NSRDS-NBS 55

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

Property Index to NSRDS Data Compilations, 1964-1972

NATIONAL BUREAU OF STANDARDS

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

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

Applied Mathematics — Electricity — Mechanics — Heat — Optical Physics — Nuclear Sciences[2] — Applied Radiation[2] — Quantum Electronics[3] — Electromagnetics[3] — Time and Frequency[3] — Laboratory Astrophysics[3] — Cryogenics[3].

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

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

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

Engineering and Product Standards — Weights and Measures — Invention and Innovation — Product Evaluation Technology — Electronic Technology — Technical Analysis — Measurement Engineering — Structures, Materials, and Life Safety[4] — Building Environment[4] — Technical Evaluation and Application[4] — Fire Technology.

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

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

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

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

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[1] Headquarters and Laboratories at Gaithersburg, Maryland, unless otherwise noted; mailing address Washington, D.C. 20234.
[2] Part of the Center for Radiation Research
[3] Located at Boulder, Colorado 80302.
[4] Part of the Center for Building Technology.

Property Index to NSRDS Data Compilations, 1964-1972

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NATIONAL BUREAU OF STANDARDS, Richard W. Roberts, *Director*

Issued June 1975

Library of Congress Cataloging in Publication Data

Main entry under title:

Property index to NSRDS data compilations, 1964–1972.

(Natl. Stand. Ref. Data Ser.; NSRDS–NBS 55)
Continued by a cumulative index issued annually in the Journal of Physical and Chemical Reference Data.
Supt. of Docs. no.: C 13.48:55
1. National Standard Reference Data System—Indexes. I. Lide, David R., 1928– II. Series: United States. National Bureau of Standards. National Standard Reference Data Series; NSRDS–NBS 55. QC100.U573 no. 55 [Z7144.W4] 389'.6'08s
[389'.6'08] 74–28350

NSRDS-NBS 55

Nat. Stand. Ref. Data Ser., Nat. Bur. Stand. (U.S.), 55, 15 pages (June 1975)

CODEN: NSRDAP

U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON: 1975

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402
(Order by SD Catalog No. C13.48:55). Price 85 cents (Add 25 percent additional for other than U. S. mailing)

Foreword

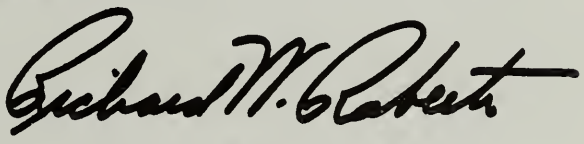
The National Standard Reference Data System provides access to the quantitative data of physical science, critically evaluated and compiled for convenience and readily accessible through a variety of distribution channels. The System was established in 1963 by action of the President's Office of Science and Technology and the Federal Council for Science and Technology, and responsibility to administer it was assigned to the National Bureau of Standards.

NSRDS receives advice and planning assistance from a Review Committee of the National Research Council of the National Academy of Sciences-National Academy of Engineering. A number of Advisory Panels, each concerned with a single technical area, meet regularly to examine major portions of the program, assign relative priorities, and identify specific key problems in need of further attention. For selected specific topics, the Advisory Panels sponsor subpanels which make detailed studies of users' needs, the present state of knowledge, and existing data resources as a basis for recommending one or more data compilation activities. This assembly of advisory services contributes greatly to the guidance of NSRDS activities.

The System now includes a complex of data centers and other activities in academic institutions and other laboratories. Components of the NSRDS produce compilations of critically evaluated data, reviews of the state of quantitative knowledge in specialized areas, and computations of useful functions derived from standard reference data. The centers and projects also establish criteria for evaluation and compilation of data and recommend improvements in experimental techniques. They are normally associated with research in the relevant field.

The technical scope of NSRDS is indicated by the categories of projects active or being planned: nuclear properties, atomic and molecular properties, solid state properties, thermodynamic and transport properties, chemical kinetics, and colloid and surface properties.

Reliable data on the properties of matter and materials is a major foundation of scientific and technical progress. Such important activities as basic scientific research, industrial quality control, development of new materials for building and other technologies, measuring and correcting environmental pollution depend on quality reference data. In NSRDS, the Bureau's responsibility to support American science, industry, and commerce is vitally fulfilled.



RICHARD W. ROBERTS, *Director*

Contents

Property Index to NSRDS Data Compilations, 1964-1972

David R. Lide, Jr., Gertrude B. Sherwood, Charles H. Douglass, Jr.,* and Herman M. Weisman

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A property index to data contained in publications of the National Standard Reference Data System during the period 1964-1972 is presented. Data compilations published in the NSRDS-NBS series, other publication series of the National Bureau of Standards, scientific journals, and books of commercial publishers are included. When used with the cumulative property index published annually since 1972 in the *Journal of Physical and Chemical Reference Data*, this index serves as an entry to the complete output of the NSRDS program.

Key words: Cumulative property index; data compilations; National Standard Reference System.

1. Introduction

The National Standard Reference Data System was established in 1963 to provide a coordinated program on the compilation and evaluation of property data in the physical sciences. Under this program the National Bureau of Standards, through its Office of Standard Reference Data, supports various data compilation activities, coordinates the efforts of Government and private groups, and arranges for publication of tables of reference data and critical data reviews. The output of the program has appeared through a variety of channels, including the publication series of the National Bureau of Standards, professional society journals, books of commercial publishers, and the recently-established *Journal of Physical and Chemical Reference Data.*

This index is intended as a first step in providing convenient access to the data contained in the publications of the NSRDS program. Ideally, one would like a detailed substance-property index with perhaps additional information on such factors as temperature and pressure ranges. However, the wide variety of physical and chemical properties covered in the NSRDS program and the large number of substances and systems so far included make this task prohibitively difficult with present resources. Consequently, we have first prepared a property index alone, in the hope that this will be of some assistance to users in locating publications which might contain the data that they seek.

The publications covered in this index, which are listed in the next section, are those for which the Office of Standard Reference Data provided some financial support at either the compilation or publication stage. The titles appearing in the NSRDS-NBS Series, the *Journal of Physical and Chemical Reference Data*, and certain other sources contain critically evaluated data. In the remainder, a degree of data selection has been exercised, but the depth of evaluation is not as great. Some of these serve as interim publications pending a more detailed evaluation of the data. The degree of evaluation and the procedures used are described in each publication.

The property index terms have been chosen to correspond to common usage; cross references are given for synonymous or closely related terms. The terms are the same as those used in indexing the *Journal of Physical and Chemical Reference Data.* The annual index of that journal will therefore serve to maintain a continuing index to data compilations published under the NSRDS program.

2. List of NSRDS Data Publications, 1964-1972

2.1. Publications Issued in the NSRDS-NBS Series

Publications in the NSRDS-NBS Series with the exception of those indicated by an asterisk, are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, at the prices listed. Prices are subject to change without notice. These publications may also be ordered

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through the U.S. Department of Commerce Field Office nearest you. Microfiche or paper photo copies of all recent NBS publications may also be ordered through the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia 22151.

Remittances for documents available from the Superintendent of Documents by check, money order, SD coupons or SD deposit accounts must accompany the order. Foreign remittances should be made either by an international money order or draft on an American bank. Postage stamps are not acceptable.

No charge is made for postage on documents sent to points in the United States and its possessions. To compute foreign postage, add one-fourth the price of the publication to cover the cost of shipping and handling charges.

The letter symbol, publication number, full title and author of the publication, and SD catalog number must be given when ordering. The Superintendent of Documents allows a 25 percent discount on orders of 100 or more copies of one publication.

Publications indicated by an asterisk must be ordered from the National Technical Information Service (NTIS), U.S. Department of Commerce, Springfield, Virginia 22151. Orders must be accompanied by a money order, check payable to NTIS, or American Express credit card number and covering the total cost of the order. Prices are available upon inquiry from NTIS.

- ☐ NSRDS-NBS-1, **National Standard Reference Data System—Plan of Operation,** by E. L. Brady and M. B. Wallenstein, 1964 (55 cents), SD Catalog No. C13.48:1.
- ☐ NSRDS-NBS-2, **Thermal Properties of Aqueous Uni-univalent Electrolytes,** by V. B. Parker, 1965 ($1.10), SD Catalog No. C13.48:2.
- ☐ NSRDS-NBS-3, Sec. 1, **Selected Tables of Atomic Spectra, Atomic Energy Levels and Multiplet Tables, Si II, Si III, Si IV,** by C. E. Moore, 1965 ($1.00), SD Catalog No. C13.48:3/Sec. 1.
- ☐ NSRDS-NBS-3, Sec. 2, **Selected Tables of Atomic Spectra, Atomic Energy Levels and Multiplet Tables, Si I,** by C. E. Moore, 1967 (70 cents), SD Catalog No. C13.48:3/Sec. 2.
- ☐ NSRDS-NBS-3, Sec. 3, **Selected Tables of Atomic Spectra, Atomic Energy Levels and Multiplet Tables, C I, C II, C III, C IV, C V, C VI,** by C. E. Moore, 1970 ($1.70), SD Catalog No. C13.48:3/Sec. 3.
- ☐ NSRDS-NBS-3, Sec. 4, **Selected Tables of Atomic Spectra, Atomic Energy Levels and Multiplet Tables, H I, D, T,** by C. E. Moore, E. Moore, 1971 ($1.15), SD Catalog No. C13.48:3/Sec. 4.
- ☐ NSRDS-NBS-3, Sec. 6, **Selected Tables of Atomic Spectra, Atomic Energy Levels and Multiplet Tables, H I, D, T,** by C. E. Moore, 1972 (40 cents), SD Catalog No. C13:48:3/Sec. 6.
- ☐ NSRDS-NBS-4, **Atomic Transition Probabilities, Vol. I, Hydrogen Through Neon,** by W. L. Wiese, M. W. Smith, and B. M. Glennon, 1966 ($2.50), SD Catalog No. C13.48:4/Vol. I.
- ☐ NSRDS-NBS-5, **The Band Spectrum of Carbon Monoxide,** by P. H. Krupenie, 1966 ($2.05), SD Catalog No. C13.48:5.
- ☐ NSRDS-NBS-6, **Tables of Molecular Vibrational Frequencies, Part 1,** by T. Shimanouchi, 1967. Superseded by NSRDS-NBS-39.
- ☐ NSRDS-NBS-7, **High Temperature Properties and Decomposition of Inorganic Salts, Part 1. Sulfates,** by K. H. Stern and E. L. Weise, 1966 (85 cents), SD Catalog No. C13.48:7/Pt. 1.
- ☐ NSRDS-NBS-8, **Thermal Conductivity of Selected Materials,** by R. W. Powell, C. Y. Ho, and P. E. Liley, 1966, PB189698.*
- ☐ NSRDS-NBS-9, **Tables of Bimolecular Gas Reactions,** by A. F. Trotman-Dickenson and G. S. Milne, 1967 ($2.00), SD Catalog No. C13.48:9.
- ☐ NSRDS-NBS-10, **Selected Values of Electric Dipole Moments for Molecules in the Gas Phase,** by R. D. Nelson, Jr., D. R. Lide, Jr., and A. A. Maryott, 1967 (95 cents), SD Catalog No. C13.48:10.
- ☐ NSRDS-NBS-11, **Tables of Molecular Vibrational Frequencies, Part 2,** by T. Shimanouchi, 1967. Superseded by NSRDS-NBS-39.
- ☐ NSRDS-NBS-12, **Tables for the Rigid Asymmetric Rotor: Transformation Coefficients from Symmetric to Asymmetric Bases and Expectation Values of P_z^2, P_z^4, and P_z^6,** by R. H. Schwendeman, 1968 ($1.45), SD Catalog No. C13.48:12.
- ☐ NSRDS-NBS-13, **Hydrogenation of Ethylene on Metalic Catalysts,** by J. Horiuti and K. Miyahara, 1968 ($3.00), SD Catalog No. C13.48:13.
- ☐ NSRDS-NBS-14, **X-Ray Wavelengths and X-Ray Atomic Energy Levels,** by J. A. Bearden, 1967 ($1.15), SD Catalog No. C13.48:14.
- ☐ NSRDS-NBS-15, **Molten Salts: Vol. 1, Electrical Conductance, Density, and Viscosity Data,** by G. J. Janz, F. W. Dampier, G. R. Laksh-

minarayanan, P. K. Lorenz, and R. P. T. Tomkins, 1968 ($3.00), SD Catalog No. C13.48:15/Vol. 1.

☐ NSRDS-NBS-16, **Thermal Conductivity of Selected Materials, Part 2,** by C. Y. Ho, R. W. Powell, and P. E. Liley, 1968.*

☐ NSRDS-NBS-17, **Tables of Molecular Vibrational Frequencies, Part 3,** by T. Shimanouchi, 1968. Superseded by NSRDS-NBS-39.

☐ NSRDS-NBS-18, **Critical Analysis of the Heat-Capacity Data of the Literature and Evaluation of Thermodynamic Properties of Copper, Silver, and Gold from 0 to 300 K,** by G. T. Furukawa, W. G. Saba, and M. L. Reilly, 1968 (40 cents), SD Catalog No. C13.48:18.

☐ NSRDS-NBS-19, **Thermodynamic Properties of Ammonia as an Ideal Gas,** by L. Haar, 1968 (20 cents), SD Catalog No. C13.48:19.

☐ NSRDS-NBS-20, **Gas Phase Reaction Kinetics of Neutral Oxygen Species,** by H. S. Johnston, 1968 (95 cents), SD Catalog No. C13.48:20.

☐ NSRDS-NBS-21, **Kinetic Data on Gas Phase Unimolecular Reactions,** by S. W. Benson and H. E. O'Neal, 1970 ($9.30), SD Catalog No. C13.48:21.

☐ NSRDS-NBS-22, **Atomic Transition Probabilities, Vol. II, Sodium Through Calcium, A Critical Data Compilation,** by W. L. Wiese, M. W. Smith, and B. M. Miles, 1969 ($8.60), SD Catalog No. C13.48:22/Vol. II.

☐ NSRDS-NBS-23, **Partial Grotian Diagrams of Astrophysical Interest,** by C. E. Moore and P. W. Merrill, 1968 ($1.50), SD Catalog No. C13,48: 23.

☐ NSRDS-NBS-24, **Theoretical Mean Activity Coefficients of Strong Electrolytes in Aqueous Solutions from 0 to 100 °C,** by Walter J. Hamer, 1968 ($6.10), SD Catalog No. C13.48:24.

☐ NSRDS-NBS-25, **Electron Impact Excitation of Atoms,** by B. L. Moiseiwitsch and S. J. Smith, 1968.*

☐ NSRDS-NBS-26, **Ionization Potentials, Appearance Potentials, and Heats of Formation of Gaseous Positive Ions,** by J. L. Franklin, J. G. Dillard, H. M. Rosenstock, J. T. Herron, K. Draxl, and F. H. Field, 1969 ($6.20), SD Catalog No. C13.48:26.

☐ NSRDS-NBS-27, **Thermodynamic Properties of Argon from the Triple Point to 300 K at Pressures to 1000 Atmospheres,** by A. L. Gosman, R. D. McCarty, and J. G. Hust, 1969 ($1.80), SD Catalog No. C13.48:27.

☐ NSRDS-NBS-28, **Molten Salts: Vol. 2. Section 1. Electrochemistry of Molton Salts: Gibbs Free Energies and Excess Free Energies from Equilibrium-Type Cells,** by G. J. Janz and C. G. M. Dijkhuis; **Section 2. Surface Tension Data,** by G. J. Janz, G. R. Lakshminarayanan, R. P. T. Tomkins, and J. Wong, 1969 ($4.70), SD Catalog No. C13.48:28/Vol. 2.

☐ NSRDS-NBS-29, **Photon Cross Sections, Attenuation Coefficients, and Energy Absorption Coefficients from 10 keV to 100 GeV,** by J. H. Hubbell, 1969 ($1.25), SD Catalog No. C13.48:29.

☐ NSRDS-NBS-30, **High Temperature Properties and Decomposition of Inorganic Salts, Part 2. Carbonates,** by K. H. Stern and E. L. Weise, 1969 (75 cents), SD Catalog No. C13.48:30/Pt. 2.

☐ NSRDS-NBS-31, **Bond Dissociation Energies in Simple Molecules,** by B. deB. Darwent, 1970 (95 cents), SD Catalog No. C13.48:31.

☐ NSRDS-NBS-32, **Phase Behavior in Binary and Multicomponent Systems at Elevated Pressures: *n*-Pentane and Methane-*n*-Pentane,** by V. M. Berry and B. H. Sage, 1970 ($1.15), SD Catalog No. C13.48:32.

☐ NSRDS-NBS-33, **Electrolytic Conductance and the Conductances of the Halogen Acids in Water,** by W. J. Hamer and H. J. DeWane, 1970 (85 cents), SD Catalog No. C13.48:33.

☐ NSRDS-NBS-34, **Ionization Potentials and Ionization Limits Derived from the Analyses of Optical Spectra,** by C. E. Moore, 1970 (75 cents), SD Catalog No. C13.48:34.

☐ NSRDS-NBS-35, **Atomic Energy Levels as Derived from the Analyses of Optical Spectra, Vol I, ^{1}H to ^{23}V; Vol. II, ^{24}Cr to ^{41}Nb; Vol. III, ^{42}Mo to ^{57}La, ^{72}Hf to ^{89}Ac,** by C. E. Moore, 1971 (Vol. I, $9.25; Vol. II, $7.95; Vol. III, $8.30), SD Catalog No. C13.48:35/Vols. I, II, and III.

☐ NSRDS-NBS-36, **Critical Micelle Concentrations of Aqueous Surfactant Systems,** by P. Mukerjee and K. J. Mysels, 1971 ($5.70), SD Catalogue No. C13.48:36.

☐ NSRDS-NBS-37, **JANAF Thermochemical Tables, 2d Edition,** by D. R. Stull, H. Prophet, et al., 1971 ($13.40), SD Catalog No. C13.48:37.

☐ NSRDS-NBS-38, **Critical Review of Ultraviolet Photoabsorption Cross Sections for Molecules of Astrophysical and Aeronomic Interest,** by R. D. Hudson, 1971 ($1.50), SD Catalog No. C13.48:38.

☐ NSRDS-NBS-39, **Tables of Molecular Vibrational Frequencies, Consolidated Volume I,** by T. Shimanouchi, 1972 ($5.10), SD Catalog No. C13.48:39.

☐ NSRDS-NBS-40, **A Multiplet Table of Astrophysical Interest, Part I—Tables of Multiplets; Part II—Finding List of All Lines in the Table of Multiplets** (Reprint of 1945 Edition), by C. E. Moore, 1972 ($3.65), SD Catalog No. C13.48:40.

☐ NSRDS-NBS-41, **Crystal Structure Transformations in Binary Halides,** by C. N. R. Rao and M. Natarajan, 1972 (95 cents), SD Catalog No. C13.48:41.

☐ NSRDS-NBS-42, **Selected Specific Rates of Reactions of the Solvated Electron in Alcohols,** by E. Watson, Jr., and S. Roy, 1972 (60 cents), SD Catalog No. C13.48:42.

2.2. Data Compilations Appearing in Other NBS Publication Series

These publications are available from the Superintendent of Documents or NTIS according to the procedure described in section 2.1.

☐ NBS Tech. Note 270-3, **Selected Values of Chemical Thermodynamic Properties, Tables for the First Thirty-Four Elements in the Standard Order of Arrangement,** by D. D. Wagman, W. H. Evans, V. B. Parker, I Halow, S. M. Bailey, and R. H. Schumm, 1968 ($2.75), SD Catalog No. C13.46:270-3.

☐ NBS Tech. Note 270-4, **Selected Values of Chemical Thermodynamic Properties, Tables for Elements 35 through 52 in the Standard Order of Arrangement,** by D. D. Wagman, W. H. Evans, V. B. Parker, I. Halow, S. M. Bailey, and R. H. Schumm, 1969 ($2.10), SD Catalog No. C13.46:270-4.

☐ NBS Tech. Note 270-5, **Selected Values of Chemical Thermodynamic Properties, Tables for Elements 54 through 61 in the Standard Order of Arrangement,** by D. D. Wagman, W. H. Evans, et al., 1971 (95 cents), SD Catalog No. C13.36:270-5.

☐ NBS Tech. Note 270-6, **Selected Values of Chemical Thermodynamic Properties, Tables for the Alkaline Earth Elements [Elements 92 through 97 in the Standard Order of Arrangement],** by V. B. Parker, D. D. Wagman, and W. H. Evans, 1971 ($1.55), SD Catalog No. C13.46:270-6.

☐ NBS Tech. Note 474, **Critically Evaluated Transition Probabilities for Ba I and II,** by B. M. Miles and W. L. Wiese, 1969 (30 cents), SD Catalog No. C13.46:474.

☐ NBS Tech. Note 484, **A Review of Rate Constants of Selected Reactions of Interest in Re-Entry Flow Fields in the Atmosphere,** by M. H. Bortner, 1969.*

☐ NBS Tech. Note 724, **Properties of Selected Superconductive Materials,** by B. W. Roberts, 1972 ($1.40), SD Catalog No. C13.46:724.

☐ NBS Monograph 70, Vol. I, **Microwave Spectral Tables, Diatomic Molecules,** by P. F. Wacker, M. Mitzushima, J. D. Petersen, and J. R. Ballard, 1964 (PB168072).*

☐ NBS Monograph 70, Vol. II, **Microwave Spectral Tables, Line Strengths of Asymmetric Rotors,** by P. F. Wacker and M. R. Pratto, 1964 (PB 189714).*

☐ NBS Monograph 70, Vol. III, **Microwave Spectral Tables, Polyatomic Molecules with Internal Rotation,** by P. F. Wacker, M. S. Cord, D. G. Burkhard, J. D. Petersen, and R. F. Kukol, 1969 ($4.25), SD Catalog No. C13.44:70/Vol. III.

☐ NBS Monograph 70, Vol. IV, **Microwave Spectral Tables, Polyatomic Molecules without Internal Rotation,** by M. S. Cord, J. D. Petersen, M. S. Lojko, and R. H. Haas, 1968 ($5.50), SD Catalog No. C13.44:70/Vol. IV.

☐ NBS Monograph 70, Vol. V, **Microwave Spectral Tables, Spectral Line Listing,** by M. S. Cord, M. S. Lojko, and J. D. Petersen, 1968 ($4.75), SD Catalog No. 13.44:70/Vol. V.

2.3. Compilations Appearing in the *Journal of Physical and Chemical Reference Data*

Reprints available from:

JPCRD Reprint Service
American Chemical Society
1155 Sixteenth Street, NW
Washington, D.C. 20036

☐ **Gaseous Diffusion Coefficients,** by T. R. Marrero and E. A. Mason, Vol. 1, No. 1, pp. 1-118 (1972). Reprint No. 1 ($7.00).

☐ **Selected Values of Critical Supersaturation for Nucleation of Liquids from the Vapor,** by G. M. Pound, Vol. 1, No. 1, pp. 119-134(1972). Reprint No. 2 ($3.00).

☐ **Selected Values of Evaporation and Condensation Coefficients of Simple Substances,** by G. M. Pound, Vol. 1, No. 1, pp. 135-146(1972). Reprint No. 3 ($3.00).

☐ **Atlas of the Observed Absorption Spectrum of Carbon Monoxide between 1060 and 1900 Å,** by S. G. Tilford and J. D. Simmons, Vol. 1, No. 1, pp. 147-188 (1972). Reprint No. 4 ($4.50).

☐ **Tables of Molecular Vibrational Frequencies, Part 5,** by T. Shimanouchi, Vol. 1, No. 1, pp. 189-216 (1972). Reprint No. 5 ($4.00).

☐ **Selected Values of Heats of Combustion and Heats of Formation of Organic Compounds Containing the Elements C, H, N, O, P, and S,** by Eugene S. Domalski, Vol. 1, No. 2, pp. 221-278 (1972). Reprint No. 6 ($5.00).

☐ **Thermal Conductivity of the Elements,** by C. Y. Ho, R. W. Powell and P. E. Liley, Vol. 1, No. 2, pp. 279-422 (1972). Reprint No. 7 ($7.50).

☐ **The Spectrum of Molecular Oxygen,** by Paul H. Krupenie, Vol. 1, No. 2, pp. 423-534(1972). Reprint No. 8 ($6.50).

☐ **A Critical Review of the Gas-Phase Reaction Kinetics of the Hydroxyl Radical,** by W. E. Wilson, Jr., Vol. 1, No. 2, pp. 535-574(1972). Reprint No. 9 ($4.50).

☐ **Molten Salts: Volume 3, Nitrates, Nitrites, and Mixtures, Electrical Conductance, Density, Viscosity, and Surface Tension Data,** by G. J. Janz, Ursula Krebs, H. F. Siegenthaler, and R. P. T. Tomkins, Vol. 1, No. 3, pp. 581-746 (1972). Reprint No. 10 ($8.50).

☐ **High Temperature Properties and Decomposition of Inorganic Salts—Part 3, Nitrates and Nitrites,** by Kurt H. Stern, Vol. 1, No. 3, pp. 747-772 (1972). Reprint No. 11 ($4.00).

☐ **High-Pressure Calibration: A Critical Review,** by D. L. Decker, W. A. Bassett, L. Merrill, H. T. Hall, and J. D. Barnett, Vol. 1, No. 3, pp. 773-836 (1972). Reprint No. 12 ($5.00).

☐ **The Surface Tension of Pure Liquid Compounds,** by Joseph L. Jasper, Vol. 1, No. 4, pp. 841-1009 (1972). Reprint No. 13 ($8.50).

☐ **Microwave Spectra of Molecules of Astrophysical InIterest, 1. Formaldehyde, Formamide, and Thioformaldehyde,** by Donald R. Johnson, Frank J. Lovas, and William H. Kirchhoff, Vol. 1, No. 4, pp. 1011-1045 (1972). Reprint No. 14 ($4.50).

☐ **Osmotic Coefficients and Mean Activity Coefficients of Uni-univalent Electrolytes in Water at 25°C,** by Walter J. Hamer and Yung Chi Wu, Vol. 1, No. 4, pp. 1047-1099(1972). Reprint No. 15 ($5.00).

☐ **The Viscosity and Thermal Conductivity Coefficients of Gaseous and Liquid Fluorine,** by H. J. M. Hanley and R. Prydz, Vol. 1, No. 4, pp. 1101-1113 (1972). Reprint No. 16 ($3.00).

2.4. Publications of the Berkeley Particle Data Group

Available in the Western Hemisphere and Far East from:

Berkeley Particle Data Group
Lawrence Radiation Laboratory
Berkeley, California 94720

Users elsewhere should order from:

CERN
Geneva, Switzerland

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Viscosity

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NBS-114A (REV. 7-73)

U.S. DEPT. OF COMM. BIBLIOGRAPHIC DATA SHEET	1. PUBLICATION OR REPORT NO. NSRDS-NBS 55	2. Gov't Accession No.	3. Recipient's Accession No.

4. TITLE AND SUBTITLE

Property Index to NSRDS Data Compilations, 1964-1972

5. Publication Date: June 1975

6. Performing Organization Code

7. AUTHOR(S) David R. Lide, Jr., Gertrude B. Sherwood, Charles H. Douglass, Jr., and Herman M. Weisman

8. Performing Organ. Report No.

9. PERFORMING ORGANIZATION NAME AND ADDRESS

NATIONAL BUREAU OF STANDARDS
DEPARTMENT OF COMMERCE
WASHINGTON, D.C. 20234

10. Project/Task/Work Unit No. 1510101

11. Contract/Grant No.

12. Sponsoring Organization Name and Complete Address *(Street, City, State, ZIP)*

Same as No. 9

13. Type of Report & Period Covered N/A

14. Sponsoring Agency Code

15. SUPPLEMENTARY NOTES

Library of Congress Catalog Card Number: 74-28350

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.)*

A property index to data contained in publications of the National Standard Reference Data System during the period 1964-1972 is presented. Data compilations published in the NSRDS-NBS series, other publication series of the National Bureau of Standards, scientific journals, and books of commercial publishers are included. When used with the cumulative property index published annually since 1972 in the Journal of Physical and Chemical Reference Data, this index serves as an entry to the complete output of the NSRDS program.

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