

<p><b>Clark Library</b> University of Portland</p>	<p><b>Organic Chemistry Resources</b></p>	<p>http://library.up.edu 503-943-7788 library@up.edu</p>
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## I. General Resources

**The ACS style guide** ([connect to eBook](#))

**Dean's analytical chemistry handbook** (Reference QD78 .P37 2004)

Describes analytical methods for gaseous, liquid, and solid samples, as well as procedures on separating and evaluating unknown mixtures.

**Organic Syntheses** ([free online](#))

Search the Organic Syntheses series (1921-present) by structure or keyword. Has detailed and reliable experimental methods for the synthesis of organic compounds.

## II. Physical Data

**CRC handbook of chemistry and physics** ([connect to eBook](#))

Search by keyword, chemical structure, or chemical properties. Or use table of contents and choose *Section 3: Physical Constants of Organic Compounds* (this will download PDF of entire section). Has information on colors of compounds, shapes of crystals, solubility, etc. Lists parent followed by substituted compounds.

**Dean's handbook of organic chemistry, 2<sup>nd</sup> ed.** (Reference QD251.3 .G65 2004)

Provides tables for physical constants of organic and inorganic compounds, as well as spectral data and thermodynamic properties.

**The Merck index: an encyclopedia of chemicals, drugs, and biologicals** ([connect to eBook](#))

Information for over 10,000 organic and inorganic chemicals, drugs, and pharmaceuticals. Includes CAS RNs and brief physical properties, such as colors, odors, crystal shapes. Also has a section on name reactions.

**Dictionary of organic compounds, 6th ed.** (Reference QD246 .D5 1996)

Organized alphabetically by DOC name. Good source for organic compound synonym names, structures, and basic data. Includes references to literature for syntheses, spectra, etc.

TIP: Use the indexes (name, molecular formula, or CAS RN) to find appropriate entry in main dictionary. Physical property data for derivatives are given in entry for parent compounds. Use Name Index to see derivatives listed for each parent entry.

TIP: The library also has fifth edition and its supplements. Use latest supplement first and then work back to entries in main work. Note that updated entries in supplements also include the entry from the main work.

**PubChem** ([free online](#))

Has chemical and biological activity information for small organic molecules. **Important Timesaving Tip:** When looking at the Compound Summary, choose **Chemical and Physical Properties** from the Table of Contents. Then on the next screen, choose **show all sub-sections** to get to the chemical data for that molecule. **Another Tip:** The CAS Number is provided near the top of the Compound Summary in the **Also known as** section.

### III. Spectral Data

#### Spectral Database for Organic Compounds SDBS ([free online](#))

Six types of spectra are compiled for organic compounds (most are commercial chemical reagents). Includes peak data along with the plots.

#### CRC atlas of spectral data and physical constants for organic compounds ([Reference QD291 .C18](#))

Basic physical and spectral data. Indexes by mp, bp, mw, spectra, structure. Many tables and definitions. Spectra are not graphed.

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### V. Searching for Articles in the Chemical Literature

#### SciFinder Scholar

This is the **database** for searching the scientific literature, particularly chemistry. Search by substance name, formula or structure; search by reaction; or search using natural language. Results may include physical data, spectral data, and will have references to the literature. Spans 1907 to present, but also has 250,000 citations to pre-1907 publications.

NOTE: Requires you to register for an individual account before using. Available from on campus or off campus.