

# 走在科研的最前端

**SciFinder Scholar: 全面 (Comprehensive) ...**  
**权威 (Authoritative) ... 可靠 (Reliable)**

周宇航

iGroup集团CAS产品总监



# CAS美国化学文摘社

- CAS (Chemical Abstracts Service) 是美国化学学会的一个分支机构
  - 1907年成立
  - 总部在美国的哥伦比亚俄亥俄州



# 员工

- 哥伦比亚的员工

- ▶ 以下是1200多名员工，包括八百名科学家和IT专业人士

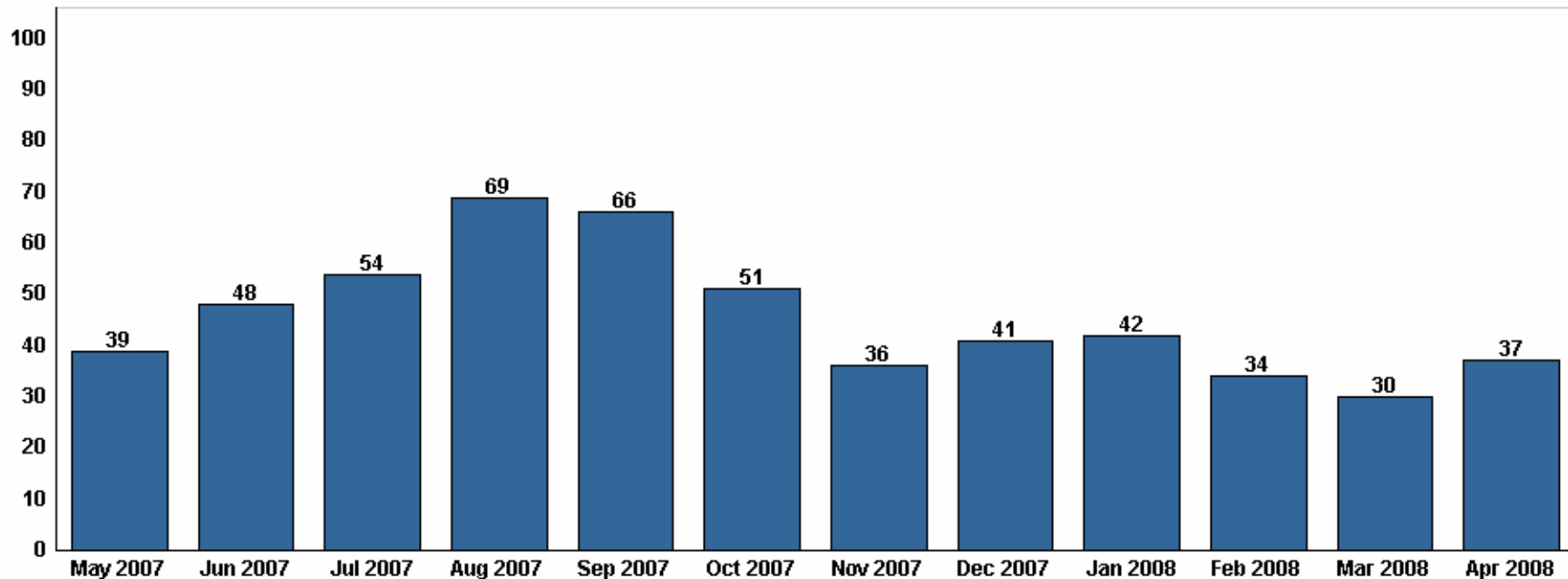


# 美国化学文摘 (CA)



# CALIS

- 從2004年起建立,我們有12個大學會員使用 SCIFINDER SCHOLAR
- 在2008年,我們增加到 48個大學會員.
- 每個月試圖訪問超過250,000次
- 使用率每一個月不斷的增加




# Scifinder Web

SciFinder® references substances reactions

answer sets | keep me posted | history | preferences | help | sign out


## Main toolbar

### Explore References


Research Topic    **Research Topic** 

Examples:  
*The effect of antibiotic residues on dairy products*  
*Photocyanation of aromatic compounds*


Author Name  
 Company Name  
 Document Identifier  
 Journal  
 Patent

**Publication Year(s)** 


Examples: *1995, 1995-1999, 1995-, -1995*

**Document Type(s)** 


<input type="checkbox"/> Biography	<input type="checkbox"/> Dissertation	<input type="checkbox"/> Patent
<input type="checkbox"/> Book	<input type="checkbox"/> Editorial	<input type="checkbox"/> Preprint
<input type="checkbox"/> Clinical Trial	<input type="checkbox"/> Historical	<input type="checkbox"/> Report
<input type="checkbox"/> Commentary	<input type="checkbox"/> Journal	<input type="checkbox"/> Review
<input type="checkbox"/> Conference	<input type="checkbox"/> Letter	

**Language(s)** 

<input type="checkbox"/> Chinese	<input type="checkbox"/> German	<input type="checkbox"/> Polish
<input type="checkbox"/> English	<input type="checkbox"/> Italian	<input type="checkbox"/> Russian
<input type="checkbox"/> French	<input type="checkbox"/> Japanese	<input type="checkbox"/> Spanish

**Author Name** 

Last \*      First      Middle

**Company Name** 

Examples:  
*Minnesota Mining and Manufacturing*  
*DuPont*

### Answer Sets

Biofuels  
Catalysts  
Sweeteners

View All

### Keep Me Posted

Rho Kinase  
No results

Nano Probes  
No results

View All

## Sidebar

Select search limiters if desired.

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KEEP ME POSTED Research Topic "effect of plant flavonoids on ..."

## Research Topic Candidates

11 Topics 2 Selected

[Select All](#) [Deselect All](#)

Research Topic Candidates	References
<input checked="" type="checkbox"/> 15 references were found containing all of the concepts "plant flavonoids" , "diseases" and "heart" closely associated with one another.	15
<input checked="" type="checkbox"/> 73 references were found where all of the concepts "plant flavonoids" , "diseases" and "heart" were present anywhere in the reference.	73
<input type="checkbox"/> 171 references were found containing the two concepts "plant flavonoids" and "diseases" closely associated with one another.	171
<input type="checkbox"/> 692 references were found where the two concepts "plant flavonoids" and "diseases" were present anywhere in the reference.	692
<input type="checkbox"/> 34 references were found containing the two concepts "plant flavonoids" and "heart" closely associated with one another.	34
<input type="checkbox"/> 127 references were found where the two concepts "plant flavonoids" and "heart" were present anywhere in the reference.	127
<input type="checkbox"/> 288430 references were found containing the two concepts "diseases" and "heart" closely associated with one another.	288430
<input type="checkbox"/> 440125 references were found where the two concepts "diseases" and "heart" were present anywhere in the reference.	440125
<input type="checkbox"/> 6857 references were found containing the concept "plant flavonoids" .	6857
<input type="checkbox"/> 5092701 references were found containing the concept "diseases" .	5092701
<input type="checkbox"/> 1156785 references were found containing the concept "heart" .	1156785

[Get References](#)

## References

GET SUBSTANCES

GET REACTIONS

GET CITED

GET CITING

73 References

0 Selected

Keep Selected

Remove Selected

Select All Deselect All

1 2 3 4 ▶

- 1. Vitamins, minerals, and flavonoids intake and the risk of cardiovascular diseases**  
By Tabatabai, Shiva; Keshavarz, Seyed Ali  
From Journal of Tehran University Heart Center (2007) English CAPLUS  
Diseases of heart and stroke cause most deaths in both sexes of all ethnic groups. For more than 40 years epidemiol. studies, exptl. studies, and clin. trials have shown that numerous dietary risk factors affect serum lipids, atherogenesis and coronary heart disease (CHD). Substantial interest has recently focused on the hypothesis that the naturally occurring antioxidant vitamins such as vitamin E, vitamin C, and  $\beta$ -carotene may prevent myocardial infarction, progression of coronary heart disease. Substantial lab., animal, and human data suggest that oxidn. of low-d. lipoprotein (LDL) chole...
- ✚ SUBSTANCES ▲ REACTIONS 📄 CITING 📄 FULL TEXT
- 2. Free Radicals, Antioxidants and Diabetes: Embryopathy, Retinopathy, Neuropathy, Nephropathy and Cardiovascular Complications**  
By Aruoma, Okezie I.; Neergheen, Vidushi S.; Bahorun, Theeshan; Jen, Ling-Sun  
From Neuroembryology and Aging (2007) English CAPLUS  
The metabolic disturbances in the insulin-dependent diabetes mellitus or type 1 and noninsulin-dependent diabetes mellitus or type 2 are assocd. with a no. of complications including cardiovascular diseases, nephropathy, neuropathy, retinopathy leading to blindness and embryopathy or congenital malformations. Maternal diabetes is assocd. with a high incidence of congenital malformations and fetal abortions. Heart and kidney anomalies, along with central nervous system defects are frequent manifestations of a maternal diabetic environment. Glycation products from excess glucose can chem. mod...
- ✚ SUBSTANCES ▲ REACTIONS 📄 CITING 📄 FULL TEXT
- 3. Anti- and prooxidative effects of flavonoids**  
By Waetjen, Wim; Chovolou, Yvonne; Kampkoetter, Andreas; Kahl, Regine  
Edited by Panglossi, Harold V  
From Leading Edge Antioxidants Research (2007) English CAPLUS  
A review. Flavonoids are polyphenolic compds. that occur ubiquitously in foods of plant origin. This class of compds. has become increasingly popular in terms of health protection because they possess a remarkable spectrum of biochem. and pharmacol. activities. Flavonoids affect basic cell functions such as growth, differentiation and apoptosis. Epidemiol. studies have suggested that flavonoids may protect against various stages of the cancer process and are assocd. with a reduced incidence of coronary heart disease. Flavonoids have been shown to be potent antioxidants because of their ra...
- ✚ SUBSTANCES ▲ REACTIONS 📄 CITING 📄 FULL TEXT
- 4. Antiapoptotic and proapoptotic effects of plant polyphenols**  
By Waetjen, Wim; Chovolou, Yvonne; Kampkoetter, Andreas; Kahl, Regine  
Edited by Valentino, Rafe G  
From New Cell Apoptosis Research (2007) English CAPLUS  
A review. Polyphenolic compds. e.g. flavonoids, phenolic acids, lignans and stilbenes occur ubiquitously in foods of plant origin. These substances possess a remarkable spectrum of pharmacol. activities e.g. antibacterial, antiviral, antioxidative and estrogenic properties, but antiproliferative and cytotoxic effects are also found. Epidemiol. studies have suggested that polyphenols protect against cancer and are assocd. with a reduced incidence of coronary heart disease. Therefore certain polyphenols are used as chemopreventive agents in food supplements. In recent years, considerable at...
- ✚ SUBSTANCES ▲ REACTIONS 📄 CITING 📄 FULL TEXT
- 5. Comment on Comparison of Protective Effects between Cultured Cordyceps militaris and Natural Cordyceps sinensis against Oxidative Damage**  
By Hamburger, Matthias  
From Journal of Agricultural and Food Chemistry (2007) English CAPLUS

## Analysis

Author Name

Click bar to view only those references

Katan M B 5

Hollman P C 4

Chovolou Yvonne 3

Hollman Peter C H 3

Kahl Regine 3

Kampkoetter Andreas 3

Katan Martijn B 3

Waetjen Wim 3

Bolling Steven 2

Chang Soo Chul 2

Show More

## Refine by

- Research Topic
- Author Name
- Company Name
- Document Type
- Publication Year
- Language
- Database

## Research Topic:

Examples:

*The effect of antibiotic residues on dairy products*

*Photocyanation of aromatic compounds*

Refine



# Scifinder Scholar

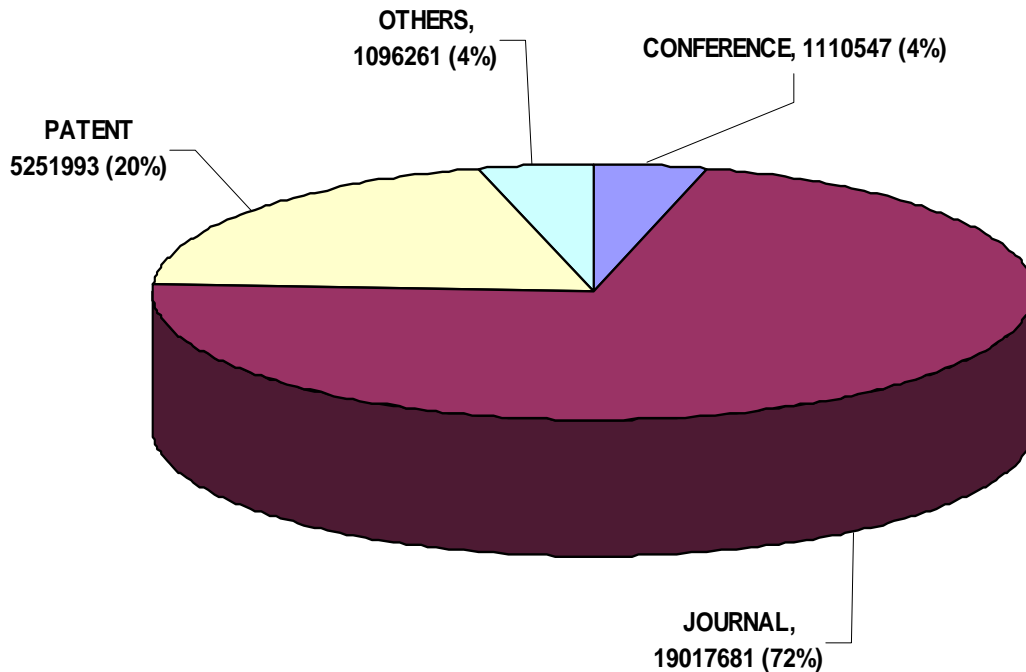
- 提供世界上最全面的文摘和索引数据库
- **CAS**的科学家以专业的知识编辑、整理和分析文献,将文献内容增值
- 开发**SciFinder** 和 **SciFinder Scholar** 桌面研究工具
- 包含六个数据库
  - **CAplus (= CA)**
  - **CAS registry (注册号)**  
世界上最全面的物质, 序列以及化学反应数据库
  - **CASEACT**
  - **Medline**
  - **CHEMCAST(商业化学品记录)**
  - **CHEMLIST (化学品监管数据库)**



# CAplus

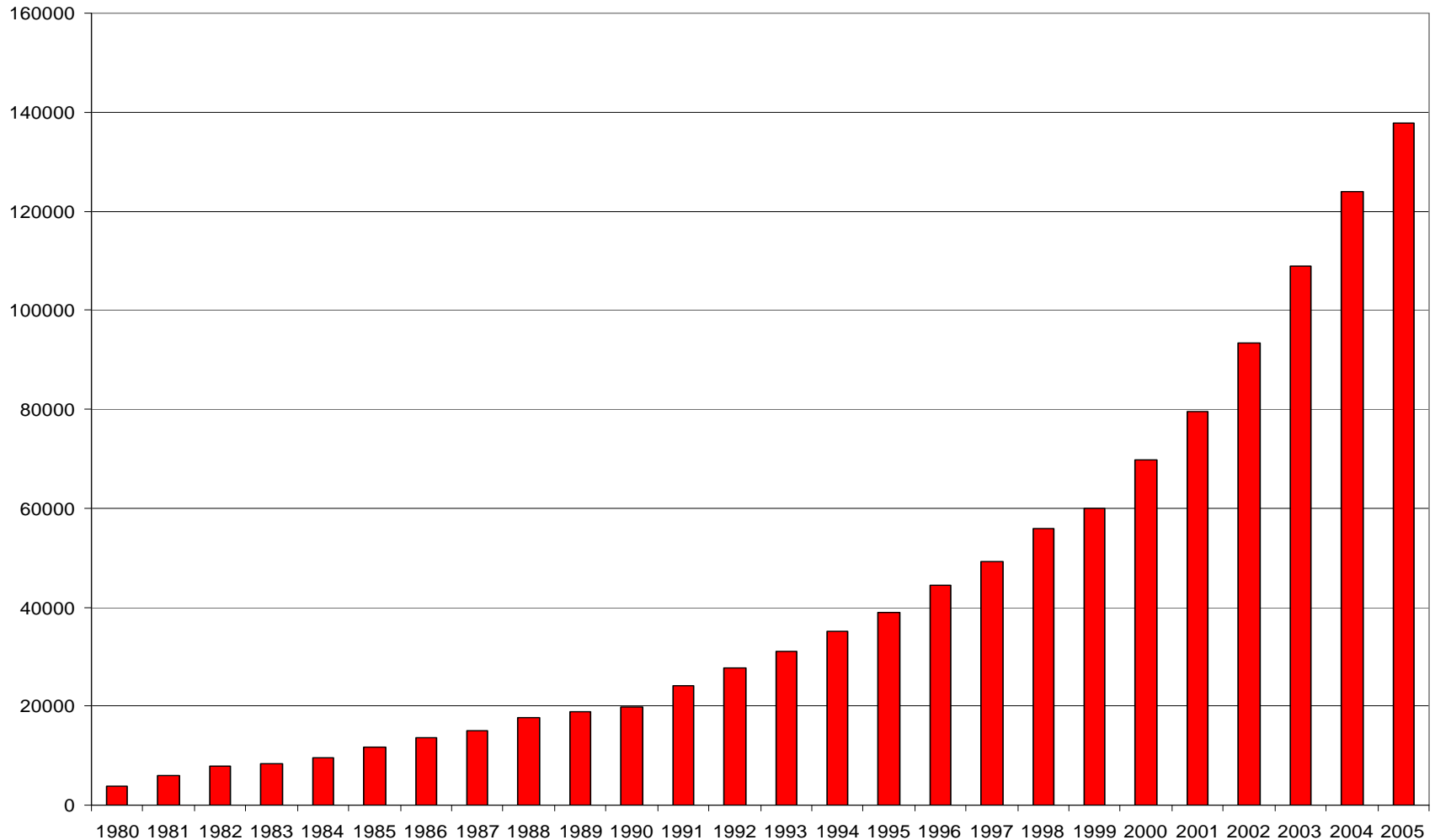
- CAplus

- 文献数据库
- 索引记录来自世界科学文献
- 始于1907
- 涵盖了不同类型的文献

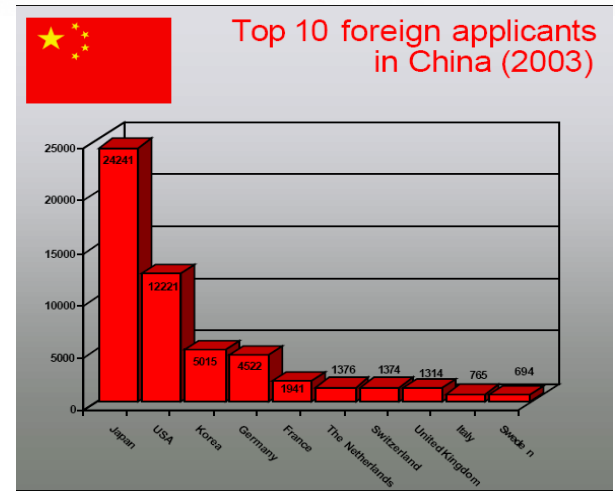
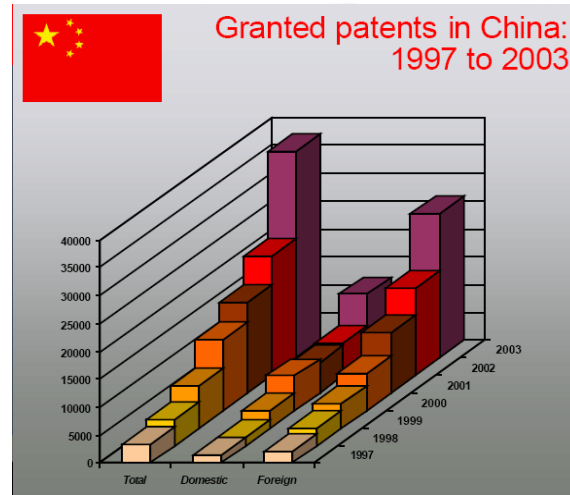
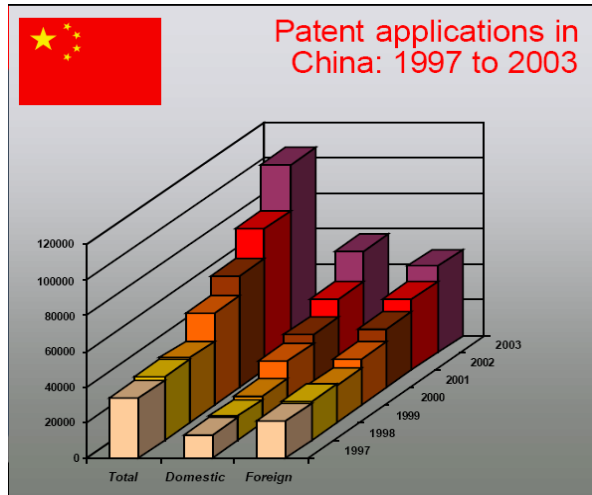


# CAplus (覆盖文献情况: 中国)

CAplus中收录的记录量



# 中国专利文献的增长反映了经济的实力



- 申请专利的增长速度是全球最快的
- 授权的专利深受外来投资者的喜爱
- 主要是日本的专利申请者
- 与2005年相比，2006年申请的专利新增了28%，近350,000项。

## 全面

- 唯一的综合性科学期刊资源和专利信息

**Scifinder Scholar**从多于10,000个关键的科学期刊提供以百万计的期刊文章参考文献，和由世界各地**57**家专利局的专利和专利家族的参考文献。

- 最实时性的科学情报来源

**CAplus**与**CA registry**为每天更新

9个主要专利局的专利参考文献,在专利的发行以后**2**天内收录在**CAplus**里面

**CAplus**每天增加超过**3,000**个纪录

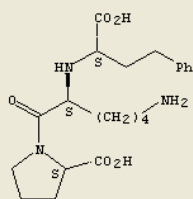
# Comprehensive... Authoritative... Reliable

## CAS Registry

全球最大的物质数据库  
34,000,000有机&无机物质.  
60,000,000蛋白质&核酸序列

Registry Number: 76547-98-3

Absolute stereochemistry. Rotation (-).



Formula: C21 H31 N3 O5

CA Index Name: L-Proline, N2-[(1S)-1-carboxy-3-phenylpropyl]-L-lysyl- (9CI)

## CAplus

全球最大的文摘数据库  
28,000,000期刊和专利记录

### Bibliographic Information

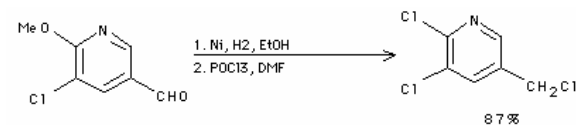
**Synthesis and Assignment of Absolute Configuration of (-)-Oleocanthal: A Potent, Naturally Occurring Non-steroidal Anti-inflammatory and Anti-oxidant Agent Derived from Extra Virgin Olive Oils.** Smith, Amos B., III; Han, Qiang; Breslin, Paul A. S.; Beauchamp, Gary K. Department of Chemistry, Monell Chemical Senses Center, Laboratory for Research on the Structure of Matter, University of Pennsylvania, Philadelphia, PA, USA. *Organic Letters* (2005), 7(22), 5075-5078. Publisher: American Chemical Society, CODEN: ORLEF7 ISSN: 1523-7060. Journal written in English. AN 2005:1039884 CAPLUS

### Abstract

Effective total syntheses and the assignment of abs. configurations of both the (+)- and (-)-enantiomers of oleocanthal 1 (a.k.a. Deacetoxy ligstroside aglycon), the latter derived from extra virgin olive oils and known to be responsible for the back of the throat irritant properties of olive oils, have been achieved. The abs. and relative stereochem. of the naturally occurring enantiomer (-)-1 proved to be 3S,4E. Both syntheses begin with D-(-)-ribose, proceed in 12 steps, and are achieved with an overall yield of 7%. Both enantiomers proved to be non-steroidal anti-inflammatory and anti-oxidant agents.

## CASREACT

全球最大的反应数据库  
>14,500,000条单步和多步的反应



## 权威

- CAS的索引
  - 八百多位专业科学家分析和索引科研文献和专利，为文献内容增值
- CAS收录100多年的数据
  - CAplus自1907年开始，收录 9,500 余种期刊，包括1,900 余种化学核心期刊所有文章；文章收录自50多个国家的专利
- CAS登记号
  - 为每一个物质都有的独一无二编号，用来确认物质，被世界广泛使用

# Comprehensive... Authoritative... **Reliable**

## 可靠

- 所有CAS的数据是有相关文献支持, 用户可随时查阅
- CAS的索引和检索系统帮助用户进行全面和精确的检索, 减少检索漏掉

The screenshot displays the SciFinder software interface. The main window shows the chemical structure of 6-Nonenamide, N-[4-(3-hydroxy-5-methoxyphenyl)methyl]-8-methyl-, (6E)-, with its formula C<sub>18</sub>H<sub>27</sub>N O<sub>3</sub>. The interface includes a menu bar (File, Edit, View, Task, Tools, Help) and a toolbar with icons for navigation and actions. A search bar at the top left contains the CAS number 904-86-4. Below the structure, it indicates "-5331 References" and "REGISTRY".

An inset window titled "Experimental Properties for 904-86-4" displays a table of properties:

Property	Value	Condition	Note
Boiling Point	210-220 癬		(1) CAS
Boiling Point	210-220 癬	Press: 0.01 Torr	(2) APC
Boiling Point	210-220 癬	Press: 0.01 Torr	(3) NLM
Crystal Structure	See full text		(4) CAS
IR Absorption Spectrum	See full text		(5) IC
logP	See full text		(6) CAS
	See full text		(7) CAS
	See full text		(8) WSS
	See full text		(9) WSS
	See full text		(10) IC
	See full text		(11) CAS
	See full text		(12) CAS
	See full text		(13) CAS
	See full text		(14) CAS
	See full text		(15) CAS
65 癬			(1) APC
65 癬			(2) NLM
65 癬			(3) SRC
64-65 癬			(16) CAS
	See full text		(4) CAS
	See full text		(5) IC
	See full text		(17) CAS
	See full text		(8) IC
	See full text		(15) CAS

At the bottom, a mass spectrum plot is shown with the x-axis labeled "m/z" ranging from 0 to 300. The plot displays several peaks, with the base peak at m/z 153. The y-axis is labeled "Relative Intensity".





# 看科学家说什么 Scifinder

## 2001年诺贝尔奖得主

Dr. K. Barry Sharpless

Nobel Laureate

W.M. Keck Professor of Chemistry

Scripps Research Institute

Dr. K. Barry Sharpless

Nobel Laureate (2001年诺贝尔奖得主)

## ● SciFinder's significance, speed, and scope

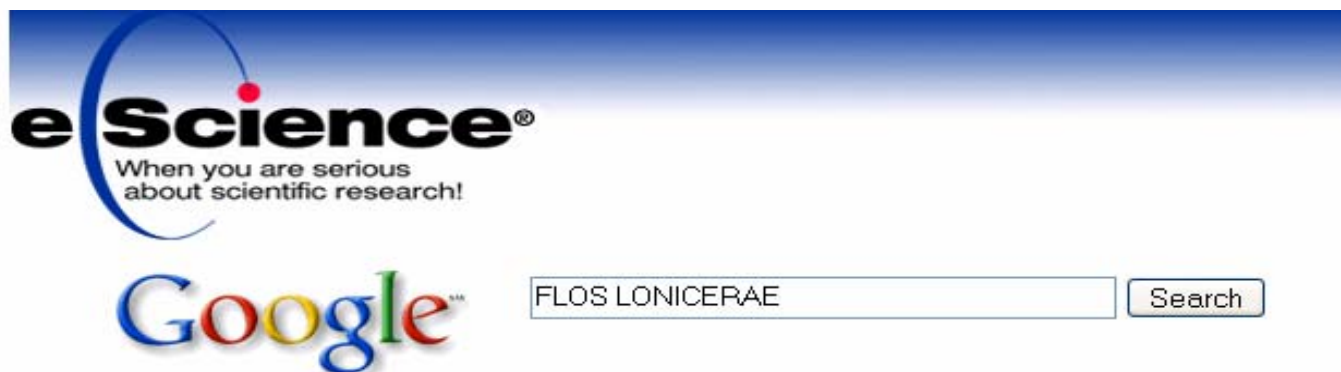
We were using SciFinder at Scripps even before SciFinder Scholar™ was invented. I am a big user and don't see how any researcher could hope to excel without daily, round-the-clock access. In the old days, you could be forgiven for not knowing about a certain paper, but now there is no excuse. The speed and scope of its search power is amazing, and the answer to 'what aspect is most helpful to you?' could be as diverse as the users. In my case, SciFinder enhances my reactivity insights, making it easier to 'see' those ill-defined boundaries where important new phenomena are lurking.

## ● Scifinder的查寻力量,速度和范围

在SciFinder Scholar被发明了以前,我们已经在Scripps研究所使用SciFinder。我是一名主要的用户,我不了解研究员怎么可能不希望每日,每夜不停的使用它。在过去,您可能认为不知道一些研究论文可以被原谅,但是现在是没有借口的。它的查寻力量,速度和范围是惊人的。它的答案对您查寻‘什么方面对您是最有帮助?’能是不同的用户,不一样的答案。在我而言, Scifinder提高我的反应和洞察力,使我决策更容易。使我能'看见'那些艰难确定分界线及重要地方潜伏的新现象。

# 金银花

- Google搜索



[Try Google AdWords and reach your best prospects across the web.](#)

**Web**

Results **1 - 10** of about **18,200** for **FLOS LONICERAE**. (0.45 seconds)

[Herbasin Chinese herb database - \*\*Flos Lonicerae\*\* \(Jin Yin Hua\)](#)

Supplier and OEM factory of quality chinese ginseng, chinese herbs, herbal extracts and traditional chinese medicine in GAP or GMP standard.

[www.herbasin.com/database/jinyinhua.htm](http://www.herbasin.com/database/jinyinhua.htm) - 18k - [Cached](#) - [Similar pages](#)

[Herbasin Chinese herb database - Fructus Forsythiae \(Lian Qiao\)](#)

In short, the drug is an indispensable drug for treating diseases due to virulent heat, and often combined with **Flos Lonicerae** in clinical practice. ...

[www.herbasin.com/database/lianqiao.htm](http://www.herbasin.com/database/lianqiao.htm) - 18k - [Cached](#) - [Similar pages](#)

[Welcome To Enwei](#)

**Flos Lonicerae** mainly contains chlorogenic acid, isochlorogenic acid, ... Anti-bacterium function: experiment research shows that **Flos Lonicerae** has ...

[www.enwei.com.cn/b2b\\_en/page.asp?title=jinyinhua](http://www.enwei.com.cn/b2b_en/page.asp?title=jinyinhua) - 20k - [Cached](#) - [Similar pages](#)



English Name

Honeysuckle Flower

Chinese Name

金银花

Picture



Origin

Honeysuckle Flower is the dried flower bud or opening flower of *Lonicera japonica* Thunb., *Lonicera hypoglauca* Miq., *Lonicera confuse* DC. or *Lonicera dasystyla* Rehd. (Fam. Caprifoliaceae).

Nature and Affinity

It is sweet in taste and cold in nature. Its therapeutic action is related to the Channels of the Lung, Heart and Stomach.

Main Active Ingredient

chlorogenic acid (C<sub>16</sub>H<sub>18</sub>O<sub>9</sub>)

## Herbasin Chinese herb database - Flos Lonicerae (Jin Yin Hua)



### DESCRIPTION

flower of *Lonicera japonica* Clavate, stout in upper part and tapered downwards, slightly curved, 2~3 cm long, about 3 mm in diameter in upper part and 1.5 mm in diameter in lower part. Externally yellowish-white or greenish-white, gradually darken on keeping, densely pubescent. Foliaceous bracts occasionally visible. Calyx green, 5-lobed at the apex, lobes pubescent, about 2 mm long. Corolla tubular when open, apex 2-lipped; stamens 5, epipetalous, yellow; pistil 1, ovary glabrous. Odour, delicately aromatic; taste, weak and slightly bitter.

flower of *Lonicera hypoglauca* 2.5~4.5 cm long, 0.8~2 mm in diameter. Externally yellowish-white to yellowish-brown, glabrous or sparsely pubescent. Calyx tube glabrous, 5-lobed at the apex, lobes long-triangular, pubescent. The lower lip of corolla recurved when open. Style glabrous.

flower of *Lonicera confuse* 1.6~3.5 cm long, 0.5~2 mm in diameter. Calyx tube and corolla densely covered with greyish-white hairs. Ovary hairy.

flower of *Lonicera dasystyla* 2.5~4 cm long, 1~2.5 mm in diameter. Externally pale purplish-yellow, glabrous. Calyx lobes short-triangular. The upper lip of corolla usually irregular when open. Style densely covered with long pubescences at the lower part.



### ACTION

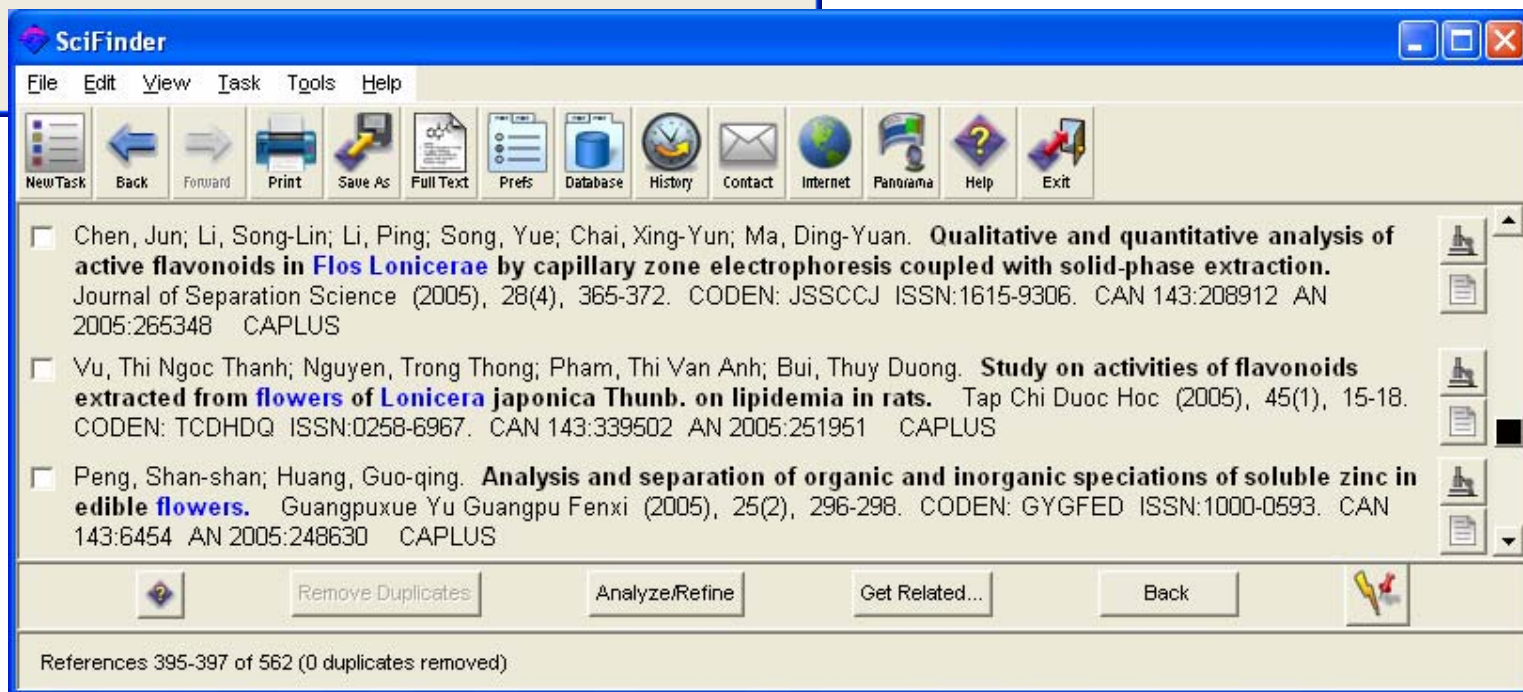
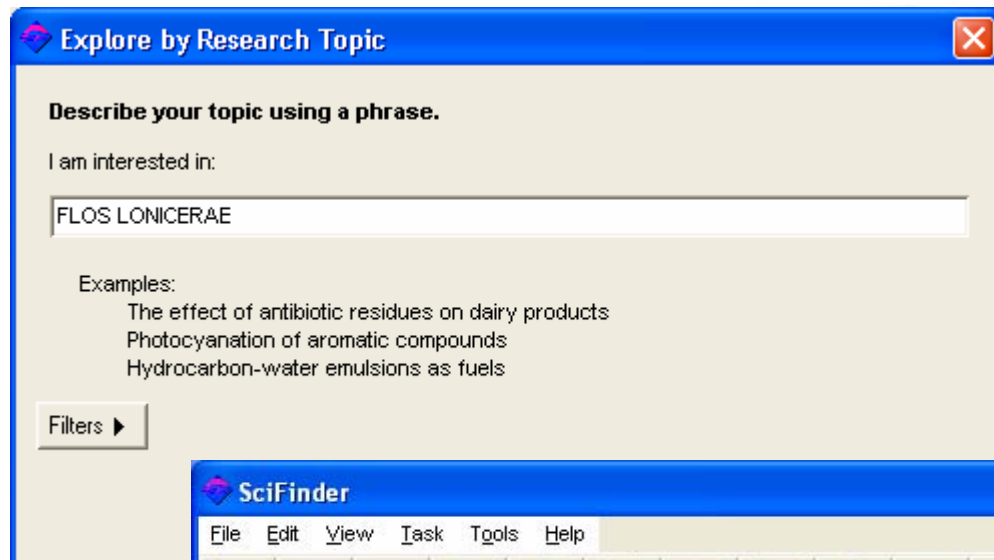
To remove toxic heat and dispel wind-heat.

# 金银花的信息？

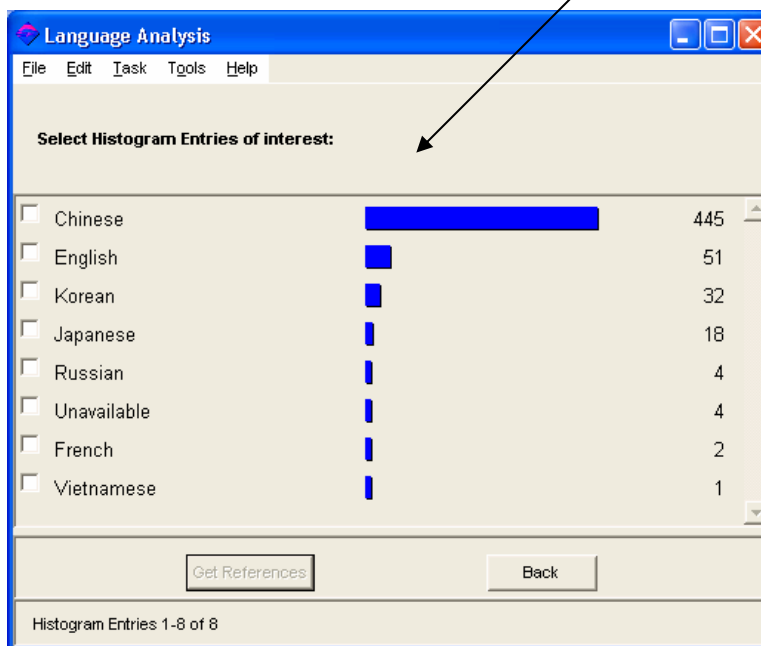
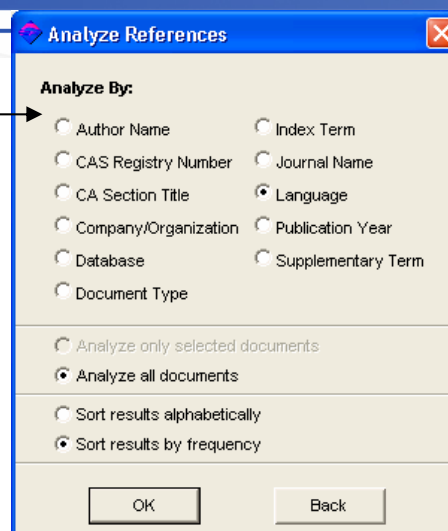
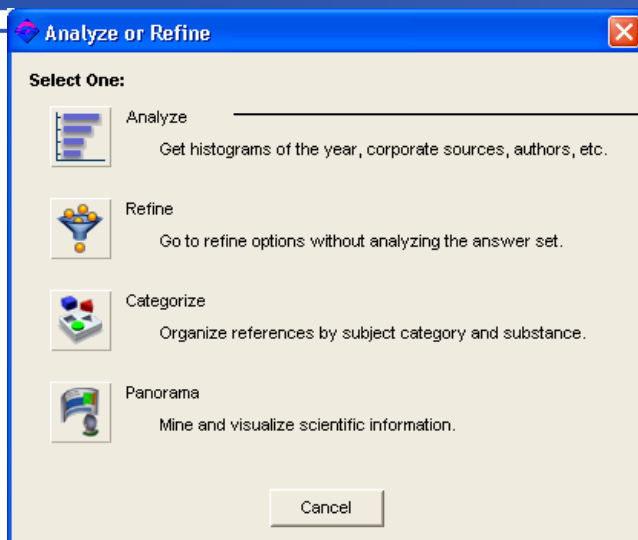
- 全面的信息：
  - 植物科？
  - 植物种属？
    - 其他名称
  - 医药用途？
  - 活性成分？
  - 期刊及专利？
  - ???

# SciFinder: 主题检索(CAplus)

- SciFinder自动添加同义词



# 中文记录



# Get Related: 获得相关物质

The image shows a screenshot of the SciFinder software interface. On the left, a dialog box titled "Get Related Information" is open, listing several options for selecting related information:

- Cited References**: Get references cited in the selected document(s)
- Citing References**: Get references that cite the selected document(s)
- Substances**: Get substances indexed in the selected document(s)
- Reactions**: Get reactions indexed in the selected document(s)
- eScience**: Get related information from the Web.

The main SciFinder window displays two chemical structures. The left structure is labeled "56038-13-2" and is associated with "~731 References REGISTRY". The right structure is labeled "55869-99-3" and is associated with "~519 References REGISTRY". The SciFinder interface includes a menu bar (File, Edit, View, Task, Tools, Help) and a toolbar with icons for New Task, Back, Forward, Print, Save As, Full Text, Prefs, Database, History, Contact, Internet, Panorama, Help, and Exit. At the bottom of the SciFinder window, there are buttons for "Get References", "Get Reactions", "Analyze/Refine", and "Back", along with a status bar showing "Substances 375-376 of 1169".

- 562个记录中有1100多种物质
- 可以通过许多方式缩小检索结果，如：通过结构





# 总结: 金银花

- **SciFinder 主题检索**
  - 自动添加同义词;
  - 分析
    - 中文期刊很重要;
  - 获取相关物质
    - 找出相关物质
    - 根据结构缩小检索结果
- **SciFinder 分类**
  - 另一种独有的后处理方法

# 总结

- 药物检索时出现的问题:
  - 同义词;
  - 信息是以怎样的方式被收录:
    - 全文;
    - 数据库.
- **SciFinder** 具有便捷的搜索引擎功能, 并且具有许多独一无二的后处理方法.
- 当检索科学信息时:
  - 了解数据库;
  - 了解搜索引擎如何运作.

# 总结

- **CAS**一直秉承着帮助科研人员及情报人员创造增值资源的理念精髓。
- 我们致力于寻求让科学研究更高效更全面的途径。
- **CAS**涵盖的内容是无可比拟的；且包含了大量的不断更新的文献。(特别是中文文献)
- 运用**SciFinder**这一独特的检索工具，科研人员可以进行全面的信息检索和高效的科学研究。
- **CAS**中国愿竭诚助您认识**SciFinder**—研究过程不可缺少的工具！

# Blessing from CAS colleagues in Columbus



众志成城，佛佑四川

谢谢!



# 欢迎参加!

## **CAS**用户座谈咨询会与上机培训

- 内容: SciFinder Scholar
- 时间: 5月15日  
14:30 – 16:00
- 地点: 图书馆 老馆 208室