LIBRARY OF CONGRESS COLLECTIONS POLICY STATEMENTS

Physics and Astronomy
(Classes QB, QC, and selected portions of Z)

Contents

I. Scope

The Collections Policy Statement on Physics and Astronomy covers the subclasses of QB (Astronomy) and QC (Physics), as well as the corresponding subclasses of Class Z. 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. See also the related Collections Policy Statements for *Chemical Sciences* and *Technology*.

II. Diverse and Inclusive Collecting Statement

As the nation's de facto national library, the Library of Congress strives to build an expansive, yet selective, collection that records the creativity of the United States and is reflective of the nation's diversity and complexity. The Library's mandate is to have collections that are inclusive and representative of a diversity of creators and ideas. A priority includes acquiring material of underrepresented perspectives and voices in the Library's collections to ensure diverse authorship, points of view, cultural identities, and other historical or cultural factors. The Library also seeks to build a research collection that comprises a globally representative sample of international materials that are diverse in voice and perspective, relative to their places of origin, further supporting the Library's mission to sustain and preserve a universal collection of knowledge and creativity for Congress and future generations.

Diverse collecting is mentioned within many of the Library's Collections Policy Statements. In addition, the Library has adopted several specific collection policies in an effort to ensure it is building an inclusive and representative collection. For more information, see the Library's Collections Policy Statements on *Ethnic Materials*, *LGBTQIA+ Studies*, *Women's and Gender Studies*, *Independently Published and Self-Published Textual Materials*, *and* *Countries and Regions with Acquisitions Challenges*.

III. Research Strengths

A. General

The Library's collecting strength in subclasses QB and QC is generally at the research level. The Library has long runs of many important serials such as *American Journal of Physics*, *Journal of Applied Physics*, *Journal of the British Astronomical Association*, and other publications of notable societies and associations, as well as the major abstracting and indexing services in physics and astronomy including *Science Abstracts. Series A*, *Physics Abstracts*, and its predecessors, and *Astronomischer Jahresbericht* and its successor, *Astronomy and Astrophysics Abstracts*. The Library's extensive general collections in physics and astronomy are further enhanced by the numerous technical reports held in the Automation, Collections Support & 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 extensive collection of U.S. astronomy and physics dissertations in microform is now supplemented by the digital dissertations archive from the *ProQuest Dissertations and Theses Global* database. The Library also provides readers with access to multiple electronic resources including *Academic Search Complete*, *ADS: NASA Astrophysics Data System*, *arXiv.org*, *ProQuest SciTech Premium Collection*, *Engineering Village (Compendex)*, *INSPEC*, *JSTOR*, *National Technical Reports Library*, and *Web of Science*.

B. Areas of Distinction

The Library has strong holdings of the serial publications of scientific societies and institutions in astronomy and physics worldwide for the nineteenth and first half of the twentieth century, when they were received via Smithsonian deposit. Many significant rarities are held in the Rare Book and Special Collections Division, some of which include, in astronomy, landmark works of Nicolaus Copernicus (1473-1543) and Johannes Kepler (1571-1630), and in physics those of Galileo Galilei (1564-1642), Isaac Newton (1642-1727), and James Clerk Maxwell (1831-1879). The Manuscript Division's collections include papers of a number of notable astronomers and physicists, such as A. D. (Alexander Dallas) Bache (1806-1867), Matthew Fontaine Maury (1806-1873), Asaph Hall (1829-1907), Simon Newcomb (1835-1909), T. J. J. (Thomas Jefferson Jackson) See (1866-1962), Vannevar Bush (1890-1974), I. I. (Isidor Isaac) Rabi (1898-1988), Merle Antony Tuve (1901-1982), Carl Eckart (1902-1973), George Gamow (1904-1968), J. Robert Oppenheimer (1904-1967), and Carl Sagan (1934-1996).

IV. Collecting Policy

The overall context for this policy is the Library's position as the *de facto* national library of the United States. The Library acquires materials in physics and astronomy primarily at a research level, including 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. College and university level textbooks in physics and astronomy published in the U.S. are generally acquired at a research level; laboratory manuals, instructors' manuals, non-U.S., elementary, and secondary school level textbooks are acquired on a selective basis. Juvenile texts are acquired on a selective basis as needed to support the Library's educational outreach programs. The Library holds an extensive collection of dissertations issued by ProQuest (formerly UMI) and strives to permanently acquire all doctoral dissertations accepted by universities in the United States; non-U.S.

dissertations are acquired selectively. Related Library policies include 'Best Edition' of Published Copyrighted Works for the Collections of the Library of Congress, *Supplementary Guidelines for Electronic Resources*, the *Dissertations and Theses Collection Policy Statement*, the *Societies and Associations Collection Policy Statement*, the *Technical Reports, Working Papers, and Preprints Collection Policy Statement*, and the *Supplementary Guidelines for Web Archiving*.

V. Best Editions and Preferred Formats

For guidance regarding best editions for material acquired via the Copyright Office, see: http://copyright.gov/circs/circ07b.pdf.

For guidance regarding recommended formats for material acquired via all other means; e.g., purchase, exchange, gift and transfer, see: http://www.loc.gov/preservation/resources/rfs.

For information regarding electronic resources, open digital content, web archiving, and data sets, see the following Supplementary Guidelines: http://www.loc.gov/acq/devpol/electronicresources.pdf, https://www.loc.gov/acq/devpol/opencontent.pdf, http://www.loc.gov/acq/devpol/webarchive.pdf, and https://www.loc.gov/acq/devpol/datasets.pdf.

VI. Acquisition Sources

Whenever possible the Library attempts to acquire materials through non-purchase means, such as copyright, exchange, gift, or the Cataloging in Publication program. The Library of Congress collections are heavily dependent upon materials received through the copyright deposit provisions of U.S. copyright law (17 USC section 407 & 17 USC section 408). For copyright demand, the U.S. regulations allow for the Library to receive analog and some digital materials. When items are offered in both formats the Library's default is normally the Best Edition print version, unless the publisher has arranged a special relief agreement with the Copyright Office. For materials not available to the Library through copyright deposit, or other non-purchase means, the Library acquires materials through purchase. Purchase is used predominately for non-U.S. publications that are not widely available within the United States. The Library utilizes an array of traditional methods of library acquisition (firm orders, subscriptions, and approval plans) with vendors located in different areas of the world. In addition, the Library uses its six Overseas Operations Offices to broaden its acquisitions opportunities outside the United States.

VII. Collecting Levels

Meeting the Library's Diverse and Inclusive Collecting Statement (see Section II) and the collecting levels outlined below requires continual evaluation of the publishing landscape, sources of expression, current events, and socio-cultural trends to thus maintain effective collecting policies and acquisitions methods. Changes in publishing or in the creation of materials covered by this policy statement may necessitate collecting efforts not explicitly referenced here. Such efforts will be handled on a case-by-case basis while the Library evaluates the need for policy statement updates.

For explanation of the Collecting Levels used by the Library, see https://www.loc.gov/acq/devpol/cpc.html.

Astronomy

LC Classification	Subject	U.S. Levels	Non-U.S. Levels	Notes
QB1-QB139	Astronomy (General)	4	4	Includes general reference works, history, biography, textbooks, extraterrestrial life, instruments, astronomical photography
QB140-QB237	Practical and Spherical Astronomy	4	4	Includes time, longitude, latitude
QB275-QB343	Geodesy	4	4	Includes geodetic surveying, gravity determinations
QB349-QB421	Theoretical Astronomy and Celestial Mechanics	4	4	Includes planetary theory, lunar theory, satellites, theory of tides
QB460–QB466	Astrophysics	4	4	
QB468-QB480	Non-optical Methods of Astronomy	4	4	
QB494.2-QB903	Descriptive Astronomy	4	4	Includes universe, solar system, interstellar matter, stars
QB980-QB991	Cosmogony and Cosmology	4	4	
Z5151-Z5156	Bibliography	4	4	Related classes include Z6000 (Geodesy)

Physics

LC Classification	Subject	U.S. Levels	Non-U.S. Levels	Notes
QC1-QC75	Physics (General)	4	4	Includes general reference works, philosophy, history, biography, mathematical physics
QC81-QC114	Weights and Measures	4	4	
QC120-QC168.86	Descriptive and Experimental Mechanics	4	4	Includes dynamics (motion), velocity (speed), fluids (fluid mechanics)
QC170-QC197	Atomic Physics; Constitution and Properties of Matter	4	4	Includes molecular physics
QC221-QC246	Acoustics; Sound	4	4	
QC251-QC338.5	Heat	4	4	
QC350-QC467	Optics; Light	4	4	Includes spectroscopy
QC474-QC496.9	Radiation Physics (General)	4	4	Includes color
QC501-QC766	Electricity; Magnetism	4	4	
QC770-QC798	Nuclear and Particle Physics	4	4	
QC801-QC809	Geophysics; Cosmic Physics	4	4	
QC811-QC849	Geomagnetism	4	4	
QC851-QC999	Meteorology; Climatology	4	4	
Z7141-Z7145	Bibliography	4	4	Related classes include Z5160-Z5164 (Atomic Energy and Power; Nuclear Engineering); Z5831-Z835 (Electricity); Z6041-Z6045 (Geophysics); Z6681-Z6685 (Meteorology)