Presented at the Lecture Series:
Current Developments in Library
Reference Tools, San Francisco
California, Jan. - Feb. 1971

UCRL-20256 *Part 2*

RECENT REFERENCE MATERIALS IN
PHYSICS AND ELECTRONICS
(and related subjects)

An Annotated List of Selected Titles

Raphaella Kingsbury

January 1971

AEC Contract No. W-7405-eng-48

UCRL-20256

REPRODUCTION OF THIS DOCUMENT IS UNLIMITED

DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency Thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

DISCLAIMER

Portions of this document may be illegible in electronic image products. Images are produced from the best available original document.

RECENT REFERENCE MATERIALS IN PHYSICS AND ELECTRONICS
(and related subjects)

An Annotated List of Selected Titles

by

Raphaella Kingsbury
Head Reference Librarian
Lawrence Radiation Laboratory, Berkeley

Presented at the Lecture Series: Current Developments in Library Reference Tools, sponsored by the Special Libraries Association, San Francisco Bay Area Chapter, January-February 1971.

Lecture V: PHYSICS AND ELECTRONICS

Items	1-9	A. Guides to Sources and Literature
	10-29	B. Directories
	30-35	C. Biography
	36-40	D. Dictionaries
	41-56	E. Encyclopedias and Handbooks
	57-62	F. Tables and Compendiums
	63-68	G. Indexes and Abstracts
	69-74	H. Guides to Meetings
	75-80	I. Translations
	81-82	J. Miscellaneous
		K. Publishers of Scientific Books

A. GUIDES TO BASIC SOURCES AND BIBLIOGRAPHIES

1. Anthony, L.J. Sources of Information on Atomic Energy. Oxford: Pergamon, [1966] 245 p. \$8. (International Series of Monographs in Library and Information Science, v. 2.)

A guide to atomic energy literature, as well as to the organizations which originate information in this field. Bibliographic references at ends of chapters and indexes by subject, author, and organization.

- * 2. Caldwell, Lynton Keith, ed. Science, Technology and Public Policy: A Selected and Annotated Bibliography, 1945-67. Bloomington: Indiana University, 1968. 2 v. (Request from University.)

A 2-volume annotated bibliography on the "political science of science" includes English language books,

*Entry discussed in lecture

monographs, government documents, whole issues of journals (in v.1), and journal articles (v.2), covering the period from 1945 to 1967. An excellent source of literature on public policy, undertaken for the National Science Foundation.

- *3. Codlin, Ellen M., and Lawrie, Robert S., comps. Handlist of Basic Reference Material for Librarians and Information Officers in Electrical and Electronic Engineering. 5th issue rev. London: ASLIB Electronics Group, 1969. 50 p. \$2.50 (members) \$3.50 (nonmembers).

An excellent guide to literature of use to those involved with electronics, including basic and regularly revised published reference books in the categories: encyclopedias and dictionaries; handbooks and yearbooks; trade directories; literature guides of books, periodicals, subject bibliographies, and abstract journals; standards; tables; components handbooks; terminology, and sources of information.

- *4. International Council of Scientific Unions. Committee on Data for Science and Technology. International Compendium on Numerical Data Projects; A Survey and Analysis. Produced by CODATA. New York: Springer-Verlag, 1969. 295 p. \$13.20.

A most valuable guide to national and international data centers and projects with a logical subject arrangement and good indexes. A guide to sources and literature.

5. International Federation for Documentation. Directories of Science Information Sources; International Bibliography. [2nd Ed.] The Hague, 1967. 163 p. 30 fl.

This is the second edition of Bibliography of Directories of Sources of Information published by FID 1960. The change of title indicates the scope of this most valuable guide to guides or bibliographies. The table of contents, introduction, and indexes are in English, French, Russian, Spanish and German, but the annotations of materials are in English. A usable tool which will be updated at intervals.

6. Johnson, W. Thayne, ed. Electronic Properties of Materials; A Guide to the Literature. New York, Plenum Press, 1965. 2 v. \$150.

An extensive bibliography with coordinate index derived from the indexing project at the Electronic Properties Information Center (EPIC), Hughes Aircraft Co., Culver City, Ca. An excellent tool in the field.

7. Kuchowicz, Bronislaw. Nuclear Astrophysics; A Bibliographical Survey. New York, Gordon & Breach, 1967. 441 p. \$13.50.

Includes more than 2000 titles.

8. McGraw-Hill Basic Bibliography of Science and Technology. Recent titles on more than 7000 subjects compiled and annotated by the editors of the McGraw-Hill Encyclopedia of Science and Technology. New York, 1966, 738 p. \$19.50.

Intended as a supplement to the McGraw-Hill Encyclopedia of Science and Technology, it may be useful as a separate guide and selection tool.

9. Science Books; a Quarterly Review, v. 1 - . April 1965 - . (Washington, D. C.), American Association for the Advancement of Science, 1965 - . Quarterly. \$4.50 per year.

Annotated, classified listing of new books in the pure and applied sciences, this is useful in selection of books for use by all grades from elementary to advanced, symbols indicating reading level, recommendations, etc..

B. DIRECTORIES

- *10. American Institute of Physics. Handbook of Resources for Physics Departments. New York: AIP, 1969. 241 p. (AIP Pub. R-213.) \$2.50.

Aimed for the betterment of academic physics departments, this unique "Directory" provides information on professional and scientific organizations; educational organizations; government and quasi-government agencies; foundations; and other organizations of help in science education. The Appendices answer further questions on physics curricula and research. Recommended for public, academic, and special libraries.

11. American Physical Society. Constitution and By-laws, Articles of Incorporation, Membership Directory 1970. [Its Bulletin, Ser. II, 15, no. 8 (Aug. 1, 1970).]

This membership list, compiled from the AIP computer mail lists, appears annually as an issue of the APS Bulletin, and is helpful in locating physicists at present addresses. (The same is true for membership directories of other organizations such as American Nuclear Society, IEEE, etc.)

12. Atomic Handbook. London: Morgan Bros., 1965 - v. 1 - . Contents: v. 1, Europe. 845 p. \$20. (In progress.)

This publication assembles much background, statistical, and directory information on atomic energy developments and activities. Volumes are planned for other areas of the world, also revision of the first volume.

13. Canada. Department of Industry, Trade & Commerce.
Directory of Scientific Research and Development
Establishments in Canada. Ottawa, 1969. 125 p.
(Gratis?)

Compiled from information received from 662 organizations, this directory is arranged in four sections: business enterprises, private nonprofit organizations, educational institutions, and government establishments; with geographic and personnel indices.

14. Computer Yearbook and Directory. 1st- [Detroit, American
Data Processing, 1966-], \$22.50.

The Directory section provides a bibliography and reviews of recent data processing books, as well as directories of computer centers, institutes, organizations, data processing products and services, and a list of computers and computer systems. The first part of the book contains articles on the "state-of-the-art." Subsequent editions may prove its value.

15. Directory of High-Energy Radiotherapy Centres. Vienna: International Atomic Energy Agency, 1968. 189 p. \$3.50.

Including 1578 centers in 62 countries, the Directory lists for each center the institution, address, radiotherapist, physicist, unit model (with manufacturer), and dosage data.

16. Directory of Physics and Astronomy Faculties in North American
Colleges and Universities, 1969-1970. 11th ed.
New York: American Inst. of Physics. (R-135.8) \$3.50

This is the first edition that includes astronomy and astrophysics, as well as Central American institutions. The institution entries arranged geographically, but institutions and individuals are indexed alphabetically.

- *17. European Research Index: A Guide to European Research Including
Medicine, Agriculture, and Engineering. 2nd ed.
[Guernsey, Channel Islands] : F. Hodgson [1968]
2 v. \$60.

Originally published in 1965. Research establishments (including universities as well as government agencies and industrial research centers) are grouped by country, with indexes of institution names in both the

original language and English. Directory-type information and subject of research are given. A useful reference tool to supplement other directories, such as World of Learning, World Nuclear Directory, etc.

18. Industrial Research Laboratories of the United States. 13th ed. Ed. by Jaques Cattell Press. New York: Bowker [1970]. 659 p. \$39.50.

A most valuable directory of nongovernmental industrial research firms, this latest edition provides not only up-to-date information on firms and their laboratories, the names of the parent firms being arranged alphabetically, but also indexes by subject, location and personnel. Although a guide to United States companies, it also lists the overseas laboratory divisions.

19. International Centre for Theoretical Physics. Directory of Theoretical Physicists from Developing Countries. 1st ed. Trieste: 1970. Gratis.

An experimental first edition compiled from the ICTP card index of theoretical physicists from developing countries. Entries include information on 446 physicists from 39 countries arranged alphabetically from Afghanistan to Vietnam. Future editions, if any, will prove its usefulness as the directory includes names and places not listed elsewhere.

- *20. International Directory of Research and Development Scientists, 1969. Philadelphia: Institute for Scientific Information, 1970. Annual. \$60.

A new annual since 1968, covering the authors who published the previous year and were listed in Current Contents, arranged in three sections: Author; organization; and geographic. This is of some use in that it is essentially an author-address index for a current year of publishing scientists, but expensive.

- *21. International Physics and Astronomy Directory. 1st ed., 1969/70-. New York: W.A. Benjamin, 1969-. \$35.

A new and useful directory giving academic departments and faculties and faculty and geographical indexes of universities, as well as lists of laboratories, international organizations and societies, and current information on meetings, grants, awards, research, journals, and books in print. Similar directories are being published for chemistry, mathematics, and biology.

22. Little (Arthur D.), Inc. Directory of Selected Research Institutes in Eastern Europe. Prepared for the National Science

Foundation. New York: Columbia Univ. Press, 1967. 445 p. \$12.

Arranged by country, with indexes by institute names and subjects, this is a descriptive guide to known scientific institutes in Bulgaria, Czechoslovakia, Hungary, Poland, Rumania and Yugoslavia.

23. National Research Council. Organization and Members 1969-1970. Washington, D.C. 1969., Gratis.

This directory includes membership lists and information on the organization, committees, and activities of the National Academy of Sciences, National Research Council, and National Academy of Engineering (established in 1964).

24. United Nations Educational, Scientific and Cultural Organization. World Guide to Science Information and Documentation Services. Paris, 1965. 211 p. \$5.00. (Its Documentation and Terminology of Science.)

A guide to location of services that provide information and documentation in natural sciences, agriculture, and medicine. Arranged by country with an alphabetical list of institutions and subject index. More than a directory, this is a valuable guide to sources of information and their publications.

25. United Nations Educational, Scientific and Cultural Organization. World Guide to Technical Information and Documentation Services. New York: UNIPUB, 1969. 287 p. \$6. (Its Documentation and Terminology of Science.)

Companion volume to above title, providing information in the technical area.

- *26. U. S. Federal Council for Science and Technology. Committee on Scientific and Technical Information. Directory of Federally Supported Information Analysis Centers. Jan. 1970. (COSATI-70-1; PB-189 300.) \$3.

Directory of 119 federally supported information analysis centers with information on mission, scope, and services of each. Indexes by directors' names, locations, organizations, and subject.

27. U.S. Library of Congress. National Referral Center for Science and Technology. A Directory of Information Resources in the United States: Physical Sciences, Biological Sciences, Engineering. Washington, D.C., 1965. 352 p. \$2.25.

The entries in this directory are drawn from the center register of the National Referral Center, and therefore are not comprehensive nor selective. Arranged alphabetically by name of organization, the directory gives address, telephone number, and brief description of resources of center or library.

28. World Nuclear Directory: An International Reference Book. 3d ed. rev. and enl. London: Harrap [1966]. 712 p. £24.

Arranged alphabetically by country, with an international section at the beginning, this is an invaluable and easily used reference on atomic research. Under each country are entries for government agencies, universities, industrial firms, etc. A comprehensive index helps to locate specific institutions.

29. World Space Directory. Washington, D. C., Ziff-Davis, 1963-. Semiannual. \$15 per year. Paper.

Up-to-date directory of government, industrial, academic, and foreign organizations involved in space, including personnel and other useful information. Addresses and telephone numbers given; current issue sufficient.

C. BIOGRAPHY

30. American Men of Science: A Biographical Directory. 11th ed. New York: Bowker, 1965-68. 6 v. \$25 per vol.

11th ed. The Physical and Biological Sciences, Suppl. 2, 4, 5, 6-, 1967-. \$10 to \$20 per vol.

The supplementary service includes new biographies and new data on the biographies in the basic set. Volumes 1 and 3 were superseded, but the others remain to be used with the 11th ed. until publication of the 12th ed. (possibly later this year). This is an indispensable reference set for living American scientists.

31. McGraw-Hill Modern Men of Science. New York: McGraw-Hill, 1966-68. 2 v. \$19.50 per vol.

Supplement to the McGraw-Hill Encyclopedia of Science and Technology, this provides biographical data and noteworthy achievements of the subjects, with references to background information in the encyclopedia.

32. Turkevich, John, and Turkevich, Ludmilla B. Prominent Scientists of Continental Europe. New York: American Elsevier, 1968. 204 p. \$15.

NOTICE

This report was prepared as an account of work sponsored by the United States Government. Neither the United States nor the United States Atomic Energy Commission, nor any of their employees, nor any of their contractors, subcontractors, or their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness or usefulness of any information, apparatus, product or process disclosed, or represents that its use would not infringe privately owned rights.

Brief biographical sketches grouped by country, based on information from questionnaires before July 1966. Limited value.

33. Who's Who in Atoms; an International Reference Book. 5th ed. London: Harrap Research Publications, 1969. 2 v. \$55.

This edition contains more than 22 000 entries, compared with 8 500 in the first edition of 1959. A most valuable biographical reference.

34. Who's Who in Science in Europe; A New Reference Guide to Western European Scientists. [Guernsey]: F. Hodgson, 1967. 3 v. £ 10 per vol.

More than 30 000 entries include professional information and addresses of Western Europeans in the natural and physical sciences, medicine, and agriculture. Useful.

35. World Who's Who in Science: A Biographical Dictionary of Notable Scientists from Antiquity to the Present. 1st ed. Chicago: Marquis, 1968. 1855 p. \$60.

A useful comprehensive biographical dictionary for any library. The end papers give a quick view of Nobel Prize Winners in chronological order.

D. DICTIONARIES

36. Dictionary of Electronics Abbreviations, Signs and Symbols. New York: Odyssey Press [1965]. 747 p. \$27.50.

A standard reference work including abbreviations for government agencies, associations and degrees; abbreviations for use on drawings, letter symbols; graphic symbols; color codes; and electronic designations.

37. Dictionary of Physics and Mathematics Abbreviations, Signs, and Symbols. New York: Odyssey Press [1965] \$18.

Includes letter symbols, alphabetically by symbol and alphabetically by definition, mathematical signs and symbols; abbreviations for scientific and learned societies; and abbreviations for government agencies.

38. Graham, Elsie Challand, ed. The Basic Dictionary of Science. New York; Macmillan [1965]. 1st Amer. ed. [1966]. 568 p. \$5.95.

Definitions of scientific terms are given in basic English for the benefit of students and laymen.

39. Pugh, Eric. A Dictionary of Acronyms & Abbreviations: Some Abbreviations in Management, Technology and Information Science. 2d rev. ed. [Hamden, Conn.]: Archon Books [1970]. 389 p \$15.

The total of more than 10 000 entries is indicative of the use of initials and acronyms in science and technology. The list is alphabetical by abbreviations, with a selective subject index.

40. Yulish, Charles B., comp. A Handbook of Abbreviations and Nicknames Concerned with Atomic Energy. [Oak Ridge]: USAEC Division of Technical Information, 1964. 91 p. (TID-7031.) (Available from NTIS for about \$6.)

Includes abbreviations of the Department of Defense and an alphabetical listing of Research Report code numbers, as well as the basic list indicated in title.

E. ENCYCLOPEDIAS AND HANDBOOKS

41. American Institute of Physics. American Institute of Physics Handbook. 2d ed. New York: McGraw-Hill, 1963, \$29.75.

First issued in 1957, this handbook provides authoritative information in physics, on definitions, units, constants, formulas, etc. Includes a selected bibliography of compilations of mathematical tables and list of mathematical functions frequently used by physicists. Professional-technical level. New edition announced.

42. Atlas of Nuclear Medicine. Frank H. DeLand and Henry N. Wagner, Jr., comp. 3 v. Philadelphia: Saunders, 1969-. (In Progress.) V. 1, \$18; v. 2, \$22.

v. 1: Brain; v. 2 Lung and Heart. This is a current development in medical atlases and related to the field of nuclear science in that it deals with medical diagnosis through radionuclide scanning. An essential addition to the medical library.

43. Atomic Energy Encyclopedia in the Life Sciences. Ed. by Charles Wesley Shilling. Philadelphia: Saunders, 1964. 474 p. \$10.50.

An authoritatively written encyclopedia, combining features of dictionary and encyclopedia, the book is designed to be useful to high school and college students, practicing physicians, and research scientists, who need information on the background and present status of effects and uses of atomic energy.

44. Besancon, Robert Martin, ed. The Encyclopedia of Physics. New York: Reinhold, 1966. 832 p. \$25.

Concise signed articles on physics and related areas, such as astrophysics, geophysics, and biophysics. Intended for physicists who need information outside their special field, as well as for librarians, teachers, engineers, and other scientists.

45. Condon, Edward Uhler, and Odishaw, Hugh. Handbook of Physics. 2nd ed. New York: McGraw-Hill, 1967. \$32.50.

A one-volume compendium with chapters by specialists and a good index. A professional handbook for scientists and engineers.

46. Encyclopaedic Dictionary of Physics: General, Nuclear, Solid State, Molecular, Chemical, Metal and Vacuum Physics, Astronomy, Geophysics, Biophysics and Related Subjects. Ed. in chief, J. Thewlis. London: Pergamon, 1961-64. 9 v.

Standard work with subject and author indexes and multilingual glossary (English, French, German, Spanish, Russian, Japanese).

Suppl. 1 - . New York: Pergamon, 1966,--. \$20 per vol.

Volumes in the supplementary series "are designed to deal with new topics in physics and related subjects, new development in topics previously covered and topics left out of earlier volumes."

47. Glasstone, Samuel. Sourcebook on the Space Sciences. Princeton: Van Nostrand [1965]. 937 p. \$7.95.

Prepared under the sponsorship of NASA, the book is directed to readers with an elementary knowledge of physics, chemistry, and other sciences which can be served by space research. Name and subject indexes but no bibliographies.

48. Handbook of Radioactive Nuclides. Ed. Yan Wang. Cleveland: Chemical Rubber Co. [1969]. 960 p. \$27.50.

Provides a convenient source of basic information on radioactive nuclides, instrumentation, dosimetry, and applications, as well as on general radiation protection. Compilation of data from published sources. Valuable for libraries serving chemists, industry, medical sciences and physicists, and also research students.

49. Handbuch der Physik. Ed. S. Flugge. Berlin: Springer-Verlag, 1955- . (In Progress.)

The Encyclopedia of Physics, with volumes on separate subjects and articles in German, French, or English, but

recent additions mainly in English. This is the scientists' encyclopedia and belongs in academic and science libraries. Although the set has no published index, the material in the volumes is indexed in the Abstract Journals and referenced in published literature. Individual volumes are catalogued separately as monographs.

50. Harper Encyclopedia of Science. Ed. by James R. Newman. Rev. ed. New York: Harper, 1967. 1379 p. \$35.

Replaces the 1st four-volume edition of 1963, but not a major revision. The book contains more than 4000 signed articles, arranged alphabetically and including more than 1000 short biographies, with a detailed index and graded bibliography. It is well illustrated, and intended for the nonscientists. Excellent for all levels of students and the public, the encyclopedia is recommended for school, home, and small public libraries that cannot afford the more expensive and specialized McGraw-Hill encyclopedia.

51. McGraw-Hill Encyclopedia of Science and Technology. Rev. ed. New York: McGraw-Hill, 1966. 15 v. \$235.

First edition in 1960 was kept up-to-date with yearbooks and is still useful. Some changes, revisions, and additions have been made, with a topical as well as analytical index. A good general science encyclopedia for public and school libraries, as well as academic and special libraries. The material is authoritative and illustrated intended to provide information to the reader on subjects outside his field.

52. Markus, John. Sourcebook of Electronic Circuits. New York: McGraw-Hill, 1968. 888 p. \$18.50.

Organized in 100 logical chapters for quick reference and convenient browsing, this specialized handbook includes more than 3000 modern electronic circuits complete with values for all parts.

53. Science Year: The Work Book Science Annual, 1965-. Chicago: Field Enterprises, 1965-. \$5.95.

Well written articles on specific topics by specialists, reports on recent developments, and a biographical section on recent science award winners. Indexed. Useful in school and public libraries.

54. Thomas, Harry Elliott, and Clarke, Carol A. Handbook of Electronic Instruments and Measurement Techniques. Englewood Cliffs, N.J.: Prentice-Hall, 1967. 398 p. \$12.

A technical reference book for engineers and staff; includes diagrams, charts, tables, etc.

55. U.S. Air Force. Cambridge Research Laboratories. Handbook of Geophysics and Space Environments. Shea L. Valley, Scientific Ed. New York: McGraw-Hill [1965]. 1 v. \$24.50.

Includes topics of current concern to scientists and engineers who are engaged in research and development of aerospace systems. Sections on geodesy, gravity, winds, atmospheric optics, lunar environment, etc.

56. Van Nostrand's Scientific Encyclopedia. 4th ed. Princeton: Van Nostrand, 1968. \$37.50.

Comprehensive one-volume encyclopedia on sciences and technology, the latest edition reflecting advances, developments, and shifts in emphasis of recent scientific research and including new entries. Good for general users.

F. TABLES AND COMPENDIUMS

57. Abramowitz, Milton, and Stegun, Irene A. Handbook of Mathematical Functions With Formulas, Graphs, and Mathematical Tables. Washington, D. C.: G. P. O., 1964 (7th printing with corrections, 1968). 1046 p. \$6.50. (U.S. National Bureau of Standards. Applied Mathematics Series, 55.)

An essential one-volume compendium of numerical tables of mathematical functions to satisfy the demands of scientists and engineers.

58. Ardenne, Manfred, Baron von. Tabellen zur angewandten Physik. . . Berlin: Deutscher Verlag der Wissenschaften, 1962-64. 140 DM per vol.

This is the enlarged and revised edition of the 1956 title: Tabellen der Elektronenphysik, Ionenphysik Und Ubermikroskopie, which early edition has been translated into English and is available as Tables of Electron Physics and Electron Microscopy, 2 v. in 5, available from the government clearinghouse under report numbers AD-254520 through 254524. Approximate cost \$30. Invaluable tables for physics specialists.

59. Handbook of Tables for Mathematics. 4th ed. Cleveland: Chemical Rubber Co. 1970 . 1120 p. \$7.50.

First edition issued in 1962 as supplement to the CRC Handbook of Chemistry and Physics, this is a useful compendium of tables and formulae for chemistry, physics, and engineering, with a section on mathematical abbreviations and symbols.

60. Landolt, Hans. Landolt-Börnstein: Numerical Data and Functional Relationships in Science and Technology. New Series. Ed. -in-chief K.H. Hellwege, Berlin: Springer-Verlag, 1961- . (In progress).

Title pages and some text in English as well as German. Title of groups indicate subject coverage: Group I, Nuclear Physics and Technology, 1961- ; Group II, Atomic and Nuclear Physics, 1965 - ; Group III, Crystal and Solid State Physics, 1966- ; Group IV, Macroscopic and Technical Properties of Matter (in preparation); Group V, Geophysics and Space Research (in preparation); Group VI, Astronomy, Astrophysics, and Space Research, 1965- .

- *61. Lederer, Charles Michael, Hollander, Jack M., and Perlman, Isadore. Table of Isotopes. 6th ed. New York: Wiley 1967. 594 p. (\$4.95 paper).

Previous editions appeared in Reviews of Modern Physics, 1940-58. This is the first updating in 10 years, covering publications to Jan. 1966; the project of scanning literature and evaluating data is in progress at the Lawrence Radiation Laboratory-Berkeley, in cooperation with the Nuclear Data Group at the AEC Oak Ridge National Laboratory, to compile revised and additional data for the 7th edition a few years hence.

- *62. Nuclear Data Sheets; Nuclear Data, Section B, 1- . 1966- . New York Academic Press, 1966- . \$15 per year (6 issues).

Formerly these sheets were issued in sets by the National Academy of Sciences-National Research Council and distributed at intervals to subscribers for insertion in loose-leaf binders (to allow for deletions and additions). The Nuclear Data Group at the AEC Oak Ridge National Laboratory is now publishing the data in Section B of the journal Nuclear Data, and each issue offers new data and revisions of the older Nuclear Data Sheets which can be discarded, so that eventually this new set will supersede the binders.

G. INDEXES AND ABSTRACTS

- *63. Computer and Control Abstracts. (Science Abstracts: Series C.) v. 1, June 1966- . London: IEE, 1966- . Monthly (available together with subscription to Electrical and Electronics Abstracts from IEEE for \$252).

v. 1-3, as Control Abstracts. This serial is the newest of the Science Abstracts; Series A: Physics Abstracts, and Series B: Electrical and Electronic Abstracts, have been published continuously since 1898. These abstracts cover all forms of original publications, such as periodicals, books dissertations, technical reports, and patents. Comprehensive

subject and author indexes are published twice yearly for each of the series. Comprehensive indexes also include cumulations of the bibliography, book, conference, patent, and report indexes to be found in each issue. This is valuable for searching new books or recent conferences in print.

64. International Aerospace Abstracts. Phillipsburg, N.J.: Technical Information Service, American Institute of Aeronautics and Astronautics, 1961- . v.1-. Semimonthly \$75 per year.

IAA is an abstracting and indexing service covering the world's published literature in the field of aeronautics and space science and technology, including journal articles, conference papers, books, and translations of journal articles. Research reports are not included because these are indexed in NASA Scientific and Technical Aerospace Reports (STAR). IAA and STAR both utilize identical subject categories and indexes, and the two indexes together provide comprehensive coverage of report and published literature in space sciences. Cumulative quarterly indexes and annual indexes for subject, personal authors, contracts and report numbers. Of interest to all in physical sciences.

65. Nuclear Science Abstracts. USAEC Division of Technical Information. Semimonthly. Washington, D.C.: G.P.O. \$42 per year; gratis to government agencies.

This is not a new title, having been published since 1947 and identified with the age of nuclear science, but it is mentioned here as the most valuable index for all the fields of nuclear science. International and comprehensive in scope, it includes books, technical reports, conference proceedings and papers, translations, journal articles, and patents. The 5-year author and subject cumulated indexes facilitate searches, and -- since the middle of 1966-- the NSA tapes have made it possible to provide advance information on subjects and authors weeks before the NSA issues appear in print. These tapes, furthermore, are being used in computer searching. Note: There may be a change forthcoming because of new developments in international cooperation with the IAEA. See also item 68.

- *66. Science Citation Index, 1961- . Philadelphia: Institute of Scientific Information, 1961- . Quarterly with annual cumulation. \$1250 to hospitals; \$1950 to others.

A computer-produced, international and interdisciplinary index to the literature of science, medicine, agriculture, and technology. The unique aim of this index is to provide access to related articles by indicating sources in which a known article by a given author has been cited. This brings together much related material that cannot be

touched by standard indexing, especially when an author is cited because his technique has been applied. Of value to many scientists, but expensive.

67. Scientific and Technical Aerospace Reports. Washington, U.S. National Aeronautics and Space Administration, 1963- . v. 1- . Semimonthly. \$54 per year.

Supersedes Technical Publications Announcements, and, as STAR is an important index with wide coverage. For details, see annotation for International Aerospace Abstracts.

68. U.S. Atomic Energy Commission. Division of Technical Information Extension. Serial Titles Cited in Nuclear Science Abstracts. 4th ed., July 1970. [TID-4579 (4th ed.)] Available from NTIS at \$3.

As with all abstract journals and indexes, a list of the serials from which abstracts are made is invaluable. NSA has always included a list of journals in certain issues; but this new publication, designated TID-4579, is helpful in identifying the names of scientific and technical serials. The listing is alphabetical by abbreviated titles as cited with the complete title printed beneath and other useful code symbols in the margin.

H. GUIDES TO MEETINGS

- *69. Directory of Published Proceedings. v. 1- . Sept. 1965 - . White Plains, N.Y.: InterDok Corp., 1965- . Monthly except July and Aug.; annual cumulation. \$38 per year.

Chronological listing of current available published proceedings of conferences, meetings, and symposia, with indexes according to editor, location, and sponsor and subject. International and comprehensive.

- *70. International Atomic Energy Agency. Meetings on Atomic Energy. v. 1, no. 1- . Jan. 1969- . Vienna: IAEA, 1969- . Quarterly. \$3 per year.

Supersedes its Conferences, Meetings, Training Courses in Atomic Energy, no. 1-57, Apr. 1959-Nov. 1968.

World-wide list of conferences, exhibitions, and training courses on subjects directly or indirectly related to nuclear energy and its peaceful uses. Although an advance notice, the publication includes also full information on published proceedings of the IAEA meetings.

- *71. Proceedings in Print. v. 1, no. 1- . Oct. 1964- . [Mattapan, Mass.]. Bimonthly. \$20.

Originally a publication of the SLA Aerospace Division,

the index was meant to cover published proceedings of conferences pertinent to aerospace technology, but coverage was expanded to other fields of science, technology and medicine, and -- with vol. 3, no. 3 -- to all published conference proceedings regardless of subject. Citations with full information as to publisher and price are entered by accession number, with a subject and agency index in each issue. Cumulative index for each volume.

- *72. U. S. Atomic Energy Commission. Division of Technical Information Extension. Index to Conferences Relating to Nuclear Science. July 1966. [Available as government document, TID-4043 (Rev. 3).]

January 1971. [Available as government document, TID-4044]

The original publication (TID-4043 (Rev. 3)) is an index to conferences abstracted from 1957 through 1965. The recent publication (TID-4044) updates conference information from 1966 through 1970, but does not supersede the first-mentioned. The above indexes include references to meetings as indexed in Nuclear Science Abstracts, and, therefore, cover papers as well as published proceedings. Indexes are by permuted titles and cities; by dates; numbered conferences; and report numbers. A title list at the end refers to the NSA abstracts.

- *73. World Meetings: United States and Canada. v. 1, no. 1- . Sept. 1963- . Newton Centre, Mass.: Technical Meetings Information Service, 1963- . Quarterly. \$35

Issues for September 1963-January 1967 had title Technical Meetings Index. Information on scientific, engineering, and medical meetings to take place during the 2-year period following date of issue.

- *74. World Meetings Outside U.S.A. and Canada. v. 1, no. 1- . Jan. 1968- . Newton Centre, Mass.; Technical Meetings Information Service, 1968- . Quarterly. \$35 per year.

Companion to World Meetings: United States and Canada, above. Provides information on meetings to take place in Europe, Latin America, Africa, Asia, and Australia.

Both announcement lists are helpful not only for identifying and locating scientific meetings but also for predicting publication of proceedings.

I. TRANSLATIONS

- *75. Himmelsbach, Carl J., and Boyd, Grace E. A Guide to Scientific and Technical Journals in Translation. New York: Special Libraries Association, 1968. 47 p \$4.50 paper.

Compilation of information on cover-to-cover translations into English of foreign language journals, giving original and translated titles, publication dates, and sources. Journal titles are entered as cited in Chemical Abstracts, etc., rather than in Library of Congress form. A valuable aid for providing "instant translation service."

- *76. National Translation Center, John Crerar Library, Chicago. Consolidated Index of Translations into English. New York: Special Libraries Association, 1969. 948 p. \$19.50.

Compilation of translations made through 1966 and previously indexed in Technical Translations and other indexes. This does not truly supersede other listings but provides a convenient one-volume index of journal citations and patents, indicating the order number and availability source of each translation. Journal titles are given as cited, not in L.C. form. Weaknesses: no personal author or report number approach, and many errors in arrangement. A valuable volume, nonetheless, and supplemented by the serial, Translations Register-Index, 1967- (see below).

- *77. Translations Register-Index, v.1, no. 1- . Chicago: National Translations Center, 1967- . Semimonthly. \$50 per year. (Quarterly and annual indexes.)

Compiled and edited by the National Translation Center, Chicago, this was originally sponsored by the Special Libraries Association, but the publication information as given above is current. Successor to Technical Translations and supplement to Consolidated Index of Translations into English, this serial lists new accessions to NTC but includes in the index portions, by journals and patents, references to translations available from other sources and announced elsewhere. Journal title arrangement is by citation form with no author approach, except -- in limited cases -- for monographs and conference papers. Technical reports are now being included with the journal citations with the term REPORT being used in place of a journal title. A "must" subscription for scientific research libraries.

- *78. U.S. Atomic Energy Commission, Division of Technical Information Extension, Oak Ridge. Translation Title List and Cross Reference Guide. 1st rev., 1961. [TID-4025 (1st Rev.)(Pt. 1).]

_____ Supplement 2, 1963.

_____ Supplement 3, 1964.

_____ Supplement 4, 1965.

The translation lists provide complete information on translations issued prior to 1965. Entries are arranged alphanumerically by the translation report numbers and give title, author, source, availability, and price. Indexes are by personal author and journal citations. Author approach valuable.

- *79. U.S. Atomic Energy Commission, Division of Technical Information Extension, Oak Ridge. USAEC Translation List, no. 98- . 1965- . Monthly.

_____ USAEC Translation List Index, 1965-1969.
Issued May 1970 (TID-4028).

This serial continues the announcements of translations completed or in process from 1965 on. The USAEC Translation List Index lists the translations by author, source, and report number, but refers to the monthly USAEC Translation List for complete information. Thus the Index and lists have to be used together. However, a new revision of the first-mentioned title [TID-4025 (1st rev.)] may supersede this latter title, but not the current monthly lists, which are most helpful.

- *80. World Index of Scientific Translations. no. 1- . Jan./March 1967- . Delft: European Translations Centre, 1967- . Quarterly with annual cumulation. \$25 per year.

Index by name of periodical from which translation was made, using the formal entry of the title, thus differing from all other aforementioned indexes. Emphasis on translations from Russian and other Slavic languages, as well as Chinese and Japanese. Another translation source index, but these translations will be available through the National Translation Center.

J. MISCELLANEOUS

- *81. Field, Stanley. Guide to Opportunities for Education, Training and Research in the Sciences. Washington, D.C.: Public Affairs Press, 1967. 255 p. \$6.

A convenient and comprehensive reference book to

assist students, scholars, and guidance counselors in finding opportunities at home and abroad.

82. Free Educational Pamphlets for Schools and Individuals:

Understanding the Atom series (all levels);

World of the Atom series (junior high school).

Information pamphlets in these series have been prepared by subject specialists in a number of areas and are available upon request from

USAEC Division of Technical Information Extension
P. O. Box 62
Oak Ridge, Tenn. 37830

K. PUBLISHERS OF SCIENTIFIC BOOKS

The following publishers' lists and announcements are excellent sources for current information of scientific books and journals.

Academic Press

111 Fifth Avenue, New York, New York 10003.

American Elsevier Publishing Company

52 Vanderbilt Avenue, New York, New York 10017.

W. A. Benjamin

2 Park Avenue, New York, New York 10016.

Marcel Dekker, Inc.

95 Madison Avenue, New York, New York 10016.

Gordon & Breach

150 Fifth Avenue, New York, New York 10011

McGraw-Hill

330 West 42nd Street, New York, New York 10036.

North-Holland see American Elsevier.

Pergamon Press

Fairview Park, Elmsford, New York 10523.

Plenum Publishing Corporation

114 Fifth Avenue, New York, New York 10011.

Springer-Verlag New York, Inc.

175 Fifth Avenue, New York, New York 10010.

UNIPUB, Inc.

P. O. Box 433, New York, New York 10016.

(contact for publications of the International Atomic Energy Agency.)

John Wiley & Sons

605 Third Avenue, New York, New York 10016.

RECENT REFERENCE MATERIALS IN PHYSICS AND ELECTRONICS

SUPPLEMENTARY LIST: CHEMISTRY

GUIDES TO SOURCES AND LITERATURE

- a. Grogan, Denis. Science and Technology; an Introduction to the Literature. Hamden, Ct.: Shoe String Press, 1970.
231 p. \$7.00

A new book intended for the student but of value to the practicing librarian and scientist in presenting various types of materials in science and technology, such as: patents, technical reports, standards, trade literature.

- b. Literature of Chemical Technology. Washington, D. C.: American Chemical Society, 1968. 732 p. (Advances in Chemistry Series No. 78) \$17.50

A comprehensive and authoritative volume of 40 chapters covering practically all areas of chemical technology and with excellent bibliographies. Highly recommended.

DIRECTORIES

- c. Directory of Chemical Producers. Stanford Research Institute, 1971. 1300 p. \$120.00

Replacing the older 6 loose-leaf binders, this new hard-bound 1-volume edition is of value in current chemical market research. This edition is to be kept up-to-date with quarterly cumulative supplements and replaced each year with a new edition. Regional directories (Eastern, Southern, Mid-West and Western) are also available to subscribers at \$25.00 per volume or \$80.00 per set.

- d. International Chemistry Directory, 1969-70. New York: W. A. Benjamin, 1969. 1111 p. \$35.00

A handy-sized and readable directory of value in any science library. International in scope, the book includes faculties in chemistry and biochemistry (not chemical engineering) of accredited universities, government research laboratories, societies, awards, publications, etc.

DICTIONARIES AND ENCYCLOPEDIAS

- e. Condensed Chemical Dictionary. Rose, Arthur and Elizabeth. 7th ed. New York: Reinhold, 1966. 1044 p. \$22.50

Although this is an old dictionary, having existed for 47 years, the 7th edition deserves special mention for current value to busy chemists, students and scientists. For each entry, it provides not only description but also the properties, source, use, manufacturer and shipping regulations. Trademarks and safety warning are also included. Recommended for all libraries.

- f. Gardner, William. Chemical Synonyms and Trade Names. A Dictionary and Commercial Handbook. 6th ed. London: The Technical Press LTD, 1968. 635 p. £5

Another updating of an old title, this edition replaces the 1948 printing. The words and names appearing in this book are in common usage and may or may not be actual trade names. The book is of value in any library for the lay or scientific public, but in future editions "proprietary" claims will be recorded to differentiate between popular and registered names.

- g. Hackh's Chemical Dictionary. 4th ed. Grant, Julius. New York: McGraw-Hill, 1969. 738 p. \$29.50

Recognized as the authority for chemical definitions for many years and cited in patent and litigation suits, it has long been out-of-date. The last edition was published in 1944. Therefore, this new edition can be recommended as a "new" book. Although the Condensed Chemical Dictionary may be better in many ways, HACKH will always be requested by the experienced chemists.

- h. Hampel, Clifford A., ed. Encyclopedia of the Chemical Elements. New York: Reinhold, 1968. 849 p. \$27.50

Covering 103 elements, the book gives the nature, properties and behavior of each. Of use to students and the public.

HANDBOOKS

- i. CRC Handbook of Laboratory Safety. 2nd ed. Steere, Norman V., ed. Cleveland: Chemical Rubber Co., 1970. 756 p. \$24.50

Useful information on controlling accidents, injuries, fires and losses in laboratories. Tables of chemical hazard information, data on hazards from radioactive sources, high energy materials, plasma torches, lasers, cryogenics.

- j. Sax, N. Irving. Dangerous Properties of Industrial Materials. 3rd ed. New York: Reinhold, 1968. 1251 p. \$35.00

Another current revision of an older title, this work provides a single source for quick, up-to-date, concise hazard-analysis information about over 12,000 common industrial and laboratory materials. It includes information about substances, hazard analyses and counter measures. In recognition of the present interest in the environment, a new section has been added on control of environmental pollution. An extremely useful reference for any library.

INDEXES AND ABSTRACTS

- k. Chemical Abstracts Service Source Index (formerly ACCESS) Columbus: Chemical Abstracts Service, 1969. 1370 p. \$100.00

Chemical Abstracts Service Source Index Quarterly. \$75.00/yr.

A most valuable service for all physical and biological sciences, this publication includes entries of serials and non-serials abstracted by Chemical Abstracts since 1907, those covered by Chemisches Zentralblatt since 1830, and those cited by Beilstein's Handbuch der Organischen Chemie prior to 1907. For over 10,000 currently published serials, the holdings of 400 libraries are given. Thus the index is not only valuable for identifying citations but also for locating the material. It is highly recommended for all libraries, for the use of librarians and scientists.

- l. Chemical Titles 1961- Columbus, American Chemical Society bi-weekly \$60 per yr.

"A concordance to chemical research papers" provides "current awareness" in the form of an index. Covering approximately 700 journals, this publication is essentially a key-word index to published articles with a bibliographic section of journal table of contents and author index to the bibliography. Chemical Titles provides the key to the literature prior to indexing in Chemical Abstracts, and the tape service of CT gives pre-publication information.

LEGAL NOTICE

This report was prepared as an account of work sponsored by the United States Government. Neither the United States nor the United States Atomic Energy Commission, nor any of their employees, nor any of their contractors, subcontractors, or their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness or usefulness of any information, apparatus, product or process disclosed, or represents that its use would not infringe privately owned rights.

TECHNICAL INFORMATION DIVISION
LAWRENCE BERKELEY LABORATORY
UNIVERSITY OF CALIFORNIA
BERKELEY, CALIFORNIA 94720