_7\text{IO}$	2-Methoxyethyl mercuric iodide	650–4000	S, L	Assign, Freq	Kreevoy	JACS	73 (1951) 3300
HgC_4H_8	Ethyl vinyl mercury	650–3500	L	Assign, Spec	Kaesz	SA	15 (1959) 360
$\text{HgC}_4\text{HCl}_2\text{O}_2$	Mercury (II)-chloride dioxane complex	650–5000 500–1500	S S	Thermo. Spec, Struct	Daasch Hendra	SA JCS	15 (1959) — (1960) 726 5105
$\text{HgC}_4\text{HCl}_2\text{S}_2$	Mercury (II)-di thiane chloride complex	500–1500	S	Spec, Struct	Hendra	JCS	— (1960) 5105
$\text{HgC}_4\text{H}_{10}$	Diethyl mercury	—	—	FC	Thompson Kaesz	PKS SA	160 (1957) 15 (1959) 539 360
$\text{HgC}_4\text{H}_{10}\text{Cl}_2\text{N}_2$	Mercury (II)-chloride piperazine	650–3500	L	Assign, Spec	Hendra	JCS	— (1960) 5105
$\text{HgC}_4\text{H}_{15}$	Divinyl mercury	650–3500	L	Spec, Assign	Kaesz	SA	15 (1959) 360
HgC_4N_4	Mercury (II)-tetra- cyanide complex ion	250–2200	S	Spec, Assign	Hidalgo	AFS	56A (1960) 9
$\text{HgC}_4\text{N}_4\text{K}_2$	Mercury (II)-cyanide complex (potassium salt)	—	S, Sol	Struct	Poulet	CPR	248 (1959) 2079

HgC_4N_4	Mercury (II)-tetra-cyanide complex ion	250-2200	S	Spec, Assign	Hidalgo	ARS	56A (1960)	9
$\text{HgC}_4\text{N}_4\text{K}_2$	Mercury (II)-cyanide complex (potassium salt)	-	S,Sol	Struct	Poulet	CPR	248 (1959)	2079
$\text{HgC}_4\text{N}_4\text{S}_2\text{K}_2$	Mercuric (II)-thiocyanate complex (potassium salt)	-	S	Freq, Assign	Mitchell	JCS	- (1960)	1912
$\text{HgC}_5\text{H}_8\text{Cl}_2\text{O}^0$	Acetylacetone-mercuric chloride complex	650-1750	S	Spec, Struct	Paoloni	GCI	89 (1959)	2171
$\text{HgC}_6\text{H}_{13}\text{O}^0\text{P}^5$	Diethoxyphosphonyl mercuric acetate	-	-	Spec	Fox	JACS	75 (1953)	3967
$\text{HgC}_6\text{H}_{18}\text{O}_2\text{Si}_2$	Mercury (II)-trimethyl silanolate	2-16 μ	S	Spec	Tatlock	JOC	17 (1952)	1555
$\text{HgC}_6\text{N}_6\text{K}_4$	Mercury (II)-cyanide complex (potassium salt)	-	S,Sol	Struct	Poulet	CPR	248 (1959)	2079
HgC_8H_8	Phenylvinyl mercury	650-3500	L	Spec, Assign	Kaesz	SA	15 (1959)	360
$\text{HgC}_8\text{H}_{10}\text{C}_1\text{N}_3^3$	p-Dimethylaminobenzene diazonium Mercury (II)-chloride	3-14 μ	S	Freq	Gremillion	JACS	81 (1959)	6134
$\text{HgC}_8\text{H}_{16}\text{Cl}_2\text{O}_2\text{S}_2$	Mercury (II)-thioxane complex	500-1500	S	Spec, Struct	Hendra	JCS	- (1960)	5105
$\text{HgC}_8\text{H}_{18}\text{O}^0\text{P}^5$	Mercury (I)-di-n-butyl phosphate	714-5000	S	Interaction study	Smith	JINC	9 (1959)	150

$\text{HgC}_{10}\text{H}_{12}\text{N}_2\text{O}_8\text{Na}_2$	Mercury (II)-ethylene-diamine tetraacetic acid complex (sodium salt) 2.5 hydrate	800-1800	S	Freq., Assign	Sawyer	JACS 81 (1959)	816
$\text{HgC}_{10}\text{H}_{21}\text{O}_5^P$	Di-n-butylphosphinyl mercuric acetate	-	-	Spec	Fox	JACS 75 (1953)	3967
$\text{HgC}_{16}\text{H}_{36}\text{O}_8\text{P}_2$	Mercury (II)-di-n-butyrophosphate	714-5000	S	Interaction study	Smith	JINC 9 (1959)	150
$\text{HgC}_{17}\text{H}_{20}\text{I}_3\text{NO}_3$	Morphine mercuric iodide	2-16/ μ	S	Spec	Levi	AC 26 (1954)	1040
$\text{HgC}_{17}\text{H}_{28}\text{O}_8$	2-Acetoxymercurimethyl-5,6-bis-(2,2-dimethyl-1,3-dioxolan-4-yl)-p-dioxane	-	-	Reference	Rosen	JACS 77 (1955)	762
$\text{HgC}_{22}\text{H}_{42}\text{N}_4\text{O}_8\text{S}_2$	Pantethine mercuric mercaptide	-	-	Absorption	Wittle	JACS 75 (1953)	1694
$\text{HgC}_{30}\text{H}_{50}\text{O}_{12}$	Bis-[5,6-bis-(2,2-dimethyl-1,3-dioxolan-4-yl)-2-p-dioxonylmethyl]-mercury	-	-	Ident, Struct	Rosen	JACS 77 (1955)	762
$\text{HgC}_{36}\text{H}_{24}\text{Cl}_2\text{N}_6\text{O}_8$	Mercury (II)-1:10-phenanthroline complex perchlorate	600-2000	S	Spec	Schilt	JINC 9 (1959)	211
HgI	Mercury hydride	-	-	$\overline{\text{T}}$ -type doubling theory Vibrations	Mulliken Oldenberg Oldenberg Pekeris	PK 38 (1931) PK 37 (1931) PR 37 (1931) PK 45 (1934)	85 194 1550 98
		-	-	Rotation	Hulbert	JCP 9 (1941) PR 71 (1947)	61 118
		-	-	Rotation-vibration coupling const.	Wu	JCP 18 (1950)	932
		-	-	Thermo.	Platt	JCP 18 (1950)	927
		-	-		Sheline	JCP 18 (1950)	927

HgH	Mercury hydride ion	-	-	Potential function Potential function	Glockler Beckel	JCP JCP	20 (1952) 24 (1956)	1448 553
HgH_2BrN	Mercuric amidobromide	$2-35\mu$	S	Rotation-vibration coupling const. Assign	Pekeris	PR	45 (1934)	98
$HgH_6Br_2N_2$	Mercury (II)-ammonia complex bromide	400-1600	S	NCA, Assign	Nakagawa Bertin	SA JACS	9 (1957) 80 (1958)	199 525
$HgH_6Cl_2N_2$	Mercury (I)-ammonia complex chloride	-	-	Freq	Wilmhurst	CJC	38 (1960)	467
HgD	Mercury (II)-ammonia complex chloride	400-1600	S	NCA, Assign	Bertin	JACS	80 (1958)	525
$HgBrCl$	Mercury deuteride	-	-	Potential function	Beckel	JCP	24 (1956)	553
$HgBrI$	Mercuric chloride bromide	-	-	Interaction theory	Duchesne	JCP	19 (1951)	1191
$HgBr_2$	Mercuric bromide iodide	-	-	Interaction theory	Duchesne	JCP	19 (1951)	1191
$HgCl_2$	Mercuric bromide	$300-880$	-	Force field Spec	Linnett Miller	TFS SA	45 (1949) 16 (1960)	844 135
$HgCl_2$	Mercury monochloride	$0-2.7\mu$	-	Residual rays Dispersion	Schaefer Korff	TFS RMP	25 (1929) 4 (1932)	841 471
$HgCl_2$	Mercuric chloride	95μ $117-300\mu$	S	Residual rays Dispersion	Weniger Korff	JOSA RMP	7 (1923) 4 (1932)	517 471
$HgCl_2$	-	-	-	Force field	Linnett	TFS	45 (1949)	844
$HgCl_2$	322	-	-	Freq	Hahn	JCP	24 (1956)	921
$HgCl_2$	$300-880$	S	-	Spec	Miller	SA	16 (1960)	135
$HgCl_2$	Mercuric chloride (isotopic)	-	-	Isotope effect theory	Salant	PR	42 (1932)	812

$HgCl_2^{+}Cl^{-}$	Mercuric chloride (isotopic)	-	-	-	Isotope effect theory	Salant	PR	42 (1952)	812
$HgCl_4$	Mercuric tetrachloride ion	265	-	Freq		Hahn	JCP	24 (1956)	921
HgI_2	Mercuric iodide	-	-	Force field Spec		Linnett Miller	TFS SA	45 (1949) 16 (1960)	844 135
HgI_2O_6	Mercuric iodate	-	S	Spec, Struct		Dasent	JCS	- (1960)	2429
$HgNO_3$	Mercurous nitrate	2-16 μ	S	Spec		Meloche	JINC	6 (1958)	104
$HgNO_3 \cdot H_2O$	Mercurous nitrate monohydrate	700-1600 300-880	S S	Freq, Assign Spec		Ferraro Miller	JMS SA	4 (1960) 16 (1960)	99 135
Hg_2O_6	Mercuric nitrate	2-16 μ 2-15 μ 700-1600	S S S	Spec Spec Freq, Assign		Meloche Addison Ferraro	JINC JCS JMS	6 (1958) - (1960) 4 (1960)	104 613 99
$Hg_2O_6 \cdot H_2O$	Mercuric nitrate monohydrate	300-880	S	Spec		Miller	SA	16 (1960)	135
HgO_4S	Anhydrous mercury (II) sulfate	2-16 μ	S	Spec		Meloche	JINC	6 (1958)	104
HgS	Mercuric sulphide	300-880	S	Spec		Miller	SA	16 (1960)	135
$HgSe$	Mercuric selenide	0.8-15 μ	S	Assign		Redfield	BAPS	2 (1957)	121
$Hg_2C_6H_{14}Cl_4N_2$	Mercury (II) chloride dimethyl piperazine complex	500-1500	S	Spec, Struct		Hendra	JCS	- (1960)	5105
Hg_2Cl_2	Mercurous chloride	91-118 μ - 300-880	S - S	Residual rays Residual rays Spec		Weniger Schaefer Miller	JOSA TFS SA	7 (1923) 25 (1929) 16 (1960)	517 841 135
$Hg_2I_2O_6$	Mercurous iodate	-	S	Spec, Struct		Dasent	JCS	- (1960)	2429

$Hg_2N_2O_3$	Mercury (I)-nitrate	-	S	Band freq	Arora	JACS	73 (1951)	1015
Hg_2O_4S	Anhydrous mercury (I)-sulphate	$2\text{-}16 \mu$ 300-880	S	Spec Spec	Meloche Miller	JINC SA	6 (1958) 16 (1960)	104 135
$Hg_3O_8P_2$	Mercuric orthophosphate	290-650	S	Assign	Duval	CPR	239 (1954)	249

In Compounds

$InG_{27}H_{18}N_3O_3$	Indium (III)-8-hydroxyquinolate	$8\text{-}15 \mu$	S	Spec Assign, Spec	Charles Charles	AC SA	25 (1953) 8 (1956)	550 1
InH	Indium monohydrate	-	-	FC	She line	JCP	18 (1950)	927
$In^{115}_{Br}79$	Indium bromide (isotopic)	-	G	Microwave	Barrett	PR	99 (1955)	666
$In^{115}_{Br}81$	Indium bromide (isotopic)	-	G	Microwave	Barrett	PR	99 (1955)	666
$In^{115}_{Cl}35$	Indium chloride (isotopic)	-	G	Microwave Spec, Mol. Const.	Barrett Barrett	PR PR	99 (1955) 109 (1958)	666 1572
InF_6	Indium (IV)-complex fluoro ion	-	S	Freq, Struct	Peacock	JCS	- (1959)	2762
$In^{115}I127$	Indium iodide	-	-	Spec, Mol. Const.	Barrett	PR	109 (1958)	1572
$InAs$	Indium arsenide	-	-	Spec Anomalous optical behavior Calculations	Briggs Hrostowski	PR PR	93 (1954) 95 (1954)	912A 1683
$InSb$	Indium antimonide	$3\text{.}2\text{-}7 \mu$	S	Spec Spec	Matossi Tanenbaum Burstein	ZN	139 (1958)	767

-	-	Refractive index	Briggs	PR	93 (1954)	912	
7μ	S	Spec	Kaiser	PR	94 (1954)	1431A	
$1\text{-}6\mu$	S	Transmission	Valley	PR	95 (1954)	1092	
$1\text{-}8\mu$	S	Spec	Hrostowski	PR	95 (1954)	1683	
$1\text{-}15\mu$	S	Spec	Breckenridge	PR	96 (1954)	571	
$5\text{-}7\mu$	S	Phovaltaic cell	Mitchell	PR	97 (1955)	239	
$3\text{-}35\mu$	S	Spec	Kaiser	PR	98 (1955)	966	
$5\text{-}150\mu$	S	Spec	Spikzer	PR	99 (1955)	1893	
$20\text{-}200\mu$	S	Reflectance curves	Yoshinaja	PR	100 (1955)	753	
$5\text{-}11\mu$	S	Spec	Kurnick	JAP	27 (1956)	278	
$20\text{-}200\mu$	S	Spec	Yoshinaja	PR	101 (1956)	526	
$14\text{-}18\mu$	S	Spec	Blount	PR	101 (1956)	563	
$5\text{-}15\mu$	S	Spec	Moss	PR	101 (1956)	1609	
In ₂ Se ₃	Indium selenide	2μ	Photoconductivity	Bode	PR	76 (1949)	179A
In ₂ Te ₃	Indium telluride	-	Activation energy	Harbecka	ZN	139 (1958)	775
 <u>Ir COMPOUNDS</u>							
IrC ₆ N ₆	Iridium (III)-hexacyanide complex ion	250-2200	S	Spec, Assign	ARS	56A (1960)	9
IrC ₆ N ₆ K ₃	Iridium (III)-cyanide complex (potassium salt)	250-2700	-	Assign	Hidalgo	CPR	249 (1959)
IrF ₄	Iridium tetrafluoride	-	S	Freq, Struct	Peacock	JCS	- (1959)
IrF ₆	Iridium hexafluoride	$2\text{-}40\mu$	G	Freq, Assign	Mattraw	JCP	23 (1955)
		-	-	FC	Califano	AAN	25 (1959)
		2500-40000	G	Assign	Moffitt	MP	2 (1959)
		1500-1500	G	Assign, Freq	Classen	JCP	33 (1960)
IrN ₆ O ₁₂ K ₃	Iridium (III)-nitrite complex (potassium salt)	-	-	Struct	Puget	CPR	250 (1960)
							4141

K COMPOUNDS

KCH_3O_3^P	Potassium trifluoro-methylphosphonate	-	-	Group freq	Emeleus	JCS	-	(1955)	563
KCH_6O_2	Potassium 5-Nitroamino-tetrazole	2-15 μ	S	Spec, Freq	Lieber	AC	23 (1951)	1594	
KCHO_3	Potassium bicarbonate	2-16 μ 11-12.5 μ 600-4000 300-880	S	Spec Spec Assign Spec	Miller Underwood Braunholz Miller	AC JACS JCS SA	24 (1952) 77 (1955) - (1959) 16 (1960)	1253 317 868 135	
KCH_3O_3^S	Potassium methyl sulfonate	-	L	Spec, Freq	Gerding	RIC	77 (1958)	374	
$\text{KCH}_4\text{BrN}_2\text{S}$	Thiourea potassium bromide	2-40 μ	S	Spec	Stewart	JCP	26 (1957)	248	
$\text{KCH}_4\text{IN}_2\text{S}$	Thiourea potassium iodide	2-40 μ	S	Spec	Stewart	JCP	26 (1957)	248	
KCN	Potassium cyanide	4.3-5.4 μ 2-16 μ 2100 2020-2160 - 300-880	Sol S Sol Sol S S	Spec Spec Spec Spec Usage Spec	Gordy Miller Jones Penneman Wiberly Miller	JCP AC JCP JCP AC SA	3 (1935) 24 (1952) 22 (1954) 24 (1956) 29 (1957) 16 (1960)	664 1253 965 293 210 135	
KCO	Potassium cyanate	2.5-7.5 μ 2-14 μ 2-16 μ 300-880	Sol Sol S S	Spec Spec, Freq, Assign Spec Spec	Williams Miller Miller	JCP JACS AC SA	3 (1935) 62 (1940) 24 (1952) 16 (1960)	664 2442 1253 135	
KCS	Potassium thiocyanate	2.5-7.5 μ 2-16 μ 2-15.5 μ 2-14 μ 700-4400 2-16 μ	Sol S S S S	Spec Spec Spec Spec Spec	Gordy Miller Hacskeylo Wiberley Jones Meloche	JCP AC AC AC JCP JINC	3 (1935) 24 (1952) 26 (1954) 29 (1957) 28 (1958) 6 (1958)	664 1253 1410 210 1234 104	

KCNS	Potassium isothiocyanate	300-880	S	Spec, Spec	Tramer Miller	CPR SA	249 16	(1959) (1960)	2531 135
KCN ₇	Potassium tetrazylyazide	400-4000	S	Spec Freq, Assign	Waddington Mitchell	JCS JCS	- -	(1959) (1960)	2499 1912
KC ₂ H ₃ OS ₂	Methyl potassium xanthate	2-15 μ 2-15 μ	S	Spec, Freq Spec, Freq	Lieber Lieber	AC JACS	23 73	(1951) (1951)	1594 1313
KC ₂ H ₅ O ₂ S	Ethyl potassium oxyxanthate	2.8-15 μ	S	Spec	Pearson	APS	12	(1958)	116
KC ₂ H ₆ O ₄ P	Dimethyl potassium phosphate	-	-	Spec	Pearson	APS	12	(1958)	116
KC ₃ H ₅ OS ₂	Potassium ethyl xanthate	2.8-15 μ	S	Spec	Haarsen	KIC	76	(1957)	724
KC ₃ H ₉ OSi	Potassium trimethyl silanolate	2-16 μ	S	Spec	Tatlock	JOC	17	(1952)	555
KC ₄ H ₂ D ₄ O ₄	Potassium maleate-d ₁	1200-5000	S	Spec, H bond	Cardwell	JCS	-	(1953)	3740
KC ₄ H ₃ O ₄	Potassium hydrogen maleate	1200-5000	S	Spec, H bond	Cardwell	JCS	-	(1953)	3740
KC ₄ H ₄ O ₆ Na·4H ₂ O	Rochelle salt	1.55-3.05 μ 4550-8100	- S	Scattering Freq Struct	Langer Valasek Baker Stekhanov Bernard	PH PH JCP IANS CPR	33 45 27 22 250	(1929) (1934) (1957) (1958) (1960)	1100 654 689 1109 3819
KC ₄ H ₇ N ₂ O ₃	Potassium asparagine	2-9 μ	SoI	Spec, Freq	Jenecks	ABB	88	(1960)	193
KC ₄ H ₇ OS ₂	Isopropyl potassium xanthate	2.8-15 μ	S	Spec	Pearson	APS	12	(1958)	116

KC ₄ H ₉ O ₂ S	Butyl potassium oxyxanthate	2.8-15 μ	S	Spec	Pearson	APS	12 (1958)	116
KC ₄ H ₁₀ O ₄ P	Diethyl potassium phosphate	-	-	Band freq Spec	Bell Maarsen	JACS HIC	76 (1954) 76 (1957)	5185 724
KC ₅ H ₃ N ₂ O ₄	Potassium orotate	2-12 μ	Sol	Spec, Group freq, Assign	Lacher	JPC	59 (1955)	615
KC ₅ H ₆ DO ₄ K	Potassium glutarate-d ₁	680-2500	-	Spec	Hadzi	NC	11 (1959)	715
KC ₅ H ₇ O ₂	Potassium acetylacetone	625-5000	S	Spec, Struct nate	West	JINC	5 (1958)	295
KC ₅ H ₇ O ₄	Potassium glutamate	680-2500	-	Spec	Hadzi	NC	11 (1959)	715
KC ₅ H ₉ N ₂ O ₃	Glutamine potassium salt	2-9 μ	Sol	Spec, Freq	Jencks	AbB	88 (1960)	193
KC ₅ H ₉ OS ₂	Potassium butyl-xanthate	2.8-15 μ	S	Spec	Pearson	APS	12 (1958)	116
KC ₆ H ₂ N ₄ O ₆	4,6-Dinitrobenzofuroxan potassium salt	4.8-8.3 μ	-	Spec, Freq	Gaughran	JACS	76 (1954)	2333
KC ₆ H ₄ CIN ₂ O ₃ S	Potassium o-chlorobenzenediazosulfonate	600-1800	S	Spec, Assign	LeFevre	AJC	6 (1953)	341
KC ₆ H ₄ CIN ₂ O ₃ S	Potassium p-chlorobenzenediazosulfonate	600-1800	S	Spec, Assign	LeFevre	AJC	6 (1953)	341
KC ₆ H ₅	Phenyl potassium	600-4000	S	Spec, Freq, Assign	Lanpher	JOC	21 (1956)	830
KC ₆ H ₅ N ₂ O	cis-Potassium benzene diazotate	600-1800	S	Spec, Assign	LeFevre	AJC	6 (1953)	341
KC ₆ H ₅ N ₂ O	trans-Potassium benzene diazoate	600-1800	S	Spec, Assign	LeFevre	AJC	6 (1953)	341
KC ₆ H ₅ O ₂ S	Potassium benzene-sulphinate	700-3300	S	Struct, Assign, H bond	Detone	JCS	- (1955)	3163

$\text{KC}_6\text{H}_{11}\text{O}_2$	Potassium hexanoate (A form)	730-710	S	Freq		Chapman	JCS	-	(1957)	4489
$\text{KC}_6\text{H}_{14}\text{O}_4\text{P}$	Di-i-propylpotassium phosphate	-	-	Spec		Maarsen	JJC	76	(1957)	724
$\text{KC}_7\text{H}_5\text{OS}$	Potassium thiobenzoate	2.5-16 μ	Sol	Struct		Nyquist	SA	15	(1959)	514
$\text{KC}_7\text{H}_5\text{O}_2$	Potassium benzoate	1554-1398	S	Band freq		Stimson	JCP	22	(1954)	1942
$\text{KC}_7\text{H}_6\text{NO}_2$	Potassium m-amino-benzoate	1566-1400	S	Band freq		Stimson	JCP	22	(1954)	1942
$\text{KC}_7\text{H}_6\text{NO}_2$	Potassium o-amino-benzoate	1535-1390	S	Band freq		Stimson	JCP	22	(1954)	1942
$\text{KC}_7\text{H}_6\text{NO}_2$	Potassium p-amino-benzoate	1555-1400	S	Band freq		Stimson	JCP	22	(1954)	1942
$\text{KC}_7\text{H}_7\text{N}_2\text{O}_2$	Potassium p-methoxy-benzenediazoate	600-1800	S	Spec, Assign		LeFevre	AJC	6	(1953)	341
$\text{KC}_7\text{H}_{11}\text{O}_2\text{S}$	Cyclohexyl potassium oxyxanthate	2.8-15 μ	S	Spec		Pearson	APS	12	(1958)	116
$\text{KC}_8\text{H}_7\text{O}_2$	Potassium phenyl acetate	650-3500	S	Spec, Freq, H bond Band study		Davies Hales	JCS	-	(1951)	2858
$\text{KC}_8\text{H}_9\text{O}_4$	Potassium penicillate	650-4000	S, Sol	Spec		Ford	JACS	72	(1950)	4529
$\text{KC}_9\text{H}_9\text{NO}$	Potassium 8-hydroxy-quinolate	8-15 μ	S	Spec, Spec, Assign		Charles Charles	AC SA	25	(1953)	530
$\text{KC}_9\text{H}_6\text{NO}$	Potassium 2-quinolyl oxide	-	S	Spec, Struct		Gibson	JCS	-	(1955)	4340
$\text{KC}_9\text{H}_{10}\text{N}_3\text{O}_8$	Potassium ethyl 1-methoxypicrate	-	S	Freq, Struct		Foster	JCS	-	(1954)	2153

KC ₁₀ H ₅ O ₅ S	Potassium-1,2-naphthoquinone sulfonate	1600-1800	S	Group freq	Josien	JCP	21 (1953)	331
KC ₁₀ H ₂₁ O ₂ S	n-Decylpotassium oxyxanthate	2.8-15 μ	S	Spec	Pearson	APS	12 (1958)	116
KC ₁₆ H ₁₅ O ₄	Potassium hydrogen bisphenylacetate	650-3500	S	Spec, Band freq, H bond, Struct, Group freq	Davies	JCS	- (1951)	2658
KC ₁₈ H ₃₅ O ₂	Potassium stearate	-6-8 μ	S	Struct Spec	Gray Ellis	JPCC N	53 (1949) 181 (1958)	23 181
KC ₂₀ H ₁₅ O ₅ •H ₂ O	Monopotassium phenolphthalein monohydrate (red salt)	1016-1746	-	Group freq, Struct	Davies	JCS	- (1954)	120
KC ₂₀ H ₁₅ O ₅ •2H ₂ O	Monopotassium phenolphthalein dinihydrate (white salt)	998-1730	-	Group freq	Davies	JCS	- (1954)	120
KC ₂₄ H ₃₉ O ₂	Potassium 9-phenyl-stearate	-	S	Group freq	Kagarise	JPC	59 (1955)	271
KH	Potassium hydride	-	-	FC	Gordy Platt	JCP	14 (1946) 18 (1950)	305 932
		-	-	FC	Sheline	JCP	18 (1950)	927
		-	-	FC, Potential function	Lippincott	JCP	23 (1955)	1131
		-	-	FC	Baughan	TFS	53 (1957)	1046
KHF ₂	Potassium hydrogen fluoride	1-16 μ	-	H bond, Spec Reflection Quant. Mech. Bond energy Anal H bond, Thermo.	Buswell Kelelaar Glockler Davies Halverson Westrum	JCP	8 (1940) 9 (1941) 10 (1942) 15 (1947) 19 (1947) JACS	362 775 607 739 87 1940

KHO_4S	Potassium bisulfate	2-16 μ 600-4000 300-880	S S S	Spec Group study Spec	Miller Braunholtz Miller	AC JCS SA	24 - 16	(1952) (1959) (1960)	1253 868 135
$\text{KH}_2\text{NO}_3\text{S}$	Potassium sulfamate	500-4000	S	Assign	Vuagnat	JCP	26	(1957)	77
$\text{KH}_2\text{O}_2\text{P}$	Potassium phosphinate	2-15 μ	S	Freq, I, Assign	Corbridge	JCS	-	(1954)	493
$\text{KH}_2\text{O}_4\text{P}$	Potassium dihydrogen phosphate	1-25 μ 1400-3500 2-16 μ S 2-15 μ 400-10000 -	S - S S S S	Spec H bond, Spec Spec Spec, I, Assign Spec, Assign H bond Freq, Spec Spec, H bond Group study Spec Spec	Overly Rundle Miller Corbridge Murphy Pimental Blinc Lazarer Braunholtz Lazarev Miller	JCP JCP AC JCS JCP JCP JCP JCP JCP JCP JCP JCS FTT SA	20 20 24 - 22 24 1 21 - 2 16	(1952) (1952) (1952) (1954) (1954) (1956) (1957) (1957) (1959) (1960) (1960)	740 1487 1253 493 1322 639 391 29 868 3026 135
KHO_4S	Potassium bisulfate	2-16 μ 600-4000 300-880	S S S	Spec Group study Spec	Miller Braunholtz Miller	AC JCS SA	24 - 16	(1952) (1959) (1960)	1253 868 135
$\text{KH}_2\text{O}_2\text{P}$	Potassium phosphinate	2-15 μ	S	Freq, I, Assign	Corbridge	JCS	-	(1954)	493
$\text{KH}_2\text{O}_4\text{P}$	Potassium dihydrogen phosphate	1-25 μ 1400-3500 2-16 μ S 2-15 μ 400-10000 -	S - S S S S	Spec H bond, Spec Spec Spec, I, Assign Spec, Assign H bond Freq, Spec Spec, H bond Group study Spec Spec	Overly Rundle Miller Corbridge Murphy Pimental Blinc Lazarer Braunholtz Lazarev Miller	JCP JCP AC JCS JCP JCP JCP JCP JCP JCP JCS FTT SA	20 20 24 - 22 24 1 21 - 2 16	(1952) (1952) (1952) (1954) (1954) (1956) (1957) (1957) (1959) (1960) (1960)	740 1487 1253 493 1322 639 391 29 868 3026 135

$\text{KH}_2\text{O}_4\text{As}$	Potassium dihydrogen arsenate	1-25 μ 2-16 μ 4000-10000 300-3000 600-4000 300-880	S S S S S S	Spec Spec Spec, Assign Freq, Spec, Quant. Mech. Group study Spec	Oberly Miller Murphy Blinc Braunholtz Miller	JCP AC JCP MP JCS SA	20 (1952) 24 (1952) 22 (1954) 1 (1957) - (1959) 16 (1960)
$\text{KH}_3\text{NO}_3^{\text{P}}$	Monopotassium phosphor amide	2-15 μ	S	Group freq	Corbridge	JCS	- (1954) 493
KH_4B	Potassium borohydride	600-4000	S	Comparison	Waddington	JCS	- (1958) 4783
KDF_2	Potassium hydrogen fluoride-d ₁	1-16 μ -	- Sol	Reflection Anal Spec, Assign	Kelelaar Halverson Jones	JCP RMP JCP	9 (1941) 19 (1947) 22 (1954) 775 87 781
KDO	Potassium hydroxide-d ₁	3000-5000	S	Spec Struct	Buchanan Fibers	JCP JCP	31 (1959) 33 (1960) 870 1164
$\text{KD}_2\text{NO}_3\text{S}$	Potassium sulphamate-d ₂	500-4000	S	Assign	Vuagnat	JCP	26 (1957) 77
$\text{KD}_2\text{O}_4^{\text{P}}$	Potassium dihydrogen phosphate-d ₂	1400-4500 3000-3000 1500-3000	- S S	H bond, Spec Freq, Spec, Quant. Mech. Spec	Rundle Blinc Lazarev	JCP MP FTI	20 (1952) 1 (1957) 2 (1960) 1487 391 3026
$\text{KD}_2\text{O}_4\text{As}$	Potassium dihydrogen arsenate-d ₂	300-3000 600-4000	S S	Freq, Spec, Quant. Mech. Group study	Blinc Braunholtz	MP JCS	1 (1957) - (1959) 391 868
KBr	Potassium bromide	- 82 μ 82.6 μ -	S S -	Freq Residual rays Residual rays Crystal growing Reflectivity Transmission 0-8.7 μ -	Nichols Weniger Schaefer Strong Strong Strong Korff Strong Filters Films	PR JO SA TFS PR PR PR MP PR PR JO SA	21 (1923) 7 (1923) 517 25 (1929) 36 (1930) 37 (1931) 38 (1931) 4 (1932) 45 (1934) 49 (1936) 26 (1936)

50-150 μ	Sol	Ionic theory	Cartwright
-	-	Freq	Huggins
-	-	Crystals	Stockbarger
-	-	Crystal growing	Chamberlain
3-5.4 μ	Sol	Spec	Plyler
8.3 μ	S	Residual rays	Seifert
400-3000	S	Transmission	Wells
-	S	Crystal growth	West
-	-	FC	Gordy
-	S	Compar	Gore
24-34 μ	S	Spec	Plyler
-	S	Review	Williams
-	S	Bands	Burstein
0.2-15 μ	S	Crystals	Friedman
-	-	Polarization	Szigeti
100-600	S	Spec	McCurbin
-	S	Freq	Roberts
-	-	Freq	Szigeti
-	-	Freq	Rittner
1-25 μ	S	Refr. index	Stephens
-	S	Calibration	Downie
-	S	Fabrication	Ryason
2-75 μ	S	Spec	Schiedt
0.4-25 μ	S	Refr. index	Stephens
-	-	Disk	Clauson-Kaass
-	-	Pressed disk	Ford
1-15 μ	S	Filters	Gaunt
2-15 μ	S	Spec	Hausdorff
2-10 μ	S	Temp.	Ingebrightson
-	S	Quant. Anal	Kirkland
-	S	Filter	Menziers
-	S	I	Schiedt
-	S	Reaction	Stewart
-	-	FC	Baugher
-	S	Cells for volatile soln	Black
-	-	Spec	Brackett
50-5000	-	Spec	Lord
-	G	Freq	Rice
2-14 μ	S	Spec	Wiberly
450-3800	S	Freq	Frevel
17-55 μ	S	Transmittance	Plyler
			JCP 5 (1937)
			JCP 5 (1937)
			JOSA 27 (1937)
			HSI 9 (1938)
			JCP 6 (1938)
			HSI 11 (1940)
			JAP 11 (1940)
			JOSA 35 (1945)
			JCP 14 (1946)
			JOSA 37 (1947)
			JNBB 41 (1948)
			HSI 19 (1948)
			Ph 76 (1949)
			JOSA 39 (1949)
			TPS 45 (1949)
			JOSA 40 (1950)
			Ph 77 (1950)
			PRS 204 (1950)
			JCP 19 (1951)
			JOSA 42 (1952)
			JOSA 43 (1953)
			JOSA 43 (1953)
			APS 7 (1953)
			JOSA 43 (1953)
			ACS 8 (1954)
			JSI 31 (1954)
			JSI 31 (1954)
			APS 8 (1954)
			AC 26 (1954)
			AC 26 (1954)
			AC 27 (1955)
			AC 27 (1955)
			AC 27 (1955)
			TFS 53 (1957)
			AC 29 (1957)
			JOSA 47 (1957)
			JOSA 47 (1957)
			JCP 27 (1957)
			AC 29 (1957)
			SA 15 (1959)
			JNBB 64C (1960)

KBrO ₃	Potassium bromate	2-16 μ	S	Spec	Miller	AC	24 (1952)	1253
KCl	Potassium chloride	2-8 μ	S	Spec	Coblentz	BBS	7 (1911)	619
		1-2.1 μ	Sol.	Spec	Callow	JCS	109 (1916)	55
		11.5-25 μ	S	Spec	Coblentz	JOSA	4 (1920)	432
		-	S	Dispersion	Marvin	PR	17 (1921)	412
		-	S	Freq	Nichols	PR	21 (1923)	712A
		107 μ	S	Transmission	Wenger	RSI	7 (1923)	517
		63.4 μ	S	Residual rays	Schaefer	TFS	25 (1929)	841
		-	-	Crystal growing	Strong	PR	36 (1930)	1663
		20-100 μ	-	Transmittivity	Strong	PR	38 (1931)	1818
		40-80 μ	S	Filters	Barnes	PR	43 (1933)	31
		35-120 μ	S	Spec	Barnes	JOSA	26 (1936)	428
		-	S	Filters	Barnes	PR	49 (1936)	732
		50-200 μ	-	Dispersion	Cartwright	PR	49 (1936)	101
		50-150 μ	Sol	Band freq	Cartwright	JCP	5 (1937)	776
		-	-	Theory	Huggins	JCP	5 (1937)	143
		3-5.4 μ	Sol	Spec	Plyler	JCP	6 (1938)	316
		63 μ	S	Residual rays	Seifert	RSI	11 (1940)	365
		-	S	Freq	Foldy	PR	60 (1941)	64A
		-	S	Freq	Iona	PR	60 (1941)	822
		-	-	FC, Bond dist.	Gordy	JCP	14 (1946)	305
		14-24 μ	S	Spec	Plyler	JNBB	41 (1948)	125
		0.5-1.3 μ	S	Bands	Bernstein	PR	76 (1949)	1254
		0.2-15 μ	S	Crystals	Friedman	JOSA	39 (1949)	795L
		-	S	Polarizability	Szigeti	TFS	45 (1949)	155
		-	-	Theory, Freq	Roberts	PR	77 (1950)	258
		-	-	Freq, Theory	Szigeti	PKS	204 (1950)	51
		-	-	Freq	Rittner	JCP	19 (1951)	1030
		-	-	Coupling	Duchesne	JCP	20 (1952)	1804
		-	S	Fabrication	Ryason	JOSA	43 (1953)	928
		2-15 μ	S	Spec	Schmidt	APS	7 (1953)	75
		-	-	Disk	Ford	JSI	31 (1954)	338
		1-15 μ	S	Filters	Gaunt	JSI	31 (1954)	315
		43-70 μ	S	Refl. curves	Kerlakes	PR	98 (1955)	553
		-	S	Study	Lax	PR	97 (1955)	39
		-	S	Filters	Menies	AC	27 (1955)	327A
		-	S	Reaction	Stewart	AC	27 (1955)	318A
		-	-	Band freq	Haas	PR	103 (1956)	564
		-	-	Thermo.	Baughan	TFS	53 (1957)	1046

			Falk	CJC	35 (1957)
2-25 μ	Sol	Spec	Lord	JCSA	47 (1957)
-	-	Spec	Rice	JCP	27 (1957)
-	G	Spec	Garrison	JA	19 (1958)
-	-	Mol. Const.	Plyler	JRMB	64C (1960)
17-55 μ	S	Transmittance			55
KCl-C1Na	Sodium chloride - Potassium chloride - Mix crystal	vib., Spec, Theory	Matossi	JCP	19 (1951) 161
KClO ₃	Potassium chlorate	2-16 μ 1-15 μ 1-22 μ 300-880	Spec Spec, Assign Assign Spec	Miller Ramdas Ramdas Miller	AC 24 (1952) PIAS 35 (1952) PIAS 37 (1953) SA 16 (1960) 1253 249 451 135
KClO ₄	Potassium perchlorate	- 3-14.5 μ 400-1300	Spec Spec, Assign Spec	Taylor Taylor Cohn	TFS 25 (1929) TFS 25 (1929) JCS - (1952)
		2-16 μ 290-650	Spec Assign Spec	Miller Daval Miller	AC 24 (1952) CPR 239 (1954) SA 16 (1960) 4282 1253 249 135
KCl ₄ B	Potassium tetrachloro- borate	600-3500	S, L Spec	Kynaston	JCS - (1960) 830 856
KI	Potassium iodide	- 82 μ - 25-50 μ 22.9 μ 8.7 μ -	- S - S - - 50-200 μ 50-150 μ -	Nichols Weniger Strong Strong Strong Korff Barnes Cartwright Absorption Absorption Huggins Plyler Plyler Barr Seffert West	PR 21 (1923) JOSA 7 (1923) PR 36 (1930) PR 37 (1931) 517 PR 38 (1931) 1663 TR 4 (1932) 1565 PR 49 (1936) 1818 PR 49 (1936) 471 JCP 5 (1937) 732 JCP 5 (1937) 776 JCP 5 (1937) 143 JCP 51 (1937) 1017 JCP 6 (1938) 316 JCP 7 (1939) 8 RSI 11 (1940) 365 JCSA 35 (1945) 26

			de latre	JCP	20 (1952)	1180
Potassium fluoro-silicate	KF ₆ Si ₆	488-735	-	Band study		
Potassium nitrate	KNO ₃	6-15μ 2-16μ -	Sol S -	Struct Spec Freq, Assign Spec, FC, Freq Assign Spec	Williams Miller Newman Weston Greenberg Miller	JACS AC JCP JCP JCP SA
Potassium nitrate	KNO ₃	2-14μ 6-16μ 2-16μ 2-15μ 2-16μ 1200-500 450-3800 -	Sol S S S S Sol Sol -	Freq, Spec Freq Spec Spec Spec Freq Freq Freq Freq Freq, Assign Assign Spec	Angstrom Williams Miller Lane Meloche Vasenkov Frevel Anbar Ferraro Greeneberg Miller	PR JACS AC JCP JINC IANS SA JCS JMS JCP SA
Potassium nitrate (isotopic)	KN ¹⁴ O ₃	800-840 11.3-12.5μ	S	Freq, Spec Spec, FC	Decius Decius	JCP JCP
Potassium nitrate (isotopic)	KN ¹⁵ O ₃	800-840 11.3-12.5μ	S	Freq, Spec Spec, FC	Decius Decius	JCP JCP
Fermi's salt	KN ₂ O ₅ S	650-1300	S	Struct, Assign	Griffith	JINC
Potassium azide	KN ₃	635-3100	S	Freq, FC	Gray	IWS
Potassium superoxide	KO ₂	-	S	Spec, Struct	Brame	JINC
Potassium	K ₂	-	G	Mol. Const. Franck-Condon diagram Spec	Crane Loomis Meggers	PR PR JNB
		0.96-1.17μ	S	Freq	Rosen	PR
		-	-	Mol. Const.	Pekiris	PR
		-	-	FC	Sutherland	JCP

$K_2^{HNO_7} S_2$	Potassium hydroxyl-amine disulphonate	-	-	Spec Thermo.	Adel Hulburt Gordy	PF JCP JCP	59 (1941) 9 (1941) 14 (1946)	915 61 305
$K_2CO_3 O_3^P$	Dipotassium trifluoromethyl phosphonate	-	-	Spec	Yamada	BCSJ	32 (1959)	721
K_2CO_3	Potassium carbonate	-	-	Spec	Emeleus	JCS	- (1955)	563
$K_2CO_3 \cdot \frac{1}{2}H_2O$	Potassium carbonate 1.5 hydrate	-	-	Emission Spec Spec Spec Spec	Pfund Plyler Miller Meloche Miller	JOSA JCP AC JINC SA	23 (1933) 4 (1936) 24 (1952) 6 (1958) 16 (1960)	270 157 1253 104 135
$K_2CO_3 \cdot H_2O$	Potassium oxalate monohydrate	-	-	Band freq	- Underwood	JACS	77 (1955)	317
$K_2CO_3 \cdot H_2O$	Potassium oxalate monohydrate	2-15 μ	S	Spec, Assign	Schmelz	SA	9 (1957)	51
$K_2CO_3 \cdot 2H_2O$	Dipotassium malonate	680-2500	-	Spec	Hadzi	NC	11 (1959)	715
$K_2CO_3 \cdot 2H_2O \cdot xH_2O$	Dipotassium malonate polyhydrate	2-15 μ	S	Spec, Freq, Assign	Schmelz	JACS	81 (1959)	287
$K_2CO_3 \cdot D_2O$	Dipotassium succinate- d_1	680-2500	-	Spec	Hadzi	NC	11 (1959)	715
$K_2CO_4 \cdot 4H_2O$	Dipotassium succinate	680-2500	-	Spec	Hadzi	NC	11 (1959)	715
$K_2CO_6 \cdot N_2O_2$	Dipotassium dimethyl glyoximate	1800-3200	S	Spec, H bond	Blinc	JCS	- (1958)	4536
$K_2CO_6 \cdot 2H_2O$	Dipotassium 2,6-dihydroxy-1,4-benzoquinone	5-15 μ	S	Spec, Struct	Edwards	JAPC	10 (1960)	246

$K_2C_7H_9NO_2S$	Potassium-4-nitrotoluene-2,6-disulfonate	-	-	Ident	Morton	JACS	77 (1955)	3151
$K_2C_{18}H_{10}O_4$	Dipotassium salt of 2,5-dihydroxy-3,6-diphenyl-1,4-benzoquinone	$5-15\mu$	S	Spec, Struct	Edwards	JAPC	10 (1960)	246
$K_2C_{20}H_{12}O_4$	Dipotassium phenol-phthalein	1070-1800	S	Spec, Struct, Group freq	Davies	JCS JPR	- (1954) 15 (1954)	120 305
K_2HO_4P	Dipotassium phosphate	-	-	Struct	Davies	JCS JPR	- (1954) 15 (1954)	120 305
		2-16 μ	S	Spec	Miller	AC	24 (1952)	1253
		2-15 μ	S	Freq, I, Assign	Corbridge	JCS	- (1954)	493
		600-4000	S	Group study	Braunholtz	JCS	- (1959)	868
		650-5000	S	Spec	Pustinger	SA	15 (1959)	909
		300-880	S	Spec	Miller	SA	16 (1960)	135
		420-3600	-	Spec, H bond	Ryskin	OS	8 (1960)	606
$K_2HO_4P \cdot 3H_2O$	Potassium hydrogen phosphate trihydrate	420-3600	-	Spec, H bond	Ryskin	OS	8 (1960)	606
$K_2H_2O_7P_2$	Dipotassium dihydrogen pyrophosphate	650-5000	S	Spec	Pustinger	SA	15 (1959)	909
$K_2H_3NO_6P_2$	Dipotassium dihydrogen imido diphosphate	650-5000	S	Spec	Pustinger	SA	15 (1959)	909
$K_2H_6N_4O_8P_4$	Dipotassium tetraphosphonitrilate	2-15 μ	S	Spec	Corbridge	JCS	- (1954)	4555
K_2DO_4P	Dipotassium hydrogen phosphate-d ₁	420-3600	-	Spec	Ryskin	OS	8 (1960)	606
K_2FO_3P	Dipotassium monofluorophosphate	650-5000	S	I, Freq Spec	Corbridge Pustinger	JCS SA	- (1954) 15 (1959)	4555 909
K_2O_3	Dipotassium trioxide	-	S	Band study	Giguere	JACS	76 (1954)	5891

$K_2O_3S \cdot 2H_2O$	Potassium sulfite dihydrate	2-16 μ 300-880	S Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
$K_2O_3S_2 \cdot H_2O$	Potassium thiosulfate monohydrate	2-16 μ 300-880	S Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
K_2O_3Si	Potassium metasilicate	2-16 μ 300-880	S Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
K_2O_4S	Potassium sulfate	8-10 μ 3-14.5 μ - 2-16 μ 290-650 7.5-10.5 μ 2-16 μ 300-880	L Spec, Assign Interpretation of spec Spec Assign Spec, Anal Spec Spec	Plyler Taylor Duval Miller Duval Tai Meloche Miller	PR TFS GPR AC GPR AC JJNC SA	28 (1929) 25 (1929) 227 (1948) 24 (1952) 239 (1954) 29 (1957) 6 (1958) 16 (1960)	284 856 1153 1253 249 1430 104 135
K_2O_4Se	Potassium selenate	220-3500	S Spec, Struct	Duval	ZE	64 (1960)	582
$K_2O_4Se_2$	Potassium selenate	2-16 μ	S Spec	Miller	AC	24 (1952)	1253
$K_2O_5S_2$	Potassium metabisulfide	2-16 μ -	S Struct	Miller Taylor	AC JCP	24 (1952) 28 (1958)	1253 625
$K_2O_7S_2$	Potassium pyrosulfite	300-880	S Spec	Miller	SA	16 (1960)	135
$K_2O_7B_4 \cdot 5H_2O$	Potassium tetraborate pentahydrate	2-15 μ 300-880	S Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
$K_2O_8S_2$	Potassium persulfate	2-16 μ 300-880	S Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
$K_3H_2N_0P_7_3$	Potassium diimido trimetaphosphate	650-5000	S Spec	Pustinger	SA	15 (1959)	909
$K_3H_3N_0P_6_3$	Potassium trimetaphosphimate	650-5000	S Spec	Pustinger	SA	15 (1959)	909

$K_3^H N_3^{O^-} P_3^- +$ $K_3^D N_3^{O^-} P_3^-$	Potassium trimeta-phosphimate + Potassium trimeta-phosphimate-d ₃	650-5000	S	Spec	Pustinger	SA	15 (1959)	909
$K_4^O P$	Potassium orthophosphate	2-16 μ 2-16 μ -	S	Spec Spec IC Spec	Miller Meloche Pistorius Miller	AC JINC JCP SA	24 (1952) 6 (1958) 28 (1958) 16 (1960)	1253 104 514 135
$K_4^C H_{12}N_2O_8$	Ethylenediamine tetraacetic acid potassium salt	800-3000	S	Spec, Freq	Swayer	JACS	80 (1958)	1597
$K_4^H NO_6P_2$	Potassium imido diphosphate	650-5000	S	Spec	Pustinger	SA	15 (1959)	909
$K_4^H N_4 O_8 P_4$	Potassium tetrametaphosphimate	650-5000	S	Spec	Pustinger	SA	15 (1959)	909
$K_4^O P_2$	Tetrapotassium pyro-phosphate	2-15 μ 1-40 μ -	S	Spec, Assign, Freq, I Spec, Freq Struct	Corbridge Mutschin Simon	JCS AAC ZAUAA	- (1954) 160 (1958) 301 (1959)	493 81 154
$K_4^O P_2 \cdot xH_2O$	Tetrapotassium pyro-phosphate polyhydrate	650-5000	S	Spec	Pustinger	SA	15 (1959)	909
$K_4^O P_2 \cdot xH_2O$	Tetrapotassium peroxy-diphosphate polyhydrate	720-3270	S	I, Freq	Corbridge	JCS	- (1954)	4555
$K_5^O P_{10}^3$	Pentapotassium tri-phosphate	2-15 μ	S	Freq, I, Assign	Corbridge	JCS	- (1954)	493
<u>Ia COMPOUNDS</u>								
LaC_2	Lanthanum carbide	-	-	Freq, Thermo.	Chupka	JFC	62 (1958)	611

$\text{LaC}_{15}\text{H}_{21}\text{O}_6$	Lanthanum acetyl acetone	625-5000	S	Spec, Struct	West	JINC	5 (1958)	295
$\text{LaC}_{24}\text{H}_{54}\text{O}_{12}\text{P}_3$	Lanthanum-di-n-butyl phosphate	714-5000	S	Interaction study	Smith	JINC	9 (1959)	150
$\text{LaC}_{27}\text{H}_{18}\text{N}_3\text{O}_2$	Lanthanum (III)-8-hydroxyquinolate	- 8-15 μ	S	Spec Assign, Spec	Charles Charles	AC SA	25 (1953) 8 (1956)	530 1
LaCl_3	Lanthanum chloride	1-15 μ	Sol	Spec	Lagerquist	AF	12 (1957)	491
LaF_3	Lanthanum fluoride	-	S	Spec	Freed	JCP	8 (1940)	840
LaF_4	Lanthanum (III)-complex fluoro ion	-	S	Freq, Struct	Peacock	JCS	- (1959)	2762
$\text{LaN}_3\text{O}_9 \cdot 5\text{H}_2\text{O}$	Lanthanum nitrate pentahydrate	700-1600	S	Freq, Assign	Ferraro	JMS	4 (1960)	99
LaO_4P	Lanthanum ortho-phosphate	290-650	S	Assign	Duval	CPR	239 (1954)	249
$\text{La}_2\text{O}_2\text{S}$	Lanthanum oxy sulfide	-	-	IR sens. phosphor and activators	Pitha	JACS	69 (1947)	1870

Li COMPOUNDS

LiCH_3	Methyl lithium	-	-	I, Struct	Rodinov	DANS	123 (1958)	113
LiC_2H_5	Ethyl lithium	-	-	I, Struct	Rodinov	DANS	123 (1958)	113
		-	So1	Spec	Nikiten	DANS	124 (1959)	873
		-	So1	Band study	Rodinov	DANS	125 (1959)	562
$\text{LiC}_2\text{H}_6\text{O}_2\text{P}$	Lithium dimethyl phosphinate	698-1420	S	I, Freq	Corbridge	JCS	- (1954)	4555
$\text{LiC}_2\text{H}_5\text{O}_4$	gem-Dihydroxy lithium propionate	600C-3000	S	Freq, Spec	Anderson	SA	12 (1958)	253

$\text{LiC}_3^{\text{H}}\text{O}_5 \cdot \text{H}_2\text{O}$	Lithiumpyruvate monohydrate	650-4000	S	Spec, Assign	Long	TFS	56 (1960)	1570
$\text{LiC}_3^{\text{H}}_7$	Propyl lithium	-	Sol	Band study	Rodinov	DANS	125 (1959)	562
$\text{LiC}_3^{\text{D}}_3\text{O}_3$	Lithium pyruvate-d ₃	650-4000	S	Spec, Assign	Long	TFS	56 (1960)	1570
$\text{LiC}_4^{\text{H}}_9$	Butyl lithium	-	-	I, Struct Band study	Rodinov Rodinov	DANS	123 (1958)	113
$\text{LiC}_5^{\text{H}}_7\text{O}_2$	Lithium acetyl acetone	625-5000	S	Spec, Struct	West	JINC	5 (1958)	295
$\text{LiC}_5^{\text{H}}_{11}$	Amyl lithium	-	Sol	Band study	Rodinov	DANS	125 (1959)	562
$\text{LiC}_6^{\text{H}}_1$	p-Iodophenyl lithium	-	G,S	Spec	Rodinov	DANS	128 (1959)	728
$\text{LiC}_6^{\text{H}}_5$	Phenyl lithium	625-900 600-4000	Sol -	Vibrations Spec, Freq, Assign I, Struct Spec	Margoshes Lanpher Rodinov Rodinov	SA JCC DANS DANS	7 (1955) 21 (1956) 123 (1958) 128 (1959)	14 830 113 728
$\text{LiC}_7^{\text{H}}_7$	p-Tolyl lithium	-	-	I, Struct	Rodinov	DANS	123 (1958)	113
$\text{LiC}_7^{\text{H}}_{11}$	Amyl lithium acetyllide	-	-	Spec, Struct, Freq	Shigorin	DANS	129 (1959)	121
$\text{LiC}_7^{\text{H}}_{11}$	O-Tolyl lithium	-	-	I, Struct	Rodinov	DANS	123 (1958)	113
$\text{LiC}_8^{\text{H}}_{18}\text{O}_4\text{P}$	Lithium-di-n-butyl phosphate	714-5000	S	Interaction study	Smith	JINC	9 (1959)	150
$\text{LiC}_9^{\text{H}}_{11}$	Mesityl lithium	-	G,S	Spec	Rodinov	DANS	128 (1959)	728
$\text{LiC}_9^{\text{H}}_{13}\text{O}_7$	Lithium-1,2-o-isopropylidene-D-glucofuranuronate	2-15 μ	S	Spec	Tipson	JRMB	62 (1959)	257
$\text{LiC}_{10}^{\text{H}}_7$	α -Naphthyl lithium	-	G,S G,S	Spec, I, Struct Spec	Rodinov Rodinov	DANS DANS	123 (1958) 128 (1959)	113 728

$\text{LiC}_{10}\text{H}_7$	β -Naphthyl lithium	-	G, S	Spec	Rodinov	DANS	128 (1959)	728
$\text{LiC}_{12}\text{H}_{25}$	Dodecyl lithium	-	-	I, Struct Band study	Rodinov Rodinov	DANS DANS	123 (1958) 125 (1959)	113 562
$\text{LiC}_{16}\text{H}_{33}$	Hexadecyl lithium	-	Sol	Band study	Rodinov	DANS	125 (1959)	562
$\text{LiC}_{24}\text{H}_{39}\text{O}_2$	Lithium stearate	6-8 μ	S	Spec	Ellis	N	181 (1958)	181
$\text{LiC}_{24}\text{H}_{39}\text{O}_2$	Lithium-9-phenyl stearate	-	S	Group study	Kagaraise	JPC	59 (1955)	271
LiH	Lithium hydride	-	-	Quant. Mech. FC L-uncoupling	Hutchisson Badger Crawford	PR JCP PR	40 (1952) 2 (1954) 45 (1954)	340 128 737
		-	-	Potential curve	Crawford	PR	49 (1956)	640
		-	-	Potential curve	Rosenbaum	JCP	6 (1938)	16
		-	-	FC	Sutherland	JCP	8 (1940)	161
		-	-	FC	Glockler	JCP	10 (1942)	606
		-	-	FC	Gordy	JCP	14 (1946)	305
		-	-	FC	Wu	PR	71 (1947)	118
		-	-	FC	Platt	JCP	18 (1950)	932
		-	-	FC	Sheline	JCP	18 (1950)	927
		-	-	FC	Mitra	JCP	22 (1954)	564
		-	-	FC	Klemperer	JCP	23 (1955)	2452
		970-1500	G	Spec	Baughan	TFS	53 (1957)	1046
		-	-	FC	James	JCP	32 (1960)	728
		7 μ	G	Vibrations				
LiHO	Lithium hydroxide	1-4 μ 0.8-1.75 μ 0.6-2.8 μ 2.8-6 μ -	S Sol Sol S G	Spec Spec Assign Spec, Assign Spec, Freq No spec could be recorded	Grantham Collins Gordy Flyler Jones Spinar	PR PR JCP JCP JCP SA	18 (1921) 20 (1922) 2 (1934) 2 (1934) 22 (1954) 12 (1958)	339 486 621 470 217 244
		3000-5000 2500-8000	S S	Spec Spec, Assign	Buchanan Wickersheim	JCP JCP	31 (1959) 31 (1959)	870 863
$\text{LiHO}\cdot\text{H}_2\text{O}$	Lithium hydroxide hydrate	-	S	Spec, Freq Spec	Jones Drouard	JCP CPK	22 (1954) 249 (1959)	217 665

LiHO ₄ .HDO	Lithium hydroxide hydrate-d ₁	-	S	Freq	Jones	JCP	22 (1954)	217
LiHO ₄ D ₂ O	Lithium hydroxide hydrate-d ₂	-	S	Freq	Jones	JCP	22 (1954)	217
LiH ₂ N	Lithium amide	3μ	S	Freq	Mason	JCS	- (1958)	3619
LiH ₂ O ₂ P	Lithium phosphinate	2-15μ	S	Group freq, I, Assign	Corbridge	JCS	- (1954)	493
LiH ₄ A ₁	Lithium aluminium hydride	3-15μ	S, Sol	Freq, Assign Spec	Lippincott Dautel	JCP ZE	17 (1949) 64 (1960)	1351 1234
LiH ₄ B	Lithium borohydride	-	-	Freq Spec, Assign Comparison	Price Price Waddington	JCP JCS	17 (1949) 17 (1949) - (1958)	217 1044 4782
* LiD	Lithium hydride-d ₁	-	-	Potential curve FC	Crawford Glockler	PK JCP	49 (1936) 10 (1942)	640 606
LiDO	Lithium hydroxide-d ₁	-	S	Freq Spec	Jones Buchanan	JCP JCP	22 (1954) 31 (1959)	217 870
LiBr	Lithium bromide	-	-	Freq	Huggins	JCP	5 (1937)	143
		-	S	Freq	Roberts	PR	77 (1950)	258
		-	-	Freq	Rittner	JCP	19 (1951)	1030
		-	FC		Baughan	IFIS	53 (1957)	1046
		700-465	G	Freq	Klemperer	JCP	26 (1957)	618
		-	-	Freq	Berkowitz	JCP	29 (1958)	1386
		570-630	G	Mol. Const.	Klemperer	JCP	33 (1960)	1534
LiCl	Lithium chloride	50-150μ	Sol	Absorption.	Cartwright	JCP	5 (1937)	776
		-	-	Freq	Huggins	JCP	5 (1937)	143
		-	S	Freq	Roberts	PR	77 (1950)	258
		-	-	Freq	Rittner	JCP	19 (1951)	1030
		-	-	FC	Baughan	IFIS	53 (1957)	1046
		425-700	G	Freq	Klemperer	JCP	26 (1957)	618
		-	-	Freq	Berkowitz	JCP	29 (1958)	1386
		570-630	G	Mol. Const.	Klemperer	JCP	33 (1960)	1534

LiClO_4	Lithium perchlorate	400-4000	Sol	Spec	Pullin	TFS	54 (1958)	11
LiF	Lithium fluoride	-	S	Freq	Nichols	PR	21 (1923)	712
	$1\text{-}15\mu$	S	S	Spec	Barnes	PR	49 (1936)	648
	-	-	-	Christianson filter	Barnes	PR	49 (1936)	732
	$30\text{-}120\mu$	S	Spec	Spec	Barnes	JOSA	26 (1936)	428
	-	-	-	Freq	Huggins	JCP	5 (1937)	143
	$1\text{-}40\mu$	S	S	Spec	Barnes	JOSA	28 (1938)	140
	$0\text{-}6\mu$	-	-	Dispersion	Wright	ESI	15 (1944)	22
	-	-	-	Comparison of prism	Gore	JOSA	37 (1947)	23
	$16\text{-}25\mu$	S	S	Reflection filter	Plyler	PR	72 (1947)	165
	$14\text{-}25\mu$	S	S	Reflection	Plyler	JOSA	37 (1947)	746
	$2\text{-}14\mu$	S	S	Spec	White	JOSA	37 (1947)	713
	-	-	-	Dispersion	Williams	HSI	19 (1948)	135
	-	-	-	Polarizability theory	Szigeti	TFS	45 (1949)	155
	-	S	Ident	Ballard	JOSA	40 (1950)	798	
	$0.3\text{-}2.5\mu$	S	Refr. Index	Durie	JOSA	40 (1950)	878	
	$0\text{-}3\mu$	S	Dispersion	Lecomte	JFR	11 (1950)	67	
	$100\text{-}600\mu$	S	Spec	McCurbin	JOSA	40 (1950)	537	
	-	-	-	Roberts	PR	77 (1950)	258	
	-	-	-	Szigeti	PR	204 (1950)	51	
	-	S	Optical properties	Ballard	JOSA	41 (1951)	772	
	-	-	-	Rittner	JCP	19 (1951)	1030	
	$0.4\text{-}6\mu$	S	Freq	Tilton	JEMB	47 (1951)	25	
	-	-	-	Calibration data	Downie	JOSA	43 (1953)	941
	-	-	-	Quant. Mech.	Benson	JCP	22 (1954)	469
	$13\text{-}60\mu$	S	Vibrations	Lax	PR	97 (1955)	39	
	-	-	-	Mol. Const.	Haas	PR	103 (1956)	564
	-	-	-	FC	Baughan	TFS	53 (1957)	1046
	-	-	-	Spec	Brackett	JOSA	47 (1957)	636
	$50\text{-}500$	-	Spec	Lord	JOSA	47 (1957)	689	
	$825\text{-}860$	G	Rotational struct	Vidale	JPC	64 (1960)	314	
	$50\text{-}150\mu$	Sol	Absorption	Cartwright	JCP	5 (1937)	776	
	-	-	Freq	Huggins	JCP	5 (1937)	143	
	-	S	Freq	Roberts	PR	77 (1950)	258	
	-	-	Freq	Rittner	JCP	19 (1951)	1030	
	-	-	Pressed disk	Ford	JSI	31 (1954)	338	
	$425\text{-}700$	G	Freq	Klemperer	JCP	26 (1957)	618	
LiI	Lithium iodide	-	-	-	-	-	-	-

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KlempnerFreq. const.
Mol. - $570\text{-}630$
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33 (1960)1580
1584

$\text{Li}_1\text{H}_2\text{O}$	Lithium iodide trihydrate	-	-	Freq Mol. Const.	JCP JCP	29 (1958) 33 (1960)	1386 1534
LiNO_3	Lithium iodate	-	S	Group study	JACS	78 (1956)	1347
LiNO_3	Lithium nitrate	6-16 μ 2-16 μ 450-3800	Sol S Sol	Spec, Struct	JCS	- (1960)	2429
		2-15 μ 300-880	S S	Freq Spec Freq Assign Spec	Williams Meloche Frevel Greenberg Miller	JACS J INC SA JCP SA	61 (1939) 6 (1958) 15 (1959) 33 (1960) 16 (1960)
LiN_3	Lithium azide	635-3100	S	Freq, FC	Gray	TFS	53 (1957)
LiO_4SK	Potassium lithium sulfate	22-310 μ	S	Reflectance & transmittance	Weniger	JOSA	7 (1923)
Li_2	Lithium	1.28-1.87 μ	-	$7T$ -type doubling theory	Milliken Meggers Rosen	PR JRNB PR	38 (1931) 10 (1933)
		-	-	Spec	Rosen	43 (1933)	85 669
		-	-	Freq	Badger	2 (1934)	5
		-	-	FC	Pekeris	45 (1934)	128
		-	-	Mol. Const.	Linnett	TFS 36 (1940)	98 1123
		-	-	Potential function	Sutherland	JCP 8 (1940)	161
		-	-	FC	Clark	TFS 37 (1941)	299
		-	-	Potential function	Hulbert	JCP 9 (1941)	61
		-	-	Thermo.	Gordy	JCP 14 (1946)	305
		-	-	FC	Wu	PR 71 (1947)	118
		-	-	FC	Baughan	TFS 53 (1957)	1046
		-	-	Spec	Fowles	JCS - (1957)	3329
Li_2CO_3	Lithium carbonate	2-16 μ 2-16 μ 300-880	S S S	Spec Spec Spec	Miller Meloche Miller	AC J INC SA	24 (1952) 6 (1958) 16 (1960)
$\text{Li}_2\text{C}_2\text{H}_3\text{O}_5^F$	Dilithium acetyl phosphate	-	-	Freq	Ketelaar	RTC	78 (1959)

$\text{Li}_2\text{C}_2\text{O}_4$	Lithium oxalate	370-1650	S	Assign	Schmelz	SA	9 (1957)	51
$\text{Li}_2\text{HPO}_3 \cdot \text{H}_2\text{O}$	Dilithium ortho-phosphate monohydrate	2-15 μ	S	Group freq, I, Assign	Corbridge	JCS	- (1954)	493
$\text{Li}_2\text{FPO}_3 \cdot 3\text{H}_2\text{O}$	Dilithium monofluoro-phosphate trihydrate	-	S	I, Freq	Corbridge	JCS	- (1954)	4555
Li_2O_2	Lithium peroxide	2-16 μ	S	Spec, Struct	Brame	J INC	4 (1957)	90
$\text{Li}_2\text{O}_2 \cdot 8\text{H}_2\text{O}$	Lithium peroxide octahydrate	2-16 μ	S	Spec, Struct	Brame	J INC	4 (1957)	90
$\text{Li}_2\text{O}_4\text{S}$	Lithium sulfate	7.5-10.5 μ	S	Spec	Tai	AC	29 (1957)	1430
$\text{Li}_2\text{O}_4\text{S} \cdot \text{H}_2\text{O}$	Lithium sulfate monohydrate	2-16 μ 2-16 μ 300-880	S S S	Spec, Freq Spec Spec	Miller Meloche Miller	AC J INC SA	24 (1952) 6 (1958) 16 (1960)	1253 104 135
$\text{Li}_3\text{O}_4\text{P}$	Trilithium orthophosphate	2-15 μ 650-290	S S	Spec, Assign, Freq, I	Corbridge Duval	JCS CPK	- (1954) 239 (1954)	493 249
$\text{Li}_3\text{O}_4\text{P} \cdot \frac{1}{2}\text{H}_2\text{O}$	Lithium phosphate hemihydrate	2-16 μ	S	Spec	Meloche	J INC	6 (1958)	104
$\text{Li}_4\text{O}_7\text{P}_2 \cdot 2\text{H}_2\text{O}$	Tetralithium pyrophosphate dihydrate	2-15 μ	S	Freq, I, Assign	Corbridge	JCS	- (1954)	493
$\text{Li}_4\text{O}_8\text{P}_2 \cdot \text{xH}_2\text{O}$	Tetralithium peroxy diphosphate polyhydrate	767-3220	S	I, Freq	Corbridge	JCS	- (1954)	4555

Mg COMPOUNDS

Mg COMPOUNDS	Reference	Method	Wavelength	Notes	Author	Journal	Year
MgCH ₃ P	Magnesium methyl phosphonate	S	770-1425	I, Group freq	Corbridge	JCS	- (1954) 4555
MgCO ₃	Magnesium carbonate	S S	0.8-20 μ 2-16 μ	Reflectance Spec	Agnew McLoche	JOSA JINC	43 (1953) 6 (1958) 104
MgC ₂ H ₅ Br	Ethyl magnesium bromide	Sol	1-14 μ	Spec, Anal	Plum	JCP	5 (1937) 172
MgC ₂ H ₅ I	Ethyl magnesium iodide	Sol	1-13 μ	Spec, Struct	Plum	JCP	5 (1937) 172
MgC ₂ O ₄ ·2H ₂ O	Magnesium oxalate dihydrate	S	2-16 μ	Spec	Hunt	AC	22 (1950) 1478
MgC ₄ N ₄ K ₂	Magnesium (II)-cyanide complex (potassium salt)	-	250-2200	Assign	Hidalgo	CPR	249 (1959) 233
MgC ₅ H ₇ O ₂	Acetylacetone magnesium chelate	Sol	-	Freq	Bellamy	JCS	- (1954) 4491
MgC ₆ H ₅ Br	Phenyl magnesium bromide	Sol	1-13 μ	Spec	Plum	JCP	5 (1937) 172
MgC ₆ H ₅ I	Phenyl magnesium iodide	Sol	1-13 μ	Spec	Plum	JCP	5 (1937) 172
MgC ₆ C ₁₆ O ₄	Magnesium trichloro acrylate	-	700-1600	Spec	Duval	RTC	69 (1950) 391
MgC ₇ H ₅ O ₂	Salicylaldehyde magnesium chelate	-	-	S	Group freq	Bellamy	JCS - (1954) 4491

$\text{gC}_{10}\text{H}_{10}$	Magnesium cyclopentadiene	600-3200 4.7 μ	S G	Spec Struct	Wilkinson Cotton	JINC JACS	2 (1956) 80 (1958)	95 269
$\text{MgC}_{10}\text{H}_{12}\text{N}_2 \cdot$ $8\text{Na}_2 \cdot 4\text{H}_2\text{O}$	Magnesium (II)- ethylenediamine tetraacetic acid complex (sodium salt) tetra- hydrate	800-3000	S	Spec, Freq	Sawyer	JACS	80 (1958)	1597
$\text{MgC}_{10}\text{H}_{14}\text{O}_4$	Magnesium acetyl acetoneate	625-5000	S	Spec, Struct	West	JINC	5 (1958)	295
$\text{MgC}_{14}\text{H}_{20}\text{O}_4$	Magnesium (II)- methylacroyl acetone complex	1200-1800	S	Assign, Mol. Const.	Charette	SA	16 (1960)	689
$\text{MgC}_{16}\text{H}_{28}\text{O}_4$	Magnesium (II)- pivaloyl acetone complex	1200-1800	S	Assign, Mol. Const.	Charette	SA	16 (1960)	689
$\text{MgC}_{18}\text{H}_{12}\text{N}_2\text{O}_2$	Magnesium (II)- 8-hydroxy- quinolate	- 2-16 μ 8-15 μ 700-800	S S L	Spec Spec Assign, Spec Struct	Charles Stone Charles Sidorov	AC JACS SA OS	25 (1953) 76 (1954) 8 (1956) 6 (1959)	530 4997 1 812
$\text{MgC}_{18}\text{H}_{12}\text{N}_2\text{O}_2 \cdot$ $2\text{H}_2\text{O}$	Magnesium - 8-quinolinolate dihydrate	2-16 μ	S	Spec	Stone	JACS	76 (1954)	4997
$\text{MgC}_{20}\text{H}_{16}\text{N}_2\text{O}_2$	2-Methyl- 8-hydroxy- quinoline magnesium (II) chelate	8-15 μ	S	Assign, Spec	Charles	SA	8 (1956)	1
$\text{MgC}_{20}\text{H}_{16}\text{N}_2\text{O}_2$	4-Methyl-8- hydroxyquinoline magnesium (II) chelate	8-15 μ	S	Assign, Spec	Charles	SA	8 (1956)	1

MgC ₂₈ H ₂₈ N ₄	Magnesium octane thyl porphin	Magnesium octane thyl	400-4000	S	Spec , H bond	Mason	JCS	-	(1958)	976
MgC ₃₆ H ₇₀ O ₄	Magnesium stearate	2-15 μ 6-8 μ	S S	Spec Spec		Kendall Ellis	APS N	7 181	(1953) (1958)	179 181
MgC ₅₅ H ₇₀ N ₀ O ₆	Chlorophyll-b	640-3500	S,Sol	Spec , Freq, Assign	Weigl		JACS	75	(1953)	2173
MgC ₅₅ H ₇₂ N ₀ O ₅	Chlorophyll-a	640-3500	S,Sol	Spec , Freq, Assign	Weigl		JACS	75	(1953)	2173
MgC ₅₅ H ₇₂ N ₀ O ₅	Chlorophyll (Mixture of a and b)	0.776-2.83 μ 1.3-13.7 μ 1-14 μ 1-14 μ 1-14 μ	Sol Sol Sol - -	Transmission curves Band freq Spec Spec Spec	Nichols Stair Stair Loofbourow Aronoff	PK Pt JRN _B RMP CR	1 33 11 12 47	(1893) (1929) (1933) (1940) (1950)	1 1092 703 267 175	
MgC ₅₅ H ₇₆ N ₀ O ₆	Bacteriochlorophyll-a	630-3500	S,Sol	Spec , Freq, Assign	Weigl		JACS	75	(1953)	2173
MgC ₁₈₀₈ H ₃₀₁₀ O ₄	Magnesium polymethacryl acetone complex	1200-1800	S	Assign	Charette	SA	16	(1960)	689	
MgH	Magnesium hydride	-	-	$\pi\pi$ -type doubling theory	Mulliken Badger Pekeris Wu Platt Sheline Mitra	PK JCP Pt Pic JCP JCP JCP	38 2 45 71 18 18 22	(1931) (1934) (1934) (1947) (1950) (1950) (1954)	85 128 98 118 932 927 564	
MgH ⁺	Magnesium hydride ion	-	-	FC Mol. Const.	Badger Pekeris	JCP PK	22 45	(1934) (1934)	128 98	
MgIC ₄ P ₂ H ₂ O	Magnesium hydrogen phosphate trihydrate	2-16 μ 500-880	S S	Spec Spec	Miller Miller	AC SA	24 16	(1952) (1960)	1253 135	
MgH ₂ NO ₃ P ₂ H ₂ O	Magnesium moroamido phosphate heptahydrate	-	-	Band study	Steiger	ZE	61	(1957)	1004	

MgH_2O_2	Magnesium oxide hydrate (Brucite)	2-3.5 μ 2-4 μ 5-50 μ 2-16 μ	S S S S	Spec Struct Absorption Spec	Plyler Randall Cartwright Hunt	PR PR PR AC	28 (1926) 31 (1928) 35 (1930) 22 (1950)	284 1131 415 1478
MgH_2O_2	Magnesium hydroxide	3000-5000	S	Spec, Freq	Benesi	JCP	30 (1959)	852
$MgH_3O_6P_3Na \cdot 6H_2O$	Sodium magnesium triphosphonitrilate hexahydrate	823-3175	S	I, Freq	Corbridge	JCS	- (1954)	4555
$MgH_4NO_4P \cdot 6H_2O$	Magnesium ammonium orthophosphate hexahydrate	2-15 μ	S	Freq, I, Assign	Corbridge	JCS	- (1954)	493
$MgH_4O_8P_2$	Magnesium biphosphate	2-16 μ 300-880	S S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
$MgH_4O_8P \cdot 6H_2O$	Magnesium phosphinate hexahydrate	2-15 μ	S	Freq, I, Assign	Corbridge	JCS	- (1954)	493
$MgH_6N_2O_6P_2$	Magnesium biphosphoramide	-	-	Band study	Steiger	ZE	61 (1957)	1004
$MgBr_2$	Magnesium bromide	1-1.5 μ -	Sol G	Spec, Anal Freq, FC	Plum Randall	JCP JRC	5 (1937) 63 (1959)	172 758
$MgCl_2$	Magnesium chloride	0.8-2.3 μ 220-700	Sol G -	Spec Spec, FC Freq, FC	Collins Buchler Randall	PR JCP JPC	20 (1922) 29 (1958) 63 (1959)	486 121 758
$MgCl^{35}Cl^{37}$	Magnesium chloride (isotopic)	-	-	Isotope effect	Salant	PR	42 (1932)	812

MgCl ₂ ²⁰	Magnesium chloride (isotopic)	-	-	-	Isotope effect	Salant	Ph	42 (1952)	812
MgCl ₂ ⁰ ₈	Magnesium perchlorate	2-16 μ 2-25 μ 300-880	S -	Spec, Qual. Anal Spec, Struct Spec	Miller Falk Miller	AC CJC SA	24 (1952) 35 (1957) 16 (1960)	1253 1195 135	
MgF ₂	Magnesium fluoride	0.4-1.6 μ 0.5-3.4 μ -	- S S	PC Reflection Reflec tance Mol. Const.	Badger Haas Rank Scott	JCP JOSA JOSA JOSA	2 (1934) 45 (1955) 45 (1955) 45 (1955)	128 945 69 69	
MgF ₄	Magnesium fluoride complex anion	-	S	Freq, Struct	Peacock	JCS	-	(1959)	2762
MgI ₂	Magnesium iodide	-	-	Isotope effect	Salant	Ph	42 (1952)	812	
MgN ₂ O ₂	Magnesium hyponitrite	400-4000	S	Freq	LeFevre	AJC	10 (1957)	361	
MgN ₂ O ₆	Magnesium nitrate	0.8-2.2 μ 2-16 μ	sol S	Spec Spec	Collins Meloche	Ph JIMC	20 (1922) 6 (1958)	486 104	
MgN ₂ O ₆ · 6H ₂ O	Magnesium nitrate hexahydrate	700-11600 300-880	S S	Spec Freq, Assign Spec	Hafele Ferraro Miller	ZP JMS SA	148 (1957) 4 (1960) 16 (1960)	262 99 135	
MgO	Magnesium oxide	1-8 μ 1-7 μ 6.7-33 μ 1-15.6 μ	S - S S	Emission Filter transmission Transmission, Transmission, Reflection	Coblentz Pfund Strong Barnes	BBS PR PR PR	5 (1908) 37 (1930) 36 (1931) 48 (1935)	159 1565 71 582	
		0.2-5 μ 35-120 μ 1-13 μ -	S S S -	Optical properties Spec Christianson filter Use as window for HF	Strong Barnes Barnes Wahrhaftig	JOSA JOSA PR JCP	25 (1935) 26 (1936) 428 (1936) 8 (1940)	207 428 732 349	

$\text{MgO}_3\text{S}_2 \cdot 6\text{H}_2\text{O}$	Magnesium thio-sulfate hexahydrate	2-16 μ 300-880	S Spec	White Horning Willmott McCurbin Szigeti Chasmar Young Derksen Plyller Stephens Fastie Momin Sanders Gier Lax Haas Yamaka Lord	JOSA JCP N JOSA PR JSI JSI JOSA JOSA JRNB JOSA PLAS JOSA JOSA JOSA PR PR PR JOSA	713 (1947) 1063 (1948) 996 (1948) 537 (1950) 51 (1950) 206 (1951) 207 (1951) 263 (1952) 266 (1952) 249 (1952) 333 (1953) 254 (1953) 58 (1953) 558 (1954) 39 (1955) 564 (1956) 565 (1956) 689 (1957)
MgO_3Si	Magnesium silicate	1-6 μ 2-15 μ	S Spec	Coblentz Harkins	BBS AC	6 (1910) 31 (1959)
MgO_4S	Magnesium sulfate	50-150 μ 290-650 7.5-10.5 μ	Sol Assign Spec	Cartwright Duval Tai	JCP CPR AC	5 (1937) 239 (1954) 29 (1957)
$\text{MgO}_4\text{S} \cdot 7\text{H}_2\text{O}$	Magnesium sulfate heptahydrate	2-16 μ 300-880	S Spec	Meloche Miller	JINC SA	6 (1958) 16 (1960)
$\text{MgO}_4\text{B}_2 \cdot 8\text{H}_2\text{O}$	Magnesium borite octahydrate	2-16 μ 300-880	S Spec	Miller Miller	AC SA	24 (1952) 16 (1960)
$\text{MgO}_4\text{Cr} \cdot 7\text{H}_2\text{O}$	Magnesium chromate heptahydrate	2-16 μ	S Spec	Miller	AC	24 (1952)
MgO_4Fe_2	Magnesium ferrite	10-500	-	Reflection, Transmission	Mitsubishi	JPSJ 13 (1958)
						1236

MgO ₄ Se·6H ₂ O	Magnesium selenate hexahydrate	220-3500	S	Spec, Struct	Duval	ZE	64 (1960)	582
MgS	Magnesium sulfide	0.83-1.35μ	S	Spec	Banks	JACS	72 (1950)	3173
Mg ₂ C ₄ H ₂ O ₁₄ ·5H ₂ O	Basic magnesium carbonate polyhydrate	2-16μ	S	Spec	Meloche	JINC	6 (1958)	104
Mg ₂ P ₂ O ₇	Dimagnesium pyro-phosphate	2-15μ	S	Group freq, I, Assign	Corbridge	JCS	- (1954)	493
Mg ₂ O ₁₂ P ₄	Dimagnesium tetra-metaphosphate	-	-	Freq, Struct	Steiger	ZAU A	294 (1958)	1
Mg ₂ O ₁₂ P ₄ ·8H ₂ O	Dimagnesium tetrameta-phosphate octahydrate	2-15μ	S	Freq, I, Assign	Corbridge	JCS	- (1954)	493
Mg ₂ Sn	Magnesium stannide	2-15μ	S	Spec	Blunt	PR	100 (1955)	663
Mg ₃ O ₈ P ₂	Magnesium orthophosphate	2-15μ 290-650	S	Freq, I, Assign Assign	Corbridge Duval	JCS CPR	- (1954) 239 (1954)	493 249
Mg ₃ O ₈ P ₂ ·4H ₂ O	Trimagnesium phosphate tetrahydrate	2-16μ 300-880	S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
Mg ₃ O ₈ P ₂ ·5H ₂ O	Magnesium phosphate pentahydrate	2-16μ	S	Spec	Meloche	JINC	6 (1958)	104
Mg ₃ O ₈ As ₂	Magnesium arsenate	290-650	S	Assign	Duval	CPK	239 (1954)	249
Mg ₃ O ₁₈ P ₆ ·10H ₂ O	Trimagnesium trimeta-phosphate decahydrate	2-15μ	S	Freq, I, Assign	Corbridge	JCS	- (1954)	493
Mg ₄ C ₃ H ₂ O ₁₁ ·3H ₂ O	Basic magnesium carbonate trihydrate	2-16μ 2-16μ	S	Spec Spec	Hunt Miller	AC AC	22 (1950) 24 (1952)	1478 1253

Mn Compounds

MnCO ₃	Manganese carbonate	2-16μ	S	Spec	Meloche	JINC	6 (1958)	104
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$MnC_4N_4S_4K_2 \cdot 6H_2O$	Manganese (II)-iso-thiocyanate complex (potassium salt) hexahydrate	-	S	Freq, Assign	Mitchell	JCS	- (1960)	1912
MnC_5HO_5	Manganese penta-carbonyl hydride	400-3000	G	Freq, Assign	Cotton	JCS	- (1959)	833
MnC_5DO_5	Manganese penta-carbonyl hydride-d ₁	400-3000	G	Freq, Assign	Cotton	JCS	- (1959)	833
MnC_5BrO_5	Manganese penta-carbonyl bromide	1700-2200	-	Struct	Abel	JCS	- (1959)	1501
MnC_5ClO_5	Manganese penta-carbonyl chloride	1700-2200	-	Struct	Abel	JCS	- (1959)	1501
MnC_5IO_5	Manganese penta-carbonyl iodide	2-15 μ 1700-2200	S	Spec Struct	Birium Abel	JACS JCS	76 (1954) - (1959)	3831 1501
MnC_5N_5	Manganese (II)-cyanide complex anion	450-2200	-	Freq	Caglioti	JINC	8 (1958)	87
$MnC_5N_6OK_3$	Manganese (II)-cyanide, 1700-2050 nitric oxide complex (potassium salt)	S	Freq	Lewis	JINC	7 (1958)	32	
$MnC_6H_18Br_2O_3S_3 \cdot 6H_2O$	Manganese (II)-dimethylsulfoxide complex bromide hexahydrate	650-4000	S	Assign, Spec	Cotton	JPC	64 (1960)	1534
$MnC_6H_18Cl_2O_3S_3 \cdot 4H_2O$	Manganese (II)-dimethylsulfoxide complex chloride	650-4000	S	Assign, Spec	Cotton	JPC	64 (1960)	1534
$MnC_6H_18Cl_2O_3S_3$	Manganese (II)-dimethylsulfoxide complex perchlorate tetrahydrate	650-4000	S	Assign, Spec	Cotton	JPC	64 (1960)	1534

MnC ₆ N ₆	Manganese (I)-cyanide complex anion	-	S	Freq	Caglioti	AAN	22 (1957)	266
MnC ₆ N ₆	Manganese (II)-cyanide complex anion	-	-	Freq	Caglioti	JINC	22 (1957)	266
		20000-22000	-	Freq	Caglioti	JINC	8 (1958)	87
		2500-2200	S	Spec, Assign	Hidalgo	AHS	56 (1960)	9
MnC ₆ N ₆	Manganese (III)-cyanide complex anion	-	-	Freq	Caglioti	JINC	22 (1957)	266
		20000-22000	-	Freq	Caglioti	JINC	8 (1958)	87
		2500-2200	S	Spec, Assign	Hidalgo	AHS	56 (1960)	9
MnC ₆ N ₆ K ₃	Manganese (III)-cyanide complex (potassium salt)	2500-2200	-	Assign	Hidalgo	CPR	249 (1959)	233
MnC ₇ H ₅ O ₄	π -Allyl manganese tricarbonyl	-	-	Spec	Kaesz	ZN	15 (1960)	682
MnC ₇ H ₁₃ N ₃ O ₃	Diethylene triamine manganese tricarbonyl	17000-2100	S	Assign	Abel	JCS	- (1959)	2323
MnC ₈ H ₅ O ₃	Cyclopentadienyl tricarbonmonoxide manganese (I)	17000-2200 6000-50000	Sol Sol	Spec, Struct Spec, Config.	Cotton Piper	JINC	1 (1955)	175
						JINC	1 (1955)	165
MnC ₈ H ₅ O ₅	σ -Allyl manganese pentacarbonyl	-	-	Spec	Kaesz	ZN	15 (1960)	682
MnC ₁₀ H ₇ O ₄	(π -Acetyl)cyclopenta-dienyl manganese tricarbonyl	657-3110	S	Freq	Cotton	CIL	- (1958)	1368
MnC ₁₁ H ₁₀	Manganese cyclopentadiene	6000-3200	S	Spec	Wilkinson	JINC	2 (1956)	95
MnC ₁₀ H ₁₂ N ₂ O ₈ Na ₂ •2H ₂ O	Manganese (II)-ethyl-enediamine tetra-acetic acid complex (sodium salt) dihydrate	800-1800	S	Freq, Assign	Sawyer	JACS	81 (1959)	816

$MnC_{12}H_{36}Cl_2O_{14}S_6$	Manganese (II)-dimeethylsulfoxide complex perchlorate	650-4000	S	Assign, Spec	Cotton	JPC	64 (1960)	1534
$MnC_{13}H_8IN_2O_3$	Manganese carbon-monoxide 2,2'-dipyridine complex iodide	1700-2200	-	Struct	Abel	JCS	- (1959)	1501
$MnC_{13}H_{10}IN_2O_3$	Manganese carbon-monoxide pyridine complex iodide	1700-2200	-	Struct	Abel	JCS	- (1959)	1501
$MnC_{14}H_{10}O_4$	Manganese (II)-tritolonate	-	S	Freq	Bryant	JOC	19 (1954)	1889
$MnC_{14}H_{20}O_4$	Manganese (II)-methacroyl acetone complex	1200-1800	S	Assign	Charette	SA	16 (1960)	689
$MnC_{16}H_{28}O_4$	Manganese (II)-pivaloyl acetone complex	1200-1800	S	Assign	Charette	SA	16 (1960)	689
$MnC_{16}H_{36}O_8P_2$	Manganese-di-n-butyl phosphate	714-5000	S	Interaction study	Smith	JINC	9 (1959)	150
$MnC_{18}H_{12}N_2O_2$	Manganese (II)-8-hydroxyquinolate	8-15 μ	S	Spec Assign, Spec	Charles	AC	25 (1953)	530
$MnC_{20}H_{16}N_2O_2$	2-Methyl-8-hydroxy-quinoline manganese (II) chelate	8-15 μ	S	Spec, Assign	Charles	SA	8 (1956)	1
$MnC_{20}H_{16}N_2O_2$	4-Methyl-8-hydroxy-quinoline manganese (II) chelate	8-15 μ	S	Spec, Assign	Charles	SA	8 (1956)	1

MnC ₃₉ H ₂₄ C ₁₂ N ₆ O ₈	Manganese (II)-2',2'-bipyridine complex perchlorate	600-2000	S	Interpretation	Schilt	JINC	9 (1959)	211
MnC ₃₆ H ₂₄ C ₁₂ N ₆ O ₈	Manganese (II)-1:10-phenanthroline complex perchlorate	600-2000	S	Spec	Schilt	JINC	9 (1959)	211
MnC ₃₉ H ₃₀ BrO ₃ P ₂	Manganese carbon-monoxide triphenyl-phosphine complex bromide	1700-2200	-	Struct	Abel	JCS	- (1959)	1501
MnC ₃₉ H ₃₀ BrO ₃ As ₂	Manganese carbon-monoxide, triphenyl-arsine complex bromide	1700-2200	-	Struct	Abel	JCS	- (1959)	1501
MnC ₃₉ H ₃₀ C ₁₀ O ₃ P ₂	Manganese carbon-monoxide triphenyl-phosphate complex chloride	1700-2200	-	Struct	Abel	JCS	- (1959)	1501
MnC ₃₉ H ₃₀ C ₁₀ As ₂	Manganese carbon-monoxide triphenyl-arsine complex chloride	1700-2200	-	Struct	Abel	JCS	- (1959)	1501
MnC ₃₉ H ₃₀ IO ₃ P ₂	Manganese carbon-monoxide triphenyl-phosphate iodide	1700-2200	-	Struct	Abel	JCS	- (1959)	1501
MnC ₃₉ H ₃₀ IO ₃ As ₂	Manganese carbon-monoxide triphenyl-arsine iodide	1700-2200	-	Struct	Abel	JCS	- (1959)	1501

$\text{MnC}_{40}\text{H}_{36}\text{Cl}_2\text{N}_8\text{O}_8 \cdot 2\text{H}_2\text{O}$	Manganese (II)-1:10-phenanthroline complex perchlorate dihydrate	600-2000	S	Spec	Schilt	JMC	9 (1959)	211
$\text{MnC}_{72}\text{H}_{60}\text{Cl}_2\text{O}_{12}\text{P}_4$	Manganese (II)-triphenylphosphine oxide complex perchlorate	900-1300	S	Freq	Cotton	JCS	- (1960)	2199
$\text{MnC}_{1808}\text{H}_{3010}\text{O}_4$	Manganese polymer thiacroylacetone complex	1200-1800	S	Assign	Charette	SA	16 (1960)	689
MrH	Manganese hydride	-	-	FC	Platt Sheline	JCP	18 (1950) 18 (1950)	932 927
$\text{MnHO}_4\text{P} \cdot 3\text{H}_2\text{O}$	Manganese hydrogen phosphate trihydrate	300-880	S	Spec	Miller	SA	16 (1960)	135
$\text{MnH}_4\text{F}_3\text{N}$	Ammonium fluoride manganese fluoride	1400-4000	S	Spec	Crockett	JACS	82 (1960)	4158
$\text{MnH}_4\text{O}_4\text{P}_2$	Manganese phosphinate	2-15 μ	S	Group freq, I, Assign	Corbridge	JCS	- (1954)	493
$\text{MnH}_8\text{Cl}_2\text{N}_4$	Manganese (II)-hydrazine complex chloride	15-35 μ	-	Freq	Saccconi	N	186 (1960)	549
$\text{MnH}_8\text{I}_6\text{N}_2\text{O}$	Ammonium manganese (IV) iodate	-	S	Spec, Struct	Dasent	JCS	- (1960)	2429
MnCl_2	Manganese chloride	0.56-2.3 μ 1-15 μ	Sol Sol	Magnetic rotation Spec	Ingersoll Lagerquist	JOSA AF	6 (1922) 12 (1957)	663 491
MnF_2	Manganese fluoride	-	-	Microwave	Portis	PK	116 (1959)	838
MnF_4	Manganese (IV)-tetrafluoride	-	S	Freq, Struct	Peacock	JCS	- (1959)	2762
MnF_4	Manganese (II)-complex fluoro ion	-	S	Freq, Struct	Peacock	JCS	- (1959)	2762

MnF ₄	Manganese (III)-complex fluoro ion	-	S	Freq, Struct	Peacock	JCS	-	(1959)	2762
MnF ₅	Manganese (IV)-complex fluoro ion	-	S	Freq, Struct	Peacock	JCS	-	(1959)	2762
MnI ₆ O ₁₈ K ₂	Potassium manganese (IV) iodate	-	S	Spec, Struct	Dasent	JCS	-	(1960)	2429
MnN ₂ O ₆	Manganese nitrate	2-15 μ	S	Spec	Addison	JCS	-	(1960)	613
MnO	Manganese oxide	1-8 μ	S	Emission	Coblentz	BBS	5	(1908)	159
MnO ₄	Permanganate ion	-	-	Freq	Taylor	TRS	25	(1929)	314
MnO ₄ S	Manganese sulfate	0-1.4 μ	Sol	Spec	Coblentz	BBS	7	{1911}	619
		0.8-1.25 μ	Sol	Magnetic rotation	Ingersoll	JCSA	6	{1922}	663
MnO ₄ S.H ₂ O	Manganese sulfate monohydrate	2-16 μ	S	Spec	Meloche	JINC	6	(1958)	104
MnO ₄ S.2H ₂ O	Manganese sulfate dihydrate	2-16 μ	S	Spec, Freq	Miller	AC	24	(1952)	1253
MnO ₄ S.xH ₂ O	Manganese sulfate polyhydrate	300-880	S	Spec	Miller	SA	16	(1960)	135
MnO ₄ K	Potassium permanganate	3-14.5 μ	S	Spec, Assign	Taylor	TRS	25	(1929)	856
		-	S	Freq	Taylor	TRS	25	(1929)	860
		2-16 μ	S	Spec	Miller	AC	24	(1952)	1253
		1000	S	Freq	Barracough	JCS	-	(1959)	3522
		300-880	S	Spec	Miller	SA	16	(1960)	135
MnO ₄ Na.3H ₂ O	Sodium permanganate trihydrate	2-16 μ	S	Spec	Miller	AC	24	(1952)	1253
		300-880	S	Spec	Miller	SA	16	(1960)	135
MnO ₉ B ₄ .8H ₂ O	Manganese tetraborate octahydrate	2-16 μ	S	Spec	Miller	AC	24	(1952)	1253
		300-880	S	Spec	Miller	SA	16	(1960)	135
Mn ₂ C ₅ H ₅ NOS ₂		1700-2050	S	Freq	Lewis	JINC	7	(1958)	32

$Mn_2C_8Br_2O_8$	Manganese carbonyl bromide (binuclear)	1700-2200	-	Struct	Abel	JCS	-	(1959) 1501
$Mn_2C_8Cl_2O_8$	Manganese carbonyl chloride (binuclear)	1700-2200	-	Struct	Abel	JCS	-	(1959) 1501
$Mn_2C_8I_2O_8$	Manganese carbonyl iodide (binuclear)	1700-2200	-	Struct	Abel	JCS	-	(1959) 1501
$Mn_2C_{10}O_{10}$	Manganese carbon-monoxide complex (binuclear)	450-3000	S, Sol	Spec, Struct	Cotton	JINC	2 (1956)	141
$Mn_2C_{14}H_{10}Cl_6O_6Pt$	Cyclopentadienyl-dicarbomonoxydinitrosonium-manganese (I)-hexachloroplatinate	600-5000	Sol	Spec, Config., Struct	Piper	JINC	1 (1955)	165
Mn_2O_6	Ethyl pentacarbon-monoxide nitrosonium-manganese hexachloroplatinate	-	S	Freq	Lewis	JINC	7 (1958)	32
$Mn_2C_{15}H_{15}N_3O_3$	Manganese cyclopentadiene, nitric oxide complex	5.6-6.8 μ 1700-2050	Sol Sol	Struct, Freq Freq	Piper Lewis	JINC JINC	2 (1956) 7 (1958)	38
Mn_2O_8Ba	Barium permanganate	300-880	S	Spec	Miller	SA	16 (1960)	135
Mn_2O_8Ca	Calcium permanganate	300-880	S	Spec	Miller	SA	16 (1960)	135
$Mn_2O_8Ca \cdot 4H_2O$	Calcium permanganate tetrahydrate	2-16 μ	S	Spec	Miller	AC	24 (1952)	1253
$Mn_2O_{12}P_4 \cdot 9H_2O$	Dimanganese tetrametaphosphate nonahydrate	2-16 μ	S	Freq, I, Assign	Corbridge	JCS	-	(1954) 493
$Mn_3O_8P_2$	Manganese orthophosphate	290-650	S	Assign	Duval	CPR	239 (1954)	249

<u>Mo COMPOUNDS</u>							
$\text{Mn}_3\text{O}_8\text{P}_2 \cdot 7\text{H}_2\text{O}$	Trinanganese phosphosphate heptahydrate	2-16 <i>i</i> 2-16 <i>i</i> 300-880	S S S	Spec Comparison Spec	Miller Meloche Miller	AC JMC SA	1253 (1958) 104 135
$\text{Mn}_3\text{O}_1\text{H}_2\text{O} \cdot 11\text{H}_2\text{O}$	Trinanganese trimetaphosphate hemidehydrate	2-15 <i>i</i>	S	Freq, I, Assign	Corbridge	JCS	— (1954) 493
$\text{Mo}_3\text{Cl}_9\text{O}_3\text{P}_3$	Molybdenum carbon-monoxide phosphorous trichloride complex	1700-2100	Sol	Freq	Abel	JCS	— (1959) 2323
$\text{Mo}_3\text{Cl}_9\text{O}_3\text{As}_3$	Molybdenum carbon-monoxide arsenic trichloride complex	1700-2100	Sol	Freq	Abel	JCS	— (1959) 2323
$\text{Mo}_3\text{Cl}_9\text{O}_3\text{Sb}_3$	Molybdenum carbon-monoxide antimony trichloride complex	1700-2100	Sol	Freq	Abel	JCS	— (1959) 2323
$\text{Mo}_4\text{H}_4\text{N}_4\text{O}_4$	Molybdenum (IV)-cyanide, hydroxide complex (potassium salt)	800-3500	S	Freq, Assign, Struct	Griffith	JCS	— (1959) 872
$\text{MoC}_4\text{H}_4\text{N}_4\text{O}_4\text{K}_3 \cdot 2\text{H}_2\text{O}$	Molybdenum (V)-cyanide hydroxide complex (potassium salt) dihydrate	800-3500	S	Freq, Assign, Struct	Griffith	JCS	— (1959) 872
$\text{MoC}_5\text{H}_2\text{N}_2\text{O}_3\text{K}_4$	Molybdenum (III)-cyanide, hydroxide nitric oxide complex (potassium salt)	800-3500	S	Freq, Assign	Griffith	JCS	— (1959) 872

$\text{MoC}_5\text{H}_3\text{N}_5\text{O}_3\text{K} \cdot \text{xH}_2\text{O}$	Molybdenum (IV)-cyanide, hydroxide complex (potassium salt) polyhydrate	800-3500	S	Freq, Assign, Struct	Griffith	JCS	- (1959)	872
$\text{MoC}_6\text{H}_{12}\text{N}_2\text{S}_3$	Molybdenum (0)-carbon-monoxide thiourea complex	-	S	Freq	Cotton	CL	- (1960)	1219
$\text{MoC}_6\text{H}_{12}\text{N}_2\text{S}_6$	Molybdenum (III)-isothiocyanate complex (ammonium salt)	-	S	Freq, Assign	Mitchell	JCS	- (1960)	1912
MoC_6O_6	Molybdenum hexacarbonyl	2-40 μ	G, S	Spec, Assign, Thermo.	Hawkins	JCP	23 (1955)	2422
		-	-	NCA	Murata	JCP	27 (1957)	605
		-	-	Assign, Thermo., NCA	Kawai	ECSJ	33 (1960)	1008
$\text{MoC}_7\text{H}_5\text{NO}_3$	Molybdenum (I)-carbon-monoxide cyclopentadiene, nitric oxide complex	450-4000 1700-2050	Sol Sol	Spec, Freq Freq	Piper Lewis	JINC JINC	3 (1956) 7 (1958)	104 32
$\text{MoC}_8\text{H}_5\text{BrO}_3$	Molybdenum (II)-carbonmonoxide, cyclopentadiene complex bromide	450-4000	Sol	Spec, Freq	Piper	JINC	3 (1956)	104
$\text{MoC}_8\text{H}_5\text{ClO}_3$	Molybdenum (II)-carbonmonoxide, cyclopentadiene complex iodide	450-4000	Sol	Spec, Freq	Piper	JINC	3 (1956)	104
$\text{MoC}_8\text{H}_5\text{IO}_3$	Molybdenum (II)-carbonmonoxide, cyclopentadiene complex hydride	450-4000	Sol	Spec, Freq	Piper	JINC	3 (1956)	104
$\text{MoC}_8\text{H}_6\text{O}_3$					Piper	JINC	3 (1956)	104

$\text{MoC}_8\text{N}_8\text{K}_3$	Molybdenum (V)-cyanide complex (potassium salt)	?-32 μ	S	Spec, 1	Brame	J INC	6 (1958)	99
$\text{MoC}_8\text{N}_8\text{K}_3 \cdot 2\text{H}_2\text{O}$	Molybdenum (V)-cyanide complex (potassium salt) dihydrate	?-32 μ	S	Spec, 1	Brame	J INC	6 (1958)	99
$\text{MoC}_8\text{N}_8\text{K}_4$	Molybdenum (IV)-cyanide complex (potassium salt)	?-32 μ 250-2200	S -	Spec, I Assign	Brame Hi Dalgø	J INC CPH	6 (1958) 249 (1959)	99 233
$\text{MoC}_8\text{N}_8\text{K}_4 \cdot 2\text{H}_2\text{O}$	Molybdenum (IV)-cyanide complex (potassium salt) dihydrate	407-56 2-32 μ	S, Sol S	Spec Spec	Bonino Brame	AAN J INC	20 (1956) 6 (1958)	566 99
$\text{MoC}_9\text{H}_8\text{O}_3$	Molybdenum carbon-monoxide cyclopenta-diene, methyl complex	450-4000	Sol	Spec, Freq	Piper	J INC	3 (1956)	104
$\text{MoC}_9\text{H}_{18}\text{O}_3\text{S}$	Molybdenum carbon-monoxide dimethyl sulfide complex	-	Sol	Freq	Cotton	CLL	- (1960)	1219
$\text{MoC}_{10}\text{H}_{10}\text{O}_3$	Molybdenum carbon-monoxide cyclopenta-diene ethyl complex	450-4000	Sol	Spec, Freq	Piper	J INC	3 (1956)	104
$\text{MoC}_{10}\text{H}_{12}$	Cyclopentadienyl molybdenum hydride	-	S	Spec, Struct	Fritz	ZN	15 (1960)	419
$\text{MoC}_{11}\text{H}_{12}\text{O}_3$	Molybdenum carbon-monoxide cyclopenta-diene, isopropyl complex	450-4000	Sol	Spec, Freq	Piper	J INC	3 (1956)	104
$\text{MoC}_{14}\text{H}_8\text{N}_2\text{O}_4$	2,2'-Dipyridyl molybdenum tetracarbonyl	1700-2100	Sol	Freq	Abel	JCS	- (1959)	2323

$\text{MoC}_{15}\text{H}_{24}\text{C}_3\text{S}_3$	Molybdenum (0)-carbon-monoxide, thiophene complex	-	Sol	Freq	Cotton	CIL	- (1960)	1219
$\text{MoC}_{16}\text{H}_8\text{N}_2\text{O}_4$	O-Phenanthroline molybdenum tetracarbonyl	1700-2100	Sol	Freq	Abel	JCS	- (1959)	2323
$\text{MoC}_{18}\text{H}_{15}\text{N}_3\text{O}_3$	Molybdenum carbon-monoxide pyridine complex	1700-2100	Sol	Freq	Abel	JCS	- (1959)	2323
$\text{MoC}_{21}\text{H}_{15}\text{Cl}_6\text{O}_3\text{P}_3$	Molybdenum carbon-monoxide phenyl phosphorous dichloride complex	1700-2100	Sol	Freq	Abel	JCS	- (1959)	2323
$\text{MoC}_{21}\text{H}_{18}\text{N}_9\text{S}_6$	Molybdenum carbon-monoxide phenyl phosphorous dichloride complex	-	S	Assign	Mitchell	JCS	- (1960)	1912
$\text{MoC}_{39}\text{H}_{30}\text{Cl}_3\text{O}_3\text{P}_3$	Molybdenum carbon-monoxide diphenyl phosphorous chloride complex	1700-2100	Sol	Freq	Abel	JCS	- (1959)	2323
$\text{MoC}_{57}\text{H}_{45}\text{O}_3\text{P}_3$	Molybdenum carbon-monoxide triphenyl-phosphine complex	1700-2100	S	Freq	Abel	JCS	- (1959)	2323
$\text{MoC}_{57}\text{H}_{45}\text{O}_3\text{As}_3$	Molybdenum carbon-monoxide triphenyl-arsine complex	1700-2100	S	Freq	Abel	JCS	- (1959)	2323
$\text{MoC}_{57}\text{H}_{45}\text{O}_3\text{Sb}_3$	Molybdenum carbon-monoxide triphenyl-stibine complex	1700-2100	S	Freq	Abel	JCS	- (1959)	2323
MoH	Molybdenum hydride	-	-	FC	Platt	JCP	18 (1950)	932

MoH_8O_4	Ammonium molybdate	2-16 μ	S	Spec	Meloche	J INC	6 (1958)	104
MoCl_5OK_2	Potassium molybdenyl pentachloride	1000	S	Freq	Barracough	JCS	— (1959)	3552
MoF_4	Molybdenum tetra-fluoride	—	S	Freq, Struct	Peacock	JCS	— (1959)	2762
MoF_6	Molybdenum hexafluoride	2-40 μ 400-5000	G G — 741 — — —	Spec, Freq, Assign Spec, Assign, Thermo. FC Freq FC John-Teller effect	Burke Gaunt Gaunt Hahn Califano Weinstock	JCP TPS TPS JCP AN 	20 (1952) 49 (1953) 50 (1954) 24 (1956) 25 (1958) 31 (1959)	447 1122 546 921 284 262
MoF_7	Molybdenum (VI)-complex fluoro ion	—	S	Freq, Struct	Peacock	JCS	— (1959)	2762
MoO_3	Molybdenum trioxide	1000	S	Freq	Barracough	JCS	— (1959)	3552
MoO_4	Molybdate ion	—	—	FC	Pistorius	JCP	28 (1958)	514
$\text{MoO}_4\text{K}\cdot 5\text{H}_2\text{O}$	Potassium molybdate pentahydrate	2-16 μ 300-880	S S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
$\text{MoO}_4\text{Na}_2\cdot 2\text{H}_2\text{O}$	Sodium molybdate dihydrate	2-16 μ 300-880	S S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
MoS_2	Molybdenum sulfide	1-10 μ 0.8-5.5 μ 0.5-2.4 μ 0.6-2 μ	S S S S	Transmission, Reflection Spec Optical properties Photoelectric properties Photoelectric properties Photoelectric properties Thermo. Spec	Crandall Coblentz Coblentz Coblentz Coblentz Coblentz Coblentz Coblentz Coblentz Coblentz	PH BBS BBS BBS BBS BBS BBS BBS BBS	2 (1913) 14 (1918) 15 (1918) 16 (1920) PH BBS BBS BBS BBS	343 653 121 595 2 (1920) 18 (1922)

	<u>Na COMPOUNDS</u>								
$\text{Mo}_2\text{C}_{10}\text{H}_{20}\text{N}_2\text{O}_{12}\text{Na}$	Molybdenum ethylene diamine tetraacetic acid complex (sodium salt) monohydrate	800-1800	S	Spec	Donald	JACS 82 (1960)	4191		
$\text{Mo}_2\text{C}_{10}\text{H}_{12}\text{N}_2\text{O}_{14}\cdot 8\text{H}_2\text{O}$	Molybdenum (VI)-ethylenediamine tetraacetic acid complex (sodium salt) octahydrate	800-1800	S	Spec	Donald	JACS 82 (1960)	4191		
$\text{Mo}_2\text{C}_{15}\text{H}_{10}\text{O}_5$	Molybdenum cyclopentadienyl carbonyl	2-16 μ 1700-2200	S, Sol Sol	Spec, Freq, Struct Spec, Struct	Wilkinson Cotton	JACS 76 (1954) JINC 1 (1955)	209 175		
$\text{Mo}_2\text{C}_{26}\text{H}_{24}\text{N}_{10}\text{O}_4\text{S}_6$	Molybdenum-oxo, pyridinium ion, thiocyanate complex	-	S	Assign	Mitchell	JCS - (1960)	1912		
$\text{Mo}_7\text{H}_{24}\text{N}_6\text{C}_{24}$	Ammonium heptamolybdate	2-15.3 μ	S	Spec	Hacsikaylo	AC 26 (1954)	1410		
$\text{Mo}_7\text{H}_{24}\text{N}_6\text{O}_{24}\cdot 4\text{H}_2\text{O}$	Hexaammonium para-molybdate tetrahydrate	2-16 μ 300-880	S	Spec Spec	Miller Miller Miller Miller	AC SA 24 (1952) SA 16 (1960)	1253 135		
$\text{NaCHF}_3\text{O}_2\text{P}$	Sodium trifluoromethyl methylphosphinate	-	-	Group freq Struct	Bennett Emelius	JCS - (1954) JCS - (1955)	3598 563		
$\text{NaCHF}_3\text{O}_2\text{P}$	Sodium trifluoromethyl acid phosphonite	-	-	Ident	Bennett	JCS - (1954)	3896		
$\text{NaCHF}_3\text{O}_3\text{P}$	Sodium trifluoromethyl phosphonate	-	-	Ident, Freq Group study Ident	Bennett Emelius Paul	JCS - (1954) JCS - (1955) JCS - (1955)	3896 563 574		
NaCHO_2	Sodium formate	750-3200	S	IR, Assign Band study	Newman Margoshes	JCP 20 (1952) JCP 22 (1954)	1663 381		

NaCHO ₃	Sodium bicarbonate	2-16 μ -	S	Spec, Anal H bond, Freq	Miller Rundle	AC JCP	24 (1952) 20 (1952)	1253 1487
		11-12.5 μ -	S	Spec, Freq H bond	Underwood Pimental	JACS JCP	77 (1955) 24 (1956)	317 639
		600-4000 300-880	S	Group study Spec	Braunholtz Miller	JCS SA	- (1959) 16 (1960)	868 135
NaCH ₂ NO	Sodium formamide	650-3800	S	Spec, Freq, Assign	Evans	JCP	22 (1954)	1228
NaCH ₃ O ₃ S	Sodium methylsulfonate	7-10 μ -	S	Freq Assign Spec, FC	Haszeldine Haszeldine Gerding	JCS JCS HIC	- (1954) - (1955) 77 (1958)	4228 2901 374
NaCH ₄ BrN ₂ S	Thiourea sodium bromide	2-40 μ	S	Spec	Stewart	JCP	26 (1957)	248
NaCH ₄ IN ₂ S	Thiourea sodium iodide	2-40 μ	S	Spec	Stewart	JCP	26 (1957)	248
NaCF ₃ O ₂ S	Sodium trifluoromethane sulphinate	9-10 μ	S	Assign	Haszeldine	JCS	- (1955)	2901
NaCF ₃ O ₃ S	Sodium trifluoromethane sulphonate	7-10 μ	S	Group freq Assign	Haszeldine Haszeldine	JCS JCS	- (1954) - (1955)	4228 2901
NaCN	Sodium cyanide	2.5-7.5 μ 2-16 μ -	Sol S -	Spec Spec Usage	Gordy Miller Wiberly Rao Miller	JCP AC AC CIL SA	3 (1935) 24 (1952) 29 (1957) - (1958) 16 (1960)	664 1253 210 1436 135
NaCNO	Sodium isocyanate	400-4000	S	Spec	Waddington	JCS	- (1959)	2499
NaCNS	Sodium thiocyanate	2.8-3.3 μ 2-16 μ -	Sol S S	Spec Spec Spec	Buswell Miller Wiberly Miller	JPC AC AC SA	45 (1941) 24 (1952) 29 (1957) 16 (1960)	543 1253 210 135
NaCN ₇	Sodium tetrazolylazide	2-15 μ	S	Spec, Freq	Lieber	AC	23 (1951)	1594
NaC ₂ HD ₂ O ₂	Sodium acetate-d ₂	400-3100	S	Freq, Assign	Jones	JCP	22 (1954)	1796
NaC ₂ H ₂ DO ₂	Sodium acetate-d ₁	400-3100	S	Freq	Jones	JCP	22 (1954)	1796

$\text{NaC}_2\text{H}_2\text{ClO}_2$	Sodium chloroacetate	400-1800	S	Assign	Tsuboi	SA	12 (1958)	253
$\text{NaC}_2\text{H}_3\text{O}$	Sodium acetate	800-3000	S	Spec, Freq	Sawyer	JACS	80 (1958)	1597
$\text{NaC}_2\text{H}_3\text{O} \cdot 3\text{H}_2\text{O}$	Sodium acetate trihydrate	2-15 μ	S	Spec	Childers	AC	27 (1955)	737
$\text{NaC}_2\text{H}_3\text{O}$	Sodium methyl carbonate	0.6-2.8 μ 2.8-6 μ 5.4-7.4 μ	Sol Sol S	Assign Assign, Spec Spec	Gordy	JCP	2 (1934)	621
		4.75 μ	Sol	Abs.	Plyler	JCP	2 (1934)	470
		1575	S	Freq	Davies	JCP	6 (1938)	755
		600-400 $\text{^{\circ}C}$	Sol	Spec	Barr	JCP	7 (1939)	8
		2-15 μ	-	Freq, Struct	Flett	JCS	- (1948)	1441
		-	-	Group freq	Gore	AC	21 (1949)	382
		400-3100	S	Spec, Freq, Assign, FC	Rasmussen	JACS	71 (1949)	1073
		-	-	Freq, Assign	Hales	JCS	- (1954)	3145
		700-4000	S	IR, Freq, Assign	Jones	JCP	22 (1954)	1796
		5-10 μ 600-4000	Sol S, Sol -	Spec, Assign	Jones	JCP	23 (1955)	2105
		400-1800	-	Spec	Wilmshurst	JCP	23 (1955)	2463
$\text{NaC}_2\text{H}_4\text{NO}_2$	Sodium glycinate	5-10 μ 600-4000	Sol S, Sol -	Spec, Assign	Klotz	JPCC	52 (1948)	961
		400-1800	-	Spec	Gore	AC	21 (1949)	382
		-	-	Assign	Tsuboi	SA	12 (1958)	253
$\text{NaC}_2\text{H}_5\text{O}_3\text{S}$	Sodium ethanesulfonate	-	-	Group freq	Haszeldine	JCS	- (1954)	4228
$\text{NaC}_2\text{H}_6\text{OP}$	Sodium dimethyl phosphinate	2-15 μ	S	Spec, Group freq, I	Corbridge	JCS	- (1954)	4555
$\text{NaC}_2\text{H}_6\text{O}_4\text{P}$	Dimethyl sodium phosphate	-	-	Spec	Maarsen	IJC	76 (1957)	724
$\text{NaC}_2\text{D}_3\text{O}_2$	Sodium acetate-d ₃	400-3000	S	Spec, Freq, Assign	Jones	JCP	22 (1954)	1796
$\text{NaC}_2\text{F}_3\text{O}$	Sodium trifluoroacetate	1067-1687 600-4000	S	Freq Spec, H bond	Fuson	JCP	20 (1952)	1627
$\text{NaC}_3\text{H}_2\text{Cl}_3\text{O}_2$	Sodium 2,2,3-trichloro-2.5-11 μ propionate	2.5-11 μ	Sol Sol	Spec Spec, Anal	Klempner	JCP	22 (1954)	1399
					Wright	APS	9 (1955)	105
					Potts	AC	28 (1956)	1255

$\text{NaC}_3\text{H}_3\text{Cl}_2\text{O}_2$	Sodium 2,2-dichloro-propionate	$2.5-11\mu$ $2.5-11\mu$	sol sol	Spec Spec, Anal	Wright Potts	APS AC	9 28	(1955) (1956)	105 1255
$\text{NaC}_3\text{H}_3\text{O}_3$	Sodium pyruvate	650-4000	s	Spec, Assign	Long	TFS	56	(1960)	1570
$\text{NaC}_3\text{H}_4\text{ClO}_2$	Sodium 2-chloro-1, β ,5-triazine	$2.5-11\mu$ $2.5-11\mu$	sol sol	Spec Spec, Anal	Wright Potts	APS AC	9 28	(1955) (1956)	105 1255
$\text{NaC}_3\text{H}_5\text{F}_3\text{O}_2\text{PS}$	Sodium ethyl trifluoro-methyl phosphono-thioate	740-830	s	Assign	McIvor	CJC	37	(1959)	869
NaC_3H_5	Allylsodium	$2-3\mu$	sol	Struct	Kwata	BCSJ	33	(1960)	1091
$\text{NaC}_3\text{H}_5\text{O}_2$	Sodium propionate	$2-15\mu$ $7-9\mu$	s s	Spec, Anal Anal	Childers Meiklejohn	AC AC	27 29	(1955) (1957)	737 529
$\text{NaC}_3\text{H}_6\text{IO}$	Sodium iodide acetone complex	400-4000	s,l	Complex study	Yamada	BCSJ	33	(1960)	666
$\text{NaC}_3\text{H}_6\text{NO}_2$	dl-Sodium alanine	600-4000	s,sol	Spec	Gore	AC	21	(1949)	382
$\text{NaC}_3\text{H}_7\text{O}_3\text{S}$	Sodium 1-propane-sulfonate	— 725-1300	— —	Group freq Ident	Haszeldine Marvel	JCS JACS	— 76	(1954) (1954)	4228 61
$\text{NaC}_3\text{H}_7\text{O}_4\text{S}$	Sodium propyl sulfate	$5-10\mu$	—	Spec, Assign	Klotz	JPCC	52	(1948)	961
$\text{NaC}_3\text{H}_8\text{O}_2\text{PS}$	Sodium ethyl hydrogen methyl thiophosphonate	—	—	Spec, Freq	Popov	ZOK	29	(1954)	1998
$\text{NaC}_3\text{H}_9\text{OSi}$	Sodium trimethyl silonate	$2-16\mu$	l	Spec	Tatlock	JOC	17	(1952)	555
NaC_3D_5	Perdeuterocallyl sodium	—	s	Struct	Lanpher	JACS	79	(1957)	5578
$\text{NaC}_3\text{Cl}_3\text{O}_2$	Sodium trichloro-acrylate	700-1600	—	Spec	Duval	RTC	69	(1950)	391
$\text{NaC}_4\text{H}_7\text{O}_2$	Sodium n-butyrate	$2-15\mu$ $7-9\mu$	s s	Spec Qual. Anal	Childers Meiklejohn	AC AC	27 29	(1955) (1957)	737 529

NaC ₄ H ₈ NO ₂	Sodium-DL- α -amino-butyrate	-	Sol, L	Spec	Takenishi	NKZ	81 (1960)	858
NaC ₄ H ₈ NO ₂	dL-Threonine	600-4000 2-16 μ	Sol S	Spec Spec, Config.	Gore Bolhofer	AC JACS	21 (1949) 76 (1954)	382 1322
NaC ₄ H ₉ O ₃ S	Sodium butane sulfonate	-	-	Freq	Haszeldine	JCS	- (1954)	42228
NaC ₄ H ₁₀ O ₂ PS	Sodium ethyl hydrogen ethyl thiophosphate	-	-	Spec, Freq	Popov	ZOK	29 (1959)	1998
NaC ₄ H ₁₀ O ₂ PS ₂	Sodium O,O-diethyl phosphorodithioate	740-1500	S	Assign	McIvor	CJC	37 (1959)	869
- NaC ₄ H ₁₀ O ₂ PS	Diethyl sodium thio-phosphate	-	-	Spec, Freq	Popov	ZOK	29 (1959)	1998
NaC ₄ H ₁₀ O ₄ P	Diethyl sodium phosphate	-	-	Spec	Maarsen	RTC	76 (1957)	724
NaC ₅ H ₄ NO	Sodium 2-pyridyl oxide	-	S	Spec, Freq, Assign	Gibson	JCS	- (1955)	4340
NaC ₅ H ₇ BrNO ₂	Sodium γ -bromoallyl-glycinate	2-15 μ	S	Assign	Moreno	SA	16 (1960)	1368
NaC ₅ H ₇ ClNO ₂	Sodium γ -chloro-allylglycinate	2-15 μ	S	Assign	Moreno	SA	16 (1960)	1368
NaC ₅ H ₇ O ₂	Sodium acetylacetone	625-5000	S	Spec, Struct	West	JINC	5 (1958)	295
NaC ₅ H ₇ O ₂ S	8-Acetyl- β -mercapto-propionate, sodium salt	2-9 μ	Sol	Spec, Freq	Jencks	ABB	88 (1960)	193
NaC ₅ H ₈ ClO ₂	Sodium DL- α -chloro-valerate	-	L, Sol	Spec, Assign	Takenishi	NKZ	81 (1960)	382
NaC ₅ H ₈ NO ₂	Sodium allyl glycinate	2-15 μ	S	Assign	Moreno	SA	16 (1960)	1368
NaC ₅ H ₉	Pentenyl sodium	-	S	Struct	Lanpher	JACS	79 (1957)	5578
NaC ₅ H ₉ O ₂	Sodium n-valerate	2-15 μ	S	Spec	Childers	AC	27 (1955)	737

$\text{NaC}_5\text{H}_{10}\text{NO}_2$	Sodium valinate	5-10 / ℓ	Sol	Spec , Assign	Klotz	JPC	52 (1948)	961
$\text{NaC}_5\text{H}_{11}\text{OS}$	Sodium n-pentane-sulfonate	-	-	Freq	Haszeldine	JCS	- (1954)	4228
$\text{NaC}_6\text{H}_2\text{Br}_3\text{N}_2\text{O}_3\text{S}$	Sodium 2,4,6-tribromo-benzenediazosulfonate	600-1800	S	Spec , Assign	LeFevre	AJC	6 (1953)	341
$\text{NaC}_6\text{H}_2\text{F}_9\text{O}_6$	Sodium trifluoro-acetate ditrifluoro acetic acid	600-4000	S	Spec , H bond	/	Klempener	JCP	22 (1954) 1399
$\text{NaC}_6\text{H}_3\text{N}_4\text{O}$	6-Hydroxy pteridine sodium salt	-	S	Freq, Struct	Albert	JCS	- (1952)	1620
$\text{NaC}_6\text{H}_4\text{ClN}_2\text{O}_3\text{S}$	cis-Sodium o-chloro-benzenediazosulfonate	600-1800	S	Spec , Struct	LeFevre	AJC	6 (1953)	341
$\text{NaC}_6\text{H}_4\text{CIN}_2\text{O}_3\text{S}$	trans-Sodium o-chloro-benzenediazosulfonate	600-1800	S	Spec , Struct	LeFevre	AJC	6 (1953)	341
$\text{NaC}_6\text{H}_4\text{ClN}_2\text{O}_3\text{S}$	Sodium p-chlorobenzene diazosulfonate	600-1800	S	Spec , Struct	LeFevre	AJC	6 (1953)	341
$\text{NaC}_6\text{H}_4\text{IN}_2\text{O}_3\text{S}$	Sodium o-iodobenzene-diazosulfonate	600-1800	S	Spec , Struct	LeFevre	AJC	6 (1953)	341
$\text{NaC}_6\text{H}_4\text{IN}_2\text{O}_3\text{S}$	Sodium p-iodobenzene-diazosulfonate	600-1800	S	Spec , Struct	LeFevre	AJC	6 (1953)	341
$\text{NaC}_6\text{H}_4\text{NO}_3$	Sodium p-nitrophenoxide	1300-1600	S	Struct	Kross	JACS	78 (1956)	4223
$\text{NaC}_6\text{H}_4\text{N}_3\text{O}_3$	Sodium p-nitrobenzene-diazotate	600-1800	S	Spec , Assign	LeFevre	AJC	6 (1953)	341
NaC_6H_5	Phenyl sodium	625-900 600-4000	S S	Vibrations Spec , Freq assign	Margoshes Lanpher	SA JCC	7 (1955) 21 (1956)	14 850

$\text{NaC}_6\text{H}_5\text{O}$	Sodium phenoxide	970-1350	S	Spec, Struct, Assign Freq, I, Ident	Davies Hales	JCS JCS	- (1954) - (1954)	120 3145
$\text{NaC}_6\text{H}_5\text{O}_2\text{S}$	Sodium benzenesulphinate	9-10 μ	S	Assign	Haszeldine	JCS	- (1955)	2901
$\text{NaC}_6\text{H}_5\text{O}_3\text{S}$	Sodium benzene sulphonate	8-15 μ 625-900 12-15 μ	S	Spec, Ident Vibrations Freq	Bonner Margoshes Kross	JACS SA JACS	73 (1951) 7 (1955) 78 (1956)	3701 14 1332
$\text{NaC}_6\text{H}_{10}\text{NO}_2$	Sodium γ -methylallyl-glycinate	2-15 μ	S	Assign	Moreno	SA	16 (1960)	1386
$\text{NaC}_6\text{H}_{11}\text{O}_2$	Sodium caproate	5-10 μ 2-15 μ 7-9 μ	Sol	Spec, Assign Spec Anal	Kloty Childers Neiklejohn	JPC ^C AC AC	52 (1948) 27 (1955) 29 (1957)	961 737 329
$\text{NaC}_6\text{H}_{12}\text{NO}_2$	Sodium norleucinate	5-10 μ	-	Spec, Assign	Klotz	JPC ^C	52 (1948)	961
$\text{NaC}_6\text{H}_{14}\text{O}_4\text{P}$	Di-i-propyl sodium-phosphate	-	-	Spec	Marsen	RIC	76 (1957)	724
$\text{NaC}_6\text{H}_{15}\text{OSi}$	Sodium triethylsilanolate	2-16 μ	S	Spec	Tatlock	JOC	17 (1952)	1555
$\text{NaC}_6\text{D}_2\text{F}_9\text{O}_6$	Sodium trifluoro-acetate di trifluoro-acetic acid-d ₂	600-4000	S	Spec, H bond	Klemperer	JCP	22 (1954)	1399
$\text{NaC}_7\text{H}_4\text{NO}_4$	Sodium-p-nitrobenzoic acid	1300-1600	S, Sol	Struct	Kross	JACS	78 (1956)	4225
$\text{NaC}_7\text{H}_5\text{Br}_2\text{N}_2\text{O}_3\text{S}$	Sodium-4,6-dibromo-2-methylbenzenediazo-sulphonate	600-1800	S	Spec, Assign	LeFevre	AJJC	6 (1953)	341
$\text{NaC}_7\text{H}_5\text{O}$	Sodium benzoate	1380-1610	S	Spec, Assign, Struct Band freq	Davies Hales Stimson Margoshes Kross	JCS JCS JCP SA JACS	- (1954) - (1954) 22 (1954) 7 (1955) 78 (1956)	120 3145 1942 14 1332

$\text{NaC}_7\text{H}_5\text{O}_3$	Sodium salicylate	-	-	Band freq, I	Hales	JCS	-	(1954)	3145
$\text{NaC}_7\text{H}_6\text{NO}_2$	Sodium α -amino- benzoate	1563-1410	S	Band freq	Stimson	JCP	22	(1954)	1942
$\text{NaC}_7\text{H}_6\text{NO}_2$	Sodium α -amino- benzoate	1518-1398	S	Band freq	Stimson	JCP	22	(1954)	1942
$\text{NaC}_7\text{H}_6\text{NO}_2$	Sodium β -amino- benzoate	1540-1410	S	Band freq	Stimson	JCP	22	(1954)	1942
$\text{NaC}_7\text{H}_7\text{O}$	Benzyl anion (sodium salt)	2-3 μ	Sol	Struct	Kuwata	BCSJ	33	(1960)	1091
$\text{NaC}_7\text{H}_7\text{O}_3$	p-Toluenesulfonic acid (sodium salt)	2-11 μ	S	Spec	Waldock	JPC	56	(1952)	654
$\text{NaC}_8\text{H}_7\text{O}_3$	Sodium o-methoxy- benzoate	-	-	Band freq, I	Hales	JCS	-	(1954)	3145
$\text{NaC}_8\text{H}_7\text{O}_3$	Sodium methyl salicylate	-	-	Band freq, I	Hales	JCS	-	(1954)	3145
$\text{NaC}_8\text{H}_7\text{O}_3$	Vanillin sodium salt	600-4000	S	Spec, Freq	Herzert	JOC	25	(1960)	405
$\text{NaC}_8\text{H}_7\text{O}_4$	Sodium vanillate	600-4000	S	Spec, Freq	Herzert	JOC	25	(1960)	405
$\text{NaC}_8\text{H}_9\text{O}_3\text{S}$	Sodium 2-phenylethane sulphonate	400-4000	S, Sol	Spec	Freeman	AJC	10	(1957)	227
$\text{NaC}_8\text{H}_{15}\text{O}_2$	Sodium caprylate	600-1800	S	Spec	Chapman	JCS	-	(1958)	784
$\text{NaC}_9\text{H}_6\text{NO}$	Sodium 8-hydroxy- quinolate	-	S	Spec	Charles	AC	25	(1953)	530
$\text{NaC}_9\text{H}_9\text{O}_3$	Acetovanillone sodium salt	600-4000	S	Spec, Freq	Herzert	JOC	25	(1960)	405
$\text{NaC}_{10}\text{H}_{19}\text{O}_2$	Sodium caprate	650-1800	S	Spec	Chapman	JCS	-	(1958)	784
$\text{NaC}_{11}\text{H}_9\text{O}_5 \cdot 2\text{H}_2\text{O}$	Sodium gladiolate dihydrate	-	S	Freq	Grove	JCS	-	(1952)	3345

$\text{NaC}_{11}\text{H}_{14}\text{O}_6^P$	Sodium diethyl-m-carboxyphenylphosphate	-	-	Freq, Assign	Ketelaar	RJC	78 (1959)	190
$\text{NaC}_{11}\text{H}_{14}\text{O}_6^P$	Sodium diethyl-p-carboxyphenylphosphate	-	-	Freq, Assign	Ketelaar	RJC	78 (1959)	190
$\text{NaC}_{12}\text{H}_9\text{N}_2\text{O}_5$	Sodium p-diphenyl diazosulfonate	600-1800	S	Spec assign	LeFevre	AJC	6 (1953)	341
$\text{NaC}_{12}\text{H}_{23}\text{O}_2$	Sodium laurate	650-1800	S	Spec	Chapman	JCS	- (1958)	784
$\text{NaC}_{12}\text{H}_{25}\text{O}_4$	Sodium dodecyl sulfate	5-10 μ	-	Spec, Group assign	Klotz	JPCC	52 (1948)	961
$\text{NaC}_{13}\text{H}_8\text{N}_3\text{O}_5$	Sodium-p-nitrobenzene-1300-1600 azosalicylate	Sol	Struct	Kross	JACS	78 (1956)	4225	
$\text{NaC}_{16}\text{H}_{17}\text{N}_2\text{O}_4\text{S}$	Sodium penicillin-G	400-3400	S	Spec, Anal	Barnes	AC	19 (1947)	620
$\text{NaC}_{16}\text{H}_{17}\text{N}_2\text{O}_5\text{S}$	Sodium penicillin-x	400-3400	S	Spec, Anal	Barnes	AC	19 (1947)	620
$\text{NaC}_{16}\text{H}_{19}\text{O}_5$	Glucanolsodium salt	-	-	-	Hann	JACS	76 (1954)	6066
$\text{NaC}_{16}\text{H}_{25}\text{N}_2\text{O}_4\text{S}$	Sodium n-heptyl penicillin	400-3400	S	Spec, Anal	Barnes	AC	19 (1947)	620
$\text{NaC}_{16}\text{H}_{31}\text{O}_2$	Sodium palmitate	650-1800 650-4000	S	Spec, Heat effect Spec	Chapman Kawano	JCS NKZ	- (1958) 81 (1960)	784 1805
$\text{NaC}_{18}\text{H}_{15}\text{OSi}$	Sodium triphenyl silanolate	2-16 μ	S	Spec	Tatlock	JOC	17 (1952)	1555
$\text{NaC}_{18}\text{H}_{29}\text{O}_3\text{S}$	Sodium p-(1-butyl)octyl benzene sulfonate	2-16 μ	S	Spec, Group freq	Gray	JOC	20 (1955)	511
$\text{NaC}_{18}\text{H}_{29}\text{O}_3\text{S}$	Detergent sodium dodecyl benzene sulfonate	9.0-10.4 μ	Sol	Anal	Cirillo	AC	31 (1959)	959
$\text{NaC}_{18}\text{H}_{29}\text{O}_3\text{S}$	Sodium-m-dodecyl-benzene sulfonate	2-16 μ	S	Spec, Freq	Gray	JOC	20 (1955)	511

$\text{NaH}_3\text{NO}_3^P$	Monosodium phosphoramidate	$2-15 \mu$	S	Spec Bond character	Corbridge Steiger	JCS ZE	-	(1954)	493
$\text{NaH}_3\text{O}_7\text{P}_2$	Monosodium hydrogen pyrophosphate	$1-40 \mu$	-	Spec	Mutschin	ZAC	61	(1957)	1004
$\text{NaH}_4\text{N}_2\text{O}_8\text{P}_3$	Sodium diimidotriphosphate	650-5000	S	Spec	Pustinger	SA	160	(1958)	81
NaH_4B	Sodium borohydride	$2-14 \mu$ $600-4000$	- -	Freq Spec Spec Compar	Price Price Stockmayer Waddington	JCP JCP JCP JCS	17 17 21 -	(1949) (1949) (1953) (1958)	217 1044 1311 4783
$\text{NaH}_{12}\text{ClN}_4$	Tetramine sodium chloride	-	-	Freq	Wilmshurst	CJC	38	(1960)	467
$\text{NaH}_{12}\text{IN}_4$	Tetramine sodium iodide	-	-	Group freq	Leonard	JACS	77	(1955)	2029
$\text{Na}^+\text{H}_{12}\text{N}_4$	Tetramine sodium ion	-	-	Group freq	Leonard	JACS	77	(1955)	2029
NaD	Sodium deuteride	-	S	Freq	Sayre	JCP	18	(1950)	584
NaDO	Sodium hydroxide-d ₁	$6.2-8.6 \mu$ 2500-2800 3000-5000	Sol S S	Spec Spec, Struct Spec	Plyler Busing Buchanan	JCP JCP JCP	9 23 31	(1936) (1955) (1959)	157 933 870
$\text{NaD}_2\text{NO}_3\text{S}$	Sodium sulphamate-d ₂	500-4000	S	Assign	Vuagnat	JCP	26	(1957)	77
$\text{NaD}_2\text{O}_4\text{P}$	Sodium dihydrogen phosphate-d ₂	300-3000 700-3500	S	Freq, Spec Quant. Mech.	Blinc Blinc	MP MP	1 1	(1957) (1958)	391 391
NaBr	Sodium bromide	-	Sol	Spec Filter Theory Spec FC Photoelectric effect Polarization	Plyler Barnes Huggins Flyler Gorily Ogg Szegedi	JCP PK JCP JCP JCP JCP IRS	2 49 5 6 14 14 45	(1934) (1936) (1937) (1938) (1946) (1946) (1949)	306 732 143 316 305 295 155

-	S	Theory	77	(1950)	258
-	-	Freq	204	(1950)	519
-	-	Theory	19	(1951)	1030
-	-	Disk	31	(1954)	338
-	-	Reaction	AC	27	(1955)
-	-	FC	TFS	53	(1957)
-	-	Freq	JOP	27	(1957)
-	G	Spec	PCS	12	(1960)
NaBr·2H ₂ O	Sodium bromide dihydrate	2.8-33 μ 2-3 μ 3 μ	Sol	Spec Absorption Assign	Buswell Lyon Webben
NaBrO ₃	Sodium bromate	2-16 μ 300-880	S	Spec Spec	Miller Miller
NaCl	Sodium chloride	2-4 μ 1-13 μ	Sol	Spec Transmission. Residual rays	Angstrom Gorton Hollnagel
		-	S	Spec	Coblentz
		11-20 μ	S	Dispersion	Marvin
		-	S	Solute effect	Collins
		0.8-2.3 μ	Sol	Absorp.	Brown
		-	S	Freq., Theory Transmission	Nichols
		50-3000	S	Reflectance	Weniger
		0.3-7 μ 52 μ	S	Residual rays	Hulbert
		-	-	Cry stall growing	Schaefier
		41-63 μ	S	Emission	Strong
		10-70 μ	S	Reflection spec	Strong
		0-8.7 μ	-	Dispersion	Barnes
		10-70 μ	S	Reflection	Korff
		1.5-4 μ	S	Effect of H ₂ O	Barnes
		0-16 μ 1-10 μ	S	Dispersion	Barnes
		-	Sol	Transmission	Cross
		-	-	Spec	Pfund
		35-120 μ	S	Absorp.	Plyler
		1-10 μ	S	Spec	Barnes
		2-4 μ	S	Filter	Barnes
		50-150 μ	Sol	Film	Plummer
				Band freq	Cartwright

-	-	Theory	Huggins	JCP	5	(1937)	143						
$3\text{-}6.5\mu$	-	Solvent effect	Plyler	PR	51	(1937)	1017A						
52μ	S	Residual rays	Seifer	RSI	11	(1940)	365						
400-3000	S	Transmission	Wells	JAP	11	(1940)	137						
$2.8\text{-}33\mu$	Sol	Band spec	Buswell	JPC	45	(1941)	543						
$0\text{-}6\mu$	S	Dispersion	Wright	ISI	15	(1944)	22						
160-300	L	Spec	Krishnan	N	156	(1945)	267						
-	-	FC	Gordy	JCP	14	(1946)	305						
-	-	Raman	Krishnan	PRS	187	(1946)	188						
-	-	Compar.	Gore	JOSA	37	(1947)	23						
-	-	Lattice vib.	Markham	PR	71	(1947)	473						
-	-	Quant. Mech.	Hornig	JCP	16	(1948)	1063						
-	-	Dispersion	Williams	RSI	19	(1948)	135						
-	-	Bands	Bernstein	PR	76	(1949)	1254						
-	-	Quant. Mech.	Brittner	JCP	17	(1949)	198						
-	-	Polarization	Szigeti	TPS	45	(1949)	155						
-	-	Dispersion	Iecomte	JPR	11	(1950)	67						
$0\text{-}3\mu$	S	Spec	McCurbin	JOSA	40	(1950)	537						
100-600	S	Freq., Theory	Roberts	PR	77	(1950)	258						
-	-	Freq., Theory	Szigeti	PRS	204	(1950)	51						
-	-	Freq.	Rittner	JCP	19	(1951)	1030						
$0\text{-}16\mu$	S	R. Ind.	Towler	JSI	28	(1951)	105						
-	-	Calib.	Towler	JSI	29	(1952)	393						
$0.8\text{-}20\mu$	S	Reflectance	Agnew	JOSA	43	(1953)	823						
$0.8\text{-}20\mu$	S	Reflectance	Agnew	JOSA	43	(1953)	999						
-	-	Grinding & Polishing	Baird	JOSA	43	(1953)	432						
-	-	Calib.	Downie	JOSA	43	(1953)	941						
$2\text{-}15\mu$	S	Spec	Schiedt	APS 7 No.2	(1953)	75							
-	-	Disk	Ford	JSI	31	(1954)	338						
$35\text{-}70\mu$	S	Refl. Curves	Lax	PR	97	(1955)	39						
-	-	Reaction	Stewart	AC	27	(1955)	318A						
-	-	Dielectric Const.	Haas	PR	103	(1956)	564						
-	-	FC	Baughan	TPS	53	(1957)	1046						
-	-	Spec	Brackett	JOSA	47	(1957)	636						
$50\text{-}5000$	-	Spec	Lord	JOSA	47	(1957)	689						
-	G	Freq., Spec	Hice	JCP	27	(1957)	573						
-	-	Spec, Freq	Berkowitz	JCP	29	(1958)	1386						
100-300	S	Spec, Temp.	Haas	PR	117	(1960)	1497						

17-55 μ	S	Transmittance Spec	Plyler Schaeffer	JRNBB PCS	64C (1960) 12 (1960)	55 233			
NaCl ³⁵	Sodium chloride	-	Garrison	DA	19 (1958)	546			
NaClO ₂	Sodium chlorite	-	Duchesne	JCP	21 (1953)	2005			
NaClO ₃	Sodium chlorate	2-16 μ 1-22 μ 460-3200 300-880	Excited state Spec Assign Freq, Assign Spec	Miller Randas Hollenberg Miller	AC PIAS SA SA	24 (1952) 37 (1953) 16 (1960) 16 (1960)	1253 451 1155 135		
NaClO ₄	Sodium perchlorate	-	Struct rules	Couturejeh	JCP	15 (1947)	153		
NaClO ₄ • H ₂ O	Sodium perchlorate monohydrate	S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135		
NaF	Sodium fluoride	-	Freq Freq Polarizability	Nichols Huggins Szigeti	PR JCP TFS	21 (1923) 5 (1937) 45 (1949)	712 143 155		
		-	S	Szigeti	PRS	204 (1950)	51		
		-	-	Robertis	PR	77 (1950)	258		
		-	-	Rittner	JCP	19 (1951)	1030		
		20-60 μ	S	Lax	PR	97 (1955)	39		
		1-8.2 μ	Sol	Maybury	JCP	23 (1955)	1277		
		-	-	Haas	PR	103 (1956)	564		
		-	Mol. Const.	Lord	JOSA	47 (1957)	689		
		-	Spec	Sharp	JCS	- (1957)	3761		
NaFO ₃ S	Sodium fluoro-sulfate	550-2400	S	Assign, Spec					
NaF ₄ B	Sodium boro-fluoride	400-1400	S	Spec, Assign, Freq	Cote	PRS	210 (1951)	217	
NaI	Sodium iodide	-	Christiansen filter Freq Crystal studies FC	Barnes Huggins West Gordy Szigeti	PR JCP JOSA JCP TFS	49 (1936) 5 (1937) 35 (1945) 14 (1946) 45 (1949)	732 143 26 305 155		

-	-	Freq	Roberts	PR	77	(1950)	258	
-	-	Freq	Szigeti	PFS	204	(1950)	51	
-	-	Freq	Rittner	JCP	19	(1951)	1030	
-	-	Pressed disk	Ford	JSI	31	(1954)	338	
-	G	Freq, Spec, Mol. Const.	Rice	JCP	27	(1957)	573	
NaI·2H ₂ O	Sodium iodide dihydrate	2.8-3.3 μ 2.5 μ	Sol S	Spec Absorption	Buswell Lyon	JPC PR	45 (1941) 61 (1942)	543 482
NaIO ₃	Sodium iodate	2-16 μ -	S S	Spec Spec, Struct Spec	Miller Dasent Miller	AC JCS SA	24 (1952) - (1960) 16 (1960)	1253 2429 135
NaIO ₄	Sodium periodate	-	-	Freq, Struct	Siebert	ZAU	303 (1960)	162
NaN ₂	Sodium nitrite	6-15 μ 2-16 μ 750-3000 700-4000	Sol S S S	Struct Spec Spec, Assign Spec, Freq, FC	Williams Miller Newman Weston	JACS AC JCP JCP	61 (1939) 24 (1952) 20 (1952) 27 (1957)	2987 1253 444 683
NaN ¹⁴ O ₂	Sodium nitrite (isotopic)	3-14 μ	S	Assign, Spec, FC, Freq	Sidman	JACS	79 (1957)	2675
NaN ¹⁵ O ₂	Sodium nitrite (isotopic)	3-14 μ	S	Assign, Spec, FC, Freq	Sidman	JACS	79 (1957)	2675
NaNO ₃	Sodium nitrate	22-310	S	Reflection, Transmission Residual rays	Weniger Shaefer Williams	JOSA TFS JACS	7 (1923) 25 (1929) 61 (1939)	517 841 1382
		-	-	Freq	Buswell	JPC	45 (1941)	543
		6-16 μ 2.8-3.3 μ	Sol S	Spec Crystal studies	West	JOSA	35 (1945)	26
		-	S	Band study	Lawler	JOSA	42 (1952)	3559
		2.5-15 μ	S	Spec	Miller	AC	24 (1952)	1253
		2-16 μ 1-22 μ	S -	Spec, Assign Absorption, Freq	Famidas Haas	PIAS P	37 (1953) 22 (1956)	441 1286

$\text{NaM}^{14}\text{O}_3$	Sodium nitrate (isotopic)	800-840	S	Freq, Spec	Decius	JCP	22 (1954) 1941
$\text{NaN}^{15}\text{O}_3$	Sodium nitrate (isotopic)	800-840	S	Freq, Spec	Lieber	AC	23 (1951) 1594
NaN_3	Sodium azide	2-25 μ	S	Spec, Freq	Lieber	JACS	73 (1951) 1313
		-	S	Freq	Rosenwasser	JCP	24 (1956) 184
		3000-5000	S	Spec	Gray	TFS	53 (1957) 901
		2-16 μ	S	Spec	Miller	SA	16 (1960) 135
		2-16 μ	S	Spec	Brame	JINC	4 (1957) 90
		450-3800	S	Spec	Miller	AC	24 (1952) 1253
		-	S	Spec	Miller	SA	16 (1960) 135
		700-1500	S	Spec	Krogh	ARK	12 (1958) 475
		2-15 μ	S	Spec	Miller	SA	16 (1960) 135
		300-880	S	Spec	Miller	AC	24 (1952) 1253
					Miller	SA	16 (1960) 135
NaO_2As	Sodium meta-arsenate	2-16 μ	S	Spec, Anal	Miller	AC	24 (1952) 1253
		300-880	S	Spec	Miller	SA	16 (1960) 135
NaO_2B	Sodium meta-borate	2-15 μ	S	Freq, Struct	Krogh	ARK	12 (1958) 475
					Miller	SA	16 (1960) 135
$\text{NaO}_2\text{B}\cdot 2\text{H}_2\text{O}$	Sodium boride dihydrate	300-880	S	Spec	Miller	AC	24 (1952) 1253
					Miller	SA	16 (1960) 135
$\text{NaO}_2\text{B}\cdot 4\text{H}_2\text{O}$	Sodium perborate tetrahydrate	2-16 μ	S	Spec	Miller	AC	24 (1952) 1253
		300-880	S	Spec	Miller	SA	16 (1960) 135

Na_2	Sodium	1.07-1.14 μ	S	Spec FC	JHB JCP JCP JCP PR PR PR PR PR PR PR PR	10 (1933) 2 (1934) 2 (1934) 8 (1940) 59 (1941) 9 (1941) 14 (1946) 14 (1946) 71 (1947)	
		-	-	Quant. Mech.			
		-	-	FC			
		-	-	Spec			
		-	-	Thermo.			
		-	-	FC			
		-	-	Photoelectric effect			
		-	-	FC			
$\text{Na}_2\text{CH}_3\text{OP}\cdot 6\text{H}_2\text{O}$	Disodium methyl phosphonate hexahydrate	702-3230	S	Group freq	Corbridge JCS	- (1954) 4555	
$\text{Na}_2\text{CF}_3\text{O}_3\text{P}$	Disodium trifluoro-methyl phosphonate	-	-	Freq Freq Freq	Bennett Bennett Emeaus	- (1954) - (1954) - (1955)	
Na_2CO_3	Sodium carbonate	0.3-7 μ 0.6-2.8 μ 2.8-6 μ 1.5-2.8 μ 2.6-6.6 μ 3-16 μ 11-12.5 μ 2-16 μ 300-880	S sol sol sol S S S S	Reflectance Assign Spec, Assign Assign Spec Spec Spec, Freq Spec Spec	Hulbert Gordy Plyler Barr Plyler Miller Underwood Meloche Miller	JOSA JCP JCP JCP JCP AC JACS JINC SA	17 (1928) 2 (1934) 2 (1934) 4 (1936) 4 (1936) 24 (1952) 77 (1955) 6 (1958) 16 (1960)
$\text{Na}_2\text{C}_2\text{H}_4\text{O}_6\text{S}_2$	Disodium ethylene disulfonic acid	-	-	Group freq	Haszeldine	JCS	
$\text{Na}_2\text{C}_2\text{N}_{10}\cdot 5\text{H}_2\text{O}$	Disodium azotetra-zolepentahydrate	2-15 μ	S	Spec, Freq	Lieber	AC	
$\text{Na}_2\text{C}_2\text{O}_4$	Disodium oxalic acid	2-15 μ 360-1640	S S	Spec, Anal Assign	Childers Schmeiz	27 (1955) 9 (1957)	
$\text{Na}_2\text{C}_2\text{H}_2\text{O}_4$	Disodium malonate	2-15 μ	S	Spec, Anal	Childers	AC	
$\text{Na}_2\text{C}_2\text{H}_2\text{O}_4\cdot \text{H}_2\text{O}$	Disodium malonate monohydrate	2-15 μ	S	Spec, Freq, Assign	Schmelz	JACS 81 (1959)	

$\text{Na}_2\text{C}_4\text{H}_4\text{O}_4$	Disodium succinate	2-15/ μ	S	Spec, Anal	Childers	AC	27 (1955)	737
$\text{Na}_2\text{C}_4\text{H}_6\text{N}_2\text{O}_2$	Disodium dimethyl glyoximate	1800-3200	S	Spec, Assign, H bond	Blinc	JCS	- (1958)	4536
$\text{Na}_2\text{C}_5\text{H}_6\text{O}_4$	Disodium glutarate	2-15/ μ	S	Spec	Childers	AC	27 (1955)	737
$\text{Na}_2\text{C}_6\text{H}_6\text{O}_5\text{S}$	Disodium S-acetyl-thiomalate	2-9/ μ	Sol	Spec, Freq	Jencks	ABE	88 (1960)	193
$\text{Na}_2\text{C}_7\text{H}_4\text{O}_3$	Disodium salicylate	-	-	Band freq, I	Hales	JCS	- (1954)	3145
$\text{Na}_2\text{C}_7\text{H}_{10}\text{O}_4$	Disodium pimeilate	2-15/ μ	S	Spec, Anal	Childers	AC	27 (1955)	737
$\text{Na}_2\text{C}_{10}\text{H}_4\text{N}_2\text{O}_8\text{S}$	Naphthol yellow S	5-12/ μ	Sol	Spec	Gibson	JEMB	18 (1922)	121
$\text{Na}_2\text{C}_{10}\text{H}_{14}\text{N}_2\text{O}_8$	Disodium dihydrogen versenate	650-3500	S	Spec, Freq, I	Chapman	JCS	- (1955)	1766
$\text{Na}_2\text{C}_{10}\text{H}_{14}\text{N}_2\text{O}_8 \cdot 2\text{H}_2\text{O}$	Ethylenediamine tetraacetic acid disodium salt dihydrate	800-3000	S	Spec, Freq	Sawyer	JACS	80 (1958)	1597
$\text{Na}_2\text{C}_{12}\text{H}_{10}\text{O}_2\text{Si}$	Disodium diphenyl-silanolate	2-16/ μ	S	Spec	Tatlock	JOC	17 (1952)	1555
$\text{Na}_2\text{C}_{20}\text{H}_{10}\text{O}_5$	Uranine	1070-1800	S	Spec, Struct, Group freq	Davies Davies	JCS JPR	- (1954) 15 (1954)	120 305
$\text{Na}_2\text{C}_{20}\text{H}_{12}\text{O}_4$	Phenolphthalein disodium salt	-	-	Struct	Davies	JPR	15 (1954)	305
$\text{Na}_2\text{C}_{20}\text{H}_{14}\text{O}_8$	2,5-Dihydroxy-3,6-bis-(p-methoxyphenyl) 1,4-benzquinone disodium salt	5-15/ μ	S	Spec, Struct	Edwards	JAPC	10 (1960)	246
$\text{Na}_2\text{HO}_3\text{P}$	Disodium orthophosphate	2-15/ μ	S	Freq, I, Assign	Corbridge	JCS	- (1954)	493

$\text{Na}_2\text{HPO}_3 \cdot 5\text{H}_2\text{O}$	Disodium orthophosphate pentahydrate	2-15 μ	S	Freq, I, Assign	Corbridge	JCS	- (1954)	493
Na_2HPO_4	Disodium orthophosphate	2-15 μ	S	Freq, I, Assign	Corbridge	JCS	- (1954)	493
$\text{Na}_2\text{HPO}_4 \cdot 2\text{H}_2\text{O}$	Disodium orthophosphate dihydrate	2-15 μ	S	Freq, I, Assign	Corbridge	JCS	- (1954)	493
$\text{Na}_2\text{HPO}_4 \cdot 12\text{H}_2\text{O}$	Disodium phosphate dodecahydrate	2-16 μ	S	Spec	Miller	AC	24 (1952)	1253
$\text{Na}_2\text{HOAs} \cdot 7\text{H}_2\text{O}$	Disodium orthoarsenate heptahydrate	2-16 μ 300-880	S	Spec Spec	Miller Miller	AC SA.	24 (1952) 16 (1960)	1253 135
$\text{Na}_2\text{H}_2\text{NO}_3\text{P}$	Disodium monoamido phosphate	- 650-5000	- S	Band study Spec	Steiger Pustinger	ZE SA	61 (1957) 15 (1959)	1004 909
$\text{Na}_2\text{H}_2\text{O}_6\text{P}_2 \cdot x\text{H}_2\text{O}$	Disodium dihydrogen hypophosphate monohydrate	2-15 μ	S	Spec, I, Freq	Corbridge	JCS	- (1954)	4555
$\text{Na}_2\text{H}_2\text{O}_7\text{P}_2$	Disodium hydrogen pyrophosphate	- 2-15 μ 1-40 μ	- S	Freq Spec, I, Freq Freq, Spec	Bergman Corbridge Mutschin Lecomte Pustinger	JCS JCS ZAC CPR SA	- (1952) - (1954) - (1958) 249 (1959) 15 (1959)	847 493 160 2681 909
$\text{Na}_2\text{FO}_3\text{P}$	Disodium monofluoro phosphate	- 650-5000	S	I, Freq Spec	Corbridge Pustinger	JCS SA	- (1954) 15 (1959)	4555 909
$\text{Na}_2\text{F}_6\text{Si}$	Sodium silicofluoride	- 2-16 μ 300-880	S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
Na_2O_2	Sodium peroxide	2-16 μ	S	Spec, Struct	Brame	J INC	4 (1957)	90
$\text{Na}_2\text{O}_2 \cdot 8\text{H}_2\text{O}$	Sodium peroxide octahydrate	2-16 μ	S	Spec, Struct	Brame	J INC	4 (1957)	90
$\text{Na}_2\text{O}_2 \cdot 8\text{D}_2\text{O}$	Sodium peroxide octahydrate-d ₁₆	2-16 μ	S	Spec, Struct	Brame	J INC	4 (1957)	90
$\text{Na}_2\text{O}_3\text{S}$	Sodium sulfite	2-16 μ	S	Spec	Miller	AC	24 (1952)	1253

$\text{Na}_2\text{O}\cdot\text{S}_2\cdot 5\text{H}_2\text{O}$	2-16/ μ 300-880	S S	Spec Spec	Anderson Miller	AC SA	25 (1953) 16 (1960)	1906 135	
$\text{Na}_2\text{O}\cdot\text{S}_2\cdot 5\text{H}_2\text{O}$	Sodium thiosulfate pentahydrate	0.8-2.3/ μ 2-16/ μ 0.6-2.7/ μ 1000-1250 300-880	Sol S S S S	Spec Spec Dispersion Spec, Struct Spec	Collins Miller Vanderberg Hioka Miller	PR AC AC ECSU SA	20 (1922) 24 (1952) 26 (1954) 32 (1959) 16 (1960)	486 1253 428 1317 135
$\text{Na}_2\text{O}\cdot\text{Si}$	Sodium metasilicate	2.8-6/ μ	Sol	Spec, Assign	Plyler	JCP	2 (1954)	470
$\text{Na}_2\text{O}\cdot\text{Si}\cdot 5\text{H}_2\text{O}$	Sodium silicate penta-hydrate	2-16/ μ 300-880	S S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
$\text{Na}_2\text{O}\cdot\text{Se}$	Sodium selenite	2-16/ μ	S	Spec	Miller	AC	24 (1952)	1253
$\text{Na}_2\text{O}\cdot\text{S}$	Sodium sulfate	2-4/ μ 2.8-3.3/ μ -	Sol Sol -	Spec Spec Interpretation of spec	Angstrom Buswell Duval Miller Tai Meloche Miller	PR JPC CPK AC AC JINC SA	3 (1914) 45 (1941) 227 (1948) 24 (1952) 29 (1957) 6 (1958) 16 (1960)	47 543 1153 1253 1430 104 135
$\text{Na}_2\text{O}\cdot\text{xH}_2\text{O}$	Sodium sulfate poly-hydrate	0.9-1.13/ μ	Sol	Band study	Hulbert	JPC	21 (1917)	5345
$\text{Na}_2\text{O}\cdot\text{B}_2$	Sodium metaborate	2-16/ μ 300-880	S S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
$\text{Na}_2\text{O}\cdot\text{Se}$	Sodium selenate	220-3500	S	Spec	Duval	ZE	64 (1960)	582
$\text{Na}_2\text{O}\cdot\text{Se}\cdot 10\text{H}_2\text{O}$	Sodium selenate decahydrate	2-16/ μ 300-880	S S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
$\text{Na}_2\text{O}\cdot\text{S}$	Sodium metabisulfate	2-16/ μ 300-880	S S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
$\text{Na}_2\text{O}\cdot\text{Se}_2$	Sodium pyroselenite	-	S	Freq	Simon	ZAU A	303 (1960)	39

$\text{Na}_2\text{O}_6^{\text{P}}\cdot 10\text{H}_2\text{O}$	Dipotassium disodium hypophosphate decahydrate	750-3275	S	I, Freq	Corbridge	JCS	- (1954)	4555
$\text{Na}_2\text{O}_7^{\text{B}}$	Sodium tetraborate	2.8-6 μ 2-15 μ	Sol S	Spec, Assign Freq, Struct	Plyler Krogh-Mol	JCP Ak	2 (1934) 12 (1958)	470 475
$\text{Na}_2\text{O}_7^{\text{B}}\cdot 10\text{H}_2\text{O}$	Sodium tetraborate decahydrate	2-16 μ 300-880	S Spec	Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
$\text{Na}_2\text{O}_9^{\text{Si}}$	Sodium disilicate	5-50 μ 20-130 μ	- -	Absorption Spec	Cartwright Barnes	PR ν_{H}	35 (1930) 39 (1932)	415 562
$\text{Na}_3\text{HO}_7^{\text{P}}\cdot \text{H}_2\text{O}$	Trisodium hydrogen pyrophosphate monohydrate	1-40 μ	-	Spec, Freq	Mutschin	ZAUC	160 (1958)	81
$\text{Na}_3\text{H}_3\text{N}_3^{\text{O}}\text{P}_3\cdot 4\text{H}_2\text{O}$	Trisodium triphosphonitrilate tetrahydrate	2-15 μ	S	Spec, Freq	Corbridge	JCS	- (1954)	4555
$\text{Na}_3\text{H}_3\text{N}_3^{\text{O}}\text{P}_3\cdot 4\text{H}_2\text{O}$	Sodium trimetaphosphimate tetrahydrate	650-5000	S	Spec	Pustinger	SA	15 (1959)	909
$\text{Na}_3\text{O}_3^{\text{PS}}\cdot 10\text{H}_2\text{O}$	Trisodium phosphoromonothioate decahydrate	860-3430	G	I, Freq	Corbridge	JCS	- (1954)	4555
$\text{Na}_3\text{O}_3^{\text{As}}$	Sodium arsenate	290-650	S	Assign	Duval	CFR	239 (1954)	249
$\text{Na}_3\text{O}_4^{\text{P}}$	Sodium orthophosphate	2-15 μ 290-650	S S	Freq, I, Assign Assign	Corbridge Duval	JCS CRh	- (1954) 239 (1954)	493 249
$\text{Na}_3\text{C}_4^{\text{P}}\cdot 12\text{H}_2\text{O}$	Sodium orthophosphate dedeckahydrate	2-16 μ 800-4000 2-16 μ 300-880	S S S S	Spec Freq Spec Spec	Miller Lucchesi Meloche Miller	AC JACS J INC SA	24 (1952) 78 (1956) 6 (1958) 16 (1960)	1253 1347 104 135
$\text{Na}_3\text{O}_6^{\text{B}}$	Sodium metaborate	250-4000	-	Spec, Freq, Assign	Goubeau	ZFC	20 (1959)	15
$\text{Na}_3\text{O}_9^{\text{P}}$	Sodium trimetaphosphate	7-15 μ 2-15 μ	S S	Spec, Freq, I, Assign	Corbridge Corbridge	AC JCS	27 (1955) - (1955)	1383 493

$\text{Na}_3\text{O}^{18}\text{P}_3\cdot\text{H}_2\text{O}$	Trisodium trimeta-phosphate monohydrate	2-15 μ	S	Spec, Freq, I	Corbridge	JCS	- (1954)	493
$\text{Na}_3\text{O}^{18}\text{P}_3\cdot6\text{H}_2\text{O}$	Trisodium trimeta-phosphate hexahydrate	2-15 μ	S	Spec, Freq, Assign	Corbridge	JCS	- (1954)	493
$\text{Na}_4\text{C}_{10}^{18}\text{N}_1\text{O}_2\cdot8\text{H}_2\text{O}$	Ethylenediamine tetra-acetic acid sodium salt	650-5500	S	Spec, I, Group freq	Chapman	JCS	- (1955)	1766
$\text{Na}_4\text{HNC}_6\text{P}_2$	Sodium imidodiphosphate	650-5000	S	Spec	Pustinger	SA	15 (1959)	909
$\text{Na}_4\text{H}_4\text{N}_4\text{O}_8\text{P}_4\cdot2\cdot5\text{H}_2\text{O}$	Tetrasodium tetraphosphonitrilate 2.5 hydrate	2-15 μ	S	Spec	Corbridge	JCS	- (1954)	4555
$\text{Na}_4\text{H}_4\text{N}_4\text{O}_8\text{P}_4\cdot3\text{H}_2\text{O}$	Sodium tetrameta-phosphinate trihydrate	650-5000	S	Spec	Pustinger	SA	15 (1959)	909
$\text{Na}_4\text{C}_6\text{P}_2\cdot1\text{OH}_2\text{O}$	Tetrasodium hypophosphate decahydrate	916-320	S	I, Freq	Corbridge	JCS	- (1954)	4555
$\text{Na}_4\text{O}_7\text{P}_2$	Tetrasodium pyrophosphate	2-15 μ 7-15 μ 1-40 μ	- S -	Freq, I, Assign Spec, Freq Struct	Bergmann Corbridge Corbridge Mutschin Simon	JCS JCS AC ZAC ZAUA	- (1952) - (1954) 27 (1955) 160 (1958) 301 (1959)	847 847 1383 81 154
$\text{Na}_4\text{O}_7\text{P}_2\cdot1\text{OH}_2\text{O}$	Sodium pyrophosphate decahydrate	2-15 μ 1-40 μ	-	Freq, I, Freq	Corbridge Mutschin	JCS ZAC	- (1954) 160 (1958)	493 81
$\text{Na}_4\text{O}_8\text{P}_2\cdot\text{xH}_2\text{O}$	Tetrasodium peroxy-diphosphate poly-hydrate	720-3100	S	I, Freq	Corbridge	JCS	- (1954)	4555
$\text{Na}_4\text{O}_{12}\text{P}_4$	Tetrasodium tetra-metaphosphate	2-15 μ -	-	Freq, Assign, I Freq, Struct	Corbridge Steiger	JCS ZAUA	- (1954) 294 (1958)	493 1

$\text{Na}_4\text{O}_{12}\text{P} \cdot 4\text{H}_2\text{O}$	Tetrasodium tetrametaphosphate tetrhydrate	$2-15\mu$	S	Spec, Freq, Assign, I Freq, Struct	Corbridge Steger	JCS ZAU A	-	(1954) (1958)	493 1
$\text{Na}_5\text{O}_{10}\text{P}_3 - \text{I}$	Pentasodium tri-phosphate-I	$2-15\mu$ $7-15\mu$	S	Spec, Freq, Assign, I Spec	Corbridge Corbridge	JCS AC	-	(1954) (1955)	493 1383
$\text{Na}_5\text{O}_{10}\text{P}_3 - \text{II}$	Pentasodium tri-phosphate-II	$2-15\mu$ $7-15\mu$	S	Spec, Freq, Assign Spec	Corbridge Corbridge	JCS AC	-	(1954) (1955)	493 1383
$\text{Na}_5\text{O}_{10}\text{P}_3 \cdot 6\text{H}_2\text{O}$	Sodium triphosphate hexahydrate	$2-15\mu$	S	Spec, Assign, I, Freq	Corbridge	JCS	-	(1954)	493

Nb COMPOUNDS

$\text{NbC}_{10}\text{H}_{10}\text{Br}_3$	Niobium (V)-cyclopentadiene complex bromide	$2-15\mu$	S	Spec	Wilkinson	JACS	76 (1954)	4281	
$\text{NbC}_{22}\text{H}_{21}\text{F}_6$	Tri-p-tolylmethyl hexafluoro niobiate	600-3400	S	Spec	Sharp	JCS	-	(1957)	4804
NbCl_5	Niobium pentachloride	310-5000	S	Spec, Freq, Thermo., Struct	Gaunt	SA	10 (1958)	52	
NbF_4	Niobium tetrafluoride	-	S	Freq, Struct	Peacock	JCS	-	(1959)	2762
NbF_7	Niobium (V)-complex fluoro ion	-	S	Freq, Struct	Peacock	JCS	-	(1959)	2762
NbO_3K	Potassium niobate	300-1000	S	Spec, Struct, I	Last	PR	105 (1957)	1740	
NbO_3Na	Sodium niobate	300-1000	S	Spec, Struct, I	Last	PR	105 (1957)	1740	

Nd COMPOUNDS

$\text{NdBr}_3\text{O}_9 \cdot 9\text{H}_2\text{O}$	Neodymium bromate	3μ 0.35μ	S	Band study Spec, Freq 2183	Benton Satten	PR JCP	73 (1948) 21 (1953)	536 637
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NdCl_3	Neodymium chloride	-	S	Spec	Varsanyi	JCP	33 (1960)	1616
NdF_3	Neodymium fluoride	-	S	Spec	Freed	JCP	8 (1940)	840
NdO	Neodymium oxide	$1-8\mu$	S	Spec	Coblenz	BBS	5 (1908)	159
NdO_4^{P}	Neodymium ortho-phosphate	290-650	S	Assign	Duval	CPK	239 (1954)	249

Ni COMPOUNDS

$\text{NiCCl}_9\text{OP}_3$	Nickel carbonmonoxide, trichlorophosphine complex	-	-	Struct, Freq, FC	Bigorgne	BSCF	-	(1960) 1986
NiCF_9OP_3	Nickel carbonmonoxide, trifluorophosphine complex	-	-	Struct, Freq, FC	Bigorgne	BSCF	-	(1960) 1986
$\text{NiC}_2^{\text{H}}\text{N}_2\text{NS}_2$	Nickel rubeanate	400-4000	Sol	Struct	Barcelo	SA	10 (1958)	245
$\text{NiC}_2^{\text{H}}\text{N}_2$	Dicyanoammine nickel clathrate of pyrrole	700-4000	S	Spec, Struct	Drago	JACS	80 (1958)	2667
$\text{NiC}_2^{\text{H}}\text{N}_2$	Dicyanoammine nickel(II) 700-4000 clathrate of thiophene	700-4000	S	Spec, Struct	Drago	JACS	80 (1958)	2667
$\text{NiC}_2^{\text{H}}\text{N}_2\cdot1/3\text{H}_2\text{O}$ $2/5\text{C}_2^{\text{H}}_5\text{NH}_2$	Dicyanoammine nickel(II) 700-4000 clathrate of ethylamine. 1/3 hydrate	700-4000	S	Spec, Struct	Drago	JACS	80 (1958)	2667
$\text{NiC}_2^{\text{H}}\text{N}_2\cdot1/3\text{H}_2\text{O}$ $1/20\text{C}_6^{\text{H}}_6$	Dicyanoammine nickel(II) 700-4000 clathrate of benzene. 1/3 hydrate	700-4000	S	Spec, Struct	Drago	JACS	80 (1958)	2667

$\text{NiC}_2\text{H}_3\text{N}_3 \cdot 1/3\text{H}_2\text{O}$. Dicyanammine nickel(II) clathrate of benzene. 1/3 hydrate	S	Spec, Struct	Drago	JACS	80 (1958)	2667		
$\text{NiC}_2\text{H}_3\text{N}_3 \cdot 1/3\text{H}_2\text{O}$. Dicyanoammine nickel(II) clathrate of benzene. 1/3 hydrate	S	Spec, Struct	Drago	JACS	80 (1958)	2667		
$\text{NiC}_2\text{H}_8\text{Cl}_2\text{N}_2\text{S}_2$	$2-15\mu$	S	Spec, Freq	Yamaguchi	JACS	80 (1958)	527	
Nickel (II)-thiourea chloride complex	-	S	Freq assign	Mitchell	JCS	- (1960)	1912	
$\text{NiC}_2\text{H}_{12}\text{N}_2\text{S}_2$	Nickel (II)-ammonia complex isothiocyanate	-	S	Freq assign	Mitchell	JCS	- (1960)	1912
$\text{NiC}_2\text{H}_{16}\text{N}_2\text{O}_8\text{S}_2$	Nickel (II)-ethylene-diamine, water complex sulfate	900-1100	S	H bond, Band study	Fujita	JACS	78 (1956)	3693
$\text{NiC}_2\text{Cl}_6\text{O}_2\text{P}_2$	Nickel carbonmonoxide, phosphorous tri-chloride complex	-	-	Freq, Struct, FC	Bigorgne	BSCF	- (1960)	1986
$\text{NiC}_2\text{F}_6\text{O}_2\text{P}_2$	Nickel carbonmonoxide, phosphorous tri-fluoride complex	-	-	Freq, Struct, FC	Bigorgne	BSCF	- (1960)	1986
$\text{NiC}_2\text{N}_2\text{S}_2$	Nickel (II)-thiocyanate	-	S	Freq assign	Mitchell	JCS	- (1960)	1912
$\text{NiC}_3\text{Cl}_3\text{O}_3\text{P}$	Nickel carbonmonoxide phosphorous tri-chloride complex	-	-	Freq, Struct, FC	Bigorgne	BSCF	- (1960)	1986
$\text{NiC}_3\text{F}_3\text{O}_3\text{P}$	Nickel carbonmonoxide phosphorous tri-fluoride complex	-	-	Freq, Struct, FC	Bigorgne	BSCF	- (1960)	1986
$\text{NiC}_3\text{N}_4\text{O}_6\text{K}_2$	Nickel (I)-cyanide, nitric oxide complex (potassium salt)	2000-2150	S	Struct	Griffith	JINC	7 (1958)	295
$\text{NiC}_4\text{H}_6\text{O}_4$	Nickel acetate	$0.6-1.5\mu$	Sol	Spec	Coblentz	BBS	14 (1918)	653

$\text{NiC}_4\text{H}_6\text{O}_4 \cdot 4\text{H}_2\text{O}$	Nickel acetate tetrahydrate	900-1100 400-5000	S S	H bond, Band study Spec	Fujita Nakamoto	JACS JACS	78 (1956) 79 (1957)	3963 4904
$\text{NiC}_8\text{HCl}_2\text{O}_2$	Nickel (II)-dioxane complex chloride	500-1500	S	Spec, Struct	Hendra	JCS	-	(1960) 5105
$\text{NiC}_4\text{H}_8\text{N}_2\text{O}_4$	Nickel (II)-glycine complex	900-1100	S	H bond, Band study	Fujita	JACS	78 (1956)	3963
$\text{NiC}_4\text{H}_8\text{N}_2\text{O}_4 \cdot 2\text{H}_2\text{O}$	Nickel (II)-glycine complex dihydrate	2-15.5 μ 900-1100 2-7 μ 2-15 μ	S S S	Spec, Group freq H bond, Band study Chelation const. Assign	Sen Fujita Rosenberg Saraceno	JACS JACS ACS JACS	77 (1955) 78 (1956) 10 (1956) 80 (1958)	211 3963 840 5018
$\text{NiC}_4\text{H}_9\text{O}_3\text{P}$	Nickel (0)-carbonmonoxide trimethyl phosphine complex	-	-	Freq, Struct, FC	Bigorgne	BSCF	-	(1960) 1986
$\text{NiC}_4\text{H}_{20}\text{Cl}_2\text{N}_4\text{O}_{10}$	Nickel (II)-ethylenediamine, water complex perchlorate	700-850	S	H bond, Band study	Fujita	JACS	78 (1956)	3963
NiC_4N_4	Nickel (II)-tetra-cyanide complex ion	250-2200	S	Spec, Assign	Hidaigo	ARS	56 (1960)	9
$\text{NiC}_4\text{N}_4\text{Ba} \cdot 4\text{H}_2\text{O}$	Nickel (II)-cyanide complex (barium salt) tetrahydrate	-	S	FC, Spec	McCullough	SA	16 (1960)	929
$\text{NiC}_4\text{N}_4\text{K}_2$	Nickel (II)-cyanide complex (potassium salt)	2.5-15 μ 2136 1600-2200 -	S S S -	Spec, Struct Struct Spec, Struct Spec, Assign Assign	Sayed Griffith Sayed Bonino Hidalgo	JACS JINC JACS AAN CPH	78 (1956) 7 (1958) 80 (1958) 26 (1959) 249 (1959)	702 295 2047 137 233
$\text{NiC}_4\text{N}_4\text{Na}_2$	Nickel (II)-cyanide complex (sodium salt)	2050-2250	Sol	Spec, Assign Spec	Bonino McCullough	AAN JINC	26 (1959) 13 (1960)	137 286
$\text{NiC}_4\text{N}_4\text{Na}_2 \cdot 3\text{H}_2\text{O}$	Nickel (II)-cyanide complex (sodium salt) trihydrate	-	S	FC, Spec	McCullough	SA	16 (1960)	929

NiC ₄ O ₄	Nickel carbon 1	-	Freq	Wilson Bailey Crawford Walsh Sheline Nyholm Margoshes Jones Bigorgne Jones	JCP JCP JCP JCP JCP JCS JCP JCP CPK JCP	3 (1955) 6 (1938) 6 (1938) 43 (1947) 18 (1950) - (1953) 22 (1954) 23 (1955) 246 (1958) 28 (1958)
	1-20 μ	-	Ariai			
	4-23 μ	L,G	Spec , Thermo., Assign			
	-	-	FC			
	-	-	FC			
	-	-	FC , Struct			
	2045	-	Freq, Assign			
	270-10000	G	Freq, Assign			
	-	NCA				
	400-4000	G,L	Spec, Assign, NCA, FC			
	-	-	Thermo., Freq	Bernstein	JCP	22 (1954)
NiC ₄ O ₄	Nickel carbonyl (isotopic)	-	Thermo., Freq	Bernstein	JCP	22 (1954)
NiC ₄ H ₄ O ₄	Nickel carbonyl (isotopic)	-	-			710
NiC ₅ H ₅ NO	Nickel (I)-cyclopenta-diene, nitric oxide complex	600-5000 20000-40000 1700-2050	Sol - Sol	Spec, Freq, Struct Symmetry of complex Freq	Piper Cox Lewis	JINC N JINC
NiC ₅ H ₇ O ₂	Acetylacetone nickel chelate	-	Sol	Freq	Bellamy	JCS - (1954)
NiC ₆ H ₉ O ₆ P	Trimethoxyphosphine nickel tricarbonyl	-	-	Freq, Struct	Bigorgne	BSGF - (1960)
NiC ₆ H ₁₂ K ₂ O ₄	Nickel (II)-alanine complex (1 & d1)	650-4000	S	Freq, Assign	Segnini	SA 16 (1960)
NiC ₆ H ₁₂ N ₂ O ₄ ·2H ₂ O	Nickel (II)-alanine complex dihydrate	2-7 μ	S	Chelation const.	Rosenberg	ACS 10 (1956)
NiC ₆ H ₁₂ N ₂ O ₄ ·3H ₂ O	Nickel (II)-alanine complex trihydrate	650-4000	S	Freq assign	Segnini	SA 16 (1960)
NiC ₆ H ₁₂ N ₂ O ₄ ·4H ₂ O	Nickel (II)-alanine complex tetrahydrate	900-1100 650-4000	S S	H bond Freq, Assign	Fujita Segnini	JACS 78 (1956) SA 16 (1960)

$\text{NiC}_6\text{H}_{16}\text{N}_6\text{S}_2$	Nickel (II)-ethylene-diamine isothiocyanate complex	-	S	Freq assign	Mitchell	JCS	- (1960)	1912
$\text{NiC}_6\text{H}_{18}\text{Br}_2\text{O}_3\text{S}_2$	Nickel (II)-dimethyl sulfoxide complex bromide	650-4000	S	Spec, Assign	Cotton	JPC	64 (1960)	1534
$\text{NiC}_6\text{H}_{18}\text{Cl}_2\text{O}_3\text{S}$	Nickel (II)-dimethyl sulfoxide complex chloride	650-4000	S	Spec, Assign	Cotton	JPC	64 (1960)	1534
$\text{NiC}_6\text{H}_{24}\text{Cl}_2\text{N}_6$	Nickel (II)-dimethyl diamine complex chloride	450-1750	S	Spec, Config.	Powell	JCS	- (1959)	791
$\text{NiC}_6\text{H}_{24}\text{N}_8\text{O}_6$	Nickel (II)-ethylene-diamine complex nitrate	3000-4000	S	H bond, Config.	Swink	ACR	13 (1960)	639
$\text{NiC}_6\text{H}_{26}\text{N}_4\text{O}_6 \cdot 4\text{H}_2\text{O}$	Nickel (II)-isothiocyanate complex (ammonium salt) tetrahydrate	-	S	Freq assign	Mitchell	JCS	- (1960)	1912
$\text{NiC}_7\text{H}_5\text{O}_2$	Salicylaldehyde nickel chelate	-	S	Freq	Bellamy	JCS	- (1954)	4491
$\text{NiC}_8\text{H}_4\text{F}_3\text{O}_2\text{S}$	Thencyltrifluoro-acetone nickel chelate	-	Sol.	Freq	Bellamy	JCS	- (1954)	4491
$\text{NiC}_8\text{H}_{12}\text{D}_2\text{N}_4\text{O}_4$	Nickel (II)-dimethyl glyoxime complex-d ₂	2-26 μ 2-16 μ 1400-4500	-	Freq Spec, H bond H bond, Spec	Godicki Voter Rundle	JCP AC JCP	19 (1951) 23 (1951) 20 (1952)	1205 1730 1487
$\text{NiC}_8\text{H}_{14}\text{N}_4\text{O}_4$	Nickel (II)-dimethyl glyoxime complex	2-26 μ 2-16 μ 1400-4500	S	Freq Spec, H bond H bond, Spec	Godicki Voter Rundle Rundle JACS Nakahara	JCP AC JCP Rundle JACS ECSJ	19 (1951) 23 (1951) 20 (1952) 76 (1954) 28 (1955)	1205 1730 1487 3101 473
		-	S	Spec				
		2-15 μ	S	Spec				

$\text{NiC}_8\text{H}_{18}\text{N}_4\text{O}_6 \cdot 2\text{H}_2\text{O}$	Nickel (II)-glycyl-glycine complex dihydrate	-	S, Sol	Chelation const.	Rosenberg	ACS	11 (1957)	1390
$2-15 \mu$	S	Spec	Nakahara	BCSJ	29 (1956)	296		
-	S	H bond	Pimental	JCP	24 (1956)	639		
1800-3200	S	Spec, Assign, H bond	Blinic	JCS	- (1958)	4536		
1575-5000	-	H bond	Gill	N	183 (1958)	248		
$\text{NiC}_8\text{H}_{18}\text{N}_4\text{O}_6 \cdot 2\text{P}_2$	Nickel carbonmonoxide, trimethyl phosphine complex	-	-	Struct, Freq, FC	Bigorgne	BSCF	- (1960)	1986
$\text{NiC}_8\text{H}_{18}\text{N}_4\text{P}_2$	Nickel carbonmonoxide, trimethoxy phosphine complex	-	-	Freq, Struct, FC	Bigorgne	BSCF	- (1960)	1986
$\text{NiC}_8\text{H}_{20}\text{Cl}_2\text{N}_8$	Nickel (II)-biacetyl dihydrazine, chloride complex	600-3500	S	Spec, Assign	Stoufer	JACS	82 (1960)	3491
$\text{NiC}_8\text{H}_{24}\text{Br}_2\text{O}_4\text{S}_4$	Nickel (III)-dime thyl sulfoxide complex bromide	650-4000	S	Spec, Assign	Cotton	JPC	64 (1960)	1534
$\text{NiC}_8\text{H}_{24}\text{I}_2\text{O}_4\text{S}_4$	Nickel (II)-dimethyl sulfoxide complex iodide	650-4000	S	Spec, Assign	Cotton	JPC	64 (1960)	1534
$\text{NiC}_9\text{H}_{10}\text{NO}_6\text{S}$	Nickel (II)-8-hydroxy-quinoline-5-sulfonic acid, water complex	-	S	Struct	Morita	SK	32 (1959)	83
$\text{NiC}_9\text{H}_{10}\text{NO}_6\text{S} \cdot 2\text{H}_2\text{O}$	Nickel (II)-8-hydroxy-quinoline-5-sulfonic acid water complex	-	S	Struct	Norita	SK	32 (1959)	83
$\text{NiC}_9\text{H}_{15}\text{O}_3\text{P}$	Nickel carbonmonoxide, triethylphosphine complex	-	-	Struct, Freq, FC	Bigorgne	BSCF	- (1960)	1986

$\text{NiC}_9\text{H}_{15}\text{O}^{\text{P}}_6$	Nickel carbonmonoxide, triethoxyphosphine complex	-	-	Struct, Freq, FC	Bigorgne	BSCF	- (1960)	1986
$\text{NiC}_{10}\text{H}_{11}\text{O}$	Nickel (II)-cyclopenta- dien complex	$\frac{-}{2-16\mu}$ $\frac{775-1440}{\text{S}}$	-	Struct Spec	Wilkinson: Wilkinson Dunitz	JACS JACS JCP	75 (1953) 76 (1954) 23 (1955)	1011 1970 954
$\text{NiC}_{10}\text{H}_{10}\text{O}^{\text{D}}_4$ $\text{C}_{12}\text{N}_{12}\text{O}_4$	Nickel (II)- γ -chloro- allylglycine complex- δ^4	$\frac{2-15\mu}{2-15\mu}$ S	Assign	Struct, Freq	Moreno	SA	16 (1960)	1368
$\text{NiC}_{10}\text{H}_{12}\text{D}_2\text{N}_2\text{O}_2$	Nickel (II)-allyl- glycine complex- δ^4	$\frac{2-15\mu}{2-15\mu}$ S	Assign	Assign	Moreno	SA	16 (1960)	1368
$\text{NiC}_{10}\text{H}_{14}\text{Br}_2\text{N}_2\text{O}_4$	Nickel (II)- γ -bromo- allylglycine complex	$\frac{2-15\mu}{2-15\mu}$ S	Assign	Assign	Moreno	SA	16 (1960)	1368
$\text{NiC}_{10}\text{H}_{14}\text{Cl}_4\text{N}_4$	Nickel (II)- γ -chloro- allylglycine complex	$\frac{2-15\mu}{2-15\mu}$ S	Assign	Assign	Moreno	SA	16 (1960)	1368
$\text{NiC}_{10}\text{H}_{16}\text{N}_2\text{O}_4$	Nickel (II)-allylglycine complex	$\frac{2-15\mu}{2-15\mu}$ S	Assign	Assign	Moreno	SA	16 (1960)	1368
$\text{NiC}_{10}\text{H}_{20}\text{N}_2\text{O}_{12}\text{Na}_2$	Nickel (II)-ethylene- diamine tetraacetic acid complex (sodium salt)	800-1800 S	Freq assign	Sawyer	JACS	81 (1959)	816	
$\text{NiC}_{10}\text{H}_{27}\text{OP}_3$	Nickel (0)-carbon- monoxide, trimethyl phosphine complex	-	-	Struct, Freq, FC	Bigorgne	BSCF	- (1960)	1986
$\text{NiC}_{10}\text{H}_{27}\text{O}_{10}^{\text{P}}_3$	Nickel (0)-carbon- monoxide, trimethoxy phosphine complex	-	-	Struct, Freq, FC	Bigorgne	BSCF	- (1960)	1986
$\text{NiC}_{12}\text{H}_{18}\text{N}_2\text{O}_2$	Nickel carbonmonoxide, pyridine complex	-	S	Freq, FC	Nyholm	JCS	- (1953)	2670

NiC ₁₂ H ₈ N ₂ O ₄	Nickel (II)-2-pyridine carboxylic acid chelate	-	-	Struct	Lumme	SK	31 (1958)	294
NiC ₁₂ H ₁₆ D ₂ N ₄ O ₄	Nickel (II)-1,2-cyclohexanedionedioxime complex-d ₂	2-16/ μ	S	Spec, H bond	Voter	AC	23 (1951)	1730
NiC ₁₂ H ₁₆ O ₂ As ₂	Nickel carbonmonoxide dimethylarsine, O-phenylene complex	-	S, Sol	Freq, FC	Nyholm	JCS	- (1953)	2670
NiC ₁₂ H ₁₈ N ₄ O ₄	Nickel (II)-cyclohexane-1:2-dionedioxime complex	2-16/ μ 800-3200	S S	Spec, H bond Spec, H bond, Assign	Voter Blinc	AC JCS	23 (1951) - (1958)	1730 4536
NiC ₁₂ H ₂₀ N ₂ O ₄	Nickel (II)-methyl allylglycine complex	2-15/ μ	S	Assign	Moreno	SA	16 (1960)	1368
NiC ₁₂ H ₂₄ N ₂ O ₄	Nickel (II)-leucine complex	2-7/ μ	S	Chelation	Rosenberg	ACS	10 (1956)	840
NiC ₁₂ H ₃₀ Cl ₂ N ₂ Cl ₂	Nickel (II)-biacetyl dihydrazone complex chloride	600-3500	S	Spec, Assign	Stoufer	JACS	82 (1960)	3491
NiC ₁₂ H ₃₀ N ₂ O ₆ P ₂	Nickel (II)-nitrate triethyl phosphine complex	700-4000 700-4000	S S	Assign Assign	Gatehouse Gatehouse	JCS JINC	- (1957) - (1958)	4222 75
NiC ₁₂ H ₃₆ Br ₂ O ₆ S ₆	Nickel (II)-dimethyl sulfoxide complex bromide	650-4000	S	Spec, Assign	Cotton	JPC	64 (1960)	1534
NiC ₁₂ H ₃₆ Cl ₂ O ₁₄ S ₆	Nickel (II)-dimethyl sulfoxide complex perchlorate	650-4000	S	Spec, Assign	Cotton	JPC	64 (1960)	1534
NiC ₁₃ H ₄₅ OP ₃	Nickel (0)-carbonmonoxide, triethyl phosphine complex	-	-	Struct, Freq, FC	Bigorgne	ESCF	- (1960)	1986

NiC ₁₄ H ₁₀ O ₂ S ₂	Nickel-2-mercaptopropionate	-	S	Freq	Bryant	JOC	19 (1954)	1889
NiC ₁₄ H ₂₀ D ₂ N ₄ O ₄	Nickel (II)-1,2-cycloheptane dione dioxime complex-d ₂	2-16 μ	S	Spec, H bond	Voter	AC	23 (1951)	1730
NiC ₁₄ H ₂₀ O ₄	Nickel-methacronyl acetone complex	1200-1800	S	Assign	Charette	SA	16 (1960)	689
NiC ₁₄ H ₂₂ N ₄ O ₄	Nickel (II)-1,2-cycloheptane dione-dioxime complex	2-16 μ	S	Spec, H bond	Voter	AC	23 (1951)	1730
NiC ₁₄ H ₃₀ O ₂ P ₂	Nickel-carbonmonoxide triethyl phosphine complex	-	-	Struct, Fred, FC	Bigorgne	BSCF	- (1960)	1986
NiC ₁₄ H ₃₀ O ₂ P ₂	Nickel-carbonmonoxide triethoxyphosphine complex	-	-	Struct, Fred, FC	Bigorgne	BSCF	- (1960)	1986
NiC ₁₅ H ₂₇ O ₂ P	Nickel (O)-carbonmonoxide tri-n-butyl-phosphine complex	-	-	Struct, Freq, FC	Bigorgne	BSCF	- (1960)	1986
NiC ₁₆ H ₂₈ O ₄	Nickel-pivaloyl acetone complex	1200-1800	S	Assign	Charette	SA	16 (1960)	689
NiC ₁₆ H ₃₆ O ₂ P ₂	Nickel (II)-di-n-butylphosphate	714-5000	S	Interaction studies	Smith	J INC	9 (1959)	150
NiC ₁₈ H ₁₁ N ₂ O ₂ S ₂ Na	Nickel (II)-8-hydroxy-quinoline-5-sulfonic acid complex (sodium salt)	-	S	Struct	Norita	SK	32B (1959)	83
NiC ₁₈ H ₁₂ N ₂ O ₂	Nickel (II)-8-hydroxy-quinolate	8-15 μ	S	Spec Spec, Assign	Charles Charles	AC SA	25 (1953) 8 (1956)	530 1

NiC ₁₈ H ₁₅ N ₂ O ₁₀ S ₂ Na	Nickel (II)-8-hydroxy-quinoline-5-sulfonic acid, water complex (sodium salt)	-	S	Struct		Norita	SK	32B (1959)	83
NiC ₁₉ H ₄₅ O ₄ P	Nickel (0)-carbonmonoxide, - triethoxyphosphine complex	-	-	Struct, Freq, FC		Bigorgne	bSCF	- (1960)	1986
NiC ₂₀ H ₁₂ N ₂ O ₄ P	Nickel (II)-8-quinoline-carboxylic acid chelate	-	-	Struct		Lamme	SK	31B (1958)	294
NiC ₂₀ H ₁₆ N ₂ O ₂	2-Methyl-8-hydroxy-quinoline nickel (II) chelate	8-15μ	S	Assign, Spec		Charles	SA	8 (1956)	1
NiC ₂₀ H ₁₆ N ₂ O ₂	4-Methyl-8-hydroxy-quinoline nickel (II) chelate	8-15μ	S	Assign, Spec		Charles	SA	8 (1956)	1
NiC ₂₁ H ₁₅ O ₃ P	Nickel (0)-carbon-monoxide, triphenyl-phosphine complex	-	-	Struct, Freq, FC		Bigorgne	bSCF	- (1960)	1986
NiC ₂₁ H ₁₅ O ₆ P	Nickel (0)-carbon-monoxide, triphenoxyl-phosphine complex	-	-	Struct, Freq, FC		Bigorgne	bSCF	- (1960)	1986
NiC ₂₂ H ₂₀ N ₆ O ₂	Nickel (II)-pyridine, isothiocyanate complex	-	S	Freq assign		Mitchell	JCS	- (1960)	1942
NiC ₂₆ H ₅₄ N ₈ O ₂ P	Nickel (0)-carbon-monoxide, tri-n-butoxyphosphine complex	-	-	Struct, Freq, FC		Bigorgne	bSCF	- (1960)	1986
NiC ₂₈ H ₂₄ C ₁₂ N ₄	Nickel (II)-mesostilbenediamine complex chloride	-	-	Struct		Furlani	GCI	88 (1958)	279

$\text{NiC}_{30}\text{H}_{26}\text{N}_4\text{O}_4$	Nickel (II)-mesostilbene-diamine complex	-	-	Struct	Furlani	GCI	88 (1958)	279
$\text{NiC}_{32}\text{H}_{16}\text{N}_8$	Nickel phthalocyanine	$3\text{-}15 \mu$	S	Spec	Eberts	JACS	74 (1952)	2806
$\text{NiC}_{32}\text{H}_{23}\text{Cl}_2\text{N}_4\text{O}_4$	Nickel (II)-mesostilbene diamine complex chloroacetate	-	-	Struct	Furlani	GCI	88 (1958)	279
$\text{NiC}_{36}\text{H}_{24}\text{Cl}_2\text{N}_6\text{O}_8$	Nickel-1:10-phenanthroline complex perchlorate	600-200C	S	Spec	Schilt	JINC	9 (1959)	211
$\text{NiC}_{37}\text{H}_{81}\text{O}_4\text{P}_3$	Nickel-carbonmonoxide, tri-n-butoxyphosphine complex	-	-	Struct, Freq, FC	Bigorgne	BSCF	- (1960)	1986
$\text{NiC}_{38}\text{H}_{30}\text{O}_2\text{P}_2$	Nickel-carbonmonoxide, triphenylphosphine complex	-	-	Struct, Freq, FC	Bigorgne	BSCF	- (1960)	1986
$\text{NiC}_{38}\text{H}_{30}\text{O}_8\text{P}_2$	Nickel-carbonmonoxide, triphenoxyphosphine complex	-	-	Struct, Freq, FC	Bigorgne	BSCF	- (1960)	1986
$\text{NiC}_{55}\text{H}_{45}\text{O}_{10}\text{P}_3$	Nickel-carbonmonoxide, triphenylphosphine complex	-	-	Struct, Freq, FC	Bigorgne	BSCF	- (1960)	1986
$\text{NiC}_{72}\text{H}_{60}\text{Cl}_2\text{O}_4\text{P}_4$	Nickel (II)-triphenyl-phosphire oxide complex perchlorate	900-1300	S	Freq	Cotton	JCS	- (1960)	2199
						Character	SA	16 (1960) 689

NiC ₁₈ O ₃ H ₁₀ ⁰	Nickel polymethacryl acetone complex	1200-1800	S	Assign	Charette	SA	16 (1960)	689
NiH	Nickel hydride	-	-	FC FC	Platt Sheline	JCP JCP	18 (1950) 18 (1950)	932 927
NiHO ₃ P·H ₂ O	Nickel orthophosphite monohydrate	2-15 μ	S	Group freq, I, Assign	Corbridge	JCS	- (1954)	493
NiH ₄ F ₃ N	Ammonium fluoride nickel fluoride	1400-4000	S	Spec	Crockett	JACS	82 (1960)	4158
NiH ₄ NO ₉ S ₄ K ₃	Nickel (I)-nitric oxide, thiosulphate complex (potassium salt) dihydrate	1700-2050	S	Struct	Lewis	JINC	7 (1958)	32
NiH ₄ N ₂ O ₆ S ₂	Nickel sulfamate	-	-	Freq, Assign	Bicelli	AC	47 (1957)	1380
NiH ₈ C ₁₂ N ₄	Nickel hydrazine complex chloride	15-35 μ	-	Freq	Sacconi	N	186 (1960)	549
NiH ₈ N ₂ O ₆ S ₂	Nickel ammonium sulfate	0.8-1.25 μ 0.8-1.1 μ	Sol L	Magnetic rotation Beer's law	Ingersoll Chatterjee	JOSA JCP	6 (1922) 20 (1952)	663 344
NiH ₁₂ O ₆	Hexaquonickel ion	-	S, Sol	Freq, FC	Schultz	JCP	10 (1942)	194
NiH ₁₈ C ₁₂ N ₆	Nickel (II)-ammonia complex chloride	2-15 μ 650-1650	S -	FC, Freq, Assign Freq Freq	Kobayashi Svatos Wilmshurst	JCP JACS CJC	23 (1955) 79 (1957) 38 (1960)	1354 3313 467
NiH ₁₈ N ₆	Hexamine nickel ion	-	-	Freq, FC	Schultz	JCP	10 (1942)	194

NiCl ₂	Nickel chloride	0-1.4 μ 0.8-1.1 μ 1-15 μ -	Sol L Sol G	Spec Beer's law Spec Freq, FC	Coblentz Chatterjee Lagerquist Randall	BBS JCP AF JPC	7 (1911) 20 (1952) 12 (1957) 63 (1959)	619 344 491 758
NiCl ₂ · 6H ₂ O	Nickel (II)-chloride hexahydrate	900-1100	S	H bond	Fujita	JACS	78 (1956)	3963
NiCl ₂ · 6H ₂ O	Nickel (II)-perchlorate hexahydrate	900-1100	S	H bond	Fujita	JACS	78 (1956)	3963
NiF ₄	Nickel (IV)-tetra-fluoride	-	S	Freq, Struct	Peacock	JCS	- (1959)	2762
NiF ₄	Nickel (II)-complex fluoro ion	-	S	Freq, Struct	Peacock	JCS	- (1959)	2762
NiF ₆ Si	Nickel fluoro silicate	488-735	-	Band study	deLatte	JCP	20 (1952)	1180
NiI ₂ O ₆	Nickel iodate	-	S	Spec, Struct	Dasent	JCS	- (1960)	2429
NiN ₂ O ₆	Nickel (II)-nitrate	0.6-1.5 μ 2-16 μ	Sol S	Spec Spec	Coblentz Meloche	BBS JINC	14 (1918) 6 (1958)	653 104
NiN ₂ O ₆ · 6H ₂ O	Nickel nitrate hexahydrate	700-1600 300-880	S S	Freq, Assign Spec	Ferraro Miller	JMS SA	4 (1960) 16 (1960)	99 135
NiN ₆ O ₁₂	Nickel (II)-nitrite complex ion	400-5000	S	Spec, Freq, Assign	Nakamoto	JACS	80 (1958)	4817
NiO	Nickel oxide	1-15 μ 800-2300	S S	Spec Spec	Johnston Morin	PR PR	93 (1954) 93 (1954)	634 1199

NiO ₄ S	Nickel sulfate	0.8-1.5μ 8-12μ	sol L	Spec Reflection	Coblentz Plyler Duval Chatterjee Tai	BBS PR CPK JCP AC	14 (1918) 28 (1926) 227 (1948) 20 (1952) 29 (1957)	653 284 1153 344 1430
		-	-	Interpretation of spec				
		0.8-1.1μ 7.5-10.0μ	L S	Beer's law Spec, Anal				
NiO ₄ S·6H ₂ O	Nickel sulfate hexa- hydrate	2.2μ 0.7-1.9μ 2-16μ	S S	Absorption Magnetic rotation: Spec	Ingersoll Breen Meloche	PH PR J INC	57 (1940) 64 (1943) 6 (1958)	1145 75 104
NiO ₄ S·7H ₂ O	Nickel sulfate hepta- hydrate	- 900-1100	- S	Quant. Mech. H bond	Vanvleck Fujiita	JCP JACS	7 (1939) 78 (1956)	72 3963
NiO ₄ Fe ₂	Nickel ferrite	- -	-	Absorption Microwave	Kapian Brown Waldron	JCP PR PR	21 (1953) 93 (1954) 99 (1955)	760 381 1727
		280-4000	S	Spec, Assign, FC, I, Thermo.				
		10-500	-	Reflection and transmission	Mitsubishi	JPSJ	13 (1958)	1236
NiO ₄ Mn ₂	Nickel manganite	350-5800	S	Spec, FC	Dasgupta	IWS	53 (1956)	909
NiO ₁₀ ^P ₃ Na ₃ · 12H ₂ O	Nickel trisodium triposphate dode- cahydrate	2-15μ	S	Freq, I, Assign	Corbridge	JCS	- (1954)	493
Ni ₂ C ₆ N ₆ K ₄	Nickel cyanide complex (potassium salt)	2.5-15μ 2000-2150	S S	Struct Struct	Sayed Griffith	JACS J INC	78 (1956) 7 (1958)	702 295

$\text{Ni}_2\text{C}_8\text{N}_6\text{O}_2\text{K}_4$	Nickel carbonmonoxide cyanide complex (potassium salt)	1800-2200	S	Spec., Struct	Griffith	JINC	10 (1959)	23
$\text{Ni}_2\text{H}_4\text{N}_4\text{O}_8\text{P}_4 \cdot 2\text{H}_2\text{O}$	Dinickel tetraphosphonitrilate 2.5 hydrate	80.2-3140	S	I, Group freq	Corbridge	JCS	- (1954)	4555
$\text{Ni}_3\text{CH}_4\text{O}_7 \cdot 4\text{H}_2\text{O}$	Basic nickel carbonate tetrahydrate	2-16 μ	S	Comparison	Meloche	JINC	6 (1958)	104
$\text{Ni}_3\text{C}_{15}\text{H}_3\text{F}_{18}\text{O}_{16}$	Nickel (II)-syn-hexafluoroacetyl-acetone complex (trimer)	280-1700	-	Band study	Nakamoto	N	183 (1959)	459
$\text{Ni}_3\text{C}_{15}\text{H}_{12}\text{F}_9\text{O}_6$	Nickel (II)-1,1,1-trifluoroacetyl-acetone complex (trimer)	280-1700	-	Band study	Nakamoto	N	183 (1959)	459
$\text{Ni}_3\text{C}_{15}\text{H}_{21}\text{O}_6$	Nickel (II)-acetonyl-acetone complex (trimer)	280-1700	-	Band study	Nakamoto	N	183 (1959)	459
$\text{Ni}_3\text{C}_{30}\text{H}_{27}\text{O}_6$	Nickel (II)-benzoyl-acetone complex (trimer)	280-1700	-	Band study	Nakamoto	N	183 (1959)	459
$\text{Ni}_3\text{C}_{45}\text{H}_{33}\text{O}_6$	Nickel (II)- ω -benzoyl acetophenone complex (trimer)	280-1700	-	Band study	Nakamoto	N	183 (1959)	459

$\text{Ni}_3\text{O}_6\text{P}_2\text{S}_2$	Trinickel bisphosphoromonothioate	885-3360	S	I, Freq	Corbridge	JCS	-	(1954)	4555
$\text{Ni}_3\text{O}_8\text{P}_2$	Nickel orthophosphate	290-650	S	Assign	Duval	CPH	239 (1954)		259
$\text{Ni}_3\text{O}_8\text{P}_2 \cdot 7\text{H}_2\text{O}$	Nickel (II)-phosphate heptahydrate	2-16 μ 2-16 μ	S	Spec	Miller	AC	24 (1952)	1253	
		300-880	S	Spec	Melchoe	JINC	6 (1958)	104	
			S	Spec	Miller	SA	16 (1960)	135	
<u>Np COMPOUNDS</u>									
$\text{NpC}_6\text{H}_9\text{O}_8\text{Na}$	Sodium neptunyl acetate	400-3000	S	Freq, Assign, FC	Jones	JCP	23 (1955)		2105
$\text{NpCl}_2\text{Rb}_{10}$	Neptunyl perchlorate	800-1060	Sol	FC, Spec	Jones	JCP	21 (1953)		542
NpF_6	Neptunium hexafluoride	2-38 μ - -	S	Spec, Assign FC John-Peller effect	Malm Califano Weinstock	JCP AAN JCP	23 (1955) 25 (1958) 31 (1959)	2192 284 262	
$\text{NpN}_3\text{O}_{11}\text{Rb}$	Rubidium neptunyl nitrate	.6-1.3 μ	L	Temp effect	Waggener	JACS	80 (1958)	3167	
NpO_2	Neptunium dioxide ion	-	-	Spec	Gruen	JCP	20 (1952) .	1818	

Organic Compounds

$\text{OsCl}_4\text{BrCl}_3\text{N}_2$	p-Bromobenzene-diazonium chloride, osmium chloride double salt	-	-	Struct	Kazitsyana	IANS	-	(1960)	1523
$\text{OsC}_6\text{N}_6\text{K}_4$	Osmium (II)-cyanide complex (potassium salt)	$250-2200$	$2-5\mu$	S Spec Assign	Bonino Hidalgo	AAN CFR	25 249	(1958) (1959)	401 233
$\text{O}_{\text{sh}}\text{N}_5\text{O}_{10}\text{K}_2$	Osmium (III)-hydroxide, nitric oxide, nitrite complex	-	-	FC	Platt	JCP	18	(1950)	32
OsCl_5NK_2	Potassium nitrilo-pentachloroosmate	-	$0-1.3\mu$	S Spec, Freq	Lewis	J INC	7	(1958)	32
OsF_4	Osmium tetrafluoride	-	S	Freq, Struct	Peacock	JCS	6	(1958)	12
OsF_6	Osmium hexafluoride	$2500-4000$	G	Assign Jahn-Teller effect	Moffitt Weinstock	MP JCP	2	(1959)	109
OsF_6	-	$6-50\mu$	G	Spec, Thermo.	Weinstock	JCP	31 32	(1959) (1960)	262 181
OsNO_3K	Osmium octafluoride	-	-	Quant. Mech.	Wilson	JCP	2	(1934)	432
OsN_2K	Potassium osmiamate	$0-1.3\mu$	S	Spec, Freq	Lewis	J INC	6	(1958)	12
OsN_2	Osmium tetroxide	$324-971$	S, I,	Fren. assiam	Woodward	TRES	52	(1956)	615

PbC	Lead carbide	-	-	Freq	Clark	TFS	33 (1937)	1390
PbCH ₃ O ₃ P	Lead methylphosphonate	758-1420	S	Freq, I	Corbridge	JCS	- (1954)	4555
PbCO ₃	Lead carbonate	-	-	Freq, Assign	Schaefer	TFS	25 (1929)	841
	2-16 μ	S		Spec	Miller	AC	24 (1952)	1253
	2-16 μ	S		Spec	Meloche	JINC	6 (1958)	104
	2-15 μ	S		Spec	Harkins	AC	31 (1959)	541
	300-880	S		Spec	Miller	SA	16 (1960)	135
PbC ₂ N ₂ S ₂	Lead thiocyanate	2-16 μ	S	Spec	Miller	AC	24 (1952)	1253
	-	S	Usage	Resnik	AC	29 (1957)	1874	
	2-15 μ	S	Spec	Wiberly	AC	29 (1957)	210	
	300-880	S	Spec	Miller	SA	16 (1960)	135	
PbC ₄ H ₁₂	Tetramethyl lead	1-16 μ	G	Spec	Katterring	P	4 (1933)	39
	-	-	Assign	Anderson	JCP	4 (1936)	161	
	-	-	CH Potential barrier	French	JCP	14 (1946)	389	
	-	-	Freq, Assign	Young	JACS	69 (1947)	1410	
	2-23 μ	L,G	Spec, Assign	Sheline	JCP	18 (1950)	595	
	-	-	FC	Sheline	JCP	18 (1950)	602	
	470-3000	L,G	I, Assign	Lippincott	JACS	75 (1953)	4141	
	600-1700	S	Spec, Freq, Struct	Zingaro	JACS	76 (1954)	816	
	-	-	Group freq	Leonard	JACS	77 (1955)	2029	
	1158	-	Freq	Sheppard	TFS	51 (1955)	1465	
PbC ₆ HN ₃ O ⁺ H ₂ O	Lead styphnate hydrate (normal)	600-1700	S	Spec, Struct	Zingaro	JACS	76 (1954)	816

2202

$\text{PbC}_6\text{H}_5\text{O}_4^{\text{P}}$	Lead phenyl phosphate	670-3500	-	Spec, Assign	Bellamy	JCS	-	(1953)	728
$\text{PbC}_6\text{H}_{10}\text{O}_2\text{S}$	Ethyyl lead dixanthate	2.8-15 μ	S	Spec	Pearson	APS	12	(1958)	116
$\text{PbC}_8\text{H}_{18}\text{O}_4^{\text{P}}$	Lead diisobutyl phosphate	670-3500	-	Spec, Assign	Bellamy	JCS	-	(1953)	728
$\text{PbC}_8\text{H}_{20}$	Tetraethyl lead	1-16 μ	L	Spec	Kattering Pai Anderson	P PRIS JCP	4 149 (1935) 4 (1936)	(1933) 29 161	39
		-	-	Spec, Freq					
		-	-	Assign					
$\text{PbC}_{10}\text{H}_{10}$	Cyclopentadienyl lead	400-4000	sol	Spec, Struct	Dave	JCS	-	(1959)	3684
$\text{PbC}_{10}\text{H}_{12}\text{Cl}_6\text{N}_2$	Pyridinium hexachloro- plumbate	-	S	H bond, Freq	Nuttall	JCS	-	(1960)	4965
$\text{PbC}_{10}\text{H}_{12}\text{N}_2\text{O}_9\text{Na}_2 \cdot \text{H}_2\text{O}$	Lead (II)-ethylene-diamine tetracetic acid complex (sodium salt) monohydrate	800-1800	S	Freq, Assign	Sawyer	JACS	81	(1959)	816
$\text{PbC}_{10}\text{H}_{22}\text{O}_4^{\text{P}}$	Lead diisocamyl phosphate	670-3500	-	Spec, Assign	Bellamy	JCS	-	(1953)	728
$\text{PbC}_{12}\text{H}_8\text{N}_2\text{O}_4$	Lead (II)-2-pyridine carboxylic acid chelate	-	-	Struct	Lumm	SK	31	(1958)	294
$\text{PbC}_{12}\text{H}_8\text{N}_2\text{O}_8^{\text{P}}$	Lead di-p-nitrophenyl phosphate	670-3500	-	Assign, Spec	Bellamy	JCS	-	(1953)	728

PbC ₁₂ C ₁₂ O ₈	Lead trichloro-acrylate	700-1600	-	Spec	Duval	RIC	69 (1950)	391
PbC ₁₄ H ₁₀ C ₂ S ₂	Lead-2-mercaptop-troponate	-	S	Band freq	Bryant	JJC	19 (1954)	1889
PbC ₁₄ H ₁₀ O ₄	Lead tropolonate	-	S, Sol	Band freq	Bryant	JJC	19 (1954)	1889
PbC ₁₄ H ₁₄ O ₄ F	Lead dibenzyl phosphate	670-3500	-	Spec, Assign	Bellamy	JCS	- (1953)	728
PbC ₁₄ H ₂₁ O ₄ P	Lead-p-octyl phenyl phosphate	670-3500	-	Spec, Assign	Bellamy	JCS	- (1953)	728
PbC ₁₆ H ₃₆ O ₈ P ₂	Lead-di-n-butyl-phosphate	714-5000	S	Interaction study	Smith	JINC	9 (1959)	150
PbC ₁₈ H ₁₂ N ₂ O ₂	Lead (II)-8-hydroxy-quinolate	-8-15 μ	S	Spec Assign, Spec	Charles Charles	AC SA	25 (1953) 8 (1956)	530 1
PbC ₁₈ H ₁₆ O	Triphenyl lead hydroxide	-	Sol	H bond	West	JACS	82 (1960)	6269
PbC ₂₀ H ₁₂ N ₂ O ₄	Lead (II)-8-quinoline carboxylic acid chelate	-	-	Struct	Lumine	JK	31 (1958)	294
PbC ₂₀ H ₂₂ O ₄	Lead α -isopropyl tropolonate	-	S	Freq	Bryant	JJC	19 (1954)	1889

$\text{PbC}_{24}\text{H}_{16}\text{C}_{12}\text{N}_8\text{O}_8$	Lead (II)-1:10-phenanthroline complex perchlorate	600-250ν	S	Spec	Schilt	J INC	- (1959)	211
$\text{PbC}_{24}\text{H}_{20}$	Tetraphenyl lead	625-900 8-11μ	S	Vibrations Band study	Margoshes Noltes	SA CIL	7 (1955) - (1959)	114 298
$\text{PbC}_{36}\text{H}_{70}\text{O}_4$	Lead stearate	6-8μ	S	Spec	Ellis	N	181 (1958)	181
$\text{PbC}_{48}\text{H}_{32}\text{C}_{12}\text{N}_8\text{O}_8$	Lead (II)-1:10-phenanthroline complex perchlorate	600-2000	S	Spec	Schilt	J INC	9 (1959)	211
PbH	Lead monohydrate	-	-	Spec FC	Watson Sheline	PR JCP	57 (1940) 18 (1950)	708 927
PbHO ₂ P	Lead orthophosphate	2-15μ	S	Spec, Freq, I, Assign	Corbridge	JCS	- (1954)	493
PbHOAs	Lead orthoarsenate	2-16μ 300-880	S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
PbH ₄ N ₂ O ₆ S ₂	Lead sulfamate	-	S	Freq assign	Bicelli	AC	47 (1957)	1380
PbH ₄ O ₄ P ₂	Lead phosphinate	2-15μ	S	Freq, I, Assign	Corbridge	JCS	- (1954)	493
PbH ₈ C ₁₆ N ₂	Diammonium lead hexachloride	-	S	Freq	Cox	JCS	- (1954)	1798
PbCl	Lead monochloride	-	-	Residual rays	Schaefer	TFS	25 (1929)	841

PbCl ₂	Lead chloride	71-114 μ 0-8.7 μ 90-230 μ	S - S	Residual rays Dispersion Spec	Weniger Korff Sinton	JOSA RMP JOSA	7 (1923) 4 (1932) 44 (1954)	517 417 503
PbCl ₄	Lead tetrachloride	-	-	FC	Bowers	JCP	21 (1953)	1117
PbFO ₃ ^P	Lead monofluoro-phosphate	783-1110	S	I, Group freq	Corbridge	JCS	-	(1954) 4555
PbF ₄	Lead tetrafluoride	-	S	Freq, Struct	Peacock	JCS	-	(1954) 2762
PbI ₂	Lead iodide	0.4-2 μ	S	Photoelectrical properties	Coblentz	BES	18 (1922)	489
PbI ₂ O ₆	Lead iodate	-	S	Spec, Struct	Dasent	JCS	-	(1960) 2429
PbI ₆ ⁰ K ₂	Potassium lead (IV) iodate	-	S	Spec, Struct	Dasent	JCS	-	(1960) 2429
PbN ₂ O ₂	Lead hyponitrite	-	S	Freq	LeFeuvre	AJC	10 (1957)	361
PbN ₂ O ₆	Lead nitrate	-	S	Reflection factors Residual rays	Weniger Schaefer Newman Miller Meloche Addison Ferraro Miller	JOSA RFS JCP AC JINC JCS JMS SA	7 (1923) 25 (1929); 18 (1950) 24 (1952) 6 (1958) - (1960) 4 (1960) 16 (1960)	517 841 1291 1253 104 613 99 135
PbN ₃	Lead azide	-	-	Assign	Sutherland	RHS	156 (1936)	678

PbO	Lead oxide	1-8 μ	S	Emission	Coblenz	BBS	5 (1908)	159
		5-50 μ	S	Absorption	Cartwright	PR	35 (1930)	415
		-	-	FC	Badger	JCP	2 (1934)	128
		-	-	Mol. Const.	Pekersi	PR	45 (1934)	98
		-	-	FC	Badger	PR	48 (1935)	284
		0.8-20 μ	S	Reflectance	Agnew	JOSA	43 (1953)	999
		-	-	FC	Baughan	TRS	53 (1957)	1046
PbO ₃ Ti	Lead titanate	-	-	Spec	Yatsenko	IANS	24 (1960)	1308
PbO ₃ Zr	Lead zirconate	-	-	Spec	Yatsenko	IANS	24 (1960)	1308
PbO ₄ S	Lead sulfate	300-880	S	Spec	Miller	SA	16 (1960)	135
PbO ₄ B ₂	Lead metaborate	680-1420	S	Spec	Duval	JOSA	44 (1954)	261
PbO ₄ B ₂ H ₂ O	Lead borite monohydrate	2-16 μ	S	Spec	Miller	AC	24 (1952)	1253
		300-880	S	Spec	Miller	SA	16 (1960)	135
PbO ₄ Cr	Lead chromate	2-15 μ	S	Spec	Harkins	AC	31 (1959)	541
PbO ₄ Se	Lead selenate	290-650	S	Assign	Duval	CPR	239 (1954)	249
		220-3500	S	Spec, Struct	Duval	ZE	64 (1960)	582
PbS	Lead sulfide	0.8-20 μ	S	Reflectance	Agnew	JOSA	43 (1953)	999
		-	S	Photoconductivity	Jones	JOSA	43 (1953)	1008
		1-3.2 μ	S	Photoresponse	Mitchell	PR	93 (1954)	1421
		90-230 μ	S	Spec	Sinton	JOSA	44 (1954)	503
		600-1700	S	Spec, Freq, Struct	Zirgaro	JACS	76 (1954)	816
		1-5.5 μ	S	Spec	Braithwaite	JSI	321 (1955)	10
		-	S	Mol. Const.	Scott	JOSA	45 (1955)	176
		20-200 μ	S	Refl. Curves	Yoshinaga	PR	100 (1955)	753
		-	S	Preparation of film	Harada	JCP	24 (1956)	447
		2-3.5 μ	S	Photoconductivity	Smith	PRS	235 (1956)	1

REFLECTION AND ABSORPTION SPECTRA OF LEAD OXIDE, ZIRCONIA, AND LEAD CHROMATE

J. D. BROWN

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PbSe	Lead selenide	0.8-20 μ	S	Reflectance	Agnew	JOSA	43 (1953)	999
		3-6 μ	S	Spec	Braithwaite	JSI	32 (1955)	10
		20-200 μ	S	Reflectance curves	Yoshinaga	PR	100 (1955)	753
		1-8 μ	S	Spec	Young	JSI	32 (1955)	142
		2-8 μ	S	Photoconductivity	Smith	PR	235 (1956)	1
PbTe	Lead telluride	2-6 μ	S	Transmission	Clark	PR	85 (1952)	1043
		0.8-20 μ	S	Diffuse reflectance	Agnew	JCSA	43 (1953)	999
		.5-7 μ	S	Transmission	Lasser	PR	96 (1954)	47
		1-6 μ	S	Spec	Bode	Ph	96 (1954)	259
		3-6 μ	S	Spec	Braithwaite	JSI	32 (1955)	10
		1-6 μ	S	Spec	Young	JSI	32 (1955)	142
		2-6 μ	S	Photoconductivity	Smith	PR	235 (1956)	1
Pb ₂ C ₆ H ₃ N ₃ O ₁₀	Lead styphnate (basic)	600-1700	S	Spec, Struct	Zingaro	JACS	76 (1954)	816
	Dilead tetraphospho-nitrilate hydrate	788-3150	S	I, Freq	Corbridge	JCS	- (1954)	4555
Pb ₂ O ₆ N ₄ O ₈ P ₄ · xH ₂ O	Dilead tetraphospho-nitrilate hydrate	892-1076	S	Freq, I	Corbridge	JCS	- (1954)	4555
Pb ₂ O ₆ P ₂	Dilead hypophosphate	2-15 μ	S	Group freq, I, Assign	Corbridge	JCS	- (1954)	4555
Pb ₂ O ₇ P ₂	Dilead pyrophosphate	2-15 μ	S	Freq, I, Assign	Corbridge	JCS	- (1954)	4555
Pb ₂ O ₁₂ P ₄ H ₂ O	Dilead tetrameta-phosphate tetrahydrate	5-50 μ	-	Absorption	Carwright	PR	35 (1930)	415
		1-7 μ	-	Transmission	Pfund	PR	36 (1930)	71
		2-16 μ	S	Spec	Hunt	AC	22 (1950)	1478
Pb ₃ O ₂ H ₂ O	Basic lead carbonate	874-1610	S	I, Freq	Corbridge	JCS	- (1954)	4555
Pb ₃ O ₂ S ₂	Trilead bis-phosphoro-monothioate	2-16 μ	S	Spec	Miller	AC	24 (1952)	1253
Pb ₃ O ₂ P ₂	Lead orthophosphate	2-15 μ	S	Freq, I, Assign	Corbridge	JCS	- (1954)	493
		2-16 μ	S	Spec	Meloche	JINC	6 (1958)	104
		300-880	S	Spec	Miller	SA	16 (1960)	135

$Pb_3O_12As_3$	Lead arsenate	290-650	S	Assign	Duvval	CPR	239 (1954)	249
Pb_3S_3Sb	Lead antimony sulfide	0.7-1.0 μ	S	Photoelectric properties	Coblenz	BBS	18 (1922)	594

Pd COMPOUNDS

Pd	COMPOUNDS							
$PdC_2H_6N_2O_4$	Palladium (II)-ammonia, oxalate complex	299-3250 2-15 μ	S	Assign Assign, Freq	Schmehl, Mizushima	SA SA	9 (1957) 13 (1958)	51 31
$PdC_4H_8N_2O_4$	trans-Palladium (II)-glycine complex	2-15 μ	S	Config, Assign	Saraceno	JACS	80 (1958)	5018
$PdC_4H_{12}Cl_2O_2S_2$	Palladium (II)-dimethyl sulfoxide complex chloride	650-4000	S	Assign, Spec	Cotton	JPC	64 (1960)	1534
$PdC_4H_{16}Cl_2N_8S_4$	Palladium (II)-ethylene-diamine complex chloride	400-1750	S	Spec, Freq, Config	Powell	JCS	- (1959)	791
PdC_4N_4	Palladium (IV)-thiourea complex chloride	2-15 μ	S	Spec, Freq	Yamaguchi	JACS	80 (1958)	527
$PdC_4N_4Cl_2$	Palladium (II)-tetracyanide complex ion	250-2200	S	Spec, Assign	Hidalgo	ARS	56 (1960)	9
$PdCN_4K_2$	Palladium (II)-cyanide complex (potassium salt)	250-2200	S	Spec, Assign Assign	Bonino Hidalgo	AAN CPR	26 (1959) 249 (1959)	137 233

PdC ₄ N ₄ Na ₂	Palladium (II)-cyanide complex (sodium salt)	-	S	Spec, Assign	Bonino	AAN	26 (1959)	137
PdC ₄ O ₈ K ₂ ·2H ₂ O	Palladium (II)-oxalate complex (potassium salt) dihydrate	357-3460	S	Assign	Schmelz	SA	9 (1957)	51
PdC ₆ H ₄ O ₈ K ₂ ·H ₂ O	Palladium (II)-malonic acid complex (potassium salt) monohydrate	2-15 μ	S	Freq, Assign	Schmelz	JACS	81 (1959)	287
PdC ₆ H ₁₄ Br ₂ N ₂	Palladium (II)-bromide, 1,4-dimethyl-piperazine complex	2800-3000	L,S	Assign	Braunholtz	JCS	- (1958)	2780
PdC ₆ H ₁₄ Cl ₂ N ₂	Palladium (II)-dimethyl piperazine, chloride complex	500-1500	S	Spec, Struct	Hendra	JCS	- (1960)	5105
PdC ₈ H ₁₄ N ₄ O ₄	Palladium (II)-dimethyl glyoxime complex	-	-	H bond, Freq Spec	Randle	JCP	20 (1952)	1487
PdC ₈ H ₂₀ C ₁ N ₄	Palladium - chloride, piperazine complex	1800-3200	S	H bond Spec, Assign, H bond	Randle Pimental Bilnc	JACS JCP JCS	76 (1954) 24 (1956) - (1956)	3101 639 4536
		500-1500	S	Spec, Struct	Hendra	JCS	- (1960)	5105

PdC ₈ H ₂₀ O ₂ ⁻ NO ₃ P ₃	trans-Palladium (II)-chloride, piperidine, trimethoxy- phosphine complex	-	Sol	Freq, I	Chat t	JCS	- (1958) 3203
PdC ₈ H ₂₄ C ₁ N ₂ S ₈	Palladium - methylthio- urea complex	2-15μ	S	Spec	Lane	JACS	81 (1959) 3824
PdC ₉ H ₂₁ C ₁ N ₂ S	trans-Palladium (II)-chloride, diethylsulfide, piperidine complex	-	Sol	Freq, I	Chat t	JCS	- (1958) 3203
PdC ₉ H ₂₁ C ₁ N ₂ Se	trans-Palladium (II)-chloride, diethylselenide, piperidine complex	-	Sol	Freq, I	Chat t	JCS	- (1958) 3203
PdC ₁₀ H ₈ N ₄ O ₆	Palladium (II)- 2:2-dipyridine, nitrate complex	700-4000	S	Assign Assign	Gatehouse Gatehouse	JINC	- (1957) 4222 8 (1958) 75
PdC ₁₀ H ₉ O ₂	Palladium (II)- benzoyl acetone complex	1700-280	-	Assign	Nakamoto	N	183 (1959) 459
PdC ₁₀ H ₁₂ N ₂ O ₈ Na ₂	Palladium (II)- ethylenediamine tetraacetic acid complex (sodium salt)	-	-	Spec	Morris	DA	19 (1958) 223

PdC ₁₀ H ₁₂ Cl ₂	Palladium (V)- ethylenediamine tetraacetic acid complex chloride (sodium salt)	-	Spec	Morris	DA	19 (1958) 223
PdC ₁₀ H ₁₄ Cl ₄	Palladium acetyl acetoneate	625-5000 280-1700	S -	Spec, Struct Band study	West Nakamoto	JINC N 183 (1959) 295 459
PdC ₁₀ H ₁₈ Cl ₂	trans-Palladium (II)-chloride, trime thoxy- phosphine, p-toluidine complex	-	Sol	Freq, I	Chatt	JCS - (1958) 3203
PdC ₁₀ H ₂₂ Cl ₂ N ₂	trans-Palladium (II)-chloride, piperidine complex	-	Sol	Freq, I	Chatt	JCS - (1958) 3203
PdC ₁₁ H ₂₆ Cl ₂ NP	trans-Palladium (II)-chloride, piperidine, triethylphosphine complex	-	Sol	Freq, I	Chatt	JCS - (1958) 3203
PdC ₁₁ H ₂₆ Cl ₂ NAs	trans-Palladium (II)-chloride, piperidine, triethylarsine complex	-	Sol	Freq, I	Chatt	JCS - (1958) 3203
PdC ₁₁ H ₂₈ Cl ₂ N ₃ O	trans-Palladium (II)- chloride, n-octyl- amine trime thoxy- phosphine complex	-	Sol	Freq, I	Chatt	JCS - (1958) 3203

PdC ₁₂ H ₈ N ₄ S ₂	Palladium (II)-2,2-dipyridine thiocyanate complex	-	S	Freq, Assign	Mitchell	JCS	- (1960)	1912
PdC ₁₂ H ₁₈ N ₄ O ₄	Palladium (II)-cyclohexane-1:2-dione dioxime complex	800-3200	S	Spec, Assign, H bond	Blinc	JCS	- (1958)	4536
PdC ₁₂ H ₂₈ N ₂ O ₄ Se ₂	Palladium (II)-di-n-propyl-selenide, nitrite complex	1300-1500 800-1500	Sol Sol	Bonding Freq, Struct	Gatehouse Chalt	J INC JCS	8 ('1958) - ('1959)	79 4073
PdC ₁₂ H ₂₈ N ₂ O ₄ Te ₂	Palladium (II)-di-n-propyl-telluride, nitrite complex	1300-1500 800-1500	Sol Sol	Freq, Bonding Freq, Struct	Gatehouse Chalt	J INC JCS	8 ('1958) - ('1959)	79 4073
PdC ₁₃ H ₂₃ C ₁₂ NS	trans-Palladium (II)-chloride, di-n-propyl-sulfide, p-toluidine complex	-	Sol	Freq, Struct	Chat	JCS	- (1958)	3203
PdC ₁₃ H ₂₃ Cl ₂ NSe	trans-Palladium (II)-chloride, di-n-propyl-selenide p-toluidine complex	-	Sol	Freq, Struct	Chat	JCS	- (1959)	3203
PdC ₁₃ H ₂₃ Cl ₂ NTe	trans-Palladium (II)-chloride, di-n-propyltelluride, p-toluidine complex	-	Sol	Freq, I	Chat	JCS	- (1958)	3203

$\text{PdC}_{14}\text{H}_{10}\text{Cl}_0$	Palladium tropolonate	-	S	Band freq	Bryant	JOC	19 (1954)	1889
$\text{PdC}_{14}\text{H}_{32}\text{Cl}_2\text{NP}$	trans-Palladium (II)-chloride, piperidine, tri-n-propyl-phosphine complex	-	Sol	Freq, I	Chatt	JCS	- (1958)	3203
$\text{PdC}_{14}\text{H}_{33}\text{Cl}_2\text{NS}$	trans-Palladium (II)-chloride, di-n-propyl-sulfide n-octyl-amine complex	-	Sol	Freq, I	Chatt	JCS	- (1958)	3203
$\text{PdC}_{14}\text{H}_{33}\text{Cl}_2\text{NSe}$	trans-Palladium (II)-chloride, di-n-propyl-selenide, n-octyl-amine complex	-	Sol	Freq, I	Chatt	JCS	- (1958)	3203
$\text{PdC}_{14}\text{H}_{33}\text{Cl}_2\text{NTe}$	trans-Palladium (II)-chloride, di-n-propyl-telluride n-octylamine complex	-	Sol	Freq, I	Chatt	JCS	- (1958)	3203
$\text{PdC}_{15}\text{H}_{28}\text{Cl}_2\text{N}_2$	trans-Palladium (II)-chloride, n-octylamine, p-toluidine complex	-	Sol	Freq, I	Chatt	JCS	- (1958)	3203
$\text{PdC}_{16}\text{H}_{30}\text{Cl}_2\text{NP}$	trans-Palladium (II)-chloride, tri-n-propyl-phosphine p-toluidine complex	-	Sol	Freq, Mol. Const.	Chatt	JCS	- (1955)	4461
		3000-3500	Sol	H bond	Chatt	JCS	- (1956)	2712
		-	Sol	Freq, I	Chatt	JCS	- (1958)	3203

PdC ₁₆ H ₃₀ C ₁₂ NAs	trans-Palladium (II)-chloride, tri-n-propyl arsine, p- toluidine complex	-	Sol	Freq, I	Chatt	JCS	- (1958)	3203
PdC ₁₆ H ₃₆ N ₂ O ₄ S ₂	Palladium-di- n-butyl- sulfide, nitrite complex	800-1500 1300-1500	Sol Sol	Freq, Struct Bonding	Chatt Gatehouse	JINC JINC	- (1959) 8 (1958)	4073 79
PdC ₁₆ H ₃₈ C ₁₂ N ₂	trans-Palladium (II)-chloride, n-octylamine complex	-	Sol	Freq, I	Chatt	JCS	- (1958)	3203
PdC ₁₈ H ₄₀ C ₁₂ NF	trans-Palladium (II)-chloride, n-octylamine, tri-n-propyl- phosphine complex	-	Sol	Freq, I	Chatt	JCS	- (1958)	3203
PdC ₁₈ H ₄₀ C ₁₂ NAs	trans-Palladium (II)-chloride, n-octylamine, tri-n-propyl- arsine complex	-	Sol	Freq, I	Chatt	JCS	- (1958)	3203
PdC ₂₀ H ₁₈ O ₄	Palladium (II)- benzoyl acetone complex	280-1700	-	Bonding	Makamoto	N	181 (1959)	459
PdC ₂₀ H ₃₀ N ₄ O ₄	trans-Palladium (II)-nitrite, 4-n-pentyl- pyridine complex	1300-1500	Sol	Bonding	Gatehouse	JINC	8 (1958)	79

PdC ₂₃ H ₂₆ Cl ₂ -NO ₃ P	trans-Palladium (II)-chloride, triphenoxy-phosphine complex	-	Sol	Freq, I	Chatt	JCS	- (1958) 3203
PdC ₂₃ H ₂₆ Cl ₂ NP	trans-Palladium (II)-chloride, piperidine, triphenyl-phosphine complex	-	Sol	Freq, I	Chatt	JCS	- (1958) 3203
PdC ₂₄ H ₅₄ N ₂ O ₄ P ₂	Palladium (II)-nitrite tri-n-butylphosphine complex	800-1500 800-1500	Sol Sol	Bonding Freq, Struct	Gatehouse Chatt	JINC JCS	8 (1958) - (1959) 79 4073
PdC ₂₄ H ₅₄ N ₂ O ₄ As ₂	Palladium (II)-nitrite, tri-n-butylarsine complex	1300-1500 800-1500	Sol Sol	Bonding Freq, Struct	Gatehouse Chatt	JINC JCS	8 (1958) - (1959) 79 4073
PdC ₂₅ H ₂₄ Cl ₂ NP	trans-Palladium (II)-chloride, triphenyl-phosphine, p-toluidine complex	-	Sol	Freq, I	Chatt	JCS	- (1958) 3203
PdC ₂₅ H ₂₄ Cl ₂ -NO ₃ P	trans-Palladium (II)-chloride, triphenoxy-phosphine p-toluidine complex	-	Sol	Freq, I	Chatt	JCS	- (1958) 3203

PdC ₂₆ H ₃₄ Cl ₂ ⁰ -NO ₂	trans-Palladium (II)-chloride, n-octylamine-triphenoxylphosphine complex	-	Sol	Freq, I	Chatt	JCS	-	(1958)	3203
PdC ₂₆ H ₃₄ Cl ₂ NF	trans-Palladium (II)-chloride, n-octylamine-biphenylphosphine complex	-	Sol	Freq, I	Chatt	JCS	-	(1958)	3203
PdH ₄ N ₂ O ₈	Palladium (II)-nitrate, water complex	700-4000 700-4000	S S	Assign Assign	Gatehouse Gatehouse	JCS JINC	- 8	(1957) (1958)	42222 75
PdH ₆ Cl ₂ N ₂	cis-Palladium (II)-ammonia-chloride complex	2-15μ	S	Assign, Spec, Freq	Mizushima	SA	13	(1958)	31
PdH ₆ Cl ₂ N ₂	trans-Palladium (II)-ammonia, chloride complex	450-3350 650-1650 2-15μ	S S -	Assign, Freq Freq Assign Freq	Powell Svatos Mizushima Wilmshurst	JACS JACS SA CJC	- 79 13 38	(1956) (1957) (1958) (1960)	3108 3313 31 467
PdH ₁₂ Cl ₂ N ₄	Palladium (II)-ammonia complex chloride	650-1650 2-15μ	S -	Freq Assign, Freq Freq	Svatos Mizushima Wilmshurst	JACS SA CJC	79 13 38	(1957) (1958) (1960)	3313 31 467
PdH ₁₂ Cl ₂ N ₄ ·H ₂ O	Palladium (II)-ammonia complex chloride mono-hydrate	450-3550	S	Assign, Freq	Powell	JCS	-	(1956)	3108

<u>Po COMPOUNDS</u>			
Pd ₆ C ₁₂ N ₂	trans-Palladium (II)-ammonia, chloride complex-d ₆	450-2000	S Assign
PdCl ₄	Palladous tetrachloride ion	-	- Quant. Mech.
PdF ₄	Palladium tetrafluoride	-	S Freq., Struct
Pd ₂ C ₄ H ₈ C ₁ ₄	Palladium (II)-chloride, ethylene complex	400	S Assign
Pd ₂ C ₂₄ H ₅₄ C ₁ ₂ -N ₂ O ₄ P ₂	Palladium (II)-chloride nitrite, tri-n-butyl-phosphine complex	800-1450	S Bonding
Pd ₂ C ₂₄ H ₅₄ N ₂ O ₄ P	Palladium (II)-nitrite tri-n-butylphosphine complex	800-1500	S Freq., Struct
Pd ₂ C ₂₄ H ₅₄ N ₄ -O ₄ P ₂	Palladium (II)-nitric oxide, tri-n-butylphosphine complex	800-1450	S Bonding
Pd ₂ C ₂₆ H ₅₄ N ₂ O ₈ P ₂	Palladium (II)-nitrite oxalate, tri-n-butyl-phosphine complex	800-1500 800-1500	S Bonding Freq., Struct
Pd ₂ H ₁₂ C ₁ ₄ ₄	Tetraamine palladium (II)-tetrachloro-palladate (II)	785-1632	- Freq
PoH		Polonium monohydride	-
PoCl		Sheline	JCP 18 (1950) 927

PoO	Polonium oxide	-	-	Freq	Clark	TFS	33 (1937)	1398
PoS	Polonium sulfide	-	-	Freq, Calculation	Clark	TFS	33 (1937)	1398
PoSe	Polonium selenide	-	-	Freq, Calculation	Clark	TFS	33 (1937)	1398
PoTe	Polonium tellurite	-	-	Freq, Calculation	Clark	TFS	33 (1937)	1398
Po ₂	Polonium	-	-	Freq	Clark	TFS	33 (1937)	1398

Pt COMPOUNDS

Pr ₃ F	Praseodymium fluoride	-	S	Spec Electronic transition	Freed Mandel	JCP JCP	⁸ {1940) 33 (1960)	840 192
<u>Pt COMPOUNDS</u>								
PtCH ₂ Cl ₂ NOK. H ₂ O	Platinum (II)-amide, carbonmonoxide, chloride complex (potassium salt) monohydrate	-	-	Struct	Babushkin	DANS	123 (1958)	461
PtC ₂ H ₄ D ₃ Cl ₂ N	Platinum (II)-ammonia- d ₃ , ethylene complex chloride	400-2000	S	Spec, Assign	Powell	JCS	- (1959)	3089
PtC ₂ H ₄ Cl ₂ NO ₂ K	Platinum (II)-chloride, glycine complex (potassium salt)	2-7μ	S	Chelation effect	Rosenberg	ACS	10 (1956)	840

PtC ₂ H ₄ Cl ₃ K	Platinum (II)-chloride, e ethylene complex (potassium salt)	400-2100	S	Assign	Powell	SA	13 (1958)	69
PtC ₂ H ₄ Cl ₃ K. H ₂ O	Platinum (II)-chloride, e ethylene complex (potassium salt)monohydrate	500-3500 - 400-3100	S - S	Freq Struct Assign	Powell Babushkin Powell	JCS DANS SA	- (1956) 123 (1958) 13 (1958)	4495 461 69
PtC ₂ H ₆ N ₂ O ₄	Platinum (II)-ammonia, oxalate complex	2-15 μ	S	Assign, Freq	Mizushima	SA	13 (1958)	31
PtC ₂ H ₇ Cl ₂ N	Platinum (II)-ammonia chloride, e ethylene complex	400-2000	S	Spec, Assign	Powell	JCS	- (1959)	3089
PtC ₂ H ₇ Cl ₂ N	trans-Platinum (II)-ammonia, e ethylene, chloride complex	450-3300 - 400-2100	S Sol S	Freq Freq, Struct, Config Assign. Freq	Powell Irving Powell	JCS JCS SA	- (1956) - (1958) 13 (1958)	4495 2283 69
PtC ₂ H ₈ Cl ₂ N ₂ S ₂	Platinum (II)-thiourea complex chloride	2-15 μ	S	Spec, Freq	Yamaguchi	JACS	80 (1958)	527
PtC ₃ H ₆ Cl ₂	Cyclopropane platinous chloride	2.5-14 μ	S	Freq	Tipper	JCS	- (1955)	2045
PtC ₃ H ₉ Cl ₂ N	trans-Platinum (II)-chloride, e ethylene, methylamine complex	-	Sol	Freq, H bond	Chatt	JCS	- (1955)	4461
PtC ₄ H ₄ Cl ₂ N ₂ S ₂	Platinum (II)-chloride 1,2-diethiocyanato-ethane, complex	660-3140	S, Sol	Assign	Mizushima	JPC	59 (1955)	293

$\text{PtC}_4\text{H}_8\text{Cl}_2\text{S}_2$	Platinum (II)-dithiane complex chloride	500-1500	S	Spec, Struct.	Hendra	JCS	- (1960)	5105
$\text{PtC}_4\text{H}_8\text{N}_2\text{O}_4$	cis-Platinum (II)-glycine complex	$2-7\mu$ $2-15\mu$	S	Chelation effect Spec, Assign.	Rosenberg Saraceno	ACS JACS	10 (1956) 80 (1958)	840 5018
$\text{PtC}_4\text{H}_8\text{N}_2\text{O}_4$	trans-Platinum (II)-glycine complex	$2-7\mu$ $2-15\mu$	S	Chelation effect Assign, Spec	Rosenberg Saraceno	ACS JACS	10 (1956) 80 (1958)	840 5018
$\text{PtC}_4\text{H}_{11}\text{Cl}_2\text{N}$	trans-Platinum (II)-chloride, dimethylamine, ethylene complex	-	Sol.	Freq	Chatt	JCS	- (1955)	4461
$\text{PtC}_4\text{H}_{11}\text{Cl}_2\text{N}$	trans-Platinum (II)-chloride, ethylamine, ethylene complex	- 3100-3400	Sol. Sol.	Freq Freq, H bond	Chatt Duncanson	JCS JCS	- (1955) - (1960)	4461 3841
$\text{PtC}_4\text{H}_{12}\text{Cl}_2 - \text{O}_2\text{S}_2$	Platinum (II)-dimethyl sulfoxide complex chloride	650-4000	S	Assign, Spec	Cotton	JPC	64 (1960)	1534
$\text{PtC}_4\text{H}_{13}\text{Cl}_2\text{NS}$	trans-Platinum (II)-ammonia, chloride, ethylsulfide, complex	450-3300	Sol.	Freq Freq, Struct, Confis.	Powell Irving	JCS JCS	- (1956) - (1958)	4495 2283
$\text{PtC}_4\text{H}_{16}\text{Cl}_2\text{N}_4$	Platinum (II)-ethylenediamine complex chloride	450-1750	S	Spec, Config.	Powell	JCS	- (1959)	791
$\text{PtC}_4\text{H}_{16}\text{Cl}_2\text{N}_8\text{S}_4$	Platinum (IV)-thiourea complex chloride	$2-5\mu$	S	Spec, Freq	Yamaguchi	JACS	80 (1958)	527

PtC ₄ N ₄	Platinum (II)-tetra-cyanide complex ion	250-2200	S	Spec, Assign	Hidalgo	AmS	56 (1960)	9
PtC ₄ N ₄ K	Platinum (II)-cyanide complex (potassium salt)	2-40 μ 250-2200	S -	Assign, Vibrations Assign	Sweeny Hidalgo	JACS CPR	78 (1956) 249 (1959)	889 239
PtC ₄ N ₄ S ₄ K ₂	Platinum (II)-isothiocyanate complex (potassium salt)	-	S	Freq, Assign	Mitchell	JCS	- (1960)	1912
PtC ₅ H ₁₅ Cl ₂ N	trans-Platinum (II)-chloride, ethylene, propylamine complex	3100-3400	Sol	Freq, H bond	Duncanson	JCS	- (1960)	3841
PtC ₆ H ₁₅ Cl ₂ N	trans-Platinum (II)-t-butylamine, chloride, ethylene complex	3100-3400	Sol	Freq, H bond, Iso.	Duncanson	JCS	- (1960)	3841
PtC ₆ H ₁₈ Cl ₂ P ₂	cis-Platinum (II)-chloride trimethyl-phosphine complex	400-4000	S,Sol	Band freq	Adams	JCS	- (1960)	2047
PtC ₆ H ₁₉ ClP	Platinum (II)-chloride trimethyl-phosphine complex	2000-2200	Sol	Freq	Chat ^t	CIL	- (1958)	859
PtC ₆ N ₆ S ₆ K ₂	Platinum (IV)-thiocyanate complex (potassium salt)	-	S	Freq, Assign	Mitchell	JCS	- (1960)	1912
PtC ₇ H ₁₅ Cl ₂ N	trans-Platinum (II)-chloride, ethylene, piperidine complex	3000-3500 3000-3500	Sol Sol	H bond H bond	Chat ^t Chat ^t	JCS JCS	- (1955) - (1956)	4461 2712

22222

PtC ₇ H ₂₀ C ₁₂ NP	trans-Platinum (II)-chloride, methyl-amine triethyl-phosphine complex	3100-3400	Sol	Freq, H bond, Iso.	Duncanson	JCS	- (1960) 3841
PtC ₇ H ₂₁ BrP ₂	trans-Platinum-bromide, methyl, trimethylphosphine complex	400-4000	Sol,S	Band freq	Adams	JCS	- (1960) 2047
PtC ₇ H ₂₁ C ₁ P ₂	cis-Platinum (I)-chloride methyl, trimethylphosphine complex	400-4000	Sol,S	Band freq	Adams	JCS	- (1960) 2047
PtC ₇ H ₂₁ C ₁ P ₂	trans-Platinum (I)-chloride, methyl, trimethylphosphine complex	400-4000	S,Sol	Band freq	Adams	JCS	- (1960) 2047
PtC ₇ H ₂₁ I ^P ₂	Platinum-iodide, methyl, trimethyl-phosphine complex	400-4000	S,Sol	Band freq	Adams	JCS	- (1960) 2047
PtC ₇ H ₂₁ NO ₂ P ₂	Platinum-methyl, nitrite, trimethyl-phosphine complex	400-4000	S,Sol	Band freq	Adams	JCS	- (1960) 2047
PtC ₇ H ₂₁ NO ₃ P ₂	Platinum-methyl, nitrate trimethyl-phosphine complex	400-4000	S,Sol	Band freq	Adams	JCS	- (1960) 2047
PtC ₈ H ₉ Br ₂ NO	trans-Platinum (II)-bromide carbonmono-oxide, p-toluidine complex	-	Sol	Freq, Struct, Config.	Irving	JCS	- (1958) 2283

PtC ₈ H ₉ Cl ₂ NO	trans-Platinum (II)-chloride, carbon-monoxide, p-toluidine complex	-	Sol	Freq, Struct, Config.	Irving	JCS	- (1958)	2283
PtC ₈ H ₉ I ₂ NO	trans-Platinum (II)-iodide, carbonmono-oxide, p-toluidine complex	-	Sol	Freq, Struct, Config.	Irving	JCS	- (1958)	2283
PtC ₈ H ₁₄ Cl ₃ O ₂ K	Platinum (II)-chloride, 2,5-dihydroxy-2,5-dimethylhexyne-3-complex (potassium salt)	2000-4000	S,Sol	Struct, Assign	Chatt	N	184 (1959)	526
PtC ₈ H ₁₆ Cl ₂ O ₂ S ₂	Platinum (II)-thioxane complex chloride	500-1500	S	Spec, Struct	Hendra	JCS	- (1950)	5105
PtC ₈ H ₂₀ Cl ₂ -NO ₃ P ₃	trans-Platinum (II)-chloride trimethoxy-phosphine piperidine complex	3000-3500	Sol	H bond Freq	Chatt Chatt	JCS	- (1955) - (1956)	4461 2712
PtC ₈ H ₂₀ Cl ₂ S ₂	cis-Platinum (II)-chloride diethyl sulfide complex	600-750	S	Freq	Powell	JCS	- (1956)	4495
PtC ₈ H ₂₀ Cl ₂ S ₂	trans-Platinum (II)-chloride, diethyl-sulfide complex	600-750	S	Freq	Powell	JCS	- (1956)	4495
PtC ₈ H ₂₀ S ₂	Platinum (O)-1,2-diethyl thioethane, me thyl complex	400-4000	S,Sol	Band freq	Adams	JCS	- (1960)	2047

2224	PtC ₈ H ₂₁ N ₂ P	cis-Platinum (I)-cyanide, methyl, trimethylphosphine complex	400-4000	S, Sol	Band freq	Adams	JCS	- (1960) 2047
	PtC ₈ H ₂₁ N ₂ S	trans-Platinum (I)-methyl, thiocyanate, trimethylphosphine complex	400-4000	S, Sol	Band freq	Adams	JCS	- (1960) 2017
	PtC ₈ H ₂₂ Cl ₂ NP	trans-Platinum (II)-chloride, ethylamine, triethylphosphine complex	3000-3500 3100-3400	Sol Sol Sol	Freq H bond Freq, H bond, Iso.	Chatt Chatt Duncanson	JCS JCS JCS	- (1955) - (1956) - (1960) 4461 2712 3841
	PtC ₈ H ₂₃ ClP ₂	trans-Platinum-chloride, ethyl, trimethylphosphine complex	400-4000	S, Sol	Band freq	Adams	JCS	- (1960) 2047
	PtC ₈ H ₂₃ IP ₂	trans-Platinum-iodide, ethyl, trimethylphosphine complex	400-4000	S, Sol	Band freq	Adams	JCS	- (1960) 2047
	PtC ₈ H ₂₄ Cl ₂ N ₈ S ₄	Platinum (II)-methyl thiourea complex chloride	2-15 μ	S	Spec	Lane	JACS	81 (1959) 3824
	PtC ₈ H ₂₄ P ₂	cis-Platinum-methyl, trimethyl-phosphine complex	400-4000	S, Sol	Band freq	Adams	JCS	- (1960) 2047
	PtC ₉ H ₁₃ Cl ₂ N	trans-Platinum (II)-chloride, ethylene, p-toluidine complex	3000-3500	Sol Sol	Freq, H bond H bond	Chatt Chatt	JCS JCS	- (1955) - (1956) 4461 2712

PtC ₉ H ₁₆ C ₁ ₃ OK	Platinum (II)-chloride 2,5,5-trimethyl-2-hydroxyhexyne-3-complex (potassium salt)	2000-4000	S,Sol	Struct, Assign	Chatt	N	184 (1959)	526
PtC ₉ H ₂₁ Cl ₂ K	Platinum (II)-chloride, 2,5-dimethyl-2-methoxy-5-hydroxyhexyne-3-complex (potassium salt)	2000-4000	S,Sol	Struct, Assign	Chatt	N	184 (1959)	526
PtC ₉ H ₂₁ Cl ₂ NS	Platinum (II)-chloride, diethyl-sulfide, piperidine complex	3000-3500 3000-3500	Sol Sol	Freq H bond	Chatt Chatt	JCS JCS	- (1955) - (1956)	4461 2712
PtC ₉ H ₂₁ Cl ₂ NSE	trans-Platinum (II)-chloride, diethyl-selenide piperidine complex	3000-3500	Sol Sol	Freq H bond	Chatt Chatt	JCS JCS	- (1955) - (1956)	4461 2712
PtC ₉ H ₂₁ Cl ₂ NTe	trans-Platinum (II)-chloride, diethyl-telluride piperidine complex	3000-3500	Sol Sol	Freq H bond	Chatt Chatt	JCS JCS	- (1955) - (1956)	4461 2712
PtC ₉ H ₂₄ Cl ₂ NP	trans-Platinum (II)-ammonia, chloride, tri-n-propyl-phosphine complex	3000-3500	S,Sol	H bond, Spec	Chatt	JCS	- (1956)	2712
PtC ₉ H ₂₄ I ₂ NP	trans-Platinum (II)-ammonia, iodide, tri-n-propylphosphine complex	3000-3500	S,Sol	H bond, Freq, Spec	Chatt	JCS	- (1956)	2712

PtC ₉ H ₂₅ ClP ₂	trans-Platinum-chloride, n-propyl, trimethyl-phosphine complex	400-4000	Sol,S	Band freq	Adams	JCS	- (1960)	2047
PtC ₁₀ H ₁₂ Cl ₂ - N ₂ O Na ₂ 8	Platinum (II)-ethylenediamine tetraacetic acid (tetrasodium salt bidentate) chloride complex	-	-	Spec, Struct	Morris	DA	19 (1958)	223
PtC ₁₀ H ₁₂ N ₂ O ₈ - Na ₂	Platinum (II)-ethylenediamine tetraacetic acid (disodium salt tetradeionate) complex	-	-	Spec, Struct	Morris	J INC	8 (1958)	223
PtC ₁₀ H ₁₂ N ₆ O ₄	cis-Platinum (II)-aminopyridine, nitrite complex	800-1450	Sol	Bonding	Gatehouse	J INC	8 (1958)	79
PtC ₁₀ H ₁₂ N ₆ O ₄	trans-Platinum (II)-aminopyridine, nitrite complex	800-1450	Sol	Bonding	Gatehouse	J INC	8 (1958)	79
PtC ₁₀ H ₁₅ Cl ₂ N	trans-Platinum (II)-chloride, 2,6-dimethyl aniline, ethylene complex	-	Sol	Freq, H bond	Chatt	JCS	- (1955)	4461
PtC ₁₀ H ₁₆ Cl ₂ NP	trans-Platinum (II)-chloride, t-butyl-amine, triethyl-phosphine complex	3100-3400	Sol	Freq, Iso., H bond	Duncanson	JCS	- (1960)	3841

PtC ₁₀ H ₁₈ C ₁ ⁰ S ₂ ^K	Platinum (II)-chloride, 2,5-dime thoxy-2,5-dime thylhexyne-3 complex (po potassium salt)	2000-4000	S,Sol	Struct, Assign	Chatt	N	184 (1959)	526
PtC ₁₀ H ₂₂ C ₁ ₂ N ₂	trans-Platinum (II)-chloride, piperidine complex	3000-3500	Sol	Freq H bond	Chatt	JCS	- (1955)	4461
PtC ₁₀ H ₂₆ C ₁ ₂ N ₂	trans-Platinum (II)-chloride, me thyl-amine, tri-n-propyl-phosphine complex	3000-3500	Sol	Freq, H bond H bond	Chatt	JCS	- (1956)	2712
PtC ₁₀ H ₂₈ P ₂	cis-Platinum-ethyl, trimethyl-phosphine complex	400-4000	S,Sol	Band freq	Adams	JCS	- (1960)	2047
PtC ₁₁ H ₂₆ C ₁ ₂ N ₂ Sb	trans-Platinum (II)-chloride, tri ethyl-stibine, piperidine complex	3000-3500	Sol	Freq, I H bond	Chatt	JCS	- (1955)	4461
PtC ₁₂ H ₁₈ N ₄ ⁰	Platinum (II)-cyclohexane 1:2-dione dioxime complex	800-3200	S	Spec, Assign, H bond	Blinc	JCS	- (1958)	4536
PtC ₁₂ H ₂₈ N ₂ ⁰ S ₂	Platinum (II)-di-n-propyl-sulfide, nitrite complex	800-1500	Sol	Freq, Struct	Chatt	JCS	- (1959)	4073
PtC ₁₂ H ₂₈ N ₂ ⁰ S ₂	cis-Platinum (II)-di-n-propyl-sulfide, nitrite complex	800-1500	Sol	Freq, Struct, Bonding	Gatehouse	J INC	8 (1958)	79

PtC ₁₂ H ₂₈ N ₂ O ₄ S ₂	trans-Platinum (II)-di-n-propylsulfide, nitrite complex	800-1450 800-1500	Sol Sol	Bonding Freq, Struct	Gatehouse Chatt	JINC JCS	8 (1958) - (1959)	79 4073
PtC ₁₂ H ₂₈ N ₂ O ₄ Se ₂	Platinum (II)-di-n-propylselenide, nitrite complex	800-1500	Sol	Struct, Freq	Chatt	JCS	- (1959)	4073
PtC ₁₂ H ₂₈ N ₂ O ₄ Se ₂	Platinum (II)-di-n-propylselenide, nitrite complex	1300-1500 800-1500	Sol Sol	Bonding Freq	Gatehouse Chatt	JINC JCS	8 (1958) - (1959)	79 4073
PtC ₁₂ H ₂₈ N ₂ O ₄ Te ₂	trans-Platinum (II)-di-n-propyltelluride, nitrite complex	1300-1500 800-1500	Sol Sol	Bonding Freq, Struct	Gatehouse Chatt	JINC JCS	8 (1958) - (1959)	79 4073
PtC ₁₂ H ₃₀ C ₁₂ P ₂	cis-Platinum (II)-chloride triethylphosphine complex	400-4000	S,Sol	Band freq	Adams	JCS	- (1960)	2047
PtC ₁₂ H ₃₀ C ₁₂ P ₂	trans-Platinum (II)-chloride, triethylphosphine complex	400-4000	S,Sol	Band freq	Adams	JCS	- (1960)	2047
PtC ₁₂ H ₃₀ P ₂	Platinum-1,2-bis-(diethylphosphino)ethane methyl complex	400-4000	Sol,S	Band freq	Adams	JCS	- (1960)	2047
PtC ₁₂ H ₃₁ BrP ₂	Platinum (II)-bromide, hydride, triethylphosphine complex	2000-2050	Sol	Freq	Chatt	CIL	- (1958)	859
PtC ₁₂ H ₃₁ BrAs ₂	Platinum (II)-bromide, hydride, triethylarsine complex	2100-2200	Sol	Freq	Chatt	CIL	- (1958)	859

PtC ₁₂ H ₃₁ ClP ₂	Platinum (II)-chloride, hydride, triethylphosphine complex	2000-2250	sol	Freq	Chatt	CIL	- (1958)	859
PtC ₁₂ H ₃₁ ClAs	Platinum (II)-chloride hydride triethylarsine complex	2100-2200	Sol	Freq	Chatt	CIL	- (1958)	859
PtC ₁₂ H ₃₁ IP ₂	Platinum (II)-iodide, hydride, triethylphosphine complex	2000-2250	Sol	Freq	Chatt	CIL	- (1958)	859
PtC ₁₂ H ₃₁ IAs	Platinum (II)-iodide hydride, triethylarsine complex	2100-2200	Sol	Freq	Chatt	CIL	- (1958)	859
PtC ₁₂ H ₃₁ NO ₂ P ₂	Platinum (II)-hydride, nitrite, triethylphosphine complex	2000-2250	Sol	Freq	Chatt	CIL	- (1958)	859
PtC ₁₂ H ₃₁ NO ₂ P ₂	Platinum (II)-hydride, nitrate, triethylphosphine	2000-2250	Sol	Freq	Chatt	CIL	- (1958)	859
PtC ₁₂ H ₃₂ P ₂	cis-Platinum-n-propyl, trimethyl-phosphine complex	400-4000	S,Sol	Freq	Adams	JCS	- (1960)	2047
PtC ₁₃ H ₁₆ Cl ₃ O ₂ K	Platinum (II)-chloride, 2-phenyl-5-methyl-2,5-dihydroxy-hexyne- β complex (potassium salt)	2000-4000	S,Sol	Struct, Assign	Chatt	N	184 (1959)	526

PtC ₁₃ H ₂₃ C ₁₂ NS	trans-Platinum (II)-chloride, di-n-propyl sulfide, p-toluidine complex	— 3000-3500 3000-3400	Sol S,Sol Sol	Freq, H bond H bond, Spec H bond	Chatt Chatt Chatt	JCS JCS JINC	— (1955) — (1956) 8 (1958), 67
PtC ₁₃ H ₂₃ C ₁₂ NSe	trans-Platinum (II)-chloride, di-n-propylselenide, p-toluidine complex	— 3000-3500	Sol Sol	H bond, Freq H bond	Chatt Chatt	JCS JCS	— (1955) — (1956) 4461 2712
PtC ₁₃ H ₂₃ C ₁₂ N ⁺ e	trans-Platinum (II)-chloride, di-n-propyl telluride p-toluidine complex	—	Sol	Freq, H bond	Chatt	JCS	— (1955) 4461
PtC ₁₃ H ₂₄ C ₁₂ NO ₃ P	trans-Platinum (II)-chloride, triethoxyphosphine, p-toluidine complex	—	Sol	Freq, H bond	Chatt	JCS	— (1955) 4461
PtC ₁₃ H ₂₄ C ₁₂ NP	trans-Platinum (II)-chloride, triethyl-phosphine, p-toluidine complex	— 3000-3500	Sol Sol	Freq, H bond H bond, Config.	Chatt Chatt	JCS JCS	— (1955) — (1956) 4461 2712
PtC ₁₃ H ₂₅ C ₁₂ NO ₂	trans-Platinum (II)-chloride, 2,4-dimethyl-2,4-dihydroxy-hexyne-3, piperidine complex	2000-4000	S,Sol	Assign, Struct	Chatt	N	184 (1959) 526
PtC ₁₃ H ₃₁ NP ₂	Platinum (II)-cyanide, hydride, triethylphosphine complex	2000-2250	Sol	Freq	Chatt	CII	— (1958) 859

			Chatt	CIL		
PtC ₁₃ H ₃₁ NP ₂ S	Platinum (II)-hydride thiocyanate, triethylphosphine complex	2000-2250 Sol	Freq		- (1958)	859
PtC ₁₃ H ₃₁ NSAs ₂	Platinum (II)-hydride triethylarsine, thiocyanate complex	2100-2200 Sol	Freq	Chatt	- (1958)	859
PtC ₁₃ H ₃₂ Cl ₂ NP	trans-Platinum (II)-chloride, diethylamine, tri-n-propylphosphine complex	— 3000-3500 3100-3300 Sol	Freq H bond, Spec H bond Sol	Chatt Chatt Chatt	JCS JCS JINC	(1955) (1956) 8 (1958)
PtC ₁₃ H ₃₂ BrP ₂	trans-Platinum-bromide, methyl, triethylphosphine complex	400-4000 S,Sol	Band freq	Adams	JCS	- (1960) 2047
PtC ₁₃ H ₃₃ C1P ₂	cis-Platinum-chloride, methyl, triethylphosphine complex	400-4000 S,Sol	Band freq	Adams	JCS	- (1960) 2047
PtC ₁₃ H ₃₃ C1P ₂	trans-Platinum-chloride, methyl, triethylphosphine complex	400-4000 S,Sol	Band freq	Adams	JCS	- (1960) 2047
PtC ₁₃ H ₃₃ IP ₂	trans-Platinum-iodide methyl, triethylphosphine complex	400-4000 S,Sol	Band freq	Adams	JCS	- (1960) 2047

PtC ₁₃ H ₃₃ NO ₂ P ₂	trans-Platinum- methyl, nitrite, triethylphosphine complex	400-4000	S,Sol	Band freq	Adams	JCS	- (1960)	2047
PtC ₁₃ H ₃₃ NO ₃ P ₂	trans-Platinum- methyl, nitrate, triethylphosphine complex	400-4000	S,Sol	Band freq	Adams	JCS	- (1960)	2047
PtC ₁₄ H ₁₈ Cl ₃ OK	platinum (II)- chloride, 2,2- dimethyl-5- hydroxy-5-phenyl hexyne-3 complex (potassium salt)	2000-4000	S,Sol	Struct, Assign	Chatt	N	184 (1959)	526
PtC ₁₄ H ₂₇ Cl ₂ NO	trans-Platinum (II)- chloride 2,2- dimethyl-5-hydroxy- 5-methyl hexyne-3, piperidine complex	2000-4000	S,Sol	Struct, Assign	Chatt	N	184 (1959)	526
PtC ₁₄ H ₂₇ Cl ₂ NO ₂	platinum (II)- chloride, 2,4- dimethyl-2-methoxy- 4-hydroxy pentyne-2, piperidine complex	2000-4000	S,Sol	Struct, Assign	Chatt	N	184 (1959)	526
PtC ₁₄ H ₃₂ Cl ₂ NP	trans-Platinum (II)- chloride, piperidine, tri-n-propylphosphine complex	3000-500 3100-3300	Sol. Sol.	Freq, I Freq, H bond H bond	Chatt Chatt Chatt	JCS JCS J INC	- (1955) - (1956) 8 (1958)	4461 2712 67
PtC ₁₄ H ₃₂ Cl ₂ NAs	trans-Platinum (II)- chloride, piperi- dine, tri-n-propyl- arsine complex	- 3000-3500	Sol. Sol.	Freq, I H bond	Chatt Chatt	JCS JCS	- (1955) - (1956)	4461 2712

PtC ₁₄ ^H ₃₅ ^{NP} ₂	trans-Platinum cyanide, methyl triethylphosphine complex	400-4000	S,Sol	Freq	Adams	JCS	-	(1960)	2047
PtC ₁₄ ^H ₃₅ ^{NP} ₂ S	trans-Platinum (I)-methyl thiocyanate, triethylphosphine complex	400-4000	S,Sol	Band freq	Adams	JCS	-	(1960)	2047
PtC ₁₄ ^H ₃₅ ^{C1P} ₂	trans-Platinum-chloride, ethyl, triethylphosphine complex	400-4000	S,Sol	Band freq	Adams	JCS	-	(1960)	2047
PtC ₁₄ ^H ₃₅ ^{IP} ₂	trans-Platinum-iodide, ethyl, triethylphosphine complex	400-4000	S,Sol	Band freq	Adams	JCS	-	(1960)	2047
PtC ₁₄ ^H ₃₆ ^P	cis-Platinum (0)-methyl, triethyl-phosphine complex	400-4000	S,Sol	Band freq	Adams	JCS	-	(1960)	2047
PtC ₁₅ ^H ₂₆ ^{Cl} ₂ ^N ₂	trans-Platinum (II)-chloride, 4-n-penty1pyridine, piperidine complex	3000-3500	— Sol Sol	Freq, I H bond	Chatt Chatt	JCS JCS	-	(1955) (1956)	4461 2712
PtC ₁₅ ^H ₂₇ ^{Br} ₂ ^{NS}	trans-Platinum (II)-bromide, di-n-butyl hydrogen sulfide, p-methylaniline complex	3000-3500	Sol	Association Const.	Chatt	JCS	-	(1956)	2712

PtC ₁₅ H ₂₇ C ₁₂ NS	trans-Platinum (II)-chloride, di-n-butyl hydrogen sulfide, p-methylaniline complex	3000-3500 —	Sol Sol	H bond Freq, H bond	Chatt Chatt	JCS JCS	— (1956) 2712 — (1955) 4461
PtC ₁₅ H ₂₇ C ₁₂ NS	trans-Platinum (II)-chloride, di-n-butyl sulfide, p-toluidine complex	3000-3500 —	Sol Sol	Freq, H bond Freq, H bond	Chatt Chatt	JCS JCS	— (1955) 4461 — (1956) 2712
PtC ₁₅ H ₂₇ C ₁₂ N ₂ O ₂ ^P	trans-Platinum (II)-chloride, p-nitroaniline, tri-n-propyl-phosphine complex	3000-3500 —	Sol Sol	Freq, H bond Freq, H bond	Chatt Chatt	JCS JCS	— (1955) 4461 — (1956) 2712
PtC ₁₅ H ₂₇ C ₁₃ N ₂ P	trans-Platinum (II)-chloride, p-chloro-aniline tri-n-propylphosphine complex	3000-3500 —	Sol Sol	Freq, H bond Freq, H bond	Chatt Chatt	JCS JCS	— (1955) 4461 — (1956) 2712
PtC ₁₅ H ₂₈ C ₁₂ N ₂ P	trans-Platinum (II)-chloride, aniline, tri-n-propyl-phosphine complex	—	Sol	Freq, H bond	Chatt	JCS	— (1955) 4461
PtC ₁₅ H ₂₉ C ₁₂ NO ₂	Platinum (II)-chloride, piperidine, 2,5-dimethylhexyne-3 complex	2000-4000	Sol,S	Struct, Assign	Chatt	N	184 (1959) 526
PtC ₁₅ H ₃₇ C ₁₂ P ₂	Platinum-chloride, n-propyl, triethyl-phosphine complex	400-4000	Sol, S	Band freq	Adams	JCS	— (1960) 2047

PtC ₁₆ H ₂₉ Cl ₂ NS	trans-Platinum (II)-chloride, 2,6-dimethyl- aniline, di-n- butyl sulfide complex	-	Sol	Freq., H bond	Chatt	JCS	- (1955) 4461
PtC ₁₆ H ₃₀ Br ₂ NP	trans-Platinum (II)-bromide, p-methylaniline tri-n-propyl- phosphine complex	3000-3500	Sol	H bond	Chatt	JCS	- (1956) 2712
PtC ₁₆ H ₃₀ Cl ₂ NOP	trans-Platinum (II)-chloride, p-anisidine, tri-propylphosphine complex	-	Sol	Freq., H bond	Chatt	JCS	- (1955) 4461
PtC ₁₆ H ₃₀ Cl ₂ NP	trans-Platinum (II)-chloride, benzylamine, tri- n-propylphosphine complex	3000-3500	Sol	Freq., H bond	Chatt	JCS	- (1955) 4461
PtC ₁₆ H ₃₀ Cl ₂ NP	trans-Platinum (II)-chloride, N-methylaniline tri-n-propyl- phosphine complex	3000-3500 3100-3300	Sol	Freq. H bond	Chatt	JCS	- (1955) 4461
PtC ₁₆ H ₃₀ Cl ₂ NP	trans-Platinum (II)-chloride, tri-n-propyl- phosphine, p-toluidine complex	3000-3500	Sol	Freq., H bond H bond, Spec % ^a	Chatt	JCS	- (1955) 4461
						JINC	- (1956) 2712
						8 (1958)	67

PtC ₁₆ H ₃₀ Cl ₂ NAs	trans-Platinum (II)-chloride, tri-n-propylarsine p-toluidine complex	3000-3500	Sol	Freq, H bond H bond	Chatt Chatt	JCS JCS	- (1955) - (1956)	4461 2712
PtC ₁₆ H ₃₀ Cl ₂ NSb	trans-Platinum (II)-chloride, tri-n-propylstibine p-toluidine complex	3000-3500	Sol	Freq, H bond H bond	Chatt Chatt	JCS JCS	- (1955) - (1956)	4461 2712
PtC ₁₆ H ₃₀ Cl ₄ NP	trans-Platinum (IV)-chloride, tri-n-propylphosphine p-toluidine complex	-	Sol	H bond, Freq	Chatt	JCS	- (1955)	4461
PtC ₁₆ H ₃₀ I ₂ NP	trans-Platinum (II)-iodide, tri-n-propylphosphine, p-toluidine complex	3000-3500	Sol	H bond	Chatt	JINC JCS	- (1956) - (1959)	2712 4073
PtC ₁₆ H ₃₆ N ₂ O ₄ S ₂	cis-Platinum (II)-di-n-butyl sulfide nitrite complex	1300-1500 800-1500	Sol	Bonding Freq, Struct	Gatehouse Chatt	JINC JCS	8 (1958) - (1959)	79 4073
PtC ₁₆ H ₃₆ N ₂ O ₄ S ₂	trans-Platinum (II)-di-n-butylsulfide, nitrite complex	1300-1500 800-1500	Sol	Bonding Freq, Struct	Gatehouse Chatt	JINC JCS	8 (1958) - (1959)	79 4073
PtC ₁₆ H ₄₀ F ₂	cis-Platinum-ethyl, triethyl-phosphine complex	400-4000	Sol,S	Band freq	Adams	JCS	- (1960)	2047
PtC ₁₇ H ₃₂ Cl ₂ N	trans-Platinum (II)-chloride, 2:6-dimethylaniline, tri-n-propylphosphine complex	3000-3500	Sol	Freq, H bond H bond	Chatt Chatt	JCS JCS	- (1955) - (1956)	4461 2712

PtC ₁₈ H ₂₇ Cl ₂ NO ₂	Platinum (II)-chloride, 2,5-dihydroxy-2-phenyl-5-methyl-hexyne- ζ , piperidine complex	2000-4000	S, Sol	Struct, Assign	Chatt	N	184 (1959)	526
PtC ₁₈ H ₃₃ Cl ₂ INP	trans-Platinum (II)-chloride, o-iodo-aniline n-triptyl-phosphine complex	3100-3400	Sol	Freq, Iso., H bond	Duncanson	JCS	- (1960)	3841
PtC ₁₈ H ₄₂ N ₂ O ₄ As ₂	cis-Platinum (II)-nitrite tri-n-propylarsine complex	1300-1500	Sol	Bonding	Gatehouse	JINC	8 (1958)	79
PtC ₁₈ H ₄₂ ClP ₂	Platinum-chloride, hydride tri-n-propylphosphine complex	2183	Sol	Freq	Chatt	CIL	- (1958)	859
PtC ₁₉ H ₂₉ Cl ₂ NO	trans-Platinum (II)-chloride, 2,2-dimethyl-5-hydroxy-5-phenyl hexyne- ζ , piperidine complex	2000-4000	S, Sol	Struct	Chatt	N	184 (1959)	526
PtC ₁₉ H ₃₆ Cl ₂ NP	trans-Platinum (II)-chloride, tri-n-butylphosphine, p-toluidine complex	3000-3500	Sol	H bond	Chatt	JCS	- (1956)	2712
PtC ₁₉ H ₃₆ Cl ₂ NP	trans-Platinum (II)-chloride, di-n-butylphosphine, o-toluidine complex	3100-3500	Sol	H bond	Chatt	JINC	8 (1958)	67

PtC ₁₉ H ₃₆ Cl ₂ NP	trans-Platinum (II)-chloride, tri- <i>t</i> -butylphosphine o-toluidine complex	3100-3400 Sol	Freq, H bond, Iso.	Duncanson	JCS -	(1960) 3841
PtC ₁₉ H ₃₆ C ₁₂ NP	trans-Platinum (II)-chloride, tri- <i>n</i> -butylphosphine, p-toluidine complex	3000-3500 -	Sol Freq, H bond H bond	Chatt Chatt	JCS JCS	(1955) 4461 (1956) 2712
PtC ₂₀ H ₃₀ C ₁₂ N ₂	trans-Platinum (II)-chloride, 4- <i>r</i> -phenylpyridine complex	3000-3500 Sol	H bond	Chatt	JCS	(1956) 2712
PtC ₂₀ H ₃₀ N ₄ O ₄	cis-Platinum (II)-nitrite-4- <i>n</i> -phenyl-pyridine complex	1300-1500 800-1500 Sol Sol	Bonding Freq, Struct	Gatehouse Chatt	JINC JCS	8 (1958) - (1959) 79 4073
PtC ₂₀ H ₃₀ N ₄ O ₄	trans-Platinum (II)-nitrite, 4- <i>n</i> -phenyl-pyridine complex	1300-1500 800-1500 Sol Sol	Bonding Freq, Struct	Gatehouse Chatt	JINC JCS	8 (1958) - (1959) 79 4073
PtC ₂₀ H ₃₁ C ₁ P ₂	Platinum (II)-diethylphenyl-phosphine, hydride complex chloride	2100-2200 Sol	Assign	Chatt	CIL	- (1958) 859
PtC ₂₀ H ₃₁ IP ₂	Platinum (II)-diethylphenyl-phosphine, hydride complex iodide	2100-2200 Sol	Assign	Chatt	CIL	- (1958) 859
PtC ₂₁ H ₃₂ Cl ₂ NP	trans-Platinum (II)-chloride, p-phenyl-aniline tri- <i>n</i> -propylphosphine complex	3000-3500 -	Sol Freq, H bond H bond	Chatt Chatt	JCS JCS	(1955) 4461 (1956) 2712

PtC ₂₂ H ₃₄ Cl ₂ N ₂	trans-Platinum (II)-chloride, 2,6-dimethylaniline, 4-n-nonylpyridine complex	-	Sol	Freq, H bond	Chatt	JCS	-	(1955) 4461
PtC ₂₄ H ₅₄ N ₂ O ₄ P ₂	cis-Platinum (II)-nitrite, tri-n-butylphosphine complex	1300-1500 800-1500	Sol Sol	Bonding Freq, Struct	Gatehouse Chatt	JINC JCS	8 -	(1958) (1959) 79 4073
PtC ₂₄ H ₅₄ N ₂ O ₄ P ₂	trans-Platinum (II)-nitrite, tri-n-butylphosphine complex	1300-1500 800-1500	Sol Sol	Bonding Freq, Struct	Gatehouse Chatt	JINC JCS	8 -	(1958) (1959) 79 4073
PtC ₂₄ H ₅₄ N ₂ O ₄ As ₂	cis-Platinum (II)-nitrite, tri-n-butylarsine complex	800-1500	Sol	Freq	Chatt	JCS	-	(1959) 4073
PtC ₂₄ H ₅₄ N ₂ O ₄ As ₂	trans-Platinum (II)-nitrite, tri-n-butylarsine complex	1300-1500 800-1500	Sol Sol	Bonding Freq, Struct	Gatehouse Chatt	JINC JCS	8 -	(1958) (1959) 79 4073
PtH ₆ C ₁ N ₃ O ₂	cis-Platinum (II)-ammonia, chloride, nitrite complex	500-550	S	Freq	Powell	JCS	-	(1956) 4495
PtH ₆ C ₁ N ₂	cis-Platinum (II)-ammonia, chloride complex	- 3000-3500 500-3300 2-15 μ	S S S	Freq, Struct H bond Freq Freq	Curran Chatt Powell Mizushima	AC JCS JCS SA	26 - - 13	(1954) (1956) 429A 2712 4495 31
PtH ₆ C ₁ N ₂	trans-Platinum (II)-ammonia, chloride complex	- 300-4000 3000-3500	S S	Freq, Struct Spec, Assign H bond	Curran Barrow Chatt	AC JINC JCS	26 2 -	(1954) (1956) 429A 340 2712

PtH ₆ Cl ₃ N ₂ ^S	Platinum (II)-ammonia chloride complex chlorine monosulphide	500-3300	S	Assign, Freq	Powell	JCS	- (1956)
		500-3300	S	Freq	Powell	JCS	- (1956)
		650-1650	S	Freq	Svatos	JACS	79 (1957)
		-	Sol	Freq, Struct, Config.	Irving	JCS	- (1958)
		2-15 μ	S	Assign, Freq	Mizushima	SA	13 (1958)
		-	-	Electronegativity	Wilmshurst	CJC	38 (1960)
PtH ₆ N ₆ ^O	cis-Platinum (II)-ammonia, nitrite complex	300-4000	S	Spec, Assign	Barrow	JINC	2 (1956)
PtH ₆ N ₆ ^O	cis-Platinum (III)-ammonia, nitrate complex	700-4000	S	Assign	Gatehouse	JCS	- (1957)
		700-4000	S	Assign	Gatehouse	JINC	8 (1958)
PtH ₆ N ₆ ^O	trans-Platinum-ammonia, nitrate complex	700-4000	S	Assign	Gatehouse	JCS	- (1957)
		700-4000	S	Assign	Gatehouse	JINC	8 (1958)
PtH ₈ Br ₂ N ₂	Diammonium platinum hexabromide	-	S	Freq	Cox	JCS	- (1954)
PtH ₈ Cl ₂ N ₂	Diammonium platinum hexachloride	-	-	Freq	Cox	JCS	- (1954)
PtH ₁₂ Cl ₂ N ₄	Platinum (II)-ammonia, complex chloride	-	S	Freq	Curran	AC	26 (1954)
		500-3550	S	Assign	Powell	JCS	- (1956)
		650-1650	S	Freq	Svatos	JACS	79 (1957)
		2-15 μ	S	Assign	Mizushima	SA	13 (1958)
		-	-	Freq	Wilmshurst	CJC	38 (1960)
PtH ₁₅ C ₁ N ₅	Platinum (III)-ammonia, chloride complex chloride	-	-	-	Wilmshurst	CJC	38 (1960)

PtH ₁₅ C ₁ N ₅	Platinum (IV)-ammonia, chloride complex chloride	650-1650	S	Freq	Swatos	JACS	79 (1957)	3313
PtH ₁₅ C ₁ N ₆ O ₃ Co	Nitratopentamino cobalt (III) tetrachloroplatinate (II)	700-4000	S	Assign	Gatehouse	JCS	- (1957)	4222
PtD ₆ C ₁ N ₂	trans-Platinum-ammonia chloride, complex-d ₆	300-4000	S	Spec, Assign	Barrow	JINC	2 (1956)	340
PtD ₆ C ₁ N ₂ S	Platinum(II)-ammonia, chloride complex chlorine monosulfide-d ₆	300-400	S	Spec, Assign	Barrow	JINC	2 (1956)	340
PtCl ₄	Platinous tetrachloride ion	-	-	Quant. Mech.	Wilson	JCP	2 (1934)	432
PtCl ₅ NOK ₂	Platinum (III)-chloride, nitric oxide complex (potassium salt)	1700-2050	S	Freq	Lewis	JINC	7 (1958)	32
PtF ₄	Platinum tetrافluoride	-	S	Freq, Struct	Peacock	JCS	- (1959)	2762
PtF ₆	Platinum hexafluoride	2500-40000 - 6-50 μ	G -	Assign Jahn-Teller effect Spec, Thermo.	Moffitt Weinstock Weinstock	MP JCP JCP	2 (1959) 31 (1959) 32 (1960)	109 262 181
PtN ₄ O ₈	Platinum (II)-nitrite complex anion	400-5000	S	MCA, Spec, Freq, Assign, Struct	Rakamoto	JACS	80 (1958)	4817
PtN ₆ O ₁₂ K ₂	Platinum (II)-nitrite complex (potassium salt)	-	-	Struct	Puget	CPR	250 (1960)	4141

2242

$\text{Pt}_2\text{C}_4\text{H}_8\text{Cl}_4$	Platinum (II)-chloride, ethylene complex	700-3500 700-3100	S S	Freq, I Assign	Chatt Powell	JCS SA	- 13 (1958)	2939 69
$\text{Pt}_2\text{C}_6\text{H}_{12}\text{Cl}_4$	Platinum (II)-chloride, propylene complex	700-3500	S	Freq, I	Chatt	JCS	- (1953)	2939
$\text{Pt}_2\text{C}_6\text{H}_{12}\text{Cl}_6\text{K}\cdot\text{H}_2\text{O}$	Potassium propylene trichloroplatinate monohydrate	700-3500	S	Freq, I	Chatt	JCS	- (1953)	2939
$\text{Pt}_2\text{C}_8\text{H}_{12}\text{Cl}_6\text{N}_2$	Platinum (II)-chloride, dime thyl-piperazine, ethylene complex	500-1500	S	Spec, Struct	Hendra	JINC	- (1960)	5105
$\text{Pt}_2\text{H}_{12}\text{Cl}_4\text{N}_4$	Tetramine platinum (II) tetrachloroplatinate (II)	3000-4000	S	Spec, Assign	Barrows	JINC	2 (1956)	340

Pu COMPOUNDS

$\text{PuC}_6\text{H}_9\text{O}_8\text{Na}$	Sodium plutonium acetate	3100-3000	S	Freq assign, FC	Jones	JCP	23 (1955)	2105
$\text{PuCl}_2\text{O}_{10}$	Plutonyl perchlorate	800-1060	Soi	Spec, FC	Jones	JCP	21 (1953)	542
PuF_6	Plutonium hexafluoride	2-23 μ 2-38 μ	G G -	Freq, Assign, Thermo. Spec, Assign Spec Jahn-Teller effect	Hawkins Malm Weinstock Weinstock	JCP JCP JINC JCP	23 (1955) 23 (1955) 2 (1956) 31 (1959)	2191 2192 380 262
PuO_2	Plutonyl ion	-	-	Anal Freq Spec	Betts Kasha Green	JCP JCP JCP	16 (1948) 17 (1949) 20 (1952)	1089 349 1818

Rb COMPOUNDS

RbCN	Rubidium isocyanate	400-4000	S	Spec	Waddington	JCS	-	(1959)	2499
RbH	Rubidium hydride	-	-	FC	Gordy Platt Sheline Baughan	JCP JCP JCP TFS	14 (1946) 18 (1950) 18 (1950) 53 (1957)	305 932 927 1046	
RbHO	Rubidium hydroxide	6-33 μ	G	Absorption	Spinar	SA	12 (1958)	244	
RbBr	Rubidium bromide	-	-	Christianson filter	Barnes Huggins Gordy Szigeti Roberts Szigeti Rittner Baughan Rice	PR JCP JCP TFS PR PRS JCP TFS JCP	49 (1936) 5 (1937) 14 (1946) 45 (1949) 77 (1950) 204 (1950) 19 (1951) 53 (1957) 27 (1957)	732 143 305 155 258 51 1030 1046 573	
RbCl	Rubidium chloride	-	-	Christianson filter	Barnes Huggins Gordy Szigeti Roberts Szigeti Rittner Ford Rice	PR JCP JCP TFS PR PRS JCP JSI JCP	49 (1936) 5 (1937) 14 (1946) 45 (1949) 77 (1950) 204 (1950) 19 (1951) 31 (1954) 27 (1957)	732 143 305 155 258 51 1030 1038 573	
RbF	Rubidium fluoride	-	S	Freq	Huggins Roberts	JCP PR	5 (1950)	143 258	

RbFO ₃	Rubidium fluoro-sulfate	-	-	Freq	Rittner	JCP	19 (1951)	1030
RbI	Rubidium iodide	-	-	S	Assign, Spec	JCS	- (1957)	3761
		-	-	Christiansen filter	Barnes	PR	49 (1936)	732
		-	-	Freq	Huggins	JCP	5 (1937)	143
		-	-	Growing oriented crystal section	West	JOSA	35 (1945)	26
		-	-	FC	Gordy	JCP	14 (1946)	305
		-	-	Polarizability theory	Szigeti	1FS	45 (1949)	155
		-	-	Freq	Roberts	PR	77 (1950)	258
		-	-	Freq	Szigeti	PR	204 (1950)	51
		-	-	Freq	Rittner	JCP	19 (1951)	1030
		-	-	S	Smakula	JOSA	43 (1953)	822
		-	-	FC	Baughan	1FS	53 (1957)	1046
		-	-	Freq	Rice	JCP	27 (1957)	573
		-	-	S	Spec, Struct	Dassent	JCS	- (1960)
		-	-	-	Freq, Struct	Siebert	ZAU A	303 (1960)
RbIO ₃	Rubidium (I)-iodate	-	-	S	Assign	Greenberg	JCP	33 (1960)
RbIO ₄	Rubidium periodate	-	-	2-15 μ	Freq, FC	Gray	1FS	900
RbNO ₃	Rubidium nitrate	635-3100	S	Reflection and transmission	Weniger	JOSA	53 (1957)	901
RbN ₃	Rubidium azide	22-310 μ	S	Freq, Assign, Spec	Kraus	JCP	7 (1923)	517
RbO ₈ S ₂ Cr	Rubidium chrome alum	-	S	Freq	Clark	1FS	9 (1941)	133
RbK	Rubidium potassium	-	-	-	Meggers	JKNB	33 (1937)	1390
Rb ₂	Rubidium	0.86-1.03 μ	S	Spec	Rosen	PR	10 (1933)	669
		-	-	Freq	Clark	1FS	43 (1933)	5
		-	-	Freq	Clark	1FS	33 (1937)	1394
		-	-	Freq	Gordy	JCP	33 (1937)	1398
		-	-	FC	Baughan	1FS	14 (1946)	305
		-	-	FC		1FS	53 (1957)	1046

$\text{Rb}_2\text{H}_2\text{O}_6\text{P}_2\cdot\text{xH}_2\text{O}$	Dirubidium dihydrogen hypophosphate polyhydrate	845-3460	S	I, Group freq	Corbridge	JCS	- (1954) 4555
$\text{Rb}_2\text{H}_6\text{N}_4\text{C}_8\text{P}_4$	Dirubidium tetraphosphonitrilate	790-3000	S	I, Group freq	Corbridge	JCS	- (1954) 4555
<u>Re COMPOUNDS</u>							
ReC_5IO_5	Rhenium carbonyl-iodide	2-15 μ	S	Spec	Brimm	JACS	76 (1954) 3831
$\text{ReC}_8\text{N}_8\text{K}_3$	Rhenium (V)-cyanide complex (potassium salt)	-	S	Spec	Cotton	N	182 (1958) 393
$\text{ReC}_{10}\text{H}_{11}$	Cyclopentadienyl rhenium hydride	-	S	Spec, Struct	Fritz	ZN	15 (1960) 419
$\text{ReC}_{13}\text{H}_8\text{IN}_2\text{O}_3$	Rhenium carbon-monoxide 2,2'-dipyridine, iodide complex	1700-2200	-	Struct	Abel	JCS	- (1959) 1501
$\text{ReC}_{13}\text{H}_{10}\text{ClN}_2\text{O}_3$	Rhenium carbon-monoxide chloride, pyridine complex	1700-2200	-	Struct	Abel	JCS	- (1959) 1501
$\text{ReC}_{13}\text{H}_{10}\text{IN}_2\text{O}_3$	Rhenium, carbon-monoxide, iodide, pyridine complex	1700-2200	-	Struct	Abel	JCS	- (1959) 1501
$\text{ReC}_{39}\text{H}_{30}\text{ClO}_3\text{P}_2$	Rhenium-carbon-monoxide, chloride, triphenylphosphine complex	1700-2200	-	Struct	Abel	JCS	- (1959) 1501

$\text{ReC}_{39}\text{H}_{30}\text{ClO}_3\text{As}_2$	Rhenium-carbon-monoxide, chloride, triphenylarsine complex	1700–2200	–	Struct	Abel.	JCS – (1959) 1501
$\text{ReC}_{39}\text{H}_{30}\text{IO}_3\text{P}_2$	Rhenium-carbon-monoxide, iodide triphenylphosphine complex	1700–2200	–	Struct	Abel.	JCS – (1959) 1501
$\text{ReC}_{39}\text{H}_{30}\text{IO}_3\text{As}_2$	Rhenium-carbon-monoxide, iodide, triphenylarsine complex	1700–2200	–	Struct	Abel.	JCS – (1959) 1501
ReHO_4	Perrhenic acid	700–1400	Sol	Freq, Assign, Struct	Claasen	JCP 22 (1954) 707
ReBrO_3	Rhenium trioxy-bromide	150–3000	Sol,L	Assign	Miller	SA 16 (1960) 1148
ReClO_3	Rhenium trioxy-chloride	150–3000	Sol,L	Assign, Thermo.	Miller	SA 16 (1960) 1148
$\text{PeriPhenyl fluoride}$	21400–28500Mc 21400–28500Mc	G	Spec Spec, Mol. Const., Struct	Lotspeich Lotspeich	DA JCP 19 (1958) 31 (1959)	340 633
ReF_3	Rhenium tetrafluoride	–	S	Freq, Struct	Peacock	JCS – (1959) 2762
ReF_4	Rhenium hexafluoride	400–5000	G	Spec, Assign, Thermo.	Gaunt Gaunt Mattraw Califano Moffitt Weinstock	TFS 50 (1954) TFS 50 (1954) JCP 23 (1955) AAN 25 (1958) MP 2 (1959) JCP 31 (1959)
ReF_6	–	–	FC	–	Gaunt Mattraw Califano Moffitt Weinstock	50 (1954) 50 (1954) 23 (1955) 25 (1958) 2 (1959) 31 (1959)
ReF_7	Rhenium (VI)-complex fluoro ion	–	S	Freq, Struct	Peacock	JCS – (1959) 2762

ReO_4	Perrhenate ion	-	-	Struct, Freq	Woodward	TFS	52 (1956)	615
$\text{ReO}_4 \text{K}$	Potassium perrhenate	290-650 1000	S S	Assign Freq	Duval Barracough	CPR JCS	239 (1954) - (1959)	249 3552
$\text{ReO}_4 \text{Na}$	Sodium perrhenate	700-1400	Sol	Freq, Assign, Struct	Claasen	JCP	22 (1954)	707
$\text{Re}_2\text{C}_{10}^0\text{O}_{10}$	Rhenium carbon-monoxide complex	450-3000	S, Sol, G	Spec, Struct	Cotton	JINC	2 (1956)	141

Rh COMPOUNDS

$\text{RhCl}_4\text{C}_2\text{O}_8\text{K}_3 \cdot \text{H}_2\text{O}$	cis-Rhodium (III)-chloride, oxalate complex (potassium salt) monohydrate	-	-	Iso.	Collman	JACS	80 (1958)	2054
$\text{RhC}_6\text{H}_{24}\text{Cl}_3\text{N}_6$	Rhodium (III)-ethylenediamine complex chloride	450-11750	S	Spec, Config.	Powell	JCS	-	(1959)
RhC_6N_6	Rhodium (III)-hexacyanide complex ion	250-2200	S	Spec, Assign	Hidalgo	ARS	56 (1960)	9
$\text{RhC}_6\text{N}_6\text{K}_3$	Rhodium (III)-cyanide, complex (potassium salt)	250-2200	-	Assign	Hidalgo	CPR	249 (1959)	233
$\text{RhC}_6\text{N}_6\text{O}_6\text{K}_3$	Rhodium (III)-thiocyanate complex (potassium salt)	-	S	Freq assign	Mitchell	JCS	-	(1960) 1912
$\text{RhC}_8\text{H}_{15}\text{Cl}_2\text{N}_4\text{O}_4$	Rhodium (III)-chloride, dimethylglyoxime complex (hydrogen salt)	-	-	Freq, Iso.	Collman	JACS	80 (1958)	2054

<u>Ru COMPOUNDS</u>								
$\text{RuC}_{15}^{\text{H}}\text{Cl}_3\text{N}_3$	Rhodium (III)-chloride, pyridine complex	-	-	Iso.	Collman	JACS	80 (1958)	2045
$\text{RuC}_{25}^{\text{H}}\text{Cl}_5\text{N}_3$	Rhodium (III)-chloride, pyridine complex chloride	-	-	Iso.	Collman	JACS	80 (1958)	2054
$\text{RhH}_{12}\text{N}_9\text{O}_{12}$	Rhodium (III)-Nitrite complex (ammonium salt)	-	-	Struct	Puget	CPR	250 (1960)	4141
RuF_4	Rhodium (IV)-tetra-fluoride	-	S	Freq, Struct	Peacock	JCS	- (1959)	2762
					Lewis	J INC	7 (1958)	32
$\text{RuC}_5\text{N}_6\text{OK}_2$	Ruthenium (III)-cyanide, nitric oxide complex (potassium salt)	1700-2050	S	Freq				
$\text{RuC}_6^{\text{H}}\text{N}_6\text{K}_2$	Ruthenium (II)-cyanide, complex (potassium salt)	15-25 μ 2-5 μ 250-2200	S, Sol S -	Spec Spec Assign	Bonino Bonino Hidalgo	AAN AAN CPR	23 (1958) 25 (1958) 249 (1959)	191 401 235
$\text{RuC}_6^{\text{H}}\text{N}_6\text{K}_2 \cdot 3\text{H}_2\text{O}$	Ruthenium (II)-	15-25 μ	S, Sol	Spec	Bonino Bonino Hidalgo	AAN AAN CPR	23 (1958) 25 (1958) 249 (1959)	191 401 235

R₁₁ COMPOUNDS

$\text{RuG}_{18}^{\text{H}}\text{N}_3\text{S}_6$	Nitrosoyl derivative of Ruthenium (II) dimethylidithio carbamate	S	Struct	Lewis	J INC	7 (1958)	32
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RuC ₁₀ H ₁₀	Ruthenium-cyclo-pentadiene complex	2-13 μ 2-25 μ 300-3600	Sol Sol, S G, Sol	Spec Freq, Assign Spec, Struct, Freq, NCA	Wilkinson Lippincott Lippincott	JACS JCP SA	74 (1952) 21 (1953) 10 (1958)	6146 1307 307
RuC ₁₂ H ₈ C ₁ N ₂ O ₃	Ruthenium (III)-nitric oxide, 1:10-phenanthroline complex chloride	1700-2050	S	Freq	Lewis	JINC	7 (1958)	32
RuH	Ruthenium hydride	-	-	FC	Platt	JCP	18 (1950)	932
RuHN ₅ O ₁₀ K ₂	Ruthenium (III)-hydroxide, nitric oxide, nitrite complex (potassium salt)	1700-2050	S	Freq	Lewis	JINC	7 (1958)	32
RuH ₃ NO ₄	Ruthenium (III)-hydroxide, nitric oxide complex	1700-2050	S	Freq	Lewis	JINC	7 (1958)	32
RuH ₁₂ Br ₃ N ₅ O	Ruthenium (III)-ammonia,bromide, nitric oxide complex	1700-2050	S	Freq	Lewis	JINC	7 (1958)	32
RuH ₁₂ C ₁ N ₅ O	Ruthenium (III)-ammonia,chloride, nitric oxide complex	1700-2050	S	Freq	Lewis	JINC	7 (1958)	32
RuH ₁₃ C ₁₂ N ₅ O ₂	Ruthenium (III)-ammonia,hydioxide, nitric oxide complex chloride	1700-2050	S	Freq	Lewis	JINC	7 (1958)	32
RuCl ₃ NO·3H ₂ O	Ruthenium (III)-chloride, nitric oxide complex trihydrate	1700-2050	S	Freq	Lewis	JINC	7 (1958)	32

$\text{RuCl}_5\text{NiCK}_2$	Ruthenium (III)-chloride, nitric oxide complex (potassium salt)	1700-2050	S	Freq	Lewis	J INC	7 (1958)	32
$\text{RuCl}_5\text{NONa}_2 \cdot \text{H}_2\text{O}$	Ruthenium (III)-chloride, nitric oxide complex (sodium salt) monohydrate	1700-2050	S	Freq	Lewis	J INC	7 (1958)	32
$\text{RuCl}_5\text{NOCS}_2$	Ruthenium (III)-chloride, nitric oxide complex (cesium salt)	1700-2050	S	Freq	Lewis	J INC	7 (1958)	32
RuF_4	Ruthenium (IV)-tetrafluoride	-	S	Freq, Struct	Peacock	JCS	- (1959)	2762
RuF_4	Ruthenium (III)-complex fluorooion	-	S	Freq, Struct	Peacock	JCS	- (1959)	2762
RuI_5NOK_2	Ruthenium (III)-iodide, nitric oxide complex (potassium salt)	1700-2050	S	Freq	Lewis	J INC	7 (1958)	32

Sb Compounds

$\text{SbC}_3^{\text{H}}\text{I}_6$	Propenyl antimony iodide	800-1700	-	Spec, Config.	Nesmeyanov	TEL	8 (1960)	23
$\text{SbC}_3^{\text{H}}_9$	Trimethyl stibine	-	-	FC	Gordy Sheline Weston	JCP JCP JACS	14 (1946) 18 (1950) 76 (1954)	305 602 2645
		-	-	FC				
		-	-	Freq				

$\text{SbC}_{8/5}\text{H}_{16/5}\text{Cl}_3\text{O}_{4/3}$	Antimony trichloride-dioxane	1200	-	Freq	Sheppard	TFS	51 (1955)	1465
$\text{SbC}_4\text{H}_8\text{Cl}_3\text{O}_2$	Antimony trichloride dioxane	150-5000	S	Thermo., Symmetry	Daasch	SA	15 (1959)	726
$\text{SbC}_6\text{H}_6\text{Cl}_3$	Antimon trichloride benzene complex	650-5000	S	Thermo., Symmetry	Daasch	SA	15 (1959)	726
$\text{SbC}_6\text{H}_7\text{O}_3^B$	Phenylstibonic acid	650-10000	Sol	Spec	Daasch	JCP	28 (1958)	1005
$\text{SbC}_6\text{H}_{12}\text{Cl}_3\text{O}_3$	Antimony trichloride dioxane	600-4000	S	Assign	Braunholtz	JCS	-	868
$\text{SbC}_9\text{H}_{15}$	Tripropenyl antimony	650-1000	S	Thermo., Symmetry	Daasch	SA	15 (1959)	726
$\text{SbC}_9\text{H}_{15}\text{Br}_2$	Tripropenyl antimony bromide	800-1700	-	Spec, Config.	Nesmeyanov	TEL	8 (1960)	23
$\text{SbC}_9\text{H}_{15}\text{Cl}_2$	Tripropenyl antimony chloride	800-1700	-	Spec, Config.	Nesmeyanov	TEL	8 (1960)	23
$\text{SbC}_{12}\text{H}_{20}\text{Br}$	Tetrapropenyl antimony bromide	800-1700	-	Spec, Config.	Nesmeyanov	TEL	8 (1960)	23
$\text{SbC}_{12}\text{H}_{24}\text{Cl}_3\text{O}_6$	Antimony trichloride-dioxane	650-5000	S	Thermo., Symmetry	Daasch	SA	15 (1959)	726
$\text{SbC}_{15}\text{H}_{25}$	Pentapropenyl antimony	800-1700	-	Spec, Config.	Nesmeyanov	TEL	8 (1960)	23
$\text{SbC}_{18}\text{H}_{15}$	Triphenyl stibine	1045	Sol	Freq Vibrations	Kross	JACS	77 (1955)	5858
		625-9000	Sol		Mangoshes	SA	7 (1955)	14

SbC ₁₈ H ₁₆ Br ₄ N	Triphenyl ammonium tetrabromoantimonate	-	S	H bond, Freq	Muttall	JCS	- (1960)	4965
SbC ₁₈ H ₁₆ Cl ₄ N	Triphenyl ammonium tetrachloroantimonate	-	S	H bond, Freq	Muttall	JCS	- (1960)	4965
SbC ₂₁ H ₂₇ F ₆ N	Tri-p-tolyl ammonium hexafluoroantimonate	600-3400	S	Spec	Sharp	JCS	- (1957)	4804
SbH	Antimony monohydride	-	-	FC	Sheline	JCP	18 (1950)	927
SbH ₃	Stibene	-	-	FC	Gordy	JCP	14 (1946)	305
	5.3μ	G	Struct	Nielsen	JOSA	37 (1947)	296	
	2-15μ	G	Spec	Smith	JCP	19 (1951)	384	
	-	-	Struct	Nielsen	JCP	20 (1952)	759	
	2-15μ	-	Mol. Const.	Haynie	JCP	21 (1953)	1839	
	-	G	Vibrations, Band study	Huggins	JACS	75 (1953)	4126	
	-	G	Vibrations	Gamo	CPR	238 (1954)	2305	
	-	-	Molecular interaction	Meal	JCP	24 (1956)	1126	
Sb	121H ₃	Stibene-(isotopic)	-	-	Jache	PR	97 (1955)	680
Sb	123H ₃	Stibene-(isotopic)	-	-	Jache	PR	97 (1955)	680
SbD ₃	Stibene-d ₃	2-15μ	G	Spec, Mol. Const.	Haynie	JCP	21 (1953)	1839
Sb	121D ₃	Stibene-d ₃ (isotopic)	-	-	Jache	PR	97 (1955)	680
Sb	123D ₃	Stibene-d ₃ (isotopic)	-	-	Jache	PR	97 (1955)	680
SbBr ₃	Antimony tribromide	550-850	S	Assign, FC	Davies	JMS	2 (1958)	253
SbClF ₅ NO	Nitrosyl antimony pentfluorochloride	-	-	Freq, Spec	Waddington	ZAU	304 (1960)	185

SbCl ₃	Antimony trichloride	-	-	Breq FC	Howard Gordy Hahn Davies Wilmshurst	JCP JCP JCP JMS JMS	2 (1934) 14 (1946) 24 (1956) 2 (1958) 5 (1960)
		-	-	Breq	Gordy Hahn	JCP	305 921
		360	-	Assign, FC	Davies	JMS	253
		85-550	S	Assign, I	Wilmshurst	JMS	343
		700-1900	G	Thermo.			
SbCl ₄ NO	Nitrosyl antimony tetrachloride nitrosyl compound	-	-	Breq, Spec	Waddington	ZAU A	304 (1960) 185
SbCl ₅	Antimony pentachloride	1.5-16 μ 190-420	L G	Spec, Dispersion Assign, Thermo., I	Marvin Wilmshurst	PR JMS	34 (1912) 5 (1960) 161 343
SbF ₅	Antimony pentafluoride	2-25 μ 200-1400	G G	Spec Breq, Thermo.	Akers Gaunt	PR SA	95 (1954) 10 (1958) 300 57
SbF ₅ K ₂	Potassium pentafluoro antimonite	-	-	Struct	Mellish	TFS	51 (1955) 1311
SbN	Antimony nitride	-	-	Breq	Clark	TFS	33 (1937) 1390
SbF ₆ NO ₂	Nitronium hexafluoro antimonate	2-16 μ	S	Spec, Struct	Cook	JCP	33 (1960) 1669
SbO ₃ K	Potassium antimonate	400-4000	-	Spec, Assign, Struct	Siebert	ZAU A	301 (1959) 161
SbO ₃ K·2·2H ₂ O	Potassium antimonate 2·? hydrate	400-4000	-	Spec, Struct, Assign	Siebert	ZAU A	301 (1959) 161
SbO ₃ Na	Sodium antimonate	400-4000	-	Spec, Struct, Assign	Siebert	ZAU A	301 (1959) 161
SbO ₄ K·1·7H ₂ O	Potassium peroxy antimonate 1.7 hydrate	400-4000	-	Constitution study Struct	Siebert Siebert	ZAU A ZAU A	301 (1959) 301 (1959) 161 316
SbO ₄ K·1·8H ₂ O	Potassium peroxy antimonate 1.8 hydrate	400-4000	-	Constitution study Struct	Siebert Siebert	ZAU A ZAU A	301 (1959) 301 (1959) 161 316

Sc COMPOUNDS		ScC ₁₅ H ₂₁ O	
		Sc	Sc
SbO ₄ Na·2H ₂ O	Sodium peroxy antimoneate dihydrate	400-4000	-
SbF	Antimony phosphide	-	-
SbS ₄	Antimony tetrasulfide ion	-	-
SbAs	Antimony arsenide	-	-
Sb ₂ C ₆ H ₆ Cl ₆	Antimony trichloride benzene complex	650-5000	S Thermo.
Sb ₂ C ₈ H ₁₀ Cl ₇ N ₃	p-dimethylamino benzene diazonium chloride antimony trichloride	3-14μ	S Freq
Sb ₂ C ₁₂ H ₁₄ O ₆	Phenylstibonic acid (dimer)	600-4000	S Freq
Sb ₂ 3	Antimony trioxide	2-15μ 2-15μ 300-880	S Spec S Spec S Spec
Sb ₂ 5	Antimony pentoxide	2-16μ 300-880	S Spec S Spec
Sb ₃ HO ₁₂ K ₂ ·3·5H ₂ O	Potassium triperoxy antimonate 3.5 hydrate	400-4000	-
Siebert Siebert	Constitution study Struct	Clark	TFS
Pistorius	JCP	JCP	TFS
Clark	JACS	JCS	JCP
Daasch	SA	-	Spec
Gremillion	JACS	-	Sc
Braunholtz	JCS	-	Sc
Miller Harkins Miller	AC AC SA	AC AC SA	Sc
Miller Miller	AC SA	AC SA	Sc
Siebert Siebert	Constitution study Struct	ZAU A ZAU A	Sc
		301 (1959) 301 (1959)	Sc
		316 (1959)	Sc
		161 (1959)	Sc
		514 (1958)	Sc
		1390 (1958)	Sc
		1390 (1957)	Sc
		1253 (1957)	Sc
		541 (1957)	Sc
		135 (1957)	Sc
		840 (1940)	Sc

ScF_4	Scandium (III)-fluoride complex ion	-	S	Freq, Struct	Peacock	JCS	-	(1959)	2762
$\text{ScN}_3\text{O} \cdot 4\text{H}_2\text{O}$	Scandium nitrate tetrahydrate	700-1600	S	Freq, Assign	Ferraro	JMS	4 (1960)	99	
SmF_3	Samarium fluoride	-	S	Spec	Freed	JCP	8 (1940)	840	
<u>Sn COMPOUNDS</u>									
$\text{SnN}_3\text{O} \cdot 6\text{H}_2\text{O}$	Samarium nitrate hexahydrate	700-1600	S	Absorption freq	Ferraro	JMS	4 (1960)	99	
SnCH_3I_3	Methyl stannic iodide	500-3500	Sol,S	Spec, Freq	Okawara	JACS	82 (1960)	3287	
SnCH_3O	Methyl tin oxide	400-1500	S	Assign, Freq	Brown	SA	16 (1960)	595	
$\text{SnC}_2\text{H}_6\text{Br}_2$	Dimethyl stannic bromide	500-3500	S,Sol	Spec, Freq	Okawara	JACS	82 (1960)	3287	
$\text{SnC}_2\text{H}_6\text{Cl}_2$	Dimethyl stannic chloride	500-3500	Sol	Spec	Okawara	JACS	82 (1960)	3287	
$\text{SnC}_2\text{H}_6\text{I}_2$	Dimethyl stannic iodide	700-3000	S	Assign	Lippincott	JPC	57 (1953)	939	
$\text{SnC}_2\text{H}_6\text{O}$	Dimethyl tin oxide	400-1500	S	Freq, Assign	Brown	SA	16 (1960)	595	
$\text{SnC}_2\text{H}_8\text{Br}_4\text{N}_4\text{O}_2$	Tin (IV) tetrabromide complex with urea	-	-	Spec	Bystrov	OS	9 (1960)	460	

2256	$\text{SnC}_2\text{H}_8\text{Cl}_4\text{N}_4\text{O}_2$	Tin (IV) tetrachloride complex with urea.	-	-	Spec	Bystrøv	OS	9 (1960)	460
	$\text{SnC}_2\text{H}_8\text{BrN}_4\text{S}_2$	Tin (IV) tetrabromide complex with thiourea	-	-	Spec	Bystrøv	OS	9 (1960)	460
	$\text{SnC}_2\text{H}_8\text{Cl}_4\text{N}_4\text{S}_2$	Tin (IV) tetrachloride complex with thiourea	-	-	Spec	Bystrøv	OS	9 (1960)	460
	$\text{SnC}_3\text{H}_7\text{ClO}_2$	Dimethylmono-carboxy stannic chloride	4-14 μe	S	Spec, Freq	Okawara	JACS	82 (1960)	3287
	$\text{SnC}_3\text{H}_9\text{Br}$	Trimethyl stannic bromide	500-3500	-	Ident Spec, Freq	Pedley Okawara	TFS JACS	53 (1957) 82 (1960)	1612 3287
	$\text{SnC}_3\text{H}_9\text{F}$	Trimethyl stannic fluoride	500-3500	S	Spec, Freq	Okawara	JACS	82 (1960)	3287
	$\text{SnC}_3\text{H}_9\text{I}$	Trimethyl stannic iodide	704-4350 500-3500	L Sol	Assign Spec, Freq	Lippincott Okawara	JPC JACS	57 (1953) 82 (1960)	939 3287
	$\text{SnC}_4\text{H}_8\text{O}_4$	Dimethyltin dicarboxylate	400-3000	S	Spec, Freq	Okawara	JACS	82 (1960)	3287
	$\text{SnC}_4\text{H}_{10}\text{O}_2$	Trimethyl tin monocarboxylate	400-3000	S	Spec, Freq	Okawara	JACS	82 (1960)	3287
	$\text{SnC}_4\text{H}_{11}\text{Cl}_3\text{O}_2$	Ethoxytin trichloride etharolate	2-15.5 μe	S	Spec	Laubengayer	JACS	76 (1954)	5985
	$\text{SnC}_4\text{H}_{12}$	Tetramethyl tin	1-16 μe	G	Spec Spec, Freq	Ketttering Pai Anderson	P PRS JCP	4 (1933) 149 (1935) 4 (1935)	39 29 161

-	-	Potential barrier	French	JCP	14 (1946)	389		
-	-	Freq, Assign	Young	JACS	69 (1947)	1410		
-	-	FC	Sheline	JCP	18 (1950)	595		
-	-	FC	Sheline	JCP	18 (1950)	602		
520-3700	G,L	I, Assign	Lippincott	JACS	75 (1953)	4141		
-	-	Ident	Eigell	JACS	76 (1954)	1169		
1200	-	Freq	Sheppard	TPS	51 (1955)	1465		
-	-	Ident	Pedley	TPS	53 (1957)	1612		
2-25 μ	L,G	Spec, Freq	Dillard	JCSA	50 (1960)	1271		
$\text{SnC}_4\text{H}_{12}\text{Cl}_4\text{O}_2\text{S}_2$	Tin (IV)-dimethyl sulfoxide complex chloride	650-4000	S	Assign, Spec	Cotton	JPC	64 (1960)	1534
$\text{SrC}_6\text{H}_5\text{Cl}_3$	Phenyl tin tri-chloride	650-3500	L,Sol	Assign, Freq	Griffith	JMS	5 (1960)	148
$\text{SnC}_6\text{H}_{16}$	Dimethyldiethyltin	2-25 μ	L,G	Spec, Freq	Dillard	JOSA	50 (1960)	1271
$\text{SnC}_6\text{H}_{18}\text{C}_2\text{Si}_2$	Tin (II)-trimethyl silanolate	2-16 μ	Sol	Spec	Tatlock	JOC	17 (1952)	1555
$\text{SnC}_7\text{H}_{18}$	Methyl triethyl tin	2-25 μ	L,G	Spec, Freq	Dillard	JOSA	50 (1960)	1271
$\text{SnC}_8\text{H}_{10}\text{Cl}_5\text{N}_3 \cdot \frac{1}{2}\text{H}_2\text{O}$	p-dimethylamino-benzene diazonium chloride tin tetra-chloride semihydrate	3-14 μ	S	Freq	Gremillion	JACS	81 (1959)	6134
$\text{SnC}_8\text{H}_{12}$	Tetravinylin	650-3500	L	Freq, Assign	Kaesz	SA	15 (1959)	360

2258

$\text{SnC}_8\text{H}_{18}\text{Cl}_2$	Dibutyl tin dichloride	300-3200	S, Sol	Spec, Freq	Tobin	JMS	5 (1960)	65
$\text{SnC}_8\text{H}_{20}$	Tetraethyl tin	650-3500 2-25/ μ	L, L,G -	Spec, Assign Spec, Freq Spec, Assign	Kaesz Dillard Hoffman	SA JOSA ZE	50 (1960) 64 (1960)	360 1271 616
$\text{SnC}_8\text{H}_{24}\text{O}_2\text{Si}_2$	Bis-(trimethylsiloxy)dimeethyltin	2-16/ μ	S	Spec	Tatlock	JOC	17 (1952)	1555
$\text{SnC}_{10}\text{H}_{10}$	Cyclopentadienyl tin	400-4000	Sol	Spec, Struct	Dave	JCS	- (1959)	3684
$\text{SnC}_{12}\text{H}_{10}\text{Cl}_2$	Diphenyl tin dichloride	650-3500	S, Sol	Freq, Assign	Griffiths	JMS	5 (1960)	148
$\text{SnC}_{12}\text{H}_{10}^0$	Diphenyl tin oxide	-	-	Comparison	Gilman	JOC	20 (1955)	763
$\text{SnC}_{12}\text{H}_{36}\text{O}_4\text{Si}_4$	Tin (IV)-trimethyl silanolate	2-16/ μ	S	Spec	Tatlock	JOC	17 (1952)	1555
$\text{SnC}_{18}\text{H}_{15}\text{Cl}$	Triphenyl tin chloride	650-3500	S, Sol	Assign, Freq	Griffiths	JMS	5 (1960)	148
$\text{SnC}_{18}\text{H}_{15}^0$	Triphenyl tin oxide	-	-	Comparison	Gilman	JOC	20 (1955)	763
$\text{SnC}_{18}\text{H}_{16}\text{BrN}$	Triphenylammonium pentachlorostannate	-	S	H bond, Freq	Nuttall	JCS	- (1960)	4965
$\text{SnC}_{18}\text{H}_{16}^0$	Triphenyl tin hydroxide	-	Sol	H bond	West	JACS	82 (1960)	6269
$\text{SnC}_{19}\text{H}_{15}\text{Cl}_5$	Triphenyl methyl-pentachlorostannate	600-3400	S	Spec	Sharp	JCS	- (1957)	4804

SnC ₂₄ H ₂₀	Tetr phenyl tin	-	-	Gilman	JOC	18 (1953)	680	
		-	-	Gilman	JOC	18 (1953)	1554	
		-	-	Gilman	JOC	20 (1955)	763	
		-	-	Kross	JACS	77 (1955)	5858	
		1075	Sol	Margoshes	SA	7 (1955)	14	
		625-900	Sol	Noltes	CIL	- (1959)	298	
		8-11 μ	S	Griffith	JMS	5 (1960)	148	
		650-3500	S,Sol					
	p-Carboxyphenyl-triphenyl tin	-	-	Gilman	JOC	20 (1955)	763	
			Comparison					
SnC ₂₅ H ₂₀ O ₂	Tin (IV) bromide-triphenylphosphine oxide add. compd.	1100-1300	S	P-O band	Sheldon	JACS	80 (1958)	4775
SnC ₃₆ H ₃₀ Br ₄ O ₂ P ₂	Tin (IV) choride-triphenylphosphine oxide add. compd.	1100-1300	S	P-O band	Sheldon	JACS	80 (1958)	4775
SnC ₃₆ H ₃₀ Cl ₄ O ₂ P ₂	Triphenyl ammonium hexafluorostannate	-	S	H bond, Freq	Nuttall	JCS	- (1960)	4965
SnH	Tin monohydride	-	-	FC	Platt	JCP	18 (1950)	932
SnHF ₅ OK ₂ .H ₂ O	Tin (IV)-fluoride, hydroxide, complex (potassium salt) monohydrate	-	-	FC	Sheeline	JCP	18 (1950)	927
			-	Spec., Config., FC	Kriegsman	NWS	47 (1960)	393
SnH ₄	Stannate	-	-	FC	Gordy	JCP	14 (1946)	305
SnH ₈ C ₁₆ N ₂	Diammonium tin hexachloride	-	S	Freq	Cox	JCS	- (1954)	1798
SnH ₈ F ₆ N	Tin (IV)-fluoride complex (ammonium salt)	-	-	Spec., Config., FC	Kriegsman	NWS	47 (1960)	393
SnH ₁₀ C ₆ N ₄	Tin (IV)-fluoride complex (hydrazinium salt)	-	-	Spec., Config., FC	Kriegsman	NWS	47 (1960)	393
SnBr ₄	Tin tetrabromide	-	-	Vibrations	Urey	PR	38 (1931)	1969
		-	-	Freq	Villars	CR	11 (1932)	369
		-	-	Vibrations	Rosenthal	PR	46 (1934)	730
		-	-	FC	Rosenthal	PR	49 (1936)	535
		-	-	FC	Gordy	JCP	14 (1946)	305

$\text{SnF}_6\text{K}_2\text{H}_2\text{O}$	Tin (IV)-fluoride complex (potassium salt) monohydrate	-	-	Spec, Config., FC	Kriegsman	NWS	47 (1960)	393
SnO	Tin monoxide	-	-	FC	Baughan	TFS	53 (1957)	1046
SnO_2	Tin oxide	$1-8\mu$ 22-310 μ	S	Emission Reflectance	Coblentz Weniger	BBS JOSA	5 (1908) 7 (1923)	159 517
SnO_3Ba	Barium stannate	350-700	-	Freq, Assign, FC	Yatsenko	IANS	22 (1958)	1456
SnO_3Sr	Strontium stannate	350-700	-	Freq, Assign, FC	Yatsenko	IANS	22 (1958)	1456
SnO_7P_2	Tin pyrophosphate	-	-	Spec	Steiger	ZAUJ	303 (1960)	169
$\text{Sn}_2\text{C}_4\text{H}_{12}\text{Cl}_2\text{O}$	1,3-Dichloro-tetramethyl distannoxane	400-1500	S	Freq, Assign	Brown	SA	16 (1960)	595
$\text{Sn}_2\text{C}_3\text{H}_{30}$	Hexaphenylditin	-	-	Ident	Gilman	JCC	18 (1953)	680
$\text{Sn}_2\text{C}_4\text{H}_{42}$	Hexa-o-tolylditin	-	-	Anal, Ident Comparison	Gilman Gilman	JCC JCC	18 (1953) 20 (1955)	1554 763
$\text{Sn}_3\text{C}_6\text{H}_{18}\text{S}_3$	Dimethyl tin sulfide (trimer)	400-1500	S, Sol	Freq, Assign	Gilman Brown	JCC SA	18 (1953) 16 (1960)	1554 595
Sr COMPOUNDS								
$\text{SrCH}_3\text{O}_3\text{P}_2\text{H}_2\text{O}$	Strontium methyl phosphonate dihydrate	2-15 μ	S	Spec, Group freq, I	Corbridge	JCS	- (1954)	4555
SrCO_3	Strontium carbonate	$2-16\mu$ 11-12.5 μ	S	Spec Spec, Freq	Hunt Underwood	AC JACS	22 (1950) 77 (1955)	1478 317

SrC ¹²⁰ ₃	Strontium carbonate (isotopic)	858	S	Intermolecular coupling	Decius	JCP	22 (1954) 1946
SrC ¹³⁰ ₃	Strontium carbonate (isotopic)	858	S	Intermolecular	Decius	JCP	22 (1954) 1946
SrC ₄ H ₁₂ N ₂ O ₈ P ₂ · xH ₂ O	Strontium bis- dimethyl phosphinate polyhydrate	737-3270	S	I, Freq	Corbridge	JCS	- (1954) 4555
SrC ₁₀ H ₁₂ N ₂ O ₈ Na ₂ ·5H ₂ O	Strontium (II)- ethylenediamine taeacetic acid complex (sodium salt)pentahydrate	800-3000	S	Spec, Freq	Sawyer	JACS	80 (1958) 1597
SrC ₄₈ H ₃₂ Cl ₂ N ₆ O ₈ ·4H ₂ O	Strontium (II)- phenanthroline complex perchlorate tetrahydrate	600-2000	S	Spec	Schilt	JINC	9 (1959) 211
SrH	Strontium hydride	-	-	FC	Platt Sheline	JCP	18 (1950) 18 (1950) 932 927
SrHO ₃ P·H ₂ O	Strontium ortho- phosphate mono- hydrate	2-15 μ	S	Group freq, I, Assign	Corbridge	JCS	- (1954) 493
SrH ₃ N ₃ O ₄ P ₃ Na ₂ · 4H ₂ O	Sodium strontium triposphonitrate tetrahydrate	820-3230	S	I, Freq	Corbridge	JCS	- (1954) 4555
SrH ₄ O ₄ P ₂	Strontium phosphi- nate	2-15 μ	S	Spec, Freq, I, Assign	Corbridge	JCS	- (1954) 493

SrBr ₂ ·6H ₂ O	Strontium bromide hexahydrate	800-4000	S	Spec	Lucchesi	JACS	78 (1956)	1347
SrCl ₂	Strontium chloride	2-4/ μ 0.8-2.3/ μ	Sol Sol	Spec Spec	Angstrom Collins	PR PR	3 (1914) 20 (1922)	47 486
SrCl ₂ ·6H ₂ O	Strontium chloride hexahydrate	800-4000	S	Spec	Lucchesi	JACS	78 (1956)	1347
SrF ₃ P·xH ₂ O	Strontium monofluorophosphate polyhydrate	2-15/ μ	S	Spec, I, Freq	Corbridge	JCS	- (1954)	4555
SrF ₂	Strontium fluoride	-	-	Polarizability theory	Szigeti	TPS	45 (1949)	155
SrN ₂ O ₆	Strontium nitrate	2-16/ μ 700-1600 300-880	S S S	Spec, Freq Freq, Assign Spec	Miller Ferraro Miller	AC JMS SA	24 (1952) 4 (1960) 16 (1960)	1253 99 135
SrN ₆	Strontium azide	635-3100	S	Freq, FC	Gray	TPS	53 (1957)	901
SrO	Strontium oxide	-	-	Polarizability theory Freq	Szigeti Szigeti	TPS PRS	45 (1949) 204 (1950)	155 51
SrO ₂	Strontium dioxide	2-16/ μ	S	Spec, Struct	Brame	JINC	4 (1957)	90
SrO ₂ PSNa·8H ₂ O	Sodium strontium phosphoramono-thioate octahydrate	844-3140	S	I, Freq	Corbridge	JCS	- (1954)	4555
SrO ₂ Ti	Strontium titanate	2-15/ μ 0.35-15/ μ	S	Absorption Spec Spec	Linz Mara Noland	PR PR PR	91 (1953) 96 (1954) 94 (1954)	753 801 724
SrO ₄ S	Strontium sulphate	1-7.5/ μ 5-12/ μ 5-50/ μ	S S S	Spec Reflectance, Spec Absorption	Coblentz Coblentz Cartwright	BBS BBS PR	2 (1907) 2 (1907) 35 (1930)	457 457 415

SrO_4Cr	Strontium chromate	2-16 μ	S	Spec	Meloche Miller	J INC SA	6 (1958) 16 (1960)	104 135
SrO_4Mo	Strontium molybdate	2-15 μ	S	Spec	Harkins	AC	31 (1959)	541
SrO_4W	Strontium tungstate	290-650	S	Assign	Duval	CPR	239 (1954)	249
SrS	Strontium sulphide	290-650	S	Assign	Duval	CPR	239 (1954)	249
SrSe	Strontium selenide	-	-	IR-sensitive phosphor	Mason	JACS	71 (1949)	509
		-	-	IR-sensitive phosphorescence	Ellickson	PR	69 (1946)	5342
		-	-	Stimulation spec of phosphors	Smith	JACS	69 (1947)	1725
		-	-	IR sensitive phosphors	Mason	JACS	71 (1949)	509
		-	-	IR sensitive phosphors	Texin	JACS	71 (1949)	2494
$\text{Sr}_2\text{O}_6\text{P}_2 \cdot 2\text{H}_2\text{O}$	Distrontium hypophosphate dihydrate	848-3360	S	I, Freq	Corbridge	JCS	- (1954)	4555
$\text{Sr}_2\text{O}_7\text{P}_2$	Distrontium pyrophosphate	2-15 μ	S	Freq, Assign, I	Corbridge	JCS	- (1954)	493
$\text{Sr}_2\text{O}_8\text{P}_2 \cdot x\text{H}_2\text{O}$	Distrontium peroxy diphosphate polyhydrate	732-3350	S	I, Freq	Corbridge	JCS	- (1954)	4555
$\text{Sr}_2\text{O}_{12}\text{P}_4 \cdot 5\text{H}_2\text{O}$	Distrontium tetra-metaphosphate pentahydrate	2-15 μ	S	Freq, I, Assign	Corbridge	JCS	- (1954)	493
$\text{Sr}_3\text{Cl}_2\text{OS}$	Strontium sulfide-strontium chloride-strontium oxide	-	-	IR sensitive phosphor	Prenser	JACS	71 (1949)	1803
$\text{Sr}_3\text{O}_8\text{P}_2$	Tristrontium ortho-phosphate	2-15 μ	S	Freq, I, Assign	Corbridge	JCS	- (1954)	493
		290-650	S	Assign	Duval	CPR	239 (1954)	249
		2-16 μ	S	Spec	Meloche	J INC	6 (1958)	104

$\text{Sr}_3\text{O}_{18}\text{P}_6 \cdot 7\text{H}_2\text{O}$
Tristronium
trimetaphosphate
heptahydrate

Ta Compounds

			S	Freq., I, Assign	Corbridge JCS - (1954) 493
$\text{TaC}_{10}\text{H}_{10}\text{Br}_3$	Tantalum (V)- cyclopentadiene complex bromide	2-15 μ	S	Spec	Wilkinson JACS 76 (1954) 4281
TaF_4	Tantalum tetra- fluoride	-	S	Freq., Struct	Peacock JCS - (1959) 2762
TaF_7	Tantalum (V)- fluoride complex ion	-	S	Freq., Struct	Peacock JCS - (1959) 2762

Te Compounds

TeCS	Thiocarbonyl telluride	2-15 μ	-	Microwave Spec, Ident	Hardy Wentik PR 95 (1954) JCP 29 (1958)	385	188
TeH	Tellurium hydride	-	-	FC	Sheline JCP 18 (1950)	927	
TeH_2	Hydrogen telliodide	3.8-5.5 μ 870-2000	-	FC Spec	Gordy Jarrell JCP 14 (1946) PR 76 (1949) Rossman JCP 24 (1956) Crossmann DA 19 (1958)	305 199 1276 341	
$\text{TeH}_4\text{O}_6\text{K}_2\text{H}_2\text{O}$	Potassium tellurate trihydrate	400-4000	-	Spec	Siebert ZAU A - (1959)	301	
$\text{TeH}_4\text{O}_6\text{Na}_2$	Sodium tellurate	400-4000	-	Spec	Siebert ZAU A - (1959)	301	

TeH_6^0	Telluric acid	400-4000	-	Spec	Siebert	ZAU	-	(1959)	301
TeBr_2	Tellurium bromide	-	-	FC	Gordy	JCP	14	(1946)	305
TeCl_2	Tellurium dichloride	-	-	FC, Bond dist.	Gordy	JCP	14	(1946)	305
TeCl_4	Tellurium tetrachloride	-	-	Quant. Mech.	Wilson	JCP	2	(1934)	432
TeF_6	Tellurium hexafluoride	-	-	Quant. Mech. Quant. Mech.	Wilson VanVleck Heath	JCP TFS TFS	2 7 45	(1934) (1939) (1949)	432 72 264
		-	-	FC	Linnett	TFS	48	(1952)	592
		-	-	FC	Gaunt	TFS	49	(1953)	1122
		400-5000	G	Spec, Assign, Thermo.	Gaunt	TFS	50	(1954)	546
		-	-	FC	Gaunt	TFS	51	(1954)	893
		25-40 μ	G	Freq	Hahn	JCP	24	(1956)	921
		677	-	Freq	Califano	AAN	25	(1958)	284
		-	-	FC	Weinstock	JCP	31	(1959)	262
		-	-	Jahn-Teller effect					
TeO_2	Tellurium dioxide	-	-	Anal	Duchesne	JCP	15	(1947)	631
TeS	Tellurium sulfide	-	-	Freq Freq	Clark Clark	TFS TFS	33 33	(1937) (1937)	1390 1394
TeSe	Tellurium selenium	-	-	Freq Freq Photo response	Clark Clark Loferski	TFS TFS PR	33 33 93	(1937) (1937) (1954)	1390 1394 707
Te_2	Tellurium	0.5-9 μ	S	Reflectance Absorption Spec	Coblenz Cartwright Ruedy Pfund Andrews Clark Sutherland Linnett Loferski	BBS PR PR JOSA PR TFS TFS JCP TFS PR	7 35 41 23 51 33 33 51 38 83	(1911) (1930) (1932) (1933) (1937) (1937) (1940) (1942) (1951)	197 415 588 375 1017 1394 161 1 876
		-	-	Transmission					
		1-11 μ	S	Reflectance Absorption Spec					
		0.185-10 μ	S	Transmission					
		-	-	Reflectance Absorption Spec					
		-	-	Transmission					
		4.5-10 μ	S	Transmission					
		-	-	Polarization					

-	S	Polarization	Loferski	PR	86 (1952)
3-9 μ	S	Spec	Loferski	PR	87 (1952)
1-6 μ	S	Spec	Plyler	JOSA	42 (1952)
0.8-20 μ	S	Reflectance	Agnew	JOSA	43 (1953)
4-25 μ	S	Spec	Caldwell	PR	94 (1954)
-	-	Absorption	Callen	JCP	22 (1954)
3.6-8 μ	S	Refractive index	Hartig	JOSA	44 (1954)
3-9 μ	S	Spec	Loferski	PR	93 (1954)
5-25 μ	S	Usage	Greenler	JOSA	45 (1955)
-	S	Pressure effect on absorption	Neuringer	PR	98 (1955)
Te_2F_{10}	Tellurium deca- fluoride	2-25 μ	G	Spec, Freq, Assign	Dodd
Te_3As_2	Arsenic tritelluride	-	S	Glasses	Fraser
					JOSA 43 (1953) 823
<hr/>					
<u>Th COMPOUNDS</u>					
$\text{ThC}_{10}\text{H}_{12}\text{N}_2\text{O}_8 \cdot 9\text{H}_2\text{O}$	Thorium (IV)- ethylenediamine nonahydrate	800-1800	S	Spec	Donald JACS 82 (1960) 4191
$\text{ThC}_{24}\text{H}_{54}\text{O}_{12}\text{P}_3$	Thorium (III)- di-n-butyl phosphate	714-5000	S	Interaction study	Smith JINC 9 (1959) 150
ThF_4	Thorium tetra- fluoride	-	S	Freq, Struct	Peacock JCS - (1959) 2762
$\text{ThI}_4\text{O}_{12}$	Thorium (IV)- iodate	-	S	Spec, Struct	Da sent JCS - (1960) 2429
$\text{ThN}_4\text{O}_{12}$	Thorium (IV)- nitrate	2-16 μ	S	Spec	Meloche JINC 6 (1958) 104

$\text{ThN}_4\text{O}_{12} \cdot 4\text{H}_2\text{O}$	Thorium nitrate tetrahydrate	300-880	S	Spec	Miller	SA	16 (1960)	135
$\text{ThN}_4\text{O}_{12} \cdot 5\text{H}_2\text{O}$	Thorium nitrate pentahydrate	700-1600	S	Freq, Assign	Ferraro	JMS	4 (1960)	99
ThO_2	Thorium oxide	1-8 μ -	S S	Spec Emission	Coblentz Pirani	EBS JSI	5 (1968) 16 (1939)	159 372

Ti COMPOUNDS

$\text{TiC}_2\text{H}_6\text{Cl}_4\text{O}$	Acetone titanium tetrachloride adduct	-	-	Spec	Cassimatis	HCA	43 (1960)	424
$\text{TiC}_4\text{H}_6\text{Br}_4\text{N}_2$	Titanium (IV) bromide complex with methyl-cyanide	600-3000	-	Spec, Struct, Assign	Rao	ZAU A	304 (1960)	351
$\text{TiC}_4\text{H}_6\text{Cl}_4\text{N}_2$	Titanium (IV) chloride complex with methyl-cyanide	400-3000	-	Spec, Struct, Assign	Rao	ZAU A	304 (1960)	351
$\text{TiC}_4\text{H}_6\text{F}_4\text{N}_2$	Titanium (IV) fluoride complex with methyl-cyanide	400-3000	-	Spec, Struct, Assign	Rao	ZAU A	304 (1960)	351
$\text{TiC}_4\text{H}_8\text{Br}_4\text{O}_2$	Titanium (IV)-dioxane complex bromide	500-1500	S	Spec, Struct	Hendra	JCS	- (1960)	5105
$\text{TiC}_4\text{H}_{12}\text{O}$	Titanium methoxide	-	-	Spec, Assign	Kriegsmann	ZE	62 (1958)	1163
$\text{TiC}_5\text{H}_5\text{F}_4\text{N}$	Titanium tetra-fluoride-2-pyridine	660-3000	-	Spec	Rao	NWS	46 (1959)	556

$TiC_5H_5I_4N$	Titanium tetrailide-2-pyridine	660-3000	-	Config.	Rao	NWS ZAU A	46 (1959) 304 (1960)	556
$TiC_6H_{10}Br_4N_4$	Titanium (IV)-bromide complex with ethyl-cyanide	600-3000	-	Spec, Struct, Assign	Rao	ZAU A	304 (1960)	351
$TiC_6H_{10}Cl_4N_4$	Titanium (IV)-chloride complex with ethyl-cyanide	600-3000	-	Spec, Struct, Assign	Rao	ZAU A	304 (1960)	351
$TiC_6H_{10}F_4N_4$	Titanium (IV)-fluoride complex with ethyl-cyanide	600-3000	-	Spec, Struct, Assign	Rao	ZAU A	304 (1960)	351
$TiC_7H_5Cl_5O$	Benzoyl chloride titanium tetrachloride adduct	-	S	Spec	Cassimatis	HCA	43 (1960)	424
$TiC_8H_{20}O_4$	Titanium ethoxide	-	-	Spec, Assign	Kriegsmann	ZE	62 (1958)	1163
$TiC_{10}H_{10}Br_2$	Titanium (IV)-cyclopentadiene, bromide complex	$\bar{2}$ -15 μ	S	Struct Spec	Wilkinson Wilkinson	JACS JACS	75 (1953) 76 (1954)	1011 4281
$TiC_{10}H_{10}Br_4N_2$	Titanium (IV)-bromide, pyridine complex	600-3000	-	Spec	Rao	ZAU A	304 (1960)	176
$TiC_{10}H_{10}Cl_4N_2$	Titanium (IV)-chloride pyridine complex	400-3000	-	Spec	Rao	ZAU A	304 (1960)	176
$TiC_{10}H_{10}F_4N_2$	Titanium (IV)-fluoride pyridine complex	660-3000 400-3000	-	Config. Spec	Rao Rao	NWS ZAU A	46 (1959) 304 (1960)	556 176
$TiC_{10}H_{10}I_4N_2$	Titanium (IV)-iodide, pyridine complex	660-3000 400-3000	-	Config. Spec	Rao Rao	NWS ZAU A	46 (1959) 304 (1960)	556 176
$TiC_{10}H_{14}N_2O_4H_2$	Titanyl (IV)-ethylene-diamine tetraacetic acid monohydrate	800-1800	S	Spec	Donald	JACS	82 (1960)	4191

2270	$TiC_{10}H_{14}O_5$	Titanyl acetyl acetate	1000	S	Assign	Barracough	JCS	— (1959)	3552
	$TiC_{12}H_{16}$	Titanium (IV)-cyclopentadiene, methyl complex.	450-4000	Sol	Spec, Freq	Piper	JINC	3 (1956)	104
	$TiC_{12}H_{28}O_4$	Titanium tetrailopropoxide	2-15 μ 600-3000	Sol —	Spec, Freq, I Spec, Assign Spec, Assign	Bell Zeitler Kriegsmann	AC JPC ZE	25 (1953) 61 (1957) 62 (1958)	1720 1174 1163
	$TiC_{12}H_{28}O_4Si_4$	Titanium-n-propoxide	—	—	Spec, Assign	Kriegsmann	ZE	62 (1958)	1163
	$TiC_{12}H_{36}O_4Si_4$	Tetrakis (trimethylsilyl) titanium	600-3000	Sol	Spec, Assign Spec, Assign	Zeitler Kriegsmann	JPC ZE	61 (1957) 62 (1958)	1174 1163
	$TiC_{14}H_{10}Br_4N_2$	Titanium (IV)-bromide complex with phenyl-cyanide	600-3000	—	Spec, Struct, Assign	Rao	ZAUA	304 (1960)	351
	$TiC_{14}H_{10}Cl_4N_2$	Titanium (IV)-chloride complex with phenyl-cyanide	600-3000	—	Spec, Struct, Assign	Rao	ZAUA	304 (1960)	351
	$TiC_{14}H_{10}F_4N_2$	Titanium (IV)-fluoride complex with phenyl-cyanide	600-3000	—	Spec, Struct, Assign	Rao	ZAUA	304 (1960)	351
	$TiC_{16}H_{36}O_4$	Tetra-n-butoxy titanium	600-3000	Sol	Spec, Assign Spec, Assign	Zeitler Kriegsmann	JPC ZE	61 (1957) 62 (1958)	1174 1163
	$TiC_{16}H_{36}O_4$	Titanium tetratert-butoxide	665-5000	L	Freq	Ory	AC	32 (1960)	509
	$TiC_{36}H_{30}Cl_4O_2P_2$	Titanium (IV)chloride-triphenylphosphine oxide acid. compd.	1100-1300	S	P-O band	Sheldon	JACS	80 (1958)	4775
	$TiC_{72}H_{60}O_4Si_4$	Tetrakis (triphenylsilyl) titanium	600-3000	S	Spec, Assign	Zeitler	JPC	61 (1957)	1174

$\text{TiC}_{96}\text{H}_{80}\text{O}_{10}\text{Si}_8$	16-Phenyl octa-siloxyspiro[9.9]titanate	600-3000	Sol	Spec, Assign	Zeitler	JPC	61 (1957)	1174
TiH	Titanium hydride	-	-	FC	Platt	JCP	18 (1950)	932
$\text{TiH}_6\text{F}_6\text{N}_2$	Diammonium titanium hexafluoride	-	S	Freq	Cox	JCS	- (1954)	1798
TiBr_4	Titanium tetra-	185-3000	L,Sol	Assign, Thermo., FC	Miller	SA	16 (1960)	6
$\text{TiBr}_{10}\text{O}_2\text{P}_2$	Phosphorous oxybromide titanium bromide complex	1100-1300	S	Bonding	Sheldon	JACS	80 (1958)	4775
TiCl_3	Titanium trichloride	1-15/ μ	Sol	Spec	Lagerquist	AF	12 (1957)	491
TiCl_4	Titanium tetra-chloride	1.5-16/ μ 0.8-2.0/ μ	L	Spec Magnetic rotation Vibration	Marvin Ingersoll Urey	PR JOSA PR	34 (1912) 6 (1922) 38 (1931)	161 663 1969
		-	L	-	Villars	CR	11 (1932)	369
		-	-	Freq	Rosenthal	PR	46 (1934)	730
		-	-	Vibration	Rosenthal	PR	49 (1936)	535
		-	-	FC	Herman	JCP	6 (1938)	406
		-	-	-	Gordy	JCP	14 (1946)	305
		-	-	Thermo.	Heath	TFFS	44 (1948)	561
		-	-	FC	Johannessen	JRNB	53 (1954)	197
		-	-	Force field	Farber	JCP	23 (1955)	1460
		-	-	Spec, Assign	Hawkins	JCP	23 (1955)	1700
		2-15/ μ	L	Thermo.	Horton	JCP	23 (1955)	1727
		-	G	Spec, FC, Thermo.	Venkateswarlu	JCP	23 (1955)	2365
		6-22/ μ	G	FC	Hahn	JCP	24 (1956)	921
		-	-	Freq	Pistorius	JCP	28 (1958)	514
		-	-	FC	Rao	ZAU A	304 (1960)	176
		386	-	-	Rao	ZAU A	304 (1960)	176
		-	-	Spec				
		400-3000	-	Spec				
		400-3000	-	Spec				
TiCl_7OP	Phosphorous oxy-chloride Titanium tetrachloride complex	1100-1300	S	Bonding	Sheldon	JACS	80 (1958)	4775

$TiCl_{10}O_2P_2$	Phosphorous oxychloride Titanium tetrachloride complex	1100-1300	S	Bonding	Sheldon	JACS	80 (1958)	4775
TiF_4	Titanium tetrafluoride	— 400-5000	S —	Freq, Struct Spec, Freq	Peacock Rao	JCS ZAU A	— 304 (1960)	2762 176
TiF_4	Titanium (III)-complex fluoration	—	S	Freq, Struct	Peacock	JCS	— (1959)	2762
$TiI_6O_{18}K_2$	Potassium titanium (IV) iodate	—	S	Spec, Struct	Dasent	JCS	— (1960)	2429
TiO	Titanium monoxide	— 20.7-152 μ	— S —	FC Mol. Const. Reflection FC	Badger Pekkeris Seifert Linnett	JCP PR RSI TFS	2 (1934) 45 (1934) 11 (1940) 38 (1942)	128 98 365 1
TiO_2	Titanium dioxide	2-15 μ 2-15 μ 300-880	S S S	Absorption Spec Spec	Filimonov Harkins Miller	OS AC SA	5 (1958) 31 (1959) 16 (1960)	709 541 135
TiO_3Ba	Barium titanate	300-1000 350-700	S —	Spec, I Assign, Freq, FC	Last Yatsenko	PR IANS	105 (1957) 22 (1958)	1740 1456
TiO_3Ca	Calcium titanate	3000-1000 350-700	S —	Spec, Struct Freq, Assign, FC	Last Yatsenko	PR IANS	105 (1957) 22 (1958)	1740 1456
TiO_3Pb	Lead titanate	300-1000 350-700	S —	Spec, Struct Freq, Assign, FC	Last Yatsenko	PR IANS	105 (1957) 22 (1958)	1740 1456
TiO_3Sr	Strontium titanate	300-1000 350-700	S —	Spec, Struct Freq, Assign, FC	Last Yatsenko	PR IANS	105 (1957) 22 (1958)	1740 1456
TiO_7P_2	Titanium pyrophosphate	—	—	Spec	Steger	ZAU A	303 (1960)	169

Tl COMPOUNDS

TlCNO	Thallium iso-cyanate	-	S	Spec	Waddington	JCS	-	(1959)	2499		
TlC ₅ H ₅ O	Cyclopentadienyl thallium	4.7 μ	G	Struct	Cotton	JACS	80 (1958)	269			
TlC ₂₄ H ₁₆ C ₁ N ₄ O ₄	Thallium acetyl acetone	625-5000	S	Spec, Struct	West	JINC	5 (1958)	295			
TlH	Thallium phenanthroline complex perchlorate	600-2000	S	Spec	Schilt	JINC	9 (1959)	211			
TlBr	Thallous bromide	0.3-0.5 μ 117 μ 117 μ 10-130 μ 8.7 μ - 117 μ - 1 μ 2.2-37 μ - - 80-230 μ - 17-55 μ	S S S S - - S - S S - - S - S	Photoelectric properties Residual rays Residual rays Reflection, Spec Dispersion Christianson filter Barnes Seifert Tuttle Caldwell Plyler Knowles Ford Sinton Barrett Plyler	Coblentz Weniger Schaefer Barnes Korff Barnes Seifert Tuttle Caldwell Plyler AC JSI JOSA PR JRMB	BBS JOSA TFS PR RMP PR RSI JCP PR JRMB	18 (1922) 7 (1923) 25 (1929) 39 (1932) 4 (1932) 49 (1936) 11 (1940) 14 (1946) 74 (1948) 41 (1948) 21 (1949) 31 (1954) 44 (1954) 109 (1958) 64C (1960)	489 517 841 562 471 732 365 571 1207 125 1559 338 503 1572 55	BBS JOSA TFS PR RMP PR	18 (1922) 7 (1923) 25 (1929) 39 (1932) 4 (1932) 43 (1933)	489 517 841 562 471 31
TlCl	Thallium chloride	0.3-0.5 μ 91.6 μ 91.6 μ 10-130 μ 8.7 μ	S S S S -	Photoelectric Residual rays Residual rays Spec Dispersion Reflection	Coblentz Weniger Schaefer Barnes Korff Barnes	BBS JOSA TFS PR RMP PR	18 (1922) 7 (1923) 25 (1929) 39 (1932) 4 (1932) 43 (1933)	489 517 841 562 471 31			

	-	-	Christianson filter	Barnes	PR	49 (1936)
	21-28 μ	S	Spec	Plyler	JRNB	41 (1948)
	-	-	Polarizability theory	Szigeti	TFS	45 (1949)
	-	-	Freq	Szigeti	PRS	204 (1950)
	80-230 μ	S	Spec	Sinton	JOSA	44 (1954)
	20-200 μ	S	Reflectance	Yoshinaga	PR	100 (1955)
	-	-	Microwave	Fritzky	ZP	151 (1958)
Tl 205	Cl 35	-	Spec, Mol. Const.	Barrett	PR	109 (1958) 1572
Tl F	-	-	Residual rays	Schaefer	TFS	25 (1929)
	Thallous chloride (isotopic)	151 μ	Microwave, Mol. Const.	Fritzky	ZP	151 (1958) 841
Tl 205 F	Fluoride	-	Spec, Mol. Const.	Barrett	PR	109 (1958) 1572
Tl I	Thallous iodide	0.3-0.6 μ	Photoelectrical properties	Coblentz	BBS	18 (1922) 489
	151.8 μ	S	Residual rays	Weniger	JOSA	7 (1925)
	8.7 μ	-	Dispersion	Korff	RMP	4 (1932)
	-	-	Christianson filter	Barnes	PR	49 (1936)
	152 μ	S	Residual rays	Seifert	RSI	11 (1940)
	-	-	Crystal preparation	Tuttle	JCP	14 (1946)
	-	-	Anal	Knowles	AC	21 (1949)
	-	S	Stabilization	Smakula	JOSA	43 (1953)
	-	-	Pressed disk	Ford	JSI	31 (1954)
	80-230 μ	S	Spec	Sinton	JOSA	44 (1954)
Tl 205 I	Iodide (I) (isotopic)	1.5-3 μ	Microwave, Mol. Const.	Happ	ZP	147 (1957) 567
Tl 205 I 127	Iodide (I) (isotopic)	-	Spec, Mol. Const.	Barrett	PR	109 (1958) 1572
Tl IO ₃	Iodate	-	S	Spec, Struct	JCS	- (1960) 2429

$TlNO_3$	Thallous nitrate	680–3600	S	Anal Polarization	Keller Haford Newman Newman Ferraro	JCP PR JCP JCP JMS	17 (1949) 348 1276 1291 99
		—	S	Assign			
		700–3400	S	Spec			
		700–1500	S	Freq, Assign			
		700–1600	S	Assign	Duval	CPR	239 (1954) 249
TlO_4^P	Thallium (III) ortho-phosphate	290–650	S				
Tl_2S_2Cr	Thallium sulfate alum	—	S	Freq assign, Spec	Kraus	JCP	9 (1941) 133
	Thallium selenate alum	—	S	Freq assign, Spec	Kraus	JCP	9 (1941) 133
TlS	Thallium sulfide	0.8–20 μ	S	Reflectance	Agnew	JOSA	43 (1953) 999
$Tl_2H_2NO_3^P$	Di-thallium phosphoranide	650–5000	S	Spec	Pustinger	SA	15 (1959) 909
Tl_2S	Thallous sulfide	—	—	Reflection and transmission Photoelectricity	Von Hippel	JCP	14 (1946) 355
		—	—		Von Hippel	JCP	14 (1946) 370
$Tl_3 - H_2N_2O_7P_3$	Thallium diimido-trimetaphosphate (ring)	650–5000	S	Spec	Pustinger	SA	15 (1959) 909
		650–5000	S	Spec	Pustinger	SA	15 (1959) 909
$Tl_3 - H_3N_3O_6P_3$	Thallium (I)-trimetaphosphate	650–5000	S	Spec	Pustinger	SA	15 (1959) 909
$Tl_3O_4^P$	Thallium (I)-phosphate	650–5000	S	Spec	Pustinger	SA	15 (1959) 909
$Tl_3O_9P_3$	Thallium (I)-cyclic trime-phosphate	650–5000	S	Spec	Pustinger	SA	15 (1959) 909

Tl ₄ - HNO ₆ P ₂	Thallium (I)-imidodiphosphate	650-5000	S	Spec	Pustinger	SA	15 (1959)	909
Tl ₄ - H ₃ N ₂ O ₈ P ₃	Thallium di-imidotri-metaphosphate (ring) compound with TlOH	650-5000	S	Spec	Pustinger	SA	15 (1959)	909
Tl ₄ - H ₄ N ₃ O ₇ P ₃	Thallium trimeta-phosphinate compound with TlOH	650-5000	S	Spec	Pustinger	SA	15 (1959)	909
Tl ₄ - H ₄ N ₀ P ₄	Thallium (I)-tetrametaphosphate	650-5000	S	Spec	Pustinger	SA	15 (1959)	909
Tl ₄ - O ₇ P ₂	Thallium (I)-pyrophosphate	650-5000	S	Spec	Pustinger	SA	15 (1959)	909
Tl ₅ - H ₂ N ₂ O ₈ P ₃	Thallium (I)-diimidotri-phosphate (chain)	650-5000	S	Spec	Pustinger	SA	15 (1959)	909

T_m COMPOUNDS

TlH	Thallium hydride	-	-	FC	Platt	JCP	18 (1950)	932
<u>V COMPOUNDS</u>								
UC ₄ H ₆ O ₆	Uranyl acetate	4.5-13.5 μ 600-1600	S	Spec, Struct Spec, Assign	Conn Caldow	TES CJC	34 (1938) 38 (1960)	1483 772
UC ₄ H ₁₁ N ₃ O ₉	Dimethylethanolamine uranyl nitrate	2-15 μ	-	Spec	Barr	JACS	74 (1952)	4430

					Cappellina	ANCR	50 (1960)	615
$\text{UC}_4\text{O}_8 \cdot 5\text{H}_2\text{O}$	Uranium (IV)-oxalate pentahydrate	-	-	S	Spec			
$\text{UC}_6\text{H}_9\text{O}_8\text{Na}_8$	Sodium uranyl (VI) acetate	400-3000 800-2000	S	Spec, Assign, FC Bond dist.	Jones Jones	JCP SA	23 (1955) 15 (1959)	2105 409
$\text{UC}_{10}\text{H}_{10}\text{N}_2\text{O}_8$	Dipyridine uranyl nitrate	2-15/ μ	-	Spec	Barr	JACS	74 (1952)	4430
$\text{UC}_{12}\text{H}_{12}\text{N}_2\text{O}_8$	Uranyl-pyridine, salicylic acid, water complex nitrate	2-15/ μ	-	Spec	Barr	JACS	74 (1952)	4430
$\text{UC}_{14}\text{H}_{20}\text{O}_6$	Uranyl-methacryloyl-acetone complex	1200-1800	S	Assign	Charette	SA	16 (1960)	689
$\text{UC}_{16}\text{H}_{24}\text{Cl}_2\text{N}_2\text{O}_8$	Uranium (IV)-N-phenylglycine, water complex chloride	2-15/ μ	-	Spec	Barr	JACS	74 (1952)	4430
$\text{UC}_{16}\text{H}_{28}\text{O}_6$	Uranyl pivaloyl acetone complex	1200-1800	S	Assign	Charette	SA	16 (1960)	689
$\text{UC}_{18}\text{H}_{12}\text{N}_2\text{O}_4$	Uranyl-8-hydroxy quinoline chelate	8-15/ μ	S	Group freq, Spec	Charles	SA	8 (1956)	1
$\text{UC}_{20}\text{H}_{16}\text{N}_2\text{O}_8$	Uranyl-2-quinoline carboxylic acid water complex	2-15/ μ	-	Spec	Barr	JACS	74 (1950)	4430
$\text{UC}_{24}\text{H}_{20}\text{Cl}_2\text{N}_2\text{O}_6$	Uranium (IV)-chloride pyridine salicylic acid complex	2-15/ μ	-	Spec	Barr	JACS	74 (1952)	4430

$\text{UC}_{30}\text{H}_{31}\text{Cl}_2\text{N}_3\text{O}_4$	Uranium (IV)-chloride, quinolinedine, 2-quinolinecarboxylic acid complex	$2-15/\mu$	-	Spec	Barr	JACS	74 (1952)	4430
$\text{UC}_{48}\text{H}_{108}\text{O}_{24}\text{P}_6$	Uranium (VI)-di-n-butyl phosphate	714-5000	S	Group interaction study	Smith	JINC	9 (1959)	150
$\text{UC}_{54}\text{H}_{36}\text{N}_6\text{O}_6$	Uranium (VI)-8-hydroxyquinolate	-	S	Spec	Charles	AC	25 (1953)	530
$\text{UC}_{1808}\text{H}_{3010}\text{O}_6$	Uranyl polymethacrylate complex	1200-1800	S	Assign	Charette	SA	16 (1960)	689
UBr_2O_2	Uranyl bromide	-	-	Ion study	Prigent	CPR	247 (1958)	1737
UCl_2O_2	Uranyl chloride	$13.5/\mu$	S	Spec, Struct Ion study	Corn Prigent	TPS CPR	34 (1938) 247 (1958)	1483 1737
$\text{UCl}_2\text{O}_2\text{Cs}_2$	Uranyl (VI)-chloride complex cesium salt	800-2000	-	Group freq Bond distance	Jones Jones	SA SA	10 (1958) 15 (1959)	395 409
$\text{UCl}_2\text{O}_{10}$	Uranyl perchlorate	800-1060	Sol	Spec	Jones	JCP	21 (1953)	542
UCl_4	Uranium (IV)-chloride	$2-15/\mu$	-	Spec	Barr	JACS	74 (1952)	4430
UF_2O_2	Uranyl fluoride	$2-15/\mu$	-	Spec	Barr	JACS	74 (1952)	4430
UF_4	Uranium tetra-fluoride	-	S	Freq	Conweg	JCP	31 (1959)	1002
$\text{UF}_5\text{O}_2\text{K}_3$	Uranyl fluoride complex (potassium salt)	800-200	-	Bond distance	Jones	SA	15 (1959)	409

UF ₆	Uranium hexafluoride	2-17 μ	G	Assign Orbital valency Spec, Assign	Bigeleisen Heath Burke Gaunt Tlewellyn Gaunt Hawkins Hahn Califano Weinstock	JCP IIFS JCP TFS JCP IIFS JCP JCP AAN JCP	16 (1948) 45 (1949) 20 (1952) 447 (1953) 21 (1953) 50 (1954) 23 (1955) 24 (1956) 25 (1958) 31 (1959)
		2-40 μ	G	Spec, Assign			
	400-5000	G	G	Spec			
	-	G	-	FC			
	-	-	-	Freq, Assign			
656	-	-	-	Stretch freq			
-	-	-	-	FC			
-	-	-	-	Jahn-Teller effect			
UN ₂ O ₈	Uranyl nitrate	-	Sol	Raman	Corn	IIFS	34 (1938) 1483
UN ₂ O ₈ ·2H ₂ O	Uranyl nitrate dihydrate (N ¹⁵ , N ¹⁴)	700-3700	S	Spec, Assign	Gatehouse	JCS	- (1958) 3965
UN ₂ O ₈ ·2H ₂ O	Uranyl nitrate dihydrate	700-3800 600-1600	S	Spec, Assign Spec, Assign	Allpress Caldow	AJC CJC	12 (1959) 38 (1960) 569 772
UN ₂ O ₈ ·3H ₂ O	Uranyl nitrate trihydrate	700-3700 - 700-3800 700-1600	S	Band assign Group freq Spec, Assign Absorp. Freq	Gatehouse Jones Allpress Ferraro	JCS SA AJC JMS	- (1958) 10 (1958) 12 (1959) 4 (1960) 3965 395 569 99
UN ₂ O ₈ ·6H ₂ O	Uranyl nitrate hexahydrate	2-15 μ 700-3700 700-3800 600-1600 300-800	S	Spec Spec, Band assign Spec, Assign Spec, Assign Spec	Barr Gatehouse Allpress Caldow Miller	JACS JCS AJC CJC SA	74 (1952) - (1958) 12 (1959) 38 (1960) 16 (1960) 4430 3965 569 772 135
UN ₃ O ₉ Rb	Uranyl (VI)-nitrate complex (Rubidium salt)	-	-	Group freq	Jones	SA	10 (1958) 395
UN ₃ O ₉ RbCs	Uranyl (VI)-nitrate complex (cesium salt)	-	-	Group freq	Jones	SA	10 (1958) 395

$\text{UN}_3\text{O}_{11}\text{K}$	Uranyl (VI)-nitrate complex (potassium salt)	-	-	Group freq Spec, Assign	Jones Alpress	SA AJC	10 (1958) 12 (1959)	395 569
$\text{UN}_3\text{O}_{11}\text{Rb}$	Rubidium uranyl nitrate	700-3800 800-2000	S	Spec assign Bond dist.	Gatehouse Jones	JCS SA	- (1958) 15 (1959)	3965 409
$\text{UN}_4\text{O}_{14}\text{K}_2$	Uranyl (VI)-nitrate complex (potassium salt)	-	-	Group freq	Jones	SA	10 (1958)	395
$\text{UO}_{14}\text{Rb}_2$	Uranyl (VI)-nitrate complex (Rubidium salt)	-	-	Group freq	Jones	SA	10 (1958)	395
UO_2	Uranyl ion	860	-	Vib. Freq Stretch freq	Kasha Hahn	JCP JCP	17 (1949) 24 (1956)	349 921
UO_3	Uranium trioxide	897	-	Stretch freq	Hahn	JCP	24 (1956)	921
UO_6S	Uranyl sulfate	-	SoI	RAMAN	Corn	WFS	34 (1938)	1483
$\text{U}_2\text{C}_{15}\text{H}_{15}\text{Cl}_8\text{N}_3$	Uranium (IV)-chloride pyridine complex	2-15/ μ	-	Spec	Barr	JACS	74 (1952)	4430
U_2O_3	Uranium oxide	1-8/ μ	S	Emission	Coblentz	BBS	5 (1908)	159
$\text{U}_4\text{C}_8\text{H}_{16}\text{O}_4$	Potassium tetra-uranyl (IV) oxalate	-	S	Spec	Cappellina	AMCR	50 (1960)	615
V COMPOUNDS								
$\text{VC}_4\text{H}_8\text{N}_2\text{O}_9 \cdot 2\text{H}_2\text{O}$	Vanadyl (III)-oxalate complex dihydrate (ammonium salt)	1000	S	Assign	Barracough	JCS	- (1959)	3552
$\text{VC}_6\text{H}_{12}\text{N}_2\text{O}_9 \cdot 2\text{H}_2\text{O}$ $\text{Vanadyl (IV)-oxalate}$ complex dihydrate (ammonium salt)								
$\text{VC}_6\text{H}_{12}\text{N}_2\text{O}_9 \cdot 2\text{H}_2\text{O}$ $\text{Vanadyl (IV)-oxalate}$ complex dihydrate (ammonium salt)								

$\text{VC}_6\text{H}_{12}\text{N}_2\text{O}_9 \cdot 4\text{H}_2\text{O}$	Vanadyl (IV)-malonic acid complex tetrahydrate (ammonium salt)	1000	S	Assign	Barracough	JCS	- (1959) 3552
$\text{VC}_9\text{H}_5\text{O}_4$	Vanadium (I)-carbonmonoxide cyclopentadiene complex	600-5000 1700-2200	Sol Sol	Spec, Config. Spec, Struct	Piper Colton	J INC J INC	1 {1955} 1 {1955} 165 175
$\text{VC}_{10}\text{H}_{10}\text{Br}_2$	Vanadium (IV)-cyclopentadiene complex bromide	-	-	Struct	Wilkinson	JACS	75 (1953) 1011
$\text{VC}_{10}\text{H}_{10}\text{Cl}_2$	Vanadium (IV)-cyclopentadiene chloride complex	2-15 μ	S	Spec	Wilkinson	JACS	76 (1954) 4281
$\text{VC}_{10}\text{H}_{12}\text{N}_2\text{O}_8 \cdot 5\text{H}_2\text{O}$	Vanadium (III)-ethylenediamine tetraacetic acid (sodium salt) pentahydrate	800-1800	S	Spec	Donald	JACS	82 (1960) 4191
$\text{VC}_{10}\text{H}_{12}\text{N}_2\text{P}_2\text{O}_8 \cdot 5\text{H}_2\text{O}$	Vanadyl (IV)-ethylenediamine tetraacetic acid (sodium salt) pentahydrate	800-1800	S	Spec	Donald	JACS	82 (1960) 4191
$\text{VC}_{10}\text{H}_{14}\text{O}_5$	Vanadyl (IV)-acetylacetone	1000	S	Assign	Barracough	JCS	- (1959) 3552
$\text{VH}_4\text{O}_3\text{N}$	Ammonium meta-vanadate	2-16 μ 880-3000	S S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960) 1253 135
VC_1J_3	Vanadium trichloride	1-15 μ	Sol	Spec	Lagerquist	AF	12 (1957) 491
VC_1J_3	Vanadium oxytrichloride	-	-	Band freq	Jahnnesen	JRN B	53 (1954) 197
				2281			

<u>W COMPOUNDS</u>							
WC_6O_6	Tungsten carbonyl	2-15 μ	S	Spec, Group freq	Sheeline	JACS	72 (1950) 5761
$WC_8N_8K_3$	Tungsten (V) cyanide complex (potassium salt)	2-32 μ	S	Spec, I	Brame	JINC	6 (1958) 99
$WC_8N_8K_3 \cdot 2H_2O$	Tungsten (V) cyanide complex dihydrate (potassium salt)	2-32 μ	S	Spec, I	Brame	JINC	6 (1958) 99
<u>W-C COMPOUNDS</u>							
$WC_8N_8K_4$	Tungsten carbonyl complex	2-32 μ	S	Spec, I	JINC	6 (1958)	99
<u>W-C-X COMPOUNDS</u>							
$WC_8N_8K_4$	Tungsten carbonyl complex	2-32 μ	S	Spec, I	JINC	6 (1958)	99

WC ₈ N ₈ K ₄	Tungsten (IV) cyanide complex (potassium salt)	2-32 μ -	S S,Sol	Spec., I Spec.	Brame Fabbri	J INC AAN	6 (1958) 25 (1958)	99 299
WC ₈ N ₈ K ₀ · 2H ₂ O	Tungsten (IV) cyanide complex (potassium salt) dihydrate	2-32 μ -	S S,Sol	Spec., I Spec.	Brame Fabbri	J INC AAN	6 (1958) 25 (1958)	99 299
WC ₉ H ₈ O ₃	Tungsten carbon- monoxide cyclo- pentadiene methyl complex	450-4000	Sol	Spec., Freq	Piper	J INC	3 (1956)	104
WC ₁₀ H ₁₀ O ₃	Tungsten carbon- monoxide cyclo- pentadiene ethyl complex	450-4000	Sol	Spec., Freq	Piper	J INC	3 (1956)	104
WC ₁₀ H ₁₂	Cyclopentadienyl tungsten hydride	-	S	Struct., Spec	Fritz	ZN	156 (1960)	419
WC ₁₃ H ₁₃ N ₅ O ₃ S ₃	Tungsten (VI) hydroxide pyridine complex isothiocyanate	-	S	Group freq	Mitchell	JCS	- (1960)	1912
WH	Tungsten hydride	-	-	FC, Bond dist.	Platt	JCP	18 (1950)	932
WF ₄	Tungsten tetra- fluoride	-	S	Freq., Struct	Peacock	JCS	- (1959)	2769
WF ₆	Tungsten hexa- fluoride	2-40 μ 400-5000 -	G G -	Spec., Assign Spec., Assign FC	Burke Gaunt Gaunt Mattraw Hahn Califano Weinstock	JCP TFS TFS JCP JCP AAN JCP	20 (1952) 49 (1953) 50 (1954) 23 (1955) 24 (1956) 25 (1958) 31 (1959)	447 1122 546 985 921 284 262

WF_7^-	Tungsten (VI) complex fluoro ion	-	S	Freq, Struct	Peacock	JCS	- (1959)	2762
WO_3	Tungstic anhydride	350-700	-	Freq, Assign	Yatsenko	IANS	22 (1958)	1456
WO_4^{2-}	Tungstate ion	-	-	Struct FC	Woodward Pistorius	TFS JCP	52 (1956) 28 (1958)	615 514
$WO_4 Ca$	Calcium tungstate	2-16 μ 290-650 300-880	S S S	Spec Assign Spec	Miller Duval Miller	AC CPR SA	24 (1952) 239 (1954) 16 (1960)	1253 249 135
$WO_4 Co$	Cobaltic tungstate	290-650	S	Assign	Duval	CPR	239 (1954)	249
$WO_4 K_2$	Potassium tungstate	2-16 μ 300-880	S S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
$WO_4 Na_2$	Sodium tungstate	290-650 300-880	S S	Assign Spec	Duval Miller	CPR SA	239 (1954) 16 (1960)	249 135
$WO_4 Na_2 \cdot 2H_2O$	Sodium tungstate dihydrate	2-16 μ 300-880	S S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
$W_2C_{16}H_{10}O_6$	Tungsten carbon- monoxide cyclo- pentadiene complex	2-16 μ	S,Sol	Spec, Band freq	Wilkinson	JACS	76 (1954)	209
	Cyclopentadienyl tungsten (I)- μ - hexacarbonmonoxide cyclopentadienyl tungsten (I)	1700-2200	Sol	Spec, Struct	Cotton	J INC	1 (1955)	175
$YC_{24}H_{54}O_1C_2P_3$	Yttrium (III)-di-n- butyl phosphate	714-5000	S	Metal ion study	Smith	J INC	9 (1959)	150

Y COMPOUNDS

YF_4^-	Yttrium (III) complex fluorion	-	S	Freq., Struct	Peacock	JCS	-	(1959)	2762
$\text{YN}_3\text{O}_9\cdot 3\text{H}_2\text{O}$	Yttrium nitrate trihydrate	700-1600	S	Freq., Assign	Ferraro	JMS	4	(1960)	99
Y_2O_3	Yttrium oxide	1-8 μ	S	Spec	Coblentz	BBSS	5	(1908)	159
<u>Yb COMPOUNDS</u>									
Yb^{3+}YGG	Ytterbium doped yttrium gallium garnet	9600-11200	S	Spec., Assign	Pappalardo	JCP	33	(1960)	1734
<u>Zn COMPOUNDS</u>									
ZnCO_3	Zinc carbonate	22-310 μ	S	Reflection Residual rays	Weniger Schaefer	JOSA TFS	7	(1923) 25 (1929)	517 841
$\text{ZnC}_2\text{H}_3\text{O}_3$	Zinc glycollate	1000-1500	sol	Freq	Goulden	SA	16	(1960)	715
ZnC_2H_6	Dimethyl zinc	- 1-17 μ	-	FC Spec., Assign	Thompson	PRB	160	(1957)	539
		-	-	FC	Thompson	TFS	36	(1940)	797
		500-4500	G	Freq., Assign	Linnemann	TFS	41	(1945)	223
		-	-	Theory, FC	Gutowsky	JCP	17	(1949)	128
		-	-		Sheline	JCP	18	(1950)	602

$ZnC_2H_8Cl_2N_4S_2$	Zinc (II) thiourea chloride complex	2-15 μ	S	Spec, Freq	Yamaguchi	JACS	80 (1958)	527
$ZnC_2F_6Cl_2S_2$	Zinc trifluoromethane sulphenate	9-10 μ	S	Assign	Hasselidine	JCS	- (1955)	2901
ZnC_2N_2	Zinc cyanide	500-680	S	Spec	Miller	SA	16 (1960)	135
$ZnC_3H_5O_3$	Zinc lactate	1000-1500	Sol	Freq	Goulden	SA	16 (1960)	715
$ZnC_3H_6Br_2O$	Zinc bromide acetone system	400-4000	L	Complex	Yamada	BCSJ	33 (1960)	666
ZnC_4H_6	Divinyl zinc	650-3500	L	Assign	Kaesz	SA	15 (1959)	360
ZnC_4H_{10}	Diethyl zinc	650-3500	-	FC Assign	Thompson Kaesz	PRIS SA	160 (1937) 15 (1959)	539 360
$ZnC_4H_{10}N_2O_5$	Zinc (II)-glycine complex monohydrate	2-15 μ	S	Assign	Saraceno	JACS	80 (1958)	5018
$ZnC_4H_{12}Br_2O_2S_2$	Zinc (II) DMSO complex bromide	650-4000	S	Assign, Spec	Cotton	JPC	64 (1960)	1534
$ZnC_4H_{12}Cl_2N_4S_2$	Zinc (II) methyl thiourea chloride complex	2-15 μ	S	Spec	Lane	JACS	81 (1959)	3824
$ZnC_4H_{12}Cl_2O_2S_2$	Zinc (II) DMSO complex chloride	650-4000	S	Assign	Cotton	JPC	64 (1960)	1534
$ZnC_4N_4^-$	Zinc (II) tetracyanide complex ion	250-2200	S	Spec, Assign	Hidalgo	ARS	56A (1960)	9
$ZnC_4N_4S_4Ba \cdot 2H_2O$	Zinc (II)-isothiocyanate complex (barium salt) dihydrate	-	S	Stretch freq	Mitchell	JCS	- (1960)	1912

ZnC ₄ N ₄ K ₂	Zinc (II) cyanide complex (potassium salt)	250-2200	-	Assign	Hidalgo	CPR	249 (1959)	233
ZnC ₅ H ₇ O ₂	Acetylacetone zinc chelate	-	Sol	Group freq	Bellamy	JCS	- (1954)	4491
ZnC ₆ H ₁₀ O ₂ S ₄	Ethyl zinc dixanthate	2.8-15 μ	S	Spec	Pearson	APS	12 (1958)	116
ZnC ₆ H ₁₂ N ₂ C ₄	Zinc (II) alanine (l- and dl-) complex	650-4000	S	Freq, Assign	Segnini	SA	16 (1960)	540
ZnC ₆ H ₁₆ N ₄ O ₄	Zinc (II) ethylene-diamine oxalate	400-1750	S	Spec, Config.	Powell	JCS	- (1959)	791
ZnC ₇ H ₅ O ₂	Salicylaldehyde zinc chelate	-	S	Group freq	Bellamy	JCS	- (1954)	4491
ZnC ₈ H ₄ F ₃ C ₂ S	Thenoyltrifluoro-acetone zinc chelate	-	Sol	Group freq	Bellamy	JCS	- (1954)	4491
ZnC ₈ H ₁₀ C ₁ N ₃ ·2H ₂ O	p-Dimethyl amino-benzene diazonium chloride zinc chloride dihydrate	3-14 μ	S	Freq	Gremillion	JACS	81 (1959)	6134
ZnC ₁₀ H ₁₄ Br ₂ N ₂ C ₄	Zinc (II)- γ -Bromo-allyl glycine complex	2-15 μ	S	Assign	Moreno	SA	16 (1960)	1368
ZnC ₁₀ H ₁₄ Cl ₂ N ₂ C ₄	Zinc (II)- γ -chloroallyl glycine complex	2-15 μ	S	Assign	Moreno	SA	16 (1960)	1368

ZnC ₁₀ H ₁₄ N ₄ O ₄	Zinc acetyl acetoneate	600-5000	S	Spec, Struct	West	J INC	5 (1958)	295
ZnC ₁₀ H ₁₆ N ₂ O ₄	Zinc (II)-allyl glycine complex	2-15 μ	S	Assign	Moreno	SA	16 (1960)	1368
ZnC ₁₀ H ₁₈ N ₂ O ₂ S ₄	Butyl zinc dixanthate	2.8-15 μ	S	Spec	Pearson	APS	12 (1958)	116
ZnC ₁₀ H ₁₂ N ₂ O ₈ Na ₂ · 3.5H ₂ O	Zinc (II)-EDTA complex (sodium salt) 3.5 hydrate	800-1800	S	Freq, Assign	Sawyer	JACS	81 (1959)	816
ZnC ₁₂ H ₈ N ₂ O ₄	Zinc (II)-2-pyridine carboxylic acid chelate	-	-	Struct	Lummus	SK	31B (1958)	294
ZnC ₁₂ H ₁₀ N ₄ S ₂	Zinc (II) pyridine isothiocyanate complex	-	S	Assign	Mitchell	JCS	- (1960)	1912
ZnC ₁₂ H ₂₀ N ₂ O ₄	Zinc (II)-γ-methyl allyl glycine complex	2-15 μ	S	Assign	Moreno	SA	16 (1960)	1368
ZnC ₁₂ H ₃₆ Cl ₂ O ₁₄ S ₆	Zinc (II)-DMSO perchlorate complex	650-4000	S	Spec, Assign	Cotton	JPC	64 (1960)	1534
ZnC ₁₄ H ₁₀ O ₄	Zinc tropolonate	-	S, Sol	Band freq	Bryant	JOC	19 (1954)	1889
ZnC ₁₄ H ₂₀ O ₄	Zinc (II)-methacryloyl acetone complex	1200-1800	S	Assign	Charette	SA	16 (1960)	689
ZnC ₁₆ H ₂₈ O ₄	Zinc (II)-pivaloyl acetone complex	1200-1800	S	Assign	Charette	SA	16 (1960)	689
ZnC ₁₈ H ₁₂ N ₂ O ₂	8-Hydroxyquinoline zinc chelate	8-15 μ	S	Spec Spec	Charles Charles	AC SA	25 (1953) 8 (1956)	530A 1

ZnC ₂₀ H ₁₂ N ₂ O ₄	Zinc (II)-8-quinoline carboxylic acid chelate	-	-	Struct	Lumm	SK	31B (1958)	294
ZnC ₂₀ H ₁₆ N ₂ O ₂	2-Methyl-8-hydroxy quinoline zinc chelate	8-15 μ	S	Assign	Charles	SA	8 (1956)	1
ZnC ₂₀ H ₁₆ N ₂ O ₂	4-Methyl-8-hydroxy quinoline zinc chelate	8-15 μ	S	Assign	Charles	SA	8 (1956)	1
ZnC ₂₀ H ₂₂ O ₄	Zinc- γ -isopropyl tropolonate	-	S	Group freq	Bryant	JOC	19 (1954)	1889
ZnC ₂₀ H ₂₈ C ₁₄ N ₆	p-Di-(diethylamino- benzene diazonium chloride) zinc chloride	3-14 μ	S	H bond	Gremillion	JACS	81 (1959)	6134
ZnC ₂₀ H ₂₈ C ₁₄ N ₆ · 2H ₂ O	p-Di-(diethylamino- benzene diazonium chloride) zinc chloride dihydrate	3-14 μ	S	H bond	Gremillion	JACS	81 (1959)	6134
ZnC ₃₂ H ₁₆ N ₈	Zinc phthalocyanine	3-15 μ	S	Spec	Ebert	JACS	74 (1952)	2806
ZnC ₃₆ H ₂₄ C ₁₂ N ₈ O ₈	Zinc (II)-1:10-phenanthroline complex perchlorate	600-2000	S	Spec	Schilt	J INC	9 (1959)	211
ZnC ₃₆ H ₇ O ₄	Zinc stearate	2-14 μ 6-8 μ	-	Spec Spec	Sheppard Ellis	TFS N	41 (1945) 181 (1958)	261 181
ZnC ₇₂ H ₆₀ C ₁₂ O ₁₂ P ₄	Zinc (II) perchlorate tri-phenylphosphine oxide complex	900-1300	S	Group freq	Cotton	JCS	- (1960)	2199

ZnC ₁₈ O ₈ H ₃ O ₁₀ ⁰ ₄	Zinc polymethacryl acetone complex	1200-1800	S	Assign	Charette	SA	16 (1960)	689
ZnH	Zinc hydride	-	-	Doubling theory	Mulliken	PR	38 (1931)	85
		-	-	Thermo.	Hulbert	JCP	9 (1941)	61
		-	-	FC, Bond dist.	Platt	JCP	18 (1950)	932
		-	-	FC, Bond dist.	Sheline	JCP	18 (1950)	927
ZnH ⁺	Zinc hydride ion	-	-	Coupling constant	Pekeris	PR	45 (1934)	98
ZnH ₂ N ₂ O ₃ ^P	Zinc phosphoramidate	650-5000	S	Spec	Pustinger	SA	15 (1959)	909
ZnH ₄ F ₃ N ₄	Ammoniumfluoride zinc fluoride	1400-4000	S	Spec	Crocket	JACS	82 (1960)	4158
ZnH ₄ N ₂ O ₆ S ₂	Zinc sulfamate	-	-	Freq., Assign	Bicelli	AC	47 (1957)	1380
ZnH ₈ Cl ₂ N ₄	Zinc (II)-hydrazine chloride complex	15-35 μ	-	Thermo.	Sacconi	N	186 (1960)	549
ZnH ₈ N ₄ O ₄ P ₂	Zinc diamido-phosphate	650-5000	S	Spec	Pustinger	SA	15 (1959)	909
ZnH ₁₂ N ₄	Tetrammine zinc (II) ion	-	-	Group freq	Leonard	JACS	77 (1955)	2029
ZnH ₁₈ N ₆	Hexammine zinc ion	-	-	FC, Absorption, Freq	Schultz	JCP	10 (1942)	1942
ZnBr ₂	Zinc bromide	0.6-2.8 μ 2.8-6 μ 1.5-2.8 μ 4.75 μ	Sol Sol - Sol	Assign Spec, Assign Assign Absorption	Gordy Plyler Barr Barr	JCP JCP JCP JCP	2 (1934) 2 (1934) 4 (1936) 7 (1939)	621 470 92 8
ZnCl ₂	Zinc chloride	0.6-2.8 μ 2.8-6 μ 1.5-2.8 μ	Sol Sol -	Assign Spec, Assign Assign	Gordy Plyler Barr	JCP JCP JCP	2 (1934) 2 (1934) 4 (1936)	621 470 92
ZnF ₄ ⁻²	Zinc (II) fluoride complex ion	-	S	Freq	Peacock	JCS	- (1959)	2762

ZnF ₄ K ₂	Zinc (II)-fluoride complex (potassium salt)	300-1500	S	Spec	Lecomte	CPR	249 (1959)	1991
ZnF ₆ Si	Zinc fluorosilicate	488-735	-	Band	deLatte	JCP	20 (1952)	1180
ZnI ₂	Zinc iodide	50-150/ μ	Sol	Absorp. Freq	Cartwright	JCP	5 (1937)	776
ZnN ₂ O ₆	Zinc nitrate	0.8-2.3/ μ 2-16/ μ 2-15/ μ	Sol S S	Spec Spec Spec	Collins Meloche Addison	PR J INC JCS	20 (1922) 6 (1958) - (1960)	486 104 613
ZnN ₂ O ₆ .6H ₂ O	Zinc nitrate hexahydrate	700-1600	S	Absorp. Freq	Ferraro Miller	JMS SA	4 (1960) 16 (1960)	99 135
ZnO	Zinc oxide	1-8/ μ 1-2/ μ 6.7-33/ μ 1-4/ μ 0.5-2.4/ μ 0.6-9.0/ μ - 0.4-4/ μ - - 1-13/ μ 1-4/ μ 1-12/ μ 1200-2000	S G G S S S - S - - - S S S	Emission Transmission Transmission Filter Transmission Refr. ind. Scattering Spec Aabsorp. Spec Freq Spec Spec	Coblentz Pfund Strong Leberknight Pfund Pfund Gamble Barnett Filimonov Miloslauskii Arneith Collins Thomas Matustuta	BBS Pfund PR PR PR JOSA JOSA IEC JPC OS OS ZP PCS PCS JCP	5 (1908) 36 (1930) 37 (1931) 43 (1933) 24 (1934) 26 (1936) 9 (1937) 46 (1942) 5 (1958) 5 (1958) 155 (1959) 11 (1959) 10 (1959) 32 (1960)	159 71 1565 967 143 230A 310 69 709 614 595 190 47 982
ZnO ₃ S.2H ₂ O	Zinc sulphite dihydrate	2-16/ μ 300-880	S	Spec Spec	Miller Miller	AC SA	24 (1952) 16 (1960)	1253 135
ZnO ₄ S	Zinc sulphate	0.8-2.3/ μ 8-11/ μ 7.5-10.5/ μ	Sol L S	Solute effect Reflection Spec	Collins Plyler TaiHan	PR PR AC	20 (1922) 28 (1926) 29 (1957)	486 284 1430
ZnO ₄ S.7H ₂ O	Zinc sulphate heptahydrate	- 2-16/ μ	S	Spec Compar.	Rafale Meloche	ZP J INC	148 (1957) 6 (1958)	262 104

$Zn_2HNO_6P_2$	Zinc imidodiphosphate	650-5000	S	Spec	Pustinger	SA	15 (1959)	909
$Zn_2H_2N_2O_8PNa$	Zinc diimidotriphosphate (chain)	650-5000	S	Spec	Pustinger	SA	15 (1959)	909
$Zn_2O_10P_3Na$	Dizinc sodium triphosphate	650-5000	S	Spec	Pustinger	SA	15 (1959)	909
$Zn_2O_10P_3Na \cdot 9H_2O$	Dizinc sodium triphosphate nonahydrate	2-15/ μ	S	Group freq., I	Corbridge	JCS	- (1954)	493
$Zn_3CH_4O_7 \cdot 2H_2O$	Basic zinc carbonate	2-16/ μ	S	Spec	Hunt	AC	22 (1950)	1478
$Zn_3O_8P_2$	Zinc phosphate	650-5000	S	Spec	Pustinger	SA	15 (1959)	909
$Zn_3O_8P_2 \cdot 4H_2O$	Zinc phosphate tetrahydrate	2-16/ μ	S	Spec	Meloche	JINC	6 (1958)	104
$Zn_5C_2O_11 \cdot 4H_2O$	Basic zinc carbonate tetrahydrate	2-16/ μ	S	Spec	Meloche	JINC	6 (1958)	104
<u>Zr COMPOUNDS</u>								
$ZrCH_8O_18P_5$	Zirconyl-di-n-butyl phosphate	714-5000	-	Metal ion	Smith	JINC	9 (1959)	150
$ZrC_{10}H_{10}Br_2$	Zirconium (IV)-cyclopentadiene complex bromide	- 2-15/ μ	- S	Struct Spec	Wilkinson Wilkinson	JACS JACS	75 (1953) 76 (1954)	1011 4281
ZrH	Zirconium hydride	-	-	PC, Bond dist.	Platt	JCP	18 (1950)	932
ZrF_4	Zirconium tetrافluoride	-	S	Freq	Peacock	JCS	- (1959)	2762

ZrO_2	Zirconium oxide	1-8 μ	S	Spec	Coblentz	BBS	5 (1908)	159
$ZrO_3 Ba$	Barium zirconate	350-700	-	Freq, Assign	Yatsenko	IANS	22 (1958)	1456
$ZrO_3 Pb$	Lead zirconate	350-700	-	Freq, FC	Yatsenko	IANS	22 (1958)	1456
$ZrO_3 Sr$	Strontium zirconate	350-700	-	Freq, FC	Yatsenko	IANS	22 (1958)	1456
$ZrO_4 Si$	Zircon	1-4 μ 22-310 μ	S	Spec Transmission	Coblentz Weniger Pirani Pfund Matossi	BBS JOSA JSI JOSA JCP	6 (1910) 7 (1923) 16 (1939) 35 (1945) 17 (1949)	301 517 372 611 679
		8-12 μ	S	Spec Struct				
		-	-					

III. Polymeric Compounds



Formula	Name	Range	State	Remarks	Reference
$(CH_2)_nC_{10}H_8Fe$	Polyethylene ferrocene	-	-	Bands, Discussion	DANS 125 (1959) 1037
$(CH_2O)_n$	Formaldehyde polymer	6-12 μ	S	Spec, Compar. with monomer	TFS 52 (1956) 13
		300-4000	S	Spec, Assign, Struct	Novak Miyazawa TFS SA 55 (1959) 1484
		-	-	NCA	16 (1960) 1233
$(CD_2O)_n$	Polyformaldehyde-d ₂	300-4000	S	Spec, Assign, Struct	Novak TFS 55 (1959) 1484
$(C_2H_2D_2)_n$	Polyethylene-d ₂	5.58-6 μ	S	Oxidation study	Beachell JPS 45 (1960) 451
$(C_2H_2Br_2)_n$	Polyvinylidene bromide	400-3100	S	Spec, Assign	Marita JPS 37 (1959) 251
$(C_2H_2Cl_2)_n$	Polyvinylidene chloride	500-1500 600-1500 2800-3500 2.5-100 μ	S - S -	Spec Spec Spec, Struct Abstract, Assign, Struct	Thompson Thompson Ambrose Krimm JPS PR 184 (1945) 21 41 (1945) 246 199 (1949) 183 98 (1954) 1547
		70-3000	S	Spec, Assign	Krimm Marita Nambu JPS JAPP 22 (1956) 95 37 (1959) 251 4 (1960) 69
		400-3100 500-1500	S S	Spec, Assign Spec, Assign	
$(C_2H_2C_1O)_n$	Polydichloro-acetaldehyde	300-4000	S	Spec, Assign	Novak CJC 37 (1959) 1722
$(C_2H_3D)_n$	Polyethylene-d ₁	5.58-6 μ	S	Oxidation study	Beachell JPS 45 (1960) 451
$(C_2H_3DO)_n$	Polyacetaldehyde-d ₁	300-4000	S	Spec, Assign	Novak CJC 37 (1959) 1710
$(C_2H_3DO)_n$	Polyvinyl alcohol-d ₁	2-13 μ	S	Spec, Assign	Tadokoro Krimm Tadokoro JCP JCP BCSJ 23 (1955) 1351 25 (1956) 778 32 (1959) 1252
$(C_2H_3Br)_n$	Polyvinyl bromide	500-3100	S	Spec, Assign	Marita JPS 37 (1959) 273

$(C_2H_3Cl)_n$	Polyvinyl chloride	2.2-14.8 μ	S Spec, Freq	Sears	12 (1941)
		500-1500 S Spec	Thompson	PR 184 (1945)	
		600-1500 S Spec	Thompson	TFS 41 (1945)	
		2800-3500 S Spec, Struct	Ambrose	PRS 129 (1949)	
		700-2000 S Cooling effect on spec	King	JAP 20 (1949)	
		2-15 μ - Spec, Struct	Cotman	ANN 57 (1953)	
		2-15 μ S Spec, Assign	Campbell	JPS 18 (1955)	
		2-14 μ S Spec, Reduction study	Cotman	JACS 77 (1955)	
		70-3000 S Spec, Assign	Krimm	JPS 22 (1956)	
		2-15 μ - Spec	Schurz	MC 23 (1957)	
		650-5000 S Changes in struct	Berch	JRN B 60 (1958)	
		600-700 S C-C1 freq	Berens	CIL - (1958)	
		2-15 μ S Reduction study	George	CIL - (1958)	
		- S O.D.	Grisenthwaite	CIL - (1958)	
		- S C-C1 freq, Struct	Krimm	CIL - (1958)	
		2-15 μ S Spec, Decomp. study	Stromberg	JRN B 60 (1958)	
		2-7 μ S Stabilization of the polymer	Frye	JPS 40 (1959)	
		- S C-C1 freq, Struct	Grisenthwaite	CIL - (1959)	
		800-3000 S Spec	Kawasaki	BCSJ 32 (1959)	
		580-720 S Spec, C-C1 freq	Krimm	CIL - (1959)	
		500-3100 S Spec, Assign	Marita	JPS 37 (1959)	
		- S Thermal ageing study	Pirozhnaya	IANS 23 (1959)	
		- S C-C1 freq, Struct	Shimanouchi	JCP 30 (1959)	
		600-700 S Spec, Freq, Struct	Asahina	NKZ 81 (1960)	
		612-690 S Temp. effect on C-C1	Asahina	NKZ 81 (1960)	
		- S Spec, Assign	A sahina	NKZ 81 (1960)	
		- S Spec, Crystallinity	Kawai	JPS 46 (1960)	
		400-900 S Spec, Assign	Nambu	JAPP 4 (1960)	
		500-1500 S Spec, Assign	Novak	CJC 37 (1959)	
		300-4000 S Spec, Assign		1722	
	Polymonochloro-acetaldehyde				
$(C_2H_3ClO)_n$	Polyvinyl sulfonyl fluoride	1-15 μ	S Spec	Kern	39 (1960)
$(C_2H_3FO_2)_n$	Polyglycine	700-1700 S Line spec	Astbury	N 162 (1948)	
$(C_2H_3NO)_n$		1200-3500 -	Thompson	DFS 9 (1950)	
					596 222

1500-3400	S	Spec, Struct	Ambrose	PRS	205 (1951)	47
4400-5000	S	Spec	Ambrose	PRS	206 (1951)	206
-	-	C=O, N-H freq., Struct	Ambrose	PRS	208 (1951)	75
4000-6500	S	Spec, Bands, Struct	Blout	JACS	74 (1952)	1946
2.5-14 μ	S	Spec, Group freq	Hurd	JACS	75 (1953)	624
1300-1800	S	Spec	Becher	JACS	76 (1954)	3707
-	S	C=O, N-H freq., Struct	Elliot	PRS	221 (1954)	104
800-3000	S	Spec	Elliot	PRS	226 (1954)	408
-	-	Struct	Elliot	TRS	50 (1954)	1013
2 μ	S	Freq, Dichroism	Fraser	JCP	24 (1956)	89
1015-1690	S	Bands	Oro	N	186 (1960)	156
(C ₂ H ₃ NO) _n OCH ₃	Polyglycine methyl ester		Blout	JACS	74 (1952)	1946
(C ₂ H ₃ NO ₃) _n	Polyvinyl nitrate		Krimm	JAP	29 (1958)	1407
(C ₂ H ₄) _n	Polyethylene (polythene)		Thompson	PRS	184 (1945)	3
2-18 μ	S	Spec	Thompson	TPS	41 (1945)	246
600-1800	S	Spec, Assign	Ambrose	PRS	199 (1949)	183
2800-3500	S	Spec, Struct	NCA	N	163 (1949)	877
-	-		Kellner	JAP	20 (1949)	559
700-2000	S	Cooling effect on spec	King	DRS	9 (1950)	235
700-3450	-	Oxidation study	Cross	PRS	64 (1951)	521
-	-	Interpretation of spec	Kellner	ANN	57 (1953)	417
2-15 μ	-	Spec	Cotman	JPS	11 (1953)	1
3.3-15.0 μ	S, Sol	Spec, Polyethylene resins study	Rugg			
667-5000	S	Spec, Assign	Smook	IE	45 (1953)	273
10.2-11.8 μ	S	Irradiation effect	Dole	JACS	76 (1954)	4304
725	S	Crystallinity	Keller	JPS	13 (1954)	511
13.7 μ	S	Crystallinity study	Reding	JAP	25 (1954)	848
2.5-12 μ	S	Spec, Oxidation study	Rugg	JPS	13 (1954)	535
2.6-3.2 μ	-	Spec, Oxidation study	Burnett	JPS	15 (1955)	592
725	S	Struct	Keller	JPS	15 (1955)	133
2-14 μ	S	Spec, Assign	Rossman	JCP	23 (1955)	1355
-	S	Assign	Ferguson	JCP	24 (1956)	1115
13.8 μ	S	Spec, Temp. effect	Fischer	NWS	43 (1956)	223
70-3000	S	Spec, Assign	Krimm	JCP	25 (1956)	549
650-3500	S,L	Spec, Crystallinity	Tobin	JCP	25 (1956)	1044
-	-	Config	Dole	JACS	79 (1957)	4809
700-5800	S	Spec, Assign	Nielsen	JCP	26 (1957)	1391

$(C_2H_4O)_n$	Methyl silicone polymer	650-4000	S	Struct	Lady	AC	31 (1959)	1100
$(C_2H_4O)_n$	Polyvinyl alcohol	500-3200 700-4000 2800-3500	- S S	Spec Spec, Assign Spec, Struct	Thompson Blout Ambrose Tadokoro Krimm JCP KKZ JPS JPS JPS JPS JPS JPS JPS BCSJ	TFS JACS PRS BCSJ JPS JCP KKZ JPS JPS Liang Tadokoro BCSJ	41 (1945) 70 (1948) 199 (1949) 28 (1955) 22 (1956) 25 (1956) 59 (1956) 26 (1957) 28 (1957) 35 (1959) 32 (1959)	246 862 183 559 227 778 794 391 244 303 1252
$(C_2H_4O)_n$	Polyethylene oxide	9-13 μ 700-1500	L,S S	CH ₂ rocking Spec	White Ishida	JPS BCSJ	41 (1959) 33 (1960)	369 924
$(C_2H_4O)_n$	Polyacetaldehyde	300-4000 6.5-12.5 μ 800-3200	L L,S, Sol	Spec, Config Spec, Assign Spec, Struct	Kendall Kuroda Kuroda	APS JPS JPS	7 (1953) 26 (1957) 36 (1959)	179 323 453
$(C_2H_4O)_n$	-	2-15 μ 700-1660	L -	Spec, Anal, Ident Kerr const Spec	Corish Aroney Furukawa	AC JCS MC	31 (1959) - (1960) 38 (1960)	1298 2890 244
$(C_2H_4O)_n$	-	2-15 μ 2.5-14 μ	S S	Spec, Anal, Ident Kerr const Spec	Corish Aroney Furukawa	AC JCS MC	31 (1959) - (1960) 38 (1960)	1298 2890 244
$(C_2H_4O)_n$	-	5.58-6 μ 2-15 μ 1-15 μ 600-3500	S S, Sol -	Anal of various groups Irradiation study Irradiation study Oxidation study Spec Spec, Oxidation study Mol. Struc during oxidation NCA	Hawkins Williams Slovokhotova Beachell Gossel Grafmuller Luongo Miyazawa Nambu Nielsen	JPS JACS DANS JPS MC MC JPS SA JAPP JMS	28 (1958) 81 (1959) 129 (1959) 45 (1960) 42 (1960) 40 (1960) 42 (1960) 16 (1960) 4 (1960) 4 (1960)	341 2919 1347 451 1 161 139

$(C_2H_6Si)_n$	Polyvinylsilane	2-16 μ	-	Spec	Brinckman	JINC	11 (1959)	24
$(C_2H_6Ge)_n$	Polyvinylgermane	2-16 μ	S	Spec	Brinckman	JINC	11 (1959)	24
$(C_2D_2Cl_2)_n$	Polyvinylidene chloride	400-3000	S	Spec, Assign	Narita	JPS	37 (1959)	263
$(C_2D_2Cl)_n$	Polyvinyl chloride-d ₃	700-2400	S	Spec, Assign	Narita Asahina	JPS NKZ	37 (1959) 81 (1960)	281 1374
$(C_2D_2NO)_n$	Polyglycine-d ₃	650-4000	S	Spec	Blout	JACS	74 (1952)	1946
$(C_2ClF_3)_n$	Polychlorotrifluoroethylene	70-4000 450-1300 440-1290	S S S	Spec, Assign, NCA Crystallinity study Crystallinity study	Liang Matsuo Matsuo	JCP JPS JPS	25 (1956) 21 (1956) 25 (1957)	563 331 234
$(C_2F_4)_n$	Polytetrafluoroethylene	2.0-14.5 μ 2.5-100 μ 70-4000 2.5-8 μ 270-5000	S - S S S	Abstract, Freq, Struct Spec, Assign, NCA End groups study Spec, Crystallinity	Hanford Liang Liang Bro Moynihan	JACS PR JCP JPS JACS	68 (1946) 98 (1954) 25 (1956) 38 (1959) 81 (1959)	2082 1548 563 289 1045
$(C_3H_3D_3)_n$	Polypropylene-d ₃ , d ₃	650-4000	S	Spec	Liang	JPS	44 (1960)	549
$(C_3H_3N)_n$	Polyacrylonitrile	2-14 μ -	G, S -	Group freq, Spec, Pyrolysis study Spec, Assign, Saponification	Drummond Burlant Bayzer	JCS JPS ZPC	- (1954) 22 (1956) 13 (1957)	2456 249 30
$(C_3H_3NO_2)_n$	Acrylonitrile polymeric peroxide	2-15 μ 70-3200 1-15 μ 2.5-15 μ 2.5-14.4 μ	- S - S S	Spec, Assign Spec Abs. bands, Struct Spec	Schurz Liang Schulz Arthur Furukawa	MC JPS MC JPC MC	23 (1957) 31 (1958) 29 (1959) 64 (1960) 38 (1960)	152 513 190 1332 244
$(C_3H_4D_2)_n$	Polypropylene-1,1-d ₂	650-4000	S	Spec	Smeltz	JACS	74 (1952)	623
					Liang	JPS	44 (1960)	549

(C ₃ H ₄ O) _n	Polyacrolein	2-15 μ _i 1-15 μ _i	-	Spec Spec	Schurz Schulz	MC MC	23 (1957) 29 (1959)	152 190
(C ₃ H ₄ O ₂) _n	Polyacrylic acid	2-15 μ _i -	-	Spec, Struct Spec, Struct	Schurz Simon	MC JPS	23 (1957) 30 (1958)	152 201
(C ₃ H ₄ O ₂) _n	Polyvinyl formate	2800-3500	S	Spec, Struct	Ambrose	PRS	199 (1949)	183
(C ₃ H ₅) _n C ₄ H ₅ O ₂ Ng	Polymethacryloyl-acetonato magnesium	1200-1800	S	IR shifts, Assign, Stability const	Charette	SA	16 (1960)	689
(C ₃ H ₅) _n -C ₄ H ₅ O ₂ Mn	Polymethacryloyl-acetonato manganese	1200-1800	S	IR shifts, Assign, Stability const	Charette	SA	16 (1960)	689
(C ₃ H ₅) _n -C ₄ H ₅ O ₂ Ni	Polymethacryloyl-acetanato nickel	1200-1800	S	IR shifts, Assign,	Charette	SA	16 (1960)	689
(C ₃ H ₅) _n C ₄ H ₅ O ₄ U	Polymethacryloyl-acetonato uranyl	1200-1800	S	IR shifts, Assign, Stability const	Charette	SA	16 (1960)	689
(C ₃ H ₅ D) _n	Polypropylene-2-d ₁	650-4000	S	Spec	Liang	JPS	44 (1960)	549
(C ₃ H ₅ DO) _n	Polypropionaldehyde-d ₁	300-4000	S	Spec, Assign	Novak	CJC	37 (1959)	1710
(C ₃ H ₅ NO) _n	Polyacrylamide	2-15 μ _i 2-15 μ _i	-	Spec Spec	Schurz Schurz	MC MC	12 (1954) 23 (1957)	20 152
(C ₃ H ₅ NO) _n	Poly-L-alanine	700-1700 1500-1700	S	Spec, Struct Spec, Assign C=O, N-H freq, Struct	Astbury Elliot Elliot	N A PRS	162 (1948) 221 (1954) 226 (1954)	596 104 104
(C ₃ H ₅ NO) _n		-	S	Spec, Struct	Elliot	PRS	221 (1954)	408
		800-3000	S	Spec, Band	Asai	JPC	59 (1955)	322
		1200-1300	S	Freq, Dichroism	Fraser	JCP	24 (1956)	89
		2 μ	S	Struct	Elliot	N	180 (1957)	1340
(C ₃ H ₅ NO) _n	Poly-DL-alanine	-	S	Effect of H ₂ O on struct C=O, N-H freq, Struct, effect of water	Elliot Elliot	N PRS	170 (1952) 221 (1954)	1066 104

$\text{C}_3\text{H}_5\text{NO}$	800-3000 2-16 μ	S	Spec Spec, Group freq, I	Elliott Asai	PHS JPC	226 (1954) 59 (1955)	408 322
$(\text{C}_3\text{H}_5\text{NO})_n$	-	-	Group freq	Berger	JACS	76 (1954)	5552
Polyserosine	600-4000	S	Spec, Ident	Sakakibara	BCSJ	29 (1956)	85
Polycysteine	-	S	Amide I, Amide II bands, Struct	Blout	JACS	82 (1960)	3787
$(\text{C}_3\text{H}_5\text{NO}_2)_n$	Poly-L-serine	-	S, Sol	Fasman	JACS	82 (1960)	2262
$(\text{C}_3\text{H}_6)_n$	Polypropylene	700-3000 800-1400 660-5000	-	Pokrovskii Abe Black	DANS JPS PRS	115 (1957) 36 (1959) 253 (1959)	552 536 322
		-	S	Spec of melted films Changes on electron irradiation	IANS	23 (1959)	1208
		-	S	Spec, Freq, Struct Crystallinity	JPS	38 (1959)	545
		-	S	Spec, Struct	GCI	89 (1959)	798
		-	S	Struct, Tacticity	JAPS	3 (1960)	370
		-	S	Spec	MC	42 (1960)	1
		-	S	Spec, Assign	JMS	5 (1960)	290
		-	S	Spec	JPS	44 (1960)	549
		-	S	Spec, Tacticity	JAPS	3 (1960)	302
		-	S	Spec, Assign	JPC	64 (1960)	216
$(\text{C}_3\text{H}_6\text{O})_n$	Polymethyl ethylene oxide	700-1500	S	Spec	Ishida	33 (1960)	924
$(\text{C}_3\text{H}_6\text{O})_n$	Polypropionaldehyde	300-4000	S	Spec, Assign	Novak	CJC	37 (1959)
$(\text{C}_3\text{H}_6\text{O})_n$	Polypropylene glycol	2-15 μ	L	Ident, Spec, Anal	Corish	AC	31 (1959)
$(\text{C}_3\text{H}_6\text{O})_n$	Polypropylene oxide	832-3420 650-3300	S, Sol	Abs, Bands Spec, Assign, Rot iso.	Price Kawasaki	JACS POL	78 (1956) 1 (1960)
$(\text{C}_3\text{H}_6\text{O}_2)_n$	Polyethylene formal	7-14 μ	S	CH ₂ rocking freq	Miyake	JACS	82 (1960)
$(\text{C}_3\text{H}_6\text{O}_3\text{S})_n$	Polyvinyl methane- sulfonate	-	S	Group freq	Sauer	JACS	77 (1955)
							3793

$(C_3F_7NO)_n$	Tetrafluoroethylene-trifluoroni troso-methane copolymer	-	L	Band s	Barr	JCS	-	(1955)	1881
$(C_4HF_7)_n$	Tetrafluoroethylene-trifluoroethylene copolymer	8-12 μ	S	Spec	Iwasaki	JPS	26	(1957)	116
$(C_4H_3NO_2)_n$	Poly-L-Succinimide	-	Spec		Noguchi	NKZ	81	(1960)	620
$(C_4H_4)_n$	Polyvinyl acetylene	3.04-11.08 μ	L	Abs. bands	Price	JPS	41	(1959)	445
$(C_4H_4D_2)_n$	Polybutadiene-2, β -d ₂	450-3500	S	Spec, Assign	Golub	SA	16	(1960)	1165
$(C_4H_4Cl_2)_n$	Poly-2, β -dichlorobutadiene	3-15 μ	S	Spec	Mochel	JACS	71	(1949)	4082
$(C_4H_4O_2)_n$	Polyvinyl acetato- β -lactone	2.5-15 μ	S	Spec, Struct	Kawasaki	MC	42	(1960)	25
$(C_4H_5D)_n$	Polybutadiene-2-d ₁	450-3500	S	Spec, Assign	Golub	SA	16	(1960)	1165
$(C_4H_5Cl)_n$	Neoprene	2.2-14.8 μ	S	Spec, Freq	Sears	JAP	12	(1941)	35
		500-1500	S	Spec	Thompson	PRS	184	(1945)	21
		2-15 μ	S	Spec, Anal	Dinsmore	AC	20	(1948)	11
		3-20 μ	S	Spec, Crystallinity	Mochel	JACS	71	(1949)	4082
		2-16 μ	-	Spec, Charact. freq	Harms	AC	25	(1953)	1140
		600-3700	-	Spec	Cheverley	APS	10	(1960)	192
					Thompson	TFS	41	(1945)	246
					Krimm	JPS	22	(1956)	95
					Narita	JPS	36	(1959)	389
$(C_4H_5Cl_3)_n$	Polyvinylchloride-vinylidenechloride (1:1) copolymer	600-1700 70-3000 400-4000	S S S	Spec Spec Spec, Struct	Beaman Schurz Overberger Skoda	JACS MC JPS MC	70 23 34 29	(1948) (1957) (1959) (1959)	3115 152 109 156
$(C_4H_5N)_n$	Polymethacrylonitrile	650-4000 2-15 μ 1640-1675 2-15 μ	- - S -	Spec Spec Bands Spec	Berger	JACS	73	(1951)	4084
$(C_4H_5NO_3)_n$	Poly-L-aspartic acid	1000-1800	S	Spec					

$(C_4H_6)_n$	Buna-85 rubber	700-900	-	Spec, Review	Thompson	JCS - (1944)
	600-2000	-	Spec		PRS	184 (1945)
	600-1800	S	Spec		TPS	3 (1945)
$(C_4H_6)_n$	Poly(cyclopropane	600-3200	S	Spec, Bands	JCS - (1956)	2241
	$3.2-10 \mu$	S	Struct	JOC 23 (1958)		1369
$(C_4H_6)_n$	Polybutadiene	800-3000	S	Spec, Struct	JAP 17 (1946)	386
	800-3600	-	Spec, Oxidation	IE 39 (1947)		174
	-	-	Struct	IE 40 (1948)		253
	900-1000	Sol	Spec, Struct	JACS 71 (1948)		1980
	600-2000	S	Spec	AC 21 (1949)		1161
	914-996	-	Struct	IE 42 (1950)		95
	-	-	Conjugation, Internal dispersion forces	JACS 73 (1951)		5363
	13.6-15.0 μ	-	Spec, Anal	AC 26 (1954)		1877
	-	Sol	Composition	IE 46 (1954)		1727
	-	-	Ident	JPC 63 (1959)		765
	9-16 μ	Sol	Spec, Unsaturation distribution	AC 31 (1959)		529
	-	Sol	Struct	Gaylord	JPS 42 (1960)	417
	450-3500	S	Spec, Assign	Golub	SA 16 (1960)	1165
	-	-	Struct	Kuntz	JPS 42 (1960)	299
				Small Morero	AC 31 (1959)	478
					JPS (1960)	136
$(C_4H_6)_n$	1,2-Polybutadiene	2-15 μ	-	Anal Spec		
	cis-1,4-Polybutadiene	-	-	Struct	Matta	ANC 68 (1956)
		900-1400	L,Sol, S	Spec, Iso	Cunneen	JPS 40 (1959)
						615
						1
$(C_4H_6)_n$	trans-1,4-Polybutadiene	-	Sol	Anal	Small	AC 31 (1959)
$(C_4H_6)_n$	Polybutadiene monoxide	650-3300	S	Spec, Assign	Kawasaki	POL 1 (1960)
		-	-	Abs. bands, Struct	Barr	JCS - (1954)
					Matta	JACS 82 (1960) 4742
$(C_4H_6O)_n$	Poly-2,5-dihydrofuran	-	-			
$(C_4H_6O)_n$	Polydimethylketene	2.5-14 μ	S, Sol	Spec, Struct		

$(C_4H_6O_2)_n$	Polymethacrylic acid	2-8 μ	Sol	Spec	Ehrlich	N	172 (1953)	671
$(C_4H_6O_2)_n$	Polymethyl acrylate	600-3200 3-13 μ	- S	Spec Spec, Ident	Thompson Boyer	TFS BSCF	41 (1945) - (1958)	246 240
$(C_4H_6O_2)_n$	Polyvinyl acetate	500-3200 2800-3500 -	- S -	Spec Spec, Struct Spec, Assign, Polymerization study	Thompson Ambrose Simon	TFS PRS JPS	41 (1945) 199 (1949) 30 (1958)	246 183 201
$(C_4H_7ClO_3S)_n$	Ethyl chloropoly- ethylene sulfonate	2-15 μ	S	Spec	Snook	IE	45 (1953)	2731
$(C_4H_7NO_3)_n$	Poly-S-methyl-L- cysteine		S	Amide I and II bands, Struct	Blout	JACS	82 (1960)	3787
$(C_4H_8)_n$	Polyisobutene	700-1900 600-1800 2-14 μ 650-1100 11 μ 800-2000 600-3700	S S L - S -	Spec Spec, Assign Reaction mechanism Abs. bands Spec, Irradiation Spec, Polymerization Spec	Thompson Thompson Dainton Flett Alexander Kozyreva Cheverley	PRS TFS JPS JCS PRS OS APS	184 (1945) 41 (1945) 4 (1949) - (1952) 232 (1955) 6 (1959) 10 (1960)	3 246 37 3355 31 478 192
$(C_4H_8Cl_2)_n$	Rubber dichloride	5.7-14 μ	S	Spec, Struct	Saloman	DPS	9 (1950)	291
$(C_4H_8O)_n$	Poly-isobutyraldehyde	300-4000	S	Spec, Assign	Novak	CJC	37 (1959)	1718
$(C_4H_8O)_n$	Poly-n-butyraldehyde	300-4000	S	Spec, Assign	Novak	CJC	37 (1959)	1718
$(C_4H_8O)_n$	Poly-1,1-dimethyl- ethylene oxide	700-1500	S	Spec	Ishida	BCSJ	33 (1960)	924
$(C_4D_6)_n$	Polybutadiene-d ₆	450-3500	S	Spec, Assign	Goebel	SA	16 (1960)	1165
$(C_4Br_6)_n$	Polybromoprene	3-21 μ	S	Spec	Mocheil	JACS	71 (1949)	4082

$(C_4CF_7)_n$	Tetrafluoroethylene-trifluorochloroethylene copolymer	8-12 μ	S	Spec., Configuration	Iwasaki	JPS	26 (1957)	116
$(C_4Cl_6)_n$	Chlorinated neoprene (polychloroprene)	5-16 μ	S	Spec	Mochel	JACS	71 (1949)	4082
$(C_5H_6)_n$	Polyisopropenyl acetylene	3.02-11.25 μ	L	Abs. bands	Price	JPS	41 (1959)	445
$(C_5H_6NO_3Na)_n$	Sodium poly-L-glutamate	700-4000	S	Structure	Elliott	N	180 (1957)	1340
$(C_5H_6NO_3Na)_n$	Sodium poly- α ,L-glutamate	-	S	Spec	Lenormant	JACS	80 (1958)	6191
$(C_5H_7NO_3)_n$	Poly-O-acetyl-L-Serine	-	S	Amide I and II, Struct	Blout	JACS	82 (1960)	3787
$(C_5H_7NO_3)_n$	Poly-O-acetyl-DL-Serine	1100-1800	S, Sol	Spec., Conformation	Fasman	JACS	82 (1960)	2262
$(C_5H_7NO_3)_n$	Polyglutamic acid	-	-	Ident	Frankel	JCS	- (1953)	1991
$(C_5H_7NO_3)_n$	Poly-L-glutamic acid	-	-	Ident	Hanby	N	161 (1948)	132
$(C_5H_7NO_3)_n$	Poly- α -L-glutamic acid	1300-1800	S	Spec., Config	Elliott	A	221 (1954)	104
$(C_5H_7NO_3)_n$	Poly- α -L-glutamic acid	1000-1800	S	Spec., Group freq	Lenormant	JACS	80 (1958)	6191
$(C_5H_7NO_3)_n$	Polyglutamic acid	-	S	Struct, CO, NH freq	Hanby	JCS	- (1950)	3239
$(C_5H_8)_n$	Polyisoprene	800-1600 800-3600 -	-	Struct	Elliot Waley	PRS	221 (1954)	104
$(C_5H_8)_n$	Polyisoprene	2-15 μ 800-1000 1.60-1.68 μ 6-14 μ	S	Spec., Struct Spec., Oxidation study Spec., Struct Spec., Config Spec., Struct Spec., Iso	Field Cole D'Ianni Binder Nelson Fragu Golub	JAP IE IE AC DANS JPS JPS	- (1955) - (1955) - (1948) 29 (1957) 45 (1957) 41 (1959) 36 (1959)	517

$(C_5H_8)_n$	1,4-cis-Polyisoprene	-	-	Struct Anal	Natta Small	ANC AC	68 (1956) 31 (1959)	615 1742
$(C_5H_8)_n$	Rubber	S	Absorp	Williams Sears Thompson	JCP JAP TFS	4 (1936) 12 (1941) 41 (1945)	460 35 246	
	3.4-9 μ	S	Spec, Freq	Field	JAP	17 (1946)	386	
	2.2-14.8 μ	S	Spec, Assign	Cole	IE	39 (1947)	174	
	600-1800	S	Spec, Struct	Dinsmore	AC	20 (1948)	11	
	800-1600	S	Spec, Oxidation study	King	JAP	20 (1949)	559	
	800-3600	-	Spec, Anal	Saloman	DFS	9 (1950)	291	
	2-15 μ	S	Cooling effect on spec	Sutherland	DFS	9 (1950)	281	
	700-2000	S	Spec	Salomon	JPS	14 (1954)	181	
	5.7-14 μ	S	Spec, Crystallinity	Salomon	JPS	14 (1954)	287	
	5-15 μ	S	Spec, Changes due to vulcanization	Gupta	JPS	17 (1955)	255	
	715-5000	S	Chlorination study	Limning	JRNBB	60 (1958)	9	
	4-20 μ	-	Spec, Struct	Cuneen	JPS	40 (1959)	1	
	2-13 μ	S, Sol	Changes in struct	Evans	JAPP	2 (1959)	340	
	2-40 μ	S	due to vulcanization	Kimmer Cheverley	ZAC APS	170 (1959) 10 (1960)	132 192	
	900-1400	I, S,	Spec, Iso					
	800-1700	S	Effect of irradiation					
	600-3700	-	on spec					
		Sol	Spec					
			Spec					
$(C_5H_8)_n$	Polyvinylcyclopropane	2.5-15 μ	Spec, CH freq	Borchert	JPS	44 (1960)	483	
$(C_5H_8Cl_2)_n$	Chlorinated rubber	2-15 μ	Struct	Ramakrishnan	JPS	19 (1956)	323	
$(C_5H_8Cl_2O)_n$	Poly- β , β -bis (chloromethyl) oxetane	-	Ident	Kambara	JCSJ	59 (1956)	77	
$(C_5H_8N_2O_2)_n$	Polyglycid-DL-alanine	2-16 μ	Spec, Assign	Asai	JPC	59 (1955)	322	
$(C_5H_8O)_n$	Poly- α , β -dihydro- β -methylfuran	-	Abs. bands, Struct	Barr	JCS	- (1954)	3766	
$(C_5H_8O)_n$	Poly-1-methoxybutadiene	-	Struct	Heck	JPS	41 (1959)	521	
$(C_5H_8O_2)_n$	Polymethyl methacrylate	500-3200	Spec	Thompson	TFS	41 (1945)	246	
		650-4000	Spec	Beaman	JACS	70 (1948)	3115	
		700-1900	Spec	Haslam	ANA	75 (1950)	63	

$1.5\text{--}2.7\mu$	-	Anal., Spec Crystallinity	Miller Miller Small Baumann Kawai Pohl	JAPC CIL AC MC JPS JPC	6 (1956) - (1958) 31 (1959) 36 (1960) 46 (1960) 64 (1960)	385 1323 478 81 273 1701
-	-	Anal				
$2\text{--}15\mu$	S	Spec, Tacticity				
700-850	S	Spec, Crystallinity				
-	S	Ident				
$(C_5H_8O_2)_n$	Polyvinyl formal	2.0-16.0 μ	-	Assign, Degradation study	Beachell	JPS 7 (1951) 353
$(C_5H_9NO)_n$	Poly-L-valine	-	S	Amide I and II bands, Struct	Blout	JACS 82 (1960) 3787
$(C_5H_9NO_3)_n$	Poly-L-methionine	-	S	Amide I and II bands, Struct	Blout	JACS 82 (1960) 3787
$(C_5H_{10})_n$	Ethylene-propylene copolymer	2-15 μ	S	Spec, Composition	Gossl	MC 42 (1960) 1
$(C_5H_{10}O)_n$	Poly-1,1,2-trimethyl- ethylene oxide	700-1500	S	Spec	Ishida	BCSJ 33 (1960) 924
$(C_5H_{10}O)_n$	Poly-n-valeraldehyde	300-4000	S	Spec, Assign	Novak	CJC 37 (1959) 1718
$(C_6H_4S)_n$	Phenylenesulphide polymer	675-1600	S	Spec, Different kinds of polymers	Lenz	JPS 43 (1960) 167
$(C_6H_6O_3)_n$	Polyacrylic anhydride	-	-	Ident	Crawshaw	JACS 80 (1958) 5464
$(C_6H_7NO)_n$	Acrolein-acrylonitrile copolymer	1-15 μ	-	Spec	Schulz	MC 29 (1959) 190
$(C_6H_7NO_2)_n$	Acrylonitrile-acrylic acid copolymer	700-4000	S	Spec, Anal	Gentilhomme	BSCF - (1960) 901
$(C_6H_7N_3O_{12})_n$	Cellulose nitrate	2.75-15 μ	S	Study of addition comps.	Champetier	MC 19 (1956) 185
$(C_6H_7N_3O_{12})_n$	Nitrocellulose	-	-	Structural changes on irradiation	Brocks	ZP 149 (1957) 353

$(C_6H_7O_6Na)_n$	Sodium alginate	2.4-3.8 μ	S	Effect of heat on struct	Yoshino	KKZ	61 (1958)	121
-	S, Sol	-	S, Sol	H bond, Study of addition compd.	Josien	CPR	248 (1959)	685
$(C_6H_7O_14S_3Na_3)_n$	Sulphate of dextran (Na salt)	500-1500	-	Spec	Thompson	DFS	9 (1950)	222
$(C_6H_8)_n$	Polyethylvinyl-acetylene	700-1000	S	Spec, Assign	Nakanishi	BCSJ	29 (1956)	434
$(C_6H_8)_n$	Polyhexatriene	3.42-7.58 μ	L	Abs. bands	Price	JPS	41 (1959)	445
$(C_6H_8)_n$	Polyhexatriene	-	-	Conjugation, Internal dispersion forces	Simpson	JACS	73 (1951)	5363
$(C_6H_8O_4)_n$	Polyethylene succinate	700-1400	S,L	Struct, Dichroism	Davison	JCS	- (1955)	242
$(C_6H_8O_6)_n$	Arginic acid	-	-	H bond, Heat	Sobue	KKZ	59 (1956)	983
$(C_6H_8O_6)_n$	Polygalacturonic acid	2-16 μ	-	Spec	Solms	HCA	37 (1954)	2153
$(C_6H_9ClO_2)_n$	Polyvinyl chloride polyvinyl acetate copolymer	600-1700 4.7-5.75 μ	S	Spec Absorbance	Thompson Wiberly	TFS AC	41 (1945) 29 (1957)	246 210
$(C_6H_9NO)_n$	Polyvinylpyrrolidone	2-9 μ	-	Spec	Oster	JACS	76 (1954)	1393
$(C_6H_9NO_2)_n$	Acrolein-acrylamide copolymer	1-15 μ	-	Spec	Schulz	MC	29 (1959)	190
$(C_6H_9NO_3)_n$	Poly- γ -methyl-L-glutamate (α and β forms)	1500-3400	S	Spec, Struct CO, NH freq	Ambrose Elliot	PRS PRS	205 (1951) 221 (1954)	47 104
$(C_6H_9NO_3)_n$	Poly- γ -methyl-DL-glutamate	-	-	CO, NH freq	Elliott	PRS	221 (1954)	104
$(C_6H_9NO_5)_n$	Polygalacturonic acid amide	2-16 μ	-	Spec	Solms	HCA	37 (1954)	2153
$(C_6H_9OK)_n$	Charonin (K salt)	700-1000	S	Spec, Assign	Nakanishi	BCSJ	29 (1956)	434

$(C_6H_{10}O_5Na)_n$	Cellulose (Na salt)	700-1000	S	Spec , Assign	Nakanishi	BCSJ	29 (1956)	434	
$(C_6H_{10})_n$	Methyl rubber	600-1800	S	Spec , Struct	Thompson	TFS	41 (1945)	246	
$(C_6H_{10}N_2O_5)_n$	Poly-D-galacturonic hydrazide	-	S	Group freq	Wolfson	JACS	76 (1954)	4011	
$(C_6H_{10}O)_n$	Poly-2,3-dihydro-2,2-dimethylfuran	-	-	Abs. bands, Spec	Barr	JCS	- (1954)	3766	
$(C_6H_{10}O_2)_n$	Amylose	700-1000	S	Spec , Assign	Nakanishi	BCSJ	29 (1956)	434	
$(C_6H_{10}O_5)_n$	Cellulose	0.3-7 μ	S	Reflectance	Hulbert	JOSA	17 (1928)	23	
		10-130 μ	S	Reflectance	Cartwright	PR	35 (1930)	415	
		-	-	Spec	Barnes	PR	39 (1932)	562	
		-	-	Transmission	Hardy	PR	47 (1935)	789	
		-	-	Struct	Ellis	JACS	62 (1940)	2859	
		20.7-152 μ	S	Transmission	Seifert	RSI	11 (1940)	365	
		2400-4000	S	Spec , H bond	Marrinon	JAPC	4 (1945)	204	
		2-15 μ	S	Spec , Struct,	Rowen	JRNB	39 (1947)	133	
				Oxidation study	Thompson	DFS	9 (1950)	222	
		500-1500	-	Spec	Brown	JCS	- (1951)	1532	
		2.5-4.0 μ	S	Spec , Struct	DerkSEN	JOSA	42 (1952)	263	
		0.4-2.7 μ	S	Reflectance spec	Nakanishi	BCSJ	29 (1956)	434	
		700-1000	S	Spec , Assign	O'Connor	AC	29 (1957)	998	
		2-15 μ	S	Spec	Tsuboi	JPS	25 (1957)	159	
		600-3800	S	Spec , Assign, Struct	Yoshino	KKZ	60 (1957)	1341	
		-	S	Struct, Crystallinity	Mann	JPS	27 (1958)	595	
		-	-	Effect of heat on	Yoshino	KKZ	61 (1958)	121	
		2.4-3.8 μ	S	struct	Ident, Struct	EllefSEN	ACS	13 (1959)	853
		-	S	Ident, Struct	Liang	JPS	37 (1959)	385	
		3 μ	S	Assign, Struct, H bond	Liang	JPS	39 (1959)	269	
		640-1700	S	Spec , Assign	Liang	JPS	37 (1959)	385	
		3 μ	S	Assign, Struct, H bond	Liang	IANS	23 (1959)	1222	
		2-15 μ	S	Spec , Oxidation study	Stepanov	JPS	43 (1960)	71	
		650-4000	S	Spec , Assign, Struct	Marchessault	JCS	- (1960)	3147	
		-	S	Oxidation study	Spedding				
		700-1000	S	Spec , Assign	Nakanishi	BCSJ	29 (1956)	434	
		720-950	S	Spec , Freq	Barker	JCS	- (1954)	171	

$(C_6H_{11}NO)_n$	Polyacrylmorpholide	700-1000	S	Struct Struct Spec, Assign	Jeans Rauskin Nakanishi	JACS JACS BCSJ	76 (1954) 76 (1954) 29 (1956)	5041 4435 434
$(C_6H_{11}NO)_n$	Poly- ϵ -capramide	2-10 μ	S	Spec, Ident	Boyer	BSCF	- (1958)	240
$(C_6H_{11}NO)_n$	Polycaprolactam (nylon 6)	2.6-3.6 μ	S	Spec, Struct	Tsuboi	BCSJ	22 (1959)	255
$(C_6H_{11}NO)_n$	Poly-L-leucine	450-4000	S	Spec, Crystallinity	Tobin	JCP	25 (1956)	1044
$(C_6H_{11}NO)_n$	Poly-DL-leucine	4000-2000	S,L	Spec, Struct Assign, Struct	Blout Elliot Becker Blout	JACS PRS JACS JACS	74 (1952) 221 (1954) 76 (1954) 82 (1960)	1946 104 3707 3787
$(C_6H_{11}NO)_n$	Poly-DL-leucine	4500-5300	S	Spec, Assign Assign, Struct	Abbott Elliott	PRS PRS	219 (1953) 221 (1954)	17 104
$(C_6H_{11}N_5O_3)_n$	Poly-L-nitroarginine	-	-	Spec	Hayakawa	NZ	81 (1960)	618
$(C_6H_{12}ClNO_2S)_n$	n-Butylchloropoly- ethylene sulfonamide	2-15 μ	S	Spec	Smook	IE	45 (1953)	2731
$(C_6H_{12}N_2O)_n$	Poly lysine	2-10 μ 1200-1300	- S	Spec, Struct Spec, Assign	Klotz Asai	JACS JPC	71 (1949) 59 (1955)	1615 322
$(C_6H_{12}N_2O)_n$	Poly-L-lysine hydro- iodide	-	S	Assign, Struct	Elliot	PRS	221 (1954)	104
$(C_6H_{12}O)_n$	Polytetramethyl- ethylene oxide	700-1500	S	Spec	Ishida	BCSJ	33 (1960)	924
$(C_6H_{12}S)_n$	Polyhexamethylene sulfide	0-1600	S,L	Spec	Marvel	JACS	72 (1950)	1978
$(C_6D_{10}O_5)_n$	Cellulose, deuterated	2900-3600	S	Spec, D ₂ O reaction D ₂ O reaction	Mann Mann	IPS IPS	52 (1956) 52 (1956)	481 492
$(C_7H_6)_n$	Benzyl polymer	600-3600	S	Spec, Struct	Hass	JPS	15 (1955)	503

$(C_7H_8OSi)_n$	Methyl-phenyl silicone polymer	650-4000	S	Spec , Struct	Lady	AC	31 (1959)	1100
$(C_7H_8OSi)_n$	Poly methyl phenyl siloxane	625-5000	Sol	Ident	Smith	AC	31 (1959)	1174
$(C_7H_8O_2)_n$	Polydiacrylmethane	2.9-6.1 μ	S	Ident	Jones	JPS	33 (1958)	7
$(C_7H_9N)_n$	Butadiene-acrylonitrile copolymer	600-3700	-	Spec	Cheverley	APS	10 (1960)	1921
$(C_7H_9N)_n$	Nitrile rubber	2-15 μ	S	Spec	Allison	AC	24 (1952)	630
$(C_7H_9NO_2)_n$	Acrylonitrile-methacrylate copolymer	700-4000	S	Spec , Anal	Gentilhomme	BSCF	- (1960)	901
$(C_7H_9S_2Na)_n$	Cellulose xanthate (sodium salt)	2-15 μ	S	Spec	Andrews	CJC	38 (1960)	1381
$(C_7H_{10})_n$	Polyethylisopropenyl acetylene	3.43-11.15 μ	L	Freq	Price	JPS	41 (1959)	445
$(C_7H_{10}O_2)_n$	Polyallyl crotonate	-	S	Freq	Barnett	JOC	25 (1960)	309
$(C_7H_{10}O_3)_n$	Acrolein-vinylacetate copolymer	1-15 μ	-	Spec	Schulz	MC	29 (1959)	190
$(C_7H_{10}O_6)_n$	Polygalacturonic acid methyl ester	2-16 μ	-	Spec	Solms	HCA	37 (1954)	2153
$(C_7H_{12}O_2)_n$	Poly-n-butyl acrylate	700-1500	S	Spec	Furukawa	MC	42 (1960)	165
$(C_7H_{12}O_2)_n$	Polyiso butyl acrylate	700-1500	S	Spec	Furukawa	MC	42 (1960)	165
$(C_7H_{12}O_2)_n$	Poly-sec-butyl acrylate	700-1500	S	Spec	Furukawa	MC	42 (1960)	165
$(C_7H_{12}O_2)_n$	Poly-t-butyl acrylate	700-1500	S	Spec	Furukawa	MC	42 (1960)	165
$(C_7H_{14}O)_n$	Poly-n-heptaldehyde	300-4000	S	Spec , Assigrn	Novak	CJC	37 (1959)	1718
$(C_8H_5D_3)_n$	Poly- α,β,β -trideuterostyrene	600-3200	S	Assign, Dichroism	Tadokoro	JPS	36 (1959)	553

$(C_8H_7D)_n$	Poly- α d ₁ -styrene	400-3500	S	Spec, Assign	Kobayashi	BCSJ	33 (1960)	1416
$(C_8H_7Cl)_n$	Poly-p-chlorostyrene	600-1500 2-15 μ	S	Spec, Crystallinity Spec	Nagai Manecke	BCSJ MC	32 (1959) 37 (1960)	771 119
$(C_8H_7F)_n$	Poly-p-fluorostyrene	400-3500 2-15 μ	S	Spec, Assign Spec	Kobayashi Manecke	BCSJ MC	33 (1960) 37 (1960)	1421 119
$(C_8H_8)_n$	Polystyrene	700-3300 500-2000 600-1800 1370-1700 1250-1720 So1 3000-4000 650-1900 700-2000 600-2000 700-1900 2-16 μ -	- S -	Spec Spec Spec, Struct Monomer detection Polymerization study Reaction study So1 Spec Cooling effect on spec Spec Spec Spec Spec, Decomp. study Band freq 2-8 μ 680-3350 2-15 μ 70-3200 -	Stair Thompson Thompson Hippele Pfann Cohen Bryant King Treumann Hoslam Achhammer Walling Swolinksi Brown Ashinkari Liang Simon Braun Nozakura	JRNB PRS TFS IE JPS JPS JCS JAP AC ANA JRNB JACS JPS JCS BCSJ JPS JPS NWS JPS	15 (1935) 184 (1945) 41 (1945) 38 (1946) 1 (1946) 2 (1947) -	295 3 246 1121 14 511 2389 20 (1949) 559 1161 63 47 (1951) 76 (1954) 17 (1955) -
$(C_8H_8)_n$	Poly-p-xylene	1-15 μ 290-3500	S	Spec, Assign	Corley Tobin	JPS JPC	13 (1954) 61 (1957)	137 1392

$(C_8H_8)_nC_4H_9O_2$	Polystyrene tert-butyl peroxide	-	-	Group freq	Walling	JACS	76 (1954)	4878
$(C_8H_8F_3NO)_n$	Perfluoromethyl propenyl ketone-acrylonitrile copolymer	-	-	Ident	Rausch	JACS	79 (1957)	4983
$(C_8H_8O)_n$	Poly-2,6-dimethyl-1,4-phenylene oxide	6.25-12.08 μ	Sol	Absorp. bands	Staffin	JACS	82 (1960)	3632
$(C_8H_8O)_n$	Poly-o-hydroxystyrene	600-4000	-	Spec Struct	Marvel Tanaka	JPS KKZ	4 (1949) 60 (1957)	703 1595
$(C_8H_8O)_n$	Poly-p-hydroxystyrene	2-15 μ	S	Spec	Manecke	JCS	37 (1960)	119
$(C_8H_8O)_n$	Polystyrene oxide	650-3600	S	Spec, Assign	Kawasaki	POL	1 (1960)	315
$(C_8H_8O)_n$	p-Vinylphenol polymer	2.5-14 μ	-	Spec	Savish	JOC	24 (1959)	1345
$(C_8H_8O_3S)_n$	Poly-p-styrene sulfonic acid	-	-	Ident	Houel	CPR	250 (1960)	3839
$(C_8H_{11}NO_2)_n$	Acrylonitrile-methacrylate copolymer	700-4000	S	Spec, Anal	Gentilhomme	BSCF	- (1960)	901
$(C_8H_{12}O_2)_n$	Poly- β -methallyl crotonate	-	S	C=C freq	Barnett	JOC	25 (1960)	309
$(C_8H_{12}O_3)_n$	β -Polyvinyloxyethyl methacrylate	2-15 μ 2-15.5 μ	L	Assign Spec, Struct	Walton Lal	JACS JPS	79 (1957) 44 (1960)	3985 523
$(C_8H_{12}O_4)_n$	Polybutane-1:4-diol succinate	700-1400	S,L	Struct, Dichroism	Davison	JCS	- (1955)	2428
$(C_8H_{12}O_4)_n$	Polyethylene adipate	700-1400 650-1000	S,L S	Struct, Dichroism Spec	Davison Bradbury	JCS TFC	- (1955) 56 (1960)	2428 1117

$(C_8H_{12}O_4)_n$	Polyethyleneglycol adipate	2-15 μ	S	Ident, Anal, Spec	Corish	AC	31 (1959)	1298
$(C_8H_{12}O_5S_2)_n$	S-Methyl cellulose xanthate	2-15 μ	S	Spec	Andrews	CJC	38 (1960)	1381
$(C_8H_{13}Cl)_n$	Cyclohexyl chloro-polyethylene	2-15 μ	S	Spec	Smook	IE	45 (1953)	2731
$(C_8H_{13}ClO_2)_n$	2-Chloroethyl vinyl ether vinyl ether copolymer	1000-1200	Sol	Composition	Glass	JACC	36 (1959)	100
$(C_8H_{13}NO_5)_n$	Chitin	-	S	Spec, Assign Spec, Assign, H bond	Marchessault Pearson	BBA JPS	45 (1960) 43 (1960)	499 101
$(C_8H_{13}N_3O_3)_n$	L-Alanine-glycine copolymer	800-1700	S	Spec	Elliott	PRS	226 (1954)	408
$(C_8H_{14}N_2O_2)_n$	Glycine-L-leucine copoly peptide	1300-1800	S	Spec	Becher	JACS	76 (1954)	3707
$(C_8H_{14}O_2)_n$	Ethyl vinyl ether-vinyl ether copolymer	1000-1200	Sol	Composition	Glass	JACC	36 (1959)	100
$(C_8H_{16}Si)_n$	Polydiallyldimethyl-silane	-	-	Freq Freq	Butler Marvel	JOC JOC	25 (1960) 25 (1960)	1643 1641
$(C_8H_{18}ClNO_3S)_n$	Triethylamine chloro-polyethylene sulfonate	2-15 μ	S	Spec	Smook	IE	45 (1953)	2731
$(C_8H_{23}NO_3Si_3)_n$	Dimethylaminomethyl-dimethylpolysiloxane	2-15 μ	-	Spec	George	JACS	77 (1955)	3493
$(C_9H_8O_2)_n$	Polystyrene-p-carboxylic acid	-	-	Polymerization study	Houel	CPR	250 (1960)	2209
$(C_9HgNO)_n$	Poly-DL-phenyl alanine	-	-	Struct, H bond C=O, NH freq Struct	Elliott Elliott Lapp	N PRS CPR	165 (1950) 221 (1954) 248 (1959)	921 104 2351

$(C_9H_9NO_2)_n$	Poly-L-tyrosine	700-4000	Sol	Struct	Elliott	N	180 (1957)	1340
$(C_9H_10)_n$	Poly- α -methylstyrene	-	-	Absorption	Kuwata	BCSJ	33 (1960)	1091
$(C_9H_{10})_n$	Poly-m-methylstyrene	650-1900	Sol	Spec Conformation Spec, Struct	Bryant Murahashi Tadokoro	JCS BCSJ BCSJ	- (1949) 32 (1959) 32 (1959)	2389 534 313
$(C_9H_{10})_n$	Poly-p-methylstyrene	950-1550	S	Spec Absorption Coformation Spec, Struct	Bryant Kuwata Murahashi Tadokoro	JCS BCSJ BCSJ	- (1949) 33 (1960) 32 (1959)	2389 534 313
$(C_9H_{11}F_3O_3)_n$	Perfluoromethyl propenyl ketone- vinyl acetate copolymer	600-1900	Sol	Spec Absorption Coformation Spec, Struct	Rausch	JACS	79 (1957)	4983
$(C_9H_{15}N_6)_n$	Triethylenemelamine polymer	-	-	Spec	Allen	AC	27 (1955)	540
$(C_{10}H_4D_4O_4)_n$	Polyethylene-d ₄ terephthalate	70-3600 2-15 μ 5-15 μ 10-32 μ 4.3-4.9 μ 70-3600	S S S S -	Spec Spec, Assign Spec Spec, Assign C-D stretching Spec	Liang Miyake Parrow Miyake Miyake Liang	JMS JFS MC BCSJ JPC JMS	3 (1959) 38 (1959) 38 (1960) 33 (1960) 64 (1960) 3 (1960)	554 497 147 992 510 554
$(C_{10}H_8F_7NO)_n$	Perfluoropropyl propenyl ketone- acrylonitrile copolymer	-	-	Ident	Rausch	JACS	79 (1957)	4983
$(C_{10}H_8O_4)_n$	Polyethylene terephthalate	650-2000 875-898 2.6-5 μ	S -	Spec Crystallinity Spec, Assign of carboxyl and OH groups	Ambroski Thompson Patterson	IE N TPS	45 (1953) 176 (1955) 53 (1957)	2290 78 291
		290-3500 70-3600 2-15 μ	S S S	Spec, Assign Spec, Assign, Struct Spec, Rot. iso Spec, Assign	Tobin Liang Miyake	JPC JMS JPS JPS	61 (1957) 3 (1959) 38 (1959) 38 (1959)	1392 554 479 497

$\text{C}_{10}\text{H}_{10}$	Poly-1-phenylbutadiene	$5-15\mu$	Spec	Farrow Farrow Miyake	MC POL BCSJ	38 (1960) 1 (1960) 33 (1960)	147 330 992	
$\text{C}_{10}\text{H}_{10}$	Poly-2-phenylbutadiene	$5-15\mu$	Spec	Raditzki	JPS	13 (1954)	477	
$(\text{C}_{10}\text{H}_{10}\text{N}_2\text{O}_4)_n$	Polyurethane (polyethylene 2-15 μ glycol + p-phenylene diisocyanate)	S	Ident, Anal, Spec	Corish	AC	31 (1959)	1298	
$(\text{C}_{10}\text{H}_{10}\text{O}_2)_n$	Poly-0-acetoxy styrene	1400-4000	Spec	Marvel	JPS	4 (1949)	703	
$(\text{C}_{10}\text{H}_1\text{NOS})_n$	Poly-S-benzyl-L-cysteine	-	S	Amide I and II bands, bands, Struct	Blout	JACS	82 (1960)	
$(\text{C}_{10}\text{H}_{12}\text{O}_4)_n$	Polydipropylene fumarate	$2-15\mu$	Sol	Bands, Assign	Walton	JACS	79 (1957)	
$(\text{C}_{10}\text{H}_3\text{F}_3\text{O}_3)_n$	Perfluoromethyl propenyl ketone-ethyl acrylate copolymer	-	Ident	Rausch	JACS	79 (1957)	4983	
$(\text{C}_{10}\text{H}_{16}\text{Cl}_2\text{S})_n$	Natural rubber vulcanized by S_2Cl_2	$775-2.9\mu$ - $2-8\mu$ 400-3000 $2.2-14.8\mu$ $1-15\mu$ $2-17\mu$ -	S S S S S S -	Transmission curves Absorption Freq. Abs., Refl. spec Spec Spec Spec Bands due to vulcanization	Nichols Cartwright Williams Williams Wells Sears Williams Sheppard Sheppard	PR PR JCP JAP JAP JAP JAP JAP TFS JCS	1 (1893) 35 (1930) 4 (1936) 8 (1937) 11 (1940) 12 (1941) 15 (1944) 41 (1945) - (1947)	1 415 460 497 137 35 585 261 1699
$(\text{C}_{10}\text{H}_{16}\text{O}_2)_n$	Polycyclohexyl methacrylate	700-1900	Spec	Hoslam	ANA	75 (1950)	63	
$(\text{C}_{10}\text{H}_{16}\text{O}_4)_n$	Polybutane-1,4-diol adipate	700-1400	S, L	Davison	JCS	- (1955)	2428	
$(\text{C}_{10}\text{H}_{16}\text{O}_4)_n$	Polyethylene suberate	650-1000	S	Spec, Crystallinity	TFS	56 (1960)	1117	

$(C_{10}H_{16}O_4)_n$	Poly(methyl methacrylate-polyethyl acrylate copolymer	700-1900	-	Spec	Hoslam	ANA	75 (1950)	63
$(C_{10}H_{18}O_2)_n$	n-Butyl vinyl ether-vinyl ether copolymer	1000-1200	Sol	Composition	Glass	JAO	36 (1959)	100
$(C_{10}H_{18}O_2)_n$	Isobutyl vinyl ether-vinyl ether copolymer	1000-1200	Sol	Composition	Glass	JAO	36 (1959)	100
$(C_{10}H_{27}NO_3Si_3)_n$	n-Butylaminomethyl-dimethylpolysiloxane	2-15 μ	-	Spec	George	JACS	77 (1955)	3493
$(C_{10}H_{27}NO_3Si_3)_n$	Diethylaminomethyl-dimethylpolysiloxane	2-15 μ	-	Spec	George	JACS	77 (1955)	3493
$(C_{10}D_8O_4)_n$	Polyethylene-d ₄ -terephthalate-d ₄	70-3600	S	Spec	Liang	JMS	3 (1959)	554
$(C_{11}H_{11}F_7O_3)_n$	Perfluoropropyl propenyl ketone-vinyl acetate copolymer	-	-	Ident	Rausch	JACS	79 (1957)	4983
$(C_{11}H_1NO_3)_n$	Poly-β-benzyl-L-aspartate	1520-1668	S	Freq, Assign, Conformations	Blout	JACS	82 (1960)	3787
$(C_{11}H_{12}N_2O_3)_n$	Glycine-L-tyrosine copolymer	-	-	Spec	Noguchi	NKZ	80 (1959)	85
$(C_{11}H_{13}N)_n$	Butadiene-vinyl pyridine copolymer	800-3000	S	Spec	Field	JAP	17 (1946)	386
$(C_{11}H_{14})_n$	Poly-2,4,5-trimethyl-styrene	650-1900	Sol	Spec	Bryant	JCS	- (1949)	2389
$(C_{11}H_{14})_n$	Poly-2,4,6-trimethyl-styrene	650-1900	Sol	Spec	Bryant	JCS	- (1949)	2389
$(C_{11}H_{16}Si)_n$	Poly-p-trimethylsilyl-styrene	-	-	Conformation Spec	Murahashi Noltes	BCSJ RJC	32 (1959) 79 (1960)	534 1076

(C ₁₁ H ₁₆ Ge) _n	Poly-p-trimethylgermanium styrene	-	-	Spec	Noltes	RTC	79 (1960)	1076
(C ₁₁ H ₁₆ Pb) _n	Poly-p-trimethyl lead styrene	-	-	Spec	Noltes	RTC	79 (1960)	1076
(C ₁₁ H ₁₆ Sn) _n	Poly-p-trimethyl tin styrene	-	-	Spec	Noltes	RTC	79 (1960)	1076
(C ₁₁ H ₂₁ NO) _n	Nylon 11 (polymer of ω -aminoundecanoic acid	450-4000	S,L	Spec, Crystallinity	Tobin	JCP	25 (1956)	1044
(C ₁₁ H ₂₁ NO) _n	Poly (N,N-di-n-butyl) acrylamide	1083-1200	-	Tacticity, Crystallinity	Butler	JPS	48 (1960)	357
(C ₁₁ H ₂₁ NO ₂ S ₂) _n	Polyampholyte	-	-	Ident	Marvel	JOC	25 (1960)	2207
(C ₁₂ H ₁₀ OSi) _n	Phenyl silicone polymer	650-4000	S	Spectrum	Lady	AC	31 (1959)	1100
(C ₁₂ H ₁₃ F ₇ O ₃) _n	Perfluoropropyl propenyl ketone-ethyl acrylate copolymer	-	-	Ident	Rausch	JACS	79 (1957)	4983
(C ₁₂ H ₁₃ NO ₃) _n	Poly- γ -benzyl-L-glutamate	1500-3400 650-2000	S Sol	Spec, Struct $\nu_{C=O}$, δ_{NH} Spec, Config Amide I & II bands, Config	Ambrose Elliott Blout Blout Miyazawa	PRS PRS JACS JACS JCP	205 (1951) 221 (1954) 78 (1956) 82 (1960) 32 (1960)	47 104 955 3787 1647
(C ₁₂ H ₁₃ NO ₃) _n	Poly- γ -benzyl-DL-glutamate	-	-	$\nu_{C=O}$, δ_{NH}	Elliott	PRS	221 (1954)	104
(C ₁₂ H ₁₃ NO ₃) _n	Poly-L-glutamic benzyl ester	-	-	Struct, H bond	Elliott	N	165 (1950)	921
(C ₁₂ H ₁₄) _n	Polybutadiene-styrene copolymer	600-1700 600-2000 914-996 2.5-16/ <i>μ</i>	S S -	Spec Spec Struct Spec, Struct	Thompson Treumann D'Ianni Nielsen	TFS AC IE IE	41 (1945) 21 (1949) 42 (1950) 43 (1951)	246 1161 42 341

	-	-	Anal Composition Analysis Spec	Binder Binder Miller Cheverley	AC IE JAPC APS	26 (1954) 46 (1954) 6 (1956) 10 (1960)	1877 1727 385 192
(C ₁₂ H ₁₄ N ₂ O ₄) _n	Polyurethane from poly propylene glycol and 2,6-toluene diisocyanate	1.5-2.7 μ 600-3700	Sol -	Spec, Anal, Ident	Corish	AC	31 (1959) 1298
(C ₁₂ H ₁₄ O ₂) _n	Styrene methacrylic acid copolymer	5.7-5.9 μ 5.6-6 μ	Sol -	COOH dimerization study H bonding	Chang Longworth	JPC JPS	60 (1956) 782 29 (1958) 307
(C ₁₂ H ₁₆) _n	Poly-p-tert-butyl- styrene	-	-	Spec	Nolties	RTC	79 (1960) 1076
(C ₁₂ H ₁₆ O ₈) _n	Cellulose acetate	2-15 μ 500-1500 2.5-4 μ	S -	Spec, Oxidation study, Struct Spec Spec, Struct	Rowen Thompson Brown	JRNBB DFSS JCS	39 (1947) 133 9 (1950) 222 - (1951) 1532
(C ₁₂ H ₁₈ N ₂ O ₄) _n	Polyurethan from 2- butyne-1,4-diol and 1,6-hexamethylene diisocyanate	700-3500	-	Ident	Marvel	JACS	72 (1950) 1674
(C ₁₂ H ₂₀ O ₄) _n	Polyethylene sebacate	670-1500 700-1400	S,L S,L	Spec Dichroism, Structure	Davison Davison	JCS JCS	- (1955) 2428 - (1955) 2428
(C ₁₂ H ₂₂ N ₂ O ₂) _n	Nylon 66	500-3200 2800-3500 -	-	Spec, Struct Spec, Struct Dichroism of C=O and NH bands	Thompson Ambrose Elliott	TFS PRS N	41 (1945) 246 199 (1949) 183 172 (1953) 359
		2-16 μ -	-	Spec Dichroism	Harms Caroti	AC N	25 (1953) 1140 178 (1956) 162
		2.5-11.5 μ 2 μ	S Sol	Spec Freq, Dichroism Freq, Assign, Dichroism	Coates Fraser Hecht	JOSA JCP PRS	43 (1953) 984 24 (1956) 89 235 (1956) 174
		600-3600 2.8-3.1 μ 400-3500	S S S	Deuteration effect Spec Spec	Larose Kinoshita Cannon	CJC MC SA	35 (1957) 1239 33 (1959) 1 16 (1960) 302

$(C_{12}H_{22}N_2O_4)_n$	Polyurethane from butane-1,4-diol and 1,6-hexamethylene diisocyanate	700-3500	-	Ident	Marvel	JACS 72 (1950) 1674
$(C_{12}H_{23}NO_3Si_3)_n$	Anilinomethylidimethyl-polysiloxane	2-15 μ 2.8-3.1 μ	-	Spec H bonding	George Trifan	JACS 77 (1955) 3493 JPS 28 (1958) 443
$(C_{13}H_{11}N)_n$	Poly-4-(α -pyridyl) styrene	-	-	Ident	Givetchi	CPR 250 (1960) 3656
$(C_{13}H_{13}F_3O)_n$	Perfluoromethyl propenyl ketone-styrene copolymer	-	-	Ident	Rausch	JACS 79 (1957) 4983
$(C_{13}H_{15}N_3O_4)_n$	Glycine-L-tyrosine copolymer	-	-	Spec	Noguchi	NKZ 80 (1959) 85
$(C_{13}H_{16}O_2)_n$	Polymethyl methacrylate-polystyrene copolymer	700-1900	-	Spec	Hoslam	ANA 75 (1950) 63
$(C_{13}H_{18}S_2)_n$	Benzaldehyde-hexamethylene-dithiol polymercaptol	2400-4000	-	Spec	Marvel	JACS 72 (1950) 2106
$(C_{13}H_{21}NO_6S_2)_n$	Diethylacetamido cellulose xanthate	2-15 μ	S	Spec	Andrews	CJC 38 (1960) 1381
$(C_{13}H_{24}N_2O_4)_n$	Polyurethane from pentane-1,5-diol and 1,6-hexamethylene diisocyanate	2.8-3.1 μ	-	H bonding	Trifan	JPS 28 (1958) 443
$(C_{13}H_{25}NO_3Si_3)_n$	N-Methylanilinomethyl-dimethylpolysiloxane	2-15 μ	-	Spec	George	JACS 77 (1955) 3493
$(C_{14}H_8F_15NO)_n$	Perfluororheptyl propenyl ketone-acrylonitrile copolymer	-	-	Ident	Rausch	JACS 79 (1957) 4983

$(C_{14}H_{12}N_2O_4)_n$	Polyurethane from polyethylene glycol and 1,5-naphthalene diisocyanate	2-15 μ	S	Spec , Anal, Ident	Corish	AC	31 (1959) 1298
$(C_{14}H_{12})_n$	Polydiphenyl ethylene	650-1200	-	Spec	Ishida	BCCSJ	33 (1960) 924
$(C_{14}H_{12}O)_n$	Polydiphenyl ethylene oxide	650-1200	-	Spec	Ishida	BCCSJ	33 (1960) 924
$(C_{14}H_{12}O_6)_n$	Polyamhydride of adipic acid-terephthalic acid	2-14 μ	S	Spec , Composition	Yoda	BCCSJ	32 (1959) 1120
$(C_{14}H_{14}O_4)_n$	Diallylphthalate polymer	1644 -	-	Polymerization study Struct	LalaKerally LalaKerally	CPR CPR	249 (1959) 250 (1960) 1213 2967
$(C_{14}H_{18}N_2O_3)_n$	Poly-carbo-benzoxy-D-L-lysine	-	-	Struct, H bond	Elliott	N	165 (1950) 921
$(C_{14}H_{20}O_4)_n$	Polysebacate of 2-butyne-1,4-diol	700-1500	-	Ident	Marvel	JACS	72 (1950) 1674
$(C_{14}H_{22}O_4)_n$	Polymethacrylic acid-poly(cyclohexyl methacrylate copolymer	700-1900	-	Spec	Hoslam	ANA	75 (1950) 63
$(C_{14}H_{24}O_4)_n$	Polybutane-1:4 diol sebacate	700-1400	S,L	Dichroism structure	Davison	JCS	- (1955) 2428
$(C_{14}H_{24}O_4)_n$	Polytetramethylene sebacate	-	-	Ident	Marvel	JACS	72 (1950) 1674
$(C_{14}H_{26}N_2O_2)_n$	Polyhexame thylene suberamide	2.8-3.1 μ	-	H bond	Trifan	JPS	28 (1958) 443
$(C_{14}H_{26}N_2O_4)_n$	Polyurethane from hexane-1,6-diol and 1,6-hexamethylene diisocyanate	2.8-3.1 μ	-	H bonding	Trifan	JPS	28 (1958) 443

$(C_{14}H_{26}O_2)_n$	2-Ethylhexyl vinyl ether-vinyl ether copolymer	1000-1200	Sol	Composition	Glass	JAOC	36 (1959)	100
$(C_{15}H_{11}F_{15}O_3)_n$	Perfluoroheptyl propenyl ketone-vinyl acetate copolymer	-	-	Ident	Rausch	JACS	79 (1957)	4983
$(C_{15}H_{13}F_7O)_n$	Perfluoropropyl propenyl ketone-styrene copolymer	-	-	Ident	Rausch	JACS	79 (1957)	4983
$(C_{15}H_{18}N_2O_4)_n$	Poly- γ -methyl-L-glutamate-DL-phenylalanine (α form) (1:1)	1500-3400	S	Spec., Struct	Ambrose	PRS	205 (1951)	47
$(C_{15}H_{18}N_2O_4)_n$	Poly- γ -methyl-L-glutamate-DL-phenylalanine (β form) (1:1)	1500-3400	S	Spec., Struct	Ambrose	PRS	205 (1951)	47
$(C_{15}H_{20}N_2O_2)_n$	Poly-DL-leucine-DL-phenylalanine (1:1)	-	S	C=O, NH freq	Elliott	PRS	221 (1954)	104
$(C_{15}H_{20}N_2O_2)_n$	Poly-L-leucine-L-phenylalanine	-	S	C=O, NH freq	Elliott	PRS	221 (1954)	104
$(C_{15}H_{24}O_4)_n$	Poly methyl methacrylate-polycyclohexyl methacrylate copolymer	700-1900	-	Spec	Hoslam	ANA	75 (1950)	63
$(C_{15}H_{28}N_2O_2)_n$	Polyhexamethylene azalamide	2.8-3.1 μ	-	H bond	Trifan	JPS	28 (1958)	443
$(C_{15}H_{28}N_2O_4)_n$	Polyurethan from heptane-1,7-diol and 1,6-hexamethylene diisocyanate	2.8-3.1 μ	-	H bonding	Trifan	JPS	28 (1958)	443
$(C_{16}H_{13}F_{15}O_3)_n$	Perfluoroheptyl propenyl ketone-ethyl acrylate copolymer	-	-	Ident	Rausch	JACS	79 (1957)	4983

$(C_{16}H_{17}ClN_2O_7)_n$	Polymer from poly ethylene glycol adipate and m-chloro-p-phenylene diisocyanate	2-15 μ	S	Spec, Anal, Ident	Corish	AC	31 (1959)	1298
$(C_{16}H_{18}N_2O_7)_n$	Polymer from poly ethylene glycol adipate and p-phenylene diisocyanate	2-15 μ	S	Spec, Anal, Ident	Corish	AC	31 (1959)	1298
$(C_{16}H_{26}N_2O_7)_n$	Polymer from poly ethylene glycol adipate and hexamethylene diisocyanate	2-15 μ	S	Spec, Anal, Ident	Corish	AC	31 (1959)	1298
$(C_{16}H_{30}N_2O_7)_n$	Polyhexamethylene sebacamide	10 μ	S	Spec	Sandeman	JPS	19 (1956)	401
$(C_{16}H_{30}N_2O_4)_n$	Polyurethane from octane-1,8-diol and 1,6-hexamethylene diisocyanate	2.8-3.1 μ	-	H bonding	Trifan	JPS	28 (1958)	443
$(C_{17}H_{14}O_2)_n$	Polyfurfurylidene-cinnamylidene acetone	5.5-15 μ	-	Spec	Borello	GCI	86 (1956)	899
$(C_{17}H_{26}S_2)_n$	Benzaldehyde-decamethylenedithiol polymercapta	600-4000	-	Spec	Marvel	JACS	72 (1950)	2106
$(C_{17}H_{32}N_2O_2)_n$	Polyhexamethylene undecandoic acid amide	2.8-3.1 μ	-	H bonding	Trifan	JPS	28 (1958)	443
$(C_{17}H_{32}N_2O_4)_n$	Polyurethane from nonane-1,9-diol and 1,6-hexamethylene diisocyanate	2.8-3.1 μ	-	H bonding	Trifan	JPS	28 (1958)	443

$(C_{18}H_{18}N_2O_3)_n$	L-Phenylalanine-L-tyrosine copolymer	-	-	Spec	Noguchi	NKZ	80 (1959)	85
$(C_{18}H_{20}O_6)_n$	Polyanhydride of sebacic acid and terephthalic acid	2-14 μ	S	Spec, Composition	Yoda	BCSJ	32 (1959)	1120
$(C_{18}H_{20}Si)_n$	Polydiallyldiphenyl-silane	-	-	Freq	Butler	JOC	25 (1960)	1643
$(C_{18}H_{22}N_2O_7)_n$	Polymer from poly ethylene glycol adipate and 2,4-toluene diisocyanate	2-15 μ	S	Anal, Spec, Ident	Corish	AC	31 (1959)	1298
$(C_{18}H_{22}N_2O_7)_n$	Polymer from poly adipate and 2,6-toluene diisocyanate	2-15 μ	S	Anal, Spec, Ident	Corish	AC	31 (1959)	1298
$(C_{18}H_{34}N_2O_2)_n$	Polyhexamethylene dodecanoic acid amide	2.8-3.1 μ	-	H bonding	Trifan	JPS	28 (1958)	443
$(C_{18}H_{34}N_2O_4)_n$	Polyurethane from decane-1,10-diol and 1,6-hexamethylene diisocyanate	2.8-3.1 μ	-	H bonding	Trifan	JPS	28 (1958)	443
$(C_{19}H_{13}F_{15}O)_n$	Perfluororheptyl propenyl ketone- <i>s</i> -styrene copolymer	-	-	Ident	Rausch	JACS	79 (1957)	4983
$(C_{20}H_{20}N_2O_7)_n$	Polyurethane from poly ethylene glycol adipate and 1,5-naphthalene diisocyanate	2-15 μ	S	Ident, Anal, Spec	Corish	AC	31 (1959)	1298
$(C_{20}H_{23}Cl_{17})_n$	Polyvinyl chloride-vinylidene chloride (3:7) copolymer	600-1700	S	Spec	Thompson	TFS	41 (1945)	246

$(C_{22}H_{22}N_2O_7)_n$	Polymer from poly ethylene glycol adipate and p,p'-diphenyl diisocyanate	2-15 μ	S	Anal, Spec, Ident	Corish	AC	31 (1959) 1298
$(C_{23}H_{24}N_2O_7)_n$	Polymer from poly ethylene glycol adipate and p,p'-diphenylmethane diisocyanate	2-15 μ	S	Anal, Spec, Ident	Corish	AC	31 (1959) 1298
$(C_{27}H_{27}N_3O_4)_n$	2L-phenylalanine-L-tyrosine copolymer	-	-	Spec	Noguchi	NKZ	80 (1959) 85
$(C_{30}H_{37}N_3O_3)_n$	Poly-DL-leucine-DL-amino-n-caprylic acid (2:1)	-	-	$\nu_{C=O}$, δ_{NH}	Elliott	PRS	221 (1954) 104
$(C_{37}H_{53}N_3O_14)_n$	Glycine-DL-alanine, L-tyrosine copolymer	-	-	Spec	Noguchi	NKZ	80 (1959) 85
$(C_{90}H_{150}O_2)_n$	Polymethacryloylacetone	1200-1800	S	Stability const., Assign, IR shift	Charette	SA	16 (1960) 689
$(PNCl_2)_n$	Phosphanitrilic chloride polymer	2-21 μ	S	Spec	Daasch	AC	23 (1951) 853
$(KPO_3)_n$	Potassium metaphosphate polymer	2-15 μ	S	Assign, Struct	Corbridge	JCS	- (1954) 493
$(NaPO_3)_n$	Sodium metaphosphate polymer	2-15 μ	S	Assign, Struct	Corbridge	JCS	- (1954) 493



IV. Minerals and Ores

Formula	Name	Range	State	Remarks	Reference
CSi	Carborundum	1-15 μ 10.2-13 μ	S	Refl. spec Refl. spec	Coblentz Stron JOSA 29 (1939)
O_2Si	Chalcedony	22-310 μ	S	Refl. trans. factors	Weniger JOSA 7 (1923)
O_2Si	Chert	2-16 μ	S	Spec	Hunt AC 22 (1950)
O_2Si	Coesite	300-4000	S	Spec, Assign	Lippincott JRNB 61 (1958)
O_2Si	Cristobalite	700-1400	S	Refl. spec Heat capacity	Simon Dark Reitzel Lippincott JCP 21 (1953) 23 (1955) 23 (1955) JRNB 61 (1958)
O_2Si	-	-	S	Refl. spec	JCP 23 (1955) 2407
O_2Si	-	400-600	S	Spec, Assign	JCP 61 (1958)
O_2Si	-	300-4000	S	Spec, Assign	
O_2Si	Diatomaceous earth	2-16 μ	S	Spec	Hunt AC 22 (1950)
O_2Si	Quartz	300-4000	S	Spec	Lippincott JRNB 61 (1958)
O_2Si	α -Quartz	-	-	Electronic moments cal.	Saxena PIAS 30 (1949)
O_2Si	β -Quartz	-	-	Electronic moments cal.	Saxena PIAS 30 (1949)
O_2Si	Silica	300-4000	S	Spec	Lippincott JRNB 61 (1958)
$\text{O}_2\text{Si} \cdot \text{xH}_2\text{O}$	Tridymite	300-4000	S	Spec, Assign	Lippincott Coblentz Coblentz Weniger Hunt Hunt BBS BBS JOSA AC AC BBS BBS JOSA AC AC BBS BBS PR JCP 151 (1935) 20 (1952)
AlH_2O	Diaspore	7.5-11 μ 1-8 μ	S	Refl. spec Emission spec H bond H bond	Coblentz Coblentz Bernal Rundle BBS BBS PR JCP 2 (1907) 6 (1910) 151 (1935) 20 (1952)
$\text{AlH}_2\text{O} \cdot 12\text{Si}_3\text{Fe}_3 - \text{KFe}_3$	Biotite	4-14 μ 1-9 μ	S	Refl. spec Spec Spec, Freq	Coblentz Hunt Serratos BBS AC JPC 2 (1907) 22 (1950) 62 (1958)
		4000-3500	-		

AlH_3O_3	Hydrargillite	410-1200 420-3700	S -	Assign Spec , Freq	Kolesova Kolesova	OS OS	6 (1959) 7 (1959)	38 261
$\text{AlH}_{12}\text{O}_9\text{Mg}_3$	Hydrotalcite	1-7 μ	S	Emission spec	Coblentz	BBS	6 (1909)	301
$\text{AlH}_{12}\text{O}_{22}\text{Si}_6\text{Ca}$	Stilbite	1-8 μ	S	Spec	Coblentz	BBS	2 (1907)	457
AlD_3O_3	Hydrargillite-d ₃	420-3700	-	Spec , Freq	Kolesova	OS	7 (1959)	261
AlF_6Na_3	Cryolite	22-310 μ - - -	S - S S	Refl. trans. factors Particle size FC Optical consts.	Weniger Bailey deLatte Scott	JOSA IJC JCP JOSA	7 (1923) 18 (1946) 19 (1951) 45 (1955)	517 365 1610 176
$\text{AlO}_3\text{Si}_3\text{K}$	Adularia	22-310 μ -	S S	Emission Refl. trans. factors	Coblentz Weniger	BBS JOSA	5 (1909) 7 (1923)	159 517
AlO_4SiK	Mica	- - 107-310 μ 6.7-33 μ 10-130 μ .6-2.7 μ	S S S S S S	Freq Absorption Transmission Refl. trans. Spec Interference, Polarization effects	Bancroft Brown Weniger Strong Barnes Ellis	JPC PR JOSA PR PR JOSA	23 (1919) 21 (1923) 7 (1923) 37 (1931) 39 (1932) 23 (1933)	1 103 517 1565 562 88
AlO_4SiNa	Nepheline	410-1200	S	Assign	Kolesova	OS	6 (1959)	38
$\text{AlO}_6\text{Si}_2\text{K}$ $\text{AlO}_6\text{Si}_2\text{Li}$	Leucite Spodumene (α, β)	410-1200 550-3000 410-1200	S St S	Assign Struct Assign	Kolesova Ignateva Kolesova	OS OS OS	6 (1959) 6 (1959) 6 (1959)	38 807 38

$\text{Al}_6\text{Si}_2\text{Na}$	Jadeite	410-1200	S	Assign	Kolesova	OS	6 (1959)	38
$\text{Al}_8\text{Si}_3\text{K}$	Orthoclase	12.5-14.3 μ 410-1200	S	Quant. anal Bands Assign	Hunt Hunt Kolesova	AC AC OS	24 (1952) 25 (1953) 6 (1959)	607 1169 38
$\text{Al}_8\text{Si}_3\text{K}$	Microcline	4-12 μ 2-16 μ	S	Refl. spec Spec	Coblentz Hunt	BBS AC	2 (1907) 22 (1950)	457 1478
$\text{Al}_8\text{Si}_3\text{Na}$	Albite	4-10.5 μ 1-8 μ 2-16 μ 8-12 μ	S	Refl. spec Emission spec Spec Spec Assign	Coblentz Coblentz Hunt Hunt Kolesova	BBS BBS AC AC OS	2 (1907) 5 (1909) 22 (1950) 25 (1953) 6 (1959)	457 159 1478 1169 38
$\text{Al}_2\text{HfO}_6\text{Si}$	Topaz	1-8 μ 1-6 μ 22-310 μ 2-3 μ 7.8-12 μ	S	Emission spec Emission spec Refl. trans. factors H_2O Absorption Refl. spec	Coblentz Coblentz Weniger Lyon Pfund	BBS BBS JOSA PR JOSA	5 (1909) 6 (1910) 7 (1923) 61 (1942) 35 (1945)	159 301 517 482 611
$\text{Al}_2\text{H}_2\text{F}_2\text{O}_{11}\text{Si}_3\text{Li}$	Lepidolite	4000-3000	-	Spec, Freq	Serratoso	JPC	62 (1958)	1164
$\text{Al}_2\text{H}_2\text{O}_{12}\text{Si}_4\cdot\text{xH}_2\text{O}$	Montmorillonite	4000-3000	-	Spec, Assign	Serratoso	JPC	62 (1958)	1164
$\text{Al}_2\text{H}_4\text{O}_5$	Bauxite	1-8 μ 2.5-3.5 μ	S	Spec OH band study	Coblentz Frederickson	BBS AC	2 (1907) 26 (1954)	457 1883
$\text{Al}_2\text{H}_4\text{O}_8\text{Si}_2$	Kaolinite	2-16 μ	S	Spec	Hunt	AC	22 (1950)	1478
		-	S	Quant. Anal	Hunt	AC	24 (1952)	607
		8-12 μ	S	Spec	Hunt	AC	25 (1953)	1169
		8-15 μ	S	Spec	Fridel	AC	28 (1956)	23
		2.5-4.0 μ	S	Spec	Romo	JPC	60 (1956)	987
		2-15 μ	S	Spec	Stubican	N	179 (1957)	542
$\text{Al}_2\text{H}_4\text{O}_{12}\text{Si}_3\text{Na}_2$	Natrolite	1-9 μ	S	Spec	Coblentz	BES	2 (1907)	457
$\text{Al}_2\text{H}_4\text{O}_{14}\text{Si}_4\text{Na}_2$	Analcite	22-310 μ	S	Refl. trans. factors	Weniger	JOSA	7 (1923)	517
$\text{Al}_2\text{H}_6\text{O}_{13}\text{Si}_3\text{Ca}$	Scolecite	1-6 μ	S	Spec	Coblentz	BES	2 (1907)	457

$\text{Al}_2\text{H}_{10}\text{O}_{21}\text{Si}_6\text{Ca}$	Heulandite	1-12 μ	S	Spec	Coblentz	BBS	2 (1907)	457
$\text{Al}_2\text{H}_{48}\text{O}_{40}\text{S}_4\text{K}_2$	Potassium alum	2.82 μ	Sol	Transmission curves	Nichols	PR	1 (1893)	1
		1-3 μ	S	Spec	Coblentz	BBS	2 (1907)	457
		1.9-779 μ	S	Transmission	Nicholson	PR	22 (1923)	199
		-	Sol	Comparison with Raman	Hollaender	PR	34 (1929)	994
Al_2O_3	Corundum	20-150 μ	S	Reflectivity	Strong	PR	38 (1931)	1818
		-	-	Use for windows with HF	Vodar	JCP	8 (1940)	349L
		9.3-12 μ	S	Refl. spec	Pfund	JOSA	35 (1945)	611
		-	-	Transmitts to 6.5	Chasmar	JSI	28 (1951)	206
		1-6 μ	S	Trans. curve	Penner	JCP	19 (1951)	272
		410-1200	S	Assign	Kolesova	OS	6 (1959)	38
$\text{Al}_2\text{O}_5\text{Si}$	Cyanite	1-7 μ	S	Emission spec	Coblentz	BBS	6 (1910)	301
		410-1200	S	Assign	Kolesova	OS	6 (1959)	38
$\text{Al}_2\text{O}_6\text{Si}_3\text{xH}_2\text{O}$	China clay	2-15 μ	S	Spec	Harkins	AC	31 (1959)	541
$\text{Al}_2\text{O}_8\text{Si}_2\text{Ca}$	Anorthite	2-16 μ	S	Spec	Hunt	AC	22 (1950)	1478
$\text{Al}_2\text{O}_{12}\text{SSiCa} - \text{Fe}_2\text{Mg}$	Angren & liezh	-	-	Spec	Krylov	DANS	33 (1960)	5
$\text{Al}_2\text{O}_{12}\text{Si}_3\text{Ca}_3$	Grossularite	410-1200	S	Assign	Kolesova	OS	6 (1959)	38
$\text{Al}_2\text{O}_{12}\text{Si}_3\text{Fe}_3$	Garnet	2-16 μ	S	Spec	Hunt	AC	22 (1950)	1478
$\text{Al}_2\text{O}_{12}\text{Si}_4\text{Li}_2$	Spodumene	22-310 μ	S	Refl. trans. factors	Weniger	JOSA	7 (1923)	517
		0.3-4.5 μ	S	Spec	Bayley	PR	31 (1928)	1132
$\text{Al}_2\text{O}_{18}\text{Si}_6\text{Be}_3$	Berry1	1-8 μ	S	Emiss. spec	Coblentz	BBS	5 (1909)	159
		22-310 μ	S	Refl. trans. factors	Weniger	JOSA	7 (1923)	517
		2.4-3 μ	S	H2O Absorp.	Lyon	PR	61 (1942)	482
		6.7-11 μ	S	Refl. spec	Pfund	JOSA	35 (1945)	611
		.7-1.7 μ	S	Polarizer test	Pfund	JOSA	37 (1947)	558
		-	-	Quant. Mech., Struct	Matossi	JCP	17 (1949)	679
		10-3000	-	Spec, Struct	Wickersheim	AM	44 (1959)	440

$\text{Al}_2\text{O}_{24}\text{Si}_7\text{Ca}_2 - \text{Fe}_5\text{Mg}_5$	Hornblende	2-16/ μ	S	Hunt	AC	22 (1950)	1478
$\text{Al}_3\text{H}_2\text{O}_{12}\text{Si}_3\text{K}$	Muscovite	11-14/ μ 4-11/ μ 1-9/ μ 2-16/ μ 13-14/ μ	S S S S S	Spec Refl. spec Spec Spec H_2O Absorp.	Coblentz Coblentz Lyon Hunt Hunt	BBS BBS PR AC AC	2 (1907) 7 (1911) 61 (1942) 22 (1950) 25 (1953)
$\text{Al}_3\text{H}_{16}\text{Si}_5\text{CaNa}$	Oligoclase	1-8/ μ 2-16/ μ	S S	Spec Emiss. spec	Coblentz Hunt	BBS AC	5 (1909) 22 (1950)
$\text{Al}_4\text{H}_{10}\text{Si}_{16}\text{Si}_4 - \text{Fe}_6\text{Mg}_3$	Vermiculite	4000-30000	S	Spec, Assign	Serratosá	JPC	62 (1958) 1164
$\text{Al}_6\text{H}_2\text{O}_{20}\text{Si}_4\text{K}_1 \cdot \text{nH}_2\text{O}$	Illite	2-16/ μ 8-12/ μ -	S S -	Spec Spec Freq	Hunt Hunt Pobeyguin	AC AC CPR	22 (1950) 25 (1953) 248 (1959)
$\text{Al}_6\text{H}_{424}\text{Si}_6\text{K}_2$	Muscovite	4000-3000	-	Spec, Assign	Serratosá Pobeyguin	JPC CPR	62 (1958) 248 (1959)
$\text{Al}_6\text{ClO}_{24}\text{Si}_6\text{Na}_7$	Hackmanite	200-2000	S	Spec	Medceed	JCP	21 (1953) 1309
Ag_3SAs	Proustite	0.58-2/ μ	S	Photoelectric sensitivity	Coblentz	PR	17 (1921) 245
BaCO_3	Witherite	22-310/ μ - 1-15/ μ	S - S	Refl. trans. factors Residual rays Spec, Assign	Weniger Schaefer Narayanan	JOSA TFS JIIS	7 (1923) 25 (1929) 40A (1958)
BaO_4S	Barytes	2-15/ μ	S	Spec	Harkins	AC	31 (1959) 541
$\text{BaO}_9\text{Si}_3\text{Ti}$	Benitoite	-	-	Quant. Mech., Struct	Matossi	JCP	17 (1949) 679
CaCO_3	Aragonite	-	-	Residual rays Refl.	Schaefer Barnes	TFS PR	25 (1929) 39 (1932)

41 μ	S	Residual rays	Seifert	RSI	11 (1940)	365	
-	-	Selection rules	Couture	JCP	15 (1947)	1532	
2-16 μ	S	Spec	Hunt	AC	22 (1950)	1478	
8-15 μ	S	Spec	Louisfert	GPR	235 (1952)	287	
14.3 μ	S	Freq	Hunt	AC	25 (1953)	1169	
Aragonite (isotopic)	861	S	Intermolecular coupling	Decius	JCP	22 (1954)	1946
CaC ¹³ O ₃	861	S	Intermolecular coupling	Decius	JCP	22 (1954)	1946
CaCO ₃	Calcite	1-8 μ	Coblentz	BBS	5 (1909)	159	
		93-116 μ	Weniger	JOSA	7 (1923)	517	
		5.5-7.5 μ	Pfund	JOSA	15 (1927)	69	
		1.7-2.64 μ	Plyler	PR	33 (1929)	948	
	-	-	Residual rays	TFS	25 (1929)	841	
	8.7 μ	-	Dispersion	Korff	RMP	4 (1932)	471
	3-9 μ	S	Spec	Pfund	PR	39 (1932)	64
	6.4-7.4 μ	S	Refl. trans. spec	Silverman	PR	39 (1932)	72
	4-8 μ	S	Refl. trans.	Pfund	JOSA	23 (1933)	375
	80-150 μ	-	Refl.	Bryant	JOSA	24 (1934)	139
	-	-	Christiansen filter	Barnes	PR	49 (1936)	732
	6-11.5 μ	S	Refl.	Sanderson	JOSA	30 (1940)	566
	-	-	Residual rays	Seifert	RSI	11 (1940)	365
	.4-4 μ	S	Spec	Barnett	JPC	46 (1942)	69
	-	-	Selection rules	Halford	JCP	14 (1946)	8
	-	-	Selection rules	Couture	JCP	15 (1947)	1532
	-	-	Quant. Mech.	Hornig	JCP	16 (1948)	1063
	2-16 μ	S	Spec	Hunt	AC	22 (1950)	1478
	-	S	Freq cal.	Giulotto	JCP	19 (1951)	1316
	-	S	Quant. Anal	Hunt	AC	24 (1952)	607
	8-15 μ	S	Spec	Louisfert	CPR	235 (1952)	287
	14 μ	S	Freq	Hunt	AC	25 (1953)	1169
	2-15.3 μ	S	Spec	Hacskaylo	AC	26 (1954)	1410
	1430-	-	Band length	Margoshes	JCP	22 (1954)	381
	1300-1600	S	Emiss. spec	Ketelaar	P	22 (1956)	1283
	20-35 μ	S	Spec, Assign	Hexter	SA	10 (1958)	281
	200-700	-	Freq	Louisfert	CPR	248 (1959)	1150
	-	-	Freq	Pobeyguin	CPR	248 (1959)	2220
	-	S	Assign	Shuttin	DANS	125 (1959)	767

CaC ₁₂ O ₃	Calcite (isotopic)	878	S	Intermolecular coupling	Decius	JCP	22 (1954)	1946
CaC ¹³ O ₃	Calcite (isotopic)	850	S	Intermolecular coupling	Decius	JCP	22 (1954)	1946
CaC ₂ O ₆ Mg	Dolomite	— 2-16 μ	— S	Freq., Residual rays	Schaefer	TFS	25 (1929)	841
		— 13.7 μ	— S	Spec.	Hunt	AC	22 (1950)	1478
		200-700	— —	Quant. Anal. Spec., Freq.	Hunt	AC	24 (1952)	607
			— —	Freq.	Louisfert	AC	25 (1953)	1169
			— —	Freq.	Pobeguin	CPR	248 (1959)	1150
			— —			CPR	248 (1959)	2220
CaH ₂ O ₂	Portlandite	2-3 μ	S	Struct	Petch	JOSA	44 (1954)	744
		— —	S	Theoretical study	Hexter	JOSA	48 (1958)	770
CaH ₄ O ₆ S	Gypsum	1-7 μ	S	Spec.	Coblentz	BBS	2 (1907)	457
		1-8 μ	S	Emiss. spec	Coblentz	BBS	5 (1909)	159
		.648-.093 μ	S	Spec	Coblentz	BBS	7 (1911)	619
		— —	S	Comparison with Raman Water of crystallisation	Hollaender	PR	34 (1929)	994
			— —	Ellis study	Ellis	PR	38 (1931)	693
		8.7 μ	—	Dispersion formula	Korff	RMP	4 (1932)	471
		7-10 μ	S	Refl. spec	Sanderson	JOSA	30 (1940)	566
		2-16 μ	S	Spec.	Hunt	AC	22 (1950)	1478
		2 μ	S	Dispersion	Vanderberg	PR	85 (1952)	725
		15.1 μ	S	Spec., Freq	Hunt	AC	25 (1953)	1169
		3000-9000	S	Spec.	Webber	PR	96 (1954)	846
		600-3400	S	Assign., Struct	Haas	PRS	236A (1956)	427
		2.5-3.3 μ	S	Spec., Struct	Lazerev	BASU	21 (1957)	329
		6131-7542	S	Spec.	Stekhanov	BASU	21 (1957)	319
		— —	—	Theoretical discussion on struct	Atoji	JCP	29 (1958)	1306
CaF ₂	Fluorite	1-5.5 μ	S	Spec., Dichroism	Merritt	PR	2 (1895)	424
		24.4 μ	S	Residual rays plate	Rubens	PR	4 (1897)	314
		2-3 μ	S	Dichroism	Stewart	PR	4 (1897)	433
		•5-9 μ	S	Trans spec	Coblentz	BBS	9 (1913)	81
		— 6-11 μ	S	Spec	Gorton	PR	7 (1916)	66
		— 5.8 μ	S	Vib. freq. theory	Coblentz	JOSA	4 (1920)	452
				Transmission	Nichols	PR	21 (1923)	712
					Nicholson	PR	22 (1923)	199

$\text{Si}_{82/\mu}$	S	Refl. factor	Weniger	JOSA	7	(1923)
$22\text{-}9\mu$	S	Reflectivity	Strong	PR	37	(1931)
$5\text{-}40\mu$	S	Refl.	Barnes	PR	39	(1932)
$8\cdot7\mu$	-	Dispersion formula	Korff	RMP	4	(1932)
6μ	S	Optical properties	Williams	PR	53	(1938)
6μ	S	Dispersion	Wright	KSI	15	(1944)
-	S	Comp. of prisms	Gore	JOSA	37	(1947)
$19\text{-}25\mu$	S	Refl.	Plyler	JOSA	37	(1947)
$20\text{-}25\mu$	S	Refl.	Plyler	PR	72	(1947)
$2\text{-}14\mu$	S	Spec	White	JOSA	37	(1947)
-	S	Dispersion	Williams	RSI	19	(1948)
$1\text{-}9\text{-}75\mu$	S	Trans. spec	Stockbarger	JOSA	39	(1949)
-	-	Polarizability	Szigeti	TPS	45	(1949)
3μ	S	Dispersion	Lecomte	JPR	11	(1950)
-	S	Comp. with BaF_2	Ballard	JOSA	42	(1952)
-	S	Calibration data	Downie	JOSA	43	(1953)
-	-	Comparison	Brackett	JOSA	47	(1957)
5000-5000	-	Spec		JOSA	47	(1957)
CaO_2Si_2	Wollastonite	-	Quant. Mech., Struct	Matossi	17	(1949)
CaO_4Mo	Powellite	$2\text{-}16\mu$	Spec	Hunt	AC	22 (1950)
$\text{CaO}_6\text{Si}_2\text{Mg}$	Avagite	$650\text{-}290$	Assign	Duval	CPR	239 (1954)
$\text{CaO}_6\text{Si}_2\text{Mg}$	Diopside	$2\text{-}16\mu$	Spec	Hunt	AC	22 (1950)
$\text{CaO}_8\text{Si}_2\text{Na}_2$	Glauberite	-	Quant. Mech., Struct	Matossi	JCP	17 (1949)
$\text{CaO}_{12}\text{Si}_4\text{Mg}_3$	Amphibole	$1\text{-}7\mu$	Spec	Coblentz	BES	2 (1907)
$\text{Ca}_2\text{H}_2\text{O}_{24}\text{Si}_8 - \text{Fe}_5\text{Mg}_5$	Actinolite	$4\text{-}11\mu$	Refl. spec	Coblentz	BES	2 (1907)
		$2\text{-}16\mu$	Spec	Hunt	AC	22 (1950)
$\text{Ca}_2\text{H}_2\text{O}_{24}\text{Si}_8\text{Mg}_5$	Tremolite	$1\text{-}7\text{-}5\mu$	S	Coblentz	BES	7 (1911)
		$2\text{-}16\mu$	Spec	Hunt	AC	22 (1950)
						619 1478

$\text{Ca}_5\text{FO}_{12}\text{P}_3$	Apatite	4-11 μ 1-8 μ 2-16 μ 11-12.5 μ 11-24 μ	S S S S S	Refl. spec Emiss. spec Spec, Freq Spec Spec	Coblenz Coblenz Hunt Underwood Fischer	BBS BBS AC JACCS AC	2 (1907) 5 (1909) 25 (1953) 77 (1955) 29 (1957)
$\text{Ca}_8\text{H}_{32}\text{O}_{57}\text{Si}_{16}\text{K}_2$	Apophyllite	8.8-10.4 μ	S	Refl. spec	Strong	JOSA	29 (1939) 520
$\text{Ca}_{10}\text{HO}_{25}\text{P}_6$	Hydroxyapatite (natural)	2-16 μ 11-24 μ	- S	Spec, Freq Spec	Romo Fischer	JACCS AC	76 (1954) 29 (1957) 431
CuS	Covellite	6 μ	S	Opaque	Crandall	PR	2 (1913) 343
$\text{Cu}_2\text{CH}_2\text{O}_5$	Malachite	22-310 μ	S	Refl. trans. factors	Weniger	JOSA	7 (1923) 517
Cu_2S	Chalcocite	6 μ	S	Opaque	Crandall	PR	2 (1913) 343
FeCO_3	Siderite	— 2-16 μ 13.5 μ	S S S	Residual rays Spec Spec, Freq	Schaefer Hunt Hunt	TFS AC AC	25 (1929) 22 (1950) 25 (1953) 841 1478 1169
FeHO_2	Gothite	1-10 μ —	S -	Spec H bond	Coblenz Bernal	BBS PRS	2 (1907) 151 (1935) 384
FeO_3	Ilmenite	2-16 μ	S	Spec	Hunt	AC	22 (1950) 1478
FeS_2	Pyrite	.8-13 μ 2-16 μ 680-2400	S S S	Refl. spec Spec Refl. Ext. coeff.	Coblenz Hunt Simon	BBS AC JOSA	2 (1907) 22 (1950) 41 (1951) 7302
Fe_2O_3	Hematite	2-16 μ	S	Spec	Hunt	AC	22 (1950) 1478
$\text{Fe}_2\text{O}_4\text{SiMg}_2$	Olivine	2-16 μ	S	Spec	Hunt	AC	22 (1950) 1478
$\text{Fe}_2\text{O}_4\text{NiO}_3\text{ZnO}_0.7$	Nickel-zinc ferrite	280-4000	S	Spec, Assign, FC	Waldron	PR	99 (1955) 1727
$\text{Fe}_2\text{O}_4\text{SiMg}_3$	Serpentine	1-9 μ	S	Spec	Coblenz	BBS	2 (1907) 457
Fe_3O_4	Magnetite	—	S	Kerr effect polarization	Ingersoll	JOSA	5 (1921) 156

$MgCO_3$	Magnesite	-	-	Freq assign	Schaefer Hunt Kaye Derkson Jacgauz Louisfer	TFS AC JOSA JOSA JOSA CPR	25 (1929) 22 (1950) 41 (1951) 42 (1952) 45 (1955) 248 (1959)	841 1478 658 263 781 1150
		$2\text{-}16\mu_l$	S	Spec				
		$0.4\text{-}2.4\mu_i$	S	Refl. spec				
		$0.4\text{-}2.7\mu_l$	S	Refl. spec				
		$0.4\text{-}2.6\mu_l$	S	Refl. spec				
		200-700	-	Freq				
		-	-	Freq	Schaefer	TFS	25 (1929)	841
$Mg_2ClO_6Na_3$	Northupite	-	-					
MgH_2O_2	Brucile	$2\text{-}3.5\mu_l$	S	Spec	Mara Petch	JOSA JOSA JOSA JOSA DA	43 (1953) 44 (1954) 46 (1956) 48 (1958) 19 (1958)	1100 744 464L 770 841
		$2\text{-}3\mu_l$	S	Struct	Mara			
		$2\text{-}3\mu_l$	-	Struct	Hexter			
		-	-	Theoretical	Mitra			
		350-11000	-	Spec, Struct				
MgO	β -Magnesia	$8.7\text{-}32.8\mu_l$	S	Reflectivity	Strong	PR	37 (1931)	1565
		$20\text{-}150\mu_l$	S	Reflectivity	Strong	PR	38 (1931)	1810
		-	-	Polarizability	Szigeti	TFS	45 (1949)	155
				theory				
$Mg_3H_2O_{12}Si_4$	Talc	$7\text{-}11\mu_l$	S	Refl. spec	Coblenz	BBS	2 (1907)	457
		$1\text{-}8\mu_l$	S	Emiss. spec	Coblenz	BBS	6 (1910)	301
		$5\text{-}750\mu_l$	S	Absorption	Cartwright	PR	35 (1930)	415
		$8.5\text{-}10.3\mu_l$	S	Refl. spec	Sanderson	JOSA	30 (1940)	566
		$2\text{-}16\mu_l$	S	Spec	Hunt	AC	22 (1950)	1478
		$15\mu_l$	S	Freq	Hunt	AC	25 (1953)	1169
		-	-	Spec, Assign	Brindley	AM	44 (1959)	185
$Mg_3H_4O_9Si_2$	Antigorite	-	-		Brindley	AM	44 (1959)	185
$Mg_3H_4O_9Si_2$	Chrysolite	$2.75\mu_l$	-	Spec, Assign				
$Mg_4C_8H_8O_{14}$	Hydromagnesite	-	-	Freq	Pobeguin	CPR	248 (1959)	2220
$MnCO_3$	Rhodochrosite	$2\text{-}16\mu_l$	S	Spec	Hunt	AC	22 (1950)	1478
$MnHO_2$	Manganite	$1\text{-}9\mu_l$	S	Spec	Coblenz	BBS	2 (1907)	457
MnH_4NO_4P	Mineral violet	$2\text{-}15\mu_l$	S	Spec	Harkins	AC	31 (1959)	541
Na_2HClO_4B	Teepleite	-	S	Spec, Assign	Edwards	JACS	77 (1955)	266

PbCO_3	Cerussite	0.6-9.0 μ	-	Residual rays Dispersion Particle size Selection rules	Schaefer Pfund Bailey Couture	TFS JOSA IEC JCP	25 (1929) 26 (1936) 230A 18 (1946) 365 15 (1947)
PbO_4S	Anglesite	1-8 μ	S	Spec Absorption -	Coblentz Cartwright Duval	BBS PR CPR	2 (1907) 35 (1930) 227 (1948) 1153
PbO_4Mo	Wulfenite	650-290	S	Assign	Duval	CPR	239 (1954)
PbO_4W	Stolzite	650-290	S	Assign	Duval	CPR	239 (1954)
PbS	Galena	0.5-13 μ 6 μ	S	Refl. spec Opaque Reflectivity Reflectivity Spec Trans.	Coblentz Crandall Strong Strong Hunt Clark	BBS PR PR PR AC PR	2 (1907) 2 (1913) 343 37 (1931) 1565 38 (1931) 1818 22 (1950) 1478 85 (1952) 1043
Sb_2S_3	Stibnite	0.6-11 μ 1-7 μ -	S	Refl. spec Trans. refl. Freq Reflectivity Reflectivity Trans. spec Theo. consts. Photoconductivity	Coblentz Crandall Baueroft Strong Strong Billings Scott DeVore	BBS PR JPC PR PR JOSA JOSA PR	2 (1907) 2 (1913) 343 1 23 (1919) 1 37 (1931) 1565 38 (1931) 1818 37 (1947) 119 45 (1955) 176 102 (1956) 86
$\text{Sc}_2\text{O}_7\text{Si}_2$	Thortuveitite	-	-	Cryst. struct., Quant. Mech.	Matossi	JCP	17 (1949)
SrCO_3	Strontianite	22-310 μ 1.5-2.5 μ -	S	Refl. trans. factors Assign Residual rays	Weniger Plyler Schaefer	JOSA PR TFS	7 (1923) 33 (1929) 25 (1929)
ThO_4Si_4	Orangite	650-290	S	Assign	Duval	CPR	239 (1954)
TiO_2	Rutile	1-8 μ 22-310 μ	S	Emiss. spec Refl. trans. factors	Coblentz Weniger	BBS JOSA	5 (1909) 7 (1923)

ZnCO_3	$0.6\text{-}9.0 \mu$	S	Dispersion Refl. spec Spec	Pfund Berberich Barnett Szigeti Dayal DeVore VonHipple Cronemeyer Studer Cronemeyer Breckenridge Studer Dugdale vib.	JOSA JAP JPC TFS PIAS JOSA RMP PR JOSA PR PR PR JOSA PR JOSA PR	26 (1936) 11 (1940) 46 (1942) 45 (1949) 32 (1950) 40 (1950) 22 (1950) 82 (1951) 41 (1951) 87 (1952) 91 (1953) 43 (1953) 224 (1954)
ZnO	$0.4\text{-}4 \mu$	S	Polarizability Freq. Assign., Calc. Refr. Ind. Refl. spec	- -	-	-
Zn_2Si_4	1.5μ	S	Dispersion Refl. spec	$6\text{-}300 \mu$	$0.4\text{-}8 \mu$	$0.9\text{-}2.65 \mu$
	$6\text{-}300 \mu$	S	Dispersion Refl.	$0.4\text{-}8 \mu$	-	-
	$0.4\text{-}8 \mu$	S	Refl. spec	$0.3\text{-}8 \mu$	-	-
	$0.3\text{-}8 \mu$	S	Spec	$0.9\text{-}2.65 \mu$	S	-
	$0.9\text{-}2.65 \mu$	S	Refl.	-	-	-
		-	Heat cap due to optical vib.			
		-	Reflectivity surface		Haas	JOSA
		-	Theoretical, Consts.		Scott	JOSA
		-	Absorption		Cronemeyer	PR
				Hunt	AC	22 (1950)
						1478
					PR	38 (1931)
					CPR	1818
						239 (1954)
						249

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16. 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.

17. 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.

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