

Ferdinand D. Bluford Library

SELECTIVE GUIDE TO CHEMISTRY RESOURCES

This selective guide contains a bibliography of titles and electronic resources that will assist the students with research in Chemistry. It outlines a general approach to finding materials and resources housed in the F.D. Bluford Library. It also identifies electronic sources that may be on the Internet or on CD-ROM. This guide will help students organize their research and at the same time give them some tips on research strategy. Remember that researching any topic can seem overwhelming.

Using the Online Catalog

Establishing what resources the library owns on the subject you are researching should be your first priority. In order to find that information, the student must use the library's online catalog. The catalog can be searched by AUTHOR, TITLE, KEYWORD, JOURNAL, and by SUBJECT HEADING. If you are going to do a **keyword search** you can either enter a word that may appear in the title or in the description of the work. If you are doing a **subject search** you should use the Library of Congress Subject Headings located next to the Reference Desk to help you determine the correct subject heading. There are several other options on narrowing or limiting your search and or identifying similar titles. Please refer to the Catalog Handout at the Information Center for more detailed instruction or ask for assistance from a Reference Librarian.

Dictionaries and Encyclopedias

Dictionaries provide brief entries that are quick and helpful sources for the definition or identification of a term, movement, or person in history. Encyclopedias are also a good place to start, especially if you are unfamiliar with the topic. Articles in subject encyclopedias are often written by recognized authorities and tend to provide established facts and ideas about the topic, its history, basic theories, and important persons who have written related articles. Also, most encyclopedia articles close with a bibliography that may help you to establish your literature search.

Note: When using encyclopedias, first consult the index volume, usually the last volume of the set. This will tell you if your topic has an article devoted entirely to it or if it is discussed within an article on a related subject.

Condensed Chemical Dictionary, A&T Ref QD5.C5 1993

Concise Chemical and Technical Dictionary, A&T Ref QD5.B4 1962

Dictionary of Biochemistry and Molecular Biology, A&T Ref QP512.573 1989

Dictionary of Organic Compounds, A&T Ref QD246.D5 1992

Dictionary of Substance and their Effects, A&T E-Books 1999
Elsevier's Dictionary of Chemistry, A&T Ref QD5.D67 1983
Encyclopedia of Analytical Science, A&T QD71.5 E33 1995
Encyclopedia of Biological Chemistry, Access via [Knovel](#)
Encyclopedia of Chemical Physics & Physical Chemistry, Access via [Knovel](#)
Encyclopedia of Chemical Technology, A&T Ref TP9E685 1998
Encyclopedia of Chemical Trademarks & Synonyms, A&T Ref TP9 E687 1981
Encyclopedia of Computational Chemistry, A&T Ref QD39.3E46 E53 1998
Encyclopedia of Inorganic Chemistry, A&T Ref QD148.E5e 1994
Encyclopedia of Nuclear Magnetic Resonance, A&T Ref Qc762 E53 1996
Encyclopedia of Polymer Science and Technology, A&T Ref TP1087.E46 1985
Encyclopedia of Spectroscopy and Spectrometry, A&T Ref QD95 E55 2000
Hawley's Condensed Chemical Dictionary, A&T E-Book 2002
The Hutchinson Pocket Dictionary of Chemistry, A&T E-Book 2004
Kirk-Othmer Concise Encyclopedia of Chemical Technology, A&T Ref TP9K54 1985
McGraw-Hill Dictionary of Chemistry, A&T Ref QD5 M357 1997
MacMillan Encyclopedia of Chemistry, A & T Ref QD4 M33 1997
Miall's Dictionary of Chemistry, A&T Ref QD5 M52 1981
Van Nostrand's Scientific Encyclopedia, A&T Ref Q121 V3 2005

Directories, Biographies, Handbooks and Manuals

Handbooks are useful statistical and factual sources that have current information on a broad range of topics and subjects. Biographies and manuals can help you throughout your research by providing quick, factual information that you may need to support your ideas

American Men and Women of Science, A&T Ref Q141 A474 1995
Analytical Chemistry Handbook, A&T Ref QD78.D43 1995
Beilstein's Handbook of Organic Chemistry, A&T Ref QD251. B42 B46 1984
Chemical Engineers' Handbook, A&T Ref TP151.C52 1973
Chemical Operator's Portable Handbook, A&T Ref QD61 .B35 1999
Chemical Research Faculties, A&T Ref QD40 C4317 1988
Chemical Technicians Ready Reference Handbook, A&T QD61 .S58 1990
The Chemist's Ready Reference Handbook, A&T Ref QD65.S537 1990
College Chemistry Faculties, A&T Ref QD47C64 1993
CRC Handbook of Chemistry and Physics, A&T Ref QD65 H 1995
Desk Reference for Organic Chemists, A&T Ref QD257 .7E28 1995
Dictionary of Scientific Biography, A&T Ref Q141 D5 1981
Formulas, Facts, and Constants for Students and Professionals in Engineering, Chemistry and Physics. A&T QC 61.F58 1987
Great Chemists, A&T Ref QD21.F35 1961
Handbook of Data on Organic Compounds, A&T Ref QD257.7H36 1994
Handbook of Environmental Degradation Rates, A&T TD193.H73 1991
Handbook of Reactive Chemical Hazards, A&T T55.3.H3B73 1985
Inorganic Materials Chemistry, Desk Reference, A&T TP200 .S26 1997
International Critical Tables, A&T QD511.B56
Lange's Handbook of Chemistry, A&T Ref TP151 H25 1992
The Merck Index, A&T Ref RS51 M4 1996

New York Public Library Service Desk Reference, A&T Ref Q173 .B25 1995
Nobel Prize Winners in Chemistry 1901-1961, A&T Ref QD21.F37 1963
Notable Twentieth Century Scientists, A&T Ref Q141 H173 1995
Organometallics in synthesis: A Manual, A&T QD262.O745 1996
Polyurethane Handbook: Chemistry, Raw Materials, Processing, Application, Properties, A&T Ref TP1180.P8P5713 1994
Purification of Laboratory Chemicals (5th Edition), Access via [Knoval](#)

Indexes and Abstracts (Printed)

Selecting the best bibliographic database or print index is an important step in any search. Each electronic database and print index is unique in its subject coverage and scope, although there may be some overlap between them.

Agricultural Engineering Abstracts and Annual Indexes, A&T Ref Abstracts S675 A36
Biological Abstracts, A&T Ref Abstracts QH301 B37
Biological and Agricultural Index, A&T Ref Indexes Z5073 A46
Chemical Abstracts, A&T QD1.51
Chemical Abstracts: Biochemistry Section, A&T QP501 .C51
Comprehensive Organometallic Chemistry11: A Review of the Literature 1982-1994, A&T Ref QD411.C652 1995

Databases

Databases can include a variety of different types of information, from chemistry journals and indexes to statistics.

Academic Search Primeir

Provides indexing and abstracts for over 3,800 scholarly journals and magazines, including over 1,700 peer-reviewed journals. Full text articles are available for over 2,300 of the journals. It covers all disciplines including the social sciences, business, humanities, sciences, multi-cultural studies, education, and much more.

Access Science @McGraw Hill

The Online Encyclopedia of Science and Technology turns the worlds leading science encyclopedia, The McGraw-Hill Encyclopedia of Science and Technology, into an updated database that delivers the high-quality information synonymous with the print publication with the immediacy that only the online environment can provide.

Agricola

AGRICOLA is a biological database of citations to the agricultural literature created by the National Agricultural Library. Production of these records in electronic form began in 1970, but the database covers materials in all formats including printed works from the 15th century.

American Chemical Society

The American Chemical Society is the leading publisher of peer-reviewed research journals in the chemical and related sciences, serving scientific communities worldwide with a commitment to quality, reliability, and innovation.

The ACS also plays a leadership role in educating and communicating with public audiences—citizens, students, public leaders and others—about the important role that chemistry plays in identifying new solutions, improving public health, protecting the environment, and contributing to the economy.

Cambridge Scientific Abstracts

Content coverage includes the life sciences, environmental and aquatic sciences, computer sciences, materials science and engineering, aerospace, social sciences, and humanities. From its award-winning Internet Database Service, providing access to more than 70 databases, to its widely-read print journals, CSA offers precision tools engineered to make conducting your research precise and quick.

CHEMnetBASE

Is a collection of major chemical reference works, now available online. Such as:

[*Combined Chemical Dictionary \(CCD\)*](#)

[*Dictionary of Commonly Cited Compounds*](#) (also included in CCD)

[*Dictionary of Drugs*](#) (Formerly *Pharmasource*; also included in CCD)

[*Dictionary of Inorganic and Organometallic Compounds*](#) (also included in CCD)

[*Dictionary of Natural Products*](#) (also included in CCD)

[*Dictionary of Organic Compounds*](#) (also included in CCD)

[*The Handbook of Chemistry & Physics*](#) **New edition!**

[*Polymers: A Property Database*](#)

[*Properties of Organic Compounds*](#)

Access: www.chemnetbase.com/

General Science Fulltext

GENERAL SCIENCE FULL TEXT is a database that indexes and abstracts articles from English-language periodicals published in the United States and Great Britain, plus the full text of selected periodicals. Periodical coverage includes popular science magazines as well as professional journals. General Science Full Text also covers The New York Times Science Section (published weekly on Tuesday). Indexing begins with May 1984. Abstracting coverage begins with periodicals published in March 1993. Full text coverage begins in January 1995

IEEE

The IEEE Xplore database contains the following IEEE & IEE publication collections: Journals, transactions, and magazines; Conference Proceedings; IEEE Standards; and IEE journals, letters, magazines, and conference proceeding.

INSPEC

This is an important database for chemical research having any physical component. INSPEC is the world's largest bibliographic database focusing on physics, electrical engineering and electronics, computer and control engineering and information technology. The database is international in scope and gives access to physics literature of many types, including books, journal articles, conference proceedings, dissertations, technical reports, etc., from 1969 – present.

Knovel

Knovel is the most comprehensive and reliable source of scientific and engineering information online.

Medline (PubMed)

MEDLINE is the NLM's premier bibliographic database covering the fields of medicine, nursing, dentistry, veterinary medicine, the health care system, and the preclinical sciences. MEDLINE contains bibliographic citations and author abstracts from more than 4,800 biomedical journals published in the United States and 70 other countries. The database contains over 12 million citations dating back to the mid-1960's. Coverage is worldwide, but most records are from English-language sources or have English abstracts

PolymernetBase

At this site, users can now simultaneously search three databases of polymer information: Polymeric Materials Encyclopedia, Polymers: A Property Database, and Polymer Books.

Science Direct

A collection of abstracts and full text articles in broad subject areas: life sciences, physical sciences, medical, technical, social sciences, as well as business, engineering and management. Contain over 30 million records with coverage varying by title. Most journals have coverage back to 1995: some go back to 1957. Full text access is limited to journals for which we have a subscription. The journals are arranged under subject areas to assist with navigation.

SciFinder Scholar

Is the primary index for chemistry. SciFinder Scholar offers easy-to-use computer searching of the complete CAplus, CASREACT, and Registry Databases from Chemical Abstracts Service. Via SES you have access to all journal articles, book chapters, patents, conference proceedings, technical reports, and dissertations included in Chemical Abstracts. The CAS registry substance database covers 17+ million organic compounds. 9000 serials are monitored with bibliographic information for 1,350 key chemistry journals added within one week of publishing.

U.S. Patents

A comprehensive bibliographic database containing records for each of the 2.6 million U.S. patents issued since 1975

USPTO Web Patent Databases

The Patent Full-Text Database contains hyperlinks from the [Images] button at the top of each full-text document display to the full- page images of each page of each patent in the database.

Web of Science

Web of Science includes access to **Science Citation Index**, 1975 – Present. Use this database to search for articles that cite an author or article that you specify. It is also possible to search for articles by subject term, author name, journal title or author affiliation.

Printed Journals – Selected List

These journals are located on the Lower Level. Older volumes are in the bound journals section, organized by call number.

Advances in Organic Chemistry, 1960 -

Analyst

Analytical and Bioanalytical Chemistry

Analytica Chimica Acta, 1978 -

Analytical Biochemistry, 1960 -

Analytical Chemistry, 1947 -
Angewandte Chemie: English Edition, 1962 -
Annales De Chemie, 1914 –
Annual review of Physical Chemistry, 1950 -
Association of Official Agricultural Chemists, 1915 -
Australian Journal of Chemistry, 1935 -
Biochemistry, 1974 –
Bulletin de la Societe Chimique de France, 1971 -
Bulletin of The Chemical Society of Japan, 1926 -
Canadian Journal of Chemistry, 1951 –
Chemical Abstracts, 1907 –
ChemMedChem, 2006 -
Chemical and Engineering News, 1923 -
Chemical Reviews, 1925 -
Chemical Society Review, 1972 –
Chromatographic Review, 1959 –
Computers and Chemistry, 1976 –
Electroanalytical Chemistry, 1966 –
Environmental Science and Technology, 1967 -
Fresenius Journal of Analytical Chemistry, 1990 - 2001
Helvetica Chimica Acta, 1918 -
Inorganic Chemistry, 1962 -
International Journal of Chemical Kinetics, 1971-
Journal of Applied Polymer Science, 1995 -
Journal - Association of Official Analytical Chemists, 1915 -
Journal of Biochemistry, 1960 -
Journal of Chemical Education, 1936 -
Journal of Chemical Physics, 1933 –
Journal of Chemical Technology and Biotechnology, 1979 -
Journal of Chemical Thermodynamics, 1970 -
Journal of Chromatography, 1958 -
Journal of Electrochemical Society, 1967-
The Journal of industrial and engineering chemistry, 1909
Journal of Medicinal Chemistry, 1963 -
Journal of Organic Chemistry, 1936 -
The Journal of Physical Chemistry, 1896 -
Journal of Polymer Science, 1960 –
Journal of the American Chemical Society, 1923 –
Langmuir, 1989 -
Lipids, 1965 -
Macromolecules, 1994 –
Medicinal Chemistry Research, 1995 –
Monatshefte Fur Chemie, 1981 -
Photochemistry and Photobiology, 1978 -
Polyhedron, 1982 –
Russian Journal of General Chemistry, 1993 –
SciQuest, 1979 -
Talanta, 1958 -

Tetrahedron, 1957 –
Tetrahedron Letters, 1959 –
Textile Chemist and Colorist, 1969 -
Vibrational Spectroscopy, 1990 -
Zeitschrift Fur Physikalische Chemie, 1954 -

Online Journals – Selected List

Titles listed in this section are available online in full-text.

[Analytica Chimica Acta](#) from Science Direct

Coverage: 1947 - present

Analytical Biochemistry from Science Direct

Coverage: January 1993 – present

Analytical Chemistry from Academic Search Premier via EBSCOHOST

Coverage: July 1993 – present

Analytical Letters from Academic Search Premier

Coverage: January 2001 - present

Archives of Biochemistry and Biophysics from Science Direct

Coverage: January 1993 – present

Biochemical Engineering Journal from Science Direct

Coverage: January 1998 - present

Biochemistry from Academic Search Premier via EBSCOHOST

Coverage: July 1993 – present

[Bioelectrochemistry](#) from Science Direct

Coverage: February 1999 - present

[Bioelectrochemistry and Bioenergetics](#) from Science Direct

Coverage: 1974 - present

[Bioinorganic Chemistry](#) from Science Direct

Coverage: 1971 - 1978

[Bioorganic & Medicinal Chemistry](#) from Science Direct

Coverage: July 1993 - present

[Bioorganic & Medicinal Chemistry Letters](#) from Science Direct

Coverage: 1991 - present

Bioorganic Chemistry from Science Direct

Coverage: March 1993 – present

[Biophysical Chemistry](#) from Science Direct

Coverage: October 1973 – present

Canadian Journal of Chemistry from Infotrac Onefile

Coverage: January 1998 - present

Chemical and Engineering News from Academic Search Premier via EBSCOHOST

Coverage: July 1993 – present

[Chemical Engineering Journal](#) from Science Direct

Coverage: 1970 - present

Chemical Innovation from Academic Search Premier via EBSCOHOST

Coverage: January 2000 – present

[Chemical Physics](#) from Science Direct

Coverage: January 1973 - present

[Chemical Physics Letters](#) from Science Direct

Coverage: February 1967
Chemical Reviews from Academic Search Premier via EBSCOHOST
Coverage: July 1996 – present
Chemical Week from Academic Search Premier
Coverage: July 1993 - present
Chemistry and Industry from Infotrac Expanded Academic ASAP
Coverage: January 1989
Chemistry and Physics of Liquid from Science Direct
Coverage: 1966 – present
Chemistry Review from Infotrac OneFile
Coverage: Sept 1999 - present
Chemtech from Infotrac OneFile
Coverage: Jan 1989 to December 1999
[Chromatographic Reviews](#) from Science Direct
Coverage: 1959 – present
Inorganic and Nuclear Chemistry Letters from Science Direct
Coverage: 1966 – 1981
Inorganic Chimica Acta from Science direct
Coverage: 1967 - present
Inorganic Chemistry from Academic Search Premier via EBSCOHOST
Coverage: July 1993 – present
Journal of Chemical Education from Academic Search Premier via EBSCOHOST
Coverage: January 1992 – present
Journal of Chemical Physics from Academic Search Premier via EBSCOHOST
Coverage: January 1985 – present
Journal of Chemical Thermodynamics from Science Direct
Coverage: January 1993 - present
[Journal of Chromatography A](#) from Science Direct
Coverage: 1958 – present
Journal of Chromatography B: from Science Direct
Coverage: January 2002 – present
Journal of Chromatography B: Biomedical Sciences and Applications from
Science Direct.
Coverage: January 1977
[Journal of Electroanalytical Chemistry](#) from Science Direct
Coverage: August 1959 - present
Journal of Organic Chemistry from Academic Search Premier via EBSCOHOST
Coverage: July 1993 – present
[Journal of Organometallic Chemistry](#) from Science Direct
Coverage: October 1963 - present
Journal of the American Chemical Society from Academic Search Premier via
EBSCOHOST Coverage: January 1993 – present
[Journal of Photochemistry and Photobiology A: Chemistry](#) from Science Direct
Coverage: November 1987
[Journal of Physics and Chemistry of Solids](#) from Science Direct
Coverage: January 1995 - present
[Polyhedron](#) from Science Direct
Coverage: 1987 - present

[Polymer](#) from Science Direct

Coverage: 1915 - 2000

Proceedings of the National Academy of Sciences of the United States form
JSTOR

Coverage: July 1996

Process Biochemistry from Science Direct

Coverage: June 1991 – present

[Progress in Solid State Chemistry](#) from Science Direct

Coverage: 1995 - present

Review in Process Chemistry and Engineering from Academic Search Premier
EBSCOHOST

Coverage: July 1998- present

South African Journal of Chemistry from Academic Search Premier via
EBSCOHOST

Coverage: January 1995 – present

[Talanta](#) from Science Direct

Coverage: July 1958 - present

[Tetrahedron](#) from Science Direct

Coverage: 1957 - present

[Tetrahedron Letters](#) from Science Direct

Coverage: 1959 – present

The Chemical Engineering Journal and the Biochemical Engineering Journal from
Science Direct

Coverage: November 1993 – 1997.

Internet Resources

American Chemical Society educational programs provide teachers from pre-kindergarten through college with a range of instructional materials to enhance their training, including books, magazines, videos, laser discs and CD-ROMs.

Access: <http://www.acs.org>

American Institute of Chemical Engineers (AIChE) fosters and disseminates chemical engineering knowledge and supports the professional and personal growth of its members.

Access: <http://www.aiche.org>

Chemspy.com makes the most important Chemistry and Chemical Engineering related world wide web Databases readily accessible for professionals and students

Access: <http://www.chemspy.com>

INFOMINE – Physical Sciences

Is a selective list of 10000+ scholarly Internet resources in the physical sciences, engineering, computing and mathematics. Coverage includes preprint bulletin boards, databases, electronic journals, subject guides and software repositories.

Access: <http://infomine.ucr.edu/>

Information Resources for Chemistry

Lengthy annotated list of Chemistry resources

Access: <http://www.library.ucsb.edu/subj/chemistry.com>

Links for Chemists is an index of over 8,350 chemistry resources on the web. It is the copyright of the University of Liverpool, Department of Chemistry.

Access: <http://www.liv.ac.uk/chemistry>

The Periodic Table provides high quality source of information on the Internet relating to the periodic table with most of the information on the elements themselves

Access: <http://www.shef.ac.uk/chem/web>

Searchable PDF database from NIH assists users in finding relevant information and services and highlight important items of interest to the public

Access: <http://molbio.info.nih.gov>

Science.gov (chemistry & chemicals)

There are a number of important chemistry databases available including Chemistry Web Book, [Information Bridge](#), [ChemIDplus](#), [Standard Reference Materials \(SRMs\)](#) etc.

Access: http://www.science.gov/browse/w_129A.htm

SolventCentral

Provides you a prioritized lists of unbiased solvent suggestions for your specific application.

Access: <http://www.solventcentral.com>

Yahoo Collection of Chemical Pointers

Access: <http://dir.yahoo.com/science/chemistry/>

WWW Chemicals

Syncon's chemical and catalog collection

Access: <http://www.chem.com>

Societies, Associations, Organizations

Academy of Applied Science (AAS) is a scientific and educational organization dedicated to the advancement and recognition of scientific creativity.

Access: <http://www.science.siu.edu/>

American Association for the Advancement of Science (AAAS) is the world's largest general science organization and publisher of the peer-reviewed journal Science.

Access: <http://www.aaas.org/>

American Chemical Society (ACS) seeks to inform chemists, chemical engineers and other members about the latest research and developments in producing and using chemical information.

Access: <http://www.acs.org/>

American Oil Chemists Society (AOC) is concerned with animal, marine and vegetable oils and fats, and their extraction, refining, safety, packaging quality control and use in consumer and industrial products.

Access: <http://www.adsc.org/>

Chemistry Societies Network

This site is the home of the international chemistry societies' electronic network. It provides interesting features and useful services for the chemistry community.

Access: <http://www.chemsoc.org>

Electrochemical Society (ECS) seeks to advance the science and technology of electrochemistry, electronics, electrothermics, electrometallurgy and applied subjects.

Access: <http://www.electrochem.org/>

Federation of European Chemical Societies (FECS)

FECS promotes co-operation in Europe between non-profit-making scientific and technical societies in the field of chemistry.

Access: <http://www.euchems.org/>

National Organization of Black Chemists and Chemical Engineers

(NOBCCE) seeks to aid black scientists and chemists in reaching their full professional potential, and encourage black students to pursue scientific studies and employment.

Access: http://www.acs.org/minority_affairs/

Royal Society of Chemistry

Links to world wide chemical information, conferences, and the tables of contents of Royal Society of Chemistry journals.

Access: <http://www.chemistry.rsc.org/rsc>

Comments about this page should be directed to sawyerrc@ncat.edu.

Created and maintained by Clifton C. Sawyerr, July 2003

Updated September 2007

