Collection Subject Statement: Chemistry

Last reviewed: May 2025

Purpose

The Chemistry collection in the University of Pittsburgh Library System (ULS) supports the academic programs and research needs of students, faculty, and staff across the university. The collection supports B.S. degrees in chemistry, biochemistry, forensic science, and nursing at various campuses. It supports two-year A.S. programs in nursing at Bradford and Titusville. The Pittsburgh campus offers M.S. and Ph.D. degrees, as well as an M.D./Ph.D. program. Research from the undergraduate to post-doctoral and faculty levels is supported at each campus as appropriate. The collection aims to support all aspects of teaching and learning in the departments of chemistry, including theory and practice, and to enable and encourage independent inquiry and research. Relevant materials are located in Bevier Library, Hanley Library, Haskell Library, Millstein Library, Owen Library, and Thomas Blvd. Library.

Audience

The collection primarily serves the needs of students, faculty, and researchers in the departments of chemistry across the university. This includes students taking chemistry courses as requirements for or in support of majors in other departments, as part of a wide range of pre-health science programs, or for secondary education degrees with certification to teach chemistry. The collection is also a resource for those in disciplines such as biological sciences, chemical engineering, computational science, environmental science, forensic science, materials science, neuroscience, physics, and certain health sciences. Chemistry researchers collaborate with university colleagues in disciplines such as biological sciences, physics, engineering, and health sciences. There are close ties to the Pittsburgh Quantum Institute, Center for Research Computing, and Petersen Institute of NanoScience and Engineering (PINSE).

Guiding Principles and Areas of Focus

The collection is intended to represent the broad range of chemical study and research. It includes the traditional areas of analytical, biological, inorganic, organic, and physical chemistry, but also focuses on active interdisciplinary areas such as chemical biology, computational and theoretical chemistry, electrochemistry, energy, materials and nanoscience, protein biophysics, spectroscopy, quantum chemistry, and modern methods of synthesis. Subject matter is guided by current teaching and research. The focus is on original writing and research in all formats, but on occasion reprints of classic works or collected works of major contributors to the field are acquired.

Collection Scope

The Chemistry collection offers a wide range of print and digital materials in the form of monographs, journals, selected book series and conference proceedings, compilations of

data and properties, and electronic databases related to the range of chemical information, including chemical reactions. Resources covering laboratory methodology, experimental techniques, and instrumentation are acquired, but "one-time use" laboratory manuals, workbooks, and most spiral bound material are not. Advanced and graduate level textbooks may be acquired, but most undergraduate and introductory textbooks will only be acquired on request in support of course reserves. Works of history and philosophy are generally reserved for History and Philosophy of Science but may be acquired selectively. A limited number of more general or biographical treatments may be acquired to support general interest reading. English is the primary language of the collection, although some historical material is available in languages such as German, French, and Russian. Materials are acquired primarily from publishers based in North America and Europe, but individual works and journals reflect a broad international scope of authors and contributors. The emphasis is on adding current publications.

Library of Congress Classification

Typical classifications in which materials are acquired are listed below. Selective acquisitions may also be made in other categories based on need and interest. Works in classifications other than QD will be acquired depending on the focus of the individual work and its relation to departmental research and teaching, since these materials are also collected for other disciplinary areas.

K (Law) (chemical.applications.as.related.to.criminal.justice.programs.on.regional. campuses)

- K3625-3649 Food. Drugs. Cosmetics
- K3651-3654 Alcohol. Alcoholic beverages
- K3770-3795 Science and arts. Research

QA (Mathematics) (with applications to chemistry or computational chemistry) QC (Physics)

- QC170-197 Atomic Physics (e¡g¡?quantum.theory?quantum.mechanics?solid.state? thin.films)
- QC310.15-319 Thermodynamics
- QC450-467 Spectroscopy

QD (Chemistry)

- QD1-65 General Including alchemy (for.introductory.courses.and.otherwise. selectively·.alchemy.may.be.reserved.for.history.™ .philosophy.of.science)
- QD71-142 Analytical chemistry
- QD146-197 Inorganic chemistry
- QD241-441 Organic chemistry
- QD415-436 Biochemistry
- QD450-801 Physical and theoretical chemistry
- QD625-655 Radiation chemistry (selectively.- .as.related.to.specific.courses.and. research)
- QD701-731 Photochemistry

• QD901-999 Crystallography (Works.focusing.on.crystallography.of.large. biological.molecules.may.be.collected.for.biological.sciences;.Works.focusing.on. minerals.are.generally.appropriate.for.geology;)

QH (Biology)

- QH301-705.5 Biology (General) (as.related.to.specific.courses.and.research)
 QP (Physiology)
- QP501-801 Animal biochemistry (as.related.to.specific.courses.and.research) R (Medicine)
 - R855-855.5 Medical Technology (to.the.extent.that.chemical.bioanalytical.methods. are.classified.here)

RM (Therapeutics. Pharmacology)

RM300-666 Drugs and Their Actions (when.the.focus.is.on.chemical.or.molecular. aspects)

RS (Pharmacy and materia medica)

- RS189-190 Assay methods. Standardization. Analysis
- RS400-431 Pharmaceutical chemistry

S (Agriculture) (as.related.to.specific.courses.and.research)

- S590-599.9 Soils. Soil science Including soil surveys, soil chemistry, soil structure, soil-plant relationships
- SB617-618 Poisonous plants
- SB621-795 Plant pathology
- SB950.9-970.4 Pesticides
- SB973-973.5 Soil disinfection

TD (Environmental technology. Sanitary engineering) (when the focus is on chemical aspects?including.chemical.analysis.and.measurement?and.related.to.chemistry.teaching.and.research works focused on design or construction of equipment? systems? and plants or dealing with industrial waste are generally reserved for engineering).......

- TD419-428 Water pollution
- TD1020-1066 Hazardous substances and their disposal

TP1-1185 (Chemical technology) (generally.acquired.when.the.emphasis.is.on.aspects.of. chemistry.and.related.to.specific.courses.or.research.works.focused.on.manufacture.and. industrial.applications.are.generally.reserved.for.engineering)

TR1-1050 Photography(as.related.to.specific.chemistry.teaching.and.research·.generally.reserved.for.art)

TR287-500 Photographic processing. Darkroom technique

TT1-999 Handicrafts. Arts and craft (as.related.to.specific.chemistry.teaching.and.research.generally.reserved.for.art)

- TT300-382.8 Painting. Wood finishing
- TT980-999 Laundry work

Connections & Collaborations

The ULS collaborates with other institutions and consortia to acquire specialized materials that support research, teaching, and learning in the discipline of Chemistry, particularly in

areas where shared resources improve accessibility to rare or costly materials. Regionally and nationally, the ULS participates in several consortia for collection development (NERL, EAST, Hathi Trust, CRL) and resource sharing (PALCI EZBorrow, OCLC Interlibrary Loan, RapidILL) that shape strategy for the Chemistry collection. Within the university, the ULS cooperates with the Health Sciences Library System to provide shared access to a variety of electronic books, journals, databases, videos, and specialized resources. Development of the collection takes into account the connection of Chemistry with related disciplines, such as biological sciences, chemical engineering, computational science, environmental science, health sciences, materials engineering and science, and physics.

Subject Experts

- Bradford campus contact: Kimberly Bailey (<u>hanold@pitt.edu</u>)
- Greensburg campus contact: Kelly Safin (<u>kelly.safin@pitt.edu</u>)
- Johnstown campus contact: Jim Langan (<u>ilangan@pitt.edu</u>)
- Pittsburgh campus contact: Margarete Bower (<u>bower@pitt.edu</u>)

Sources of Information

https://www.upb.pitt.edu/academics/majors-minors

https://www.greensburg.pitt.edu/academics

https://www.titusville.pitt.edu/academics

https://www.johnstown.pitt.edu/academics/majors-programs

https://www.chem.pitt.edu/