Reference Resources for Chemistry

A number of useful references for the organic lab, as well as references for other classes and specific chemical, physical, and biological topics, are kept in the room outside our offices, Room 303. The reference books should never be removed from the room. Please do not write in the reference books. With the exception of the Aldrich catalog, of which there are several copies, books should not be used in the laboratory. If they are taken there, it is nearly inevitable that they will become disfigures from spills, splatters, etc.

References in Room 303

CRC Handbooks: various editions and formats.
These contain physical data such as melting and boiling points, solubilities, and densities, in addition to a large amount of other types of physical and chemical information.
The Merck Index is an excellent reference; the data for compounds that are included is exceptionally thorough, and included uses, toxicity data, references to synthesis, historical nomenclature, and other items, in addition to data such as solubility, density, etc.
Aldrich Chemical Company Catalog; various editions. There are several of these to be found in the organic lab, the chemistry library, and the chemistry office. They are useful sources for data such as molecular masses, melting points, and densities.
Spectrometric Identification of Organic Compounds, Robert M. Silverstein, G. Clayton Bassler, and Terence C. Morill, Wiley, 1974. This is a good reference for various spectroscopic techniques. It is especially relevant to our class for its sections on IR and NMR spectroscopy.

Bernadotte Library

The Aldrich library of ^{13}C and ^{1}H FT NMR spectra, edited by Charles J. Pouchert & Jacqlynn Behnke. LOCATION: Bernadotte Library REFERENCE QC462.85.A44 1993. This is a library of NMR spectra of every compound that the Aldrich Chemical Company sells. When you are faced with analyzing an NMR spectrum of an unknown compound, this is an invaluable reference.

www sites

http://www.indiana.edu/~cheminfo/ is a wonderful site for all kinds of chemical information.
http://www.chemfinder.camsoft.com is a good site for looking up physical properties of compounds. You must register and they will then send you junk email.
http://webbook.nist.gov/chemistry/ contains MS and IR data that may be searched by formula, name, CAS #, and several other options.
http://www.aist.go.jp/RIODB/SDBS/menu-e.html has an extensive database of NMR (H-1 and C-13) and mass spectra (NIMC=National Institute of Materials and Chemical Research in Japan).