HANFORD Technical Library

Chemistry Resources

Databases, websites, and electronic journals for researchers in the field of chemistry.

eBooks/ePedias:

Combined Chemical Dictionary: http://ccd.chemnetbase.com
The *Combined Chemical Dictionary* is a structured database with information on chemical substances. It includes descriptive and numerical data on chemical; physical; and biological properties of compounds, systematic and common names of compounds, literature references, structure diagrams, and their associated connection tables. The *Combined Chemical Dictionary* contains all records published in:

- *Dictionary of Commonly Cited Compounds*
- *Dictionary of Drugs*
- *Dictionary of Inorganic and Organometallic Compounds*
- *Dictionary of Natural Products*
- *Dictionary of Organic Compounds*

A tip sheet is available at: https://library.pnl.gov/tipsheet/ccd.pdf ***Desktop access is available to PNNL and staff on HLAN only; also available at user stations at the Hanford Technical Library.***

CRC Handbook of Chemistry and Physics: http://www.hbcpnetbase.com/
Corresponding to the current edition in content, the electronic version of *CRC Handbook of Chemistry and Physics* enables quick-and-easy access to everything the Handbook has to offer. Whether you want to browse through the table of contents or use the search features to find specific data, you'll be sure to find what you were looking for, and more quickly than ever before. A tip sheet is available at: https://library.pnl.gov/tipsheet/chemphys.pdf ***Desktop access is available to PNNL and staff on HLAN only; also available at user stations at the Hanford Technical Library.***

Kirk-Othmer Encyclopedia of Chemical Technology:
http://www.mrw.interscience.wiley.com/emrw/0471238961/home/
The *Kirk-Othmer Encyclopedia of Chemical Technology* is an encyclopedia providing full-text access to information on the latest developments in chemical technology and allied fields. A tip sheet is available at: https://library.pnl.gov/tipsheet/kirk.pdf ***Desktop access is available to PNNL staff only; also available at user stations at the Hanford Technical Library.***

Ullmann's Encyclopedia of Industrial Chemistry:
http://www.mrw.interscience.wiley.com/emrw/9783527306732/home/
Ullmann's provides full-text access to information detailing the science and technology in all areas of industrial chemistry. A tip sheet is available at: https://library.pnl.gov/tipsheet/ullmann.pdf **Desktop access is available to PNNL staff only; also available at user stations at the Hanford Technical Library.**

Databases:

ExPub: http://www.expub.com/ ExPub contains over 1.6 million documents. In addition to CHRIS, IRIS, and RTECS, it includes hard-to-find content from the EPA, the National Toxicology Program, the Agency for Toxic Substances and Disease Registry (ATSDR), the European Chemicals Bureau, the U.S DoD, and many others, including content from around the world. ExPub is best viewed in Internet Explorer. Source: Expert Publishing. ***Desktop access is available to PNNL and staff on HLAN only; also available at user stations at the Hanford Technical Library.***

Knovel: http://www.knovel.com/
Knovel allows you to search hundreds of reference works and find quick answers to your chemistry questions. This full-text database includes over 650 titles, and new information is added monthly. *Lange's Handbook of Chemistry, Patty's Toxicology, Perry's Chemical Engineers' Handbook*, and *Sax's Dangerous Properties of Industrial Materials* are just a few of the high-quality reference sources available here. A getting started guide is available at:
http://totem.pnl.gov:2048/connect?session=r0heYQznDUOXLDyb&url=http://www.knovel.com/html/themes/knovel_mktg/pdf/GettingStarted_UserHandout.pdf ***Desktop access is available to PNNL and staff on HLAN only; also available at user stations at the Hanford Technical Library.***

Polymers: A Property Database: http://www.polymersdatabase.com/
Polymers: A Property Database is a reference for Polymer Science and Technology professionals. Users can browse for information or search by data or keyword using the Table of Contents feature. A wide range of data are provided including applications of commercial products, general information, stability, synonyms, properties, references, and more. A tip sheet is available at: https://library.pnl.gov/tipsheet/polymers.pdf ***Desktop access is available to PNNL and staff on HLAN only; also available at user stations at the Hanford Technical Library.***

Properties of Organic Compounds: http://www.chemnetbase.com/scripts/pocweb.exe
Properties of Organic Compounds is a database that contains over 29,000 of the most commonly sought organic compounds, featuring physical data, spectral data, and structures. The database can be used for identifying unknown compounds or for locating additional data and references for a known compound. A tip sheet is available at: https://library.pnl.gov/tipsheet/proporg.pdf ***Desktop access is available to PNNL and staff on HLAN only; also available at user stations at the Hanford Technical Library.***

Electronic Journals

The Hanford Technical Library subscribes to hundreds of journals in the field of chemistry from publishers such as the American Chemical Society, Elsevier, Royal Society of Chemistry Check for specific titles in Leona, the Library's online catalog, at: http://libcat.pnl.gov, or visit the Library's electronic journals page at: https://library.pnl.gov/journals.asp ***Desktop access is available to PNNL only; also available at user stations at the Hanford Technical Library.***

The following websites are publicly available on the Internet

Websites

Environmental Fate Database: http://www.syrres.com/esc/efdb.htm
The *Environmental Fate Database* covers physical properties; environmental degradation; transport studies; and ambient, effluent, food, and occupational monitoring data on over 16,500 chemicals and 35,000 references.

NIST Chemistry Webbook: http://webbook.nist.gov/chemistry/
The *NIST Chemistry Webbook* provides thermochemical, thermophysical, and ion energetics data compiled by the National Institute for Standards and Technology under the Standard Reference Data Program.

The Orbitron: http://www.shef.ac.uk/chemistry/orbitron/
The Orbitron provides an image gallery of atomic and molecular orbitals on the World Wide Web.

SpectroscopyNOW.com: http://www.spectroscopynow.com/Spy/basehtml/SpyH/
SpectroscopyNOW.com is a free online resource from Wiley InterScience covering all ten spectroscopy techniques. It aims to help keep you up-to-date with all the latest spectroscopy news.

Visual Elements Periodic Table: http://www.chemsoc.org/viselements/pages/periodic_table.html
This online resource allows you to click on any element to get a brief description of that particular element. By clicking on the word **data**, users are able to retrieve more in-depth information. For a different perspective of the elements, try: http://www.uky.edu/Projects/Chemcomics/

What Every Chemist Should Know about Patents:
Third Edition, 2002: https://portal.acs.org/portal/fileFetch/C/WPCP_006903/pdf/WPCP_006903.pdf
2006 Supplement: http://www.library.ucsb.edu/classes/chem184/chempats2006Supplement.pdf
This booklet covers the basics of patent law, with a US slant. Although it was written by chemists, for chemists, it is really for anyone working in industry or academia. It is provided as a PDF file and downloading for non-commercial use is encouraged. The booklet was written for the ACS Joint Board-Council Committee on Patents and Related Matters.