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## LIBRARY OF CONGRESS COLLECTIONS POLICY STATEMENTS

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### **Chemical Sciences (Classes QD, TN, TP, TR, and selected portions of Z)**

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#### **I. Scope**

This Collections Policy Statement covers the subclasses QD (Chemistry), TN (Mining Engineering, Metallurgy), TP (Chemical Technology), TR (Photography), and corresponding subclasses of Class Z. The Library's collections in the chemical sciences encompass nearly 190,000 titles. In addition, some of the numerous abstracting and indexing services, catalogs of other scientific libraries, and specialized bibliographic finding aids for these fields are classed in Z. The QD (Chemistry) class also overlaps significantly with Physics (QC).

#### **II. Research Strengths**

##### **A. General**

The chemical sciences collections are particularly strong in their historical research value and for tracing developments in technology. Areas of particular strength include a) most of chemistry; b) many areas of mining engineering; practical mining operations; safety measures; ore deposits and mining of particular metals; ore dressing and milling; metallurgy; metallography; physical metallurgy; metallurgy of ferrous metals; coal; petroleum; natural gas; gas industry; c) most areas of chemical technology; chemical engineering; manufacture and use of chemicals; industrial electrochemistry; fuel; food processing and manufacture; oils, fats, and waxes; polymers and polymer manufacture; and c) most areas of photography. Certain specific topics within inorganic and organic chemistry (QD146-QD197 and QD241-QD441 respectively) are acquired with an intensity that approaches the comprehensive level.

The Library has long runs of many important serials published by scholarly societies and associations, such as the American Chemical Society, the Royal Society of Chemistry, and the American Institute of Mining, Metallurgical, and Petroleum Engineers. The Library also has substantial holdings of important abstracting and indexing services in the chemical sciences including *Chemical Abstracts*, *Review of Metal Literature* and its successors, and *Engineering Index* and its predecessors. The Library's

extensive general collections in the chemical sciences are further enhanced by the numerous technical reports held in the Technical Reports Section, and by specialized materials held by the Manuscript, Rare Book and Special Collections, Geography and Map, and Prints and Photographs Divisions. In addition, the Library's already comprehensive collection of chemistry, chemical engineering, metallurgy, and mining dissertations in microform is now supplemented by the digital dissertations archive from the *ProQuest Dissertations and Theses* database. The Library also provides readers with access to multiple electronic resources including *Academic Search Premier*, *Applied Science and Technology Full Text*, *CSA Technology Research Database*, *EiCompendex*, *INSPEC*, *JSTOR*, *Knovel Library*, *Landolt - Börnstein Index*, *NTIS*, and *Web of Science*, as well as several art-related databases.

## B. Areas of Distinction

For many areas in classes TN, TP, and TR, the great strengths of the collections are long runs of domestic and foreign serials, society publications, and conferences, often back to the nineteenth century. Also of note are the many works that parallel the history and development of various fields of knowledge, including industrial electrochemistry and color photography. The Library's TR (Photography) holdings are very strong in serials (comprehensive level dating from the 1840s to the present), and artists' monographs (includes publications on major and minor practitioners). The QD and TP subclasses of greatest strength are inorganic chemistry (QD146-QD197); organic chemistry (QD241-QD441); chemical technology (general) (TP1-TP151); chemical engineering (TP155-TP156); fuel (TP315-TP360); food processing and manufacture (TP368-TP456); and polymers and polymer manufacture (TP1101-1185). Also of significance are works held in the Rare Book and Special Collections Division by trailblazers such as chemists Robert Boyle (1627-1691), Antoine Laurent Lavoisier (1743-1794), and Joseph Priestley (1733-1804); and inventor and photographer Eadweard Muybridge (1830-1904). The Manuscript Division's collections include the papers of a number of notables such as mining engineer Samuel Franklin Emmons (1841-1911); photographers Frederic Eugene Ives (1856-1937), Frances Benjamin Johnston (1864-1952), and Gordon Parks (1912-2006); and chemists Irving Langmuir (1881-1957), Glenn Theodore Seaborg (1912-1999), and Henry Aaron Hill (1915-1979).

## III. Collecting Policy

The Library acquires materials in the chemical sciences primarily at the research level and the comprehensive level. Materials acquired in chemistry (QD), mining engineering, metallurgy (TN), and chemical technology (TP) include monographs, periodicals, conference proceedings, reference works, bibliographies, and abstracting and indexing services in all formats without regard to language, place of publication, date of publication, or chronological period. Photography (TR) publications issued both in the United States and abroad are acquired at the research level, with special emphasis on materials pertaining to the medium's history, influence, and contemporary expression in the United States. The Library endeavors to acquire monographs, exhibit and oeuvre catalogs, and serials relating to the history, criticism, techniques, and uses of photography. There is a special emphasis on acquiring publications needed to support research in the Library's collection of original documentary and artistic photographs. College and university level textbooks in chemistry and chemical engineering published in the U.S. are generally acquired at a research level; foreign, elementary and secondary school level textbooks are acquired on a selective basis. College and university level textbooks in mining engineering are acquired at an instructional support level. Laboratory manuals and study guides are acquired at the basic level; those published to accompany textbooks are not acquired. Juvenile texts

are acquired on a selective basis as needed to support the Library's educational outreach programs. The Library holds a comprehensive collection of dissertations issued by UMI and strives to permanently acquire all doctoral dissertations accepted by universities in the United States; foreign dissertations are acquired selectively. Related Library policies include 'Best Edition' of Published Copyrighted Works for the Collections of the Library of Congress, Selection Guidelines for Electronic Resources, the Dissertations and Theses Collection Policy Statement, the Societies and Associations Collection Policy Statement, and the Web Capture & Archiving Policy Statement.

#### IV. Acquisition Sources: Current and Future

The Library currently receives the bulk of its chemical sciences collection via the copyright deposit and CIP programs, with other material received through gift, purchase, and exchange. Some e-journals and born digital materials are acquired at a lower rate than their print counterparts, because current copyright law does not address the deposit of electronic materials. Also some of the mechanics associated with the acquisition, storage and display of digital materials have not yet been resolved. As e-journals, e-prints, podcasts, webcasts, and new technologies for creating science material proliferate and the Copyright law includes these materials as depository items, they will be acquired at the same rate as their print counterparts, using the same criteria. The challenge for the Library of Congress is keeping up with the volume of publications in science, keeping current, capturing those publications that are born digital before they disappear, keeping track of print titles that suddenly turn digital, and acquiring e-journals that are not purchased through an aggregated database. As more publications are acquired digitally, the Library must ensure that all important and appropriate information is added to the collections and that the data formats represented in the chemical sciences collections are maintained to assure continued access to its digital information.

#### V. Collecting Levels

##### Chemistry

LC Class	Subject	Collecting Level	Comments
QD1-QD65.2	Chemistry (General)	4	Includes general reference works, nomenclature, history, biography, alchemy, instruments and apparatus
QD71-QD142	Analytical Chemistry	4	

QD146-QD197	Inorganic Chemistry	4	Collections in nonmetals, alkali metals, and alkaline earth metals approach the Comprehensive Level (5)
QD241-QD441	Organic Chemistry	4	Collections in terpenes, gums and resins, alkaloids, proteins, amino acids approach the Comprehensive Level (5)
QD450-QD882	Physical and Theoretical Chemistry	4	
QD901-QD999	Crystallography	4	
Z5521-Z5526	Bibliography	4	

#### Mining Engineering. Metallurgy

LC Class	Subject	Collecting Level	Comments
TN1-TN257	Mining Engineering (General)	4	Includes reference works, history, biography Collection on the subject of patents (TN257) is at the Minimal Level (1)
TN260	Economic or Applied Geology and Mineralogy	4	
TN263-TN265	Mineral Deposits; Metallic Ore Deposits; Mineral Ores (General)	4	
TN269-TN269.88	Geophysical Surveying	4	
TN270-TN271	Prospecting	4	

TN275-TN325	Practical Mining Operations	4	Includes drilling, borehole tunneling, safety measures, rescue work, mine sanitation, ventilation of mines, lighting of mines, dangers and accidents in mines and quarries Collections in rescue work, stations, first aid, etc. are at the Basic Information Level (2); Collections in ventilation and lighting of mines are at the Instructional Support Level (3)
TN331-TN342	Mine Transportation, Haulage and Hoisting	3	
TN345-TN347	Mining Machinery, Tools, Appliances, Etc.	4	
TN400-TN580	Ore Deposits and Mining of Particular Metals	4	
TN600-TN799	Metallurgy	4	Includes electrometallurgy, metallography, physical metallurgy, metallurgy of ferrous metals, metallurgy of nonferrous metals
TN799.5-TN948	Nonmetallic Minerals	4	Includes coal, petroleum
TN950-TN997	Building and Ornamental Stones	4	
Z6678-Z6679	Metals; Metallurgy Bibliography	3	
Z6736-Z6740	Mines and Mining Bibliography	4	

## Chemical Technology

LC Class	Subject	Collecting Level	Comments
TP1-TP151	Chemical Technology (General)	5	Includes general reference works, history, biography
TP155-TP156	Chemical Engineering	5	
TP157-TP159	Apparatus and Supplies	5	
TP200-TP248	Chemicals (Manufacture and Use)	5	
TP249-TP261	Industrial Radiochemistry; Industrial Radiation Chemistry; Industrial Electrochemistry	5	
TP265-TP301	Chemistry of Fire and Fire Prevention; Explosives and Pyrotechnics	4	
TP315-TP360	Fuel	5	
TP368-TP456	Food Processing and Manufacture	5	
TP480-TP498	Low Temperature Engineering; Cryogenic Engineering; Refrigeration and Icemaking	4	
TP500-TP660	Fermentation Industries; Beverages; Alcohol	4	Includes wine and winemaking, brewing and malting, distilling, nonalcoholic beverages, beverage containers
TP669-TP699	Oils, Fats, and Waxes	5	Includes petroleum refining, petroleum products

TP700-TP770	Gas Manufacture; Gas Industry; Acetylene Industry	4	Includes illuminating industries (nonelectric); Collections in illuminating industries are at the Instructional Support Level (3)
TP785-TP869	Clay Industries; Ceramics; Glass	3	
TP870-TP873.5	Artificial Minerals; Artificial Stone; Artificial Gems	3	
TP875-TP888	Cement Industries	3	Includes cement, lime, mortar, plaster
TP890-TP933	Textile Bleaching, Dyeing, Printing, Etc.	3	
TP934-TP949.95	Paints, Pigments, Varnishes, Ink Manufacture, Etc.	4	
TP950-TP994	Miscellaneous Organic Chemical Industries	4	Includes essences, essential oils and ethers, fertilizers, glue and other adhesives, gums and resins, perfumes, cosmetics, and other toilet preparations, soap, cleaning compounds, candles, surface active agents
TP1080-TP1185	Polymers and Polymer Manufacture	5	
Z7914.C4	Bibliography	4	

## Photography

LC Class	Subject	Collecting Level	Comments
TR1-TR225	Photography (General)	4	Includes collectors' manuals, general reference works, history (general), biography, materials, supplies, catalogs of photographs (general), theory of photographic processes in general
TR250-TR265	Cameras	4	
TR287-TR500	Photographic Processing; Darkroom Technique (General)	4	
TR504-TR508	Transparencies; Diapositives	4	
TR510-TR545	Color Photography	4	
TR550-TR581	Studio and Laboratory	4	Includes portrait photography
TR590-TR620	Lighting	4	
TR623.2-TR835	Applied Photography	4	Includes artistic photography, commercial photography, photogrammetry, nature photography, underwater photography, photographic reproduction, photocopying processes, microfilming, microphotography
TR845-TR899.5	Cinematography; Motion Pictures; Video Recording	4	
TR900-TR923	Industrial Reproduction	5	Includes enlargements, reductions



TR925-TR1050	Photomechanical Processes	5	Includes photolithography, photoengraving, halftone process, photogravure, electrophotography, electrostatic printing, xerography
Z7134-Z7137	Bibliography	4	

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