

Software review: SciFinder

Scientific research tool
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Key words

SciFinder, CAS, ACS, registry, chemical abstracts, biomedical, chemical, scientific research, tool, watch

Abstract

SciFinder is a CAS software client application designed primarily for use by professional chemists in commercial organizations. Versions for both Windows and Macintosh operating systems are available. SciFinder Scholar is a version designed for universities and other academic institutions and lacks some supplementary features for multi-database searching. They are both designed with a graphic interface, making them both particularly suitable for searching the Registry file for chemical structures. CAS released a Web version of SciFinder in 2008.

Introduction

SciFinder is a search and retrieval software for the search of bibliographic references mainly in the chemistry area. It has been developed and is currently produced by the Chemical Abstracts Service (CAS), a division of the American Chemical Society (ACS) which is based in Columbus, Ohio (USA). SciFinder acts on six CAS databases: CAPLUS since 1907 (literature), REGISTRY since 1957 (structures), CASREACT since 1840 (reaction), CHEMLIST (regulations), CHEMCATS (suppliers), and MEDLINE from the National Library of Medicine since 1958 (bibliographic). The first five are produced by CAS. These databases contain information on the following specific topics: chemistry, chemical engineering, materials science, and aspects related with substances from other areas of knowledge such as pharmacy, medicine, biology, geology, physics and environmental sciences.

CAS operates in line with the services of STN International, a cooperative initiative of CAS (USA) with FIZ Karlsruhe (Germany) and Japan Science and Technology Corporation (Japan). STN International acts as distributor of CAS in Europe and Asia, providing nearly 200 databases. The Spanish representation of CAS and STN International is in hands of the Patents Center of the University of Barcelona¹.

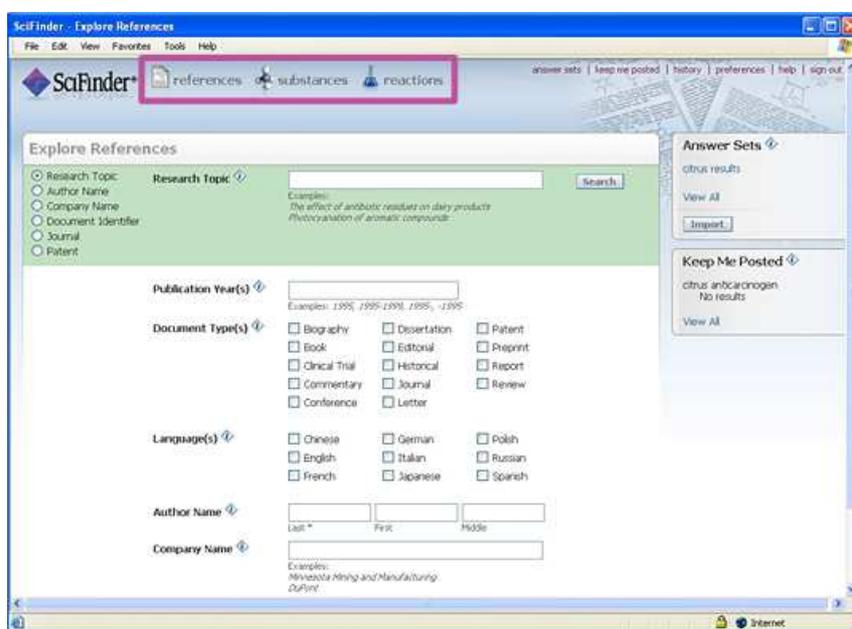


Figure 1.: Exploring references on SciFinder

Source: CAS website (2008)

<http://www.cas.org/products/scifindr/sfweb/sfwebflash.html>

CAS databases

CAS is the secondary source of more complete information in the field of chemistry in the world. The printed version began in 1907. In 1987 the database was published in CD rom format with the all the data from everything published since 1967. The main contents are the references and abstracts of the literature published in more than 10,000 international journals of fields such as biochemistry, organic and inorganic chemistry, physical chemistry, applied chemistry and chemical engineering, biology and experimental medicine, in addition to content on patents, technical reports, literature reviews, reviews of congresses, theses and monographs.

¹ “Centre de Patents” is an agency from the University of Barcelona. More information (only in Spanish) available on:

<http://www.pcb.ub.es/centredopatents/cas/index.html>

Explore by Research Topic

Describe your topic using a phrase.

I am interested in:

intramolecular hydroamination of aminoalkenes

Examples:

The effect of antibiotic residues on dairy products
Photocyanation of aromatic compounds
Hydrocarbon-water emulsions as fuels

Filters

Publication year Only return references published in this year or range of years:

Document type Only return references coming from the following source documents:

Clinical Trial Journal Review
 Conference Patent

Language Only return references from papers written in the following languages:

Chinese French Japanese
 English German Spanish

Author name Only return references written by the following author:

Last: First: Middle initial:

Company name Only return references written by the following company:

OK Cancel

Figure 2: Results filter with SciFinder Scholar

Source: Sci-Finder Scholar (2006)

<http://www.cas.org/SCIFINDER/topic.html>

One of the main advantages of CAS databases accessed through SciFinder is that all the information is updated regularly:

- The CAS REGISTRYSM database - the original source and final authority for CAS Registry Numbers (CASRNs or CAS Numbers) - is updated daily.
- All patent records, meeting CAS selection criteria, from 9 of the major patent offices are available online in CAplus within 2 days of the patents' issuance and fully indexed by CAS scientists in less than 27 days from the date of issue.
- Daily updates to the CAplusSM database add more than 3,000 records each day, totaling more than 30 million currently.
- Bibliographic information and abstracts for all articles in more than 1,500 core journals are added to CAplus within 7 days.

Another interesting feature of CAS databases is that content is also analyzed intellectually by CAS scientists who are experts in a variety of scientific disciplines, the CAS databases offer value-added content obtained from journals and patents:

- Concept information - important scientific concepts, e.g., diseases, processes, techniques, as well as a statement about the nature of the study
- Comprehensive substance information - specific, generic, prophetic, or Markush substances, trade names, trivial names, systematic names, synonyms, and molecular formulas

SciFinder Scholar

An educational version called SciFinder Scholar is available since 1998. It has been designed for the use by academic institutions. The search and retrieval of information with SciFinder Scholar can be done, depending on the type of information we need, for substances (chemical substance or reaction), subject (topic), author, number of identification of a certain document, an institution or business, and number of journal. Filtering can be made in advance to the search term that we are interested in. The results that are generated can then be processed and analyzed, considering for example, the date of publication, type of document, language, author, etc.