

Chemistry Resource Guide

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This guide provides selected information resources on chemistry. For specific book and periodical titles, check the [Suffolk University Library Catalog](#).

Periodical Indexes and Full-Text Databases

SciFinder Scholar (available in the Suffolk University Chemistry Department)

"SciFinder Scholar is a client server application that provides simple point and click access to the CAS databases, Chemical Abstracts and Registry." Contents include: patent and journal references, substance information, chemical reactions, regulated chemicals information, and commercially available substances. A limited number of links to full-text journal articles are available.

[ACS Publications](#)

Provides access to about 40 major journals of the American Chemical Society including the Journal of the American Chemical Society, Biochemistry and Environmental Science &

Technology. Current coverage includes backfile to 1996. New 2010 publications include *ACS Chemical Neuroscience*, *ACS Medicinal Chemistry Letters*, and *The Journal of Physical Chemistry Letters*.

[Wiley InterScience](#)

Chemistry, polymers and materials science journals published by John Wiley & Sons, Inc. are included in this database plus more than 850 scholarly journals from the Blackwell Synergy database which merged with Wiley Interscience on July 1, 2008.

[ScienceDirect](#)

This database from the publisher Wiley includes about 335 chemistry and chemical engineering journals and book series, 220 full-text with an additional 115 where abstracts only are available. Includes titles with coverage from about 1995 such as *Advances in Colloid and Interface Science*, *Biophysical Chemistry*, *Food Chemistry*, and *Chemical Engineering Journal*.

[SpringerLink](#)

Springer, a major publisher of scientific, technical, and medical books and journals, provides indexing and full-text for about 750 journals in this database. As of January 2005, all journals formerly hosted by Kluwer Online are also available through SpringerLink. The database includes approximately 175 chemistry and biochemistry journals. Not all of the SpringerLink search results are freely accessible.

[HighWire Press](#)

<http://highwire.stanford.edu/>

Indexing and full-text of over 300 physical, biological, social and medical sciences journals published by Stanford University's High Wire Press. Includes a nice "citation map" feature that shows the relationship between the citing and cited articles.

[Academic Search Complete](#)

Indexes and abstracts more than 8,000 journals. Provides full-text for more than 4,500 publications including 3,600 peer-reviewed publications. Publications cover a wide range of academic areas including chemistry, physics, biology, and medical sciences.

[Academic OneFile](#)

Provides indexing and abstracting of more than 8,000 journals and magazines in the social sciences, humanities, and science and technology. Full-text is provided for about two-thirds of the publications.

[Medline with Full Text](#)

Premier medical database from the National Library of Medicine, with access to over 11 million references and abstracts. Some linked full-text is available.

Data Sources on the Web

[Organic Compounds Database](#)

<http://www.colby.edu/chemistry/cmp/cmp.html>

Search for physical and spectra data on over two thousand compounds. Compiled by Professor Harold M. Bell at Virginia Tech in 1995.

[WebElements Periodic Table](#)

<http://www.webelements.com>

An interactive web version of the Periodic Table of the Elements. Includes thousands of graphics showing structures and periodic properties of the elements. Also recommended is the National Institute of Standards and Technology (NIST) Physics Laboratory's [Elemental Data Index](#) (<http://www.nist.gov/physlab/data/edi.cfm>) where you can search for an element, get data for the element, and link to all of the NIST databases in which the element appears.

[NIST Chemistry WebBook](#)

<http://webbook.nist.gov/chemistry>

This database created by the National Institute of Standards and Technology contains thermochemical, thermophysical, and ion energetics data for thousands of chemical compounds. The [NIST Data Gateway](#) page enables you to search NIST databases by keyword, property and substance, and also provides links to free NIST online databases such as the [Atomic Spectra Database](#).

[CODATA Databases](#)

<http://www.codata.org>

The website of the Committee on Data for Science and Technology (CODATA) has a "Resources" section which includes links to its databases such as [Fundamental Constants](#) and [Key Values for Thermodynamics](#).

[BRENDA: the Comprehensive Enzyme Information System](#)

<http://www.brenda-enzymes.info/>

Free database of enzyme functional data that is maintained and developed at the Institute of Biochemistry and Bioinformatics at the Technical University of Braunschweig, Germany.

[ChemBank](#)

<http://chembank.broadinstitute.org/>

"ChemBank stores information on hundreds of thousands of small molecules and hundreds of biomedically relevant assays that have been performed at the Broad Chemical Biology screening center in collaborations involving biomedical researchers worldwide." Partially funded by the National Cancer Institute's Initiative for Chemical Genetics.

[TOXNET](#)

<http://toxnet.nlm.nih.gov/>

TOXNET is The National Library of Medicine's searchable group of databases on toxicology, hazardous chemicals, and related areas. One of these is the [Hazardous Substances Database \(HSDB\) in Toxnet](#) which is a searchable, peer-reviewed data file that deals with the toxicology of potentially hazardous chemicals and consists of over 5,000 individual chemical records.

[eMolecules](#)

<http://www.emolecules.com/>

Search for molecules using a variety of formats such as trade name, formula, and CAS number. In addition to text searches, you can search by drawing chemical structures using the free ChemWriter molecule editor that runs directly in your web browser. Search results include links to more than 150 leading chemical suppliers.

Clearing Houses on the Web

[WWW Virtual Library: Links for Chemists](#)

<http://www.liv.ac.uk/Chemistry/Links/links.html>

The University of Liverpool's Department of Chemistry hosts this virtual library of worldwide chemistry resources including listings of chemistry departments, government research labs, and job postings.

[Intute Chemistry Gateway](#)

<http://www.intute.ac.uk/sciences/chemistry/>

The Intute Chemistry Gateway describes itself as providing "free access to high quality resources on the Internet. Each resource has been evaluated and categorised by subject specialists based at UK universities." Among the topics included are: analytical chemistry; chemistry of materials and environments; inorganic and organic chemistry; and physical chemistry.

[The Sheffield Chemdex](#)

<http://www.chemdex.org/>

The University of Sheffield in England hosts this directory of chemistry resources on the internet. Some of the categories included are: university departments; learned societies; government agencies and laboratories; companies; and sites addressing specific compounds or molecules.

[INFOMINE: Physical Sciences, Engineering, Computing & Math](#)

<http://infomine.ucr.edu/cgi-bin/search?physci/>

Self-described as "a virtual library, INFOMINE is notable for its collection of annotated and indexed links." INFOMINE can be used to locate links to university-level, scholarly sources such as e-journals, conference proceedings, and databases. You can limit your search to freely accessible sources, fee-based sources, or both.

[ChemWeb](#)

<http://www.chemweb.com>

ChemWeb provides news, conference information, and a jobs listing. Also provides access to commercially sponsored white papers and journal abstracts from over 500 journals. It is owned and operated by ChemIndustry.com which describes itself as being "the leading comprehensive directory and search engine for chemical and related industry professionals."

[SciCentral](#)

<http://www.scicentral.com>

SciCentral is a portal to science information and prides itself on "aggregating breaking research news from the most reputable and reliable sources." The editors of SciCentral emphasize that "only content freely accessible to online readers is considered."

[Scirus](#)

<http://scirus.com/>

Elsevier Science publisher claims that its Scirus web site provides the "most comprehensive science specific search engine on the Internet. Scirus searches web pages (e.g. scientists' homepages) as well as journals (e.g. chemistry preprints). Searches can be limited to subject areas such as chemistry and chemical engineering.

Education

[Academic Chemistry Departments in the United States of America](#)

<http://www.library.ucsb.edu/subjects/chem/chemuniv.html>

The University of California Santa Barbara (UCSB) Libraries' list contains links to the webpages of chemistry and biochemistry departments Bachelor's degrees and higher in academic institutions in the United States.

[Academic Chemistry Departments Outside the United States of America](#)

<http://www.library.ucsb.edu/subjects/chem/chemuni2.html>

The UCSB Libraries' list contains links to the webpages of chemistry and biochemistry departments offering Bachelor's degrees (or equivalent) or higher at universities outside the United States.

Selected Reference Sources

[CRC Handbook of Chemistry and Physics](#)

REF QD65 .H3 2008-2009

Excellent source of physical and chemical data. Includes large section on mathematical tables and a chapter on chemical nomenclature, terminology, and symbols.

[Lange's Handbook of Chemistry](#)

REF QD65 .L36 2005

Classic handbook of chemistry and physics including facts, data, tables, and illustrations. Includes properties of approximately 4,400 organic and 1,400 inorganic compounds.

[CRC Handbook of Basic Tables for Chemical Analysis](#), 2nd Edition

REF QD78 .B78 2003

Contains tables on chromatography, spectroscopy, electrophoresis, electroanalytical methods, qualitative tests, solution properties, and spectrophotometry.

[Merck Index](#), 14th Edition

REF RS51 .M4 2006

Published by Merck Research Laboratories. Entries cover chemicals, laboratory reagents, drugs and pharmaceuticals, and naturally occurring substances and plants. Includes ring structures and Chemical Abstracts Service registry numbers.

[Hawley's Condensed Chemical Dictionary](#), 15th Edition

REF QD5 .C5 2007

A dictionary of chemical terms that includes technical data, descriptive information on chemicals and chemical phenomena and descriptions or identifications of trademarked products.

[Oxford Dictionary of Biochemistry and Molecular Biology](#)

REF QD415 .A25 O94 2000

Provides coverage of terminology that relates to the structures and function of molecular biology and other related areas such as DNA. Includes basic definitions, some diagrams of ring structures, and explanations of some topics in greater depth.

[World of Chemistry](#)

REF QD33 .W873 2000

Self-described as containing "over 1,000 entries that provide basic information about chemical terms and concepts, applications of chemistry encountered in everyday life, description of the chemistry behind industrial and commercial products, natural phenomena, and biographical sketches of individuals who have made major contributions to the development of chemical ideas and inventions."

[Encyclopedia of the Elements: Technical Data, History, Processing, Applications](#)

REF QD466 E54 2004

In one volume, this encyclopedia gives information about the elements: facts about the elements; their occurrence; their discovery and history; uses; techniques for manufacturing metals, alloys and compounds; tools for element identification (e.g. spectral analysis); and the roles of elements in our lives.

[Hazardous Laboratory Chemicals Disposal Guide](#), 3rd Edition

REF QD64 .A76 2003

Provides concise information about the health hazards, spillage disposal, and waste disposal of chemical compounds.

[Access Science: McGraw-Hill Encyclopedia of Science & Technology Online](#)

Online encyclopedia produced by McGraw-Hill. Browse by topic or alphabetically or search by word or phrase. Includes data, tables, tools, study guides, bibliographies, a dictionary, biographies, and news articles.

[Encyclopedia of Life Sciences](#)

REF QD302.5 .E54 2002

The twenty volumes that constitute the *Encyclopedia* cover ten core areas of the biological sciences including biochemistry. Volume 20 includes: an alphabetical listing of the articles; a subject index; a glossary; a study guide of core introductory articles; and an appendix containing additional reference information.

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