

With all of these databases, you can:

- Connect to the full text of the articles you find via UC-eLinks.
- Export or import references to the bibliographic manager of your choice (EndNote, etc.).
- Set up search alerts to be notified when new articles of interest are added.

	Why Use?	Notes
SciFinder	<ul style="list-style-type: none"> • Set of connected databases that together allow you to search millions of chemistry journal articles, conference papers, patents, AND chemical substances and reactions. • Core resource for biochemistry, materials science, nanotechnology, chemical engineering, physics, environmental sciences, and biomedical sciences. • Search by author or topic, plus substance name or CAS registry number, structure, substructure, and reaction. • Information on registration, training resources: http://ucsd.libguides.com/scifinder 	<ul style="list-style-type: none"> • Requires a one-time registration, then login with that username and password with each use. • Does not work with WebVPN (Proxy and AnyConnect client VPN will work). • Natural language searching rather than “and/or” Booleans.
Web of Science	<ul style="list-style-type: none"> • Indexes millions of journal articles and conference proceedings in all science and engineering subjects (6,700+ journals). Excellent starting place for any topic search. • For each article, you get a list of the papers the authors cited, any papers that have since cited the article, and related articles based on common citations. 	<ul style="list-style-type: none"> • Can cross search with Inspec and Derwent Innovations Index (patents).
PubMed	<ul style="list-style-type: none"> • Covers the biomedical literature and related sciences (biomaterials, bionano- topics, etc). • Rich subject terms (MeSH) that help with searching and finding related articles. 	<ul style="list-style-type: none"> • The free www.pubmed.gov link will get you to most full text (via Proxy or VPN), but the UC version will get you to UC-eLinks.
Compendex	<ul style="list-style-type: none"> • Indexes engineering journals and conference proceedings. • Includes: chemical engineering, nanotechnology, materials science, and environmental science. 	<ul style="list-style-type: none"> • Can get list of citing papers for the article via Scopus (though we don't access to the full database).
Inspec	<ul style="list-style-type: none"> • Indexes journals and conference proceedings in physics, electrical engineering, and computer science. • Good for physical chemistry and nano- topics. 	<ul style="list-style-type: none"> • Can cross search with Web of Science.
Reaxys	<ul style="list-style-type: none"> • Database of 26 million substances with lots of property data, and 39 million reactions. Each property and reaction has at least one associated journal reference. • Search by substance name/CAS-RN, structure, substructure, reaction, or property values. Some author and topic searching as well. 	<ul style="list-style-type: none"> • Not as strong for keyword/topic or author searching. • Some overlap with SciFinder, but lots of unique content (indexes more properties). • Use with SciFinder for any substance or reaction searching.
Google Scholar	<ul style="list-style-type: none"> • Like Google, but searches scholarly literature at the article text level. • Good for quick searches and known items. 	<ul style="list-style-type: none"> • Limited options for sorting and refining searches.

And if you need more resources.... (NOT a complete list)

Books – Print and Online

- All of our books are in Roger, the Library catalog – <http://roger.ucsd.edu>
- Most of the books we currently acquire are online, including Wiley, Springer, American Chemical Society, Royal Society of Chemistry, Elsevier/Science Direct, CRC Press, Materials Research Society, Oxford Univ Press, Cambridge Univ Press, etc.
- Along with the catalog, you can also search within the full text of the books (and articles) at the publishers' websites.

Dissertations

- Start with the Dissertations & Theses database.
- UC dissertations from 1997 to date are free to download. Others can be requested.

Physical Property Data Resources

- SciFinder and Reaxys are great starting places.
- Knovel
 - Searches across handbooks and databases from multiple publishers.
 - Excellent for materials property data.
- ASM Handbooks Online
 - Information on ferrous and non-ferrous metals and materials technology
- ASM Alloy Phase Diagram Database

Crystallographic Data

- Cambridge Structural Database System (CSDS)
 - 800K+ small-molecule organic and metal-organic crystal structures, with property data and journal article references.
 - Web version and "power user" version that can be downloaded.
- Inorganic Crystal Structure Database
 - 177K+ inorganic crystal structure, with property data and article references
- Powder Diffraction File (Library use only, near the reference desk)
 - Powder diffraction and single crystal data, 354K entries (mostly inorganic)

Standards

- ASTM Compass
 - Full text access to the entire library of ASTM standards, journals and books
- Also have IEEE standards. Selected standards from other organization available. Can also be ordered via interlibrary loan, but you'll have to cover costs > \$50.

Background Information / Getting Started with New Topics

Overviews of topics with bibliographies of articles for more reading. Some examples:

- CRC Materials Science and Engineering Handbook
- Encyclopedia of Materials: Science and Technology
- Springer Handbook of Nanomaterials
- Comprehensive Biomaterials
- Handbook of Nanomaterials Properties
- Mechanical Engineers' Handbook
- Characterization of Materials
- Comprehensive Renewable Energy
- Comprehensive Biotechnology
- Polymer Science: A Comprehensive Reference
- Wiley Encyclopedia of Composites
- Encyclopedia of Inorganic Chemistry
- Kirk-Othmer Encyclopedia of Chemical Technology