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BIBLIOGRAPHY OF BIBLIOGRAPHIES ON CHEMISTRY
AND CHEMICAL TECHNOLOGY
1900-1924

Compiled for Research Information Service

BY

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CONTENTS

	PAGE
INTRODUCTION	3
SERIALS AND GENERAL WORKS SEARCHED.....	7
PART I. GENERAL BIBLIOGRAPHIES.....	9
PART II. ABSTRACT JOURNALS AND YEAR BOOKS.....	12
PART III. GENERAL INDEXES OF SERIALS.....	15
PART IV. BIBLIOGRAPHIES ON SPECIAL SUBJECTS.....	19
PART V. PERSONAL BIBLIOGRAPHIES.....	304

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INTRODUCTION

"Chemical literature is the storehouse of the available published information of chemical science and chemical industry." The data on any given subject may be and usually are scattered through a great number and a wide variety of books, serials, and so forth, which fact has led to the compilation of lists of references, more or less complete, on various phases of chemistry. As a rule, these lists, or bibliographies, are not issued as separate publications but are found as footnotes or appendixes to books and to articles in the various scientific publications. Although a few of these lists may be located through abstract journals or through the bibliographical entries on the Library of Congress cards, most of them are not to be discovered by consulting the ordinary sources of information available to the research worker. This fact, it is believed, fully justifies the present compilation.

This work is the third of a series of collective bibliographies, the preparation of which has been undertaken by the Research Information Service of the National Research Council. The first of these deals with geology (Edward B. Mathews, *Catalogue of Published Bibliographies in Geology, 1896-1920*. Bulletin of the National Research Council, No. 36, *i. e.*, Vol. 6, pt. 5, 1923); the second covers the field of physics (Karl K. Darrow, *Classified List of Published Bibliographies in Physics, 1910-1922*. Bulletin of the National Research Council, No. 47, *i. e.*, Vol. 8, pt. 4, 1924). Many bibliographies of interest to the chemist and chemical engineer, whose work often takes them far from the realms of pure chemistry, will be found in the above named publications for, in general, the entries of the one are not reproduced in the other. There is, however, some duplication in the present compilation. The chemist is interested in the occurrence of mineral and metal deposits, a field which primarily belongs to geology; and manufacturing operations, properties and uses of minerals and metals are often covered by bibliographies occurring in geological literature. Such topics as radioactivity, isotopes, surface tension, etc., are equally important to the chemist and physicist; bibliographies covering both aspects of these subjects may be found in this work as well as in the compilation on physics, although the purely physical aspects of these topics will be found in Darrow's compilation only.

It must be emphasized that this compilation is in no sense a complete list of published bibliographies on chemistry and chemical technology, even for the period indicated. In such a complete bibliography every known chemical

compound, every property of those compounds and every chemical process might properly be considered an entry. Many of these have so little interest that their inclusion is not justified. Again, bibliographies on chemical and related subjects may be found in practically every known serial; in many cases to discover a single bibliography would involve the searching of many hundred printed pages. For the purpose of this compilation it was felt that the results thus obtained would not be commensurate with the time required for the search. Few bibliographies appearing before 1900 have been included because it is believed that references to such lists will be found in the publications herein listed.

Part I includes the few general bibliographies which could not be conveniently classified under the special subject headings in Part IV because of the collective nature of the references included.

Part II contains a list of general abstract journals and year books dealing with chemistry. Those publications covering a specialized field of chemistry will be found under the proper subject entry in Part IV. In each case an effort has been made to indicate the scope of the field covered, so that an investigator interested in a special field of chemistry may know which of the various publications will give him the most information.

Part III gives a partial list of the collective indexes of serials which have been published. It is felt that the simple form of entry which has been adopted (that is, giving the inclusive volumes and years covered by the index) will give all the needed information; no effort has been made to reproduce the title page of each index. A list of technical indexes and bibliographies appearing serially was issued by the Carnegie Library of Pittsburgh in 1910.

Part IV is devoted to the listing of bibliographies on special subjects. In this section a straight alphabetical arrangement by subjects has been used. Under each subject the entries are arranged alphabetically. The liberal use of cross references has made it possible to avoid the repetition of individual entries. With but few exceptions, the number of entries under each subject is sufficiently small so that the reader will have no difficulty in finding a bibliography on a particular phase of the subject. In this section an effort has been made to distinguish between two general types of bibliographies. Those entries in which the word "footnotes" is used contain bibliographic data as footnotes, the name of the author and the place of publication being the only information given; those in which the word "references" is used indicate that the entries are collected at the end of the article and that the title of each reference is given and in addition the author's name and the place of publication. No systematic attempt has been made to give the number of footnotes or references. This information has been included in those entries where the footnotes or references have been numbered consecutively.

Part V contains a list of those personal bibliographies which have come to the attention of the compilers during their searches. It is in no sense complete, as special effort was not made to trace such bibliographies.

It is hoped that those who use this work and who have references to bibliographies not listed herein will forward them to the compilers. If a sufficient number of these are collected they may be published as a supplement to the present work.

It is a pleasure to make the following acknowledgments: Mr. J. David Thompson, Director of the Research Information Service, for his continued interest and counsel; Mr. Harrison E. Craver, Director of the Engineering Societies Library, for placing at our disposal the facilities of his library; Dr. Glenn V. Brown, Bucknell University, who made available to us his collection of bibliographies; Dr. Jerome Alexander, who checked the list of bibliographies on Adhesives, Gelatin and Glue; Dr. C. A. Browne, who checked the list of bibliographies on Alchemy; Dr. H. V. Arny, who checked the bibliographies on Alkaloids and Pharmacy.

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March 1, 1925.

LIST OF SERIALS AND GENERAL WORKS SEARCHED

(The standard abbreviations adopted by Chemical Abstracts have been used throughout this compilation.)

- Abderhalden, Emil. Biochemisches Handlexikon, vols. 1-10 (1911-1923).
 Abderhalden, Emil. Handbuch der biologischen Arbeitsmethoden, parts 1-116 (1921-1924).
 Abegg, R., and Auerbach, Fr. Handbuch der anorganischen Chemie, vols. 2-4 (in 6 parts) (1906-1921).
 Abstracts of Bacteriology, vols. 1-7 (1917-1923).
 American Chemical Journal, vols. 23-50 (1900-1913).
 American Journal of Botany, vols. 1-9 (1914-1922).
 American Journal of Public Health, vols. 1-12 (1911-1922).
 Annalen der Chemie, Justin Liebig's, vols. 310-340 (1900-1924).
 Annali di chimica applicata, vols. 1-12 (1914-1918).
 Annals of the Missouri Botanical Gardens, vols. 1-8 (1912-1921).
 Archiv für die gesamte Physiologie des Menschen und der Tiere, vols. 125-193 (1900-1922).
 Archiv der Pharmacie, vols. 238-259 (1900-1922).
 Archives of Internal Medicine, vols. 1-29 (1908-1922).
 Arkiv för Kemi, Mineralogi och Geologi, vols. 1-7 (1914-1920).
 Barker, Lewellyn F. Endocrinology and Metabolism, vols. 1-5 (1922). Vol. 5 is a general bibliography and index.
 Biochemical Bulletin, vols. 1-5 (1910-1915).
 Biochemisches Zentralblatt, vols. 1-8 (1902-1910).
 Botanical Gazette, vols. 49-73 (1910-1922).
 British Association for the Advancement of Science. Reports. 1900-1923.
 British Association for the Advancement of Science. *Chemical Section*. Reports on Colloid Chemistry and its General Industrial Applications Nos. 1-5 (1917-1923).
 Bulletin de la société chimique de Belgique, vols. 23-31 (1909-1922).
 Bulletin de la société chimique de France, ser. 3, vol. 23, ser. 4, vol. 35 (1900-1924).
 Bulletin of the Imperial Institute, vols. 1-22 (1903-1924).
 Bulletin of the National Research Council, vols. 1-6 (1919-1924).
 Caliche, vols. 1-3 (1919-1922).
 Chemical and Metallurgical Engineering, vols. 1-30 (1902-1924).
 Chemiker-Zeitung, vols. 24-48 (1900-1924).
 Chemische Umschau auf dem Gebiete der Fette, Oele, Wasche und Harze, vols. 9-29 (1902-1922).
 Chemische Zeitschrift, vols. 1-5 (1901-1906).
 Chimie & Industrie, vols. 1-10 (1919-1923).
 Doelter, C. Handbuch der Mineralchemie, vols. 1-3 (in 5 parts) (1912-1921).
 Edel-Erzen und -Erde, vols. 1-2 (1920-1921).
 Elektrochemische Zeitschrift, vols. 7-26 (1901-1920).
 Endocrinology, vols. 1-7 (1917-1923).
 Ergebnisse der Physiologie, vols. 1-22 (1902-1923).
 Experiment Station Record, vols. 19-48 (1907-1923).
 Fortschritte der Chemie, Physik und physikalischen Chemie, vols. 1-17 (1909-1923).
 Fortschritte der Mineralogie, Kristallographie und Petrographie, vols. 1-7 (1911-1922).
 Frémy, E. Encyclopédie chimique (1882-1905).
 Friend, J. Newton. A Textbook of Inorganic Chemistry. To be issued in 10 volumes. (Those appearing up to 1925 have been covered).
 Gesammelte Abhandlungen zur Kenntniss der Kohle, vols. 1-6 (1917-1921).
 Giornale di chimica industriale ed applicata, vols. 1-4 (1919-1922).
 Glückauf, Berg- und Hüttenmännische Zeitschrift, vols. 44-56 (1908-1920).
 Gmelin-Kraut's Handbuch der anorganischen Chemie. 7th ed., edited by C. Friedheim. Vols. 1-5 (in 10 parts) (1906-1915).
 Helvetica Chimica Acta, vols. 1-7 (1918-1924).
 Ion, vols. 1-2 (1908-1910).

- Iron and Steel Institute (London), Carnegie Scholarship Memoirs, vols. 1-13 (1909-1924).
- Jahrbuch der Radioaktivität und Elektronik, vols. 1-17 (1905-1921).
- Journal für praktische Chemie, vols. 61-108 (1900-1924).
- Journal of Agricultural Research, vols. 1-27 (1913-1924).
- Journal of Bacteriology, vols. 1-5 (1916-1920).
- Journal of Biological Chemistry, vols. 1-60 (1905-1924).
- Journal of Dairy Science, vols. 1-6 (1918-1923).
- Journal of General Physiology, vols. 1-7 (1918-1924).
- Journal of Hygiene, vols. 1-18 (1901-1918).
- Journal of Industrial and Engineering Chemistry, vols. 1-16 (1909-1924).
- Journal of Laboratory and Clinical Medicine, vols. 1-7 (1916-1922).
- Journal of Metabolic Research, vols. 1-3 (1922-1924).
- Journal of the American Ceramic Society, vols. 1-7 (1918-1924).
- Journal of the American Chemical Society, vols. 22-46 (1900-1924).
- Journal of the American Leather Chemists' Association, vols. 1-19 (1906-1924).
- Journal of the American Pharmaceutical Association, vols. 1-13 (1912-1924).
- Journal of the American Society of Agronomy, vols. 1-16 (1909-1924).
- Journal of the Franklin Institute, vols. 150-197 (1900-1924).
- Journal of the Institute of Metals, vols. 1-31 (1909-1924).
- Journal of the Institution of Petroleum Technologists, vols. 1-10 (1915-1924).
- Journal of the Society of Chemical Industry, vols. 19-43 (1900-1924).
- Journal of the Society of Glass Technology, vols. 1-7 (1916-1923).
- Kolloidchemische Beihefte, vols. 1-12 (1909-1923).
- Kolloid-Zeitschrift, vols. 1-28 (1906-1921).
- Mellor, J. W. A Comprehensive Treatise on Inorganic and Theoretical Chemistry, vols. 1-5 (1922-1924).
- Meyer, Victor, and Jacobsen, Paul. Lehrbuch der organischen Chemie, vols. 1-2 (1902-1924).
- Moissan, H. Traité de chimie minérale (1904-1906).
- Naturwissenschaften, vols. 1-12 (1913-1924).
- Neues Jahrbuch für Mineralogie, Geologie und Paläontologie, vols. 30-45 (1910-1921).
- Oppenheimer, Carl. Handbuch der Biochemie des Menschen und der Tiere, vols. 1-5 (1909-1913). Part of the 2nd ed. has been issued.
- Paper, vols. 1-36 (1910-1924).
- Paper Trade Journal, vols. 71-79 (1920-1924).
- Philippine Journal of Science, vols. 1-22 (1906-1924).
- Physiological Reviews, vols. 1-4 (1921-1924).
- Recueil des travaux chimiques des Pays-Bas, vols. 34-43 (1915-1923).
- Soil Science, vols. 1-16 (1916-1923).
- Surgeon General's Office, Index Catalogue, ser. 1, vols. 1-12; ser. 2, vols. 1-14; ser. 3, vols. 1-4 (1880-1924).
- Transactions of the American Ceramic Society, vols. 1-19 (1898-1917).
- Transactions of the American Electrochemical Society, vols. 1-46 (1902-1924).
- Transactions of the American Institute of Chemical Engineers, vols. 1-15 (1908-1924).
- Transactions of the American Institute of Metals, vols. 1-12 (1907-1918).
- Transactions of the American Institute of Mining and Metallurgical Engineers, vols. 32-69 (1901-1923).
- Transactions of the American Society for Steel Treating, vols. 1-4 (1920-1924).
- Transactions of the Faraday Society, vols. 1-17 (1905-1922).
- United States, Bureau of Mines, Bulletins Nos. 1-214 (1910-1924).
- United States, Bureau of Mines, Technical Papers Nos. 1-364 (1911-1924).
- United States, Bureau of Standards, Bulletin, vols. 1-19 (Scientific Papers 1-489) (1904-1924).
- United States, Bureau of Standards, Technologic Papers Nos. 1-257 (1911-1924).
- United States, Department of Agriculture, Bureau of Chemistry, Bulletin, Nos. 85-147 (1904-1912).
- United States, Geological Survey, Professional Papers Nos. 1-135 (1902-1924).
- Zeitschrift für angewandte Chemie, vols. 13-37 (1900-1924).
- Zeitschrift für anorganische und allgemeine Chemie, vols. 29-131 (1900-1923).
- Zeitschrift für Elektrochemie, vols. 7-29 (1900-1923).
- Zeitschrift für Untersuchungen der Nahrungs- und Genussmittel, vols. 13-30 (1907-1915).
- Zeitschrift für physikalische Chemie, vols. 32-100 (1900-1922).

PART I. GENERAL BIBLIOGRAPHIES

(See also general headings in Part IV, such as Analytical Chemistry, Biochemistry, Inorganic Chemistry, Organic Chemistry.)

- BARROWS, FRANK E. Investigation of the chemical literature. Chem. Met. Eng. 24: 423-428, 477-479, 517-521 (1921). Discussion of general reference works.
- BIBLIOGRAPHICA CHEMICA. Internationaler Literatur-Anzeiger für Chemie, chemische Technologie und alle Grenzgebiete. Berlin, Verlag Chemie, G. M. B. H. Vol. 1 appeared in 1922. Contains a classified list of books and a list of papers appearing in current German publications.
- BOLTON, HENRY C. A select bibliography of chemistry, 1492-1892. Smithsonian Misc. Coll. Pub. No. 850. 1893. 1212 p. First supplement, 1492-1897. Pub. No. 1170. 1899. 489 p. Second supplement, 1492-1902. Pub. No. 1253. 1904. 462 p. Section VIII. Academic dissertations. Pub. No. 1253. 1901. 534 p.
- BOLTON, HENRY C. Bibliography of chemistry for the years 1880-1888. In Smithsonian Institution, Annual Repts., 1880: 289-297; 1881: 381-390; 1882: 509-531; 1883: 629-659; 1884: 491-542; 1885: 637-686; 1887: 387-447; 1888: 425-453.
- BRITISH SCIENCE GUILD. A catalogue of British scientific and technical books, covering every branch of science and technology, carefully selected and indexed. London, 1921. 376 p. Chemistry, p. 122-135; applied and industrial chemistry, p. 136-151.
- BROWN, RAYMOND N. Recent technical bibliographies. Special Libraries 15: 32-37, 58-61 (1924). Contains many references to chemistry and technical subjects. Covers principally 1922-1923.
- CHEMICAL SOCIETY, London. *Library*. A catalogue of the library of the chemical society, arranged according to authors, with a subject index. London, Gurney, 1903. 324 p. Earlier catalogues were issued in 1850, 1861, 1869, 1874, 1886.
- CHEMIKER-VEREIN, Hamburg. Sammelkatalog der in Hamburger öffentlichen Bibliotheken vorhandenen Literatur aus der Chemie und aus verwandten Wissenschaften. Hamburg, Boysen, 1901. 108 p.
- CHEMICAL ENGINEERING CATALOG, Technical and scientific books section. In 9th. ed., p. 968-1079. 1924. Arranged by authors with subject index. Practically complete list of books in English dealing with chemistry and chemical engineering.
- CHEMISCHE NOVITÄTEN. Bibliographische Monatsschrift für die neuerscheinende Literatur auf dem Gesamtgebiet der reinen und angewandten Chemie und der chemischen Technologie. Leipzig, Foch, 1904-. The first four volumes contain 5340 book titles.
- COURTNEY, WM. P. A register of national bibliography. London, Constable, 1905. 2 vols. 631 p. Bibliographies are classified by subject, with author index. References are to books only. Chemistry, p. 110-112. See also special headings through the work.
- CRANE, WALTER M. Index of mining engineering literature, comprising an index of mining, metallurgical, civil, mechanical, electrical and chemical engineering subjects as related to mining engineering. New York, Wiley, 1909-1912. 2 vols. Chemistry, p. 35-45 and 20-27. Clays, p. 53-55 and 29-30. Fuels, p. 316-328 and 209-214. Concrete, p. 99-105 and 46-48. Metals, p. 579-583 and 345-346. Minerals p. 583-593 and 346-348.
- ENGINEERING INDEX, 1884-1905. New York, Engineering magazine, 1892-1906. 4 vols. An alphabetical subject index, with no author index, to about 250 technical and engineering periodicals. Continued as an annual publication.
- ENGINEERING INDEX ANNUAL, 1906-1924. New York, Engineering magazine, 1907-1918. Am. Soc. Mech. Eng., 1919-1924. 1 vol. a year, cumulating monthly issues in Mechanical Engineering. Contains many references of chemical and chemical engineering interest.
- ESCHER, P. Observations on chemical bibliographies. Chem. Bull. 7: 43-45, 73-77 (1920).

- FUCHS, GEORG F. C. Repertorium der chemischen Literatur von 494 von Christi Geburt bis 1806, in chronologischer Ordnung aufgestellt. Jena, 1806-1811. 2 vols. 648 and 694 p.
- GLENN, EARL R. Chemistry references for students and teachers. Columbia Univ., Lincoln School of Teachers College, 1921. 5 p.
- GT. BRITAIN. *Patent office*. Subject list of works on chemistry (including alchemy, electrochemistry and radioactivity) in the Patent Office. 1911. 200 p.
- HAMOR, W. A., *et al.* Chemical reading courses prepared by the committees on the preparation of a recommended list of chemical texts for libraries. *J. Ind. Eng. Chem.* 12: 701-705, 806-807 (1920).
- HELVETICA CHIMICA ACTA. "Liste bibliographique des travaux de chimie faits en Suisse." 1918-. Published in each number.
- HERRERO DUCLOUX, ENRIQUE. Los estudios quimicos en la Republica Argentina, 1810-1910. Buenos Aires, Coni Hermanos, 1912. 431 p. *Bibl.*, p. 38-431.
- INDUSTRIAL ARTS INDEX. Subject index to a selected list of engineering and trade periodicals. 1913-1924. New York, Wilson, 1913-1925. Indexes mainly material in English, but from 1919 on includes some foreign journals. Material classified by subjects. Contains much of chemical and chemical engineering interest.
- INTERNATIONAL CATALOGUE OF SCIENTIFIC LITERATURE. Section D, Chemistry. Annually from 1901-1914. Primary divisions: General, specific chemistry of the elements, laboratory processes, organic chemistry, analytical chemistry, chemistry of manufacturing processes, theoretical and physical chemistry, physiological chemistry, agricultural chemistry. Section C deals with physics; G with mineralogy and crystallography, Q with physiological chemistry and pharmacology; R with bacteriological chemistry.
- The German titles for this work were published under the title: "Bibliographie der deutschen naturwissenschaftlichen Literatur" and cover the period 1901-1914; the French titles appeared in: "Bibliographie scientifique française mensuel," and cover 1901-1918.
- JOHN CRERAR LIBRARY. A list of bibliographies on special subjects. Chicago, 1902. 504 p. Chemistry, p. 168-183; chemical technology, p. 347-359.
- JORISSEN, W. P., *et al.* Chemisch Jaarboekje. Tevens Jaarboekje der Nederlandsche Chemische Vereeniging. Deel III. 1920. Amsterdam, Centen, 1920. "Boekenlijst," p. 176-650. Classified by subject with an author index. Covers the entire field of chemistry and its applications.
- MENSHUTKIN, B. N. [Russian chemical bibliography for 1917 and 1918.] *J. Russ. Phys. Chem. Soc.* 51, pt. 2: 1-22 (1920).
- NEWARK FREE PUBLIC LIBRARY. Chemistry; books and periodicals relating to chemistry in all its aspects, especially in its industrial applications and the marketing of chemicals and chemical products. Newark, 1921. 15 p. Classified.
- NEW YORK PUBLIC LIBRARY. Selected list of books on engineering, industrial arts and trades. New York, 1913. 81 p. Sanitary engineering, p. 34-37; metallurgy, p. 38-40; chemical technology, p. 48-52; textile industries, p. 52-54; foundry practice, p. 63-65; paper manufacture, p. 65-66.
- REPERTORIUM der technischen Journal Literatur, hrsg. im Kaiserlichen Patentamt, 1874-1909. Berlin, Heymann, 1875-1909. 35 vols. A subject index to more than 400 periodicals, arranged alphabetically by the German word followed, in vols. from 1892 on, by the French and English equivalents. Each volume has a detailed subject index to this subject list; vols. from 1897 on have an author index also.
- This is a continuation of a similar compilation by F. SCHUBARTH, covering the years 1823-1853 (Berlin, 1856. 1049 p.) and by BRUNO KERL, covering the years 1854-1868 (Leipzig, 1871-1878). It was continued in *Fortschritte der Technik*, of which only 2 vols. were issued, covering 1910-1911.
- RUPRECHT, RUD. Bibliotheca chemica et pharmaceutica. . . . 1858 bis ende 1870. Göttingen, 1872. 125 p. Continuation of Zuchold's Bibliotheca (*v. infra*).
- SOHON, JULIAN A., and SCHAAF, WM. L. A reference list of bibliographies: Chemistry, chemical technology and chemical engineering since 1900. New York, Wilson, 1924. 100 p.
- SPARKS, MARION E. Chemical literature and its use; notes of a course of lectures. 2d ed. Urbana, Ill., 1921. 80 p.
- STEIN, HENRI. Manuel de bibliographie générale (Bibliotheca bibliographica nova). Paris, Picard, 1897. 895 p. Chemistry, p. 148-152; hygiene, p. 229-230; pharmacology, p. 234-235.

- TROMMSDORFF, JOHANN B. Versuch einer systematischen Darstellung der gesammten chemischen Literatur, oder Verzeichniss der in das Gebiet der Chemie gehörenden Schriften welche von Anfang 1800 bis zum Schluss des Jahres 1894, in Deutschland, England, Amerika, Frankreich, Holland, Schweden, Dänemark und Italien wirklich erschienen sind. *In his* Allgemeine chemische Bibliothek der neunzehnten Jahrhundert, vol. 5, pt. 1: 93-200.
- RECUEIL DES TRAVAUX CHIMIQUES DES PAYS-BAS. "Bibliographie primaire des ouvrages et des essais originaux chimiques néerlandaises ou écrites par des néerlandais." Published in each number.
- U. S. SURGEON-GENERAL'S OFFICE. *Library*. Index-catalogue of the library of the Surgeon-General's office, United States Army. Authors and subjects. Washington, Govt. print. off., 1880- . 1st ser., 1880-1895; 2nd ser., 1896-1916; 3rd ser., 1918- . Contains much of interest to the biological chemist, pharmacologist, etc.
- WEIGEL, CHRISTIAN E. Grundriss der reinen und angewandten Chemie. Zum Gebrauch akademischer Vorlesungen. Greifswald, 1777. 2 vols. Classified bibl.; alphabetical list of authors and their writings.
- WEST, CLARENCE J., and HULL, CALLIE. Manuscript bibliographies in chemistry and chemical technology. *J. Ind. Eng. Chem.* 14: 1075-1078, 1148-1151 (1922). National Research Council, Reprint and Circular Series, No. 36. 17 p.
- YOUNG, JAMES. *Bibliotheca chimica*; a catalogue of the alchemical, chemical and pharmaceutical books in the collection of the late James Young of Kelly and Durriss. Glasgow, Maclehose, 1906. 2 vols.
- ZEITLINGER, H., and SOTHERAN, H. C. *Bibliotheca chemico-mathematica*. Catalogue of works in many tongues on exact and applied sciences, with a subject index. 2 vols. London, Sotheran, 1921.
- ZUCHOLD, ERNST A. *Bibliotheca chemica*. Verzeichniss der auf dem Gebiete der reinen, pharmaceutischen, physiologischen und technischen Chemie in den Jahren 1840 bis Mitte 1858 in Deutschland und im Auslande erschienenen Schriften. Göttingen, Vandenhoeck, 1859. Continued by Ruprecht's *Bibliotheca (v. supra)*.

PART II. ABSTRACT JOURNALS AND YEAR BOOKS

- ANALES DE LA SOCIEDAD ESPAÑOLA DE FÍSICA Y QUÍMICA. Since 1912 (vol. 10) each volume consists of two parts; the second part contains abstracts and reviews.
- BERICHTE der deutschen chemischen Gesellschaft. Vols. 1-29 (1868-1896) contained abstracts (Referate) paged separately. Discontinued when the Society acquired the *Chemisches Centralblatt*.
- BULLETIN DE LA SOCIÉTÉ CHIMIQUE DE FRANCE. 1858-. Since 1892 the abstracts have been segregated and fill even-numbered vols. Classified under the headings: General, mineral, organic, biological, analytical.
- BULLETIN OF THE IMPERIAL INSTITUTE. Each number contains "Recent progress in agriculture and the development of natural resources," classified under the headings: Agriculture, soils, food-stuffs, oils and oil seeds, essential oils, rubber, fibers, forestry, tanning materials, economic minerals.
- CHEMICAL ABSTRACTS. 1907-. In 1922, 1010 serials were abstracted; they cover practically every chemical journal as well as those in the related fields of engineering, biology, medicine, geology, etc. Chemical patents of all countries are covered. New books are listed with review notices. The abstracts are classified under 30 heads: Apparatus; general and physical chemistry; sub-atomic phenomena and radiochemistry; electrochemistry; photography; inorganic chemistry; analytical chemistry; mineralogical and geological chemistry; metallurgy and metallography; organic chemistry; biological chemistry; foods; general industrial chemistry and chemical engineering; water, sewage and sanitation; soils, fertilizers and agricultural poisons; fermentation industries; pharmaceutical chemistry; acids, alkalis, salts and sundries; glass, clay products, refractories and enameled metals; cement and other building materials; fuels, gas, tar and coke; petroleum, asphalt and wood products; cellulose and paper; explosives and explosions; dyes and textile chemistry; paints, varnishes and resins; fats, fatty oils and soaps; sugar, starch and gums; leather and glue; rubber and allied substances.
- CHEMICAL SOCIETY. Annual reports on the progress of chemistry. London. 1904-. The object of these reports is to present an epitome of the principal steps in advance which have been accomplished in the preceding year. The material is classified under the following sections: General and physical chemistry; inorganic chemistry; organic chemistry—aliphatic, homocyclic and heterocyclic divisions; analytical chemistry; agricultural chemistry and vegetable physiology; crystallography and metallurgy; radioactivity.
- CHEMISCHES REPERTORIUM. Beilage der *Chemiker Zeitung*. "Uebersicht über das Gesamtgebiet der reinen und angewandten Chemie." 1896-. Classified as follows: History, laboratory; physical chemistry; inorganic chemistry; mineralogy; general analysis; organic chemistry; chemistry of plants and animals, agricultural chemistry; foods and feedingstuffs; bacteriology, disinfection; pharmacy; hygiene; apparatus; fuels; lighting and heating; water; fertilizers; glass, ceramics; gases, dry distillation, tar products; petroleum, asphalt, explosives; organic preparations; sugar, starch, dextrin; fermentation industry; tannins; oils, fats, soaps; varnishes, resins, rubber; terpenes and ethereal oils; fibers, cellulose, paper; dyes and dyeing; iron; metals; photochemistry and photography; electrochemistry.
- CHEMISCH-TECHNISCHEN MITTHEILUNGEN. Edited by L. Elsner. 1846-1875 (?). Covers both inorganic and organic chemistry.
- CHEMISCHES ZENTRALBLATT. Vollständiges Repertorium für alle zweige der reinen und angewandte Chemie. 1830-. (Pharmaceutisches Centralblatt, 1830-1850; Chemisch-Pharmaceutisches Centralblatt, 1850-1956; in 1919 the scope of the journal was enlarged to include technical chemistry, the abstracts being published simultaneously in *Zeitschrift für angewandte Chemie*.) At present the scientific section covers: General chemistry; physical chemistry; inorganic chemistry; mineralogical and geological chemistry; organic chemistry; biochemistry—plant chemistry, plant physiology, bacteriology, animal chemistry, animal physiology,

- physiology and pathology of the body constituents. The technical section covers: Analysis; laboratory; general chemical technology; water; inorganic chemistry; fertilizers and soils; metallurgy and metallography; organic preparations; dyes; resins, lakes, inks; glues; rubber; sugar, starches, etc.; fermentation industries; foods; fats, waxes, soaps; fibers and spinning materials, paper, cellulose; fuels; explosives; pharmacology, disinfection; photography.
- CHIMIE & INDUSTRIE. 1919-. The abstracts are classified as follows: Physical chemistry; organic chemistry; analytical chemistry; apparatus; combustion; heating and lighting; water; laboratory equipment; mining and metallurgy; industrial chemistry; electrochemistry; nitrogen and its compounds; lime, cement, etc.; ceramics and glass; dyes; photography; rubber; oils, fats and waxes; paints, varnishes, etc.; plastics and artificial textiles; foods; sugar; tanning; cellulose; essential oils; explosives; pharmaceuticals; radioactivity; industrial hygiene; refrigeration; fuels; patents.
- EXPERIMENT STATION RECORD. 1892-. Since 1911, the subject index carries a heading "bibliography," which includes a reference to each bibliography mentioned in the text. The headings of chemical interest are: Agricultural chemistry; soils; fertilizers; foods; human nutrition; dairying.
- JAHRBUCH DER CHEMIE; Bericht über die wichtigsten Fortschritte der reinen und angewandten Chemie. 1891-. The following classification is used: Inorganic; organic; physiological; pharmaceutical; foods; agriculture; fuels; explosives; metallurgy; sugar; fermentation; fats; dyes; fibers; photography; physical chemistry; selected topics.
- JAHRBUCH DER ELEKTROCHEMIE und angewandten physikalischen Chemie. 1894-1907. Abstracts classified under the headings: Scientific and industrial; heterogeneous equilibria; homogeneous equilibria; reaction velocity and catalysis; photochemistry; electrical conductivity; chemical and electrical energy; polarization and electrolysis; radioactivity; colloids; accumulators; organic compounds; electroplating; technical applications of mass action law; inorganic electrochemistry; alkali chlorides; electrolysis.
- JAHRBUCH der Erfindungen und Fortschritte an dem Gebieten der physikalischen Chemie, Technologie, etc. 1865-1901. Edited by Hirzel, Gretschel, and others.
- JAHRESBERICHT über die Fortschritte der Chemie und Mineralogie. 1822-1849. Edited by Jacob Berzelius.
- JAHRESBERICHT über die Fortschritte der reinen, pharmaceutischen und technischen Chemie, Physik, Mineralogie und Geologie. (Liebig and Kopp.) 1847-1910. This work is divided into inorganic and organic sections; the material is classified under the usual headings for those fields. References are in the form of footnotes.
- JAHRESBERICHT über die Fortschritte auf dem Gebiete der reinen Chemie. 1873-1881 (?). Edited by Wilhelm Stadel. Classified.
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- JOURNAL OF THE CHEMICAL SOCIETY. 1870-. The abstract section was separated in 1878 (vol. 34); it was divided into two parts in 1893 (vol. 64). Part I contains: Organic chemistry; physiological chemistry; chemistry of vegetable physiology and agriculture. Part II contains: General and physical chemistry; inorganic chemistry; mineralogical chemistry; analytical chemistry.
- JOURNAL OF THE SOCIETY OF CHEMICAL INDUSTRY. 1882-. The classification used in 1923 follows: General, plant, machinery; fuels, gas, mineral oils and waxes; destructive distillation, heating, lighting; tar and tar products; coloring matters and dyes; fibers, textiles, cellulose, paper; bleaching, dyeing, finishing, printing; acids, alkalis, salts, non-metallic elements; glass, ceramics; building materials; metals, metallurgy, including electrometallurgy; electrochemistry; fats, oils, waxes; paints, varnishes, pigments, resins; india rubber, gutta-percha; leather, bone, horn, glue; soils, fertilizers; sugar, starches, gums; fermentation industries; foods; water purification, sanitation; organic products, medicinal substances, essential oils; photographic materials and processes; explosives, matches; analysis.
- PHYSIKALISCH-CHEMISCHES CENTRALBLATT. 1903-1909 (?).
- REVIEW OF AMERICAN CHEMICAL RESEARCH. 1895-1906. Vols. 1-7 formed a part of the Technology Quarterly. Continued as Chemical Abstracts.
- RÉPERTOIRE GÉNÉRALE DE CHIMIE PURE ET APPLIQUÉE. 1899-1918. Covers the entire field of chemistry under the

headings: Apparatus, general and physical, inorganic, organic (various sub-headings used), analytical, vegetable, pharmaceutical, biological, bacteriological, metabolism, etc.

For abstract journals and year books dealing with special fields of chemistry consult the following topics in Part IV: AGRICULTURAL CHEMISTRY, ANALYTICAL CHEMISTRY, BIOCHEMISTRY, BOTANICAL CHEMISTRY, BREWING, CELLULOSE, CERAMICS, COLLOIDS, CRYSTAL-

LOGRAPHY, ELECTROCHEMISTRY, FATS, FERMENTATION, FOODS, FUELS, INDUSTRIAL CHEMISTRY, INORGANIC CHEMISTRY, LEATHER, METALLURGY, MINERALOGY, ORGANIC CHEMISTRY, PAPER, PEAT, PETROLEUM, PHARMACOLOGY, PHARMACY, PHOTOGRAPHY, PHYSICAL CHEMISTRY, PHYSIOLOGICAL CHEMISTRY, RADIUM AND RADIOACTIVITY, RUBBER, SANITATION, SOILS, SUGAR, TEXTILES, WATER.

PART III. GENERAL INDEXES OF SERIALS

- American Chemical Journal. 1-10 (1879-1888); 11-20 (1889-1898); 21-50 (1889-1913).
- American Journal of Pharmacy. 43-52 (1871-1880); 53-62 (1881-1890).
- American Journal of Physiology. 1-30 (1898-1912); 31-60 (1912-1922).
- American Journal of Science. Ser. 1, 1-49 (1819-1845) in vol. 50; ser. 2, 1-10 (1846-1850); 11-20 (1851-1855); 21-30 (1856-1860); 31-40 (1861-1865); 41-50 (1866-1870); ser. 3, 1-10 (1871-1875); 11-20 (1876-1880); 21-30 (1881-1885); 31-40 (1886-1890); 41-50 (1891-1895); ser. 4, 1-10 (1896-1900); 11-20 (1901-1905); 21-30 (1906-1910); 31-40 (1911-1915); 41-50 (1916-1920).
- Analyst. 1-20 (1877-1896); 21-30 (1896-1905); 31-40 (1906-1915).
- Annalen der Chemie, Justus Liebig's. 1-100 (1832-1856); 101-116 (1857-1860); 117-164, suppl. vols. 1-8 (1861-1872); 165-220 (1873-1883); 221-276 (1884-1893); 277-328 (1893-1903); 329-380 (1903-1911); 381-430 (1912-1923).
- Annalen der Physik. 1-15 (1877-1891); 16-30 (1892-1906); 31-43 (1907-1919).
- Annalen der Physik und Chemie (Continuation of Annalen der Physik und der physikalische Chemie, vols. 77-236 edited by Poggendorff. n. s., 1-69, edited by Widemann). 1-120, Ergänzungsband 2-4 (1799-1877); 1-150 (author only); 121-150 (subject only); 1-160, Ergänzungsband 1-8, Jubelband der Poggendorffschen Folge, 1824-1877 (subject only); 151-160, n. s. 1-50 (1877-1893) (subject only); 51-69 (1894-1899); 1-30 (1900-1909).
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- Annales des Mines. Ser. 1, 1-28 (1795-1810); ser. 1-2, 39-59 (1816-1830); ser. 3, 60-79 (1832-1841); ser. 4, 80-99 (1842-1851); ser. 5, 100-119 (1852-1861); ser. 6, 120-139 (1862-1871); ser. 7, 140-159 (1872-1881); ser. 8, 160-179 (1882-1891); ser. 9, 180-199 (1892-1901); ser. 10, 200-219 (1902-1911).
- Annals of Botany. 1-10 (1887-1896); 11-20 (1897-1906); 21-30 (1907-1916).
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See also PINABIETIC ACID, RESINS.

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PREFACE

This Bulletin is a supplement to the Bibliography of Bibliographies on Chemistry and Chemical Technology, published in 1925 as Bulletin No. 50 of the National Research Council. Although most of the bibliographies listed have been published since 1924, many older ones have been included so as to make the united publication as complete as possible.

It is suggested that users in search of information consult both this Bulletin and Bulletin No. 50. Subject headings appearing for the first time have been indicated with an asterisk.

The compilers will appreciate it if errors in or omissions of published bibliographies are called to their attention.

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PREFACE

This Bulletin is the second supplement to the Bibliography of Bibliographies on Chemistry and Chemical Technology, published in 1925 as Bulletin No. 50 of the National Research Council (First Supplement published in 1929 as Bulletin No. 71 of the National Research Council). Although most of the bibliographies listed in this Bulletin have been published since 1929, many older ones have been included so as to make the combined publication as complete as possible.

It is suggested that users in search of information regarding published bibliographies consult the three Bulletins comprising this series (*i. e.*, Bulletins Nos. 50, 71 and 86). Subject headings appearing for the first time in this Bulletin have been indicated with an asterisk.

The compilers will appreciate it if errors in the citations in this Bulletin or omissions of published bibliographies are called to their attention.

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