Chem 228 Lab-Literature Sources for Organic Compound Information

GUIDES TO THE LITERATURE

How to Find Chemical Information: A Guide for Practicing Chemists...and Students (3rd ed.)
REF QD8.5 M34 1998 by Robert E. Maizell

Information Sources in Chemistry (4th ed.) **REF QD8.5 .I47 1993** eds, R.T. Bottle, J.F.B. Rowland.

HANDBOOKS

CRC Handbook of Chemistry and Physics (80th ed.) **REF QD65 .H3 1999-00**

Latest edition located at the Reference Desk.
Useful source of physical property data as well as an extensive section on mathematical tables, information on sources of critical data, and rules for nomenclature of organic chemistry.

Lange's Handbook of Chemistry (15th ed.) REF TP151.H25 1999

Latest edition located at the Reference Desk.
A standard reference source for chemistry with sections for mathematics, conversion tables, atomic and molecular structure, inorganic chemistry, electrochemistry, organic chemistry, spectroscopy, thermodynamic properties, physical properties, etc.

Merck Index: An Encyclopedia of Chemicals, Drugs, and Biologicals (12th ed.) REF RS51 .M4 1996

Latest edition located at the Reference Desk.(also available on CD - UMR Glass Case (1st) RS51 .M4) Descriptive information on over 10,000 chemicals, drugs, and biologicals. Arranged alphabetically by generic name. Includes organic name reactions, a comprehensive cross index of synonyms, and a formula index. CAS Registry Numbers are given when available. Over half of the chemicals are illustrated with stereochemical structural formulas.
NOW also available on the LAN

HANDBOOKS: Organic Chemistry

Beilstein's Handbuch der Organischen Chemie (Handbook of Organic Chemistry) REF QD251 .B4

Coverage goes back to the beginnings of organic chemistry and up to more recent years, providing a summary of published data on organic compounds. Compounds can be found by molecular formula index, subject index, or Beilstein System Number.

A Guide to using Beilstein (web link)
[URL=http://scilib.ucsd.edu/electclass/Beilstein/BeilMain.html]

Dictionary of Organic Compounds (6th ed) v.1-7, suppls. REF QD246 .D5 1996

A seven volume set plus supplements providing concise data on many common compounds. Entries included for fundamental organic compounds of simple structures, compounds of widespread industrial or commercial value, important natural products, compounds frequently encountered as solvents, reagents or starting materials, and other compounds of particular interest because of their chemical, structural, or biological properties. Much less comprehensive than Beilstein's but more up-to-date information. Alphabetical arrangement and indexes by chemical name (including systematic, trivial, and trade names), molecular formula, heteroatom, and CAS Registry Number.

Online Sources for Chemical Property Information

SciFinder Scholar URL= http://www.umr.edu/~library/secure/scifinder2000.html

Link to download the software (for PC or Mac)

Available 11:00 am (Local Time) Sunday to 5:00 am Monday
5:00 pm to 5:00 am (Local Time) Monday thru Thursday
5:00 pm Friday (Local Time) to 5:00 pm Saturday

at library and Chemistry CLC's. May be available in other CLC's. I have not checked this.

SciFinder Online Tutorial URL= http://www.cas.org/SCIFINDER/SCHOLAR/resources.html

Contains screen captures and explanations of different search options, available 24 hrs.

SciFinder User Guide (.pdf file) URL= http://merlin.missouri.edu/merlin/sfsguide.pdf

Detailed instruction manual for all aspects of using SciFinder. Can be saved to disk as a file, however this is a very large file, 6.6 Mb.

Web of Science URL= http://ivid.library.umr.edu:2048/login?url=http://wos.isiglobalnet2.com/

Online database of science and technology articles

NIST WebBook URL= http://webbook.nist.gov/

National Institute of Standards, online thermodynamic data, IR, NMR, MS, UV/VIS

ChemFinder URL= http://chemfinder.camsoft.com/

Wide range of physical properties, health hazards, sources, MSDS, government regulations.

Spectral Database for Organic Compounds URL http://www.aist.go.jp/RIODB/SDBS/menu e.html

Searchable by name, formula, CAS no., molecular weight, location of NMR or MS peaks

Journal of Chemical Education-online index

URL= http://jchemed.chem.wisc.edu/Journal/Search/index.html
A journal aimed at students and educators. Index allows searching author, title or keywords.

Journal of Chemical Education-online URL= http://jchemed.chem.wisc.edu/Journal/index.html

A journal aimed at students and educators. Non subscribers can view contents by issue/year and abstracts of articles. A good source for educational articles on various chemical topics. Hardcopy journal is in UMR library on 3rd floor at: 540.705 J82