

Guide to Academic Information Search
- for Students of Tohoku University -

Tohoku University Library

2007



**Natural
Science**

**Guide to Academic Information Search
- for Students of Tohoku University**

Tohoku University Library

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(Screenshots used in this guide may differ from those appearing on actual websites)

Preface

Welcome to Tohoku University!

This guide is a companion that the Tohoku University Library hopes will help you succeed in your academic endeavors. For the past several years, this guide was only available in Japanese. We are now delighted to publish a short English guide for you this year. As the number of foreign students on the Tohoku University campus increases, we would like to reach out to as many non-Japanese students as possible to further our mission: “To provide academic information to all the members of the University.”



1. Universities and University libraries in Japan

1.1 Welcome to Japanese university!

In Japan, there are National, Public (Prefectural / Municipal, etc.) and Private Universities. They all have libraries of their own, and the libraries are associated with each other to act co-operatively. They make efforts jointly to provide a high quality library service, Interlibrary loans, e-DDS, online references, an integrated system and so on.

Number of Universities in Japan (as of 2006)

- National Univ. 87
- Public Univ. 89
- Private Univ. 568

*cf. <http://www.mext.go.jp/>

(1) National Universities : Tohoku University, Hokkaido University, University of Tokyo, Kyoto University . . .

There is one National University in each prefecture at least, including individual medical college, educational college and so on.

(2) Public Universities : Miyagi University, Tokyo Metropolitan University . . .

Self-governing body organize these universities.

(3) Private Universities : Tohoku Gakuin University, Keio University, Waseda University . . .

The Organizers of these universities are mainly individual person, Some universities were founded by corporation.

Many Universities have graduate schools, master's degree courses(2 years), and doctoral courses(3 years). In Japan, people graduate high school at age 18, so it's possible to take a doctorate at age 27. Few Universities allow stages in this process to be skipped. The number of students at Tohoku University is as follows:

Undergraduate/ Graduate Schools Category	Undergraduate	Graduate		Total
		Master's Course	Doctor's Course	
Arts and Letters	973	184	268	1,425
Education	316	82	90	488
Law	734	315	59	1,108
Economics and Management	1,201	210	75	1,486
Science	1,475	532	308	2,315
Medicine	1074	100	581	1,755
Dentistry	342	19	165	526
Pharmaceutical Sciences	350	171	71	592
Engineering	3,692	1,468	638	5,798
Agriculture	658	234	127	1,019
International Cultural Studies	-	108	114	222
Information Sciences	-	308	148	456
Life Sciences	-	235	100	335
Environmental Studies	-	190	109	299
Educational Informatics, Education Division	-	19	17	36
Total	10,815	4,175	2,870	17,860

(as of 1 May 2006)

Japanese school (elementary school, junior high school, high school and University or College) begins the new term from April. The calendar of Tohoku University is as follows (in the case of undergraduates):

1st semester(April 1~September 30)		2nd semester(October 1~March 31)	
Spring Vacation	April 1~April 6	Health and Sports Day (Holiday)	2nd Monday of October
Entrance Ceremony	April	Special Orientation for New International Students	October
Special Orientation for New International Students	April	Culture Day (Holiday)	3-Nov
Holiday	29-Apr	Labor Thanksgiving Day (Holiday)	23-Nov
Constitution Memorial Day (Holiday)	3-May	Emperor's Birthday (Holiday)	23-Dec
Holiday	4-May	Winter Vacation	December 25~ January 7
Children's Day (Holiday)	5-May	New Year's Day (Holiday)	1-Jan
Annual Health Checkup	May	Coming of Age Day (Holiday)	2nd Monday of January
University Foundation Day	22-Jun	National Foundation Memorial Day (Holiday)	11-Feb
Summer Vacation	July 11~ September 10	Vernal Equinox Day (Holiday)	21-Mar
Marine Day (Holiday)	3rd Monday of July	Commencement	March
Respect for the Aged Day (Holiday)	3rd Monday of September		
Autumnal Equinox Day (Holiday)	23-Sep		

(http://insc.tohoku.ac.jp/handbook/handbook_e/2life.html#1)

In Japan, each university provides the helpdesk or special staff to assist international students in life and to complete their courses. Tohoku University provides The Center for International Exchange.

See for further information:

<http://www.insc.tohoku.ac.jp/index-j.html>

1.2 University Libraries in Japan

Each university has their own library, small colleges have one on campus, but large universities which have several campuses have several libraries. Generally there is a main library and a number of branch libraries in that case. Branch libraries sometimes belong to each faculty.

Members of the University are able to use their library at no charge except for some services (e.g. photocopying). But holidays, opening hours, and circulation rules are different from each other. Confirm them before visiting a library which you use rarely.

When you became a member of the university, you will get a student ID card. In many Universities, you can use the library with this card, but sometimes you have to make a separate application to get a library card. Ask your librarian whether you need to complete a separate procedure to use your library.

1.3 How to use other university libraries in Japan

When you use your university's library, there is no problem. On the other hand, when you would like to use other university's library, you need to fulfill the correct procedure before your visit.

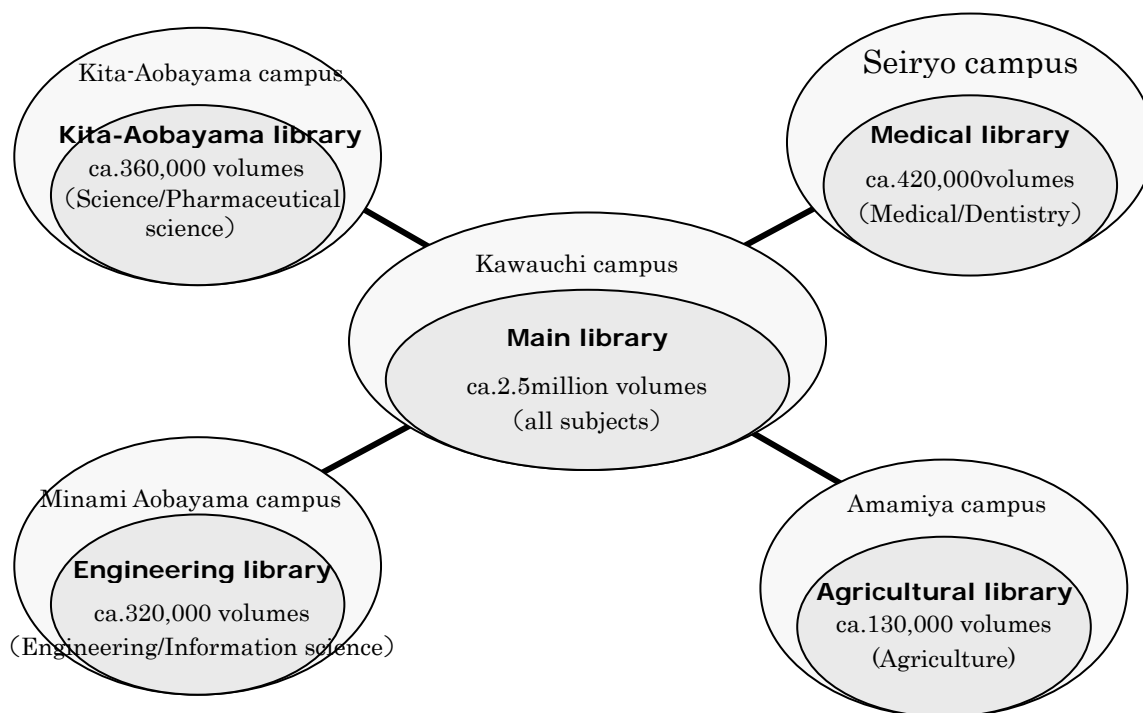
If you visit other libraries without contacting them beforehand, you may not use the library.

Although it takes a deal of trouble, ask your librarian about the correct procedure. They will write a letter of introduction if you need one.

You can request photocopies of papers from other library via your library (see 2.3.5 for details).

2 Introduction to Tohoku University Library

2.1 Organization



2.2 Rare Books Collections

The Tohoku University Library possesses many historically valuable materials, including two "national treasure" items, the Kano Collection, which is famous as a treasury of Edo study, and the Soseki Collection, which contains Natsume Soseki's book collection and works in his own hand.

These precious materials are digitized and accessible to the public via the Internet.

<http://www.library.tohoku.ac.jp/collect/collect-e.html>



Soseki Sensei painted by Ippei Okamoto
(a portrait of Soseki Natsume, a Japanese famous novelist in the Meiji period. Main Library)

2.3 Service

2.3.1 MyLibrary service (Tohoku University members only)

“MyLibrary” is a service which offers several useful functions. It’s like a personal webpage that you can arrange as you like, for example with an E-journal link, library calendar, or links to your favorite web pages. It allows you to see the list of books you are checking out, or the status of your photocopy requests. University members can request photocopies from other library via “MyLibrary” service.

The screenshot shows the MyLibrary website interface with several sections highlighted by callout boxes:

- Your name:** Hanako SATO さんのMyLibrary
- Notice from Library:** Information section containing library notices.
- Library Calendar:** Library Calendar section showing a calendar for February and March 2006.
- Links : Recommended links chosen by library:** Library Links section.
- Short cut search (goo, Google, Scirus and Yahoo!):** Search section with a search bar and dropdown menu.
- Your favorite links:** Bookmarks section containing links like "インターネット利用のルール&マナー" and "宮城県ホームページ".
- Access Point of Services (Document delivery, Checking borrowing, etc.):** Library Services section listing various services like loan and reservation, ordered books, photocopy/loan, purchase requests, password registration, and online catalog.
- SDI Service:** Selective Dissemination of Information section.
- E-journals list:** Electronic Journals section listing frequently used titles like "AAP.G. bulletin" and "Macroeconomic Dynamics".
- Hybrid Search:** 横断検索 (Hybrid Search) section.

Your name

Hanako SATO さんのMyLibrary

使い終わったら必ずログアウトしてください

Notice from Library

Library Calendar

Links : Recommended links chosen by library

Short cut search (goo, Google, Scirus and Yahoo!)

Your favorite links

Access Point of Services
(Document delivery, Checking borrowing, etc.)

SDI Service

E-journals list
You can choose frequently used titles from the E-journals list offered by library

2.3.2 OPAC

Tohoku University’s library catalog is called “the Online Catalog”(or simply “OPAC: Online Public Access Catalog”). It has a simple search and advanced search function. You can search not only the Tohoku University catalog but also other libraries in Japan. The Online Catalog includes all journals in the University, and books acquired since 1987. To search for older books, it’s necessary to search for them using the card catalog. Don’t hesitate to ask librarian how to use that.

(See 4)

2.3.3 Circulation

In Tohoku University, each library has different borrowing rules. For example, the main library’s rules are as follows. The number of books that can be borrowed are:

Location	Student study room		Stacks		Special material		Annex	
	Number	Period	Number	Period	Number	Period	Number	Period
Undergraduate	5	3weeks	5	6weeks	2	6weeks*	5	1week
Graduate student	5		50		5			
Professor	2		100		20			
Associate Professor			10					
Full-time Lecturer	2		50		5			
Other faculties of Tohoku Univ.			5					
Staff of Tohoku Univ.	5		5		2		5	

*Statistics and publications of the international organizations: 1week

2.3.4 Photocopy

It’s possible to make photocopies yourself with the copy machine in the library. Payment by cash or coop card is acceptable. You can purchase a coop card in the library entrance or the coop shop.

2.3.5 Interlibrary Loan

If you can not find the material you need within Tohoku University, you can request photocopy/book from an other library. For further information about this procedure, ask your librarian.

You can pay for this service with your laboratories budget or privately with cash. To use the laboratories budget, your professor's permission is needed.

1) Via online

- from Tohoku University Library Webpage "MyLibrary"
- from "Online Catalog"(inside of "MyLibrary")

2) At the reference desk

	Charge	Payment	Time required
Interlibrary Photocopy	specified by each organization (In many cases, ¥35-60 per sheet)	research budget or private budget	approximately 4-10days
Interlibrary Loan	the round-trip delivery cost (details are specified by each organization)	research budget or private budget	approximately 4-10days *Checkout-period is specified by each organization

* You may visit the institution that holds the material. For more information, ask a librarian at the reference desk.

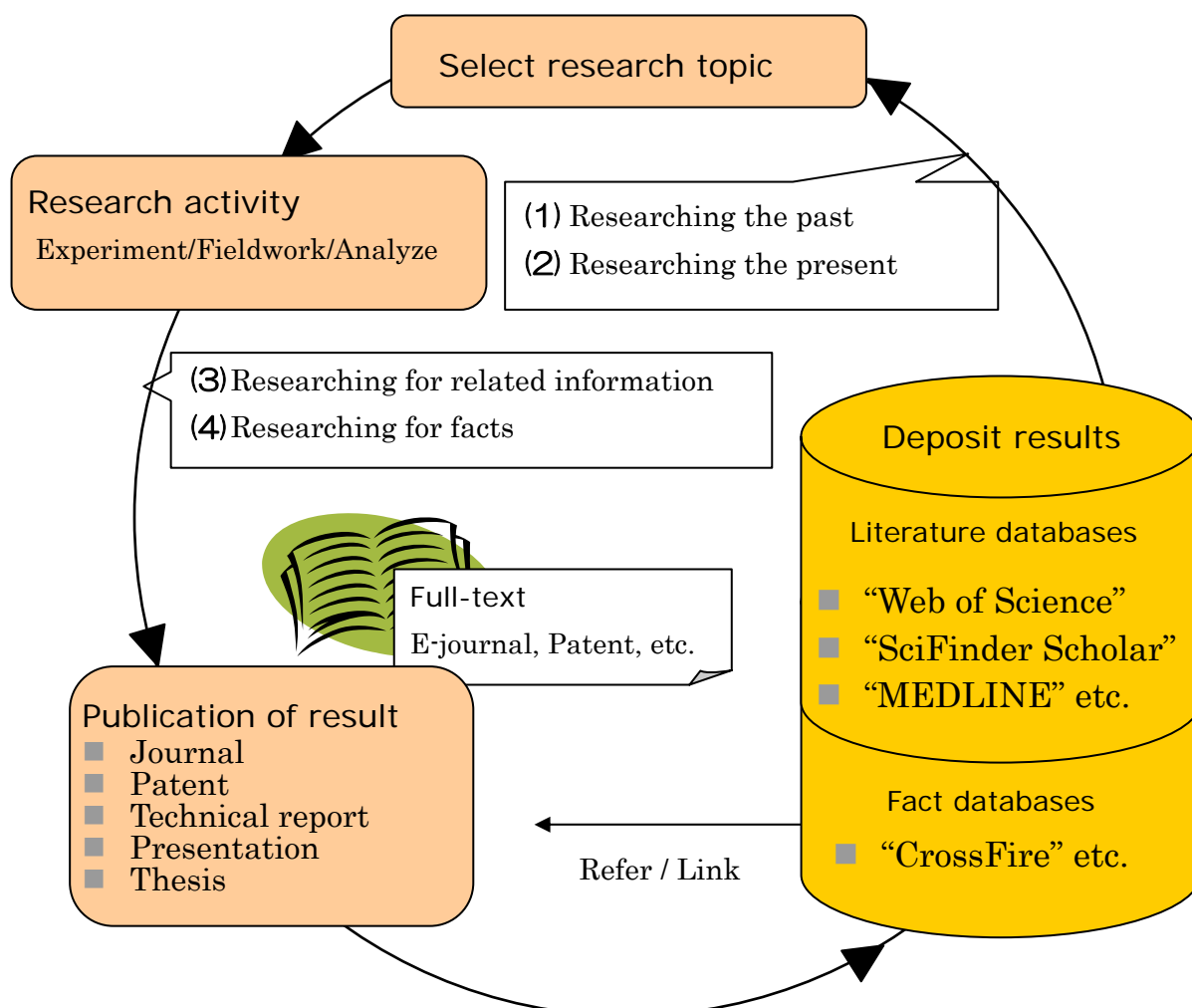
3 Information research in Natural science

3.1 Flow of research activity and information research

In natural science study, it's especially important to use the results of research in related fields. The results of past and present research is used in every research step.

It's essential to search for such material from reliable resources. For example, academic journals which have high standards in each research field are one of such resource.

In the case of databases, choose one that is produced by an academic institution or society. To get the information which you need, knowledge of research activity flow, the kind of information research, the features of each resource are all necessary.



As the figure on the previous page shows, the cycle of research activity starts with referring to the previous research, then stacking the results in databases, so that other researchers can refer to them for new research.

1) Researching the past

To choose the theme, let's begin with browsing current journals or review.

When you chose theme, it's necessary to search results about what has been written on the topic in the past, and gather information as many as possible.

Many result papers are written in English, so you should search not only domestic but also foreign resources.

2) Researching the present

By checking current journals, or searching databases, you can confirm the situation of the topic in current research. It's necessary to research current activity, because new papers are produced every day!

3) Researching for related information

When you want to make sure of the facts, you should confirm them with related papers. You will find these in some databases, or in reference lists.

"Web of Science" has a function that allows you to reach related papers using citing/cited information.

4) Researching for facts

Sometimes you may need factual data, for instance, calculated/analyzed data about the nature of materials. You will find this in the recent database. However there is traditional printed matter too.

Research results are published as journal papers, then database vendors or publishers gather them and put them into their databases. Recently as soon as new research is published in printed form, the electronic version will become be available.

4 Tohoku University “Online Catalog(OPAC)”

Items	Information
Creator	Tohoku University Library
Coverage	<ul style="list-style-type: none"> ■ Books 1.7million (approximately) , Serials 60,000titles (approximately) in Tohoku University (all campus) ■ Books and Serials holding in other domestic university libraries (by checking box)
URL	http://www.library.tohoku.ac.jp/opac/expert-query-e
How to Use	Available from any place
more	<p>Using via “MyLibrary”, you will find links to other services (university members only) .</p> <p>E-journals linked from OPAC are available from computers inside the campus.</p>

Top page of advanced search

The screenshot shows the 'Advanced Search' page of the Tohoku University Online Catalog. The page is titled 'Online Catalog' and 'MyLibrary TOHOKU UNIV. LIBRARY'. It includes a search form with the following fields and options:

- Search Scope:** Inside the Univ., Outside the Univ. (Union Catalog)
- The object of reference:** Books, Japanese books, Foreign books, Journals, Japanese journals, Foreign journals
- Location:** (all), Kawauchi Campus, -MainLIB, -AL, -EDCU
- Search Fields:** Any (Keyword), Author, Publisher, Year Published, Country, Language, Subject, Data type, Sort, Display (20 item per page)
- Buttons:** Search, Clear, KeyBoard, **Basic Search** (circled in red), HELP

A yellow callout box labeled 'Basic Search' has a red arrow pointing to the 'Basic Search' button.

4.1 How to input keywords

4.1.1 Search by bibliography or key words

- <bibliographies>

Input title, author, etc. as it is.

e.g. “the chrysanthemum and the sword”

- <key words>

Input keywords.

e.g. “chrysanthemum sword”

This is Boolean “AND” search.

“electronic circuit” is better than the compound noun
“electroniccircuit” for producing a larger number of results.

4.1.2 Chinese letters, Em-/En-size, etc.

- If you do not know key words in *Kanji* (Chinese letters), input them in *Hiragana* or *Katakana* (Japanese letters).

e.g. If you do not know “渡辺”, input “わたなべ” or “ワタナベ”.

- Distinction of Em-size or En-size is not necessary.

e.g. “P l a t o” “Plato”

“C D – R O M” “CD-ROM”

- The distinction of capital letters or small letters is not necessary, either.

e.g. “INFORMATION” “Information” “information”

4.1.3 Truncation

Use *(asterisk) for Right Hand Truncation.

e.g. “jour*” “app*” “phys*”

→You will find “Journal of applied physics” and so on.

“sociolo*”

→You will find “sociology” “sociologist” “sociological”
and so on.

4.1.4 Others

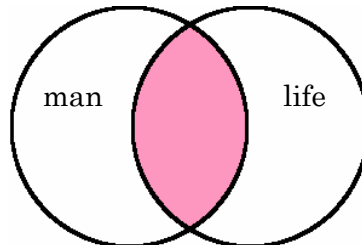
- Spelling signs (e.g. an umlaut sign“ ¨”) and accent signs (e.g.“ ´”or“ ^”) are not necessary.
e.g. “wörterbuch”→ “worterbuch”
- Papers are not searchable.
The Online Catalog is a tool to find books and journals. To find a paper, you need to know which journal contains it.



4.1.5 Logical Operation("Advanced Search")

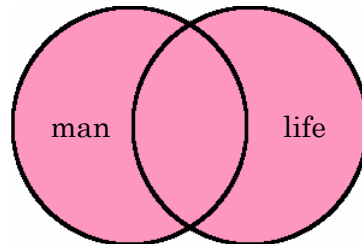
1) AND Search

Retrieval of the records that includes both "man" and "life".



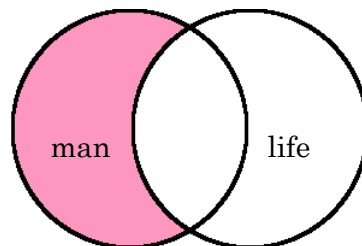
2) OR Search

Retrieval of the records that includes either "man" or "life".



3) NOT Search

Retrieval of the records that includes "man" negating "life".



- ◎If you get too many results,
 - try "advanced search"
 - try AND Search
- ◎If you do not find the material you want,
 - input other words with space
 - try Right Hand Truncation
- ◎If you are to get many results,
 - try OR Search

4.2 Detailed information on books

Classical mechanics / Herbert Goldstein
(Addison-Wesley series in physics)

Edition 2nd ed
 Publisher Reading, Mass. : Addison-Wesley
 Year c1980
 Size xiv, 672 p. : ill. ; 24 cm
 Notes Bibliography: p. 621-630
 Includes indexes
 Authors *Goldstein, Herbert, 1922-
 Subjects PRECIS:Mechanics
 LCSH:Mechanics
 Classification LCC:QC125.2
 DC19:531
 Language English
 Codes CODE=20131025 NCID=BA00434784

Webcat Plus

Back Top Loan/Copy request

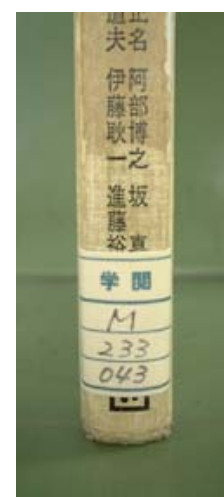
Volume	Location	Call No.	Barcode No.	Condition	Comments	ISBN	Restriction
	LIB-Gakuetsu	MC71/51	00950192473	Missing		0201029189	
	LIB-Stacks	MC71/22	01810617501				
	KITALIB-Open	MC71/137	02021000045			0201029693	
	KITALIB-Open	MC71/137	03860045542				
	SCI-ParticleTheory	MC71	02980001813			0201029189	
	ENGLIB	423.1/23	03900026526			0201029189	
	ENG-AppliedParticleBeam	423.1/23	03930021067	Missing		0201029189	

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ページが表示されました

- Items and contained information

Items	Information
Vol.	volume (ex. vol.1, vol.2), part(ex. the first part, the second part)
Location	where the material is located
Call No.	the number labeled on the back cover
Barcode No.	ID number of the book
Condition	the status of “on loan” or “missing”



- Take a note of the “Location” and “Call No.” to find the book you want. If you need to ask a librarian, Barcode Number (ID number) is helpful.

4.3 Detailed information on journals

4.3.1 Display of locations

e.g. “Canadian journal of botany”

The screenshot shows a library catalog entry for the 'Canadian journal of botany'. The page includes a header with the journal title, a list of bibliographic details (volumes, publisher, year, other titles, notes, relatives), a table of volumes with columns for volume ranges, years, locations, call numbers, and comments, and a section for current issues. Annotations highlight specific features: a box on the left points to a link for detailed location of bindings; a box on the right points to the bibliographic information; a box at the bottom points to a link for detailed location of non-bindings; and a box at the bottom right points to the location information in the volume table.

Information on bibliographies

Link to detailed location of bindings

Volumes (All Volumes)	Year	Location	Call No.	Comment
29-30,32-34,36-76	1951-1998	GSLs-LibKatahira(NC)		
47-82,83(1-9)+	1969-2005	KITALIB		3130-2
43-55,56(1-23),57-67,68(2-10),69	1965-1991	AGRLIB		

Link to detailed location of non-bindings

Information on location

- Items and contained information

Items	Information
Volumes	<ul style="list-style-type: none"> • which volumes are held <p>e.g. “1,21-41” means “vol.1 and vol.21-41 are held”</p> <p>e.g. “1-20,21(1-4,6-12),22-41+” () are issues. In this case, 21(5) is not held. “+”at the end means acquisition is continued.</p> <ul style="list-style-type: none"> • volumes and issues is a link to the detailed information on where the bindings are. • “All volumes” is a link to the detailed information on the all of the bindings in our university.
Year	the range of years of volumes held
Location	where the material is located. Detailed information is available for each page
Current issues	<ul style="list-style-type: none"> • where the non-bindings are located <p>This is the links to the detailed information on where the non-bindings are.</p>
Back Number	where the bindings are.

4.3.2 Detailed location of bindings

Canadian journal of botany

Volumes(year) Vol. 29, no. 1 (Feb. 1951)-
 Publisher Ottawa : National Research Council
 Year 1951-
 Other titles ABCan. j. bot
 KT.Canadian journal of botany
 OH.Revue canadienne de botanique
 Notes Parallel title: Revue canadienne de botanique, <V. 70, no 10 (oct. 1992).->
 Includes bibliographies
 Relatives Continues [Canadian journal of research. Sect. C. Botanical sciences](#)<AA00597554>
 Language English,French
 Codes CODE=30005415 ISSN=00084026 NCID=AA00597543
 URL1 [電子ジャーナル情報 \[学内限定\]](#)
[E-Journal Information \[on-campus only\]](#)

Webcat Plus

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New

Volumes	Year	Location	Call No.	Barcode No.	Condition	Comment
82(9-12)	2004	KITALIB-Open		02055003381		
82(5-8)	2004	KITALIB-Open		02055003372		
82(1-4)	2004	KITALIB-Open		02055003364		
81(9-12)	2003	KITALIB-Open		02045004191		
81(5-8)	2003	KITALIB-Open		02045004182		
81(1-4)	2003	KITALIB-Open		02045004174		
80(9-12)	2002	KITALIB-Open		02035005900		

You check

- whether the volume you want is held or not
- where it is located
- its status (sometimes “on loan” or “missing”)

4.3.3 Detailed location of non-bindings

Canadian journal of botany

Volumes(year) Vol. 29, no. 1 (Feb. 1951)-
 Publisher Ottawa : National Research Council
 Year 1951-
 Other titles ABCan. j. bot
 KT.Canadian journal of botany
 OH.Revue canadienne de botanique
 Notes Parallel title: Revue canadienne de botanique, <V. 70, no 10 (oct. 1992).->
 Includes bibliographies
 Relatives Continues [Canadian journal of research. Sect. C. Botanical sciences](#)<AA00597554>
 Language English,French
 Codes CODE=30005415 ISSN=00084026 NCID=AA00597543
 URL1 [電子ジャーナル情報 \[学内限定\]](#)
[E-Journal Information \[on-campus only\]](#)

Webcat Plus

Back Top [Loan/Copy request](#)

Current issues	Back number	Call number	Status	Binding
KITALIB-Open-Biol	KITALIB-Open		継続	○

Vol.	No.	Part	Comment	Published	Check in	Condition	Barcode No.
84	1			2006. 1. 1		On wanting	
83	12			2005. 12. 1		On wanting	
83	11			2005. 11. 1		On wanting	
83	10			2005. 10. 1		On wanting	
83	9			2005. 9. 1	2006. 2. 1		
83	8			2005. 8. 1	2006. 1. 17		
83	7			2005. 7. 1	2006. 1. 11		

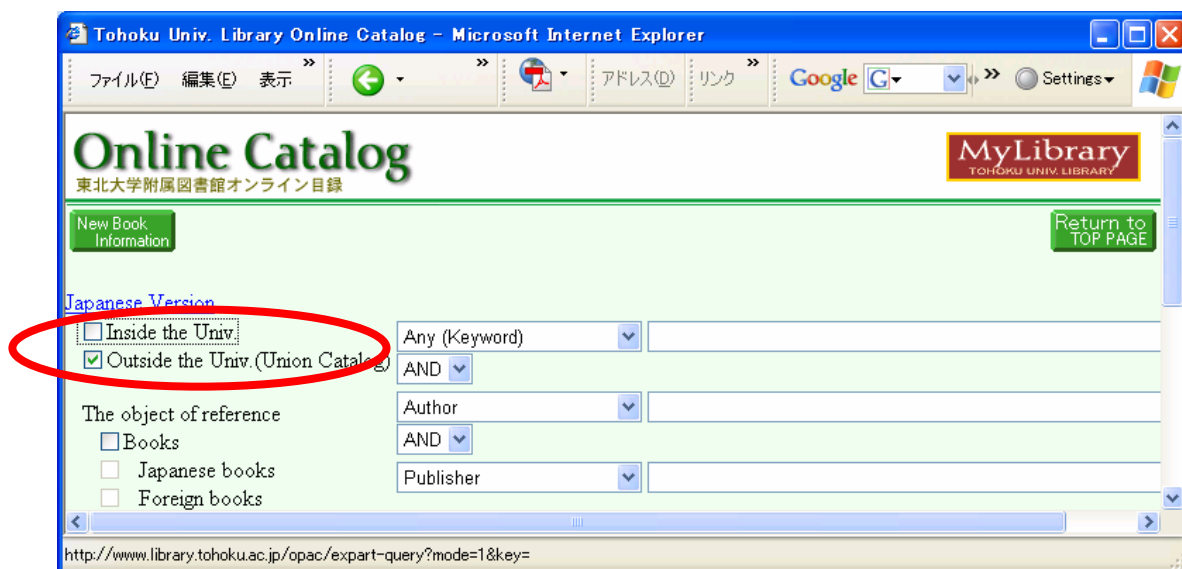
You confirm

- the volume is not missing or “On wanting(not delivered issue)”
- the volume is not “On Bind(being rebound)”

4.4 To search collections of other universities

If you check both “Inside the Univ.” and “Outside the Univ.”, you search both Tohoku University Library and other university libraries. Other universities are searched only when you do not find the material in Tohoku University Library.

- If you are to focus on other universities, remove the check of “Inside the Univ.”.
- There are some limitations in “Outside the Univ.” search. For example, you can not narrow the range of years.
- There are some differences between the search results of “Inside the Univ.” and that of “Outside the Univ.”.

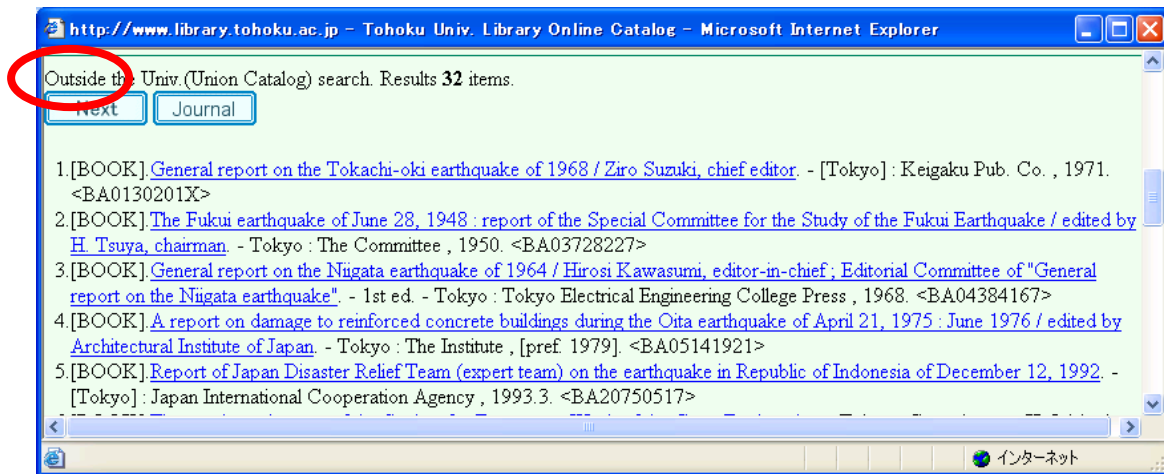


e.g. the search result of “Tokyo earthquake report”

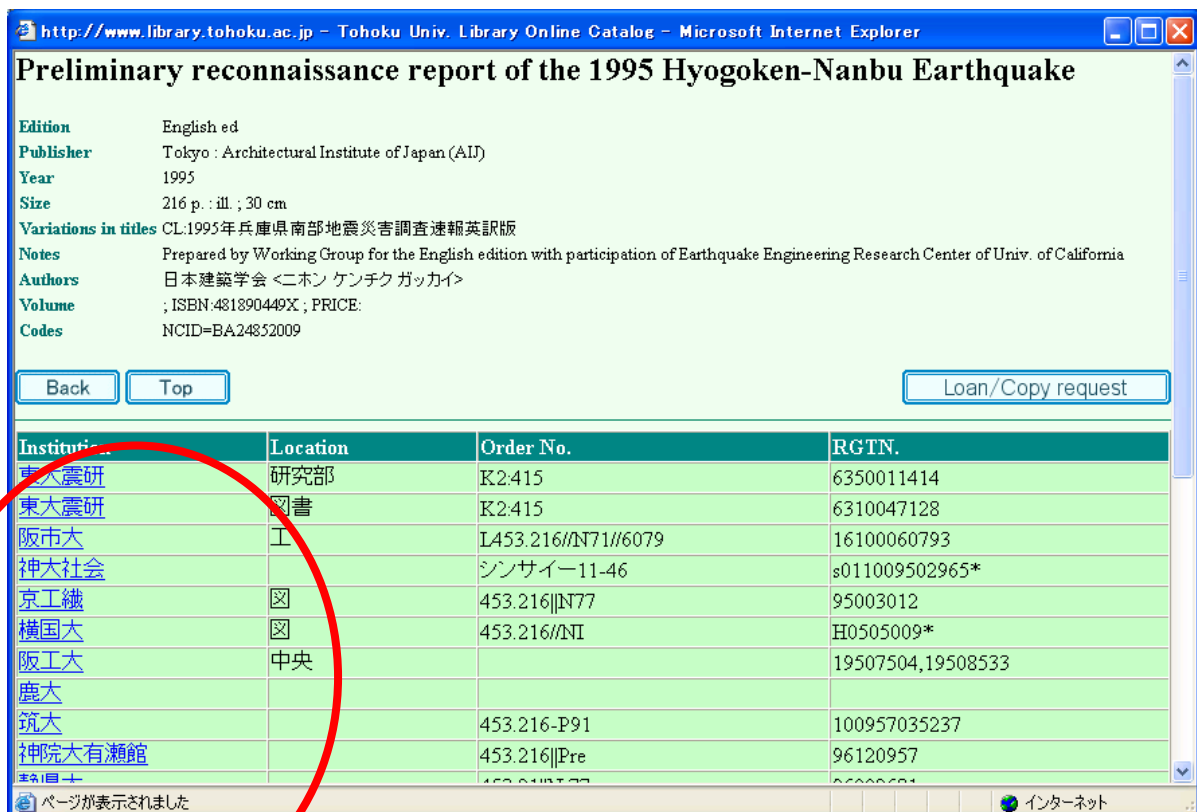
- Results : “Inside the Univ.”



• Results : “Outside the Univ.”

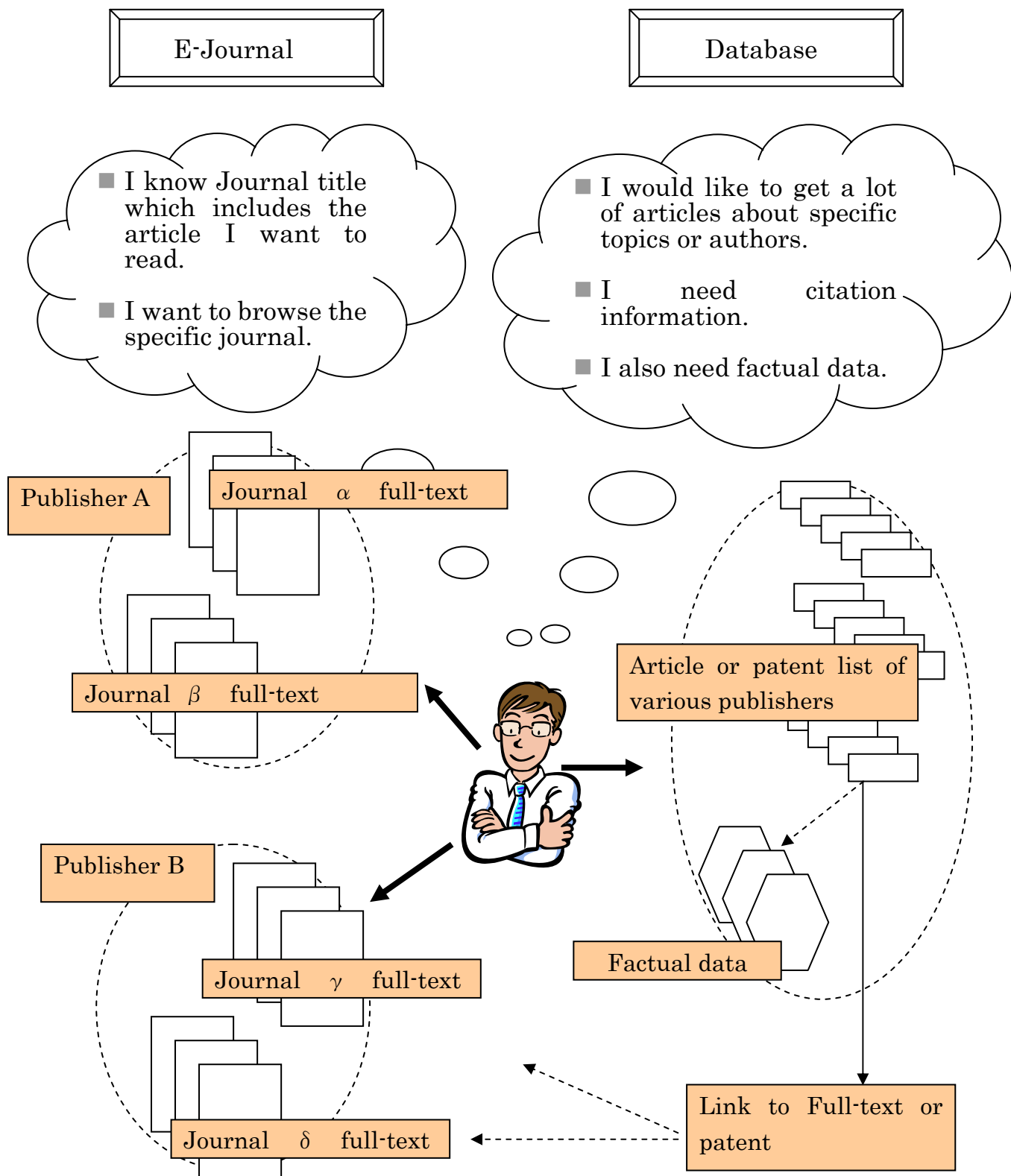


If you click the title of a material in the search result of “Outside the Univ.”, universities that hold the material are displayed in Japanese (sorry!).



5 E-journal

5.1 Database or E-journal?



5.2 Operation

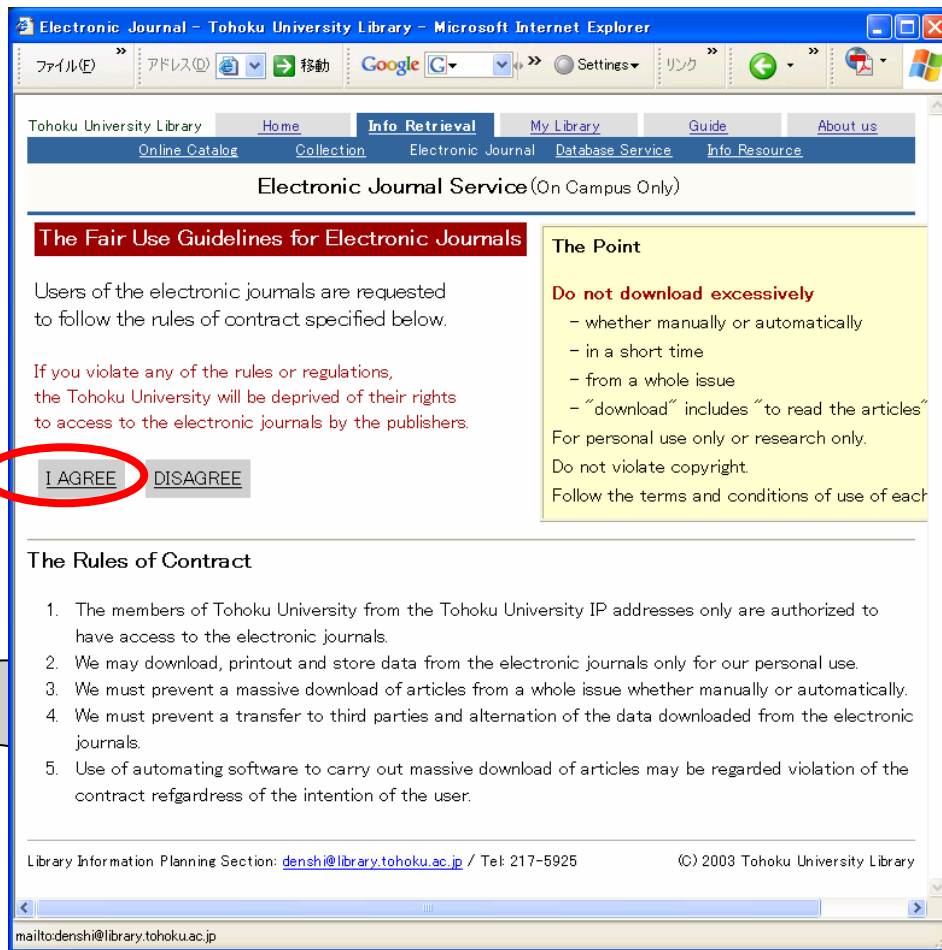
We offer E-journal list (approximately 8,000 e-journals) in the library website. Choose the journal title that you would like to read, and click it. Academic articles can be downloaded or printed out for research use. There are strict rules governing the use of E-journals. If someone breaks these rules, the publisher will stop subscription all over Tohoku University. Users are prohibited from downloading a large number of papers in a short time, for instance.

e.g. Search for the following article. “Aimo Winkelmann, “Dynamical simulations of zone axis electron channeling patterns...” Ultramicroscopy, vol.98, no.1, 2003, p.1-7”

1) Click “Electronic Journals” of Library website

The screenshot shows the Tohoku University Library website in Microsoft Internet Explorer. The browser window title is "Tohoku University Library - Microsoft Internet Explorer". The address bar shows "http://ir.library.tohoku.ac.jp/". The page content includes the library's name in Japanese and English, navigation links for different departments (Main Lib., Med. Lib., etc.), and a list of recent information updates. At the bottom, there are three main sections: "Info. Retrieval", "For Students & Faculty", and "Guide". The "For Students & Faculty" section contains a "MyLibrary" login form and a list of services, including "Electronic Journals", which is circled in red. The "Info. Retrieval" section lists services like "Online Catalog" and "T-LINES OPAC". The "Guide" section lists "General Service Guide" and "Library Hours".

2) Read the guidelines about fair use, then click “I AGREE”.



Electronic Journal - Tohoku University Library - Microsoft Internet Explorer

Tohoku University Library | Home | Info Retrieval | My Library | Guide | About us

Online Catalog | Collection | Electronic Journal | Database Service | Info Resource

Electronic Journal Service (On Campus Only)

The Fair Use Guidelines for Electronic Journals

Users of the electronic journals are requested to follow the rules of contract specified below.

If you violate any of the rules or regulations, the Tohoku University will be deprived of their rights to access to the electronic journals by the publishers.

I AGREE | DISAGREE

The Point

Do not download excessively

- whether manually or automatically
- in a short time
- from a whole issue
- “download” includes “to read the articles”

For personal use only or research only.
Do not violate copyright.
Follow the terms and conditions of use of each

The Rules of Contract

1. The members of Tohoku University from the Tohoku University IP addresses only are authorized to have access to the electronic journals.
2. We may download, printout and store data from the electronic journals only for our personal use.
3. We must prevent a massive download of articles from a whole issue whether manually or automatically.
4. We must prevent a transfer to third parties and alternation of the data downloaded from the electronic journals.
5. Use of automating software to carry out massive download of articles may be regarded violation of the contract regardless of the intention of the user.

Library Information Planning Section: denshi@library.tohoku.ac.jp / Tel: 217-5925 | © 2003 Tohoku University Library

<mailto:denshi@library.tohoku.ac.jp>

The Rules of Contract

1. The members of Tohoku University from the Tohoku University IP addresses only are authorized to have access to the electronic journals.
2. We may download, printout and store data from the electronic journals only for our personal use.
3. We must prevent a massive download of articles from a whole issue whether manually or automatically.
4. We must prevent a transfer to third parties and alternation of the data downloaded from the electronic journals.
5. Use of automating software to carry out massive download of articles may be regarded as violation of the contract regardless of the intention of the user.

3) Select from title list or search title keyword, ISSN, and so on.

Tohoku University Library: HOME > Info. Retrieval > E-Journal >

Electronic Journal Service [on-campus only]

Update [2004.03.16]
Notice

Useful Links

- E-Journal lists
- Domestic Journal
- Portal for Research
- Preprint
- Dissertation

From January to April, electronic journals may be unavailable due to renewal. We apologize for this inconvenience and will maintain as quickly as possible. I know.

EJ-NEWS

- [2007.03.06] Elsevier ScienceDirect will be temporarily unavailable due to system maintenance
- [2007.03.02] Free Trial: "Medical Online" at Seiryu Campus (To Mar. 2008)
- [2007.02.26] Lecture Notes in Computer Science is available.
- [2007.02.02] New England Journal of Medicine access site has been stopped
- [2007.02.02] The number of subscribers has increased
- [2007.01.10] "Cell Metabolism" and "Cell Metabolism" are available

Notice from library

2007 Subscription List

- 2004 Subscription Search
- 2003 Subscription List
- 2003 Subscription Search

EJ Study

- Terms

Application Form

- EJ-NEWS Mail Magazine

Help Desk

- Trouble or Inquiry
- Help Desk

List 2002/2003
* Delete after shifting data

[2006.02.28] ACM Portals

Past EJ-NEWS | EJ-NEWS Magazine application

Keyword Search

Title Abb ISSN eISSN

All data Full-Text only

Search Clear

About a Fair Use

Please don't download articles within short intervals

- on a particular site
- from a particular journal
- from a particular volume or issue.

Publisher will consider it as an illegal download and access from us all may be suspended. -->

Title List by alphabetical Order

*Foreign Journal	* Japanese Journal	*Other Language
# A B C D E F G H	ア カ サ タ チ ハ マ ヌ ヲ	Chinese
I J K L M N O P Q	# A B C D E F G H I J K L	Korean
R S T U V W X Y Z	M N O P Q R S T U V W X Y Z	Cyrillic
		Greek

List by Vendor Name

Please Select

All data Full-Text Only

Display

Other List

- Free Trial
- ID/PW re
- Free Full-

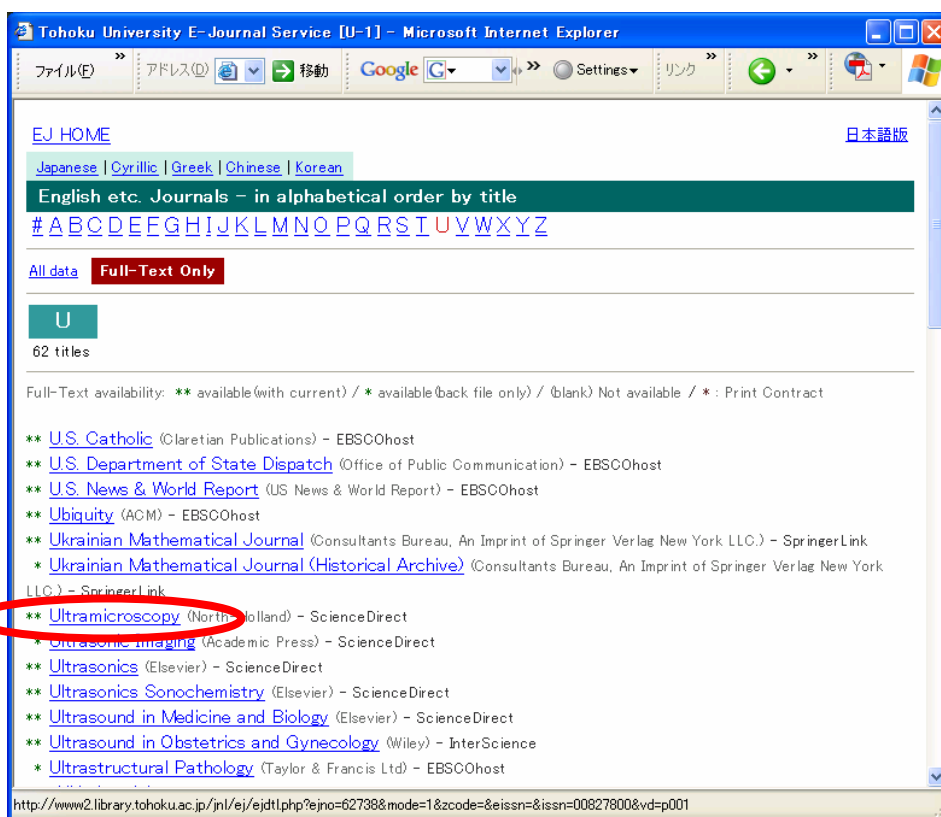
E-Journal Package Available 2006

We have been registering each data included in the packages. The search results below maybe incorrect for the moment.

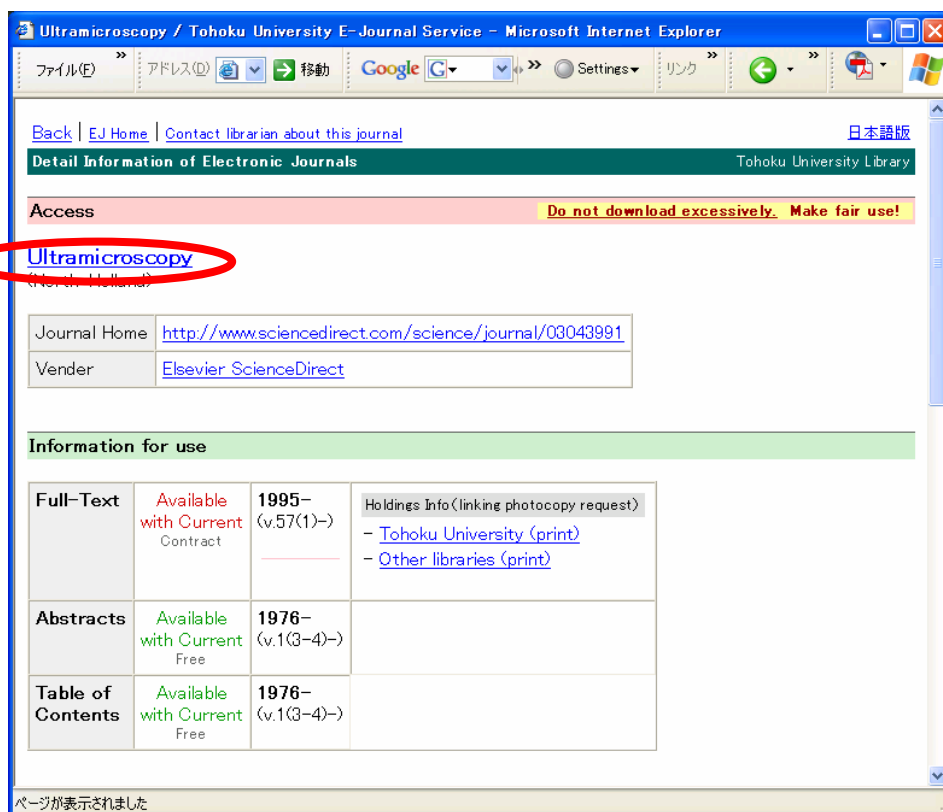
http://www2.library.tohoku.ac.jp/jnl/news/ej-trial.html

Keyword Search

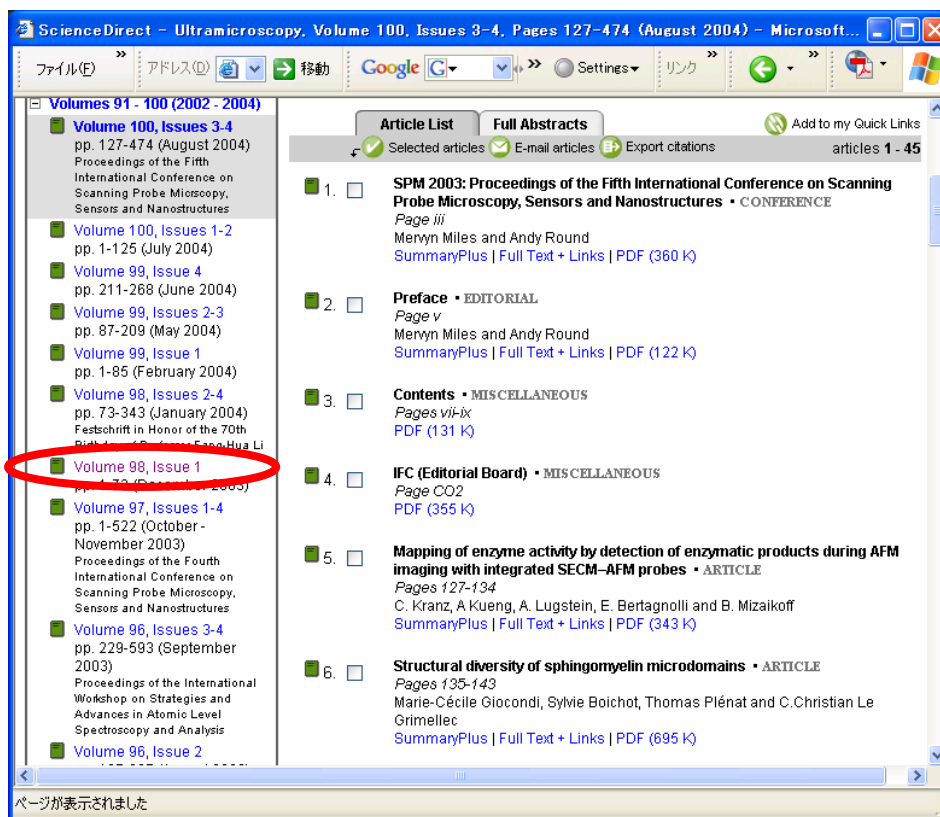
4) Select the journal from title list.



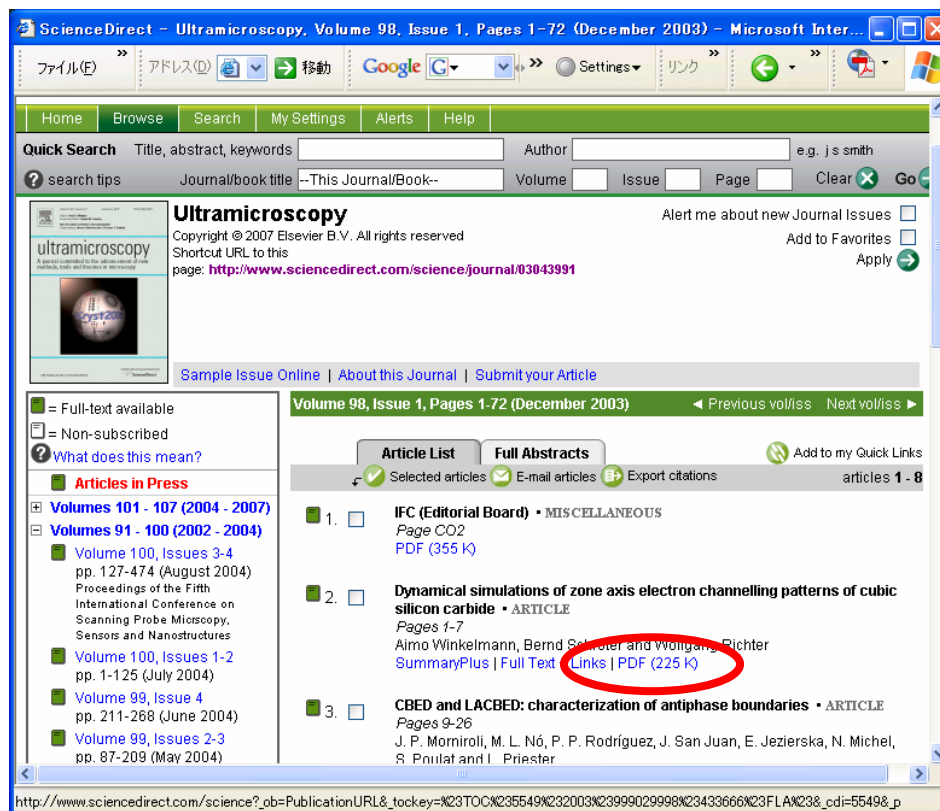
5) Confirm subscription conditions.



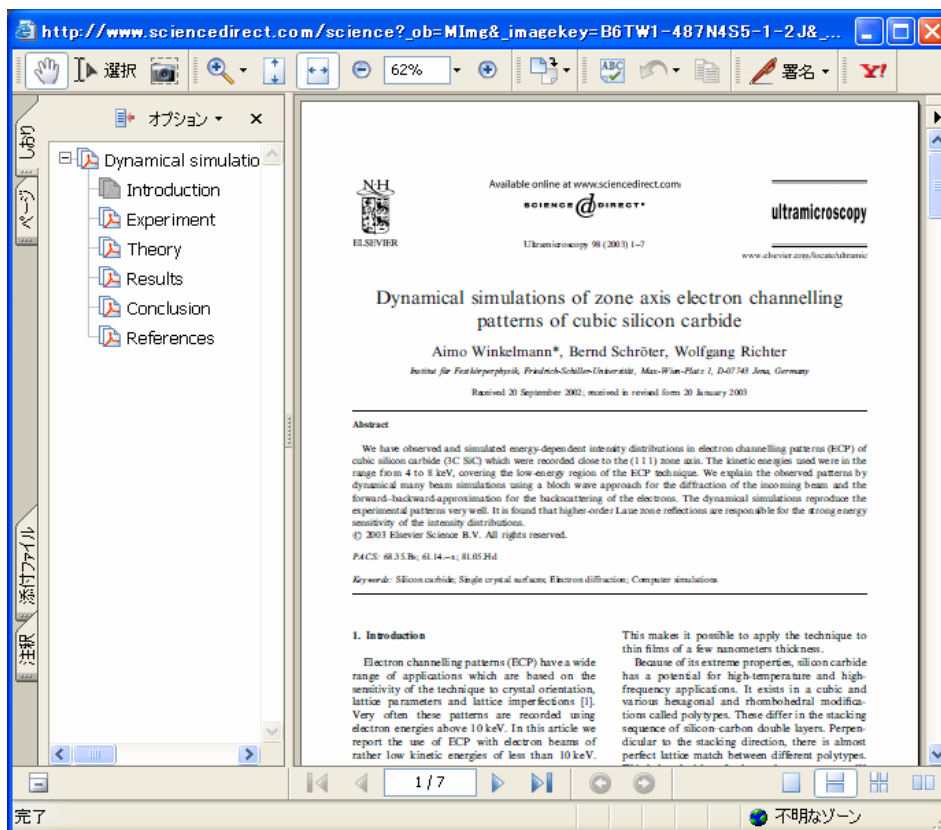
6) Select volume and issue.



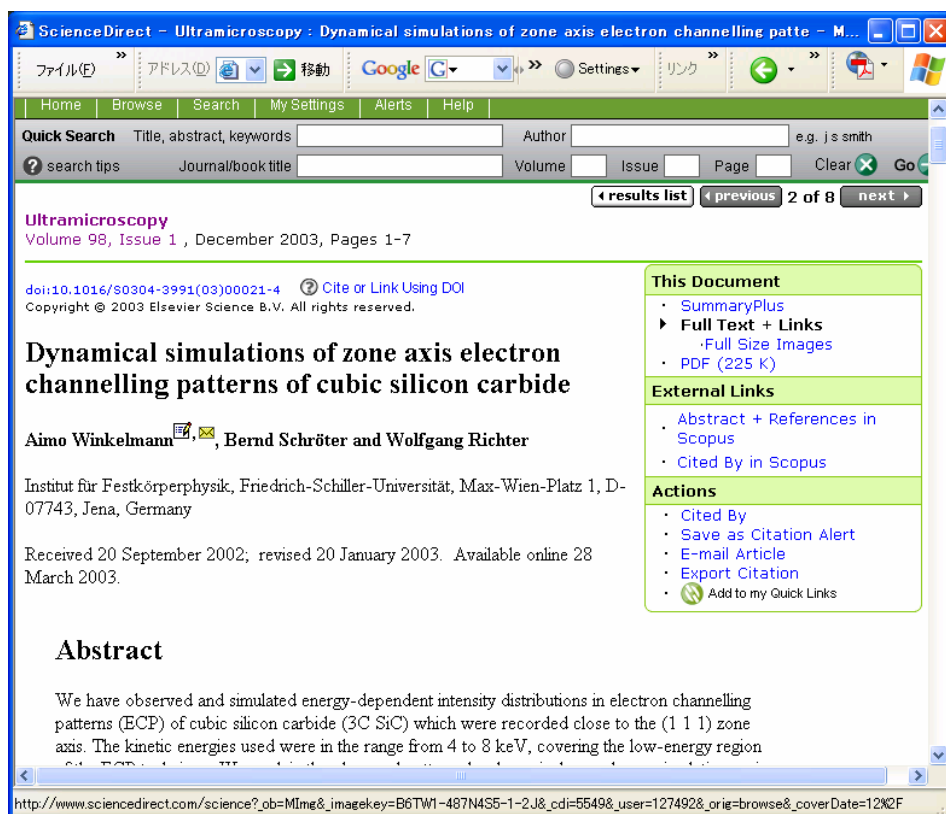
7) Click "PDF" to see full-text.



8) PDF format full-text

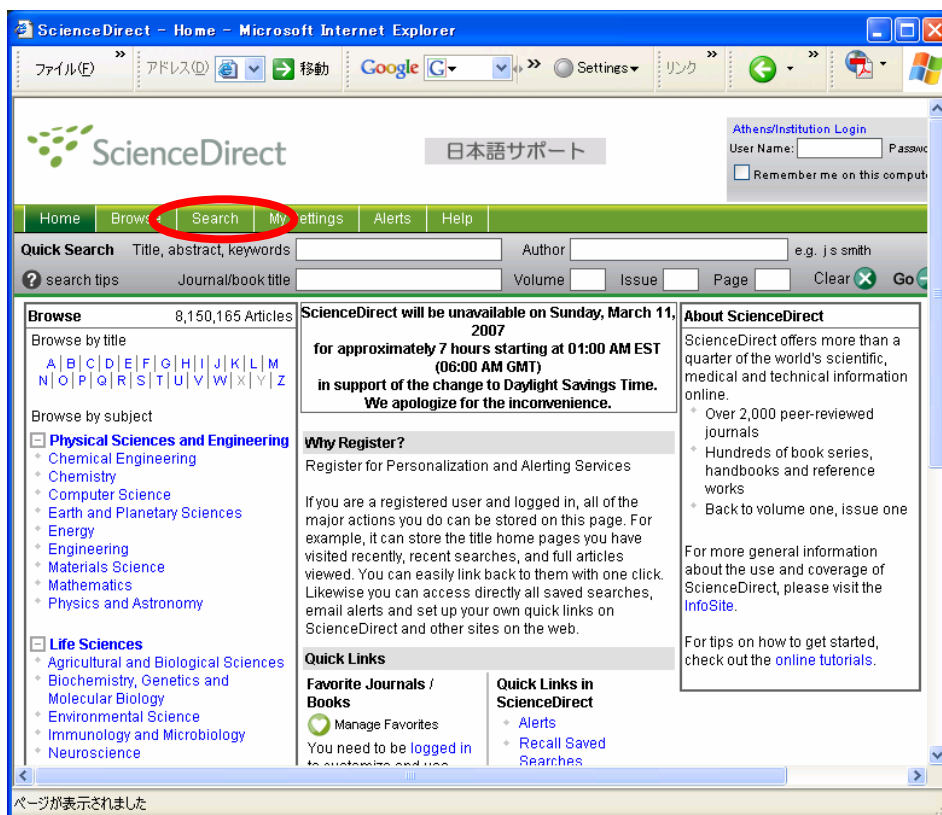


9) HTML format full-text

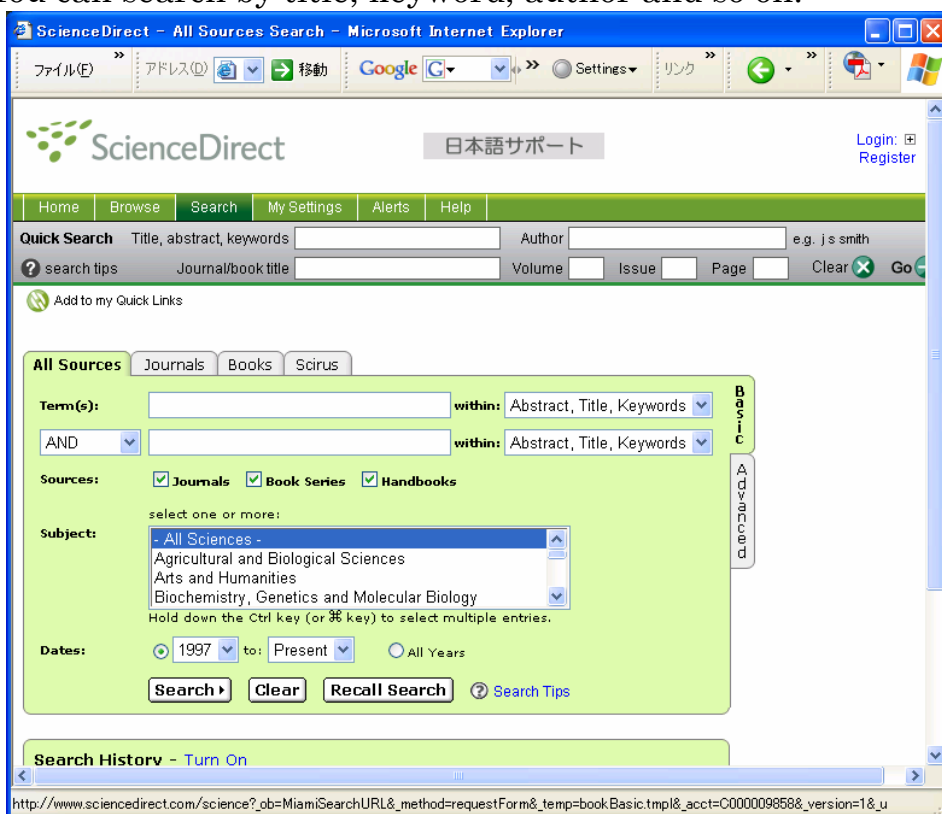


5.2.1 Search Articles at publisher's websites

1) For example, let's search for articles using "ScienceDirect".



2) You can search by title, keyword, author and so on.



5.2.2 Contents Alert

1) Many online journal websites offer a “Contents Alert” function.



2) Set alert by your necessity



5.2.3 Purchase

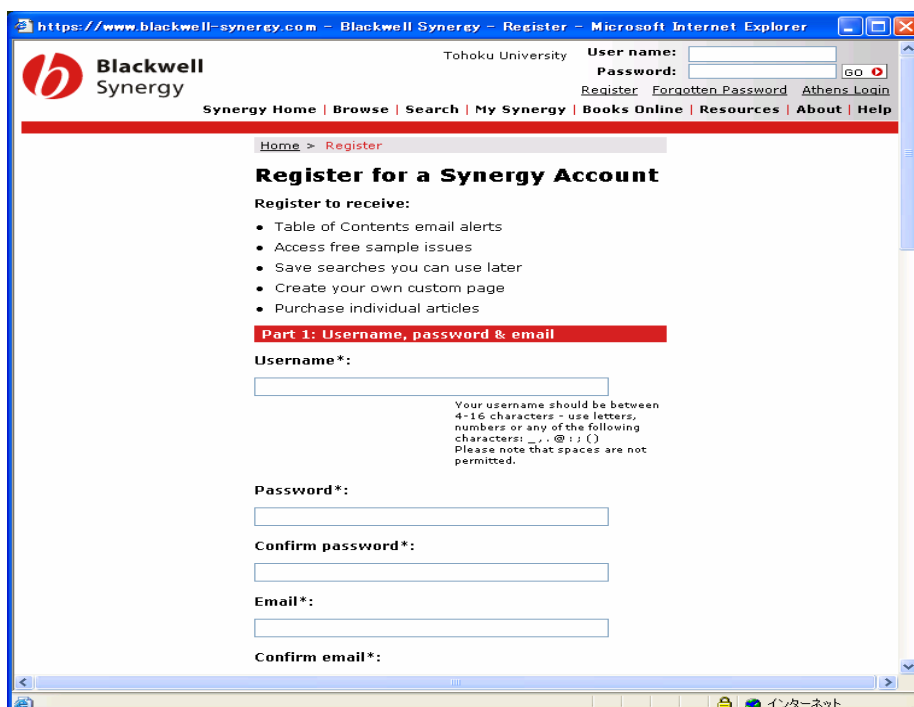
- 1) If the article is in a journal/volume to which we are not subscribed, you can purchase it(directly). See also 2.3.5



The screenshot shows the Blackwell Synergy website interface. The main heading is "Scandinavian Journal of Metallurgy" with the subtitle "Processes and materials engineering". The page is titled "Purchase" and contains the following information:

- Using Synergy:** Welcome to Blackwell Synergy, the home of over 1 million articles from over 850 journals. The website has recently been redesigned, click to find out [what's new](#), [what's moved](#) or [what's changed](#).
- Sign up for e-mail alerts**
- Give us your feedback on the new design**
- Home > Purchase:** An online subscription or single article purchase is required to access this article: Scandinavian Journal of Metallurgy Vol. 32 Issue 5 Page 225 October 2003. **Temperature and heat transfer measurement in continuous reheating furnaces** by Milan Honner, Zdenek Vesely, Michal Svantner.
- Access options:**
 1. If you **already have an online subscription** please login at the top of this page. (If you have online access rights to this journal via an association or society membership, you may be able to log in via your organization's website.)
 2. To **purchase an online subscription** to this journal please visit the [journal homepage](#).
 3. If you would like to suggest an institutional subscription to this journal, please complete a [Library Recommendation Form](#) and submit it to your librarian.
 4. You can **purchase immediate access to this article for 30 days** through our secure web site for **USD\$ 26.00** using a credit card. If you have not yet logged in, please enter your username and password at the top of this page and click "Login" and then click "Buy Now" below. If you have not yet registered then click "Register" at the top of this page first. For more information see [help](#).
- Buy Now** button (circled in red).
- Help:** Should you ever require help please contact the [helodesk](#)
- Footer:** Privacy Statement | Terms & Conditions | Contact | Help

- 2) Registration is required the first time this is done.



The screenshot shows the Blackwell Synergy registration page. The main heading is "Register for a Synergy Account". The page contains the following information:

- Blackwell Synergy** logo and navigation links: Synergy Home | Browse | Search | My Synergy | Books Online | Resources | About | Help
- Home > Register**
- Register to receive:**
 - Table of Contents email alerts
 - Access free sample issues
 - Save searches you can use later
 - Create your own custom page
 - Purchase individual articles
- Part 1: Username, password & email**
- Username*:**
Your username should be between 4-16 characters - use letters, numbers or any of the following characters: _ . - @ + () Please note that spaces are not permitted.
- Password*:**
- Confirm password*:**
- Email*:**
- Confirm email*:**

6 Databases

6.1 Web of Science

6.1.1 About Web of Science

This database contains citation information. You can search the article from almost 8,000 journals. From one article, you can find bibliographic information, the abstract, a full-text link, and cited/citing articles. In addition, you can use various analytical tools.

Items	Information
Subject	all
Creator	Thomson Scientific
Content	article
Source	Ca.9,300 titles : Natural science over 5,800, Social science over 1,735, Arts & Humanities over 1,140
Coverage	“Science Citation Index Expanded [SCIE]” (1900-) “Social Sciences Citation Index [SSCI]”(1980-) “Arts & Humanities Citation Index [A&HCI]”(1980-)
Update	weekly
URL	http://www.thomsonscientific.jp/products/wos/index.shtml
How to use	Available(free) *under contract of university

6.1.2 Features

- Covers all subjects
- It's possible to search for the relation between one article and another
- Various analyzing function

6.1.3 Operation

e.g. Search article written by Krunk.M, which has “spray pyrolysis” and “solar cell” as the keywords.

1)Start

The screenshot shows the ISI Web of Knowledge interface in a Microsoft Internet Explorer browser window. The page title is "ISI Web of Knowledge [v3.0] - Microsoft Internet Explorer". The browser's address bar shows "Web of Science" and "GO". The page content includes a navigation bar with "Signed In", "HOME", and "LOG OUT" buttons. Below the navigation bar, there are two announcements: "Web of Science now captures full author names as they are listed in original" and "Click [here](#) for more information. Click [here](#) to view recorded training."

The main section is titled "Select a search option:" and contains three search methods: "GENERAL SEARCH", "CITED REF SEARCH", and "ADVANCED SEARCH". A red bracket groups these three options, with a callout box containing the text "Choose search method". Below the search options is a "Quick search:" field with a "SEARCH" button and an example: "Example: tuberculosis vaccine*". To the right of the search field is a "Search Hint:" box with the text: "Looking for a topic, author, or journal? Use General Search."

Below the search field is an "Author Finder:" section with the text: "Need help finding papers by an author? Use Author Finder. **NEW!**".

Below the "Author Finder" section is an "OPEN SAVED SEARCH" button with the text: "Open a previously saved search history."

The next section is titled "Select database(s) and timespan:" and contains a "Citation Databases:" section with three checked options: "Science Citation Index Expanded (SCI-EXPANDED)--1900-present", "Social Sciences Citation Index (SSCI)--1980-present", and "Arts & Humanities Citation Index (A&HCI)--1980-present". To the right of these options are three radio buttons: "Latest" (selected), "Year", and "From". The "Latest" option has a dropdown menu set to "1 week" (updated March 02, 2007). The "Year" option has a dropdown menu set to "2007". The "From" option has a dropdown menu set to "1900-1914" and a "to" dropdown menu set to "2007" (default is all years). A red bracket groups these three radio buttons and their associated dropdown menus, with a callout box containing the text "Choose files and year".

Below the "Citation Databases" section are four buttons: "NOTICES", "TUTORIAL", "EDUCATIONAL MATERIALS", and "TECHNICAL SUPPORT". Below these buttons is the text: "The Notices file was last updated 1/12/2007. Please give us your [feedback](#) on using the ISI Web of Knowledge."

At the bottom of the page, there is a "THOMSON" logo and the text: "Acceptable Use Policy" and "Copyright © 2007 The Thomson Corporation".

2) Enter keyword

The screenshot shows the ISI Web of Knowledge search page. The browser window title is "ISI Web of Knowledge [v3.0] - Microsoft Internet Explorer". The page header includes "Web of Science" and a "GO" button. The search interface has several sections:

- TOPIC:** A search box containing "spray pyrolysis AND solar cell*" with a "Title only" checkbox. A callout box on the right contains the text: "TOPIC: Spray pyrolysis AND solar cell*".
- AUTHOR:** A search box containing "Krunks M*". A callout box on the right contains the text: "AUTHOR: Krunks M*".
- GROUP AUTHOR:** A search box containing "CERN".
- SOURCE TITLE:** A search box.
- PUBLICATION YEAR:** A search box.
- ADDRESS:** A search box.

At the bottom, there are dropdown menus for "All languages" (with "English" and "Afrikaans" options) and "All document types" (with "Article" and "Abstract of Published Item" options). A callout box labeled "Index or list" has arrows pointing to the "author index" link, the "group author index" link, and the "abbreviations help" link. The "SEARCH" button is circled in red at the top left and bottom left of the search area.

NOTICES TUTORIAL EDUCATIONAL MATERIALS TECHNICAL SUPPORT

The Notices file was last updated 1/12/2007

3) Results list

The image shows a screenshot of the ISI Web of Knowledge search results page in Microsoft Internet Explorer. The browser title is "ISI Web of Knowledge [v3.0] - Microsoft Internet Explorer". The search condition is highlighted with a red oval and labeled "Search condition":
TS=(spray pyrolysis AND solar cell*) AND AU=(Krunks M*)
DocType=All document types; Language=All languages; Databases=SCI-EXPANDED, SSCI, A&HCI; Timespan=1900-2007

The number of results is highlighted with a red oval and labeled "Number of results":
9 results found (Set #1)

The search results list includes:
1. Krunks M, Mere A, Katerski A, et al. [sprayed CuInS2 films annealed in hydrogen sulfide](#)
2. Sabataityte J, Oja I, Lenzmann F, et al. [Characterization of nanoporous TiO2 films prepared by sol-gel method](#)
3. Oja I, Nanu M, Katerski A, et al. [Crystal quality studies of CuInS2 films prepared by spray pyrolysis](#)
4. Krunks M, Kijatkina O, Mere A, et al. [Sprayed CuInS2 films grown under Cu-rich conditions as absorbers for solar cells](#)
5. Mere A, Kijatkina O, Behane H, et al. [composition and post-deposition treatments](#)
8. Krunks M, Bijakina O, Varema T, et al. [Structural and optical properties of sprayed CuInS2 films](#)
9. Krunks M, Mellikov E. [Zinc oxide thin films by the spray pyrolysis method](#)

The sidebar on the right contains several functions, highlighted with a red box and labeled "Functions of Sort, Analyze, Output, Save, etc.":
Sort by: Latest date (dropdown), SORT
Analyze Results: ANALYZE
Citation Report: CITATION REPORT
Output Records: Selected records on page (checked), All records on page, Records [] to [], Bibliographic Fields (dropdown), PRINT, E-MAIL, SAVE, EXPORT TO REFERENCE SOFTWARE, SAVE TO MY EndNote Web, [Go to my EndNote Web library]

At the bottom of the page, it says "9 documents matched your query of the 36,785,678 in the data limits you selected." and "Copyright © 2007 The Thomson Corporation".

4) Detailed display

Logoff

Bibliographic information, button to see another list, Abstracts. etc

Full Record

Record 9 of 9 (Set #1) SUMMARY

Title: Zinc oxide thin films by the spray pyrolysis method
Author(s): [Krunks M](#), [Mellikov E](#)
Source: THIN SOLID FILMS 270 (1-2): 33-36 DEC 1 1995
Document Type: Article
Language: English
Cited References: 10 **Times Cited:** 58 [FIND RELATED RECORDS](#)

Abstract: Undoped and In-doped ZnO thin films have been prepared on glass substrates from solutions of Zn(CH₃CO₂)₂ · 2H₂O in a mixture of deionized water and isopropyl alcohol by **spray pyrolysis**. Their optical, morphological and structural qualities have been studied and the effect of the preparation conditions discussed. It was shown that the main factors determining the parameters of ZnO films are the growth temperature and the indium concentration. The growth temperatures of 625-675 K, indium doping levels of 1-1.5 at.% and precursor concentrations of 0.1-0.2 mol/l (-1) are preferable to achieve ZnO films with optical and structural qualities as required for solar cell applications.

Author Keywords: zinc oxide; **pyrolysis**; solar cells; indium
KeyWords Plus: ZNO
Addresses: Krunks M (reprint author), TALLINN TECH UNIV, INST MAT TECHNOL, CHAIR SEMICONDUCTOR MAT TECHNOL, EHITAJATE 5, TALLINN 0026, ESTONIA
Publisher: ELSEVIER SCIENCE SA LAUSANNE, PO BOX 564, 1001 LAUSANNE 1, SWITZERLAND
Subject Category: Materials Science, Multidisciplinary; Materials Science, Coatings & Films; Physics, Applied; Physics, Condensed Matter
IDS Number: TM187
ISSN: 0040-6090

Output This Record

Bibliographic Fields

[PRINT](#) [E-MAIL](#) [SAVE](#)

[EXPORT TO REFERENCE SOFTWARE](#)

[SAVE TO MY EndNote Web](#) [Go to my EndNote Web library](#)

Or add it to the Marked List for later output and more options.

[ADD TO MARKED LIST](#) [0 articles marked]

Create Citation Alert

[CREATE CITATION ALERT](#)

Receive e-mail alerts on future citations to this record. (Requires registration.)

Additional Links

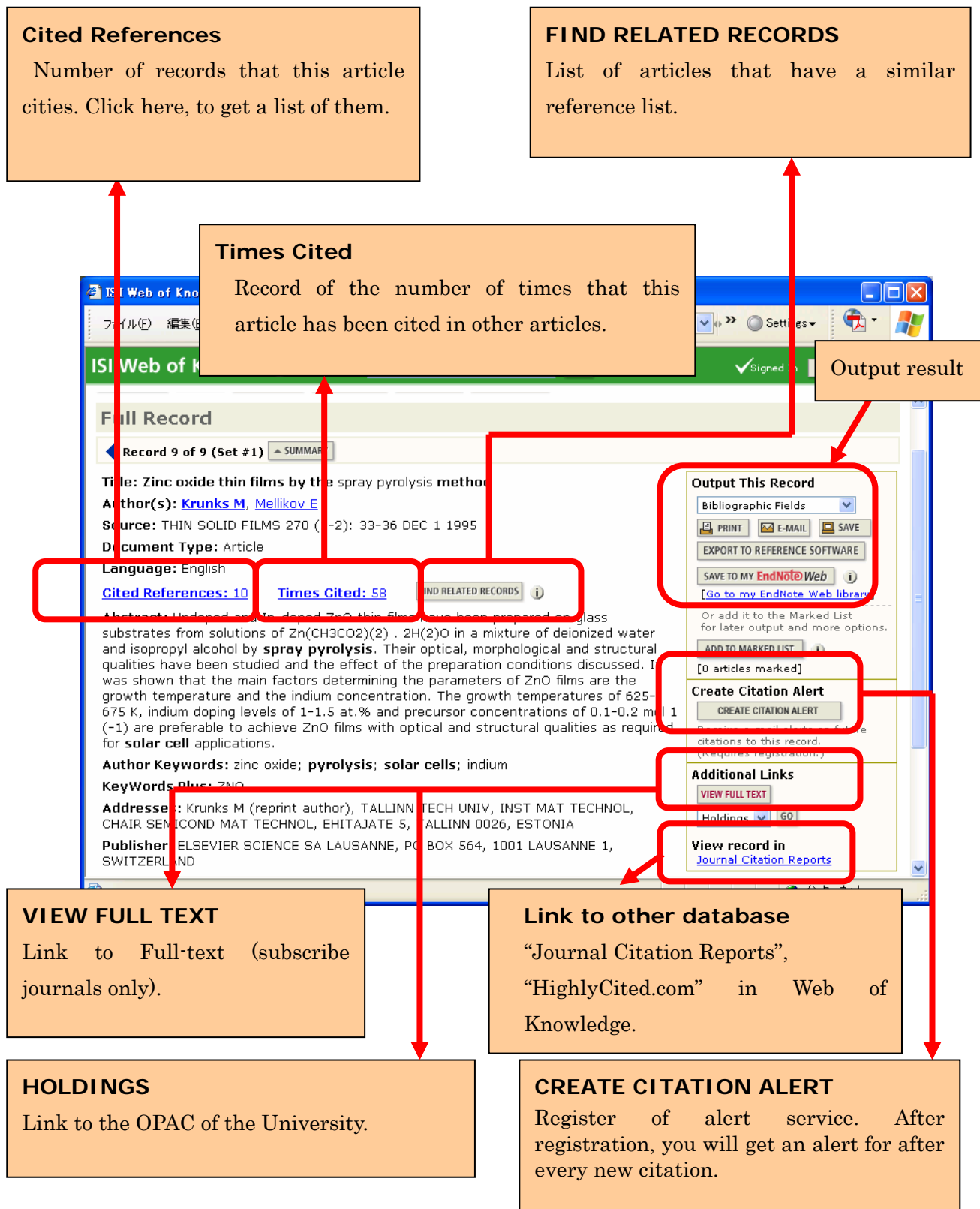
[VIEW FULL TEXT](#)

Holdings [GO](#)

View record in [Journal Citation Reports](#)

Author keywords, Addresses of authors, publisher, and so on.

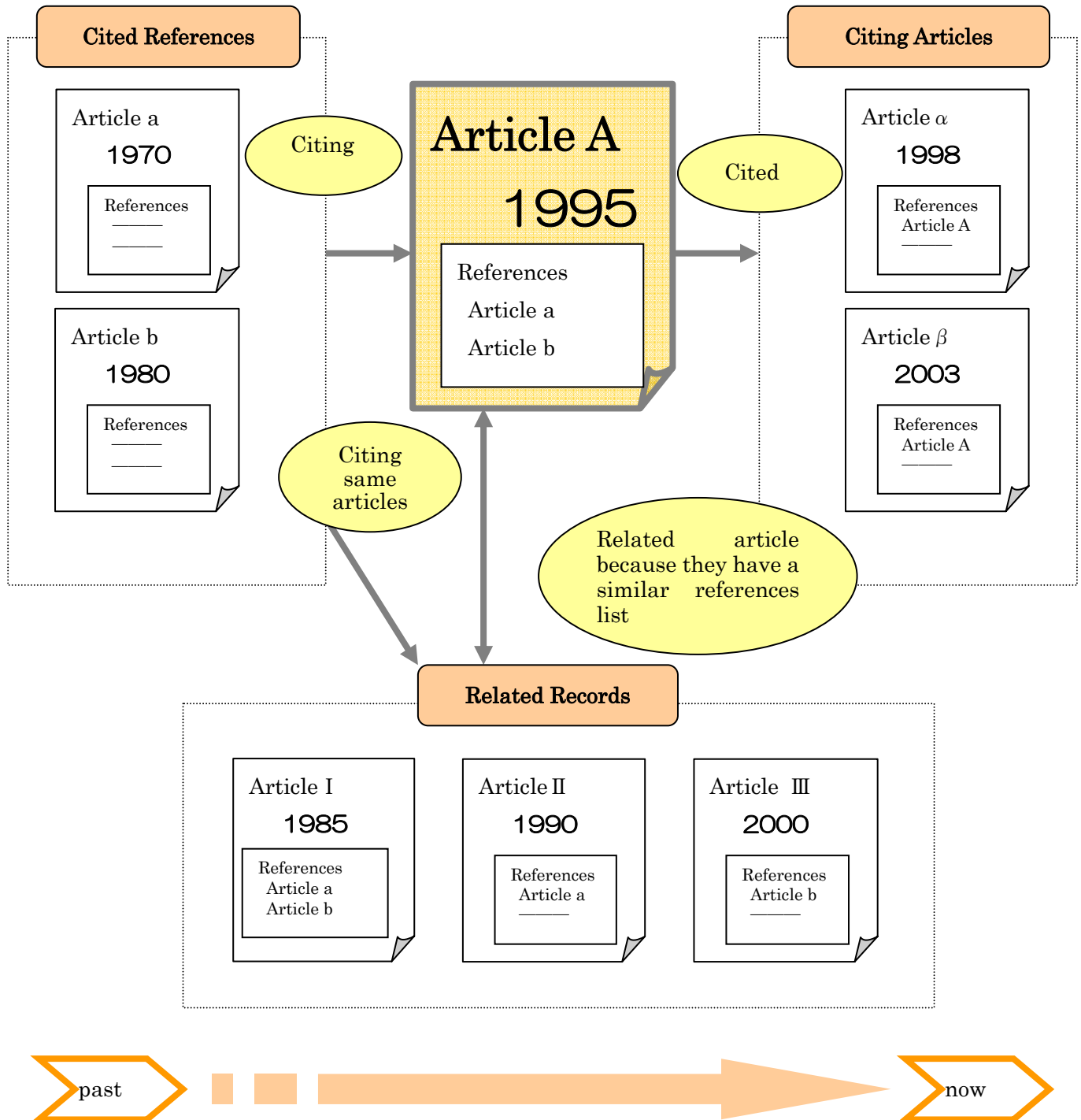
6.1.4 Relation of articles



Character	Information	Example
*	Right truncation	sul*ur* → sulfur, sulphur sulfuric, sulphuric
?	Singular letter variant	wom?n → woman, women
\$	Plural letters variant	labo\$r → labor, labour
SAME	Keywords are contained in same sentence	cellulose SAME wood → wood cellulose, cellulose from wood

Items	Information	Example
TOPIC	Retrieve from article title, abstracts and keywords. Plural words without quotation marks, will retrieve records that contain all of the words.	reduc* sodium → reduced sodium, reducing sodium
AUTHOR	Recommended "Family name(one space)First letter of first name + *". Searchable by all authors (not only first author).	田中耕一 = Tanaka K* de la Rosa M = de\$la\$Rosa M* Shi Wa Yen = Yen S* OR Shi W* Schröder A = Schr*der A*
GROUP AUTHOR	Select from "group author index".	CERN MACRO COLLABORATION TIMI STUDY GRP
SOURCE TITLE	Search registered title from "full source titles list". If you know abbreviated title only, use "*".	IEEE CIRCUITS DEVICES JOURNAL OF AIRCRAFT PHYS* REV*
ADDRESS	Confirm registered name by "abbreviations help", "*" is recommendable. Use "SAME" to search faculty or institute.	東北大学医学部 = Tohoku Univ SAME Med* IBM 東京基礎研究所 = IBM SAME Tokyo Res*

6.1.5 Article relations in Web of Science

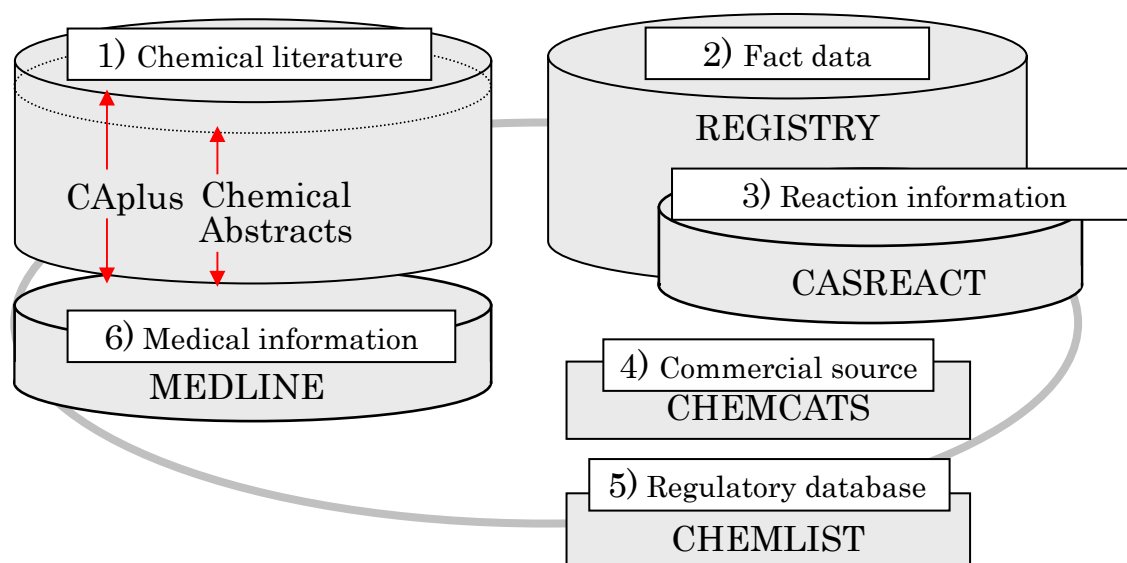


6.2 SciFinder Scholar

6.2.1 About SciFinder Scholar

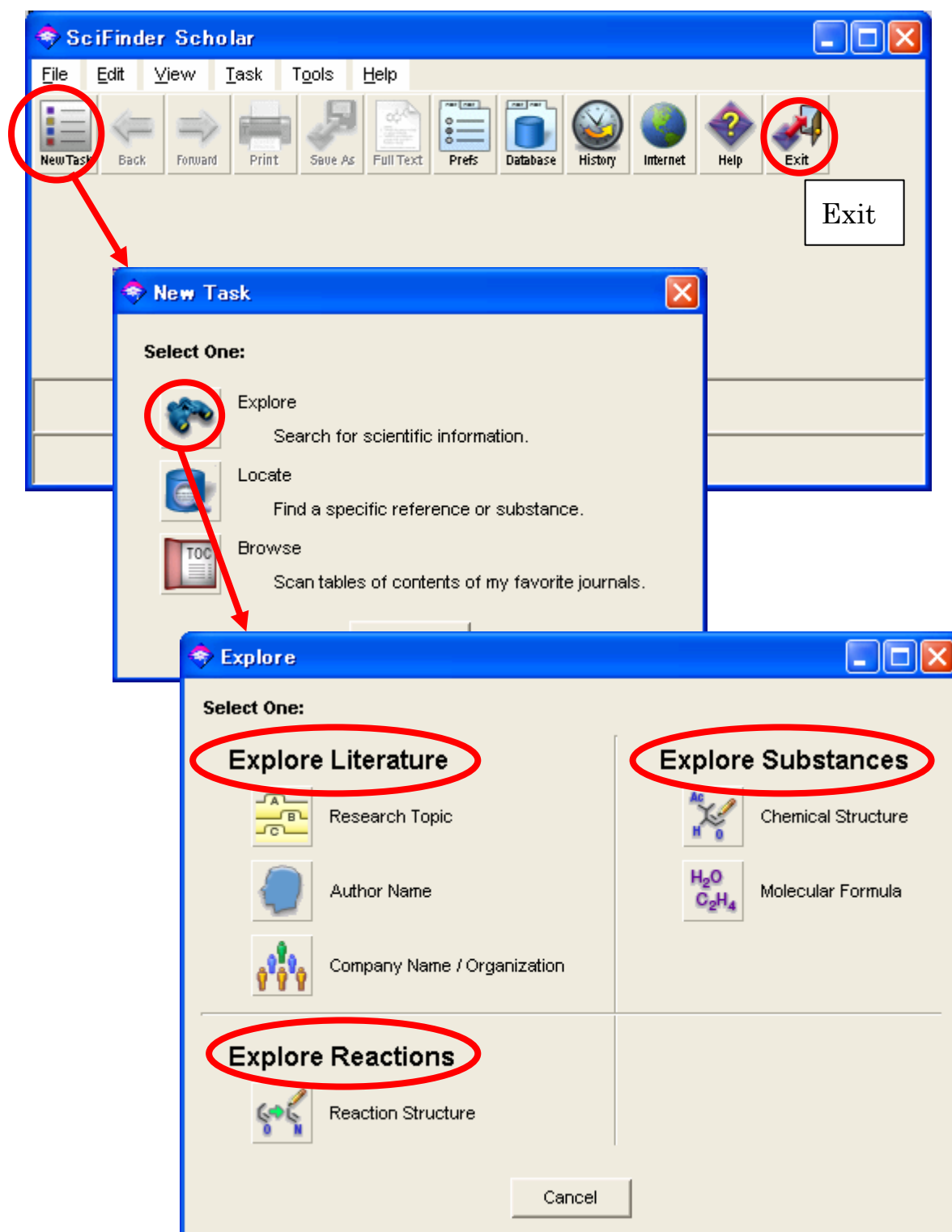
Item	information
Subject	Chemistry, chemical engineering, physics, pharmacology, life science, agriculture, etc.
Creator	CAS(Chemical Abstracts Service)
Type	Article, proceedings, patent, thesis, technical report, etc.
Source	Approximately 9,500 journals (Chemistry, from 150 countries)
Coverage	1840~
Update	Daily
URL	Exclusive browser download is needed.
How to use	Registration is required by laboratory. Pay for use.
Other	Info. http://www.library.tohoku.ac.jp/dbsi/scifinder/

- 1) Chemical literature information – Article, patent, etc. (1840-)
- 2) Fact data – Compounds, etc. (1957-)
- 3) Reaction information of organic compounds – Reaction information issued as article or patents (1840-)
- 4) Commercial source information – Including supplier addresses and pricing information
- 5) Regulatory information – Including substance identity information, inventory status, and compliance information.
- 6) Medical information – Including information in “MEDLINE” (1950-)





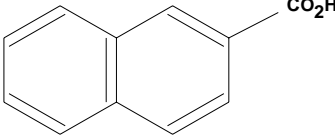






6.2.2 Begin search

You will find “New Task” window at the first step. There are 3 kinds of search flow: Explore, Locate, Browse.



Major Search Items

	Item	Information	Example
Explore Literature	 Research Topic	Search by topic. Enter keyword or sentence.	[I am interested in] composition for polymer-dispersed liquid crystal
	 Author Name	Search by author name.	Tanaka (Last name) K (First name or initial)
	 Company Name / Organization	Search by organization.	Tohoku Univ, Japan Seiko Epson Corp, Japan Sony Corp, Japan
Explore Substances	 Chemical Structure	Search by structure. There is the default editor, and it's possible to copy and paste from "ISIS/DRAW" and "ChemDraw".	
	 Molecular Formula	Search by molecular formula.	C11H8O2 O2C11H8 O2 C11 H8
Locate	Bibliographic Information 	By journal name, article title	Cellular Microbiology
	Document Identifier 	By CA abst. number	122:252283 (CAN)
		By patent number	JP07026265
	Substance Identifier 	By CAS registered name	2-Naphthalenecarboxylic acid
		By other name	Isonaphthoic acid
By CAS registry number		93-09-4(93094)	

6.2.3 Literature search (Basic flow)

Introducing the basic flow of literature search, using the example of the following research topic:

e.g. Search the literature written about “composition of polymer-dispersed liquid crystal display”.

- 1) You find ”I am interested in” in the Explore window. Enter the keyword after this phrase. By clicking “Filters”, you can set Publication year, Author name and more.

Explore by Research Topic

Describe your topic using a phrase.

I am interested in:

composition of polymer-dispersed liquid crystal display

Examples:

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


Filters ▼

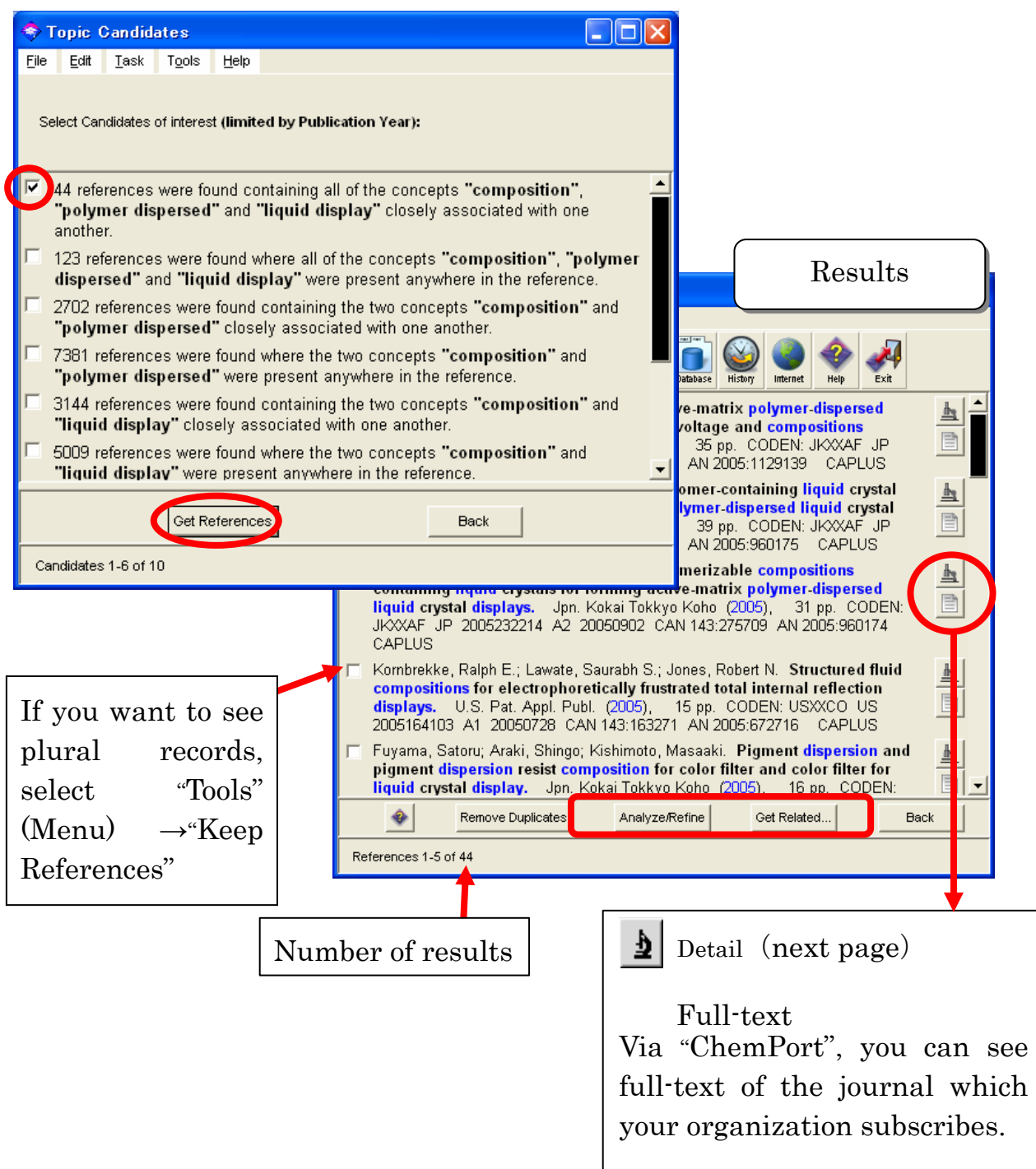
Publication year	Only return references published in this year or range of years: <input type="text"/>
Document type	Only return references coming from the following sources: <input type="checkbox"/> Clinical Trial <input type="checkbox"/> Journal <input type="checkbox"/> Conference <input type="checkbox"/> Patent
Language	Only return references from papers written in the following languages: <input type="checkbox"/> Chinese <input type="checkbox"/> French <input type="checkbox"/> Japanese <input type="checkbox"/> English <input type="checkbox"/> German <input type="checkbox"/> Spanish
Author name	Only return references written by the following author: Last: <input type="text"/> First: <input type="text"/> Middle initial: <input type="text"/>
Company name	Only return references written by the following company: <input type="text"/>

■ Publication year
■ Document type
■ Language
■ Author name
■ Company name

OK Cancel

2) If you click the “OK” button, the windows will appear as below.

This window shows you the number of results for your search under several search conditions. Select a results group, and click the “Get References” button to see the result list. Confirm the detailed information by clicking the  icon.



Topic Candidates

Select Candidates of interest (limited by Publication Year):

- 44 references were found containing all of the concepts "composition", "polymer dispersed" and "liquid display" closely associated with one another.
- 123 references were found where all of the concepts "composition", "polymer dispersed" and "liquid display" were present anywhere in the reference.
- 2702 references were found containing the two concepts "composition" and "polymer dispersed" closely associated with one another.
- 7381 references were found where the two concepts "composition" and "polymer dispersed" were present anywhere in the reference.
- 3144 references were found containing the two concepts "composition" and "liquid display" closely associated with one another.
- 5009 references were found where the two concepts "composition" and "liquid display" were present anywhere in the reference.

Get References **Back**

Candidates 1-6 of 10

Results

Database History Internet Help Exit

ve-matrix **polymer-dispersed voltage and compositions**
35 pp. CODEN: JKXXAF JP AN 2005:1129139 CAPLUS

omer-containing **liquid crystal polymer-dispersed liquid crystal**
39 pp. CODEN: JKXXAF JP AN 2005:960175 CAPLUS

merizable **compositions**

Containing liquid crystals for forming active-matrix polymer-dispersed liquid crystal displays. Jpn. Kokai Tokkyo Koho (2005), 31 pp. CODEN: JKXXAF JP 2005232214 A2 20050902 CAN 143:275709 AN 2005:960174 CAPLUS

Korbekke, Ralph E.; Lawate, Saurabh S.; Jones, Robert N. **Structured fluid compositions for electrophoretically frustrated total internal reflection displays.** U.S. Pat. Appl. Publ. (2005), 15 pp. CODEN: USXXCO US 2005164103 A1 20050728 CAN 143:163271 AN 2005:672716 CAPLUS


Fuyama, Satoru; Araki, Shingo; Kishimoto, Masaaki. **Pigment dispersion and pigment dispersion resist composition for color filter and color filter for liquid crystal display.** Jpn. Kokai Tokkyo Koho (2005), 16 pp. CODEN:

Remove Duplicates **Analyze/Refine** **Get Related...** **Back**

References 1-5 of 44

If you want to see plural records, select “Tools” (Menu) → “Keep References”

Number of results

 **Detail (next page)**

Full-text
Via “ChemPort”, you can see full-text of the journal which your organization subscribes.

3) Detailed literature information (e.g. patent)

Detail of Reference 1

File Edit Help

Bibliographic Information

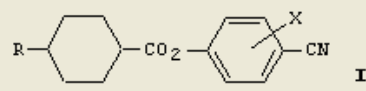
Liquid crystal composition for polymer-dispersed liquid crystal displays. Kobayashi, Hidekazu; Chino, Eiji; Yazaki, Masayuki; Iizaka, Hideto. (Seiko Epson Corp, Japan). Jpn. Kokai Tokkyo Koho (1995), 12 pp. CODEN: JKXXAF [JP 07026265 A2](#) 19950127 Heisei. Patent written in Japanese. Application: JP 93-168196 19930707. Priority: . CAN 122:252283 AN 1995:508066 CAPLUS

Patent Family Information

<u>Patent No.</u>			
<u>Application No.</u>	JP 07026265	A2	19950127
	1993-168196	19930707	JP
<u>Priority Application</u>	JP 1993-168196		19930707

Abstract

The title photoresist compn. contains 1-5% I [R = alkyl, alkoxy, alkylamino; X = F, Cl, CN] or II [R = alkyl, alkoxy, alkylamino, X = F, Cl, CN] in a host liq. crystal. Low driving potential and light resistance are superior and the compn. is useful in laptop computers.



R[C1]CCCCC1C(=O)OC2=CC=C(C#N)C=C2X

I

- Title
- Author
- Organization
- Source
- Language
- CA number (CAN)
- Accession number (AN)
- Patent info., etc.

■ Abstract

Patent Classifications

Main IPC: C09K019-56. **Secondary IPC:** C09K019-20; C09K019-22; C09K019-30; C09K019-32; C09K019-38; C09K019-46; C09K019-60; G02F001-13. **Additional IPC:** G02F001-1333.

Indexing -- Section 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

[Liquid crystals](#)
(compn.; [polymer dispersed](#))

[Optical imaging devices](#)
(liq.-crystal, low-voltage drive, light-resistant)

[92-94-4D](#), p-Terphenyl, cyano-, derivs.
[93-09-4D](#), 2-Naphthoic acid, derivs., cyanophenyl or cyanobiphenyl ester
[98-89-5D](#), Cyclohexanecarboxylic acid, derivs., cyanophenyl and cyanobiphenyl ester

■ Patent classification

■ Indexing

Accession number

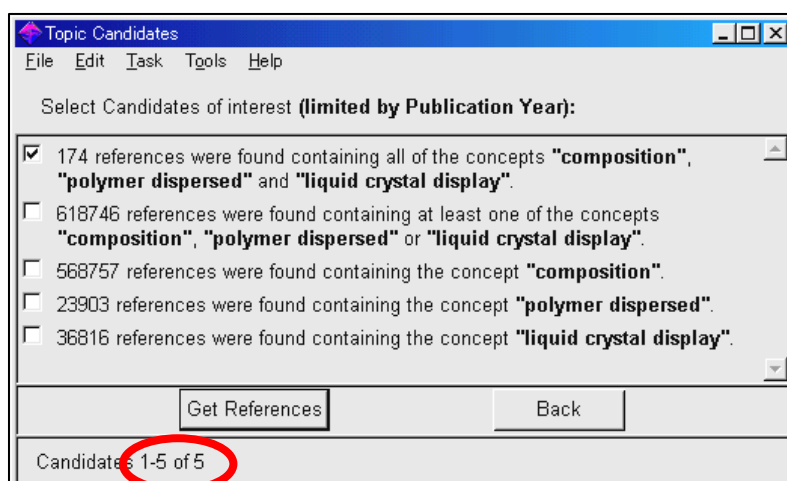
CA section

6.2.4 Search by "Research Topic"

◇ Tips

- Check commonly used abbreviations, such as "BTU" and "Prep".
 - Check commonly misspelled words ("affect" instead of "effect")
 - Check words spelled according to either British or American English ("colour" or "color")
- You will get different search results depending upon the sentence you entered. Compare the two examples that follows(they use the same words):

e.g.1) composition and polymer-dispersed liquid crystal display



e.g.2) composition of polymer-dispersed liquid crystal display
See the results 6.2.3 2)

- If you use plural words combined with "and" or "or", enter as follows;
e.g.) numeric and bibliographic data
→ numeric data and bibliographic data
- If you want to get results that include different words, add them inside () as follows;
e.g.) the milk production of cow(cattle,bovines)

6.2.5 Search by "Author"

Family name is mandatory for an author search. Enter first or middle name if necessary. If you can not identify the correct author because of many authors or the same name, the "Analyze / Refine" function is recommended.

Search by "Johnson, D.A."

Enter the author's name.
 Last name (required): johnson
 First name or initial: d
 Middle name or initial: a
 Look for alternative spellings
 OK

Author Candidates
 Select Candidates of interest:

Author	References
<input checked="" type="checkbox"/> JOHNSEN DORRIT	1 references
<input checked="" type="checkbox"/> JOHNSON	11 references
<input checked="" type="checkbox"/> JOHNSON D	1166 references
<input checked="" type="checkbox"/> JOHNSON D A	665 references
<input checked="" type="checkbox"/> JOHNSON D A G	2 references
<input checked="" type="checkbox"/> JOHNSON D A W	1 references
<input checked="" type="checkbox"/> JOHNSON D JR	
<input checked="" type="checkbox"/> JOHNSON DABNEY	
<input checked="" type="checkbox"/> JOHNSON DAISY	
<input checked="" type="checkbox"/> JOHNSON DALE	

Get Reference

Candidates 7-16 of 148

Various candidates will appear. If you want to select all, "Edit" → "Select All".

6.2.6 Search by "Document Identifier"

When you get the results of this search, you had better write down the specific number to identify the record.

e.g. Kobayashi, Hidekazu; Chino, Eiji; Yazaki, Masayuki; Iizaka, Hideto. Liquid crystal composition for polymer-dispersed liquid crystal displays. Jpn. Kokai Tokkyo Koho 8-110000 A2 1995
 pp. CODEN: JKXXAF③JP07026265
 CAN 122:252283 AN 1995:508066 CAPLUS

②

①

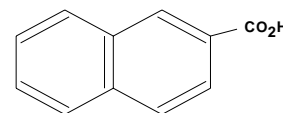
①Accession Number ②CA Number ③Patent Number

Database name

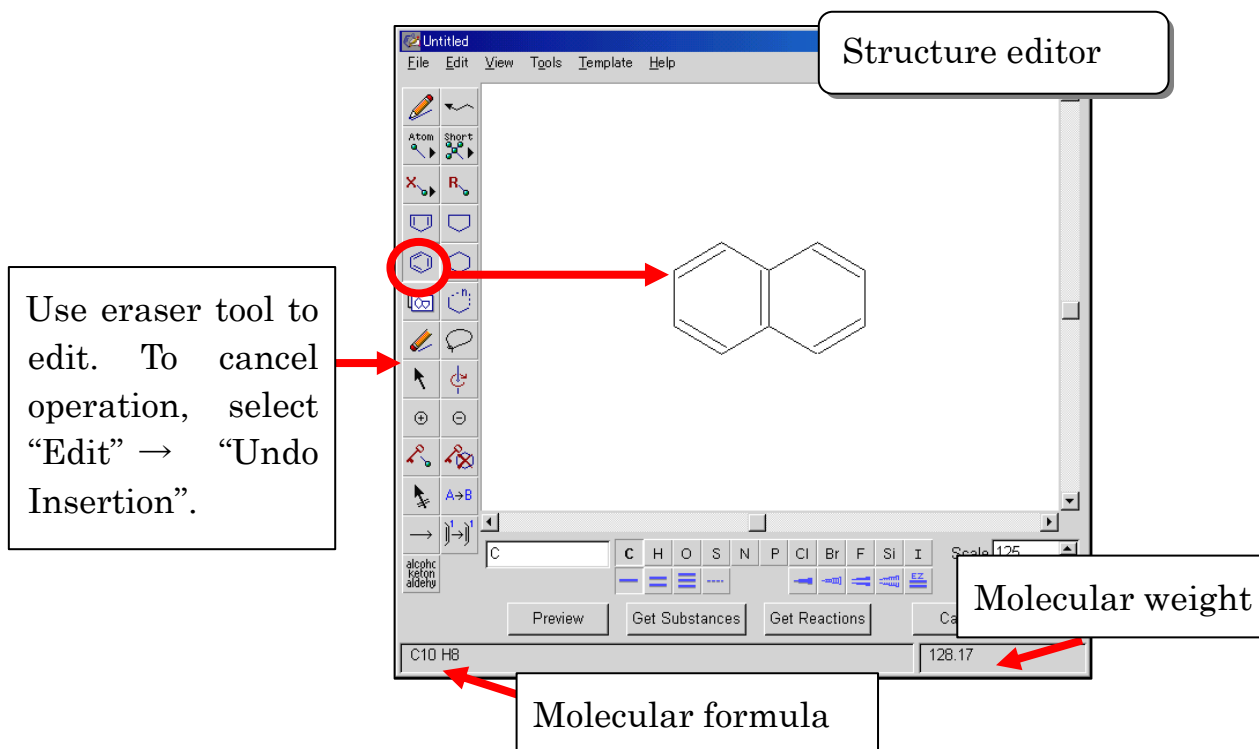
6.2.7 Chemical substance search(Basic flow)

Introducing basic flow of chemical substance search by example
“Chemical Structure” as follows:

e.g. Search the name of chemical substance
and it's CAS registered number.



- 1) To draw a Benzene ring, click Benzene icon.
Place the cursor in the editor window, then click.
- 2) To combine another Benzene ring, overlap them with combine point.
The color of the point will change, then click there.



Structure editor

Use eraser tool to edit. To cancel operation, select “Edit” → “Undo Insertion”.

Molecular weight

Molecular formula

C10 H8

128.17

3) To add functional groups (e.g. CO₂H), select from “Short” icon.

The screenshot shows a software window titled 'Untitled' with a menu bar (File, Edit, View, Tools, Template, Help) and a toolbar. A 'Short' icon is circled in red, with a red arrow pointing to a 'Short' menu. This menu is a table of chemical groups and atoms. The 'CO₂H' entry is circled in red. Below the menu is an atom palette with buttons for H, C, H, O, S, N, P, Cl, Br, F, Si, I, and Calc. The 'C', 'H', 'O', and 'S' buttons are circled in red. A red arrow points from a text box to the 'Atom' icon in the toolbar. Another red arrow points from a text box to the 'CO₂H' entry in the 'Short' menu.

CH	Bu-n	o-C ₆ H ₄	Cl ₃	NH ₂
CH ₂	Bu-i	m-C ₆ H ₄	CHO	NH ₃
Me	Bu-s	p-C ₆ H ₄	CN	NO ₂
OMe	Bu-t	CF ₂	OH	
Et	OBu-n	CF ₃	CO ₂ H	OPO ₃ H ₂
OEt	OBu-i	CCl ₂	CO ₂	OSO ₃ H
Pr-n	OBu-s	CCl ₃	COSH	PO ₃ H ₂
Pr-i	OBu-t	CBr ₂	CS ₂ H	SH
OPr-n	Ph	CBr ₃	CSSH	SO ₂
OPr-i	OPh	Cl ₂	NH	SO ₃ H

Enter atom here or select from “Atom” icon.

Choose usual atom from this button.

4) After drawing, click “Get Substances” button. You will see a dialog box as below. Check “Exact search”, and check your search options by clicking “Filters”.

The screenshot shows the 'Get Substances' dialog box. The 'Exact search' radio button is circled in red. A 'Filters' dropdown menu is also circled in red. Below the filters, the 'Structure components' section has a checked checkbox for 'Only return substances that are single components'. The 'OK' button at the bottom is also circled in red. A red arrow points from a text box to the 'Structure components' checkbox.

Get substances that match your query using:

- Exact search
- Substructure search
- Similarity search

Filters ▼

Substance class

Return substances that are:

- Alloys
- Coordination compounds
- Incompletely defined
- Mixtures
- Polymers
- Organics, and others not listed above

Structure components Only return substances that are single components

Commercial availability Only return substances that are commercially available

References Only return substances having one or more references

Studies

Only return substances having these reported studies:

- Analytical
- Biological
- Preparation
- Reactant or Reagent

OK Cancel

For example, check here to search single components.

5) Results appear in order of CAS registry number.

Sort results by
"View" menu.

To view selected
data only, check the
boxes and "Tools" →
"Keep Substances"

Number of results

Substances 16-22 of 22

CAS Registry Number	Chemical Structure	Number of References
50787-42-3	<chem>O=C(O)c1ccc2ccccc2c1</chem>	~2
40480-74-8	<chem>[O-]C(=O)c1ccc2ccccc2c1</chem>	~1
3198-25-2	<chem>O=C(O)c1ccc2ccccc2c1</chem>	~32
93-09-4	<chem>O=C(O)c1ccc2ccccc2c1</chem>	~1375

6) Detailed information of chemical substance

Detail of Substance 22

File Edit Help

Registry Number: 93-09-4

CAS registry number

O=C(O)c1ccc2ccccc2c1

Structure

Formula

Formula: C₁₁ H₈ O₂

CA Index Name: 2-Naphthalenecarboxylic acid

CA name

Other Names: 2-Naphthoic acid (BCI); β-Naphthalenecarboxylic acid; β-Naphthoic acid; 2-Carboxynaphthalene; Isonaphthoic acid

Other name

Experimental Properties

[Experimental Properties](#)

[Calculated Properties](#)

Calculated Properties

-- Resources --

Resources

References: ~1378

STN Files: CAPLUS, AGRICOLA, ANABSTR, BEILSTEIN, BIOSIS, BIOTECHNO, CA, CAOLD, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, CSNB, DDFU, DETHERM, DRUGU, EMBASE, GME LIN, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK, MSDS-OHS, RTECS, SPECINFO, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL

(Additional Information is available through STN International. Contact your information specialist, a local CAS representative, or the CAS Help Desk for Assistance)

Database: REGISTRY

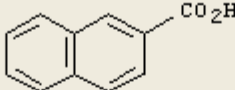
Close

Experimental Properties window

Experimental Properties for 93-09-4

File Edit Help

Registry Number: 93-09-4



Formula: C₁₁ H₈ O₂

CA Index Name: 2-Naphthalenecarboxylic acid

Property	Value	Condition	Note
Boiling Point	>300 °C		(1) SRC
Carbon-13 NMR Spectrum	See spectrum		(2) WSS
Carbon-13 NMR Spectrum	See spectrum		(3) WSS
Carbon-13 NMR Spectrum	See spectrum		(4) WSS
Carbon-13 NMR Spectrum	See spectrum		(4) WSS
Carbon-13 NMR Spectrum	See spectrum		(5) WSS
Carbon-13 NMR Spectrum	See full text		(6) CAS
IR Absorption Spectrum	See spectrum		(7) AIST
IR Absorption Spectrum	See spectrum		(7) AIST
IR Absorption Spectrum	See full text		(8) CAS
Mass Spectrum	See spectrum		(9) WSS
Mass Spectrum	See spectrum		(9) WSS
Mass Spectrum	See spectrum		(9) WSS
Mass Spectrum	See spectrum		(9) WSS
Mass Spectrum	See full text		(10) CAS
Mass Spectrum	See full text		(11) CAS
Mass Spectrum	See full text		(12) CAS
Mass Spectrum	See full text		(13) CAS
Mass Spectrum	See full text		(14) CAS
Mass Spectrum	See full text		(15) CAS
Melting Point	186-187 °C		(16) CAS
Melting Point	186 °C		(17) IC
Melting Point	185.5 °C		(1) SRC
Melting Point	185-187 °C		(18) CAS
Melting Point	180-183 °C		(19) IC
Permeability	See full text		(20) CAS

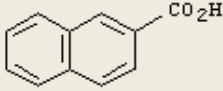
Print Close

Calculated Properties window

Calculated Properties for 93-09-4

File Edit Help

Registry Number: 93-09-4



Formula: C₁₁ H₈ O₂

CA Index Name: 2-Naphthalenecarboxylic acid

Property	Value	Condition	Note
Bioconcentration Factor	140	pH 1 Temp: 25 °C	(22)
Bioconcentration Factor	139	pH 2 Temp: 25 °C	(22)
Bioconcentration Factor	131	pH 3 Temp: 25 °C	(22)
Bioconcentration Factor	85.8	pH 4 Temp: 25 °C	(22)
Bioconcentration Factor	19.3	pH 5 Temp: 25 °C	(22)
Bioconcentration Factor	2.29	pH 6 Temp: 25 °C	(22)
Bioconcentration Factor	1.0	pH 7 Temp: 25 °C	(22)
Bioconcentration Factor	1.0	pH 8 Temp: 25 °C	(22)
Bioconcentration Factor	1.0	pH 9 Temp: 25 °C	(22)
Bioconcentration Factor	1.0	pH 10 Temp: 25 °C	(22)
Boiling Point	332.9±11.0 °C	Press: 760 Torr	(22)
Density	1.265±0.06 g/cm ³	Temp: 20 °C Press: 760 Torr	(22)
Enthalpy of Vaporization	60.77±3.0 kJ/mol	Press: 760 Torr	(22)
Flash Point	151.3±13.9 °C		(22)
Freely Rotatable Bonds	1		(22)
H Acceptors	2		(22)
H Donors	1		(22)
H Donor/Acceptor Sum	3		(22)
Koc	1190	pH 1 Temp: 25 °C	(22)
Koc	1190	pH 2 Temp: 25 °C	(22)
Koc	1120	pH 3 Temp: 25 °C	(22)

Print Close

6.3 Medline

6.3.1 About Medline

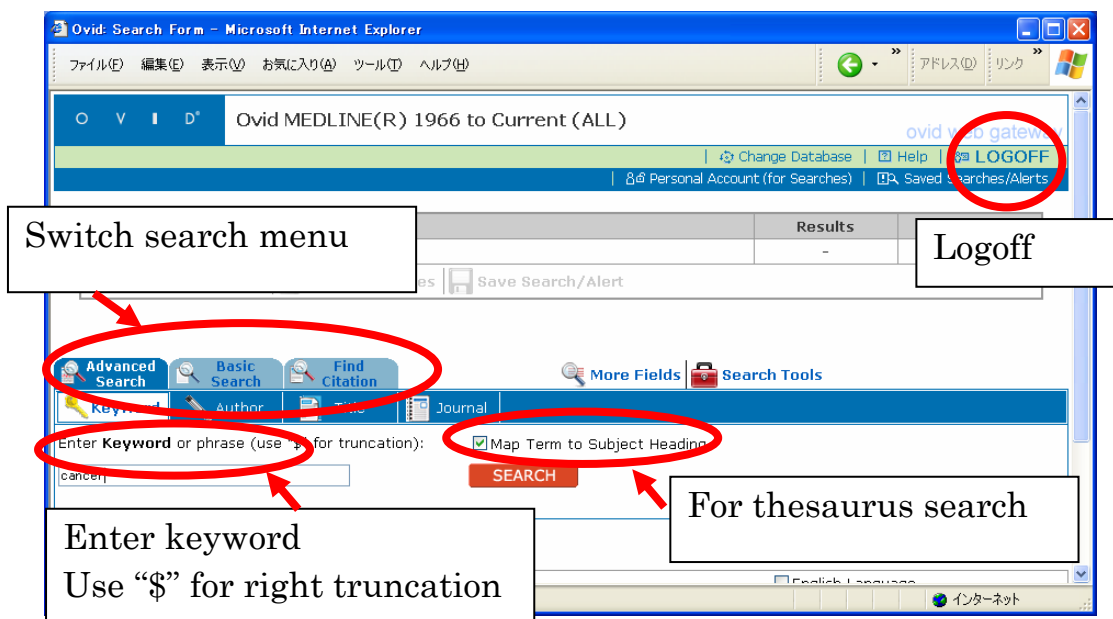
Item	Information
Subject	Medicine (Pharmacology) , Nursing, Dentistry
Creator	U.S. National Library of Medicine
Type	Article, Reviews, Monograph and more
Source	Approximately 4,800 (70 countries)
Coverage	1951~
Update	Weekly (Daily, without subject headings)
URL	http://www.library.tohoku.ac.jp/dbsi/ovid/
How to use	Registration required as a laboratory. Free for charge to University members. You can use this database without registration at computers in the library.
Other	Offered also via “PubMed”(free) http://www.ncbi.nlm.nih.gov/PubMed/

6.3.2 Features

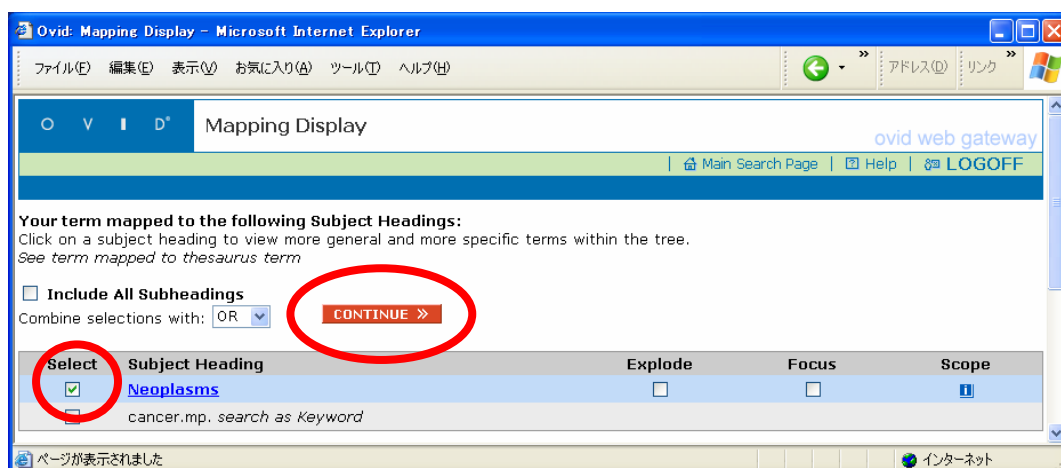
- Searchable not only by the title or author, but also medicine or name of disease.
- Includes a “MeSH” thesaurus to search articles written about the specific topic(they appear under various terms).
- You can search in-process data before the thesaurus is given with “MEDLINE In-Process & Other Non-Indexed Citations (PREM) ”

6.3.3 Keyword search using thesaurus

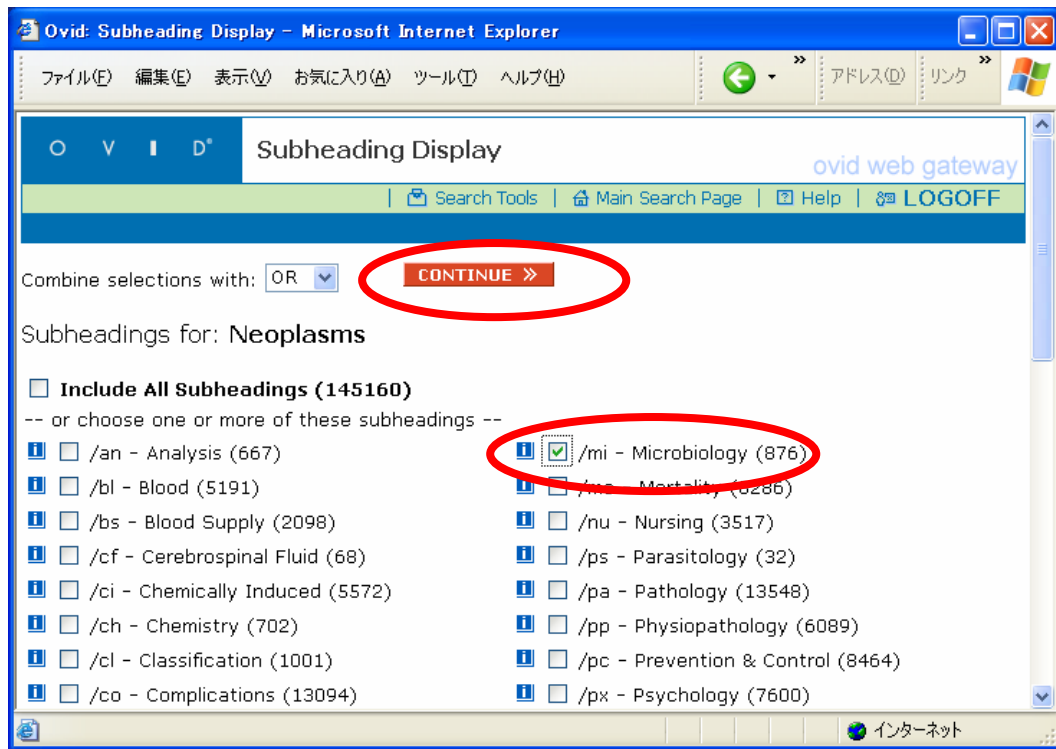
1) You can see “Enter Keyword” in “Default screen”. For switch other search, click the icon. Enter keyword (“cancer” in this example) , then click the “Search” button.



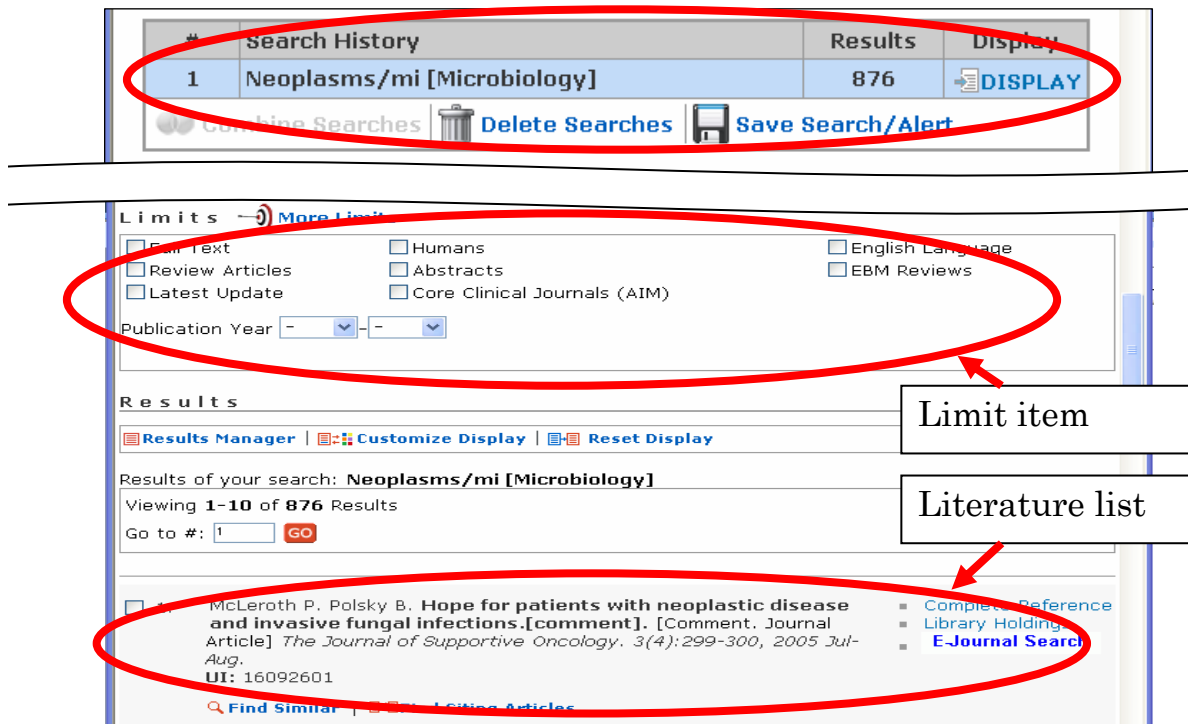
2) Medline gives a thesaurus list relating to the entered keyword. Select thesaurus word that you are searching for, then click the “Continue” button. (In this example, “Neoplasms” has been selected) .



3) In the next step, you will find “Subheadings.” Select items and click “Continue”. (“Microbiology” has been selected in this example) .



4) You can see the reference list under the “Search History”.



5) You can refer to the “Abstract” or to “Complete Reference” if you want. Confirmation of the holding information of Tohoku University is available.

Click to see similar literature list, or citing article list.

Abstract
 Complete Reference
 Library Holdings
 E-Journal Search

6) You can find the thesaurus used in this literature in detail information.

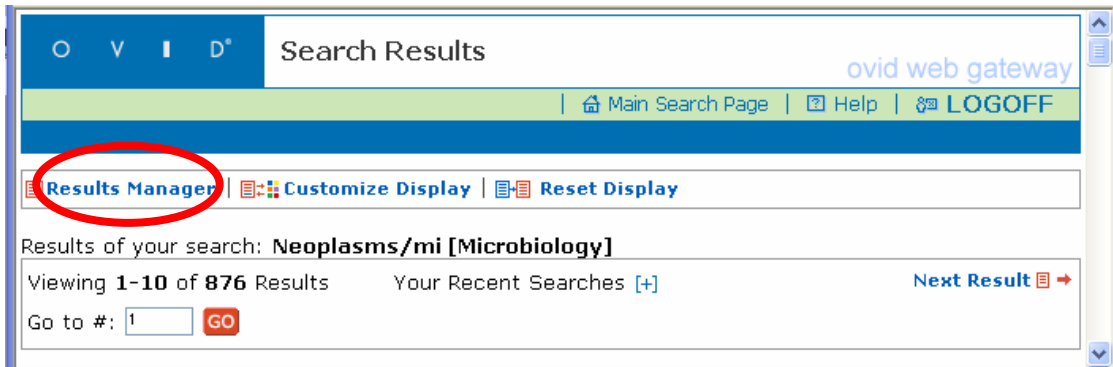
Unique Identifier 1649137
 Record Owner NLM
 Authors Joab I. Nicolas J.C. Schwaab G. de-The G. Clause B. Perron
 Authors Full Name Joab, I. Nicolas, J C. Schwaab, G. de-The, G. Clause, B. Perron, Zeng, Y.
 Institution Institut Gustave Roussy, CNRS, URA1301, Villejuif, France.
 Title Detection of anti-Epstein-Barr-virus transactivator (ZEBRA) antibodies in sera from patients with nasopharyngeal carcinoma.
 Source International Journal of Cancer. 48(5):647-9, 1991 Jul 9.
 Abbreviated Source Int J Cancer. 48(5):647-9, 1991 Jul 9.
 Publishing Model Print
 NLM Journal Code ggq
 Journal Subset IM
 Country of Publication UNITED STATES
 MeSH Subject Headings
 *Antibodies, Viral / an [Analysis]
 Antibody Formation
 Antigens, Viral / im [Immunology]
 Cell Line
 Comparative Study
 *DNA-Binding Proteins / im [Immunology]
 Epstein-Barr Virus Nuclear Antigens
 *Herpesvirus 4, Human / im [Immunology]
 Humans
 *Immunoglobulins / an [Analysis]
 Nasopharyngeal Neoplasms / im [Immunology]

Author, Institution Title

You can get precise results by using thesaurus.

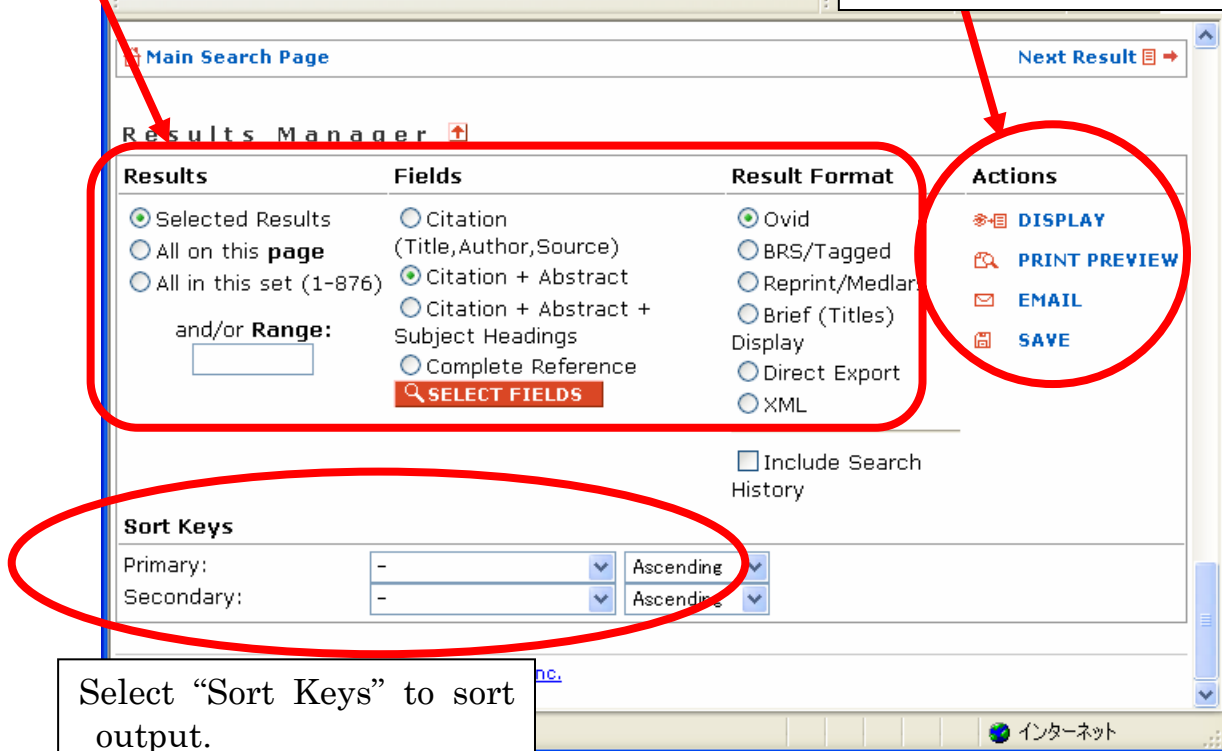
Thesaurus

7) You can download the result list using “Results Manager”.



Select “Results”, “Fields”, “Results Format”.

Select “Action” (Display, Print, E-mail, Save) .



Select “Sort Keys” to sort output.

6.4 Biological Abstracts

6.4.1 About Biological Abstracts

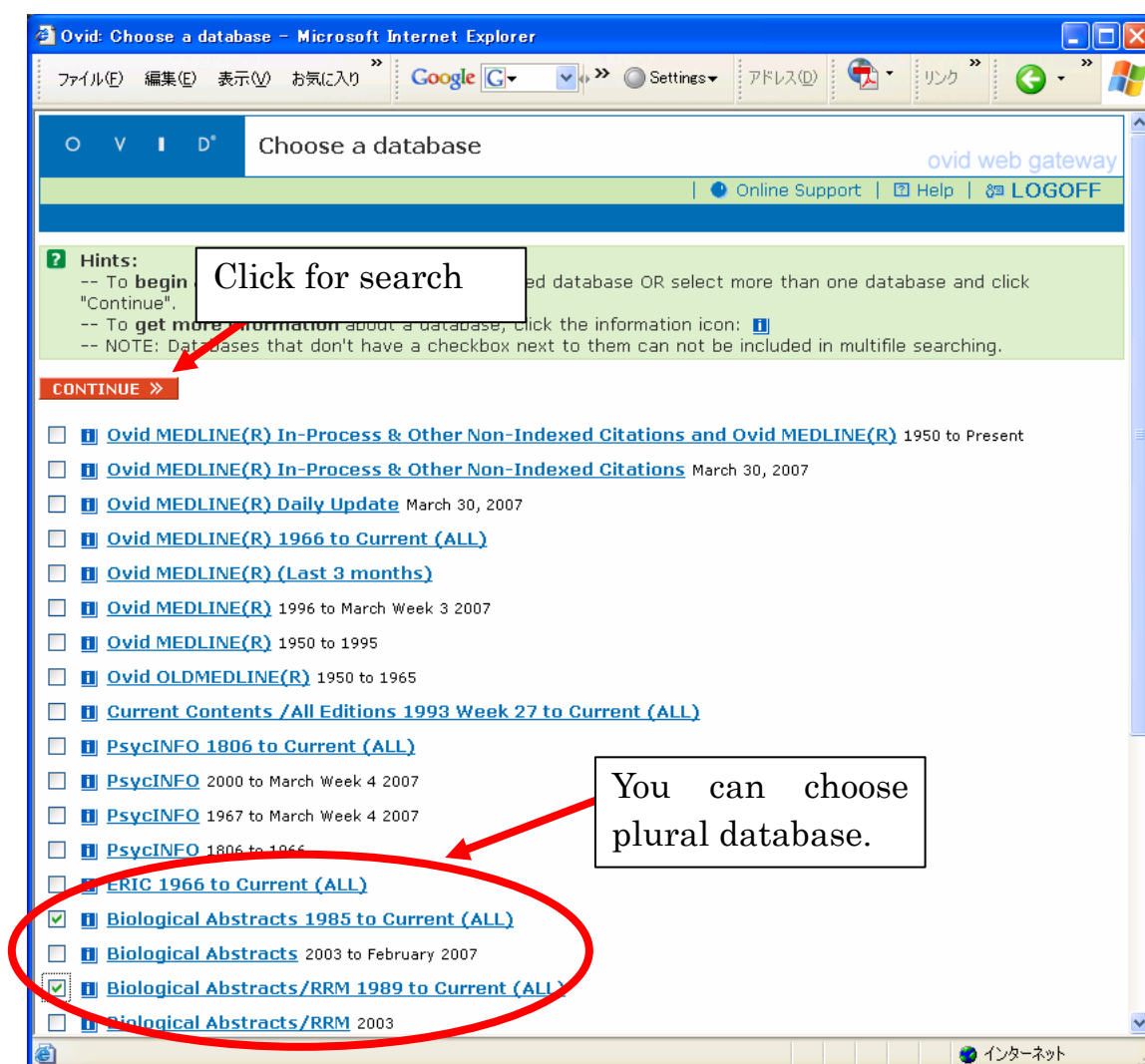
Items	Information
Subject	Biology, Environmental studies, Basic medicine, Agricultural studies, and more.
Creator	BIOSIS
Content	“Biological Abstracts” Article “Biological Abstracts / RRM” Review, Proceedings, patents, Books, and more.
Source	Approximately 4,000 titles (over 90 countries)
Coverage	“Biological Abstracts” 1985- “Biological Abstracts / RRM” 1989-
Update	bi-monthly
URL	http://www.library.tohoku.ac.jp/dbsi/ovid/
How to use	Registration required as a laboratory. Free for University members. You can use this database without registration at computers in the library.



6.4.2 Flow of search Biological Abstracts on OVID system

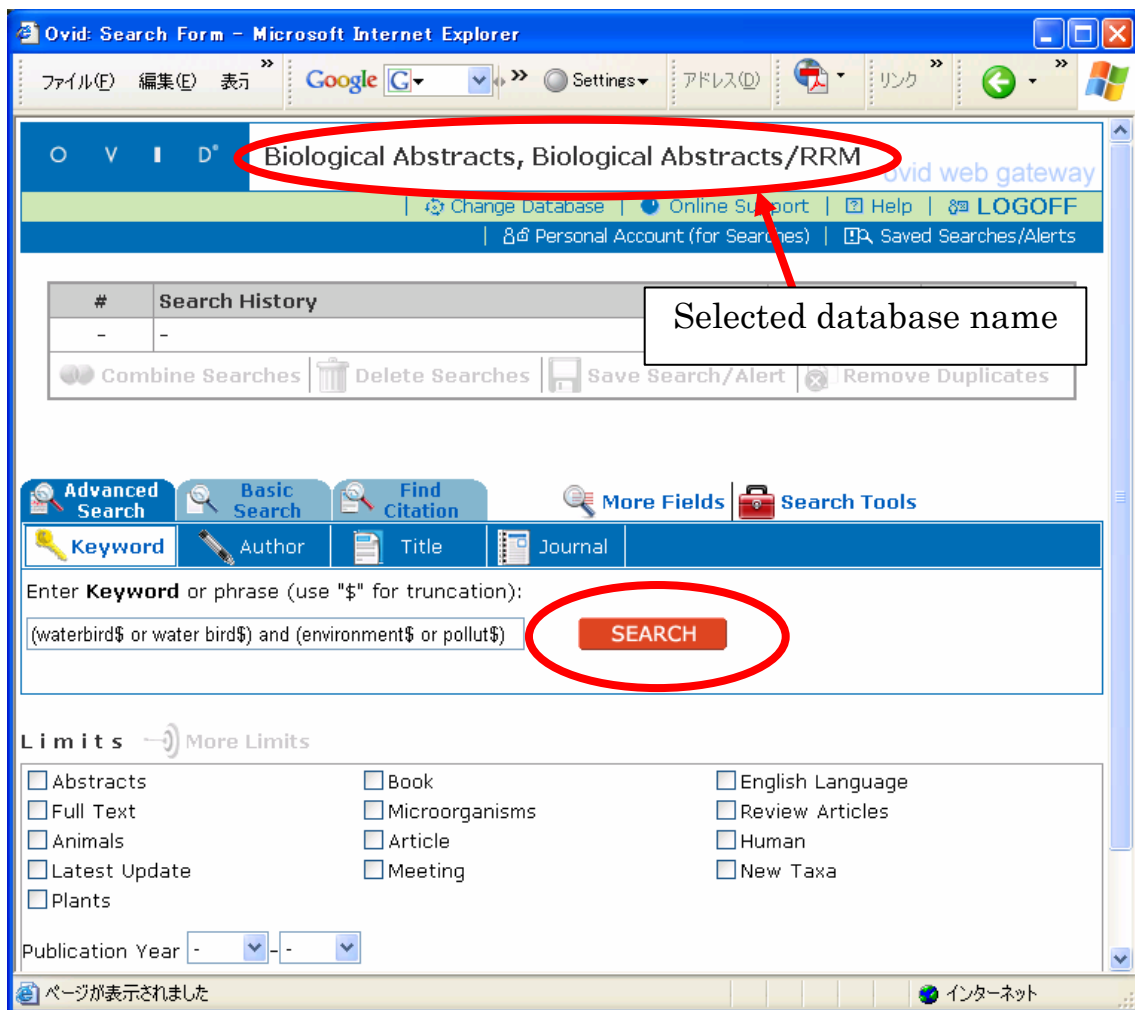
e.g. Search the article written about water bird and environmental pollution.

1) Select “Biological Abstracts” and “Biological Abstracts / RRM”.



2) Keyword search is the default setting. When you chose plural databases, it is not possible to use the thesaurus.

e.g.) Enter 「(waterbird\$ or water bird\$) and (environment\$ or pollut\$)」



Item	Information
AND	e.g.) “water and birds”→ water birds , water economy of desert birds ...
OR	e.g.) “health or welfare”→animal health , animal welfare ...
Right truncation	e.g.) “cat \$ ”→ cat , cats , catalog ...
Phrase	“water birds” (= “water adj birds”) → water birds

3) Literatures including keyword in title, abstracts, and so on. There are links to E-journal, library holdings, etc. If you get too many results, use the “Limit” or “Combine” function.

History

#	Search History	Results	Display
1	((waterbird\$ or water bird\$) and (environment\$ or pollut\$)).mp. [mp=ab, bc, bo, bt, cb, cc, ds, ge, gn, mc, mi, mq, or, ps, sq, st, ti, tm, tn]	867	Details

Combine Searches Delete Searches Save Search/Alert Remove Duplicates

Advanced Search Basic Search Find Citation More Fields Search Tools

Keyword Author Title Journal

Enter **Keyword** or phrase (use "\$" for truncation):

SEARCH

Limit search results

Limits More Limits

- Abstracts
- Full Text
- Animals
- Book
- Microorganisms
- Article
- English Language
- Review Articles
- Human

Results

[Biological Abstracts 1985 to Current \(ALL\)](#) (770 records)
[Biological Abstracts/RRM 1989 to Current \(ALL\)](#) (97 records)

Results Manager Customize Display Reset Display

Results of your search: ((waterbird\$ or water bird\$) and (environment\$ or pollut\$)).mp. [mp=ab, bc, bo, bt, cb, cc, ds, ge, gn, mc, mi, mq, or, ps, sq, st, ti, tm, tn]

Viewing 1-10 of 867 Results [Next Result](#)

Go to #: **GO**

1. *Biological Abstracts 1985 to Current (ALL)* VanderWerf, Eric A. [Author, Reprint Author; E-mail: eric@pacificimconservation.org]; Wood, Ken R. [Author]; Swenson, Chris [Author]; LeGrande, Maya [Author]; Eijzenga, Heather [Author]; Walker, Ronald L. [Author]. **Avifauna of Lehua Islet, Hawaii: Conservation value and management needs** [Article] *Pacific Science*. 61(1). JAN 2007. 39-52.

- Abstract
- Complete Reference
- Library Holdings
- E-Journal Search

Results list

[Find Similar](#) | [Find Citing Articles](#)

6.5 CrossFire

6.5.1 About CrossFire

Item	Information
Subject	Chemistry, Physics, Material science, Medicine, Biology, and more.
Creator	MDL Information Systems
Type	Substance / Reaction / Literature information appeared in Article, Proceedings, Patent, Thesis, and more.
Source & Coverage	“Beilstein” Contents of printed matter (1771- 1980) Approximately 175 academic journals (Organic chemistry) 1981-
	“Gmelin” Contents of printed matter (1772- 1974) Approximately 62 academic journals (Inorganic chemistry) 1975-
Update	Quarterly
URL	Specific browser is required. Download from supplier’s website is available.
How to use	Registration required as laboratory. Pay for use. You can use freely this database at the computer in libraries (Kita-Aobayama, Engineering, Agricultural, and Institute for Materials Research libraries only).
more	Further info. http://www.library.tohoku.ac.jp/dbsi/crossfire/

6.5.2 Feature

- Consist of data from traditional reference books going back over 200 years.
- There are many links from one article to another, you can get a wide range of information about compounds by using this.
- Searchable by chemical structure, reaction and more.

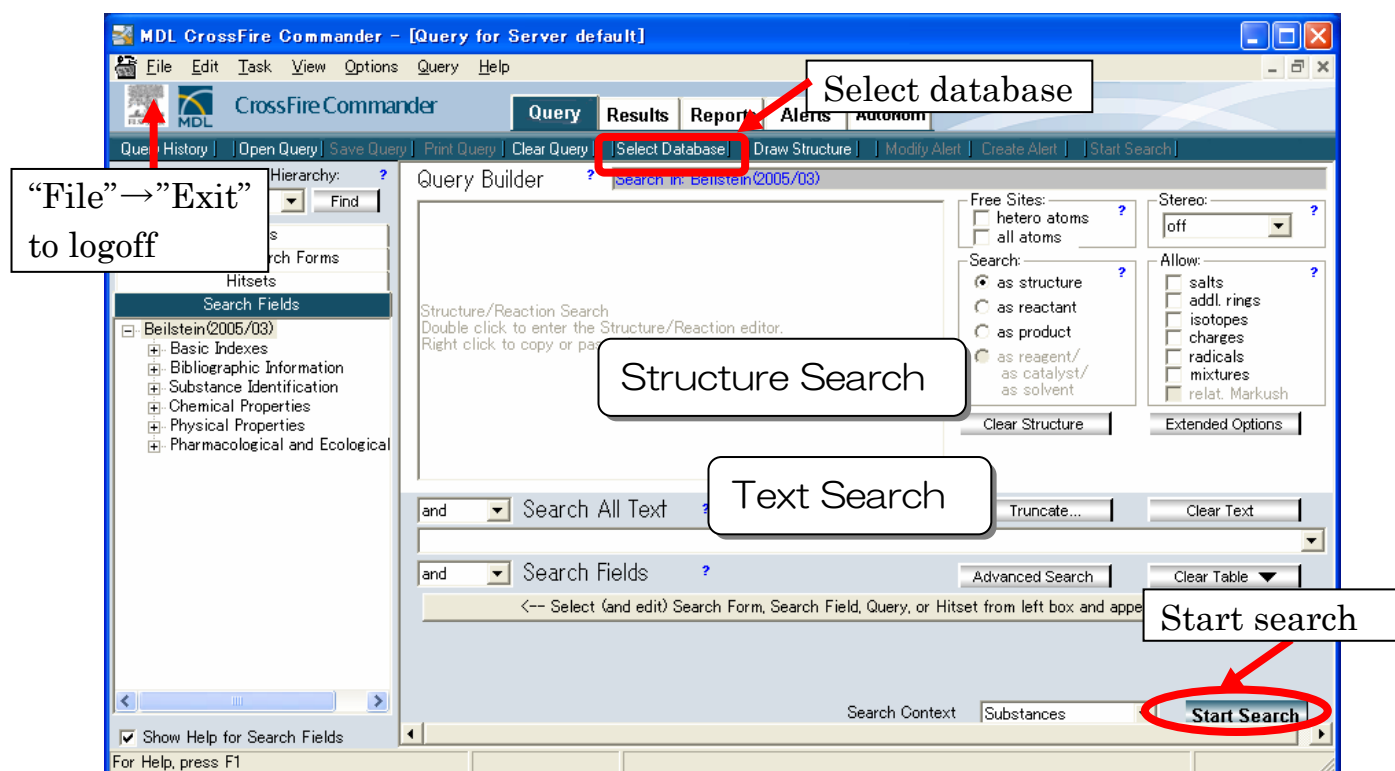
1) Connect and select database

When you start “CrossFire Commander” (specific browser of CrossFire) , you will see the search screen as below.

Click the “CrossFire”button to connect the database. After that, you can select the database by check the box(use two databases simultaneously is available).

2) Select kind of search and it's operation

There are “Text Search”, “Structure Search”, or these can be combined. Click “Start Search” to submit.



6.5.3 Search for Compounds

e.g. 1 Search for the “Boiling point” of benzocaine used as anesthetic (narcotic, opiate) from “Beilstein” and “Gmelin”.

1) Enter Keyword

Enter keyword to “Search All Text” box. You can search by molecular formula, CAS register number, etc. Click “Start Search” after entering keyword, “ (anesthetic OR narcotic OR opiate) AND benzocaine”.

Search All Text ? [Truncate...] [Clear Text]
(anesthetic OR narcotic OR opiate) AND benzocaine
Search Fields ? [Advanced Search] [Clear Table ▼]

2) Choose context and submit search

You can see bar graph of each context. At this time, choose all words and check “Substances”, then click “Start Search”.

If you want to except some keywords, exclude the check.

Search Word in Context...	SUBSTANCES Substance Properties BISUB	REACTIONS Reaction Data BIREA	CITATIONS [AU, TI, AB, ...] BICIT
<input checked="" type="checkbox"/> (anesthetic* or narcotic* or opiate*)			
<input checked="" type="checkbox"/> benzocaine*			

Select Context: Substances Reactions Citations

Beilstein(2005/03) Gmelin(2005/03)

Please note:

- Different contexts may give different hits. Search more than 1 context to be comprehensive! Results from different databases and contexts are displayed in different windows.
- Words from bibliographic data (Author, Patent Assignee, Journal Name, Patent Number, ...) are NOT searchable in SUBSTANCES or REACTIONS. Please uncheck words in the left column and use DATA SEARCH for these words to get results.
- Substance property data and reaction data are not searchable.

Search Plan

The following searches will be conducted in database(s) Beilstein(2005/03) and Gmelin(2005/03) (2 search(es)):

Beilstein(2005/03) (Substances)	(anesthetic* or narcotic* or opiate*) AND benzocaine*
Gmelin(2005/03) (Substances)	(anesthetic* or narcotic* or opiate*) AND benzocaine*

Hitsets will be given in separate windows!

Bar graph of hits will appear (Beilstein and Gmelin)

Search plan according to selection of left window.

[Start Search]

3) List of results group

“Hits” shows the number of results, “Database” shows database name, and “Query” shows your search query.

Click “View” button to display the result group of “Beilstein”.

Your recent search(es) had the following results: Hitset Family (1 of 1): Previous Next

No.	Select	Hitset	Hits	Context	Database	Query	Options
1	<input checked="" type="checkbox"/>	Q01	1	Substances	Beilstein(2005/03)	((BISUB=anesthetic* or BIPHARM=anesthetic*) or (BISUB=narcotic* or BIPHARM=narcotic*) or (BISUB=opiate* or BIPHARM=opiate*)) and (BISUB=benzocaine* or BIPHARM=benzocaine*)	
2	<input type="checkbox"/>		0	Substances	Gmelin(2005/03)	(BISUB=anesthetic* or BISUB=narcotic* or BISUB=opiate*) and BISUB=benzocaine*	

Cancel To Report View

4) Display Hits

Search results are displayed in right window. Double click it to display in detail. In left window, you can see search history. Click one to switch the display any time.

MDL CrossFire Commander - [Beilstein(2005/03):Q01 Substance 1 of 1]

File Edit Task View Options Window Help

CrossFire Commander Query Results Reports Alerts AutoHom Substances: hit 1 of 1

History Print Hits View all Show Grid List Get Sort Hits Copy Export Hits Copy to Report

Beilstein(2005/03)
Saved Hitsets/Alert Hitsets
Session Hitsets
Q: Q01 (1 Substances)
Gmelin(2005/03)

Hit 1 BRN=638434 C₉H₁₁NO₂;Bio(43)

CCCCOC(=O)c1ccc(N)cc1

Search history

Double click to display in detail.

For Help, press F1 idle GRID Substances

5) Display Hits in detail

You can see detailed information about the compounds. To see each topics, click the code in “Field Availability List”.

In addition, there are many links to view other compounds, reactions, related literature and so on.

The screenshot shows the CrossFire Commander interface with three main sections:

- Substance Identification:** Displays detailed information for a compound. A red circle highlights the 'List' button in the top toolbar, with an arrow pointing to a callout box that says "Return to search screen".
- Field Availability List 1-10 of 45:** A table listing various data fields and their occurrence counts. A red circle highlights the 'BP' code, with an arrow pointing to a callout box that says "To see Boiling point, click 'BP' code.".
- Boiling Point 1-3:** A table showing boiling point values, pressures, and references. A red arrow points from the 'BP' code in the Field Availability List to this section.

Annotations on the right side of the screenshot include:

- Save, Print, Export, etc.:** A box pointing to the top toolbar icons.
- Substance Identification ("Substance"):** A box listing:
 - CAS registry number
 - Chemical name
 - Molecular formula and more.
- List of data:** A box listing:
 - Pharmacology data
 - Ecological data
 - Reaction data
 - Substance data and more.
- Boiling point data:** A box listing:
 - Value
 - References

: Jump to "Substance"

: Check for save or print

: Save or export

6.6 Other databases

<http://www.library.tohoku.ac.jp/dbsi/index-e.html>

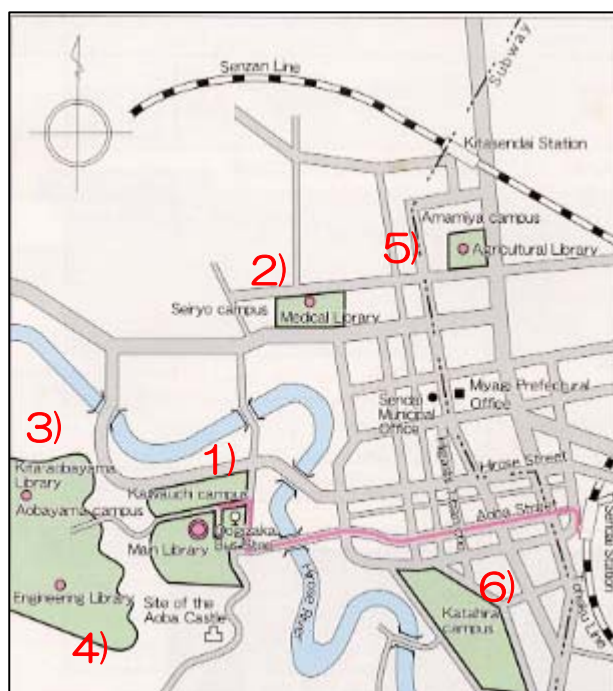
General	EBSCO host
	MAGAZINEPLUS
Humanities and Social Sciences	Periodicals Index Online
	Web OYA-bunko
	ICPSR Direct
	MLA international bibliography
	SPORTDiscus
Science and Engineering	INSPEC (Registration required (charged))
	INIS
	MathSciNet
Newspapers	Asahi Shimbun Digital News Archive
	Kahoku Shimpou Database
	The Times Digital Archive
Reference tools	JapanKnowledge

As of 31 Mar. 2007

Appendix 1 Campus map

Tohoku University consists of the following 6 campuses. There are one or more libraries on each campus.

Campus	Library in the campus	Contact
1) Kawauchi	Main Library	022-795-5943
2) Seiryō	Medical Library(branch)	022-717-7978
3) Kita-Aobayama	Kita-Aobayama Library(branch)	022-795-6372
4) Minami-Aobayama	Engineering Library(branch)	022-795-5894
5) Amamita	Agricultural Library(branch)	022-717-8629
6) Katahira	Libraries in each institute	



For more information about libraries, ask at the library counter or see our website at this address:

<http://www.library.tohoku.ac.jp/guide/guide-e.html>

Appendix 2 Library services


1) Library hours

Library	Mon. · Fri.	Sat., Sun. & holidays	
Main Library	9:00 – 21:00 (17:00)	10:00 – 17:00	Different service hours by floor / building or term of examination.
Main Library(Annex)	9:00 – 17:00	—	
Medical library	9:00 – 20:00 (17:00)	—	24 hours / 7 days available for researcher (ask each library).
Kita-Aobayama library	9:00 – 20:00 (17:00)	—	
Engineering library	9:00 – 20:00 (17:00)	—	
Agricultural library	9:00 – 20:00 (17:00)	—	

- () : Closing time during vacations(summer, winter, spring).
- Check each library's website about irregular closing times.

2) Library card

You need one of the following cards when you enter library or wish to borrow books.

University Student card	University staff card	Other
 <p>学 生 証 学籍番号 8 D S 0 0 0 所属 大学院情報科学研究科 平成 8 年 4 月 1 日通 学 氏 名 〇〇 誕生日 1 9 9 9 年 9 月 9 日 所在地青森県片平二丁目1番1号 東 北 大 学 院 平成 8 年 4 月 1 日発行</p>	 <p>身分証明書 下記の者は本学職員であることを証明する。 氏 名 〇〇 太郎 所属 工学部 昭和 1 年 1 月 1 日 〒019-8577 青森県青森市片平二丁目1番1号 東 北 大 学 総 務 課 平成 8 年 4 月 1 日発行</p>	 <p>東北大学附属図書館 利用証 住所 青森県青森市片平二丁目1番1号 所属 工学部 氏 名 東北 花子 学籍 〇〇〇〇〇〇〇〇 発行日 1 9 9 6 年 1 2 月 2 4 日</p> <p>Issued by library</p>

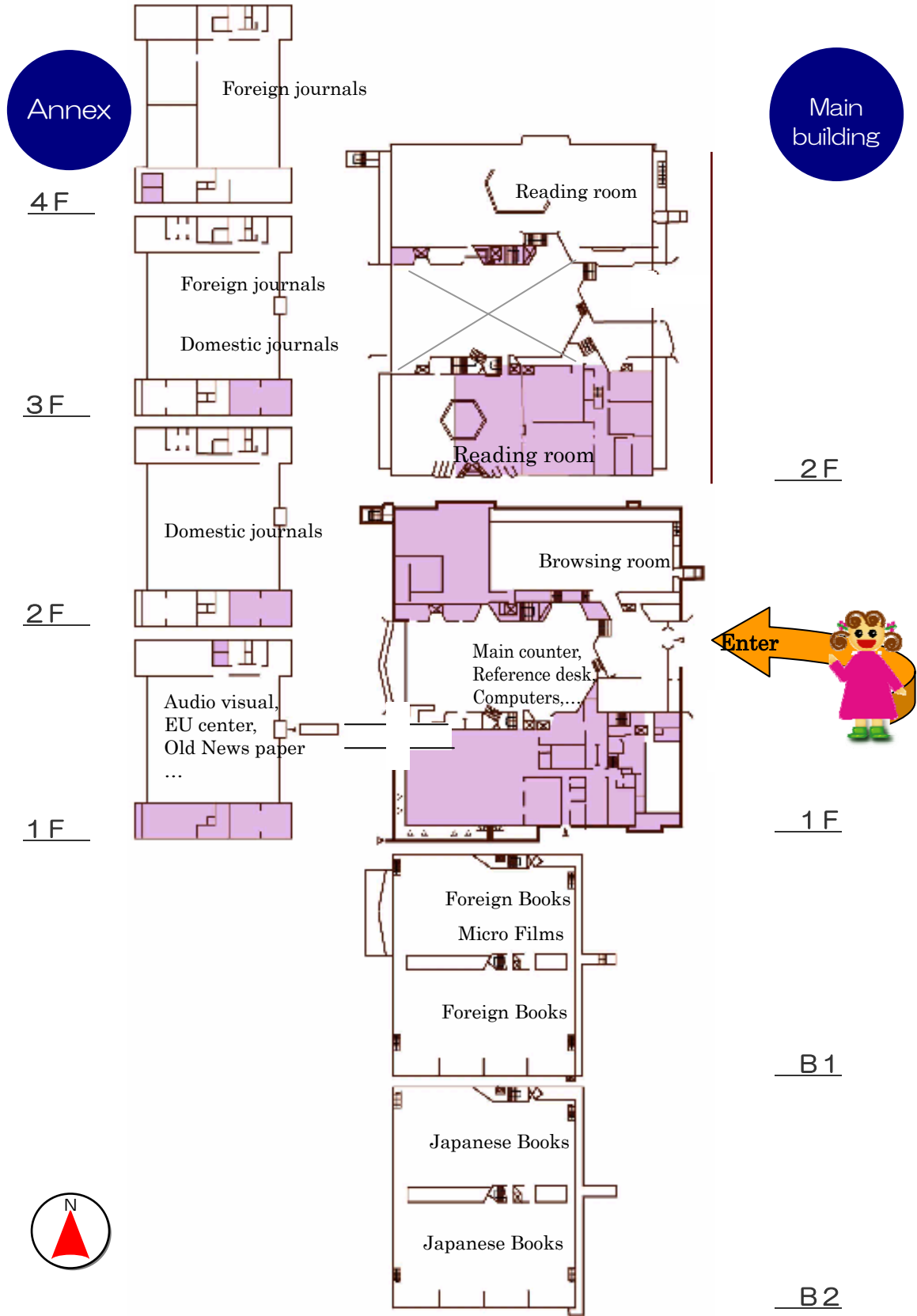
- The Student / Staff ID card is issued at each faculty office.
- The Yellow Library card is issued at the Library for irregular students, guest researchers, trainees and so on. Ask the library of your faculty.

3) Contact library

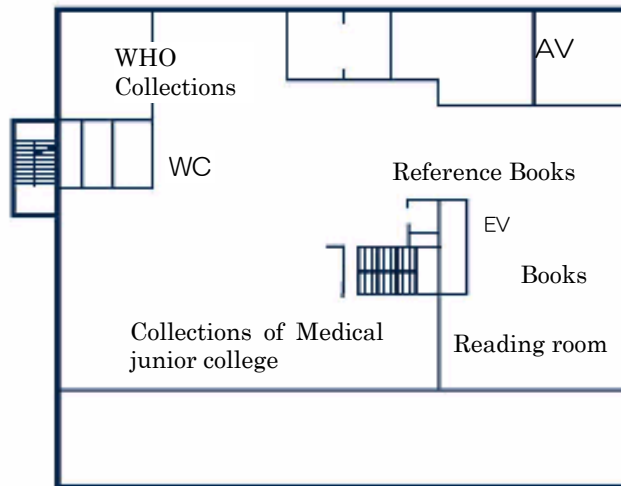
Faculty to which you belong	Contact library
Graduate School of Arts and Letters / Faculty of Arts and Letters Graduate School of Education / Faculty of Education Graduate School of Educational Informatics Education Division / Research Division Graduate School of Law / School of Law Graduate School of Economics and Management / Faculty of Economics Graduate School of International Cultural Studies Other organization in Kawauchi campus	Main Library
Graduate School of Medicine / School of Medicine Graduate School of Dentistry / School of Dentistry Institute of Development, Aging and cancer	Medical Library
Graduate School of Science / Faculty of Science Graduate School of Pharmaceutical Sciences / Faculty of Pharmaceutical Sciences	Kita-Aobayama Library
Graduate School of Engineering / School of Engineering Graduate School of Information sciences Graduate School of Environmental Studies	Engineering Library
Graduate School of Agricultural Science / Faculty of Agriculture	Agricultural Library
Graduate school of life sciences (Katahira campus)	IGE Library
Institutes	Institute Library

- For more information, ask the nearest library.

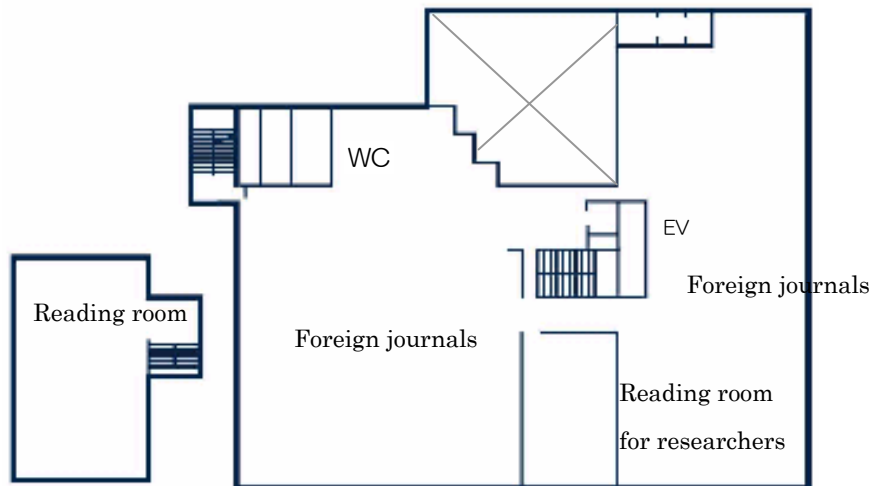
Appendix 3 Floor map 1) Main Library



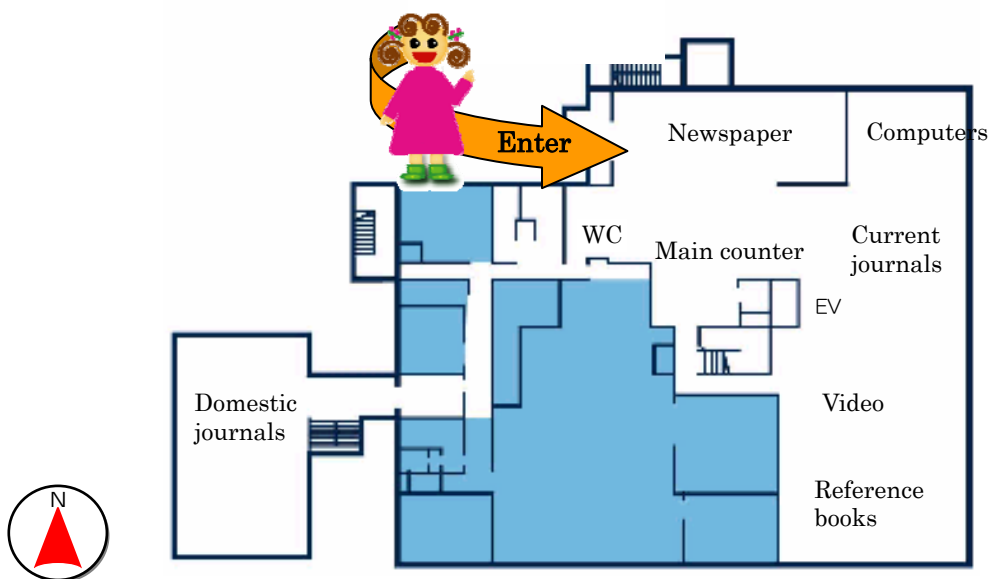
2) Medical Library



3F

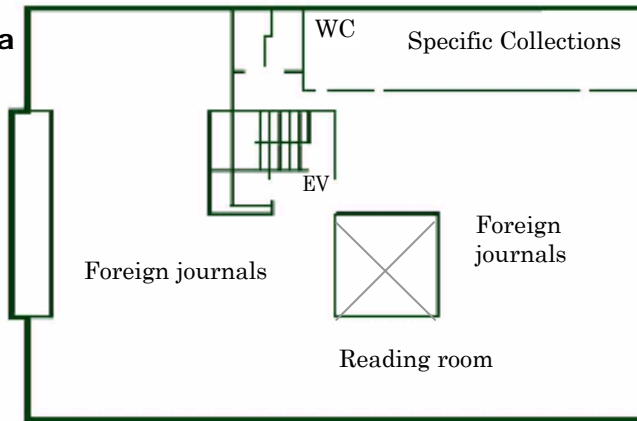


2F

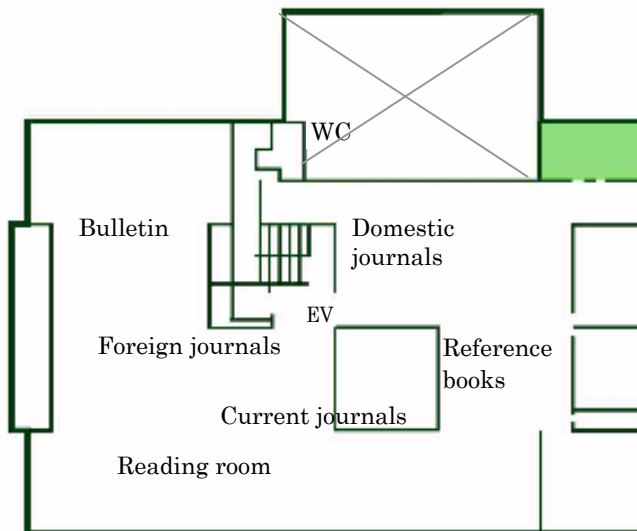


1F

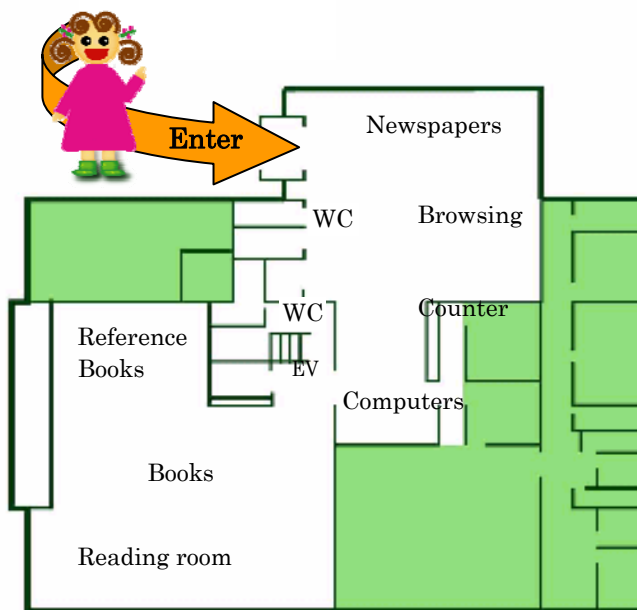
3) Kita-Aobayama
Library



3F



2F

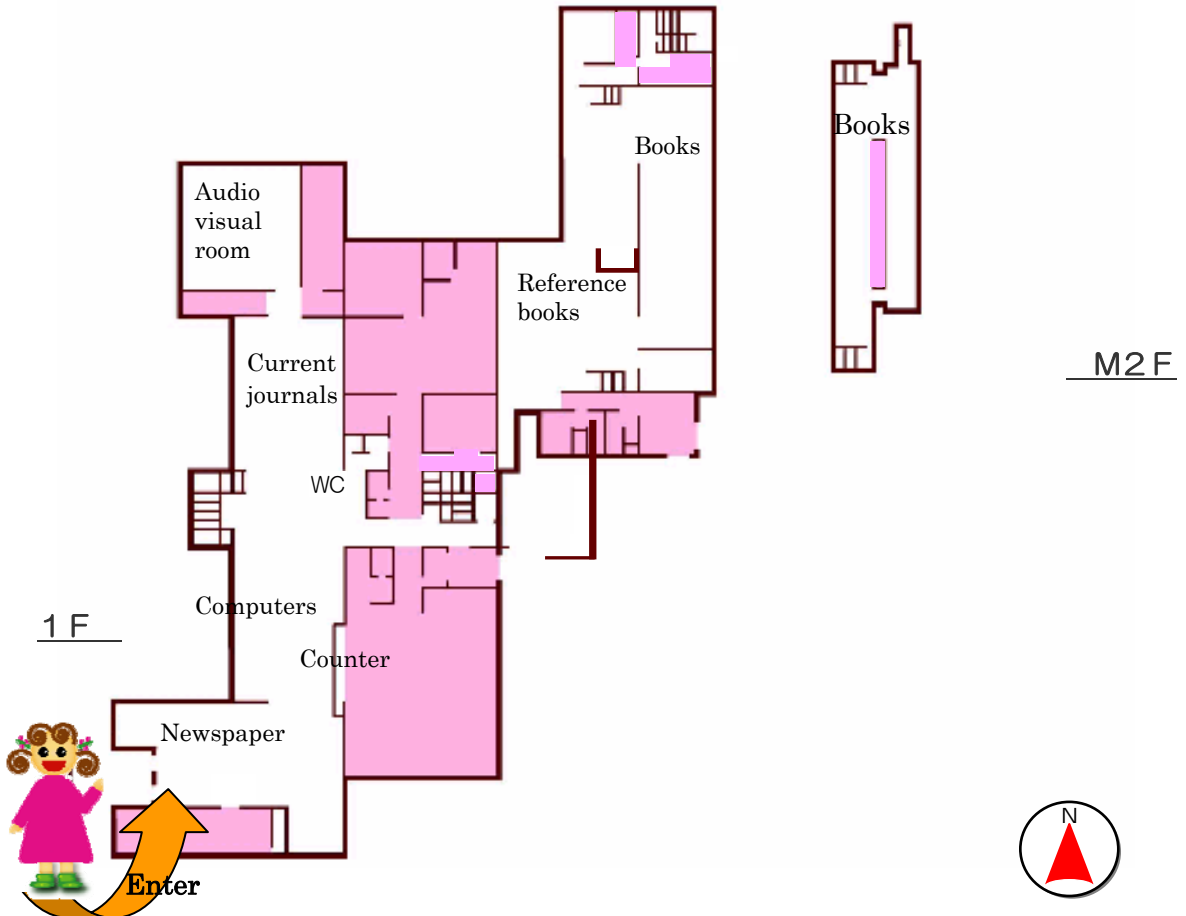
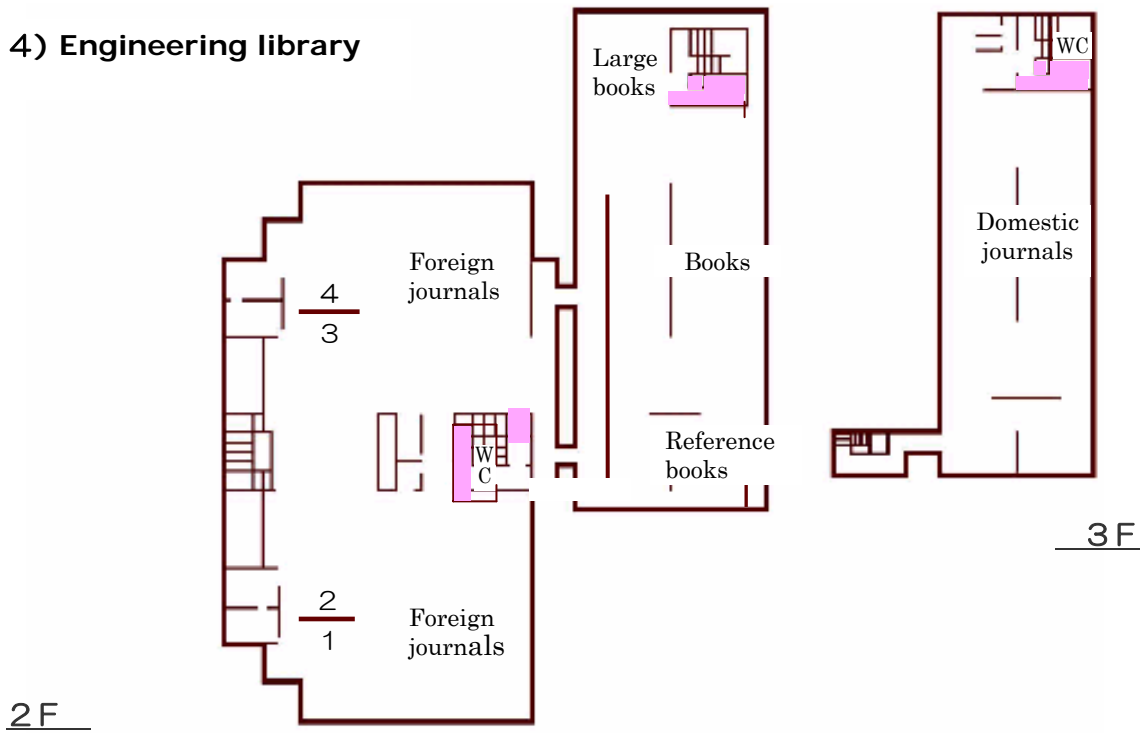


1F

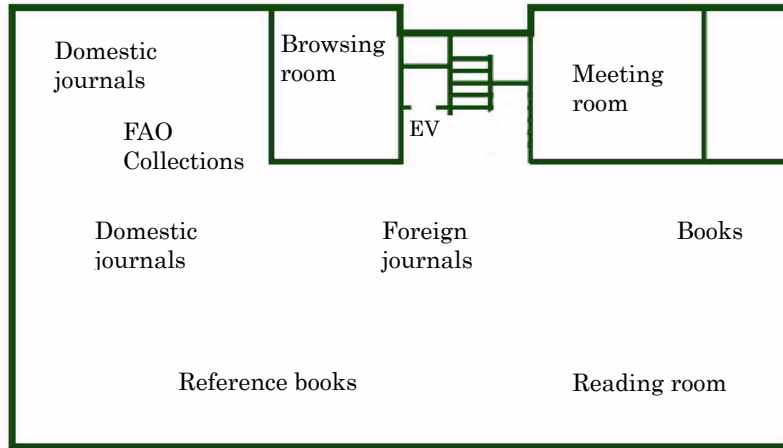


0

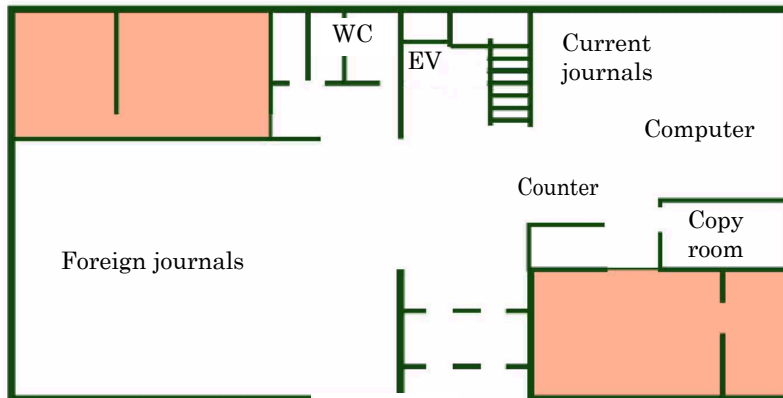
4) Engineering library



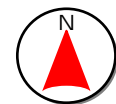
5) Agricultural library



2 F



1 F



Contact Information

Tohoku University Library
Information Planning Section



TEL: 022-795-5925

E-mail: denshi@library.tohoku.ac.jp

URL: <http://www.library.tohoku.ac.jp/>
