



# RESEARCH GUIDE

## Chemistry

### Frequently Asked Questions

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For access to the Web-based guide *Resources for Chemistry* connect to  
<http://www.lib.uconn.edu/online/research/bysubject/chemx.htm>

1. Where can I find Infrared or NMR or UV spectra?

Best Print Sources: *The Aldrich Library of Infrared Spectra* Ref. QD 96 I5 P67 1981  
*The Aldrich Library of NMR Spectra* Ref. QD 96 N8 P68 1983  
*Sadtler Standard Spectra (IR/NMR/UV)* Level 2 / QC 453 S332

Online Source: *NMR or Mass Spectra*  
<http://www.aist.go.jp/RIODB/SDBS/menu-e.html>

2. Where can I find information on a household chemical such as Raid?

Best Print Sources: *Kirk-Othmer Encyclopedia of Chemical Technology* Ref. TP 9 E685 1991 /  
Ref. TP 9 K 54 2004 (v.1-6)  
*Household Safety Sourcebook* Ref. TX 150 H68 2002  
*Chemistry of Hazardous Materials* Level 2 / TH 9446 H38 M48 2005

Best Online Source: *ChemFinder.com*  
<http://chemfinder.cambridgesoft.com/>  
*Toxnet –Household Chemicals*  
<http://hpd.nlm.nih.gov/>

3. Where can I find the chemical name if I know the trade name of a compound?

Best Print Sources: *Brands and Their Companies* Ref. T 223 V4 A22 22<sup>nd</sup> ed.  
*Gardner's Chemical Synonyms and Trade Names* Ref. TP 9 G 286 1999

Best Online Source: *ChemFinder.com*  
<http://www.lib.uconn.edu> (UConn Libraries home page) → ...Research Subject → Subject  
Resource Guide → Resources for Chemistry → Key Web sites for Chemistry →  
Chemfinder or  
<http://chemfinder.cambridgesoft.com/>

4. Where can I find information on pesticides?

Best Print Sources: *Kirk-Othmer Encyclopedia of Chemical Technology* Ref. TP 9 E685 1991 /  
Ref. TP 9 K 54 2004 (v.1-6)  
*Pesticide Residues in Food and Drinking Water:  
Human Exposure and Risks* Level 2 / RA 1270 P4 P4823 2004

Best Online Source: *RSC Journals: Pesticide Outlook*  
<http://rsc.org/is/journals/current/pest/PO014005.htm>

5. Where can I find information on Environmental Science?

Best Online Source: *Syracuse Research Corporation*  
<http://www.syrres.com/esc/>

6. Where can I find information on the synthesis of an organic compound?  
 Best Print Source: *Organic Syntheses*. Collective volume. Ref. QD 262 O72  
 Best Online Source: *Organic Syntheses*  
<http://www.lib.uconn.edu> (UConn Library homepage) → All Databases → Organic Syntheses
7. Where can I find a named reaction?  
 Best Print Sources: *Organic Syntheses Based on Name Reactions* Level 2 / QD 262 H324 2002  
*Name Reactions: A Collection of Detailed Reaction Mechanisms* Ref. QD 291 L5 2003
8. Where can I find information on the toxicity/hazards of a compound?  
 Best Print Source: *The Merck Index: An Encyclopedia Of Chemicals, Drugs, and Biologicals* Ref. Desk / Ref. RS 51 M4 2001  
 Best Online Sources: *ChemFinder.com*  
<http://chemfinder.cambridgesoft.com/>  
*MSDS Sheets* (Material Safety Data Sheets)  
<http://msds.ehs.cornell.edu/>  
*TOXNET*  
<http://toxnet.nlm.nih.gov/>
9. Where can I find information on the physical/chemical properties of an inorganic/organic compound?  
 Best Print Sources: *CRC Handbook of Chemistry & Physics* Ref. Desk / Ref. QD 65 H3  
*JANAF Thermochemical Tables* Ref. QD 511 D6 1986  
 Best Online Sources: *Chemical Physical Properties*  
[http://www.knovel.com/knovel2/library/Show\\_Books.jsp?SubjectAreaID=-6&SortBy=1](http://www.knovel.com/knovel2/library/Show_Books.jsp?SubjectAreaID=-6&SortBy=1)
10. Where can I find information about the physical properties of an industrial product?  
 Best Print Source: *Lange's Handbook of Chemistry* Ref. Desk / Ref. QD 65 L36
11. Where can I find information on polymers?  
 Best Print Source: *Polymer Handbook* Ref. QD 388 P65 1999
12. I have the Registry Number of a compound, where can I find the name of the compound?  
 Best Print Sources: *The Merck Index* Ref. Desk / Ref. RS 51 M4 2001  
*Dictionary of Organic Compounds* Ref. QD 246 D5 1996  
*Dictionary of Inorganic Compounds* Ref. QD 148 D53 1992  
*Dictionary of Organometallic Compounds* Ref. QD 411 D53 1995  
 Best Online Source: *SciFinder Scholar*  
 Remote Access: <http://www.lib.uconn.edu> (UConn Libraries home page) → All Databases → SciFinder Scholar Follow directions to download software.  
 Access in a UConn Library: All Internet workstations; *Other Databases* folder.  
 Provides bibliographic information from 1966+ on both organic/inorganic/biochemical compounds with links to full text of those *American Chemical Society (ACS)* journals to which we currently subscribe. Searchable by Registry Number, subject, author, title and commonly used phrases.

13. I have the Chemical Abstracts Registry Number of a drug; where can I find information on this substance?

Best Print Source: *The Merck Index: An Encyclopedia Of Chemicals, Drugs, and Biologicals*  
Ref. Desk / Ref. RS 51 M4 2001

Best Online Sources: *SciFinder Scholar*  
Remote Access: <http://www.lib.uconn.edu> (UConn Libraries home page) → All Databases  
→ *SciFinder Scholar* Follow directions to download software.  
Access in a UConn Library: All Internet workstations; *Other Databases* folder.

*PubMed –National Library of Medicine (NLM) database*  
<http://www.lib.uconn.edu> (UConn Libraries home page) → Most Used Databases →  
*PubMed (medicine and allied health)*

14. I have the abbreviation of a science journal; how do I find the full title of the journal?

Best Print Sources: *CASSI (Chemical Abstracts Service Source Index)* Ref. Desk / Ref. QD 1 C44  
*Ulrich's International Periodicals Directory* Ref. Desk / Ref. Z 6941 U5  
Remote Access: <http://www.lib.uconn.edu> (UConn Libraries home page) → All Databases  
→ *Ulrich's Periodicals Directory*

Best Online Source: PubMed

15. I need the structure of a compound and need reaction information for this compound.

*Chemical Abstracts* 1907+ Ref. QD 1 A 51  
best source for compounds appearing in the literature prior to 1966

Best Online Sources: *ChemFinder.com*  
<http://chemfinder.cambridgesoft.com/>  
adequate for common compounds

*Beilstein CrossFire Plus Reactions*  
Remote Access: <http://www.lib.uconn.edu> (UConn Libraries home page) → All Databases  
→ *Beilstein CrossFire*  
Access in a UConn Library: All Internet workstations; *Other Databases* folder.  
Provides detailed information on organic compounds with accompanying structure

*SciFinder Scholar*  
Remote Access: <http://www.lib.uconn.edu> (UConn Libraries home page) → All Databases  
→ *SciFinder Scholar* Follow directions to download software.  
Access in a UConn Library: All Internet workstations; *Other Databases* folder.  
Provides bibliographic information (and often the structure of the compound) from 1966+ on both organic/inorganic/biochemical compounds with links to full text of those ACS journals to which the library currently subscribes. Searchable by Registry Number, subject, author, title, and commonly used phrases.  
*SciFinder Scholar* offers searching back to 1907, but Registry Numbers are available only to compounds in system from 1996+.

16. Where can I find a patent for the synthesis and/or application of a particular compound?

Best Print Sources: *Chemical Abstracts* 1907+ Ref. QD 1 A 51  
*The Merck Index* Ref. Desk / Ref. RS 51 M4 2001

Best Online Sources: *SciFinder Scholar*  
Remote Access: <http://www.lib.uconn.edu> (UConn Libraries home page) → All Databases  
→ *SciFinder Scholar* Follow directions to download software.  
Access in a UConn Library: All Internet workstations; *Other Databases* folder.

*Patent Databases*  
<http://www.lib.uconn.edu> (UConn Libraries home page) → ...Research Subject → Subject  
Resource Guide → Engineering → Patents Information

*U. S. Patent and Trademark Office*  
<http://www.uspto.gov/patft/index.html>

17. I have a scientific term for which I need a definition; where can I find it?

Best Print Sources: *CRC Handbook of Chemistry and Physics* Ref. Desk / Ref. QD 65 H3  
*Lange's Handbook of Chemistry* Ref. Desk / Ref. QD 65 L36  
Best Online Sources: *Google Scholar*  
<http://scholar.google.com/>

18. I need to convert a temperature from 10<sup>0</sup> Centigrade to Fahrenheit; where can I find conversion factors?

Best Print Source: *CRC Handbook of Chemistry and Physics* Ref. Desk / Ref. QD 65 H3  
Best Online Source: <http://www.srh.noaa.gov/elp/wxcalc/tempconvert.shtml>

19. I am working with a chemical and need to know how to handle the chemical and what precautions I should take.

Best Print Sources: *Hazardous Chemicals Desk Reference* Ref. T 55.3 H3 L49 1997  
*Handbook of Industrial Toxicology and Hazardous Materials* Ref. RA 1229 C472 1999  
*Dangerous Properties of Industrial and Consumer Materials* Pharmacy Library /  
Ref. T 55.3 H3 L15 1994  
*Bretherick's Handbook of Reactive Chemical Hazards:  
An Indexed Guide to Published Data* vols. 1-2 Ref. T 55.3 H3 B73 1999  
Best Online Source: *MSDS Sheets*  
<http://msds.ehs.cornell.edu/>

20. Where can I find industrial processes for producing a chemical compound?

Best Print Source: *Kirk-Othmer Encyclopedia of Chemical Technology* Ref. TP 9 E685 1991 /  
Ref TP 9 K54 2004 (v.1-6)

21. Where can I find information on the preparation of a chemical compound for which I have the Registry Number?

Best Online Sources: *ChemFinder.com*  
<http://chemfinder.cambridgesoft.com/>  
Adequate for common compounds.  
*Beilstein CrossFire Plus Reactions*  
Remote Access: <http://www.lib.uconn.edu> (UConn Libraries home page) → All Databases  
→ Beilstein CrossFire  
Access in a UConn Library: All Internet workstations; *Other Databases* folder.  
Organic compounds only; provides detailed information on organic compounds with  
accompanying structure.  
*SciFinder Scholar*  
Remote Access: <http://www.lib.uconn.edu> (UConn Libraries home page) → All Databases  
→ SciFinder Scholar Follow directions to download software.  
Access in a UConn Library: All Internet workstations; *Other Databases* folder.  
*Landolt-Börstein Online Index*  
<http://lb.chemie.uni-hamburg.de/search/index.php?PHPSESSID=75742cdc1b95e408dfcc58b22d6837bd>