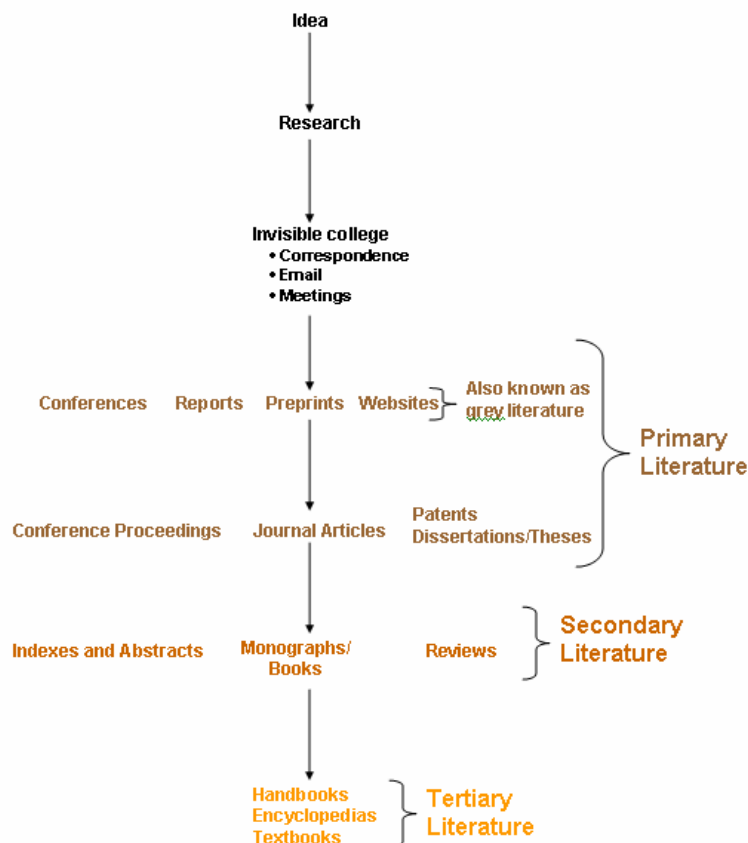


Guide to Selected Physical Chemistry Resources for Chemists at Stanford University

Flow of Scientific Information



Source: University of Waterloo Library

http://www.lib.uwaterloo.ca/usered/grad/researchskills/flow_of_info.html

The Review Article – A Logical Point for Starting Relevant Research

http://www.annualreviews.org/pdf/sitelicense/ValueofRevArt_2006.pdf/

Contents

- Library Catalogs
- Abstracts and Indexes
- Books and Monographic Series
- Dictionaries
- Directories and Organizations
- Educational Resources
- Encyclopedias and Major Reference Works
- Handbooks and Data
- Guides to Resources
- Journals
- Nomenclature
- Style Guides

Library Catalogs

Socrates, Stanford's Online Catalog

<http://socrates.stanford.edu/>

Melvyl (University of California Libraries)

<http://melvyl.cdlib.org/>

World Catalog

<http://www.worldcat.org/>

Library of Congress Subject Headings

The official subject term or heading for physical chemistry is *Chemistry, Physical and Theoretical*. To identify related subject headings (broader and narrower terms), browse *Chemistry, Physical and Theoretical* as a subject (see below).



The screenshot shows the Socrates online catalog interface. At the top, there is a navigation bar with 'SU LAIR' on the left and 'E-JOURNALS | DATABASES | OT' on the right. Below this is the title 'Socrates: Stanford's Online Catalog'. A search bar contains the text 'Simple Search', 'Combined Search', and 'Call No. B'. Below the search bar is a navigation menu with links: 'Go Back | Help | New Search | Backward | Forward | Exit/Home'. The main content area shows a search result for 'Catalog Browse by Subject: " Chemistry, Physical and theoretical"'. The result is displayed in a table with two columns: the subject heading and the number of items. An arrow points to the 'see related headings for:' section of the table.

Catalog Browse by Subject: " Chemistry, Physical and theoretical"	
Chemistry, Physical and theoretical.	755
see related headings for:	
Chemistry, Physical and theoretical	
Chemistry, Physical and theoretical—Bibliography.	1
Chemistry, Physical and theoretical—Bibliography—Catalogs.	3
Chemistry, Physical and theoretical—Bio-bibliography.	1
Chemistry, Physical and theoretical—Charts, diagrams, etc.	2
Chemistry, Physical and theoretical—Computer programs.	1
Chemistry, Physical and theoretical—Computer simulation.	3
Chemistry, Physical and theoretical—Computer simulation—Congresses.	3
Chemistry, Physical and theoretical—Computer-assisted instruction.	1
Chemistry, Physical and theoretical—Congresses.	56

For the subject **Chemistry, Physical and theoretical**

search also under the broader term: [Chemistry](#)

search also under the narrower term: [Absorption](#)

search also under the narrower term: [Acid-base chemistry](#)

search also under the narrower term: [Acids—Basicity](#)

search also under the narrower term: [Allotropy](#)

search also under the narrower term: [Atmospheric chemistry](#)

search also under the narrower term: [Atomic mass](#)

search also under the narrower term: [Atomic theory](#)

search also under the narrower term: [Atomic weights](#)

search also under the narrower term: [Atoms](#)

search also under the narrower term: [Catalysis](#)

search also under the narrower term: [Chemical affinity](#)

search also under the narrower term: [Chemical bonds](#)

search also under the narrower term: [Chemical equilibrium](#)

search also under the narrower term: [Chemical reaction, Conditions and laws of](#)

Classification Web (Library of Congress Call Numbers)

<http://classificationweb.net/Auto/>

Classification Web is a tool that you can use to identify relevant call numbers. The list below is available in the Hierarchical Classification Browser part of the web site.

Browsing is a great way to identify potential items of interest. Below are call numbers for Physical and Theoretical Chemistry (QD 450-QD 801). Note that you can virtually browse the shelves for a library by using the Browse Call Number feature in Socrates.

QD450-882	Physical and theoretical chemistry Cf. QC170-197 Constitution and properties of matter
QD450	Periodicals, societies, congresses, serial publications
QD450.2	Collected works (nonserial)
QD451	Dictionaries and encyclopedias
QD451.5	Nomenclature, terminology, notation, abbreviations
QD452-452.5	History
QD453-453.2	General works, treatises, and textbooks
QD455	Addresses, essays, lectures
QD455.2	Special aspects of the subject as a whole
QD455.3.A-Z	Special topics, A-Z
QD455.5-457.2	Study and teaching. Research
QD458	Handbooks, tables, formulas, etc.
QD461	Atomic and molecular theory and structure. Laws of chemical combination and chemical bonds. Molecular dimensions Cf. QD469 Valence
QD461.5	Excited state chemistry
QD462-462.9	Quantum chemistry
QD463-464	Atomic and molecular weights
QD466-469	Chemical elements
QD470	Allotropy
QD471	Chemical compounds - Structure and formulas. Including isomerism, mesomerism, tautomerism Cf. QD481 Stereochemistry
QD473	Physical properties in relation to structure. Including odor, color, and optical properties Cf. QD441 Colored organic compounds Cf. QD931-947 Physical properties of crystals
QD474	Complex compounds. Including clathrate and coordination compounds, chelates, and hydrates Cf. QD410-412.5 Organometallic compounds
QD475	Physical inorganic chemistry
QD476	Physical organic chemistry
QD476.2	Physical biochemistry
QD477	Acids and bases (General theory)
QD478	Solids. Solid state chemistry (Inorganic and organic) Cf. QC176-176.9 Solid state physics Cf. QD506-509 Surface chemistry Cf. QD901-999 Crystallography

- Cf. [TN689-693](#) Physical metallurgy
 QD480 Models of atoms, molecules, or chemical compounds
 QD481 Stereochemistry. Molecular rotation
 Cf. [QP517.S83](#) Biochemistry
 QD501-505.5 [Conditions and laws of chemical reactions](#)
 QD505.8 Chemiluminescence
 QD506-509 [Surface chemistry](#)
 QD510-536 [Thermochemistry](#)
 Cf. [QC301-310](#) Change of state (Physics)
 Cf. [QD79.T38](#) Thermal analysis (Analytical chemistry)
 Cf. [QD117.T4](#) Thermal analysis, Quantitative
 Cf. [QD157](#) Electric furnace operations (Inorganic chemistry)
 Cf. [QD277](#) Electric furnace operations (Organic chemistry)
 QD538 Chemistry of high and low pressures
 QD540-549.2 [Theory of solution](#)
 Cf. [QC182-197](#) Special properties of matter
 Cf. [QD565](#) Electrolyte solutions
 QD551-578 [Electrochemistry. Electrolysis](#)
 Cf. [QC610.3-612](#) Electric conductivity, electromotive force
 Cf. [QD115-116](#) Electrochemical analysis
 Cf. [QD272.E4](#) Electrochemical analysis of organic compounds
 Cf. [QD273](#) Electrochemistry of organic compounds
 Cf. [QD880](#) Electrochemistry of supramolecular compounds
 Cf. [QP517.B53](#) Bioelectrochemistry
 Cf. [TP250-261](#) Industrial electrochemistry
 QD581 Plasma chemistry
 Cf. [TP156.P5](#) Industrial plasma chemistry
 QD591 Magnetochemistry
 Cf. [QD940](#) Magnetic properties of crystals
 QD601-607 [Radiochemistry. Nuclear chemistry](#)
 Cf. [QC794.95-798](#) Radioactivity, radioactive substances in nuclear physics
 Cf. [TK9350](#) Nuclear engineering
 Cf. [TP249](#) Industrial radiochemistry. Industrial radiation chemistry
 QD625-655 [Radiation chemistry](#)
 Cf. [QC474-496.9](#) Radiation physics
 Cf. [TA418.6](#) Radiation effects and tests of materials
 Cf. [TP249](#) Industrial radiochemistry. Industrial radiation chemistry
 QD701-731 [Photochemistry](#)
 Cf. [QD275](#) Organic photochemistry
 Cf. [QD578](#) Photoelectrochemistry
 Cf. [QP517.P45](#) Photobiochemistry
 Cf. [TP249.5](#) Industrial photochemistry
 Cf. [TR200-222](#) Photographic chemistry
 QD801 Sonochemistry
 Cf. [TP156.A33](#) Industrial use of sounds and ultrasonics

Abstracts and Indexes

SciFinder on the web / SciFinder Scholar (1907-present, plus > 133,000 pre-1907 journal records)

<http://library.stanford.edu/depts/swain/collections/databases/cas/scifi/index.html>

Available via SciFinder on the web and the ciFinder Scholar client, Chemical Abstracts Online is the most comprehensive index in chemistry and chemical engineering. It includes 9,500 journals, patents, dissertations, conference proceedings, technical reports, and books. Cited references from 1997 to the present are also available. Bibliographic information and available abstracts for the articles from nearly 1,500 key chemical journals are added within 1 week of journal receipt. Updated daily.

Web of Science (1900-present)

<http://ezproxy.stanford.edu:2048/login?url=http://portal.isiknowledge.com/portal.cgi?DestApp=WOS&Func=Frame>

WoS includes Science Citation Index (SciSearch), the multidisciplinary scientific and technical database. Produced by Thomson Scientific, it contains bibliographic information and cited references from approximately 5,900 of the world's leading scientific, technical, and medical journals. Records from January 1991 to the present include abstracts and keywords. Authors, bibliographic information, cited references, and keywords are searchable. Updated weekly.

INSPEC (1898-present)

<http://search.lanl.gov/ssplus/jsp/AdvancedSearch.jsp?collection=ins>

INSPEC (Information Service for Physics, Electronics, and Computing) provides a comprehensive index to the published literature in physics, electrical/electronic engineering, computing, control engineering, information technology, production, manufacturing and mechanical engineering as well as materials science, oceanography, nuclear engineering, geophysics, biomedical engineering and biophysics. It includes about 4,000 journals, books, conferences, dissertations, patents, and reports. Updated weekly.

OPPIE beta from LANL (replaces SearchPlus)

<http://oppie.lanl.gov/oppie/service>

Conceived as a state-of-the-art replacement for the Research Library's existing search tool, OPPIE (Online Portal for Powerful Information Exchange) is envisioned as a platform for services ranging from search and discovery to collaboration and social tools. Databases searched include content from Web of Science, Biosis, Engineering Index, and Inspec.

Scitopia

<http://www.scitopia.org>

A free federated vertical search portal for 15 professional scholarly societies (Acoustical Society of America, American Geophysical Union, American Institute of Aeronautics and Astronautics, American Institute of Physics, American Physical Society, American Society of Civil Engineers, American Society of Mechanical Engineers, American Vacuum Society, The Electrochemical Society, The Institute of Electrical and Electronics Engineers, Institute of Physics Publishing, Optical Society of America, Society of Automotive Engineers, Society for Industrial and Applied Mathematics and SPIE). More professional scholarly societies will be joining this venture. Content sources include: three million articles and conference proceedings 50 million patents from the world's major patent offices full-text documents from the US Dept of Energy Information Bridge site.

Books Series & eBook Sites

Selected Book Series

Advances in Chemical Physics

Need print holdings info; haven't bought online version.

Advances in Physical Organic Chemistry

<http://www.sciencedirect.com/science/bookseries/00653160>

Advances in Quantum Chemistry

<http://www.sciencedirect.com/science/bookseries/00653276>

Annual Reports in Computational Chemistry

<http://www.sciencedirect.com/science/bookseries/15741400>

Annual Reports on the Progress of Chemistry - Section C Physical Chemistry

http://xlink.rsc.org/jumptonjournal.cfm?journal_code=PC

Annual Review of Physical Chemistry

<http://arjournals.annualreviews.org/loi/physchem?cookieSet=1>

Comprehensive Chemical Kinetics

<http://www.sciencedirect.com/science/bookseries/00698040>

Data Handling in Science and Technology

<http://www.sciencedirect.com/science/bookseries/09223487>

Studies in Physical and Theoretical Chemistry

<http://www.sciencedirect.com/science/bookseries/01676881>

Selected eBook Sites

eBrary for Libraries

<http://site.ebrary.com/lib/stanford/>

34,131 Titles Available for Stanford Users

Full-text searching and retrieval of over 34,000 titles in various disciplines. Special ebrary browser plug-in required. Stanford's subscription allows printing and copying from ebrary at no charge, although some titles have restrictions on the number of pages that may be printed or copied.

Google Books

<http://books.google.com/>

Book Search works just like web search. Depending on copyright status and publisher permissions, you may be able to view a preview or the full text. Reference pages for books include links to book reviews, web references, maps and more. Currently, Google is connecting readers with books in two ways: the Partner Program and the Library Project (Stanford is a participant).

Knovel Library

<http://www.knovel.com/>

1,460 Titles Available for Stanford Users

Knovel Library combines essential and authoritative reference books and databases from more than 30 Sci-Tech publishers and professional societies including, McGraw Hill, John Wiley, Elsevier, Springer, and American Institute of Chemical Engineers. Using Advanced Search feature, it is possible to search numeric ranges for physical properties. It is also possible to sort, filter and export data from “live tables”, resolve equations and plot graphs, capture values from existing graphs and perform “what if” experiments on the data. Learn more about Knovel’s tools.

MyiLibrary

http://www.myilibrary.com/search/my_content.asp

14,916 Titles Available for Stanford Users

As of early January 2008, MyiLibrary includes the full-text for 14,916 books for Stanford users. Here’s breakdown of titles by publisher: Cambridge University Press (3,037 titles), Elsevier Science & Technology (3,009 titles), Oxford University Press (2,168 titles), and Springer (6,702 titles).

Dictionaries

IUPAC Compendium of Chemical Terminology (Gold Book)

<http://goldbook.iupac.org/index.html>

The IUPAC Compendium of Chemical Terminology is the definitive guide to chemical terminology; it now contains more than 7000 entries, is easy to browse, search, and navigate.

McGraw-Hill Dictionary of Science and Technical Terms

<http://www.accessscience.com/searchOptions.aspx?type=conttype>

Includes 110,000+ definitions; part of the Access Science site that also contains the McGraw-Hill Encyclopedia of Science and Technology.

Oxford Reference Online

<http://www.oxfordreference.com/views/GLOBAL.html>

In Oxford Reference Online: Premium Collection you will find a wealth of facts, figures, definitions, and translations from 175+ Oxford reference titles, many of which are in-depth, scholarly articles from titles in the acclaimed Oxford Companions series, plus all 20,000 quotations from the Oxford Dictionary of Quotations

Quantities, Units and Symbols in Physical Chemistry (Green book)

<http://www.iupac.org/publications/books/gbook>

This book provides a readable compilation of widely used terms and symbols from many sources together with brief understandable definitions. Full text PDF with bookmark by chapters and sections is available.

Directories and Organizations

ACS Directory of Graduate Research

<http://dgr.rints.com/>

DGRweb, the searchable online version of the ACS Directory of Graduate Research (DGR), is the most comprehensive source of information on chemical research and researchers at universities in the U.S. and Canada.

Gale Virtual Reference Library

<http://go.galegroup.com/ps/i.do?v=2.1&u=stan90222&pg=BasicSearch&it=static&p=GVRL&sw=w>

This site includes an online version of American Men and Women of Science.

Selected Professional Societies

American Association of Physics Teachers

<http://www.aapt.org/>

American Chemical Society. Chemical Education Division.

<http://www.divched.org/>

American Chemical Society. Physical Chemistry Division.

<http://hackberry.chem.trinity.edu/PHYS/>

American Institute of Physics (AIP)

<http://www.aip.org/>

American Physical Society (APS)

<http://www.aps.org/>

Biophysical Society

<http://www.biophysics.org/>

Deutsche Physikalische Gesellschaft = German Physical Society (in German)

<http://www.dpg-physik.de/index.html>

European Federation of Biophysics

<http://www.efbfweb.org/>

European Physical Society (EPS)

<http://www.eps.org/>

European Society for Applied Physical Chemistry (EuroStar)

<http://www.eurostar-science.org/>

Federation of Asian Chemical Societies (FACS)

<http://www.facs-as.org/>

Institute of Physics (IoP)

<http://www.iop.org/>

International Association of Mathematical Physics

<http://www.iamp.org/>

International Union for Pure and Applied Biophysics

<http://iupab.org/>

International Union of Pure and Applied Chemistry

<http://www.iupac.org/>

International Union of Pure and Applied Physics

<http://www.iupap.org/>

Max Planck Society

<http://www.mpg.de/english/portal/index.html>

Swiss Physical Society

<http://www.sps.ch/en/spg/>

For links to more organizations, please see:

<http://library.stanford.edu/depts/swain/help/subjectguides/general/comm/organizations.html>

Educational Resources

Journal of Chemical Education Online

<http://www.jce.divched.org/index.html>

JCE Digital Library

<http://www.jce.divched.org/JCEDLib/WebWare/index.html>

Do keyword search in search box on left side.

Journal of Chemical Education - JCE Web Software

<http://www.jce.divched.org/JCESoft/jcesoftsubscriber.html>

Available via subscription to Stanford users.

JCE - DigiDemos -- Browse Table of Contents

<http://www.jce.divched.org/JCEDLib/DigiDemos/browse.html>

Includes brief descriptions of demos & provides links to full text in JCE.

Chemical Education Digital Library

<http://www.chemeddl.org/>

The ChemEd DL has its foundation built upon the Journal of Chemical Education, the Education Division of the American Chemical Society, and the ChemCollective Project. Includes resources for education that span the entire science of chemistry.

comPADRE: Digital Resources for Physics & Astronomy Education

<http://www.compadre.org/portal/index.cfm>

The comPADRE Pathway, a part of the National Science Digital Library, is a growing network of educational resource collections supporting teachers and students in Physics and Astronomy.

The Quantum Exchange

<http://www.compadre.org/quantum/>

The Physical Sciences Resource Center

<http://psrc.aapt.org/index.cfm>

The Physical Sciences Resource Center is a web-based databank that provides K-20 teachers links to a wide range of teaching and learning resources in the physical sciences. All materials are classified by their grade level, topic, and activity type, and have descriptions outlining their content. Information about authors, publishers, costs, and copyright is also provided.

MERLOT: Multimedia Educational Resource for Learning & Online Teaching

<http://www.merlot.org/merlot/index.htm>

MERLOT is a leading edge, user-centered, searchable collection of peer reviewed and selected higher education, online learning materials, catalogued by registered members and a set of faculty development support services.

MERLOT Federated Search

<http://fedsearch.merlot.org/search.jsp>

MERLOT Chemistry Portal

<http://chemistry.merlot.org/>

MERLOT Physics Portal

<http://physics.merlot.org/>

Encyclopedias and Major Reference Works

Encyclopedia of Chemical Physics and Physical Chemistry, 3 vols. (2001)

<http://www.knovel.com/knovel2/Toc.jsp?BookID=474&VerticalID=0>

Published by the Institute of Physics, this encyclopedia quickly provides the basics, defines the scope of each subdiscipline, and indicates where to go for a more complete and detailed explanation.

Encyclopedia of Computational Chemistry

<http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554772/HOME>

The Encyclopedia of Computational Chemistry (ECC) is a timely, comprehensive and authoritative work. ECC is divided into these broad subject areas: Algorithms and Software, Biological and Biochemical Modeling, Chemical Applications, Cheminformatics, General Topics, Quantum Mechanics: Theory & Development, and Semi-Classical Methods.

Encyclopedia of Nuclear Magnetic Resonance, 9 vols. (1996-2002)

Swain Reference QC762 .E53 1996

This encyclopedia is a comprehensive resource for anyone seeking information on any aspect of NMR, with emphasis on its interdisciplinary nature.

Landolt-Börnstein - Numerical Data and Functional Relationships in Science and Technology

LB brings the work of a thousand experts from all over the world right to your desk. The more than 340 volumes cover data starting with the scientific information described before 1883 – the year of the first handbook publication – up to the present. LB is a systematic and comprehensive data collection developed from researchers in discovering functional relationships in science and technology. LB covers all fields of physics, physical chemistry, geophysics, astronomy, material technology, and engineering.

- **Landolt-Börnstein – Indices**
<http://landoltboernstein.com/>
 Includes keyword search, Substance & Property Index, Subject Index, and LB Users Guide
- **Landolt-Börnstein - Group I Elementary Particles, Nuclei and Atoms**
<http://www.springerlink.com/content/h4767v>
 Physics Library Reference: QC61 .L332 GROUP 1 Vols. 1-14, 16-18
 Online: Vols. 19A2, 19B1-3
- **Landolt-Börnstein - Group II Molecules and Radicals**
<http://www.springerlink.com/content/v1g48m>
 Physics Library Reference: QC61 .L332 GROUP 2 Vols. 1-26
 Swain Library Reference: QC61 .L332 GROUP 2 Vols. 1-5
 Online: Vols. 24D2, 26A1-2, 26D, 28A-D
- **Landolt-Börnstein - Group III Condensed Matter**
<http://www.springerlink.com/content/j6q060>
 Physics Library Reference: QC61 .L332 GROUP 3 Vols. 1-18; [19]; 20-43
 Swain Library Reference: QC61 .L332 GROUP 3 Vols. 2-6; [7]; 8
 Online: Vols. 27B7, 27I2-I5A, 34C3, 35D2-4, 43A2-A5
- **Landolt-Börnstein - Group IV Physical Chemistry**
<http://www.springerlink.com/content/h32673>
 Physics Library Reference: QC61 .L332 GROUP 4 Vols. 1-21
 Online: Vols. 9A, 10B, 11A2-4, 11B, 11C1-4, 12A, 13A1, 14D, 15A, 19B3-5
- **Landolt-Börnstein - Group V Geophysics**
<http://www.springerlink.com/content/r1n711>
 Branner Earth Sciences Library Reference: QC61 .L332 GROUP 5 Vols. 1-6
 Online: Vol. 6
- **Landolt-Börnstein - Group VI Astronomy and Astrophysics**
<http://www.springerlink.com/content/k36534>
 Physics Library Reference: QC61 .L332 GROUP 6 Vols. 1-3
 No online volumes are available at Stanford.
- **Landolt-Börnstein - Group VII Biophysics**
<http://www.springerlink.com/content/k43316>
 Swain Library Reference: QC61 .L332 GROUP 7 Vols. 1-2
 No online volumes are available at Stanford.
- **Landolt-Börnstein - Group VIII Advanced Materials and Technologies**
<http://www.springerlink.com/content/l4092t>
 Physics Library Reference: QC61 .L332 GROUP 8 Vols. 2-3, 5
 Online Vol. 2A (2002)-

Guides to Resources / Web Gateways

Center for the History of Physics – American Institute of Physics

<http://www.aip.org/history/>

AIP's Center for History of Physics works to preserve and make known the historical record of modern physics and allied sciences. Through documentation, archival collections and educational initiatives, the Center ensures that the heritage of modern physics is safeguarded and its story accurately told.

Intute: Science, Engineering, and Technology

<http://www.intute.ac.uk/sciences/>

Welcome to the Science, Engineering and Technology pages of Intute. Intute: Science, Engineering and Technology is a free online service providing you with access to the very best Web resources for education and research, evaluated and selected by a network of subject specialists. It covers the physical sciences, engineering, computing, geography, mathematics and environmental science. The database currently contains 34939 records.

MathWorld

<http://mathworld.wolfram.com/>

The web's most extensive mathematical resource, provided as a free service to the world's mathematics and internet communities as part of a commitment to education and educational outreach by Wolfram Research, makers of Mathematica. MathWorld has been assembled over more than a decade by Eric W. Weisstein with assistance from thousands of contributors.

Physical chemistry source book.

Swain Reference QD451 .P49 1988

PhysLink: Physics and Astronomy Online

<http://www.physlink.com/>

The PhysLink.com is a comprehensive physics and astronomy online education, research and reference web site. In addition to providing high-quality content, PhysLink.com is a meeting place for professionals, students and other curious minds.

PhysNet

<http://www.phys.vt.edu/PhysNet/physnet.html>

PhysNet is a distributed information service. It uses the information which can be found on the web-servers of the worldwide distributed physics institutions and departments of universities seen as a distributed database. PhysNet serves only professional specific information posted by the scientists themselves. Therefore PhysNet complements the services of commercial providers.

Handbooks and Data

ChemRate: A Computational Data Base for Unimolecular Reaction

<http://www.nist.gov/kinetics/chemrate/chemrate.html>

ChemRate is a program that contains data bases containing experimental results on unimolecular reactions, information pertaining to transition state and molecular structures necessary for the calculation of high pressure rate constants and thermal functions respectively. It contains a master equation solver so that rate constants for unimolecular reactions in the energy transfer region and chemical activation processes under steady and non-steady state conditions can be determined on the basis of RRKM theory.

CRC Handbook of Chemistry and Physics

<http://www.hbcnetbase.com/>

The CRC Handbook of Chemistry and Physics provides broad coverage of all types of physical science data commonly encountered by scientists and engineers. The data contained in the Handbook have been carefully evaluated by experts in each field; quality control is a high priority and the sources are documented. Updated annually.

Kaye & Laby Online: Tables of Physical and Chemical Constants

<http://www.kayelaby.npl.co.uk/>

For many years, scientists, specialists, engineers and students have used Kaye and Laby as an invaluable reference for their work. At launch, this online version includes the entire, unedited contents of the 16th edition (published 1995) and is crammed full of tables of data, formulae, graphs and charts. This information spans topics from fundamental constants to fibre optics, superconductivity to Raman spectroscopy and many others. The contents will be regularly reviewed and updated to reflect advances and developments in the fields of physics and chemistry.

NIST Chemical Kinetics Database on the Web

<http://kinetics.nist.gov/kinetics/index.jsp>

The NIST Chemical Kinetics Database includes essentially all reported kinetics results for thermal gas-phase chemical reactions. The database is designed to be searched for kinetics data based on the specific reactants involved, for reactions resulting in specified products, for all the reactions of a particular species, or for various combinations of these. The bibliography can be searched by author name or combination of names. The database contains in excess of 38,000 separate reaction records for over 11,700 distinct reactant pairs. These data have been abstracted from over 12,000 papers with literature coverage through early 2000.

NIST Chemistry WebBook

<http://webbook.nist.gov/chemistry/>

The NIST Chemistry WebBook provides users with easy access to chemical and physical property data for chemical species through the internet. The data provided in the site are from collections maintained by the NIST Standard Reference Data Program and outside contributors..

NIST Computational Chemistry Comparison and Benchmark Database

<http://cccbdb.nist.gov/>

The NIST Computational Chemistry Comparison and Benchmark Database is a collection of experimental and ab initio thermochemical properties for a selected set of molecules. The CCCBDB contains links to: Experimental and computational thermochemical data for a selected set of 788 gas-phase atoms and molecules. It also contains tools for comparing experimental and computational ideal-gas thermochemical properties.

Journals

Journal Citation Reports

<http://ezproxy.stanford.edu:2048/login?url=http://portal.isiknowledge.com/portal.cgi?DestApp=JCR&Func=Frame>

The JCR is a tool that you can use to identify core journals for a particular subject area. On next the two pages is a sample search showing how to view physical chemistry journals listed in JCR.

Select a JCR edition and year: <input checked="" type="radio"/> JCR Science Edition 2006 <input type="radio"/> JCR Social Sciences Edition 2006	Select an option: <input checked="" type="radio"/> View a group of journals by Subject Category <input type="radio"/> Search for a specific journal <input type="radio"/> View all journals
<input type="button" value="SUBMIT"/>	

This product is best viewed in 800x600 or higher resolution

[NOTICES](#)

The Notices file was last updated Thu Oct 18 10:54:25 2007

[Acceptable Use Policy](#)

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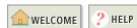
Highlight subject category name.



Subject Category Selection

1) Select one or more categories from the list. (How to select more than one)	CHEMISTRY, INORGANIC & NUCLEAR CHEMISTRY, MEDICINAL CHEMISTRY, MULTIDISCIPLINARY CHEMISTRY, ORGANIC CHEMISTRY, PHYSICAL CLINICAL NEUROLOGY COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE COMPUTER SCIENCE, CYBERNETICS COMPUTER SCIENCE, HARDWARE & ARCHITECTURE COMPUTER SCIENCE, INFORMATION SYSTEMS
2) Select to view Journal data or aggregate Category data.	<input checked="" type="radio"/> View Journal Data - sort by: Journal Title <input type="radio"/> View Category Data - sort by: Category Title
<input type="button" value="SUBMIT"/>	

Sorted by Journal Title



2006 JCR Science Edit

Journal Summary List

[Journal Title Chang](#)

Journals from: subject categories CHEMISTRY, PHYSICAL [VIEW CATEGORY SUMMARY LIST](#)

Sorted by: Journal Title

Journals 1 - 20 (of 108)



Page 1 of 1

Ranking is based on your journal and sort selections.

Mark	Rank	Abbreviated Journal Title <i>(linked to journal information)</i>	ISSN	Total Cites	Impact Factor	Immediacy Index	Articles	Cited Half-life
<input type="checkbox"/>	1	ACTA PHYS-CHIM SIN	1000-6818	843	0.561	0.118	306	3.6
<input type="checkbox"/>	2	ADSORPT SCI TECHNOL	0263-6174	458	0.557	0.036	28	6.2
<input type="checkbox"/>	3	ADSORPTION	0929-5607	392	0.590	0.028	36	5.9
<input type="checkbox"/>	4	ADV CATAL	0360-0564	1443	11.250	1.333	9	>10.0
<input type="checkbox"/>	5	ADV COLLOID INTERFAC	0001-8686	3518	3.790	0.328	64	7.3

Sorted by Times Cited

Ranking is based on your journal and sort selections.

Mark	Rank	Abbreviated Journal Title (linked to journal information)	ISSN	Total Cites	Impact Factor	Immediacy Index	Articles	Cited Half-life
<input type="checkbox"/>	1	J PHYS CHEM B	1520-6106	72474	4.115	0.637	3585	4.2
<input type="checkbox"/>	2	LANGMUIR	0743-7463	60474	3.902	0.623	1701	5.5
<input type="checkbox"/>	3	CHEM PHYS LETT	0009-2614	50869	2.462	0.491	1637	7.8
<input type="checkbox"/>	4	CHEM MATER	0897-4756	38890	5.104	0.692	911	5.2
<input type="checkbox"/>	5	J PHYS CHEM A	1089-5639	36268	3.047	0.730	1690	4.8

Sorted by Impact Factor

Ranking is based on your journal and sort selections.

Mark	Rank	Abbreviated Journal Title (linked to journal information)	ISSN	Total Cites	Impact Factor	Immediacy Index	Articles	Cited Half-life
<input type="checkbox"/>	1	NAT MATER	1476-1122	9611	19.194	3.691	139	2.7
<input type="checkbox"/>	2	ADV CATAL	0360-0564	1443	11.250	1.333	9	>10.0
<input type="checkbox"/>	2	ANNU REV PHYS CHEM	0066-426X	4743	11.250	1.762	21	9.2
<input type="checkbox"/>	4	SURF SCI REP	0167-5729	2524	9.304	1.071	14	7.6
<input type="checkbox"/>	5	CATAL REV	0161-4940	2147	9.222	0.375	8	>10.0
<input type="checkbox"/>	6	ADV MATER	0935-9648	34375	7.896	0.998	565	4.7

Swain Journal List

<http://library.stanford.edu/depts/swain/collections/journallist.html>

Use Socrates (<http://library.stanford.edu/socrates>), Stanford's Library Catalog, to find all journal titles available at Stanford. Socrates includes links to online versions of journals and holdings information that shows what volumes and years are available for a title. Socrates does not contain details about individual journal articles.

Journal Abbreviations and Digital Object Identifiers

<http://library.stanford.edu/depts/swain/collections/journals.html#abbrev>

To find or translate journal abbreviations to full journal name, please see this web page. It also contains information about Digital Object Identifiers – what are they, how to find a DOI for a document, and how to translate a DOI into a citation.

Nomenclature and Standards

IUPAC Nomenclature Home Page

<http://www.chem.qmul.ac.uk/iupac/>

This World Wide Web site is intended primarily to provide information on IUPAC nomenclature recommendations. The full text version of documents will be converted into a Web readable form which may also involve some reorganization to facilitate presentation.

NIST Reference on Constants, Units, and Uncertainty

<http://physics.nist.gov/cuu/index.html>

This site addresses three topics: fundamental physical constants, the International System of Units (SI), which is the modern metric system, and expressing the uncertainty of measurement results.

ThermoML

<http://old.iupac.org/namespaces/ThermoML/index.html>

ThermoML is the reserved namespace for the XML-based IUPAC standard for experimental and critically-evaluated thermodynamic property data storage. It covers essentially all experimentally determined thermodynamic and transport property data (more than 120 properties) for pure compounds, multicomponent mixtures, and chemical reactions (including change-of-state and equilibrium).

Style Guides

ACS Style Guide, 3rd Edition (2006)

Swain Permanent Reserve QD8.5 .A25 2006 (request at Swain's Circulation Desk)

This extensive revision of The ACS Style Guide examines electronic tools now available to assist STM writers in preparing manuscripts and communicating with publishers. Valuable updates include discussions of markup languages, citation of electronic sources, online submission of manuscripts, and preparation of figures, tables, and structures. In keeping current with the changing environment, this edition also contains references to many resources on the internet.

The ACS Style Guide's third edition continues its long tradition of providing invaluable insight on ethics in scientific communication, the editorial process, copyright, conventions in chemistry, grammar, punctuation, spelling, and writing style for any STM author, reviewer, or editor. The third edition is the definitive source for all information needed to write, review, submit, and edit scholarly and scientific manuscripts.

AIP Style Manual, 4th Edition (1997)

<http://www.aip.org/pubservs/style/4thed/toc.html>

For guidance in writing, editing, and preparing physics manuscripts for publication. Prepared under the direction of the AIP Publication Board. Images of the Fourth Edition of the AIP Style Manual are available free-of-charge for downloading from this site in Adobe's Portable Document Format (PDF)