

データベース講習会

～ SciFinder ～



理工学図書館 TA  
工学研究科 生命先端工学専攻  
M1 森相 愛子

## こんなとき便利！

- 新しい物質候補を発見した！  
⇒検索して出てこなければ新規の可能性大！
- 物質の薬理を知りたい！  
⇒構造検索：似ている物質から推測できる！  
主要9カ国での規制情報がわかる！
- ある物質を注文したい！  
⇒製品のカタログ番号、提供業者、価格etcがわかる！

などなど・・・ 様々なことに応用可能☆

## SciFinder による検索の目的

- ある化学物質、トピックについて調べる
  - 機能、使い方
  - 実験操作
  - 起源
  - 最新情報 etc
- 検索結果を利用する
  - 参考に
    - 論文を書く
    - 実験手順の構築
    - 特許の出願
  - 新規性の確認
  - 引用度の確認

# SciFinder

- 化学分野に特化したデータベース
  - 化学中心、医薬、生化学、物理、工学等の科学情報
  - JAICI(社団法人 化学情報協会)により提供
  - 世界最大級の情報量をもつ、  
**CAS(Chemical Abstracts Service)**からのデータ検索



化学分野では必須！！のデータベース

## SciFinder ～概要～

- SciFinder から見られるもの
  - 過去200年間に発表された研究
    - 雑誌論文 ……150ヶ国、9000誌
    - 特許 ……57の特許発行機関
  - 物質情報
  - 物性(物質の特性)
    - 物理的、化学的、生物学的
  - スペクトル
  - 反応
    - 段階、条件
    - 製造法
  - 引用文献
  - タンパク質、核酸情報

## SciFinder ～機能～

- 検索・・・論文、特許
  - 研究トピック、化学物質名
  - 著者名、企業名
  - 化学構造
  - 反応
  
- 雑誌論文、特許のフルテキストへのリンク
  
- 最新情報のウォッチング

## SciFinder ～注意点～

- アクセス
  - 大学で契約・・・アクセス制限あり
  - ラーニングコモンズのパソコンor研究室等で

※検索が終了したら、必ず接続を切ること！！  
(他の人が利用できないため)

※登録のための詳細は、HPを参照

# SciFinder ~使い方~

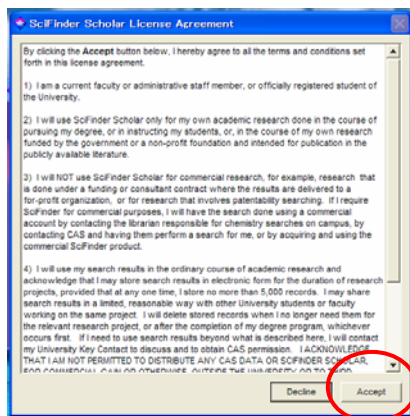


- ・デスクトップのアイコンをクリック
- ・しばらくすると・・・



waiting...

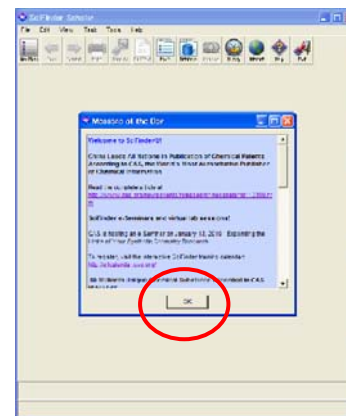
- ・使用許諾契約が表示されるので、



“Accept” をクリック



- ・メッセージが表示されるので、



“OK” をクリック

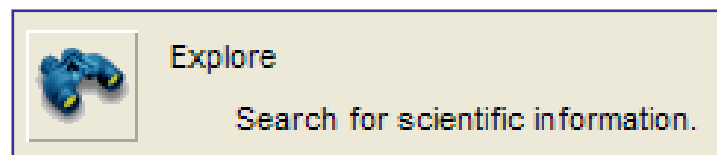
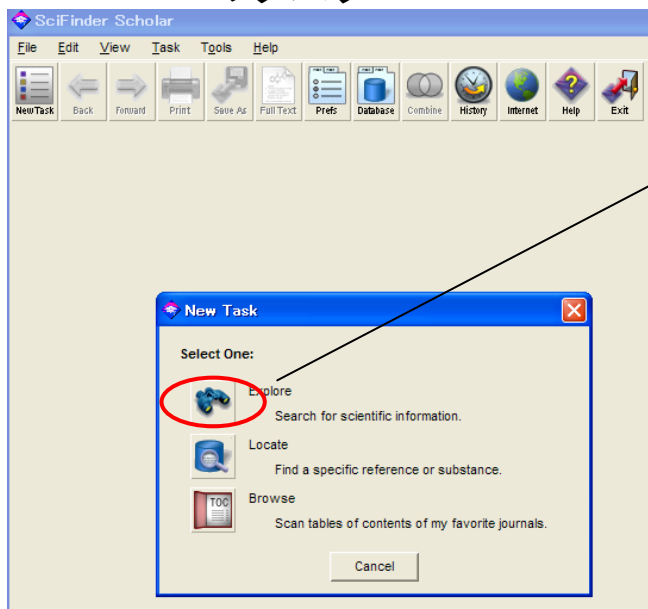


トップ画面へ

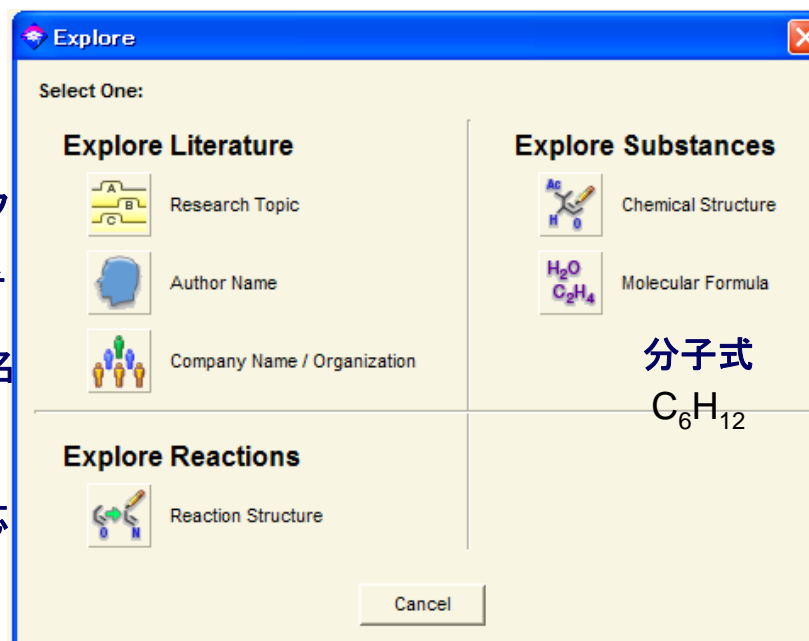


# 検索の仕方

・3つのタスク



■ ノーマルな(よく使う)検索法



トピック

著者

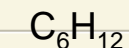
企業、機関名

化学反応

化学構造

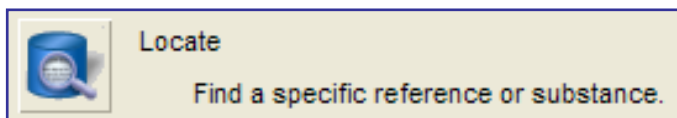


分子式

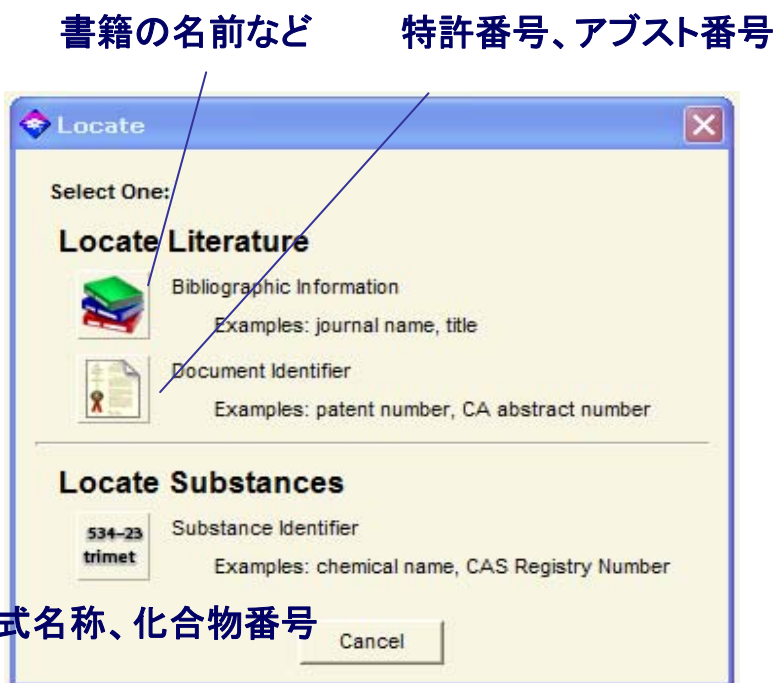


様々な検索の仕方が出来ます☆

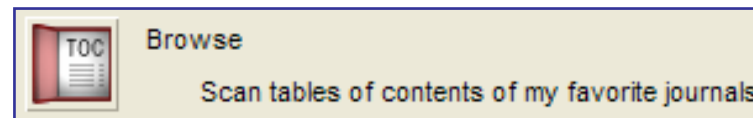
## ・その他のタスク



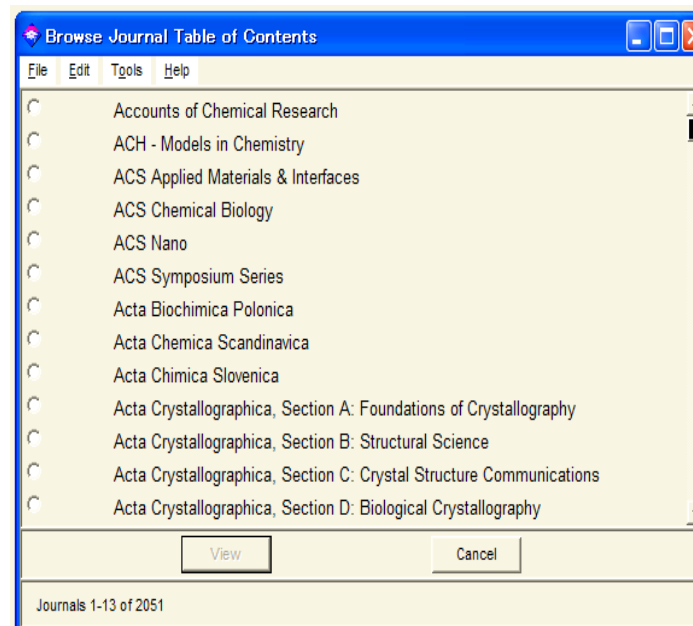
### ■ 文献情報から検索する



正式名称、化合物番号



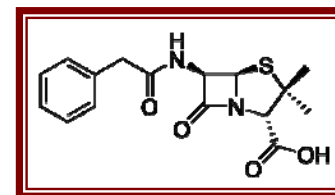
### ■ リスト(目次)から検索する



### □ 全掲載雑誌のリストが表示される

では・・・実際に使ってみよう！

■ “Penicillin”を検索



The screenshot shows a dialog box titled "Explore by Research Topic". It has a text input field containing "penicillin", which is highlighted with a red box. Below the input field are "Examples:" and a list of three phrases. At the bottom, the "OK" button is circled in red.

入力して、“OK”

Ⓚキーワードを含む文献数

The screenshot shows a dialog box titled "Topic Candidates". It lists two candidates, each with a checkbox and a description of the number of references found. The "Get References" button at the bottom is circled in red.

Candidate	Number of References
<input type="checkbox"/> 94786 references were found containing "penicillin" as entered.	94786
<input type="checkbox"/> 95504 references were found containing the concept "penicillin".	95504

Ⓛキーワードに関連する文献数

選択して、“Get References”

## ◎検索結果◎

SciFinder Scholar

File Edit View Task Tools Help

NewTask Back Forward Print Save As Full Text Prefs Database Combine History Internet Help Exit

- Siqueira, Jose R., Jr.; Maki, Rafael M.; Paulovich, Fernando V.; Werner, Carl F.; Poghosian, Arshak; de Oliveira, Maria C. F.; Zucolotto, Valtencir; Oliveira, Osvaldo N., Jr.; Schoning, Michael J. **Use of Information Visualization Methods Eliminating Cross Talk in Multiple Sensing Units Investigated for a Light-Addressable Potentiometric Sensor.** Analytical Chemistry (Washington, DC, United States) ACS ASAP. CODEN: ANCHAM ISSN:0003-2700. AN 2009:1492835 CAPLUS
- Vedhagiri, Kumaresan; Manilal, Aseer; Valliyammai, Thangavel; Shanmughapriya, Santhanam; Sujith, Sugathan; Selvin, Joseph; Natarajaseenivasan, Kalimuthusamy. **Antimicrobial potential of a marine seaweed *Asparagopsis taxiformis* against *Leptospira javanica* isolates of rodent reservoirs.** Annals of Microbiology (Milano, Italy) (2009), 59(3), 431-437. CODEN: AMNIC7 ISSN:1590-4261. AN 2009:1489967 CAPLUS
- Hamilton-Miller, Jeremy Marcis Tom. **Antibacterial agent containing tea extract or active fraction thereof and  $\beta$ -lactam antibiotic/Antibacterial agent containing tea extract and BETA-lactam antibiotic against methicillin-resistant *Staphylococcus aureus* (MRSA).** U.S. (1999), CODEN: USXXAM US 5879683 A 19990309 AN 2009:1488868 CAPLUS
- Niwa, Kozo. **Medicinal facial cream with improved percutaneous absorption ability of active oxygen inhibitor.** Jpn. Kokai Tokkyo Koho (1994), CODEN: JKXXAF JP 06116132 A 19940426 Heisei. AN 2009:1487801 CAPLUS
- Sun, Yukun; Huang, Yonghong; Wang, Bo; Ji, Xiaofu; Liu, Guohai. **Fuzzy neural network inverse-based soft measurement method and system for key biochemical quantity in penicillin fermentation process.** Faming Zhuanli Shengqing Gongkai Shuomingshu (2009), CODEN: CNXXEV CN 101587350 A 20091125 AN 2009:1484246 CAPLUS
- Muratova, Kulparshin Donenbaevn; Vermeichev, Sergei Mikhailovic; Monakhov, Boris Vasilevich; Gendrikson, Larisa Nikolaevna. **A method for the treatment of erosive esophagitis.** Russ. (1995), CODEN: RUXXE7 RU 2033800 C1 19950430 AN 2009:1483688 CAPLUS
- Sunagatullin, Faruk A.; Volotko, Ivan I.; Petrakov, Konstantin A.; Slobodenyuk, Valentina K. **An antiinflammatory preparation containing alfalfa herb extract for the**

■ 最新のものから文献が表示される

 : 文献の概要表示

 : 全テキストへのリンク

文献を選択し、保存・印刷もできる

検索方法の変更もできる

## 文献の概要(Abstract)などが表示

**Detail of Reference 1**

File Edit Help

**Bibliographic Information**

**Use of Information Visualization Methods Eliminating Cross Talk in Multiple Sensing Units Investigated for a Light-Addressable Potentiometric Sensor.** Siqueira, Jose R., Jr.; Maki, Rafael M.; Paulovich, Fernando V.; Werner, Carl F.; Poghosian, Arshak; de Oliveira, Maria C. F.; Zucolotto, Valtencir; Oliveira, Osvaldo N., Jr.; Schoning, Michael J. Instituto de Fisica de Sao Carlos and Instituto de Ciencias Matematicas e de Computacao, University of Sao Paulo, Sao Carlos, Brazil. Analytical Chemistry (Washington, DC, United States) ACS ASAP. Publisher: American Chemical Society, CODEN: ANCHAM ISSN: 0003-2700. Journal written in English. AN 2009:1492835 CAPLUS

**Abstract**

The integration of nanostructured films contg. biomols. and silicon-based technologies is a promising direction for reaching miniaturized biosensors that exhibit high sensitivity and selectivity. A challenge, however, is to avoid cross talk among sensing units in an array with multiple sensors located on a small area. In this letter, we describe an array of 16 sensing units of a light-addressable potentiometric sensor (LAPS), which was made with layer-by-layer (LbL) films of a poly(amidomine) dendrimer (PAMAM) and single-walled carbon nanotubes (SWNTs), coated with a layer of the enzyme penicillinase. A visual inspection of the data from const.-current measurements with liq. samples contg. distinct concns. of penicillin, glucose, or a buffer indicated a possible cross talk between units that contained penicillinase and those that did not. With the use of multidimensional data projection techniques, normally employed in information visualization methods, we managed to distinguish the results from the modified LAPS, even in cases where the units were adjacent to each other. Furthermore, the plots generated with the interactive document map (IDMAP) projection technique enabled the distinction of the different concns. of penicillin, from 5 mmol L-1 down to 0.5 mmol L-1. Data visualization also confirmed the enhanced performance of the sensing units contg. carbon nanotubes, consistent with the anal. of results for LAPS sensors. The use of visual analytics, as with projection methods, may be essential to handle a large amt. of data generated in multiple sensor arrays to achieve high performance in miniaturized systems.

**Indexing -- Section 9 (Biochemical Methods)**

Get Related... Close

関連情報を得ることができる

**Get Related Information**

Select One:

- 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)
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Letter

Use of Information Visualization Methods Eliminating Cross Talk in Multiple Sensing Units Investigated for a Light-Addressable Potentiometric Sensor

José R. Siqueira, Jr.<sup>†‡§</sup>, Rafael M. Maki<sup>||</sup>, Fernando V. Paulovich<sup>||</sup>, Carl F. Werner<sup>‡§</sup>, Arshak Poghosian<sup>‡§</sup>, Maria C. F. de Oliveira<sup>||</sup>, Valtencir Zucolotto<sup>‡</sup>, Osvaldo N. Oliveira, Jr.<sup>\*†</sup> and Michael J. Schöning<sup>‡§</sup>

Instituto de Física de São Carlos and Instituto de Ciências Matemáticas e de Computação, University of São Paulo, 369 São Carlos, Brazil, Institute of Nano- and Biotechnologies, Aachen University of Applied Sciences, 52428 Jülich, Germany, and Institute of Bio- and Nanosystems (IBN-2), Research Centre Jülich, 52425 Jülich, Germany

Anal. Chem., Article ASAP  
DOI: 10.1021/ac9024076

Abstract Supporting Info

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- Rafael M. Maki
- Fernando V. Paulovich
- Carl F. Werner
- Arshak Poghosian
- Maria C. F. de Oliveira
- Valtencir Zucolotto
- Osvaldo N. Oliveira
- Michael J. Schöning

ファイルや図をダウンロードすることが出来る

※阪大で契約のあるもの、  
大学内からのみ

特許情報なども...

Patent : 特許データ

The screenshot shows a window titled "Detail of Reference 3" with a menu bar (File, Edit, Help) and standard window controls. The main content is divided into sections: "Bibliographic Information" and "Patent Family Information".

**Bibliographic Information**  
Antibacterial agent containing tea extract or active fraction thereof and  $\beta$ -lactam antibiotic/Antibacterial agent containing tea extract and BETA-lactam antibiotic against methicillin-resistant *Staphylococcus aureus* (MRSA). Hamilton-Miller, Jeremy Marcis Tom. (Royal Free Hospital School of Medicine, UK). U.S. (1999), CODEN: USXXAM US 5879683 A 19990309 Patent written in English. Application: US 96-704629 19960925. Priority: GB 94-4303 19940304; WO 95-GB461 19950303. AN 2009:1488868 CAPLUS

**Patent Family Information**

<u>Patent No.</u>	<u>Kind</u>	<u>Date</u>	<u>Application No.</u>
US 5879683 19960925	A	19990309	US 1996-704629
WO 9523607 19950303	A1	19950908	WO 1995-GB461

W: JP, US  
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

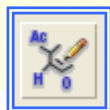
**Priority Application**

<u>Priority Application</u>		
GB 1994-4303	A	19940304
WO 1995-GB461	W	19950303

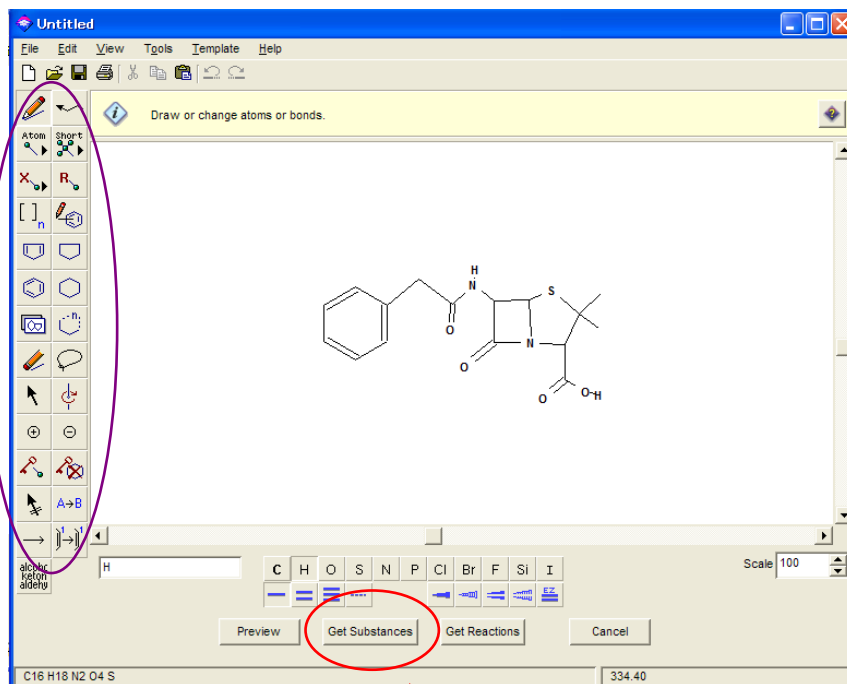
**Abstract**  
A method for the treatment of a methicillin-resistant *Staphylococcus aureus* (MRSA) infection of a human or animal by inhibiting production of PBP2'(Penicillin Binding Protein 2') comprises administering an extract of tea or its active fraction and a BETA-lactam antibiotic simultaneously, separately or sequentially. Said bacteria can constitutively express PBP2' and inducibly express PBP2' in the presence of BETA-lactam antibiotic. Process of preparation the tea extract includes

Buttons at the bottom: "Get Related...", "Close"

# 構造検索



・まず構造を書く！



様々なツールがあります☆

クリック

Get substances that match your query using:

- Exact search 完全一致構造
- Substructure search 部分構造
- Similarity search 類似性構造

Filters ▼ 検索の対象を選択

Substance class	Return substances that are:
	<input type="checkbox"/> Alloys
	<input type="checkbox"/> Coordination compounds
	<input type="checkbox"/> Incompletely defined
	<input type="checkbox"/> Mixtures
	<input type="checkbox"/> Polymers
	<input type="checkbox"/> Organics, and others not listed above
Structure components	<input type="checkbox"/> Only return substances that are single components
Commercial availability	<input type="checkbox"/> Only return substances that are commercially available
References	<input type="checkbox"/> Only return substances having one or more references
Studies	Only return substances having these reported studies:
	<input type="checkbox"/> Analytical
	<input type="checkbox"/> Biological
	<input type="checkbox"/> Preparation
	<input type="checkbox"/> Reactant or Reagent

OK Cancel

クリック



## ◎検索結果◎

Preview Answers

Preview answers:

Component Number 1

Component Number 2

Component Number 3

No Structure

Component Number 1

Component Number 2

Component Number 3

"Get Substances" will result in approximately 13031 answers (estimated range: 12375 - 13685).

Get Substances

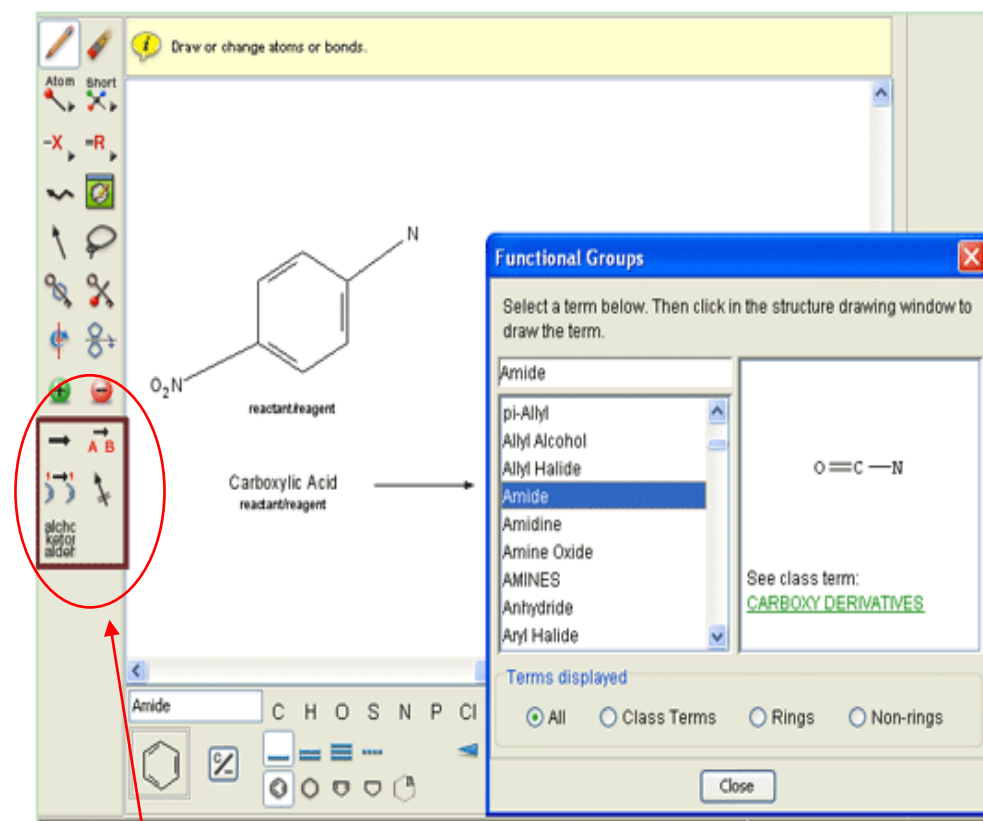
Back

Substances 1-3 of 59

物質を選択し、文献等を得ることが出来る☆

# SciFinder だけの機能・・・化学反応検索

まずは物質、反応経路を書く



このツールを使います

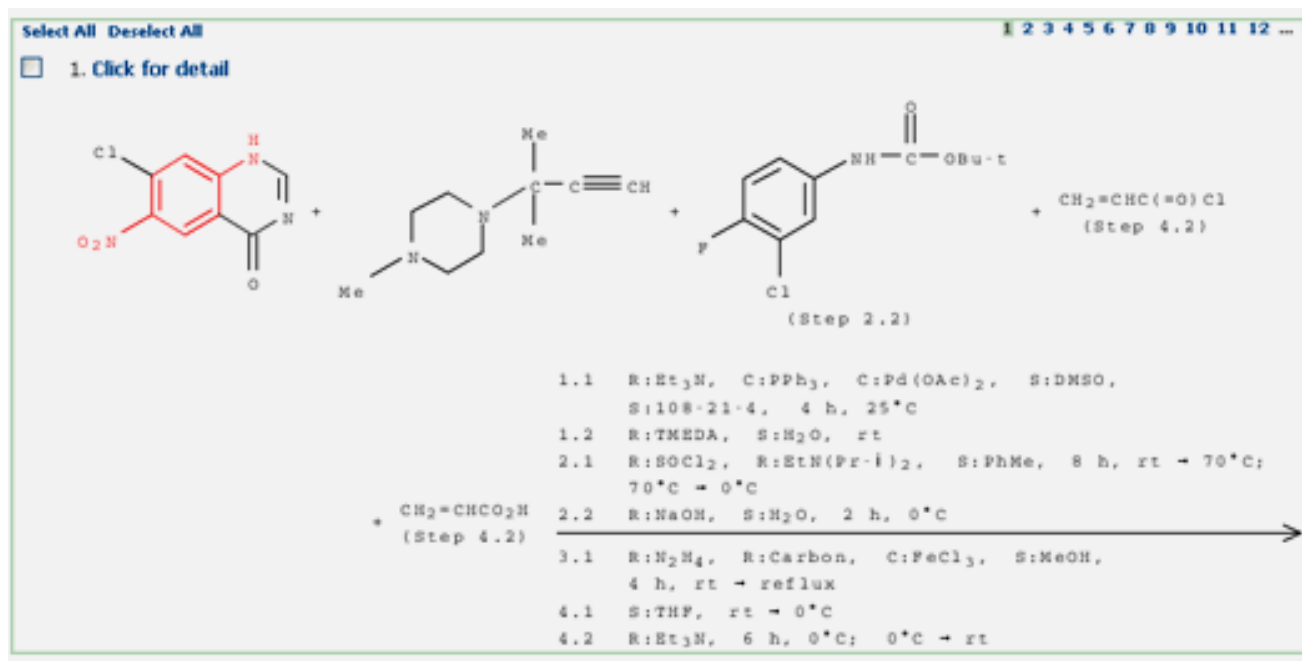
反応経路、役割(反応物・生成物・試薬)、  
原子の対応などを指定できる

検索タイプの指定

反応分類(一致度)  
出典、発行年等を指定



## ◎検索結果◎



ウェブからコピーしたので  
ちょっと見えにくいですが...

化学反応からの検索機能は、SciFinderのみ！！

## 参考までに…

- ◆ JAICIホームページ

URL:<http://www.jaici.or.jp/sci/SCIFINDER/index.html>