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Guide to Instrumentation Literature

UNITED STATES DEPARTMENT OF COMMERCE

NATIONAL BUREAU OF STANDARDS

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Guide to Instrumentation Literature

W. G. Brombacher, Julian F. Smith, and Lyman M. Van der Pyl



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PREFACE

In 1952, Julian F. Smith of the Library of Congress prepared a report on "Instrumentation literature and its uses" for the Office of Basic Instrumentation of the National Bureau of Standards. This has served well the purpose for which it was prepared. Along the same lines the American Society of Mechanical Engineers issued in 1945 a pamphlet on "Sources of information on instruments", prepared by its Industrial Instruments and Regulators Division.

Revision of both pamphlets has been under consideration by the organizations concerned, primarily to bring them up-to-date. Both organizations decided to pool their efforts, and to publish the report as a Circular of the National Bureau of Standards in view of its major contribution to the revision. As part of the ASME contribution, Lyman Van der Pyl, chairman, Bibliography Committee of the Instruments and Regulators Division supplied 138 additional references which he had collected for incorporation into the revision. The Smith report was completely revised and extended. This included rearrangement of the specific literature references, elimination of the list of instrument manufacturers (since these are more completely listed elsewhere) and incorporation of a selected few of the listed house organs into the list of periodicals.

This Circular is intended to assist research investigators, instrument users, and others interested in utilizing the extensive and scattered literature of instrumentation. It was prepared as part of the program of instrumentation research and development which is cooperatively sponsored at the National Bureau of Standards by the Atomic Energy Commission, the Office of Naval Research, and the Air Research and Development Command. This program is administered by the Office of Basic Instrumentation, W. A. Wildhack, Chief.

A. V. Astin, Director.

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GUIDE TO INSTRUMENTATION LITERATURE

W. G. Brombacher, Julian F. Smith,¹ and Lyman Van der Pyl²

This compilation consists of (1) an introduction, (2) a source list of instrumentation literature, (3) an author index, and (4) a subject index. Over 1200 references are listed, including abstract journals, bibliographies, 660 books on technology, directories of manufacturers, guides to and indexes of technical literature, periodicals of interest, and guides to dissertations, patents and specifications. Articles published in periodicals are not referenced, but indexes and abstracts of such articles on a given subject are indicated in the subject index.

1. INTRODUCTION

1.1. Objective

Two concepts have been kept in view in compiling this guide:

- a. Instruments serve to extend or refine the sensing and control faculties of man beyond their unaided range of observation, measurement, or computation.
- b. Instrumentation comprises the art and science of designing, making, applying, and operating instruments.

The broad objective in preparing this report has been to fill the need for information, both broadly and in some detail, on the literature sources on instrumentation in the various sciences and technologies. Guides to the various sources have been stressed.

¹ Now at Lenoir Rhyne College, Hickory, North Carolina.

² Chairman, Bibliography Committee, Instruments and Regulators Division, American Society of Mechanical Engineers. (Rockwell Mfg. Co., Pittsburgh, Pennsylvania.)

1.2. Scope of Report

The report consists essentially of a bibliography or source list of the technical literature useful in locating and supplying instrument information. Both an author and subject index are supplied.

Absolute completeness within the stated scope has not been achieved, nor could be within a reasonable expenditure of time and effort. Sources considered helpful in instrumentation problems are cited even if outside of the stated scope. The effort has been to list the principal information sources bearing directly on instrumentation, and selected sources from related fields.

Foreign languages are not covered as thoroughly as English, partly because they are less freely usable by Americans, and partly because their bibliographic reporting is less readily accessible. Foreign language titles are not in general translated into English; Russian titles are transliterated but not translated. Subject matter is indicated by the classified arrangement of entries; annotations are added when this seems insufficient. Since the classification of entries is often a matter of choice, the subject index is an important aid to locating pertinent literature.

1.3. Classes of Literature

The classes of instrument literature and the manner of coverage in the source list are:

- a. Books: reference works, manuals, instrumentation and allied textbooks, data compilations, exhibit guides.
- b. Periodicals, including selected house organs.
- c. Abstracting and indexing journals or services in chemistry, physics, engineering, biological sciences, and the process industries.
- d. Bibliographies.

- e. Patent office publications, and aids to patent searching.
- f. Indexes of technical reports not published in periodicals.
- g. Directories of manufacturers, for locating sources of trade literature.
- h. Indexes of specifications.
- i. Guides for searchers.

Trade literature, which include catalogs and manuals of instructions, are not listed in this compilation. Directories of instrument manufacturers, which are listed, will help locate desired information given in this literature.

Only house organs with a high grade technical content, including some on instrumentation, are listed.

Periodicals in this source list are not rated as to the proportion of their instrumentation content; many, from their titles or sponsors, will obviously rank high. Many others, though important to some searchers, would rate quite low.

1.4. Time Coverage

Time periods covered in the source list vary according to rate of obsolescence: books and reference works are listed for about 20 years back, most are less than 10 years old; periodicals and bibliographies, back to their beginning dates.

1.5. Sources Consulted

Much of this source list was compiled from the card catalogs of the Library of Congress, the National Bureau of Standards Library, and the Carnegie Library, Pittsburgh, or by direct examination of material on the shelves. Other sources useful in the compilation were references I102, I105, I110, I112, I113, I114, I202, and I203, all under 2.7 Indexes.

1.6. Arrangement of Source List Entries

The list of instrumentation literature sources is arranged by kinds and then by subjects, as indicated in the Contents. In a subject group the sequence is alphabetical by title for bibliographies, abstract journals, periodicals and the like. For books the sequence is alphabetical by authors (including corporate authors) or editors, except for a few added references. When no author or editor is designated, entries are placed alphabetically by issuing organization or publisher. An exception is the Radiation Laboratory Series, all titles of which are grouped in a single entry, (2.3-3823), in the alphabetical place for editor Ridenour's name.

1.7. How to Search the Literature

For general information on how to search the technical literature, consult the Section (2.6) on Guides to Technical Literature for books on the subject.

2. INSTRUMENTATION LITERATURE

A few remarks on some of the classes of instrumentation literature may be helpful or of interest.

Abstract Journals. The instrumentation coverage of specialized scientific and technical abstract journals is inevitably diffuse. However, the coverage in a number of these journals is quite concentrated. Some of the leading examples are:

Biological Abstracts (A 101)

Microscopy, technique, laboratory apparatus (under general biology)
Oceanography (under ecology)
Methods and apparatus; cardiovascular system (under animal physiology)
Bacteriological apparatus and methods

Chemical Abstracts (A 407)

Section 1. Apparatus, plant equipment, unit operations
Section 3. Electronic phenomena and spectra
Section 5. Photography
Section 7. Analytical chemistry

Chemisches Zentralblatt (A 408)

Section A - 2, Optics
Section A - 3, Electricity, electrochemistry
Section G - Analysis; laboratory practice
Section H - 24, Photography

Engineering Index (A 211) (Card service; any section can be received currently by subscription. Also annual compilation.)

5. Aeronautical instruments
56. Electric meters and indicators
59. Electric signal systems
71. Flow of fluids
79. Geophysical exploration
85. Heat, pressure and combustion instruments
92. Hydrology, meteorology, seismology
93. Illuminating engineering
118. Materials testing
144. Optics
168. Radio communication
186. Scientific instruments and precision tools
194. Standards and codes
223. X-Ray analysis and testing

Engineering Index (A211) (Cont.)

- 260. Metals testing
- 266. Photoelasticity
- 267. Photoelectricity
- 294. Automatic control
- 297. Industrial electronics
- 299. Radioactivity and radioactive materials.

In physics, Physics Abstracts (A417) and Nuclear Science Abstracts (A416) contain abstracts on research instrumentation in physics, also properly classified.

Patents. Great Britain first granted patents for inventions in 1617. Next in line (1789), the U. S. has long been the most prolific granter of patents. Numbering of U. S. Patents started a new series with No. 1 in 1837, and reached 2,700,000 in January, 1955. More than 100 nations or colonies have granted patents, but many never issued printed copies. Most of the current instrument patents are U. S., British, Canadian (no printed copies until 1949), German, French, Swiss, Belgian (no printed copies), Dutch, Danish, Norwegian, Swedish, Italian, Japanese, or Russian (monopolies of the Soviet Government).

Most patent offices issue a weekly or monthly gazette listing all new patents, with or without printing a claim or abridgment. Canada, Germany, and the United States print claims, Great Britain, abridgments, and France, Italy, and Switzerland, titles.

Periodicals. Many periodicals have collective indexes for periods of 5, 10 or more years. A list of such indexes is presented (2.7). Many regular cumulations are listed from which the existence of later collective indexes can be predicted. As an example, Chemical Abstracts cumulations have always been decennial, while Chemisches Zentralblatt has mostly had quinquennial indexes since 1897.

Technical Reports. Access to the unpublished reports is generally possible only through some agency which brings them under bibliographic control. Four of the principal agencies are a) Library of Congress, Technical Information Division, b) Armed Services Technical Information Agency, c) Technical Information Service, Atomic Energy Commission and d) National Advisory Committee for Aeronautics. These four can furnish (to qualified inquirers) a nearly complete report service for postwar military, aeronautical and atomic energy research and development.

Nuclear Science Abstracts of the Atomic Energy Commission (A416) and Bibliography of technical reports issued by the Office of Technical Services (I 411), both available by subscription, contain indexes and abstracts of many of the unclassified or declassified unpublished reports.

2.1. Abstract and Review Journals

A100. Biology and Medicine

Note: Chemical Abstracts, British Abstracts and Chemisches Zentralblatt have substantial coverage in biology.

- A100. Advances in biological and medical physics. Academic Press, New York. Annual, 1948-. (No issues in 1949 and 1950).
- A101. Biological abstracts. University of Pennsylvania, Monthly, 1926-, Philadelphia.
- A102. Current list of medical literature. Monthly, Armed Forces Medical Library, Washington. (Reviews about 1500 periodicals; annual indexes).
- A103. Progress in biophysics and biophysical chemistry. Annual, 1950-. Academic Press, New York.
- A104. Quarterly cumulative index medicus. 1916-. American Medical Association, Chicago.

A200. Engineering and Technology

- A200. Advances in applied mechanics. Annual, 1948-. Academic Press, New York. (No issues in 1949 and 1950).
- A201. Aeronautical engineering review. Monthly, 1942-. Institute of the Aeronautical Sciences, New York. (Subject index published separately, since 1947, as the annual Aeronautical Engineering Index. About 4500 abstracts annually).
- A202. Aeronautical reviews: guide to the current literature of aeronautical research and engineering. Monthly, 1942- (supplement to Aeronautical engineering review). Institute of the Aeronautical Sciences, New York.
- A203. Air University periodical index. Quarterly. Maxwell Air Force Base, Alabama. (About 800 entries annually).
- A204. Applied mechanics reviews: critical review of the world literature in applied mechanics. Monthly, 1948-. American Society of Mechanical Engineers, New York.
- A205. Battelle technical review. Monthly, 1952-. (New title of Battelle Library Review to fit expanded scope; editorials, original papers and "Notes from Battelle" are now added to the abstracts). Abstracts in 36 classified sections; about 15,000 abstracts per year.

2.1. Abstract and Review Journals
A200. Engineering and Technology (Cont.)

- A206. Bibliografia elettrotecnica. Bimonthly. Centro Italiano di Documentazione, Milan. (Reviews only Italian literature; about 5700 entries in 1951).
- A207. Current patent abstract cards. Punch card reproductions of entries from the Official Gazette of the U. S. Patent Office; current subscriptions, and orders for entries back to 1921; plans are to extend the service to other reproducible abstracts. Picturesort Co., New Haven, Conn.
- A208. Electrical engineering abstracts: section B of Science abstracts. Monthly, 1898-. Institution of Electrical Engineers, London, (Section A is Physics abstracts).
- A209. Electrical research association weekly abstracts. British Electrical and Allied Industries Research Association, Leatherhead, Surrey, England. (About 2000 entries annually).
- A210. Engineering abstracts. Quarterly, 1919-. Supplement to the Journal of the Institution of Civil Engineers, London. Published in sections, all now discontinued excepting Section 3, Shipbuilding and marine engineering.
- A211. Engineering index. Annual, 1884-. Engineering Societies, New York. Includes abstracts (also supplied on cards by subscription, 1929-).
- A212. Engineers digest: review of world engineering progress. Monthly, 1940-, London. (Abstracts; digests; news notes; new materials, processes and equipment).
- A213. Highway research abstracts. Monthly, 1931-. Highway Research Board, National Research Council, Washington. (About 125 abstracts annually).
- A214. Index aeronauticus: review of technical information. Monthly, 1945-. Technical Information Bureau, Ministry of Supply, London. (About 1500 abstracts per year).
- A215. Japanese engineering abstracts; section of the Japanese Journal of Engineering, 1921-. National Research Council of Japan, Tokyo.
- A216. Recent aeronautical literature. Monthly. Beech Aircraft Corp., Wichita, Kansas. (About 6000 abstracts annually).
- A217. Repertorium der technischen journal-literatur (Repertory of the technical journal literature). Irregular. 1823-1908, Berlin, Leipzig.

2.1. Abstract and Review Journals
A200. Engineering and Technology (Cont.)

- A218. Research abstracts. U. S. National Advisory Committee for Aeronautics, Washington, D. C. Issued biweekly.
- A219. Road abstracts. Monthly, 1934-. Road Research Laboratory, Department of Scientific and Industrial Research, and Ministry of Transport, London. About 1000 abstracts per year.
- A220. Technische Zeitschriftenschau. Semimonthly, 1916-. Verein deutscher Ingenieure, Berlin.
- A221. Technisches zentralblatt; abteilung elektrotechnik. Monthly. Deutsche Akademie der Wissenschaften, Berlin. (Abstracts of world literature; separately paged list of U. S. Patents, without abstracts).
- A222. Zentralblatt für mechanik. Monthly, 1933-1944. (Replaced the section Mechanik in Zentralblatt für Mathematik und ihre Grenzgebiete). Springer-Verlag, Berlin.
- A223. Zentralblatt für werkstoffforschung. Irregular, 1941-. Springer-Verlag, Berlin.

A300. Instrumentation and Electronics

- A300. Bulletin of the British Scientific Instruments Research Association. Monthly, 1946-. Information Dept., BSIRA, London. (About 2000 abstracts per year).
- A301. Elektronentechnische Berichte; Forschungsberichte und Referatenkartei für des Gebiet der Hochfrequenztechnik, ihre Grenzgebiete und Anwendungen. Irregular, 1947-. Institut für wissenschaftliche Berichterstattung RATEM, Vienna. Uses the RATEM (Radio, Iontechnik, Elektro-medizin) modification of the Universal Decimal Classification; reviews about 1500 periodicals from 56 nations.
- A302. Institute of Radio Engineers, Proceedings, Abstracts Section. Monthly, 1946-. New York.

2.1. Abstract and Review Journals

A400. Physics and Chemistry

- A400. Abridged scientific publications from the Kodak Research Laboratories. Annual, 1919-. Eastman Kodak Co., Rochester, New York.
- A401. Advances in geophysics. Annual, 1952-. Academic Press, New York.
- A402. Bibliographie des sciences et de l'industrie. 1898-, Paris.
- A403. Boletín del centro de documentación científica y técnica. Monthly, 1952-, Mexico. (World literature; no abstracts, January to August 1952; abstracts only of articles from Latin-American sources, from September 1952; January-July, 32,207 entries).
- A404. British abstracts: comprising abstracts of all significant papers in pure and applied chemistry and biological subjects. Weekly, in separate sections, 1926-1954. Bureau of Abstracts, London. (Final issue, 1954).
- Ai, General, physical and inorganic chemistry
 - Aii, Organic chemistry
 - Aiii, Physiology, biochemistry, anatomy, pharmacology, experimental medicine
 - Bi, Chemical engineering, fuels, metallurgy, applied electro-chemistry, industrial inorganic chemistry
 - Bii, Industrial organic chemistry
 - Biii, Agriculture, foods, sanitation
 - C, Analysis and apparatus (monthly).
- A405. Buletin de documentare tehnica. Monthly, 1949-. Institutul de Documentare, Bibliografie si Editura Technica, Bucharest. (Abstracts; bibliography of Roumanian and Soviet technical literature; lists of translations from Russian and other Soviet languages into Roumanian).
- A406. Bulletin analytique de la centre national de la recherche scientifique. Mostly monthly, 1940-, Paris. (Reviews 4600 periodicals; 100,000 to 120,000 abstracts per year). Published in 3 parts:
- A. Mathematical, physical and chemical sciences; technology.
 - B. Biological sciences.
 - C. Philosophy (quarterly, 1947-.)
- (Widest subject coverage and largest number of abstracts per year among abstract journals).
- A407. Chemical abstracts. Semimonthly, 1907-. American Chemical Society, Columbus, Ohio. Decennial author and subject indexes, 1907-1916, 1917-1926, 1927-1936, 1937-1946.

2.1. Abstract and Review Journals
A400. Physics and Chemistry (Cont.)

- A408. Chemisches Zentralblatt: vollständiges Repertorium für alle Zweige der reinen und angewandten Chemie. Weekly, 1830- (excepting a short cessation during and after World War II). Deutsche Akademie der Wissenschaften (Berlin), Akademie der Wissenschaften (Göttingen), and Gesellschaft deutscher Chemiker; Berlin and Weinheim. Cumulative author and subject indexes, 1870-1881, 1897-1901, 1902-1906, 1907-1911, 1912-1916, 1917-1921, 1922-1924, 1925-1929, 1930-1934, 1935-1939.
- A409. Cleaver-Hume technical article index; monthly summary of important articles appearing in the world's leading technical and scientific journals. Monthly, 1952-. Cleaver-Hume Index Offices, London, and Norwegian Industries Development Association, Oslo.
- A410. Singer, T. E. R. Current abstract and index periodicals of interest to the chemist. Industrial and Engineering Chemistry, News Edition, Vol. 18, 1940. pp. 541-542.
- A411. Geophysical abstracts. Varying frequency, 1927-. U. S. Bureau of Mines (to 1936) and U. S. Geological Survey (1937-) Washington. Covers world literature.
- A412. Guide to Russian scientific periodical literature. Monthly, 1948-. Brookhaven National Laboratory, Upton, New York. (Translated tables of contents of current issues; also an occasional translation of a complete paper).
- A413. Japanese physics abstracts; section of Japanese journal of physics, 1922-. National Research Council of Japan, Tokyo.
- A414. Mathematical reviews. Monthly, 1940-. American Mathematical Society, Providence, R. I. (About 5000 abstracts annually; has an edition printed on one side of the paper, extra charge \$1.00).
- A415. Meteorological abstracts and bibliography. Monthly, 1950-. American Meteorological Society, Boston.
- A416. Nuclear science abstracts. Semimonthly, 1948-. U. S. Atomic Energy Commission, Technical Information Branch, Oak Ridge, Tennessee.
- A417. Physics abstracts; section A of Science abstracts. Monthly, 1898-. Institution of Electrical Engineers, London. (Section B is Electrical Engineering Abstracts).

2.1. Abstract and Review Journals
A400. Physics and Chemistry (Cont.)

- A418. Physikalische berichte. Semimonthly, 1920-. Superseded Fortschritte der Physik, 1847-1919. Deutsche Gesellschaft für technische Physik, Braunschweig. (Abstracts the world's current literature).
- A419. Progress in nuclear physics. Annual, 1950-. Academic Press, New York. (No issue in 1951).
- A420. Repertorium für Experimentalphysik, für physikalische Technik, mathematische und astronomische Instrumentenkunde. Irregular, 1865-1891, Munich.
- A421. Reports on progress in physics, Physical Society (London); Cambridge Univ. Press; annual (most years) from 1934; contains chapters on sound, spectroscopy, optical instruments, heat, electric and magnetic measurements, etc.; cumulative index to vols. 1-15 in vol. 15 (1952).
- A422. Revue bibliographique. Monthly, 1920-. Section of Journal le radium, Société Française de Physique, Paris.
- A423. Science briefs. Semimonthly. Evans Signal Laboratory, Signal Corps. (Abstracts of periodical articles).
- A424. Spectrochemical abstracts. Bimonthly. Hilger & Watts, Ltd., London.
- A425. Vacuum classified abstracts; vacuum research, apparatus and instruments. Quarterly, 1951-. Supplement to Vacuum, W. Edwards & Co., London.
- A426. Zentralblatt für Geophysik, Meteorologie und Geodäsie. Monthly, 1937-, Berlin.
- A427. Zentralblatt für Mathematik und ihre Grenzgebiete. Irregular, 1913-. Springer-Verlag, Berlin. (Its section Mechanik split off, 1933-1944, as a separate abstract journal, Zentralblatt für Mechanik).

A500. Industries

- A500. Ansco abstracts. Monthly, 1941-. Ansco Division of General Aniline & Film Corp., Binghamton, New York. (About 1000 abstracts annually).

2.1. Abstract and Review Journals

A500. Industries (Cont.)

- A501. British ceramic abstracts. Monthly. British Ceramic Research Association, Stoke-on-Trent; also published in Transactions of the British Ceramic Society. (About 3000 abstracts annually).
- A502. Bulletin and foundry abstracts of the British Cast Iron Research Association. Bimonthly, 1942-. Council of the BCIRA, Birmingham.
- A503. Ceramic abstracts. Monthly, 1922-. American Ceramic Society, Columbus, Ohio. (Issued as a section of the Society's Journal; about 3500 abstracts annually).
- A504. Fuel abstracts. Monthly, 1947-. Fuel Research Station, Department of Scientific and Industrial Research, London. (About 10,000 abstracts per year).
- A505. Gas abstracts. Monthly, 1945-. Institute of Gas Technology, Chicago. (About 2500 abstracts annually).
- A506. Index to current technical literature. Bimonthly, 1923-. Bell Telephone Laboratories, New York. (Over 10,000 items per year).
- A507. Library bulletin of abstracts. Weekly, 1926-. Universal Oil Products Co., Chicago.
- A508. Metallurgical abstracts. Monthly, 1931-. Published as part of the Journal of the Institute of Metals; has selections on instruments, testing, temperature measurement, and control; Institute of Metals, London. (About 6000 abstracts annually).
- A509. Monthly abstract bulletin. 1915-. Kodak Research Laboratories, Rochester, New York.
- A510. Photographic abstracts. Quarterly, 1921-. Scientific and Technical Group, Royal Photographic Society of Great Britain, London. (About 1250 abstracts annually).
- A511. Refrigeration abstracts. Quarterly, 1946-. American Society of Refrigerating Engineers, New York. (About 2500 abstracts annually).
- A512. Reynolds aluminum abstracts. Monthly, 1951-. Research Information Service, John Crerar Library, Chicago, for Reynolds Metals Co., Louisville, Kentucky. (About 1500 abstracts annually).

2.1. Abstract and Review Journals

A500. Industries (Cont.)

- A513. Science et industries photographiques: documentation scientifique et technique de la photographie, de la radiographie et de la cinématographie. Monthly, 1930-. Editions de la Revue d'Optique, Paris.
- A514. Summary of current literature. Biweekly, British Cotton Industry Research Association, Shirley Institute, Manchester. (About 5000 abstracts annually).
- A515. Textile technology digest: American review of the literature of textile science and technology, Institute of Textile Technology, Charlottesville, Virginia. (About 300 abstracts annually).

2.2. Bibliographies

B100. General, Science, or Technology

Note: See also indexes to technical literature and 2.2, Books.

- B100. Theodore N. Bestermann, compiler and publisher; World bibliography of bibliographies and of bibliographical catalogues, calendars, abstracts, digests, indexes and the like. Ed. 2, 1947-1949. Vol. 1, A-H; Vol. 2, I-Z; Vol. 3, Index.
- B101. Bibliographic index: cumulative bibliography of bibliographies. Quarterly, 1938-. H. W. Wilson Co., New York. (Cumulated annually and at 6-year intervals).
- B102. Bibliographie des travaux scientifiques (sciences mathématiques, physiques et naturel). (Bibliography of scientific works (mathematical, physical, and natural sciences)). Annual, 1895-1922. Imprimerie Nationale, Paris.
- B103. Bibliography of agriculture. Monthly, 1937-. U. S. Department of Agriculture Library, Washington. (Nearly 100,000 entries annually).
- B104. Bibliography of bibliographies in electrical engineering 1918-1929. Special Libraries Association, New York, 1931. (Copies of SLA bibliographies can be borrowed from SLA, 31 E. Tenth St., New York, if not purchasable).
- B105. Bibliography of translations from Russian scientific technical literature. Monthly, Oct. 1953-. Library of Congress, Washington, D. C.

2.2. Bibliographies

Bl00. General, Science, or Technology (Cont.)

- Bl06. Ruth Cobb, editor; Periodical bibliographies and abstracts from the scientific and technologic journals of the world. National Research Council, Bulletin 3, Washington, 1920. pp. 131-154.
- Bl07. Karl K. Darrow, editor; Classified list of published bibliographies in physics 1910-1922. Research Information Service, National Research Council, Bulletin 47, Washington, 1924. 102 pp.
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- III. Hilfsmittel der chemischen Technik
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- I303. Association des Ingénieurs Sortis de l'École de Liège; Revue universelle des Mines, de la Métallurgie, des Travaux Publics, des Sciences et des Arts Appliqués à l'Industrie. (Universal review of mines, metallurgy, public works, science, and industrial arts). Monthly, 1857-, except 1915-1918.
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- I321. Society of Exploration Geophysicists, Cumulative index of publications, 1931-1947. Tulsa, Oklahoma, 1948. 127 pp.
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- Pl19. Navigation. 1946-. Institute of Navigation. Los Angeles.
- Pl20. Publications scientifique et techniques. Irregular, 1930-. Ministère de l'Air, Paris. Over 275 reports issued up to 1953.
- Pl21. Quarterly journal, Royal Meteorological Society. Quarterly 1871, London.
- Pl22. Sperryscope. Quarterly, 1941-. Sperry Corp., Great Neck, New York.
- Pl23. Technique aéronautique. Monthly, 1910-, suspended 1914-1920, Paris. Has a separate section aeronaute.

2.9. Periodicals

P200. Automatic Control; Applied Statistics; Computers

- P200. Applied statistics; a journal of the Royal Statistical Society. Three issues in 1954. 1952-. Oliver and Boyd, London.
- P201. Automatic control. Monthly, July, 1954-. Rheinhold Publishing Corp., New York.
- P202. Automation. Monthly, August 1954-. Penton Publishing Co., Cleveland.
- P203. Avtomatika i telemekhanika. Bimonthly, 1936- (suspended 1942-1946). Institut avtomatiki i telemekhaniki, Akademiya nauk, Moscow. (Automatic control devices).
- P204. Computers and automation. Edmund C. Berkeley and Associates. Monthly, 1951-. New York.
- P205. Control engineering. Monthly, September 1954-. McGraw-Hill, New York.
- P206. Journal, Association for Computing Machinery. Quarterly, 1954-. New York.
- P207. Journal, Operations Research Society of America. Quarterly, 1953-. Baltimore.
- P208. Journal, Royal Statistical Society, Series B, Methodological. Semi-annual, 1934-. London.
- P209. Misure e regolazioni. Bimonthly, 1953-. Associazione Termotecnica Italiana, Milano.
- P210. Regelungstechnik; Zeitschrift für Steuern und Regeln. Monthly, 1953-. Verlag, R. Oldenbourg, München.
- P211. Reports of the Research Institute of Electrical Communication. Tohoku University, Irregular, 1949-. Sendai, Japan.
- P212. SMPTE Journal. Monthly, 1930-. Society of Motion Picture and Television Engineers, New York.
- P213. Transactions of the IRE, Institute of Radio Engineers, New York. Professional group on circuit theory. CT series, Quarterly 1954-. Professional group on electronic computers. EC series, Quarterly 1952-.

2.9. Periodicals

P300. Chemistry

- P300. Analyst. Monthly, 1875-. Society of Public Analysts and other Analytical Chemists, Cambridge, England.
- P301. Analytical chemistry. Monthly, 1928-. American Chemical Society, Washington.
- P302. Canadian chemical processing. 1917-. MacLean Publications, Toronto.
- P303. Chemical engineering progress. Monthly, 1908-. American Institute of Chemical Engineers, Philadelphia.
- P304. Chemische Technik. Monthly, 1949-. Kammer der Technik, Berlin (East Zone).
- P305. Chemische Apparatur, 1914-1942. Merged in 1943 with Chemische Technik (Berlin).
- P306. Chemische Technik, Irregular, 1928-. 1943 absorbed Chemische Apparatur; Zeitschrift für die maschinenellen und apparativen Hilfsmittel der chemischen Technik, 1913-1942. Verein deutscher Chemiker, Berlin.
- P307. Chemist-Analyst. Quarterly 1912-. J. T. Baker Chemical Co., Phillipsburg, New Jersey.
- P308. Chimie analytique: essais, mesures, controle. Monthly, 1897-. Presses Documentaires and Centre de Documentation Chimique, Paris. (Includes an abstract section). Appeared as Annales de chimie analytique, (1897-1946).
- P309. Congrès du groupement pour l'avancement des methodes d'analyse spectrographique des produits metallurgiques. L'Office professionnel de la siderurgie, Paris. (The 5th Congress was held in Paris in 1946).
- P310. Geochimica et cosmochemica acta. Bimonthly, 1950-. Academic Press, New York.
- P311. Industrial and engineering chemistry. Monthly, 1909-. American Chemical Society, Washington.
- P312. Journal de chimie physique et de physiochimie biologique. Monthly, 1903-. Société de chimie physique, Paris.

2.9. Periodicals
P300. Chemistry (Cont.)

- P313. Journal of physical chemistry. Bimonthly, 1896-. Williams & Wilkins Co., Baltimore (for the American Chemical Society, Chemical Society, and Faraday Society).
- P314. Journal of the Oil and Colour Chemists Association. Monthly, 1918-. London.
- P315. Mikrochimica Acta. Irregular, (500 pages yearly) 1914-. Springer-Verlag, Vienna. Papers in English, French or German.
- P316. Transactions of the Electrochemical Society. Semiannual, 1902-. New York.
- P317. Zavodskaya laboratoriya (Factory Laboratory). Monthly, 1935-. Moscow.
- P318. Zeitschrift für analytische Chemie. Irregular, 1862-. Munich.
- P319. Zeitschrift für Elektrochemie; Berichte der Bunsengesellschaft für physikalische Chemie. Irregular (9 issues in 1954), 1894-. Verlag Chemie, Berlin. (East Zone).
- P320. Zeitschrift für physikalische Chemie. Irregular, 1954-. Akademische Verlagsgesellschaft, Frankfurt am Main.
- P321. Zeitschrift für physikalische Chemie. Irregular, 1887-. Chemische und Physikalische Gesellschaft, Deutsche Demokratische Republik, Leipzig.
- P322. Zhurnal analiticheskoi khimii. Bimonthly, 1946-. Moscow.
- P323. Journal, American Chemical Society. Semimonthly, 1877-. Washington, Physical, inorganic, organic and biological chemistry.

P400. Electricity; Electronics; Communications; Radio

- P400. Advances in electronics. Annual, 1948-. Academic Press, New York. (No issue in 1949).
- P401. AEG Mitteilungen. Irregular, 1905-1944. Allgemeine Elektrizitäts-Gesellschaft, Berlin. (An English edition, AEG Progress, was started in 1925).
- P402. AEG technischer Jahresbericht. Annual, 1928-. Allgemeine Elektrizitäts-Gesellschaft, Berlin.

2.9. Periodicals
P400. Electricity (Cont.)

- P403. Alta frequenza: rivista di radiotecnica, telefonia e acustica applicata. Bimonthly, 1932-. Associazione elettrotecnica italiana, Milan. (Summaries of papers in English, French and German).
- P404. Applications and industry. Bimonthly. (No. 15, November 1954). American Institute of Electrical Engineers, New York.
- P405. Archiv für Elektrotechnik. Monthly, 1907-. Springer-Verlag, Berlin.
- P406. BEAMA: Journal for the British Electrical Industry. Monthly, 1892-. British Electrical and Allied Manufacturers' Association, London.
- P407. Bulletin de l'Association Suisse des Electriciens. Biweekly, 1910-. Zurich.
- P408. Bulletin de la Société Française des Électriciens. Monthly, 1884-. Gauthier-Villars, Paris.
- P409. Communications and electronics. Bimonthly (No. 15, November 1954). American Institute of Electrical Engineers, New York.
- P410. Communications and electronics. Monthly, 1954-. Haywood & Co., London.
- P411. Communication review. Quarterly, 1951-. T. S. Skillman & Co., Pty. Ltd., Sydney, Australia. (Includes data sheet inserts).
- P412. Electrical communication. Quarterly, 1924-. International Telephone and Telegraph Corp., New York.
- P413. Electrical engineering; monthly journal and transactions of the American Institute of Electrical Engineers, 1882-. New York.
- P414. Elektrichestvo. Monthly, 1880-. Moscow. (Includes electrical instruments).
- P415. Elektrische Nachrichtentechnik. Monthly, 1924-1944, Berlin.
- P416. Electronic engineering. Monthly, 1929-. Gage Publ. Co., London.
- P417. Electronic industries and electronic instrumentation. Monthly, 1947-. New York.

2.9. Periodicals
P400. Electricity (Cont.)

- P418. Electronics. Monthly, 1930-. New York. Cumulative index, vols. 1-12 (1930-1939), published as supplement, June Midmonth Issue, 1951; vols. 13-22 (1940-1949), June Midmonth Issue, 1952.
Electronics Buyers' Guide is an annual supplement (June issue).
- P419. Electrotechnics. Irregular, 1926-. Electrical Engineering Society, Indian Institute of Science, Bangalore.
- P420. Elektrotechnicky obzor: casopia ustredi vyzkumu, a technickeho rozvoje. Semimonthly, 1912-. Prague. (Includes an abstract section). Papers in Czech; summaries in Russian, English and French.
- P421. Elektrotechnische Zeitschrift und Elektrotechnik und Maschinenbau. Biweekly, 1880-. Berlin. Title sometimes appears as ETZ and EUM.
- P422. Elektron in Wissenschaft und Technik. Irregular, 1947-. Elektron-verlag, Munich.
- P423. Elektrotechnik und Maschinenbau. Zeitschrift des Elektrotechnischen Vereines Osterreichs. Biweekly, 1884-. Vienna.
- P424. Elettronica e televisione italiana. Bimonthly, 1952-. Edizioni Radio Italiana, Turin.
- P425. Entwicklungsberichte der Siemens und Halske Aktiengesellschaft. Irregular, 1938-. Siemens & Halske A.-G., Berlin. (Carries original papers, and reprints from other journals, by Siemens-Halske authors).
- P426. Fernmeldetechnische Zeitschrift; FTZ. Monthly, 1948. Verlag Friedr. Vieweg & Sohn, Braunschweig.
- P427. General Radio experimenter. Monthly, 1926-. General Radio Co., Cambridge, Mass.
- P428. Journal of the British Institution of Radio Engineers. Monthly, 1934-. London.
- P429. Monthly journal of the Electrical Communication Laboratory, 1948-. Ministry of Telecommunications, Tokyo. (In Japanese; abstracts in English).
- P430. Oscillographer. Quarterly, 1940-. Allen B. Dumont Laboratories, Inc., Clifton, New Jersey.

2.9. Periodicals
P400. Electricity (Cont.)

- P431. Power apparatus and systems. Bimonthly. (No. 15, December 1954). American Institute of Electrical Engineers, New York.
- P432. Proceedings of the Institution of Electrical Engineers, 1872-. London.
Part 1, Monthly: General
Part 2, Bimonthly: Power Engineering
Part 3, Bimonthly: Radio and Communication Engineering
Part 4, Semiannually: Monographs.
- P433. Proceedings of the IRE. Monthly, 1913-. Institute of Radio Engineers, New York. (Publishes the same abstract section as in Wireless Engineer, about 4000 abstracts annually).
- P434. PTT: Bulletin technique. Monthly, 1923-. Administration des Postes, Télégraphes et Téléphones. Suisses.
- P435. Radio-electronic engineering. Monthly, 1943-. Ziff-Davis Publishing Co., New York.
- P436. RCA Review. Quarterly, 1940-. Radio Corporation of America, Princeton, New Jersey. Radio, electronics, research and engineering.
- P437. Radiotekhnika. Monthly, 1946-. Moscow.
- P438. Revue générale de l'électricité. Monthly, 1917-. Comité Électro-technique Française, et l'Union Technique des Syndicats de l'Électricité, Paris. (Formed by merging Revue électrique and Lumière électrique). Cumulative index every 10 volumes.
- P439. Tele-Teck. Monthly, 1942-. Caldwell-Clements, Inc., Orange, Conn.
- P440. The Post Office electrical engineers' journal. Quarterly, 1908-. The Institution of Post Office Electrical Engineers, London. Covers radio, telephone and telegraph engineering.
- P441. The Sylvania technologist. Quarterly, 1948-. Sylvania Electric Products, Inc., Bayside, New York.
- P442. Transactions of the IRE, Institute of Radio Engineers, New York. Professional groups on:
Audio. AU Series. Bimonthly, 1953-.
Aeronautical and navigational electronics. ANE Series. Irregular, 1954-.
Communications systems. CS Series. Semiannual, 1953-.
Component parts. FGCP Series. Irregular, 1954-.

2.9. Periodicals
P400. Electricity (Cont.)

P442. Continued

Electron devices. ED Series. Irregular, 1954-.
Information theory. PGIT Series. Irregular, 1953-.
Instrumentation. PGI Series. Irregular, 1953-.
Microwave theory and Techniques. MTT Series. Irregular, 1953-.
Nuclear science. NS Series. Irregular, 1954-.
Quality control. PGQC Series. Irregular, 1953-.
Radio telemetry and remote control. PGRTRC Series. Irregular, 1954-.
Ultrasonics engineering. PGUE Series. Irregular, 1954-.

P443. VDE-Fachberichte. Annual, 1937-. Verband deutscher Elektrotechniker, Wuppertal and Berlin. (Original papers in groups, some relating directly to instruments and instrumentation).

P444. Westinghouse engineer. Bimonthly, 1941-. Westinghouse Electric Corp., Pittsburgh.

P445. Wireless engineer. Monthly, 1923-. Radio Research Board, National Physical Laboratories; Iliffe & Sons, London. (Carries the same abstracts as in the Proceedings of the Institution of Radio Engineers, about 4000 annually).

P500. Glass; Oil and Gas; Plastics;
Refractories; Rubber; Textiles

P500. Journal of petroleum technology. Monthly, 1949-. American Institute of Mining and Metallurgical Engineers, Dallas.

P501. Journal, Society of Glass Technology. Bimonthly, 1917-. Sheffield, England.

P502. Oil and gas journal. Weekly, 1902-. The Petroleum Publishing Co., Tulsa, Oklahoma.

P503. Petroleum refiner. Monthly, 1922-. Gulf Publishing Co., Houston, Texas.

P504. Radex Rundschau. Bimonthly, 1949-. Austro-American Magnesite Co., Radenthein, Austria. Refractories.

P505. Research bulletin. Irregular, 1948-. Institute of Gas Technology, Chicago.

2.9. Periodicals

P500. Glass; Oil and Gas; Plastics
Refractories; Rubber; Textiles (Cont.)

- P506. Rubber chemistry and technology. Quarterly, 1928-. Division of Rubber Chemistry, American Chemical Society, Lancaster, Pennsylvania.
- P507. SPE journal. Monthly, 1945-. Society of Plastic Engineers, Greenwich, Connecticut.
- P508. Textile research journal. Monthly, 1925-. Textile Research Institute, New York.

P600. Heat; Combustion; Engineering, General

- P600. Archiv für Wärmewirtschaft und Dampfkesselwesen; Zeitschrift für Energiewirtschaft. Monthly, 1920-. VDI-Verlag, Berlin.
- P601. Askania-Warte. Bimonthly, 1936-. (House organ of Askania-Werke A.-G. Berlin-Friedenau; English edition, Quarterly, started as Askania Review in 1937).
- P602. Bell Laboratories record. Monthly, 1922-. New York.
- P603. Bell System technical journal. Bimonthly, 1921-. New York.
- P604. Combustion. Monthly, 1929-. Combustion Publishing Co., New York. (An older journal, Combustion, 1910-1929, took the name Engineering and finance when the new journal Combustion started).
- P605. Forschung auf dem Gebiete des Ingenieurwesens. Bimonthly after 1954, 1935-. Deutscher Ingenieur-Verlag, Düsseldorf.
- P606. General Electric review. Monthly, 1903-. General Electric Co., Schenectady, New York.
- P607. Heating and ventilating. Monthly, 1904-. Industrial Press, New York.
- P608. Heating, piping and air conditioning. Monthly, 1929-. Keeney Publishing Co., Chicago. (Absorbed Journal of the American Society of Heating and Ventilating Engineers, 1896-1929).
- P609. Industrial bulletin. Monthly, 1927-. (House organ of Arthur D. Little, Inc., Cambridge, Mass.).

2.9. Periodicals

P600. Heat; Combustion; Engineering, General (Cont.)

- P610. Ingenieur-Archiv. Quarterly, 1929-. Springer-Verlag, Berlin.
- P611. Memoirs of the Faculty of Engineering, Nagoya University. Irregular, 1949-. Nagoya. In English.
- P612. Philips technical review: publication on lighting, electronics, x-ray and other technical subjects. Monthly, 1940-. N. V. Philips Gloeilampenfabrieken, Eindhoven, Holland, and North American Philips Co., Inc., Mt. Vernon, New York. (Also published in Dutch, German and French editions).
- P613. Philips research reports. Bimonthly, 1946-. Eindhoven (Holland) and New York.
- P614. Product engineering. Monthly, 1930-. McGraw-Hill, New York.
- P615. Refrigerating engineering. Monthly, 1914-. American Society of Refrigerating Engineers, New York. Title was Journal of the ASRE, 1914-1922; preceded by Transactions of the ASRE, 1905-1914.
- P616. SAE journal. Monthly, 1917-. Society of Automotive Engineers, New York.
- P617. Siemens-Zeitschrift. Irregular, 1921-. Siemens und Halske A.-G., Berlin-Siemensstadt. (English edition, Siemens Review. Quarterly.)
- P618. Technische Mitteilungen Krupp. Irregular, 1933-1943; resumed 1954. Grofa-Krupp, Essen.
- P619. VDI. Zeitschrift des Vereines Deutscher Ingenieure. Every 10 days, 1857-. Düsseldorf.

P700. Instrumentation, General; Laboratory Techniques

- P700. Allgemeine Vermessungsnachrichten. Irregular, 1889-. Liebenwerda, Germany. Carried on a supplement, Bildmessung und Luftbildwesen, 1926-1938.
- P701. Apparatebau. Biweekly, 1889-. Hanover.
- P702. Archiv für technisches Messen. Monthly, 1931-. Munich.

2.9. Periodicals

P700. Instrumentation, General (Cont.)

- P703. Australian journal of instrument technology. Monthly, 1944-. Australian Society of Instrument Technology, Melbourne.
- P704. Design News. Semimonthly, 1946-. Detroit.
- P705. Glas und Apparat: Fachzeitschrift für die Glas-, Glasinstrumenten-Thermometer-, Laboratoriums-Apparate-Industrie und für die Elektro-Vakuum-Technik. Biweekly, 1920-. Weimar.
- P706. Industrial laboratories: news magazine of research, product and process development, engineering. Monthly, 1950-. Chicago.
- P707. Instrumentation. Quarterly, 1945-. Philadelphia. Industrial Division, Minneapolis-Honeywell Regulator Co.
- P708. Instrument engineer. Semiannually, 1952-. George Kent, Ltd., Luton, England.
- P709. Instrument manufacturing. Bimonthly, 1935-. Instruments Publishing Co., Pittsburgh. (Formerly Instrument Maker).
- P710. Instrument practice. Monthly, 1947-. United Trade Press, Ltd., London. (Includes abstracts of British patents).
- P711. Instruments and automation: Magazine of measurement and control. Monthly, 1954-. Pittsburgh. (Supersedes Instruments, 1928-1953). Publishes Instruments Index in one issue biannually.
- P712. ISA journal. Monthly, 1954-. Instrument Society of America, Pittsburgh. Published in Instruments, 1946-1953.
- P713. ISA Proceedings. Annual, 1947-. Instrument Society of America, Pittsburgh.
- P714. Journal of scientific instruments. Monthly, 1924-. Institute of Physics, London.
- P715. Laboratory practice. Monthly, 1952-. United Trade Press, Ltd., London.
- P716. Lab world: News magazine of the clinical-scientific laboratory field. Monthly, 1950-. H. C. Simonson, Publisher, Los Angeles.
- P717. Mekhanizatsiya trudoemkikh i tyazhelykh rabot. Monthly, 1947-. Moscow. (Labor-saving devices; includes some instrumentation and control).

2.9. Periodicals

P700. Instrumentation, General (Cont.)

- P718. Messtechnik: Zeitschrift für zeitgemässe Betriebskontrolle und Werkstoffprüfung. Monthly, 1925-. Halle (Saale).
- P719. Mesures et controle industriel. Monthly, 1935-. Paris. (Lists French patents on instruments, giving titles but no abstracts).
- P720. Report of the British Scientific Instrument Research Association. Monthly, 1918-. British Scientific Instrument Research Association, London.
- P721. Review of scientific instruments. Monthly, 1930-. American Institute of Physics, New York. Book reviews several times annually.
- P722. Schweizerische Zeitschrift für Vermessungswesen und Kulturtechnik, Monthly, 1903-. Winterthur.
- P723. Instruments in industry, incorporating instruments review. Monthly, 1954-. Herbert Publishing Co., London.
- P724. Taylor technology. Quarterly, 1948-. Taylor Instrument Cos., Rochester, New York.
- P725. Technique: a journal of instrument engineering. Quarterly, 1947-. House organ of Muirhead & Co., Ltd., Beckenham, England.
- P726. Transactions of the Society of Instrument Technology. Quarterly, 1947-. London.
- P727. Zeitschrift für Instrumentenkunde. Monthly, 1881-1944. Berlin. Carried as a supplement, Deutsche Mechaniker-Zeitung, 1898-1916, which then appeared separately, 1917-1920.
- P728. Zeitschrift für Vermessungswesen. Monthly, 1876-. Stuttgart. (Mainly devoted to surveying).

P800. Mechanics; Horology; Metallurgy; Vacuum

- P800. American machinist. Biweekly, 1877-. McGraw-Hill, New York.
- P801. Annales françaises de chronométrie. Quarterly, 1930-. Centre nationale de la recherche scientifique, Paris. (Includes an abstract section).

2.9. Periodicals

P800. Mechanics; Horology; Metallurgy; Vacuum (Cont.)

- P802. Bulletin annuel, Société Suisse de Chronométrie et du Laboratoire Suisse de Recherches Horlogeres. Annual, 1950-.
- P803. Feinwerktechnik. Monthly, 1887-(various titles); as Feinmechanik und Präzision; Zeitschrift für Feinwerktechnik, suspended in World War II; resumed publication in 1949 as Feinwerktechnik; published in Füssen, Bavaria.
- P804. Horological journal. Monthly, 1858-. British Horological Institute, London.
- P805. Journal of rational mechanics and analysis. Irregular, 1952-. Graduate Institute for Applied Mechanics, Indiana University, Bloomington. (Papers accepted in English, French, German or Italian).
- P806. Journal suisse d'horlogerie. Monthly, 1876-. Geneva.
- P807. Mémoires, Société des Ingénieurs Civils de France. Quarterly, 1848-. Paris.
- P808. Microtecnic: International review for measuring and gaging techniques; Optics and precision mechanics. Bimonthly, 1947-. Scriptar, Ltd., Lausanne. (Also editions in French and German).
- P809. Monatsschrift für Feinmechanik und Optik. Monthly, 1952-. Verlag "Die Wirtschaft", Berlin. East German Zone. Formerly Deutsche optische Wochenschrift (1948-1952).
- P810. Prikladnaia matematika i mekhanika. Bimonthly, 1937-. Institute Mekhaniki, Akademiia Nauk, Moscow. (Applied mathematics and mechanics).
- P811. Proceedings of the Institution of Mechanical Engineers. Monthly, 1847-. London. Cumulative author and subject index, 1847-1942, London, 1943, which also indexes the Journal, 1939-1942.
- P812. Proceedings, Society for Experimental Stress Analysis. Semiannually, 1943-. Detroit.
- P813. Progressus: engineering progress; progress of German engineering, mainly machines. Irregular, (6 issues in 1954), 1950-. Verlag Handelsblatt, Düsseldorf. (Editions also in French, Spanish, Italian, Portuguese and German).

2.9. Periodicals

P800. Mechanics; Horology; Metallurgy; Vacuum (Cont.)

- P814. Reports of Research Institute for Applied Mechanics. Irregular, 1952-. Kyushu University, Fukuoka, Japan. (Merger of the Reports of the Research Institutes for Fluid Engineering (1942-1951) and for Elasticity Engineering (1943-1951). Reprints of the papers can be had from the Librarian of the Institute.
- P815. Revue générale de mécanique. Monthly, 1933-. Paris. (Superseded part of Science et Industrie, 1916-1933).
- P816. SFM, Bulletin, Société Française des Mécaniciens. Quarterly, 1951-. Paris.
- P817. Stanki i instrument. Monthly, 1930-. Moscow. (Devoted largely to fine mechanics).
- P818. Transactions, American Mining and Metallurgical Engineers. Annual, 1871-. New York.
- P819. Transactions of the American Society of Mechanical Engineers. Monthly, 1879-. New York. Includes Journal of Applied Mechanics.
- P820. Transactions of the American Society for Metals. Semiannual, 1928-. Cleveland. (Formerly American Society for Steel Treating).
- P821. Vacuum; a review of developments in vacuum research and engineering. Quarterly, 1951-. W. Edwards & Co., London.
- P822. Vide; Technique et applications. Bimonthly, 1946-. Société Française des Ingénieurs Techniciens de Vide, Paris. (Includes an abstract section).
- P823. Werkstattstechnik und Maschinenbau: Zeitschrift für Fertigung im Maschinenbau, Apparatebau und Feinmechanik, Verein Deutscher Ingenieure (Arbeitsgemeinschaft deutscher Betriebsingenieure und Arbeitsgemeinschaft für fertigungstechnisches Messwesen). Monthly, VDI Verlag, Düsseldorf.
- P824. Zeitschrift für angewandte Mathematik und Mechanik. Irregular, 1921-. Akademie-Verlag, Berlin. (East Zone.)
- P825. Zeitschrift für Metallkunde. Monthly, 1911-. VDI-Verlag, Berlin. Includes an abstract section.

2.9. Periodicals

P900. Optics; Acoustics; Color; Microscopy; Photography;
Radiation, Nuclear, Atomic and Molecular

- P900. Acustica: international journal of acoustics. Bimonthly, 1951-. Acoustics Group, Physical Society (London); Verband der deutschen physikalischen Gesellschaften; Groupement des Acousticiens de Langue Française. S. Hirzel Verlag, Zürich. (Papers in English, French or German).
- P901. Akustische Beihefte. Irregular, 1951-. Supplements to Acustica; S. Hirzel Verlag, Zürich.
- P902. Akustische Zeitschrift. About bimonthly, 1936-1944, Leipzig.
- P903. Applied spectroscopy. Quarterly, 1947-. Society for Applied Spectroscopy, New York.
- P904. Astrophysical journal: International review of spectroscopy and astronomical physics. Bimonthly, 1884-. Chicago.
- P905. British bulletin of spectroscopy. Quarterly, 1951-. Institute of Physics and Society of Public Analysts and Other Analytical Chemists, London. (News notes, new literature notices, etc.).
- P906. Blätter für Untersuchungs- und Forschungsinstrumente. Quarterly, 1927-. Rathenow, Germany. (House organ of Emil Busch A.-G.; optical instruments).
- P907. Deutsche optische Wochenschrift. Biweekly, 1884-. Weimar. (Absorbed Central-Zeitung für Optik und Mechanik, 1934).
- P908. Highlights. Bimonthly, 1946-. Eastman Kodak Co., Rochester, New York.
- P909. Illuminating engineering: including Transactions of the Illuminating Engineering Society. Monthly, 1906-. New York.
- P910. Journal of the Acoustical Society of America. Monthly, 1929-. American Institute of Physics, New York.
- P911. Journal of electronmicroscopy. Triyearly, 1953. Society of Electronmicroscopy, Japan. Chiba City.
- P912. Journal of Nuclear Energy. Quarterly, 1954-. Pergamon Press, London.
- P913. Journal of the Optical Society of America. Monthly, 1917-. American Institute of Physics, New York. Cumulative index, 1917-1950, (Vol. 1-40), December 1954.

2.9. Periodicals

P900. Optics; Acoustics; Color; Microscopy; Photography;
Radiation, Nuclear, Atomic and Molecular (Cont.)

- P914. Journal, Royal Microscopical Society. Quarterly 1878-. London.
- P915. Noise control. Bimonthly, January 1955-. Acoustical Society of America. (American Institute of Physics, New York).
- P916. Nucleonics. Monthly, 1943-. McGraw-Hill, New York.
- P917. Mikrokosmos: Zeitschrift für angewandte Mikroskopie, Mikrobiologie, Mikrochemie und Mikroskopie und klinische Chemie, der Kleinwelt und der praktischen Mikroskopie. Monthly, 1907-. Stuttgart.
- P918. Optica Acta. European journal of optics. Irregular, 1954-. Société de la Revue d'Optique, Paris. Papers printed in either English, French or German.
- P919. Optik: Zeitschrift für das gesamte Gebiet der wissenschaftlichen und angewandten Optik. Monthly, 1946-. Stuttgart.
- P920. Optiknämndens handlingar (Reports from the Laboratory of Optics). Irregular, 1950-. Kungliga Tekniska Högskolan, Stockholm.
- P921. Optische Rundschau und Photo-Optiker. Semimonthly, 1910-. Reichsin-
nungsverband des Optiker- und Feinmechaniker-Handwerks, Weimar.
- P922. Photogrammetric engineering. Quarterly, 1934-. American Society of
Photogrammetry, Washington.
- P923. Photographic engineering. Quarterly, 1950-. Society of Photographic
Engineers, Washington.
- P924. Photographic journal. Bimonthly, 1861-. B. Scientific and Technical
Photography. Royal Photographic Society of Great Britain, London.
- P925. Photo-Technik und -Wirtschaft. Monthly, 1950-. Verband der Deutschen
Photographischen Industrie, Berlin. West Germany.
- P926. Radiation research. Bimonthly, 1954-. Academic Press, Inc., New York.
- P927. Radiography. Monthly, 1935-. Society of Radiographers, London.
Issued with British Journal of Radiography until December 1953.
- P928. Revue d'optique théorique et instrumentale. Monthly, 1922-. (Pre-
ceded by Revue générale d'optique et de mécanique de précision, 1912-
1922). Institute d'optique théorique et appliquée, Paris.

2.9. Periodicals

P900. Optics; Acoustics; Color; Microscopy; Photography;
Radiation, Nuclear, Atomic and Molecular (Cont.)

- P929. Science et industries photographiques. Monthly, 1921-. Institute d'optique théorique et appliquee, Paris.
- P930. Spectrochimica acta. Irregular, about 450 pages annually, 1944-. Pergamon Press, London. (Papers in English, German, French, or Italian).
- P931. Strahlentherapie. Monthly, 1912-. Deutsche Röntgen-Gesellschaft und die Gesellschaft für Lichtforschung, Berlin.
- P932. Transactions of the American Microscopical Society. Quarterly, 1878-. Ann Arbor, Michigan.
- P933. Zeitschrift für wissenschaftliche Mikroskopie und für mikroskopische Technik. About quarterly, 1885-. Leipzig.
- P934. Zeitschrift für wissenschaftliche Photographie, Photophysik und Photochemie. Irregular, 1906. Johann Ambrosius Barth Verlag, Leipzig.

P1000. Physics, fundamental and applied;
Applied mathematics; Geophysics; Science

- P1000. American journal of physics. Monthly, 1933-. American Association of Physics Teachers. American Institute of Physics, New York.
- P1001. Annalen der Physik. Irregular (2 or 3 vols. per year), 1790- (various titles). Leipzig. Abstracts began in 1877 as Beiblätter zu den Annalen der Physik; merged in 1920 with Physikalische Berichte.
- P1002. Annales de géophysique. Irregular, 1944-. Centre National de la Recherche Scientifique, Paris.
- P1003. Anales de la Real Sociedad Española de Física y Química, Madrid.
Series A - Física. Bimonthly, 1948-.
Series B - Química. Monthly, 1948-.
(Issued jointly from 1903 with some irregularity).
- P1004. Annales de physique. Monthly, 1815-. (Annales de chimie et de physique, 1815-1914; separated into two journals in 1915). Paris.
- P1005. Annali de geofisica. Quarterly, 1948-. Istituto Nazionale di Geofisica, Rome.

2.9. Periodicals

Pl000. Physics, Fundamental and Applied;
Applied Mathematics; Geophysics; Science (Cont.)

- Pl006. Applied scientific research. Irregular, 1950-. Central National Council for Applied Scientific Research in the Netherlands, the Hague. Published in 2 sections: A. Mechanics, heat, chemical engineering, mathematical methods - B. Electrophysics, acoustics, optics, mathematical methods.
- Pl007. Arkiv för fysik. Monthly, 1949-. Stockholm.
- Pl008. Arkiv för geofysik. Irregular, 1950-. Stockholm.
- Pl009. Atti della Accademia Nazionale dei Lincei. Rendiconti. Monthly, 1892-. AN&L, Rome.
- Pl010. Beiblätter zu den Annalen der Physik. 1877-1919; merged in 1920 with Physikalische Berichte. Included abstracts.
- Pl011. Beiträge zur angewandten Geophysik (Gerlands). Irregular, 1930-. Leipzig. Supplements: Ergänzungshefte für angewandte Geophysik und Ergebnisse der kosmischen Physik.
- Pl012. Berichte der deutschen physikalischen Gesellschaft. Merged, 1920, into Zeitschrift der Physik.
- Pl013. British journal of applied physics. Monthly, 1950-. Institute of Physics, London.
- Pl014. Bulletin, Seismological Society of America. Quarterly, 1911-. Berkeley, California.
- Pl015. Canadian journal of physics (formerly Section A of Canadian Journal of Research). Monthly, 1935-. National Research Council of Canada, Ottawa.
- Pl016. Canadian journal of technology (formerly Section F, Canadian journal of research). Monthly, 1944-. National Research Council of Canada, Ottawa.
- Pl017. Comptes rendus hebdomadaires des séances de l'Académie des Sciences. Weekly, 1835-. Gauthier-Villars, Paris.
- Pl018. Geofisica pura e applicata. Irregular, 1943-. Istituto Geofisico Italiano, Milan. (Papers in Italian, English, German, French or Spanish).

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P1000. Physics, Fundamental and Applied;
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- P1019. Geofysiske publikasjoner. Irregular, 1920-. Norske Videnskaps-Akademi, Oslo. Papers sometimes in English, French or German.
- P1020. Geophysics. Quarterly, 1936-. Society of Exploration Geophysicists, Tulsa.
- P1021. Il Nuovo Cimento. Monthly, 1855-. Societa Italiana di Fisica, Bologna.
- P1022. Journal de physique et le radium. Monthly, 1872-. Gauthier-Villars, Paris. (Cumulative index, 1872-1901).
- P1023. Journal of applied physics. Monthly, 1930-. American Institute of Physics, New York. (The title was Physics from 1930 to 1936). (Absorbed Journal of Rheology in 1933).
- P1024. Journal of chemical physics. Monthly, 1933-. American Institute of Physics, New York.
- P1025. Journal, Franklin Institute. Monthly, 1828-. Philadelphia.
- P1026. Journal of geophysical research. Quarterly, 1896-. Washington. Issued as Terrestrial magnetism and atmospheric electricity, 1896-1948.
- P1027. Journal, Indian Institute of Science. Quarterly, 1919-. Bangalore, India.
- P1028. Journal of mathematics and physics. Quarterly, 1921-. Massachusetts Institute of Technology, Cambridge, Mass.
- P1029. Journal, Physical Society of Japan. Bimonthly, 1946-. Tokyo.
- P1030. Journal of physics. Bimonthly, 1939-. Academy of Sciences of the USSR, Moscow. In English.
- P1031. Journal of research of the National Bureau of Standards. Monthly, 1928-. Washington.
- P1032. Journal of rheology. 1930-32. Merged with Physics in 1933. Became Journal of Applied Physics in 1937. American Institute of Physics, New York.

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Pl000. Physics, Fundamental and Applied;
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- Pl033. Journal of scientific and industrial research. Monthly, 1942-. Council of Scientific and Industrial Research, India, New Delhi.
- Pl034. Journal, Scientific Research Institute. Quarterly, 1948-. Tokyo.
- Pl035. Journal, Society for Industrial and Applied Mathematics. Quarterly, 1953-. Philadelphia.
- Pl036. Memoirs of the College of Science, University of Kyoto. Series A, Physics and Chemistry. Kyoto.
- Pl037. Memoirs, Faculty of Technology, Tokyo Metropolitan University. Annual, 1951-. Tokyo.
- Pl038. Memoirs, Institute of Scientific and Industrial Research, Osaka University. Annual, 1944-. Osaka.
- Pl039. Nature. Weekly, 1869-. Macmillan and Co., London.
- Pl040. Nederlands Tijdschrift voor Natuurkunde. Monthly, 1934-. Der Nederlandse Natuurkundige Vereniging, Utrecht.
- Pl041. Philosophical magazine. Monthly, 1798-. Taylor and Francis, Ltd., London.
- Pl042. Philosophical transactions, Royal Society of London, Series A, Mathematical and Physical Sciences. Irregular, 1665-. Royal Society, London.
- Pl043. Physica. Monthly, 1935-. Physica Foundation, Amsterdam.
- Pl044. Physical review. Semimonthly, 1893-. American Physical Society. American Institute of Physics, New York. (Has cumulative index, 1893-1920).
- Pl045. Physikalische Zeitschrift vereinigt mit dem Jahrbuch der Radioaktivität und Elektronik. Biweekly, 1901-. Leipzig.
- Pl046. Proceedings of the Physical Society. Monthly, 1874-. Physical Society, London.
- Pl047. Proceedings of the Royal Society. Series A, Mathematical and Physical Sciences. Biweekly, 1800-. Royal Society, London.

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- Pl049. Science. Weekly, 1883-. American Association for the Advancement of Science. Washington.
- Pl050. Technology reports, Tohoku University. Irregular, Sendai, Japan.
- Pl051. Tecnica italiana: rivista d'ingegneria e scienze. Monthly, 1946-. Trieste.
- Pl052. Transactions: American Geophysical Union. Bimonthly, 1920-. National Research Council, Washington.
- Pl053. Trudy Geofizicheskogo Instituta. 1948-. Akademiia Nauk SSSR, Moscow-Leningrad. Geophysics.
- Pl054. Zeitschrift für angewandte Mathematik und Physik. Bimonthly, 1950-. Zurich.
- Pl055. Zeitschrift für angewandte Physik. Monthly, 1949-. Springer-Verlag, Berlin.
- Pl056. Zeitschrift für Astrophysik. Irregular, 1930-. Deutsche Physikalische Gesellschaft, Berlin.
- Pl057. Zeitschrift für Naturforschung. Two editions: A. Astrophysik, Physik und physikalische Chemie. B. Chemie, Biochemie, Biophysik, Biologie, und verwandte Gebiete. Both monthly, 1946-. Verlag der ZFN, Tübingen.
- Pl058. Zeitschrift für Physik. Irregular, 1920-. Deutsche Physikalische Gesellschaft, Berlin.
- Pl059. Zeitschrift für technische Physik. Monthly, 1920-. Leipzig.
- Pl060. Zhurnal geofiziki. Irregular, 1930-. Moscow. (Supersedes Zhurnal geofiziki i meteorologii, 1924-1929, Moscow).
- Pl061. Zhurnal tekhnicheskoi fiziki. Monthly, 1931-. Moscow.

2.9. Periodicals

P1100. Standards; Metrology; Testing, General

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- P1101. Amtsblatt der Physikalisch-Technischen Reichsanstalt, Charlottenburg. Irregular, 1886-. Berlin.
- P1102. Annual report: National Bureau of Standards, 1927-. Superintendent of Documents, Washington. (Vols. 1-8, 1927-1934, were issued under the title Standards Yearbook).
- P1103. ASTM bulletin. Bimonthly, 1921-. American Society for Testing Materials, Philadelphia.
- P1104. ASTM proceedings. Annual, 1899-. American Society for Testing Materials, Philadelphia.
- P1105. Bekentgrelser fra justervaesenet. Irregular (No. 194 in March 1952). Justervaesenet, Copenhagen. (Illustrated descriptions of instruments submitted for calibration; each issue 2 to 4 pages).
- P1106. Berichte der eidgenössischen Materialprüfungs- und Versuchsanstalt für Industrie, Bauwesen und Gewerbe. Irregular. (No. 179, 1951). Zurich.
- P1107. Book of ASTM standards. Triennial. American Society for Testing Materials, Philadelphia.
- P1108. Buletinul de standardizare. Monthly, 1949-. Comisiuni de standardizare, Bucharest. (Original papers, and lists of Roumanian standards).
- P1109. Bulletin mensuel de la normalisation française. Monthly, 1951-. Association Française de Normalisation, Paris.
- P1110. Bulletin of research. Irregular, 1937-. Underwriters' Laboratories, Chicago.
- P1111. Bulletin, International Association of Testing and Research Laboratories for Materials and Structures (RILEM). Irregular, 1951-. Paris. English edition.
- P1112. Courrier de normalisation. Bimonthly, 1936-. Association Française de Normalisation, Paris.
- P1113. DIN-mitteilungen (Deutsche Industrie-Normen). Monthly, 1946-. Deutscher Normen-Ausschuss, Berlin.

2.9. Periodicals

Pl100. Standards; Metrology; Testing, General (Cont.)

- Pl114. Eichschrift des Bundesamtes für Eich und Vermessungswesen. Irregular. Illustrated descriptions of instruments submitted for calibration; each issue 1 or 2 pages. Oesterreichische Staatsdruckerei, Vienna.
- Pl115. Engineering inspection. Quarterly, 1935-. Institution of Engineering Inspection, London.
- Pl116. Industrial radiography and nondestructive testing. Quarterly, 1942-. American Industrial Radium and X-Ray Society, Chicago.
- Pl117. Informaciones IRAM. Irregular, 1936-. Instituto Argentino de Racionalizacion de Materiales, Buenos Aires.
- Pl118. ISI bulletin. Quarterly, 1949-. Indian Standards Institution, Delhi.
- Pl119. ISO journal. Irregular (No. 17, July 1952). Secretariat, International Organization for Standardization, Geneva. (Each issue lists meetings and subcommittees, superseding all previous issues).
- Pl120. Kungl. Mynt- och justeringsverket cirkulär. Irregular (Series I, II and III, 1935-.) Stockholm.
- Pl121. Laboratories: revue bilingue de la technique et du matériel français: recherche, essai, controle, enseignement. Quarterly, 1951-. Published by Ingenieurs et Techniciens, Paris. (Papers in French and English).
- Pl122. Materialenkennis. Monthly, 1934-. Suspended, 1941-1946; published as supplement to De Ingenieur. Bond voor Materialenkennis, The Hague.
- Pl123. Mitteilungen der deutschen Materialprüfungsanstalten. Irregular, 1925-. Berlin-Dahlem.
- Pl124. Nondestructive testing. Bimonthly, 1950-. Society for Nondestructive Testing, Evanston, Illinois. (Formerly Industrial Radiography and Nondestructive Testing).
- Pl125. Normalisatie. Bimonthly, 1925-. Hoofdcommissie voor de Normalisatie in Nederland, Delft.
- Pl126. Notes on applied science, National Physical Laboratory. Irregular, 1951-. H.M. Stationery Office, London. Eight issues (1954) including Gauging and measuring screw threads, Balances and weights, and Volumetric glassware.

2.9. Periodicals

P1100. Standards; Metrology; Testing, General (Cont.)

- P1127. Revista chilena de racionalizacion. Irregular, 1948-. Instituto Nacional de Investigaciones Tecnologicas y Normalizacion (INDITECNOR), Santiago, Chile.
- P1128. Revue de métrologie pratique et légale: poids et mesures. Monthly, 1923-. Paris. (Includes Bulletin de poids et mesures, illustrated descriptions of instruments submitted for calibration.
- P1129. Sbornik trudov vsesoyuznyi nauchno-issledovatel'skogo Instituta Metrologii (VNIIM). Irregular, 1941-. Leningrad. Preceded by Trudy VNIIM, 1939-1940; before 1939 appeared under the title Travaux de l'institut de metrologie (et de standardisation) de l'USSR, irregular, 31 issues up to 1937.
- P1130. Scale journal. Monthly, 1914-. National Scale Men's Association, and National Conference on Weights and Measures. Scale Journal Publishing Co., Chicago.
- P1131. Schweizer Archiv für angewandte Wissenschaft und Technik; Zeitschrift für das Gesamtgebiet der Werkstoffkunde und Werkstoffprüfung. Monthly, 1935-. Schweizerischer Verband für die Materialprüfung der Technik, Solothurn, Switzerland.
- P1132. Schweizer Verband für die Materialprüfungen der Technik; Berichte. Irregular, 1925. Zurich.
- P1133. South African Standards Bulletin. Monthly, 1945-. Council of the Bureau of Standards, Pretoria.
- P1134. Standardizacija. Monthly, 1950-. Savezne Komisije za Standardizaciju, Belgrade.
- P1135. Standards. Monthly, 1930-. American Standards Association, New York. (Formerly Standardization).
- P1136. Standards review. Irregular, 1944-. British Standards Institution, London.
- P1137. Statensprovingsanstalt (Stockholm)
Cirkulär, Irregular, 1922-
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- (Some of the bulletins are in English; when in Swedish they commonly have summaries in English).

2.9. Periodicals

Pl100. Standards; Metrology; Testing, General (Cont.)

- Pl138. Technical news bulletin. Monthly, 1917-. National Bureau of Standards, Washington. (Lists current publications of the Bureau).
- Pl139. Technische Ueberwachung. Semimonthly, 1940-1943. Reichshauptstelle für die technische Ueberwachung, Berlin. Preceded by Zeitschrift für die technische Ueberwachung, 1897-1939.
- Pl140. Weights and measures act 1904; notice of examination of pattern. Irregular. Standards Dept., Board of Trade, London. (Illustrated descriptions of instruments submitted for calibration; each issue 2-4 pp.).
- Pl141. Wissenschaftliche Abhandlungen der deutschen Materialprüfungsanstalten. Irregular, 1925-. Berlin. Preceded by 38 separates (Sonderhefte) in a series under the title Mitteilungen der deutschen Materialprüfungsanstalten (1928-1937); dates back, with other title changes, to 1883.
- Pl142. Wissenschaftliche Abhandlungen des deutschen Amtes für Mass und Gewicht. Annual, v1, 1949; v2, 1950; v3, 1953. Otto Teubert, Leipzig. (Reprints of papers by staff members).
- Pl143. Wissenschaftliche Abhandlungen der Physikalisch-Technischen Bundesanstalt. Annual, 1949-. Braunschweig.
- Pl144. Wissenschaftliche Abhandlungen der physikalisch-technischen Reichsanstalt. Irregular, 1917-. Published by F. Ullmann, Zwickau. (Reprints of papers by staff members, mostly from German periodicals).
- Pl145. Zentralblatt für Werkstoffforschung. Irregular, 1941-. Springer Verlag, Berlin.
- Pl146. Zwanglose Mitteilungen des Deutschen und des Österreichischen Verbandes für die Materialprüfungen der Technik. Irregular, 1924-. Berlin and Vienna.

2.10. (Sl) Specification Lists and Handbooks

- Sl. American Society of Mechanical Engineers, Power test codes. New York. 16 codes and 1 appendix, 1930-1949. Supplements on Instruments and Apparatus in 21 parts, 1931 to date (revisions and additions still in progress).

2.10. (S1) Specification Lists and Handbooks (Cont.)

- S2. American Society for Metals, Materials specification handbook. Philadelphia Chapter, Philadelphia, 1941.
- S3. American Standards Association, American Standard code for electricity meters. Edison Electric Institute, New York; Ed. 4, 1941. 128 pp.
- S4. Paul A. Cooley, Ann E. Rapuzzi and A. S. McAllister, National directory of commodity specifications: classified and alphabetical lists and brief descriptions of specifications of national recognition. Division of Codes and Specifications, National Bureau of Standards, Miscellaneous Publication M178, Washington, 1945. 1311 pp.
(Names and addresses of standardizing agencies, other than federal, pp. 1162-1177; U. S. Government, pp. 1177-1184).
Paul A. Cooley and G. N. Thompson, Supplement, 1947. 322 pp.
- S5. DIN Taschenbuch: 4. Werkstoffnormen: Stahl, Eisen, Metalle; technische Lieferbedingungen, Eigenschaften, Abmessungen. Beuth-Vertrieb, Berlin; Ed. 16, 1942. 219 pp.
- S6. Munitions Board, Index of military specifications and standards. Semi-annual, with cumulative monthly supplements. Washington, April, 1951-.
Vol. 1, Military Index Vol. 3, Navy
Vol. 2, Army Vol. 4, Air Force.
- S7. Normblatt-Verzeichnis. Irregular. Deutscher Normenausschuss; Beuth-Vertrieb, Berlin.
- S8. Society of Automotive Engineers, Aeronautical material specifications. New York, 1940.
- S9. Standards Association of Australia, Handbook of publications. Sydney, 1948. 77 pp.
- S10. SAA bulletin. Quarterly, 1938-. Standards Association of Australia, Sydney.
- S11. Standards world. Quarterly, 1948-. Washington.

3. Author Index

The author index includes the following:

- a) Authors of all books and articles are listed as ascribed in the entries under Sections 2.2 to 2.8, inclusive, and 2.10.
- b) If the entry is a publication of a society without a specific author, particularly abstract journals, indexes to publications and guides to literature, the entry is listed under the name of the society. If the entry is a technical journal, listing it under the name of the issuing society is with some exceptions restricted to American and English journals. Other journals can ordinarily be located by looking up the country of origin as indicated in c) below, or better, the subject in the subject index.
- c) If the entry is an index or guide to technical literature, including abstract journals, bibliographies, specifications or is a technical report without named author, or a periodical issued by a governmental unit, it is listed under the country of origin, and in some cases the particular governmental unit. Periodicals not issued by a governmental organization are listed under the country of origin, except those originating in the United States, England, France and Germany. The commercially issued periodicals of the latter four countries are unlisted.
- d) All references to governmental units of the United States are listed under the heading "United States".
- e) All publications originating in Russia are listed under "USSR". All English translations of Russian abstracts, indexes and guides are also so listed.
- f) Patent abstracts, guides, and indexes are listed under "Patent Office" with the country of origin as a subheading.

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4. Subject Index

The subject index of the technical literature has been restricted largely to the information indicated by the titles of the entries. Its preparation seemed necessary to cover the many cases where the exact classification of an entry is in doubt and had to be made arbitrarily, or an entry contains diverse subject matter. It also brings into one place for user convenience all of the references in a given field of instrumentation or technology. Only in obvious cases was any attempt made to indicate the extent or technical quality of instrument information in the various entries. The index will serve only as a rough guide in locating books and journals where needed details on a specific topic can be found, and in selecting abstract and index periodicals for use in locating articles in periodicals.

All of the entries in the index will be found in Section 2 on "Instrumentation literature".

Section 2 of the compilation is arranged in alphabetical order as follows:

<u>Entry prefix</u>	<u>Subject</u>
A	Abstract and review journals
B	Bibliographies
None	Books (technical)
D (1-99)	Dissertations
D (100 up)	Directories
G	Guides
I	Indexes
P (1-99)	Patents
P (100 up)	Periodicals (except abstract)
S	Specifications and standards.

The type of information in an index entry is thus readily identified in most cases by reference to the above table. The entry prefix also facilitates locating the reference in Section 2.

There is a difference in usage of the terms index, bibliographies, abstracts, reviews and guides, well illustrated by perusing the entries in this compilation. In compiling the subject index, it has been the aim to make entries in accord with the following definitions:

a) An index is a list of references, bibliographies, books or specifications covering technology in general. It will include published lists of publications of governmental agencies and indexes of society journals, issued as separate volumes. In many cases it is issued periodically and may be classified by subjects. Examples are the Industrial Arts Index, a bibliography of bibliographies, and the Bibliography of Agriculture.

4. Subject Index (Cont.)

b) If a list of references or books on a particular subject contains an abstract for each entry and is issued periodically, it is defined as an abstract journal, entered as "Abstracts". Examples are the Engineering Index and Physics Abstracts. With or without abstracts, a list of the publications of a single agency, such as the list of the publications of the National Bureau of Standards, is defined as an index.

c) Reviews are in the nature of critical surveys covering progress during a limited length of time and are usually issued periodically. It includes a selected list of references, which essentially are abstracted in the periodical. These are often called "Advances" in a particular subject. While perhaps not logical, it should be added that the term review is reserved for texts on a particular subject.

d) The term bibliography is restricted to a list of the literature on a particular technical subject, not issued periodically. It may or may not contain abstracts.

e) A guide contains general information on how and where to locate published technical data.

It is realized that these definitions are not entirely logical, but it will be obvious by inspection of the titles in the entries that using only the titles would lead to greater confusion.

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