



WALFORD



**GUIDE TO
REFERENCE
MATERIAL**

FOURTH EDITION



VOLUME 1

Science & Technology



WALFORD'S GUIDE TO REFERENCE MATERIAL

FOURTH EDITION

VOLUME 1

Science & Technology

EDITED BY

A. J. WALFORD

M.A., Ph.D., F.R.Hist.S., F.L.A.

with the assistance of

ANTHONY P. HARVEY

Department of Library Services, British Museum
(Natural History)

and

H. DRUBBA

Universitätsbibliothek Hannover und
Technische Informationsbibliothek

THE LIBRARY ASSOCIATION

British Library Cataloguing in Publication Data

Walford's guide to reference material. — 4th ed.

Vol.1: Science and technology

1. Reference books — Bibliography

I. Walford, Albert John II. Harvey, Anthony P

III. Drubba, H IV. Library Association

V. Guide to reference material

011'.02

Z1035.1

ISBN 0-85365-611-8

First edition 1959

Supplement 1963

Second edition 1966

Third edition 1973

Fourth edition 1980

© 1980 *The Library Association*

Published by the Library Association

7 Ridgmount Street, London WC1E 7AE

Printed in Great Britain by

Spottiswoode Ballantyne Ltd, Colchester and London

All rights reserved.

Walford's Guide To Reference Material

Introduction

Aim. The object of the *Guide to reference material* is to provide a signpost to reference books and bibliographies published mainly in recent years. Although international in scope, it has a British slant. The *Guide* is intended for librarians, in the building up and revision of reference library stock; for use in general and special library enquiry work; as an aid to students taking examinations in librarianship; and for research workers, in the initial stages of research.

Coverage. The 4th edition of the *Guide*, planned for publication over a 6-year period, will, as previously, comprise:

v.1: *Science and technology*

v.2: *Social and historical sciences, philosophy and religion*

v.3: *Generalia, language and literature, the arts.*

Some subjects have a divided allegiance, and the policy in this work is to concentrate at a given place, or at two places, with a few exceptions, rather than to scatter according to viewpoint. It does mean that the user may have to refer to more than one volume for the full range of a subject. Thus, military, naval and air force matters are dealt with at both 355 (in v.2) and 623 (v.1); economic and business affairs, at both 33 (in v.2) and 65 (v.1). Volume 3 will include a cumulated subject index.

Science & technology. V.1, covering U.D.C. classes 5/6, has entries for about 5,000 items, of which over 1,000 are subsumed. Among newer subjects that have come into prominence are: offshore engineering, wildlife protection, biochemistry, environmental pollution, alternative technology, energy, electronics, microcomputers, consumer protection, and Islamic science.

To reduce scattering of related material, 54 Pure Chemistry has been made the general place for items on both pure and applied chemistry; 621.039, Atomic energy, includes atomic physics.

A representative selection of reviews of annual progress is provided. In medicine these reviews are so numerous — over a hundred — that only 2 or 3 more general reviews are included.

Textbooks (unless nothing else on the subject gives comprehensive treatment) have been severely rationed.

To help provide more critical annotations, comments from an increased variety of specialised reviewing journals have been quoted.

Prices are those given in *British books in print, 1978*, *Books in print, 1978-1979*, and *Willing's Press guide, 1979*, among other sources. Where two prices are given, the cheaper is for the paperback edition.

The index, which omits joint-author references, includes more title references than previously.

Copy was handed in on 5 March 1979.

Acknowledgements. I am particularly indebted to Anthony P. Harvey (Department of Library Services, British Museum (Natural History)), and to Herr H. Drubba (Universitätsbibliothek Hannover und Technische Informationsbibliothek) for continuous help in their particular fields. My thanks, also to Miss H.M. Chicken (Science Reference Library (Holborn)) for contributing the section on Inventions, Patents and Trade marks; and to Department Librarians at the British Museum (Natural History), including Miss P. Gilbert (Librarian, Entomology Library), Mrs. A. Dutta (Librarian, Zoology Library) and Mr. R.J.W. Atkins (Librarian, Mineralogy Library). Mr. L.T. Morton was consulted on Medicine. Mr. D.R. Webb, Bishopsgate Institute Reference Librarian — an enthusiast, if ever there were one — helped to keep me up-to-date on new reference publications.

Libraries visited. Most of the items recorded in this volume were examined by the editor. The stocks-and-staffs- of the following libraries (among others) in the London area have proved invaluable:

(a) *General:* University of London library; London Library; Library Association library (British Library); Aslib; Australia House; Canada House; Royal Institute of International Affairs (for bibliographies and statistics); Statistics and Market Intelligence Library, Department of Trade.

(b) *Public Libraries:* Camden (St. Pancras; Holborn); Westminster (Central Reference Library; Marylebone); City of London (City Business Library; Guildhall); Bishopsgate Institute Reference Library; Kensington and Islington Central Reference Libraries; Watford Reference Library.

(c) *Special:* Science Museum; Science Reference Library (Bayswater; Holborn); Lyon Playfair, Imperial College; British Museum (Natural History); Institute of Geological Sciences; Department of Health and Social Security; British Medical Association; Ministry of Defence; Department of Trade: Marine; Institute of Marine Engineers; Lloyd's; Civil Aviation Authority; British Institute of Management; Chartered Institute of Secretaries; Institute of Certified Accountants; Watford College (for printing); Departments of the Environment and Transport; Building Centre.

25 July, 1979

A. J. WALFORD

Abbreviations

Listed below are the chief bibliographical abbreviations used in this 'Guide'. They do not include such generally accepted abbreviations as *c.*, *c/o*, *Co.*, *Corpn.*, *Inc.*, *Ltd.*, *pa*, *eg*, *ie*, and *qv*.

A.G. [German]: Aktiengesellschaft: Co.	fasc(s).: fascicule(s)
A.L.A.: American Library Association	fig.: figures
Abt. [German]: Abteilung: part	fldg.: folding
ampl. [Italian]: ampliata: enlarged	fr.: francs
Aufl. [German]: Auflage: edition	front.: frontispiece
augm. [French]: augmenté: enlarged	gänz. [German]: gänzlich: complete
Ausg. [German]: Ausgabe: printing, edition	glav. red. [Russian]: glavnyĭ redaktor: editor-in-chief
BS: British Standard	gldrs. [Dutch]: guilders
Bd. [German]: Band: volume	GmbH. [German]: Gesellschaft mit bes- chränkter Haftung: (Limited Company)
bearb. [German]: bearbeitet: compiled, edited	Gosud. [Russian]: Gosudarstvo: State
Belg.: Belgian	H.M.S.O.: Her [His] Majesty's Stationery Office
Chron.: chronology, chronological	Hft. [German]: Heft: part, number
Cmnd., etc.: Command Paper	hrsg. [German]: herausgegeben: edited, pub- lished
col.: colour, coloured	illus.: illustrations, illustrated
cols.: columns	imp. [French]: imprimé, imprimerie: printed, printing firm
comp.: compiler	izd. [Russian]: izdanie: edition
corr.: corrected	Izdat. [Russian]: Izdatel': publisher
D.fl.: Dutch florins	Jahrg. [German]: Jahrgang: annual publi- cation
Dan.: Danish	kr. [Danish, Norwegian, Swedish]: kroner
diags.: diagrams	L. [Italian]: lire
DM [German]: Deutsch Mark	l.: leaves
druk [Dutch]: edition	Lfg. [German]: Lieferung: number, part
ea.: each	m.fl. [Danish]: med flere: and others
ed.: edition, editor(s)	n.d.: no date
ed. [Italian]: edizione; [Spanish]: edición: edition	neubearb. [German]: neubearbeitet: revised
éd. [French]: édition: edition	no.: number
enl.: enlarged	Nor.: Norwegian
erw.; erweit. [German]: erweiterte: enlarged	
F.: French francs	
F.I.D.: Fédération Internationale de Docu- mentation	
facsim(s): facsimile(s)	

nouv. [Grench]: nouvelle: new (edition)
 n.p.: no place of publication
 Nr. [Danish; German]: Nummer: number
 n.s.: new series
 N.V. [Dutch]: naamloze vennootschap: Limited Company
 o.p.: out of print
 omarb. [Swedish]: omarbetad: revised
 opl. [Danish]: oplag: edition
 p.: page(s)
 port.: portrait(s)
 pt(s): part(s)
 pub.: publication
 réd. [French]: rédigé: edited, compiled
 rev.: revised; revision
 riv. [Italian]: reveduto: revised
 R [South African]: rands
 R.: rubles
 Rs.: rupees
 Sch.: Schillings
 ser., sér.: series

suppt.: supplementary; supplement(s)
 Sw.: Swiss
 Swed.: Swedish
 t. [French]: tome(s): volume(s)
 T. [German]: Teil(e): part(s)
 u. [German]: und: and
 U.D.C.: Universal Decimal Classification
 udg. [Danish]: udgave: edition
 uit. [Dutch]: uitgaaf: publication
 uitg. Dutch]: uitgegeven: published
 umgearb. [German]: umgearbeitete: revised
 Univ.: University
 uppl. [Swedish]: upplaga: edition
 utg. [Norwegian]: utgave: edition
 v.: volume(s)
 v.p.: various pagings
 VEB [German]: Volkseigener Betrieb: People's Concern
 veränd. [German]: verändert: revised
 verb. [German]: verbesserte: improved
 verm. [German]: vermehrte: enlarged

Contents

	<i>Page</i>
Introduction	vii
Abbreviations	ix
5/6 SCIENCE & TECHNOLOGY	1
502 Natural History	58
5 MATHEMATICS & NATURAL SCIENCES	63
51 Mathematics	63
52 Astronomy	77
53 Physics	93
54 Chemistry	114
55 Geology	144
56 Palaeontology	184
571/572 Anthropology	191
574 Biology	201
58 Botany	216
59 Zoology	234
6 APPLIED SCIENCES	257
608 Patents	257
61 Medicine	264
62 Engineering & Technology	312
63 Agriculture	443
64 Domestic Science	479
65 Management. Communication	491
66 Chemical Industry	532
67/68 Manufacturers	582
68 Specialised Trades	605
69 Building	619
Index	633

5/6 Science & Technology

Scientific Information & Documentation

5/6:001/002:016

HILLS, J. A review of the literature on primary communications in science and technology. Prepared on behalf of the Office for Scientific and Technical Information. London, Aslib, [1972]. 36p. (Aslib Occasional publication no.9).

Lists 551 references on functions and uses of meetings and their publications; preliminary communications (eg, 'letters', 'brief communications'); authors and editors, including standard and refereeing; general economics of journal production; journals, including 'core journals', their distribution, overlap in subject coverage and formation of new journals; effects of primary communications on secondary services.

'Scientists, information transfer and literature characteristics', by R.T. Bottle (*Journal of documentation*, v.29, 1973, p.281-94) deals in particular with the role of theses, alerting services and reviews. 25 references.

5/6: 001/002 :063

INTERNATIONAL CONFERENCE ON SCIENTIFIC INFORMATION. Proceedings, Washington, DC., November 16-21, 1958. Washington, National Academy of Sciences, National Research Council, 1959. 2v.

The Conference, sponsored by National Science Foundation, National Academy of Sciences, National Research Council, and American Documentation Institute, covered seven areas:

1. Literature and reference needs of scientists: knowledge now available and methods of ascertaining requirements.

2. The function and effectiveness of abstracting and indexing sources.

3. Effectiveness of monographs, compendia, and specialised centres: present trends and new and proposed techniques and types of services.

4. Organisation of information for storage and research: comparative characteristics of existing systems.

5. Organisation of information for storage and retrospective research: intellectual problems and equipment considerations in design of new systems.

6. Organisation of information for storage and retrospective research: possibility for a general theory.

7. Responsibilities of government, professional societies, universities and industry, for improved information services and research.

The texts of Area papers (15 for Area 2) are followed by 'Summary of discussion'. Index, p. 1607-35.

An important survey, to be coupled with the Royal Society Scientific Information Conference, June 21 — July 2 (1948, 723p.).

'The Royal Society is organising a study of the scientific information system of the United Kingdom', to cover 'all forms of communication in sciences, including conferences, learned journals, abstracting and indexing services, information retrieval services and industries' (*Library Association record*, v.80, no.11, November 1978, p.547).

5/6: 001/002(417)

EIRE. INSTITUTE FOR INDUSTRIAL RESEARCH AND STANDARDS. Technical Information Division. Sources of scientific and technical information in Ireland. [Dublin], the Institute, 1972. 84p.

First published 1969. 154 entries for organisations, in 4 sections. A: Organisations offering specialised information or advisory services — B: Libraries holding large collections in science and technology — C: University departments — D: Public libraries. Section A has its own index.

Noted: Carroll, C., and Wood, N. *Scientific and technical information in Ireland: the findings of the National Documentation Use Study*. A report presented to the Documentation Coordinating Committee of the National Research Council (Dublin, the Council, 1978. 2v. £7.50).

5/6: 001/002(47)

GREAT BRITAIN, DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH. Scientific and technical information in the Soviet Union. Report of the DSIR—Aslib delegation to Moscow and Leningrad, 7th-24th June, 1963. London, DSIR, 1964. iv, 44p.

The main report considers various aspects of organisation. Valuable appendices set out in detail the information on which the main report is based. Notes on various organisations (eg, VINITI), information centres and libraries.

5/6: 001/002(52)

NAKAMURA, K., ed. *Science information in Japan*. [2nd ed.] Tokyo, Japanese Documentation Society, 1967. 192p.

First published 1962.

Topics include science, information and industry in Japan, government policy on science and technical information, organisation, education and training, and

popular science information. 27 appendices. (Based on annotation in *RQ*, v.7, no.4, Summer 1968, p.184.)

5/6: 001/002(540)

INDIAN ASSOCIATION OF SPECIAL LIBRARIES & INFORMATION CENTRES. IX Conference papers: Indian reference materials. Scientific and technical information: users needs and services. I.A.S.L.I.C., 1972. 395p. \$10.

5/6: 001/002(910)

MYATT, A. Scientific and technical information services: Indonesia. Paris, Unesco, 1973. 128p. tables. (Science, technology and research: policies and programmes for the Second Five-Year Plan (1974-79) of Indonesia. Report no.8).

Technical Writing

5/6: 001.8: 016

INSTITUTE OF SCIENTIFIC AND TECHNICAL COMMUNICATORS. ISTC bibliography on technical communication; edited by J. Kirkman and J. Peake. Hatfield, Herts., the Institute, 1978. 72p. £5.

Lists 1,300 references in 17 sections, on editing, typography, copyright, style, standards (BSI, ISO, etc), including information retrieval, etc. (Based on annotation in *Aslib information*, v.7, no.1, January 1979, p.6.)

5/6: 001.8: 016

RIGG, J.C. Bibliography on the preparation and presentation of documents containing scientific or technical information. Paris, Unesco, 1974. 183p.

Lists recommendations, guidelines and proposals from ISO (International Organisation for Standardisation), national standards institutions and other authorities on different aspects.

'Books on business writing and technical writing in the University of Illinois Library', by Mary Ann Bowman (*Journal of business communication*, v.12, no.2, 1975. p.33-67) has c. 400 entries and includes only books in English published 1950-73.

L.M. Newman's *Research techniques and presentation*. (Lancaster, Univ. of Lancaster Library, 1973. 51, xi p. £0.30. (Univ. of Lancaster Library bibliographic guide, 14) has 232 entries, for brief evaluative annotations, pt.1: General works; pt.2: Specific subjects (Agriculture... Zoology). Index. This pamphlet is addressed to (a) writers and editors of work to be published; (b) students commencing research.

5/6: 001.8(022)

JORDAN, S., with others, eds. Handbook of technical writing practice. New York, London, etc., Wiley: Interscience, 1971. 2v. (xii, 733, 12p.; p. 735-1374, 13p.). illus., diagrs., tables. £41.20.

A detailed manual, in 32 chapters (6: Technical reports, p. 345-423. Bibliography of 16 items). V. 2 has lengthy glossary (p. 1305-65) and a selected bibliography of technical and scientific writing (32 items), p. 1295-1303. Each volume has an index.

Noted: *Draft guidelines for editors of scientific and technical journals* (Paris, Unesco, 1977. 38p.).

5/6: 001.8(022)

MAIZELL, R.E., and others. Abstracting scientific and technical literature: an introductory guide and text for scientists, abstractors, and management. New York, London, [etc], Wiley: Interscience, 1971. xvi, [1], 297p. diagrs., charts, facsimis.

'This book tells the beginning abstractor and information scientist how to abstract the literature of science and technology' (*Preface*). 15 chapters (6. Kinds of abstracts... 10. In-house abstracting bulletins... 14. The abstractor, computers, and information systems). Appendices D, E: selected pages of abstracts from *Biological abstracts* and *Chemical abstracts*. Glossary of selected terms and abbreviations, p.277-82; references, p.283-4; bibliography, p.285-6. Analytical index.

5/6: 001.8(022)

ROYAL SOCIETY. General notes on the preparation of research papers. Revised. London, the Society, 1974. [iv], 31p. £0.45.

First published 1950.

10 sections: 1. The typescript — 2. Title and Readings — 3. Abstracts — 4. Numerical results — 5. References — 6. Tables — 7. Illustrations — 8. Nomenclature, units, symbols, and abbreviations — 9. Dictionaries and books on writing — 10. Proof correction (including BS 3700: 1964. *Recommendations for the preparation of indexes for books, periodicals and other publications*).

D.J. Maltha's *Technical literature search and the written report* (London, Pitman, 1976. 175p. £5) is a practical manual for scientists; includes surveys of literature searching, writing a literature survey, and the content, format and style of research reports and similar publications. A series of lecture notes.

Noted: *Writing a scientific paper*, by V. Booth (3rd ed. Colchester, Biochemical Society, 1975. 25p. £0.50).

5/6: 001.8(022)

TURNER, B.T. Effective technical writing and speaking. London, Business Books, Ltd., 1974. xi, [1], 206p. £4.75.

'Written for engineers and scientists' (*Preface*). 13 chapters: 5. Technical reports and article writing, including checklist (summary; 'Further reading'; 'Useful reference books') — 6. Technical business correspondence — 7. Technical tables and how to give them... 10. Handbooks and manuals — 11. Patents and copyright). 14. Appendices. (1, References, p.153-5). Examples. Analytical index. 'It would be a profitable addition to any library' (*Nature*, v.251, 4 October 1974, p.452).

5/6: 001.8(083.7)

BRITISH STANDARDS INSTITUTION. Specification for technical manuals. London, the Institution, 1973-74. 2 pts. diagrs. (BS 4884).

pt.1: *Content*. 1973. 7p. £3.20.

pt.2: *Presentation*. 1974. 15p. £5.60.

Pt.1 specifies information to be given in technical manuals and other documents on use, maintenance and repair (where appropriate) of any material or product: Pt.2 has 9 sections on such matters as scope, cover and preliminary pages, text, illustrations, references and index, reproduction.

BS 4811: 1972, — *Specification for the presentation of research and development reports*, (1972. 18p. £3.20. Amendment AMD 1121. 1973) states requirements for presentation, format and production, showing layout of front cover. 'No attempt has been made to provide a manual of literary style' (p.5).

BSI's DD52: 1977, — *Draft for development: Recommendations for the presentation of tables, graphs and charts* (1977. 12p. £4.20) — has appended examples of tables, graphs and charts.

Scientific Documentation

5/6: 002(038)

TAYLOR, R.S., *comp.* *Glossary of terms frequently used in scientific documentation*. New York, American Institute of Physics, 1962. [10], 16,[5]p.

About 120 terms are defined; adequate cross-references. Appendices: 'Sources used in compiling the glossary'; General background reading for the non-specialist' (15 books, articles and journals).

Scientific & Technical Documentation Centres

(See also *Guide*, (3rd ed.) v.3, p.4-5.)

5/6: 002.6(4/9)

UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION. *World guide to science information and documentation services*... Paris, Unesco, 1965. 211p.

A dictionary of 144 services in 65 countries. A-Z (UK: only Aslib, National Lending Library and Science Museum). Data under 14 heads (1-6. General — 7. Library (availability to public; stock) — 8. Bibliographies (if supplied on request; nature) — 9. Photo-reproduction — 10. Translations — 11. Abstracting — 12. Publications — 13. Mechanical devices (computers, etc.) — 14. Payment for services (how made: Unesco coupons, etc.). 'List of regional and national directories to scientific information and documentation services.' A-Z list of institutions; subject index.

5/6: 002.6(4/9)

UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION. *World guide to technical information and documentation services* ... 2nd ed., rev. and enl. Paris, Unesco, 1976. 515p. F60.

See entry at 62: 001/002(058.7).

5/6: 002.6(4)

TOMBERG, A., *ed.* *Data bases in Europe: a directory to machine-readable data bases and data banks in Europe*. 3rd ed. London, Aslib, 1977. vi, 73p. £7.60 (£6 to members).

Consists of 3 indexes to publicly available data bases: index of bibliographic files, by broad subject area; index of data banks by broad subject area; A/Z index of originators and operators of these data bases, with addresses, telephone numbers and telex numbers, and names of specific contacts. (Based on entry in *Aslib publications catalogue*, 1978. p.10.)

5/6: 002.6(4-11)

KRAUS, D.H., and others. *National science information systems: a guide to science information systems in Bulgaria, Czechoslovakia, Hungary, Poland, Rumania and Yugoslavia*. Cambridge, Mass., M.I.T. Press, 1972. xvii, 325p. \$12.50.

5/6: 002.6(410)

LEIGH, J.A. *Guide to computer-based literature searching services in science and technology* available in the United Kingdom. London, Science Reference Library, 1976. 30p. £0.50.

Services offered by 15 centres. Appendix has notes on 4 of the major on-line services.

5/6: 002.6(73)

Directory of computerized data files and related software. 1974. Washington, US National Technical Information Service, 1974. Annual. \$60.

A guide to 60 US agencies which are 'making available to the public over 500 machine-readable data files' (*College and research libraries*, v.36, no.4, July 1975, p.310).

5/6: 002.6(94)

AUSTRALIA. SCIENTIFIC & TECHNICAL INFORMATION SERVICES ENGINEERING COMMITTEE. *The STISEC report*. Report to the Council of the National Library of Australia... May 1973. Canberra, National Library of Australia, 1973. 2v.

v.1: *Scientific and technical information services in Australia*. 40p.

v.2: *Procedures, evidence examined, findings and appendices*.

V.1 provides a survey of facilities, role and use of services, with recommendations and financial implications.

'CSIRO information services', by Y. Esplin (*Australian library journal*, v.26, no.9, 17 June 1977, p.160-5) includes a table of some retrospective research services available from the Commonwealth Scientific & Industrial Research Organisation (data-base name; subject matter & source; date coverage), plus a map of CSIRONET. 6 references.

Scientific & Technical Abbreviations

5/6: 003.083 = 00

SÉGUIN, L. *Four-language dictionary of technical abbreviations*... Ottawa, Information Canada, 1970. 2v. ([372]p.). (*Bulletin de terminologie*, no.131).

About 5,500 entries (A-L, M-Z) for abbreviations with English, French, Spanish and German full translations. Subject categories are stated. Subject index precedes.

5/6: 003.083 = 20/30

WENNRICH, P., *comp.* *Anglo-American and German abbreviations in science and technology*. New York, Bowker, 1977. 3v. ca. \$24.

Also as *Handbuch der anglo-amerikanischen und deutschen Abkürzungen in Technik und Wissenschaft*. (Munich, Verlag Dokumentation, 1976-77. 3v.

Handbuch der technischen Dokumentation und Bibliographie, Bd. 14).

Lists and defines c. 150,000 abbreviations, A-Z, drawn from over 800 scientific and technical periodicals, plus standard and scientific reference works. Over two-thirds are Anglo-American abbreviations. V.3 includes a list of sources.

5/6: 003.083 = 20

OCRAN, E.B. *Ocran's Acronyms*: a dictionary of abbreviations and acronyms used in scientific and technical writing. London, Routledge & Kegan Paul, 1978. 278p. £8.75.

Main A-Z sequence, followed by subject sections (Aeronautics... Transportation). Excludes most associations and government bodies. Author is head of the Bibliographical Services section of the Civil Aviation Authority's Central Library, London. 'Would be invaluable to anyone dealing with technical writing in information fields' (*New scientist*, 12 October 1978, p.xi).

5/6: 003.083 = 20

PUGH, E. A *dictionary of acronyms & abbreviations*: some abbreviations in management, technology and information science. 2nd rev. and expanded ed. London, Bingley, 1970. 389p.

First published 1968.

Over 10,000 entries (1968 ed.: c. 5,000), consisting of abbreviation, full name (translated into English if foreign) and country of origin (if not obvious from full name) and parent body, if any. The 'Selective subject index' (p.364-89), grouping acronyms and abbreviations under subjects ('Data processing': c. 1,000 entries), is particularly handy. An essential tool in its field. 'Whilst it would be too much to expect any one dictionary of this nature to be fully comprehensive, this one is certainly the nearest to this objective, and will prove to be a most useful source of reference' (*Marine engineers review*, December 1971, p.49).

— **Second dictionary of acronyms & abbreviations**: more abbreviations in management, technology and information science. London, Bingley, 1974. 410p.

Adds a further 10,000 entries. The introduction stresses that some of the acronyms listed are registered trade-names.

— **Third dictionary of acronyms & abbreviations**... London, Bingley, 1977. 208p. £4.50.

Adds c. 5,000 entries, bringing the total to over 25,000. Aims to avoid duplication with v.1-2, updating entries when there is a change of name. Subsidiaries of larger organisations are so designated. A cumulation of the 3 dictionaries would be welcome.

5/6: 003.083 = 30

GOEDECKE, W. *Abkürzungen und Kurzwörter aus Technik und Naturwissenschaften. Englisch-Deutsch/Abbreviations and acronyms in science and technology. English-German* Wiesbaden, Brandstetter New York, London, etc, McGraw-Hill, 1972. [x], 726, [14]p.

About 16,000 English abbreviations, followed by full form and German translation.

5/6: 003.083 = 82

UNITED STATES. LIBRARY OF CONGRESS. Reference Department Aerospace Technology Division.

Glossary of Russian abbreviations and acronyms. Washington, Library of Congress, 1967. x, 806p. \$4.75.

First published 1952.

23,600 entries, selected from 40,000 abbreviations and acronyms in the files of the Lexicography and Terminology Section, Aerospace Technology Division. Restricted to abbreviated words in general use by 20th century authors, scientists, journalists, teachers, editors, librarians and archivists, and acronyms used in Soviet publications since World War II, emphasising aerospace, scientific and technical literature.

H. Zalucki's *Dictionary of Russian technical and scientific abbreviations, with their full meaning in Russian, English and German* (New York, American Elsevier, 1968. vii, 386p. £9.73) carries c. 7,300 Russian entries. Critically reviewed in *Incorporated linguist*, v.8, no.1, January 1969, p.18).

Scientific and technical abbreviations, signs and symbols by O.T. Zimmerman and I. Lavine (2nd ed Dover, N.H., Industrial Research Service, 1949. xiv, 541p. illus.) has c. 10,000 entries in 17 groups. Subject index but no general A-Z index to abbreviations. US slanted.

Symbols

5/6: 003.62

AMERICAN SOCIETY OF MECHANICAL ENGINEERS. *Letter symbols for units used in science and technology.* New York, the Society. 1970. xi, 15p. (ANSI Y 10. 19-1969).

At head: American National Standard.

Revision of U.S.A.S. Y10.19-1967 (I.E.E.E. no.260).

About 250 symbols for units, p.5-14 (columns for unit; symbol; notes). Appendix B: Some examples of usage.

5/6: 003.62

ARNELL, A. *Standard graphical symbols: a comprehensive guide for use in industry, engineering and science.* New York, Toronto & London, McGraw-Hill, 1963. x, 534p. diags. £1.45.

A compendium of symbols approved as standards by leading US engineering and scientific institutions. Some 9,000 illustrations symbols, with descriptive captions: numbers and titles of official standards. Lists of abbreviations and subject index (p.527-34). Symbols are grouped in 13 sections (each with a detailed contents-list): electro-electronic; instrumentation; logic-data processing; mechanical; welding, testing, metal finishing; structural; heat, power heating, ventilating, air conditioning; time-motion study, process analysis; architecture, construction; drafting; cartography, topography, geology; meteorology; electron tubes, gemstones, flags and pennants. Appendix 1: Symbols available from typographers and printers; 2: Abbreviations to be used on drawings. Only 1 page on topographic features.

5/6: 003.62

BRITISH STANDARDS INSTITUTION. *Letter symbols, signs and abbreviations.* London, the Institution, 1961-. (BS 1991).

- pt.1: *General*. 1976. 20p. £5.60.
 2: *Chemical engineering, nuclear science and applied chemistry*. 1961. 45p. £5.60.
 3: *Fluid mechanics*. 1961. 36p. £4.20.
 4: *Structures, materials and soil mechanics*. 1961. 52p. £5.60.
 5: *Applied thermodynamics*. 1961. 30p. £4.20.
 6: *Electrical science and engineering*. 1975. 24p. £5.60. Amendment AMD 2291. 1977. Supplement no.1: *List of subscripts for electrical machinery*. 1973. 10p. £4.20.

Pt.1 explains general principles and their applications in mathematics, physics and chemistry. Each pt. has 3 sections: 1. General principles — 2. Specific usages — 3. Indexes (symbols; words).

5/6: 003.62

ROBINSON, L.J. *A dictionary of graphical symbols*. London, F.C. Avis, 1970. 360p.

Coverage: accents, alphabets, book reference marks, borders, commercial signs, conventional symbols, initial letters, mathematical characters, ornaments, printing 'peculiar', representative foreign alphabets, scientific marks, type founts, zodiacal signs. Arranged A-Z. Appended 'Graphical guide' (explanation of signs). p.349-60. Attractively produced.

5/6: 003.62

ROYAL SOCIETY. Symbols Committee. *Quantities, units and symbols*: a report of the Symbols Committee of the Royal Society, representing the Royal Society, the Chemical Society and the Institute of Physics. 2nd ed. London, The Society, 1975. 54p. £1.

Supersedes the 1971 ed.

14 sections: 1. Introduction — 2. Physical quantities and symbols for physical quantities — 3. Units and symbols — 4. Numbers — 5. Recommended mathematical symbols — 6. Chemical elements, nuclides and particles — 7. Quantum states — 8. Nuclear physics — 9. Thermodynamic results — 10. Galvanic cells — 11. Some common abbreviations — 12. Recommended values of physical constants — 13. Sources — 14. Bibliography, p.50-54 (includes Standards). SI units used throughout. 'A very useful summary' (*RSR*, v.5, no.2, April/June 1977, p.18).

5/6: 003.62

SHEPHERD, W. *Shepherd's Glossary of graphic signs and symbols*. London, Dent, 1971. x, 599p. £7.

'Believed to be the first extensive treatment of the subject to be published' (*Preface*). About 5,000 signs and symbols, covering engineering, mathematics, electricity, physics, numismatics, meteorology, etc., are interpreted. Bibliography, p.583-90. Index of signs with names, p.591-7.

Bibliographies

5/6: 016

Aslib book list: a monthly list of recommended scientific and technical books, with annotations. London, Aslib, 1935-. v.1, no.1-. Monthly. £16 pa (£12 to members).

Quarterly until March 1948.

About 500 entries pa, with brief evaluative annotations, in U.D.C. order. Items are graded in 4 categories: 'A', for general readers; 'B', of

intermediate technical standard on students' textbooks; 'C', directories, dictionaries, handbooks, lists and catalogues, encyclopaedias, year books and similar reference books. Bibliographical details, with prices. Broad-subject index and author or title index, per issue and cumulated annually. A reliable current book-selection tool, normally restricted to books in English. Particularly valuable to librarians who may be called upon for material in fields not familiar to them.

5/6: 016

BRITISH COUNCIL. *Popular science and technology*: a select, and annotated list of books and periodicals. London, British Council & National Book League, 1974. 18p. £0.20.

About 250 briefly annotated entries in Dewey classification order (General works — Computer... Zoology — Technology — Transport — Periodicals. Prices are given. Appended list of British publishers and their addresses. No index.

The National Book League's *Science for all: an annotated reading list for the non-specialist* (Rev. ed. Prepared in consultation with the British Association for the Advancement of Science. London, the League, 1964. vii, 240p Suppts. 1-5. 1965-69) has over 1,000 entries, confined to books in English. 16 sections. Index of authors and editors and of titles.

5/6: 016

Bulletin signalétique. Paris, Centre National de la Recherche Scientifique. 1956-. Monthly, except where quarterly.

Formerly *Bulletin analytique* (v.1-16. 1940-55), in 3 pts.

101. *Information scientifique et technique*.

110. *Information automatique. Recherche opérationnelle. Gestion*.

120. *Astronomie*.

130,140. *Physique I, II*.

145. *Electronique*.

150. *Physique. Chimie et technologie nucléaires*.

160. *Physique des solides...*

161. *Cristallographie*.

165. *Atomes et molécules*.

170. *Chimie*.

220-6. *Bibliographie des sciences de la terre: Minéralogie; Gisements; Roches cristallines; Roches sédimentaires; Stratigraphie; Tectonique; Hydrologie*.

310. *Génie biomédical*.

320. *Biochimie. Biophysique*.

330. *Sciences pharmacologiques*.

340. *Microbiologie. Virologie. Immunologie*.

346. *Ophthalmologie*.

347. *Otorhinolaryngologie*.

348. *Dermatologie*.

349. *Anesthésie. Réanimation. Choc*.

350. *Pathologie*.

351. *Cancer*.

352. *Maladie de l'appareil respiratoire...*

354. *Maladie de l'appareil digestif...*

355. *Maladie des reins*.

356. *Maladie du système nerveux*.

357. *Maladie des os*.

359. *Biologie et physiologie animales*.

361. *Endocrinologie...*

362. *Diabète*.

363. *Génétique*.

365. *Physiologie des vertébrés*.

370. *Biologie et physiologie végétales*.

380. *Agronomie. Zootechnie*.

390. *Psychologie. Psychopathologie*
 730. *Combustibles. Énergie thermique*
 740. *Métaux. Métallurgie*
 745. *Soudage...*
 761. *Microcopie électronique*
 780. *Polymer*
 880. *Génie chimique. Industries chimique et parachimique*
 885. *Nuisances*
 890. *Industries mécaniques. Bâtiment. Travaux publiques. Transports.*

About 400,000 indicative abstracts and references in all, pa, drawing on c. 8,000 periodicals. Author and subject indexes per issue and annually.

5/6: 016

CAMBRIDGE UNIVERSITY. Scientific Periodicals Library. Union catalogue of scientific libraries in the University of Cambridge: Books published before 1801. London, Mansell, 1977. 7 fiches. £12.50.

Author index, with c. 5,800 entries, plus a chronological index of authors and short titles.

5/6:016

CHEN, Ching-Chih. Scientific and technical information sciences. Cambridge, Mass., & London, M.I.T. Press, 1977. xxx, [1], 519p. £17.50.

'Intended primarily as a reference guide for science and engineering librarians and their assistants and as a textbook for library school students engaged in the study of the structure, properties, and output of scientific literature' (*Preface*). 3,650 entries are grouped under 23 form categories (1. Selection tools... 4. Encyclopedias... 15. Abstracts and indexes, and current awareness services... 19. Patents and standards... 21. Non-print materials... 22. Professional societies and their publications... 23. Data bases. Brief annotations. About 150 review sources and 7 book sources (cited in annotations) are listed. Unusual 'Reference list' of articles on the science and technology form categories covered, with author index. The general index is to authors only. No index to anonymous titles nor — particularly — a subject index; a serious omission. This obscures the somewhat patchy coverage of certain fields (eg, geology, agriculture). Admits to a heavy American emphasis; very few non-English language titles. Medicine is omitted ('No clinical material is included here because a separate subject volume covering health sciences is being prepared' (*Preface*). Of considerable value if patience is applied.

For most purposes supersedes F.B. Jenkins' *Science reference sources* (5th ed. Cambridge, Mass., and London, M.I.T. Press, 1969, xvi, 231p.).

5/6:016

Current contents series. Philadelphia, Pa., Institute of Scientific Information, 1958. Now 6 series, ea. weekly. ea. \$135pa. (US).

Originally 7 series. Titles vary.
Current contents: Social & behavioral sciences
Current contents: Physical & chemical sciences
Current contents: Life sciences
Current contents: Clinical practice
Current contents: Engineering, technology & applied sciences
Current contents: Agriculture, biology & environmental sciences.

Between them these series contents-list issues of c. 2,500 journals.

5/6:016

General science index. New York, Wilson, July 1978-. 10 pa, with cumulative issues.

V.1, no. 4, October 1978 covers 89 general science journals (including 6 British); c.250 entries, under subjects A—Z. Appended 'Book reviews'. Subject fields include astronomy, atmospheric science, biology, botany, chemistry, earth sciences, environment and conservation, food and nutrition, genetics, mathematics, medicine and health, microbiology, oceanography, physics, physiology, psychology and zoology.

5/6:016

GROGAN, D. *Science and technology: an introduction to the literature.* 3rd ed., rev. London, Bingley, 1976. 343p. £6.25; £3.75.

First published 1970.

Written primarily for students, not practitioners (*Introduction*). 22 chapters, concentrating on types of literature (2. Guides to the literature... 6. Directories and yearbooks... 9. Periodicals... 11. Computerized data bases... 13. Conference proceedings... 16. Standards... 18. Trade literature... 20. Non-print media... 22. Biographical sources. Partly analytical subject index. Chapters have 'Further reading' and 'Notes' appended. A valuable survey within its self-imposed limits. Has a profusion of examples.

5/6:016

Informatsionnyi. Byulleten' novykh inostrannykh knig postupivshikh v Biblioteku imeni V. I. Lenina. Moscow, Gosudarstvennaya Ordena Lenina Biblioteka SSSR imeni V.I. Lenina, 1956-. 36 pa.

Seriya 1: *Fiziko-matematicheskie, khimicheskie i geologo-geograficheskie nauki, tekhnika i tekhnicheskie nauki.*

2: *Biologicheskie, meditsinskie, sel'skokhozyaistvennye nauki.*

Annotated references on non-Russian books dealing with (series 1) physics, mathematics, chemistry, geology, geography and engineering; (series 2) biology, medicine and agriculture. Author indexes. About 40,000 references pa in the 2 series.

Information (Linz, Henke, [1970?]) is listed in *Unesco bulletin for libraries* (v.24, no.4, July/August 1970, no. 242) as an international bibliography of new scientific publications, reprints and revised new editions issued in German-, English-, French-, and Italian-speaking countries and some parts of Latin America. About 4,000 titles pa in 11 monthly parts.

5/6:016

International catalogue of scientific literature, 1st-14th annual issues. Published for the International Council by the Royal Society of London. London, Harrison, 1902-21. 238v. Reprinted New York, Johnson Reprint Corp.; London, Johnson Reprint Co., Ltd., 1968. 32v.

Unique coverage for 1901-14 (some sections to 1920). Each annual issue consists of 17v.: A. Mathematics; B. Mechanics; C. Physics; D. Chemistry; E. Astronomy; F. Meteorology; G. Mineralogy; H. Geology; J. Geography; K. Palaeontology; L. General Biology; M. Botany; N. Zoology; O. Human anatomy; P. Anthropology; Q. Physiology; R. Bacteriology.

Each volume includes (1) schedules of the classification and subject indexes in English, French, German and Italian; (2) an author catalogue; (3) a classified subject catalogue.

Like the Royal Society's *Catalogue of scientific papers, 1800-1900* (qv), of which it is a continuation, the *International catalogue* also indexes papers appearing in pamphlets, memoirs and books. 4,673 journals were indexed in the 1903 annual volumes, as opposed to 1,555 journals indexed in the Royal Society's *Catalogue*.

The only part of the *International catalogue* with a continued existence is Zoology, as covered in *Zoological record*. The *Bibliographie scientifique française* (Monthly. 1900-42), included in the *International catalogue*, carried on until 1942 on its own.

The *List of journals with abbreviations used in the Catalogue as references* (1903, 312p.; Supplement, 1904. 680p.) includes more than 5,500 periodicals from over twenty countries.

5/6:016

JAEGER, H.-K. de. *Science information sources:* a universal and international guide. 2nd ed., rev. and enl. Nijmegen, SIS Books, 1974. viii, 139p. (ASTRID information science series no. 4). D.fl. 47.50.

First published 1972 (32p.)

403 numbered and annotated items, with interpolations, under nearly 150 subject headings, A-Z (Abbreviations, acronyms, initialisms — Abstracting services... Bibliographical services, bibliographies... Dictionaries... Wool textile industry — World problems). Appended: 'A guide to Belgian sources of information' (items 404-30); Directory. Detailed subject index. 'Most of the material has been consulted at the Bibliothèque Royal Albert 1er, Brussels' (Preface).

5/6:016

JOHN CRERAR LIBRARY. *Catalog.* Boston, Mass., G.K. Hall, 1967. 77v.

Author-title catalog. 35v. \$2495.

Classified subject catalog. 42v. \$3100. Subject index. 1967. 66p. \$85.

The John Crerar Library collections (including the Illinois Institute of Technology holdings) comprise more than 1,100,000 v. of current and historical research materials in the pure and applied sciences. The *Author-title catalog* (563,000 cards, photolithographically reproduced) includes titles of 13,000 current serials. The *Classified subject catalog* (704,000 cards) includes a subject index of 47,000 entries.

5/6:016

Kompedium i bibliografi. 3., omarb. uppl. Red.: Brit Berg. Stockholm, Tekniska Litteratursällskapet, 1975. 115p. (Tekniska Litteratursällskapet bibliografier). Swed.kr. 60.

First published 1962, edited by C. Björkbom.

5/6:016

KYED, J.M., and MATARAZZO, J.M. *Scientific, engineering, and medical societies publications in print.* New York & London, Bowker, 1976 xii, [1], 509p. £13.75.

About 20,000 publications, under 370 organisations A—Z (Aerospace Medical Association. Zoological Society of London). Publications of each organisation

are divided into books and periodicals. Includes conference preprints and proceedings; reports. Prices are stated. Author, subject and periodical indexes. US slanted.

5/6:016

LC science tracer bullet. Washington, Library of Congress, Science and Technology Division, Reference Section. Irregular.

A series of brief guides to sources of information (bibliographical, organisational and personal) on specific topics of current interest. *Geothermal energy*, compiled by Jane Collins (April 1973. 5 leaves) has 13 unannotated sections: Scope (of subject). Introductory text — Subject headings — Basic texts — Additional texts — Bibliographies — Government publications — State-of-the-art reviews and conference proceedings — Journal articles — Primary journals — Reports — Selected technical reports — Selected materials — Additional sources of information (names and addresses of two specialists).

According to Library of Congress *Publications in print, Spring 1977* (entry 254), the first 51 issues have been reprinted as *Literature guides, v.1 of Science information resources*, by Science Associates/International, New York, at \$25.

5/6:016

LEWIS, H.K., & CO., Ltd., Publishers. *Catalogue of Lewis's Medical, Scientific and Technical Lending Library.* New ed., revised to December 31, 1972. London, Lewis, 1975. 2v. £10, the set (£8 to library subscribers). *Supplement, 1973—1975, 1976.* iii, 337p. £3.

Catalogue and Supplement each have an authors-and-titles sequence, plus a subject index. The 1975 ed. lists c.50,000 titles of works in English, including translations. Details given cover author, title, edition, format, price and date. List of serial publications (*Advances in ...*, etc.) precedes. Generic subject headings in subject index (eg, 'Trigonometry' entries are to be found under 'Mathematics').

Updated by *Lewis's Quarterly list ... New books and new editions on sale, some of which are available from the Medical, Scientific and Technical Lending Library* (gratis to library subscribers), a subject list in two main sequences: medical; scientific and technical.

5/6:016

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, McGraw-Hill, 1966. ix, 738p. £16.15.

Aims to direct the purposive reader with an enquiring mind 'to reading beyond the articles in the *McGraw-Hill Encyclopedia of Science and Technology* and into the materials of science, on those specialised topics treated in the *Encyclopedia* itself' (*Foreword*). More than 8,000 briefly annotated entries for books; items starred are recommended for young people and for school science collections ('Atomic energy': 6 items, of which 4 are starred). Annotations state contents and level. Cross-references 'Topical guide to subject areas' (p. 699-738) is not specific (eg, 'Animal pathology' has over 600 unspecified references). According to the *Library journal* review (1 March 1966, p.969), replaces R. R. Hawkins' *Scientific, medical and technical books* (at 5/6:016(73)). Valuable, but dated. No author index.

5/6:016

MALCLÈS, L.-N. *Les sources du travail bibliographique.* Geneva, Droz, 1950-58. 3v. in 4.

v. 1-2 (1950-52).

v.3: *Bibliographies spécialisées (sciences exactes et techniques)*. 1958. x, 575, [1]p.

V.3 still has first-rate importance for the specialist in the pure and applied sciences and medicine. Mlle. Malclès has contributed 6 of the 13 chapters; that on chemistry is by J. Miet; that on earth sciences by P.-M. Guelpa; those on general and animal biology, and on the medical sciences are by G. Koest; that on Zoology, by M.-G. Madier; and those on botany and plant physiology, and on pharmacy, by G. Garnier. No chapter on agriculture; certain aspects of civil engineering have also not been covered (see review in *Journal of documentation*. v. 15, no. 3, September 1959, p. 156-9). The index (p. 521-75) has some 10,000 entries. Some of the chapters, in fact, constitute our best and most detailed guide to the literature of the subjects concerned. Most 'reports on progress' in sciences and technologies, for instance, find a mention.

5/6:016

MALINOWSKY, H.R., and others. *Science and engineering literature: a guide to reference sources.* 2nd ed. Littleton, Colo., Libraries Unlimited, 1976. v, 368p. \$14 (US & Canada); \$17 (elsewhere).

First published 1967 as *Science and engineering reference sources*. 1,096 entries. Aimed at the library-school student, general practising librarian, and science librarian specialist who wants supporting sources outside his field. 13 chapters (each with a helpful introduction): 1-3. General — 4. Mathematical science — 5. Astronomy — 6. Physics — 7. Chemistry — 8. Geoscience and environmental sciences — 9. Biological sciences — 10. Bio-medical sciences — 11. Engineering — 12. The history of science — 13. Science literature and science of librarianship. Agriculture is omitted. Bibliography (13 sections, including indexing and abstracting services, data bases, micrographs, secondary literature, selection policy). Indexes: Cross-disciplinary index to indexing and abstracting services; author-title-subject index. Concise, evaluative annotations.

A basic collection for scientific and technical libraries, by E.B. Lunsford and T.J. Kopkin (New York, Special Libraries Association, 1971, 274p.) has 2,400 annotated entries for books and periodicals in 21 sections (8 of them on engineering). Now somewhat dated.

5/6:016

New technical books. New York, New York Public Library, 1915—. v.1, no.1-. Monthly, except August and September. \$7.50 pa.

1977: 1808 entries, with descriptive annotations. 'A selective list of noteworthy English language books... The books, including reference works, range from technician and introductory-college level to highly specialised advanced graduate and research level' (*Preface*). Noteworthy foreign-language works are occasionally included. Entries are in broad Dewey decimal classes, covering science, annotations (signed) state contents and note features, subject emphases, kind and level of readership, standing compared with other books, and the author's qualifications. Parts of continuing multi-volumed works and series (eg, *Advances in* —) are reviewed. Author and subject

indexes per issue and annually. The British counterpart is the *Aslib book list*, but *New technical books* has decidedly fuller annotations. A valuable current book-selection tool.

5/6:016

Referativnyi zhurnal. Akademiya Nauk SSSR, Institut Nauchnoi Informatsii. Moscow, VINITI, 1953-.

The most comprehensive abstracting service in existence, providing c.1,000,000 abstracts pa. In 1966 it covered 21,000 periodicals and serials, 6,000 monographs and 11,000 patent specifications and standards,—material published in 110 countries in over 60 languages. Abstracts appear up to 6-7 months after publication of the original article. Annual subject indexes commonly arrive very late. The *Polar record* (v. 11, no. 70, January 1962. p. 81-83) has paid tribute to the high standard of accuracy in printed non-Russian references. If a table, diagram or map is essential to the comprehension of a paper, it is reproduced in the abstract. Duplication between the various series is sensibly permitted.

Like *Bulletin signalétique*, *Referativnyi zhurnal* sports numerous sub-series (eg, *Otdel'nyi vypusk*. 41 *Raketostroenie*).

The 64 present series are here given in UDC order, as well as appearing at their appropriate places.

Nauchaya i tekhnicheskaya informatsiya (Scientific and technical information). (*Guide*, v.3, p.4).

Kibernetika (Cybernetics). (*Guide*, v.3, p.8).

Ekonomika promyshlennosti (Industrial economics) (*Guide* v.2, p.131).

Okhran prirody... (Preservation of nature)

Matematika (Mathematics)

Astronomiya (Astronomy)

Geodeziya i aeros'emka (Geodesy & aerial surveying)

Fizika (Physics)

Mekhanika (Mechanics)

Khimiya (Chemistry)

Geologiya (Geology)

Geofizika (Geophysics)

Geografiya (Geography)

Biologiya (Biology)

Biologicheskaya khimiya (Biochemistry)

Meditsinskaya geografiya (Medical geography)

Farmakologiya (Pharmacology)

Obshchie voprosy patologii (Pathological issues)

Onkologiya (Oncology)

Voprosy tekhnicheskogo progressa (Problems of technical progress)

Korroziya i zashchita ot korrozii (Corrosion...)

Tekhnologiya mashinostroeniya (Mechanical engineering)

Mashinostroitel'nye materialy (Engineering materials)

Avtomatika, telemekhanika i vychislitel'naya (Automation...)

Yadernye reaktory (Nuclear reactors)

Kotlostroenie (Boiler-making)

Turbostroenie (Turbine engineering)

Elektrotehnika i energetika (Electrical & Power engineering)

Elektronika i ee primeneniye (Electronic engineering)

Elektrosvyaz' (Electric communication)

Radiotekhnika (Radio engineering)

Dvigateli vnutrennogo sgoraniya (Internal combustion engine).

Truboprovodnyi transport (Pipelines)

Nasostroenie... (Pumps)