SciFinder Scholar is a desktop research tool that provides campus-wide access to the world's largest and most comprehensive databases of chemistry, biotechnology, engineering, life sciences and related sciences from CAS, with an ease of use never before seen in universities.

With SciFinder Scholar as a one single source, you can explore scientific information in several unique ways:

- Search Scientific references from journals as well as patents
- Ask queries by drawing molecular structures, sequenceID, CAS numbers, molecular formulae and locate all references – many of which you can not get by keyword based searches.
- Draw reactions, view schematic synthesis schemes with conditions
- Access to over 2 billion chemical/physical property data for substances
- Important scientific discoveries from mid-1800s to present
- Databases intellectually created by 600 scientists with various fields of specialization

SciFinder Scholar Content at a Glance

- 27 million document references from Chemical Abstracts
- 16 million document references from Medline
- 33 million organic/inorganic substances
- 60 million biosequences
- 13 million single/multi step reactions
- 1 billion predicted property values
- 1 million experimental property values
- More than 14 million substances with commercial availability details
- More than 245,000 regulated chemical inventories
- Links to electronic full-text journals and patents

SciFinder Scholar Subject coverage

SciFinder Scholar provides quick and easy access to scientific literature from many scientific disciplines including:

- Chemistry
- Chemical Engineering
- Biochemistry
- Life Sciences
- Biotechnology
- Physics
- Medical sciences
- Pharmaceutical sciences
- Environmental Sciences
- Agricultural sciences
- Food Sciences
- Material Sciences
- Geology
- Petroleum
- & Many more .....

SciFinder Scholar Search Options and Techniques

Various Options of Searching – You can search SciFinder Scholar by not only Key Words, Company Name, Author Name etc but also, by drawing Chemical Structures, Reactions/processes and many more.
1) Key Word/Concept searching

Use conversational language to retrieve papers and patents on any research topic from more than ~27 million references in CAS database + 16 million abstracts in the MEDLINE database

For example - Locate information on Bioplastics.

View Results in Chronological order -
Once, you have located answers, you can refine or limit the retrieved answers in different ways such as -

Locating publications from 2000 onwards -

Refine by Publication Year

Specify the year(s) in which you are interested...

2000-

Examples:

2001 - a single year
1907-1963 - a range of years
1992-1992 - beginning with a year and up to and including a year

OK
You can also view details of retrieved references -

**Bibliographic Information**


**Abstract**

A review. Bioplastics have a great potential as future plastic materials for automobile because of the reduced amount of fossil fuel consumption through weight reduction and carbon neutral about CO2 emission. Current bioplastics have a poor impact strength, a poor heat resistance for automobile and long producing time of injection molding due to the low crystal speed. We tried to improve the mechanical and thermal properties and the moldability of current bioplastic by compounding a newly-developed nucleating agent for crystals and a compatibilizer. As a result, we have developed an improved exterior quality, high-strength, heat-resistant, injection moldable bioplastic, which is able to use for automotive interior parts for the first time in the industry. This research was the result of an industry-government-academia joint research project in Hiroshima Prefecture. This new bioplastic is made of mainly corn-based polyactic acid. In addition, because part of the nucleating agent for crystals and compatibilizer are also made of plant-derived materials, developed bioplastic has high plant-derived content (98%).

**Indexing** – Section 38.0 (Plastics Fabrication and Uses)

*Biodegradable materials*

- development of bioplastic from corn-based polyactic acid for automobile parts

*Molded plastics, uses*

*Polyesters, uses*

**Role:** PRP (Property); TEM (Technical or engineered material use); USES (Uses)

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Use “Categorize” feature to navigate large answer set easily. It analyzes the index terms & groups them into subject categories.
II) Search by particular Author/Inventor's name

III) Locate published papers and patents of a Company/Organization
III) You can locate specific publications by providing bibliographic details –

- **Locate Literature**
  - Select One:
  - **Locate by Bibliographic Information**
    - Specify journal or patent reference and then enter as much information as you know.
      - **Journal Reference**
        - Author first name:
        - First initial:
        - Middle initial:
        - Journal name:
        - Publication year(s):
        - Page number(s):
      - **Patent Reference**
        - Patent number:

IV) **Locating specific Substances** - you can locate substance by CAS Registry number, common chemical/trade names. Further you can view details like - structure diagram, experimental and calculated properties,
Further, you can locate associated answers –
V) **Structure Searching in SciFinder Scholar** - You can draw molecular Structure in the structure drawing screen and search the structure. There are three types of structure searching –

a) **Exact Structure Search** – Searches for Salts, stereoisomers, mixtures of the query structure.
b) **Substructure Search** – Searches for all reported derivatives of the query structure.
c) **Similarity Search** - Locates similar compounds.

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**Exact Search Results** –

- ![Exact Search Results](image-url)
Substructure Search Results -

Locate Associated References –


- Gargiulo, Paul M.; Lane, Roger Michael; Wall, Bethany; Plaut, Evattic; Thoobald, Frank. Transdermal therapeutic systems providing specific glaucoma concentrations of active ingredients, such as cholinesterase inhibitors. Can Pat. Appl. (2007), 32pp. CODEN: CPO000 CA 2583110 A1 2007-0801 CAN 147.39157 AN 2007-16363 CAPLUS

Similarity Search Results -

As the score decreases, you can see more changes in original molecule.

**VI) Reaction Searching** – You can search for Reactions/Processes by drawing the structure -
View Reaction details -

**Example 1:**

```
R-NH₂, H₂SO₄, 2-3 min, 60°C  \[\rightarrow\]  \[\rightarrow\]
```


**Example 2:**

```
1. \[\rightarrow\]  \[\rightarrow\]
2. \[\rightarrow\]  \[\rightarrow\]
```

**Synthetic Communication.** **32**(10), 1347-1352, 2006

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*UGC-Infonet Digital Library Collection*
You can further use features like Analyse/Refine to locate specific reactions and their references. -

Analysis result of Solvents used in the reactions -

Further, locate related references on the above reactions –

Patrick, Donald A.; Bakum, Stanislav; Bakum, Shelia M.; Kumar, E. V. K. Sriprath; Lambady, Richard J.; Jones, Susan Kipper; Bridges, Allen E.; Zinnov, Oksana; Hart, James; Edmen; Wiesler, Peter; Bagn, Rene; Tobinville, Richard R. Synthesis and In Vitro Antiprotozoal Activities of Dicatonic 3,5-Diphenylisoxazoles. Journal of Medicinal Chemistry (2007), 30(10), 2460-2465. CODEN: JMCNAR ISSN:0022-2623. CAN 147.72079 AN 2007.425489 CAPLUS


Li, Li-Jun; Song, Ying-Xiu; Guo, Yan-Su; Li, Yan-Feng; Zhang, Yan-Feng. Solvent-free synthesis of nitrites from aldehydes catalyzed by BF3•AE03, montmorillonite KSF and K10. E-Journal of Chemistry (2006), 3(12), 154-160. CODEN: EQHDAD ISSN: 169-9054 AN 2005.954612 CAPLUS


Was, Bidwai; Ahmed, Shabnam; Yadav, Aziz Singh; Gujjar, Soma; Gupta, Arvind; Sharma, Penki; Rattar, Ashok.