

Take a break, take a walk!

## **BOTANICAL GARDENS**

Have you ever been to the “Botanical Gardens” ? This pristine forest is open to the public. As it remains untouched forest, it is designated as a Natural Monument “AOBAYAMA”. It’s too spacious to feel crowded by other people’s presence, and gives you an optimum time for thinking reflectively in the garden. Tohoku University’s ID Holders are admitted free! Open Vernal Equinox Day to November 30. CLOSED on MONDAY.



<http://www.biology.tohoku.ac.jp/garden/facilities/hall/hall.html>

## **Tohoku University Museum: Museum of Natural History**

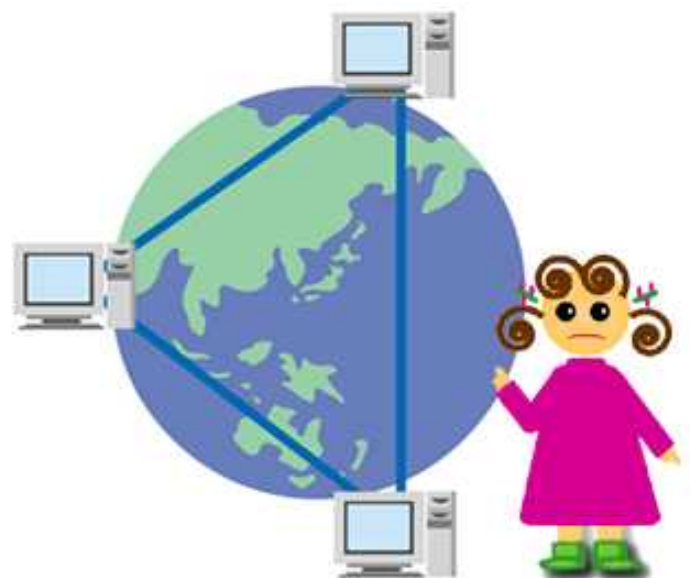
The round building at the top of Aobayama-Hill is the “Tohoku University Museum (Museum of Natural History)”. There are exhibition of ammonites and dinosaur fossils, and mineral ore samples. They also hold collections of “Tibetan Buddhism”, “Japanese archeology”, “history of Metals” and “herbarium specimens”.

Don’t you think about “Evolution of Earth and Life” outside of your laboratory? Tohoku University’s ID Holders are admitted free! CLOSED on MONDAY.



<http://www.museum.tohoku.ac.jp/index.html>

## Part II Information Research in Natural Science -E-Journal and Database



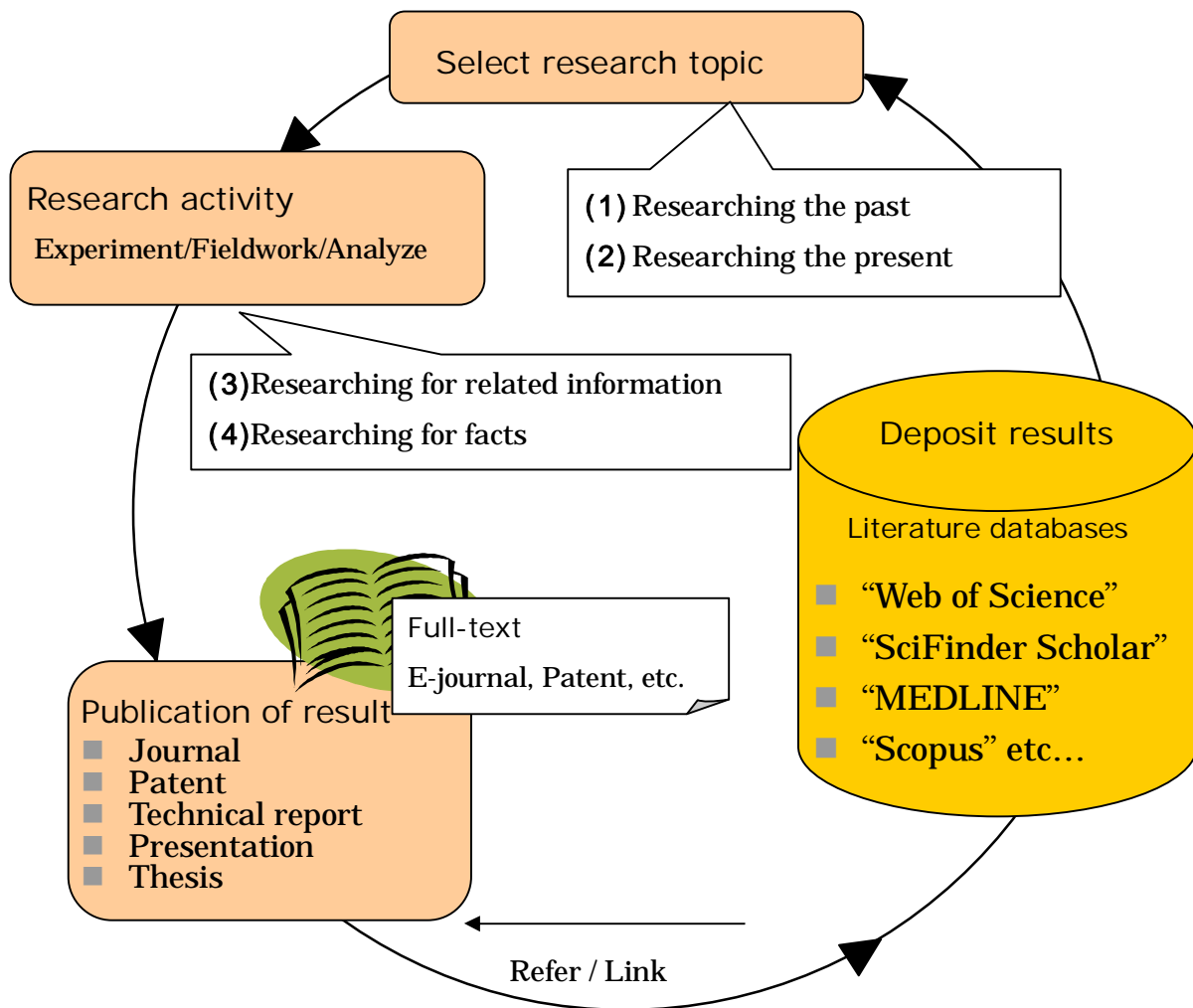


## 1 Flow of Research Activity and Information Research

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 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 by browsing current journals or reviews.

When you have chosen a theme, it's necessary to search for results about what has been written on the topic in the past, and gather as much information as possible.

(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.

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

(4) Researching for Facts

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.

## 2 Tohoku University "Online Catalog(OPAC)"

Items	Information
Creator	Tohoku University Library
Coverage	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	Using via "MyLibrary", you will find links to other services (university members only) . E-journals linked from OPAC are available from computers inside the campus.

### 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 elements:

- Search Type:** 'Any (Keyword)' dropdown menu.
- Search Scope:** 'Inside the Univ.' (checked) and 'Outside the Univ. (Union Catalog)' (unchecked).
- The object of reference:** 'Books', 'Japanese books', 'Foreign books', 'Journals', 'Japanese journals', 'Foreign journals' (all unchecked).
- Location:** A dropdown menu showing '(all)', 'Kawauchi Campus', '-MainLIB', '-AL', and '-EDCU'.
- Search Criteria:** 'Author', 'Publisher', 'Year Published', 'Country', 'Language', 'Subject', 'Data type', and 'Sort' (set to 'Title').
- Display:** '20 item per page'.
- Buttons:** 'Search', 'Clear', 'Keyboard', 'Basic Search', and 'HELP'.

A yellow callout box labeled 'Basic Search' with a red arrow points to the 'Basic Search' button, which is circled in red.

## 2.1 How to Input Keywords

### 2.1.1 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.

### 2.1.2 Chinese letters, Em-/ En-size, etc.

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

e.g. If you do not know “漱石”, input “そうせき” or “ソウセキ” or “soseki”.

- 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”

### 2.1.3 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.

### 2.1.4 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.

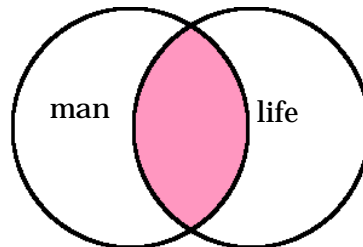




## 2.1.5 Logical Operation("Advanced Search")

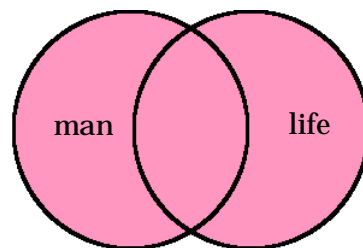
### (1) AND Search

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



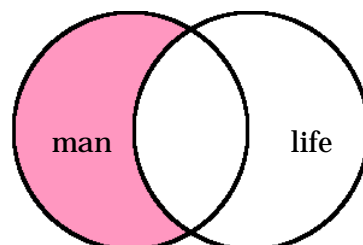
### (2) OR Search

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 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

## 2.2 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: [QC123.2](#)  
 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		020129189	
	LIB-Stacks	MC71/22	01810617501				
	KITALIB-Open	MC71/137	02021000045			020129693	
	KITALIB-Open	MC71/137	03860045542				
	SCI-ParticleTheory	MC71	02980001813			020129189	
	ENGLIB	423.1/23	03900026526			020129189	
	ENG-AppliedParticleBeam	423.1/23	03930021067	Missing		020129189	

Back

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- 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 library staff, Barcode Number (ID number) is helpful.

## 2.3 Detailed Information on Journals

### 2.3.1 Display of Locations

e.g. “American journal of botany”

The screenshot shows a library catalog entry for the 'American journal of botany'. The page is titled 'American journal of botany / Botanical Society of America'. It lists various details such as publisher (Lancaster), size (v. : ill. ; 28 cm), and frequency (Monthly). A table of volumes is displayed, with columns for 'Volumes (All Volumes)', 'Year', 'Location', 'Call No.', and 'Comment'. The table contains four rows of data. A red circle highlights the 'Volumes (All Volumes)' column, and a red arrow points from a box labeled 'Link to detailed location of non-bindings' to the 'AGRLIB' link in the 'Current issues' section. Another red arrow points from a box labeled 'Link to detailed location of bindings of' to the 'AGRLIB' link in the 'Current issues' section. A red bracket on the right side of the page groups the bibliographic information under the label 'Information on bibliographies'. Another red bracket on the right side of the page groups the 'Location' column of the table under the label 'Information on location'. The 'Current issues' section has a table with columns 'Current issues', 'Back number', and 'Call number', and a row with the value 'AGRLIB' under 'Current issues'.

Information on bibliographies

Information on location

Volumes (All Volumes)	Year	Location	Call No.	Comment
38-57,60-69	1951-1982	<a href="#">FARM</a>		
28(1-4),45-74,75(1-3,5-12),76-85	1941-1998	<a href="#">GSLs-LibKatahira(NC)</a>		
1-94	1914-2007	<a href="#">KITALIB</a>		4115-1(3F開架)
16-95+	1929-2008	<a href="#">AGRLIB</a>		

Current issues | Back number | Call number

<a href="#">AGRLIB</a>	AGRLIB	
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Link to detailed location of non-bindings

Link to detailed location of bindings of

• Items and contained information

Items	Information
Volumes	<ul style="list-style-type: none"> <li>• which volumes are held</li> <li>e.g. “1,21-41” means “vol.1 and vol.21-41 are held”</li> <li>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.</li> <li>• Volumes and issues is a link to the detailed information on where the bindings are.</li> <li>• “All volumes” is a link to the detailed information on the all of the bindings in our university.</li> </ul>
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"> <li>• Where the non-bindings are located</li> </ul> <p>This is the link to the detailed information on where the non-bindings are.</p>
Back Number	Where the bindings are.

## 2.3.2 Detailed Location of Bindings

https://www.library.tohoku.ac.jp - Tohoku Univ. Library Online Catalog - Microsoft Internet Explorer

**American journal of botany / Botanical Society of America**

Volumes(year) Vol. 1 (Jan. 1914)-  
 Publisher Lancaster  
 Size v. : ill. ; 28 cm  
 Other titles KT:American journal of botany  
 AB:Am. j. bot  
 Notes Frequency: Monthly  
 The Official publication of the Botanical Society of America, Inc.  
 Has supplement: Membership directory and handbook, <1990->  
 Authors [Botanical Society of America](#)  
 Subjects [LCSH Botany -- Periodicals](#)  
 Language English  
 Codes CODE=30011866 ISSN=00029122 NCID=AA0004840X  
 URL1 [電子ジャーナル情報 \[学内限定\]](#)  
 URL2 [E-Journal Information \[on-campus only\]](#)  
 Webcat Plus

Back Top Loan/C

Volumes	Year	Location	Call No.	Barcode No.	Condition	Comment
94(9-12)	2007	<a href="#">AGRLIB-Shumitsu1F</a>		04085000261		
94(5-8)	2007	<a href="#">AGRLIB-Shumitsu1F</a>		04085000253		
94(1-4)	2007	<a href="#">AGRLIB-Shumitsu1F</a>		04085000245		
93(9-12)	2006	<a href="#">AGRLIB-Shumitsu1F</a>		04075002813		
93(5-8)	2006	<a href="#">AGRLIB-Shumitsu1F</a>		04065004929		
93(1-4)	2006	<a href="#">AGRLIB-Shumitsu1F</a>		04065004911		
92(9-12)	2005	<a href="#">AGRLIB</a>		04065000273		
92(5-8)	2005	<a href="#">AGRLIB</a>		04065000265		

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You can check:

- Whether the volume you want is held or not
- Where it is located
- Its status (sometimes “on loan” or “missing”)

## 2.3.3 Detailed Location of Non-bindings

https://www.library.tohoku.ac.jp - Tohoku Univ. Library Online Catalog - Microsoft Internet Explorer

**American journal of botany / Botanical Society of America**

Volumes(year) Vol. 1 (Jan. 1914)-  
 Publisher Lancaster  
 Size v. : ill. ; 28 cm  
 Other titles KT:American journal of botany  
 AB:Am. j. bot  
 Notes Frequency: Monthly  
 The Official publication of the Botanical Society of America, Inc.  
 Has supplement: Membership directory and handbook, <1990->  
 Authors [Botanical Society of America](#)  
 Subjects [LCSH Botany -- Periodicals](#)  
 Language English  
 Codes CODE=30011866 ISSN=00029122 NCID=AA0004840X  
 URL1 [電子ジャーナル情報 \[学内限定\]](#)  
 URL2 [E-Journal Information \[on-campus only\]](#)  
 Webcat Plus

Back Top Loan/ Copy request

Current issues		Back number	Call number	Status	Binding
AGRLIB		AGRLIB		継続	○

Vol.	No.	Whole no.	Part	Comment	Published	Check in	Condition	Barcode No.
95	12			Plant science bull 54(4)	2008.12. 1	2009. 1. 6		
95	11				2008.11. 1	2008.11.26		
95	10				2008.10. 1	2008.11. 7		
95	9			Plant science bull 54(3)	2008. 9. 1	2008.10. 2		
95	8				2008. 8. 1	2008. 8.28		
95	7				2008. 7. 1	2008. 7.14		
95	6			Plant science bull 54(2)	2008. 6. 1	2008. 6.17		

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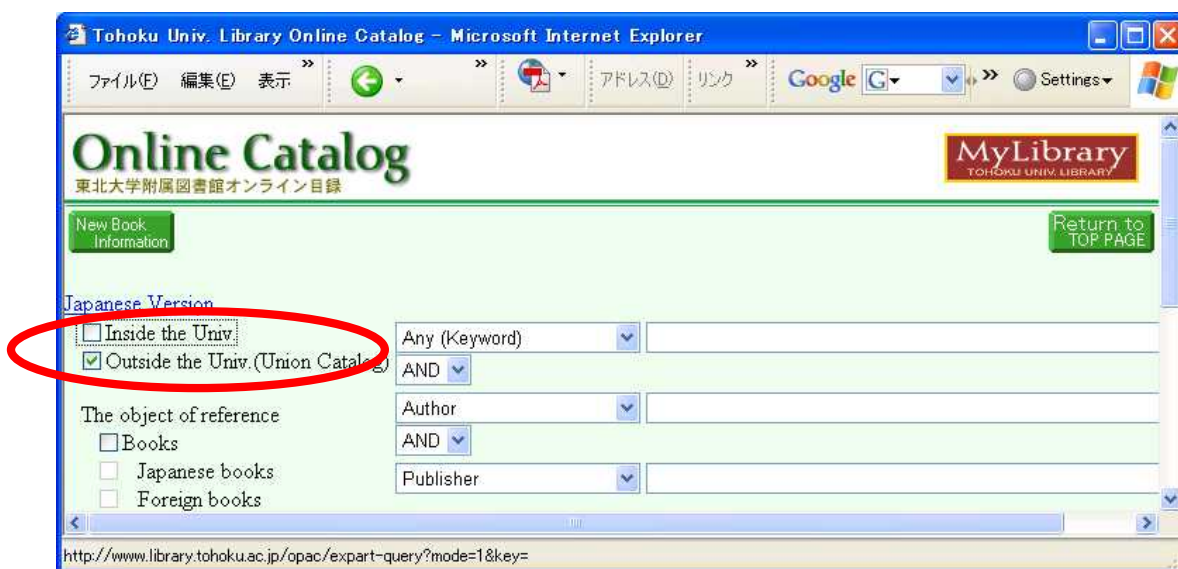
You can confirm:

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

## 2.4 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 on the “Outside the Univ.” search. For example, you cannot 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.”

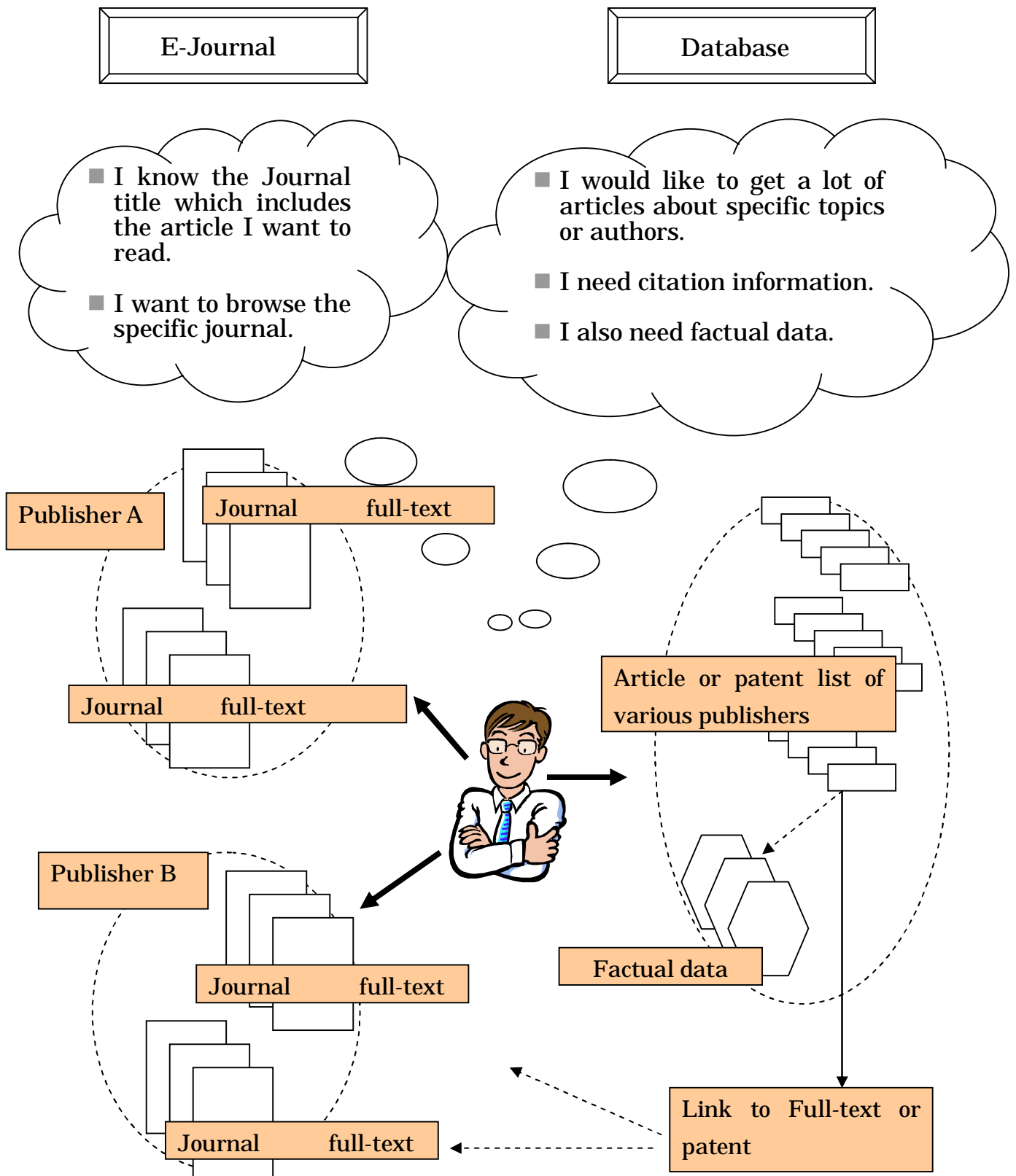


If you click the title of an item in the search result of “Outside the Univ.”, universities that hold the item are displayed in Japanese (sorry!).



### 3 E-journal

#### 3.1 Database or E-journal?





## 3.2 Operation

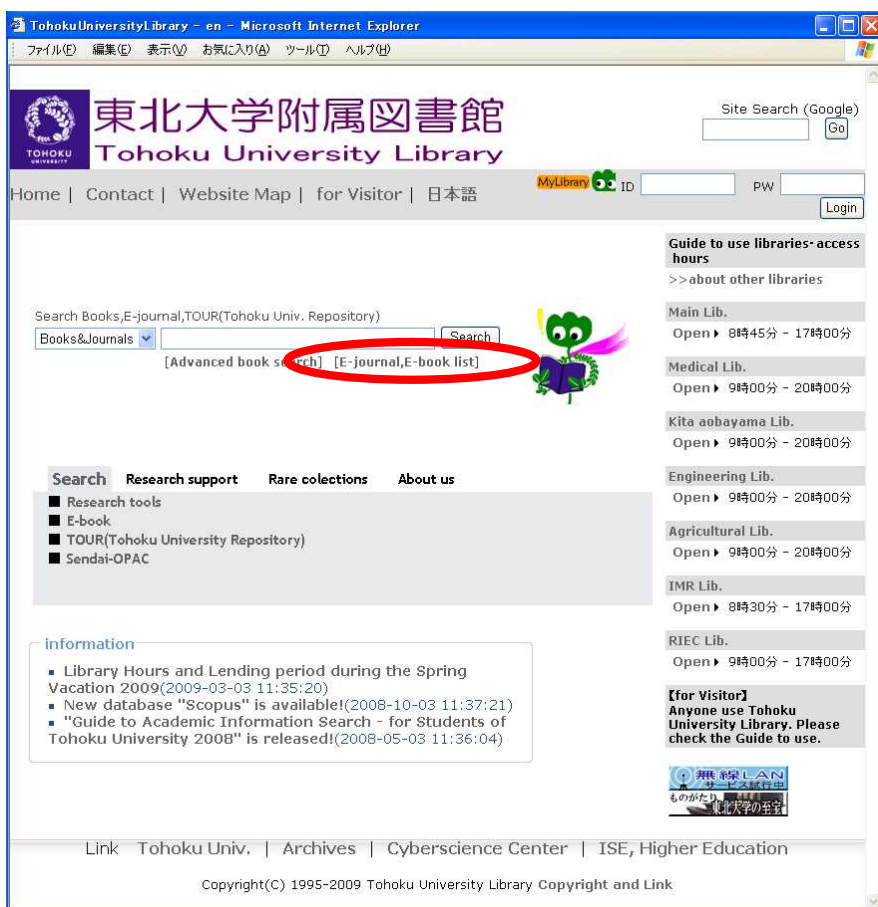
We offer an E-journal list (approximately 8,000 e-journals) on the library website. Choose the journal title that you would like to read, and click it. Academic articles can be downloaded or printed out for research use. There are strict rules governing the use of E-journals. If someone breaks these 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.

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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”

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### 1) Click “E-journal, E-book list” of Library website



Tohoku University Library website

## 2) Electronic Journal List of Tohoku University

東北大学附属図書館 電子ジャーナルリスト

Electronic Journal List

電子ジャーナルトップページ 検索についてのヘルプ ホームページ

■ システムティックダウンロードは禁止されています。

雑誌名(アルファベット順)リスト - BROWSE e-journals by title

0-9,日本語タイトル\* A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

\*頭文字が漢字のタイトルは、コード順で表示されます

雑誌タイトル/ISSNから検索 - SEARCH e-journals by title or ISSN

Title begins with [ ] [検索]

日本語タイトルはTitle begins withかISSN equalsで検索してください

分野別リスト - BROWSE e-journals by subject

-- Please select a subject category -- [検索]

主な導入パッケージ

東北大学附属図書館  
Last Updated on 25 February 2009 © 2000-09 [Serials Solutions, Inc.](#)

You can browse electronic journals by title.

You can search electronic journals by journal title or ISSN.

You can browse electronic journals by subject.

\* **Notice:** Electronic Journal List system is being improved. Screenshots shown here may differ from the latest release.

### 3) Enter the journal title or select the journal from title list

http://ec2xm3xr4v.search.serialssolutions.com - 東北大学附属図書館 電子ジャーナルリスト - Microsoft Inte...

ファイル(F) 編集(E) 表示(V) お気に入り(A) ツール(T) ヘルプ(H) リンク

東北大学附属図書館 電子ジャーナルリスト

Electronic Journal List

電子ジャーナルトップページ 検索についてのヘルプ ホームページ

■ システムティックダウンロードは禁止されています。

雑誌名(アルファベット順)リスト - BROWSE e-journals by title

[0-9](#) [日本語タイトル\\*](#) [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

\*頭文字が漢字のタイトルは、コード順で表示されます

雑誌タイトル/ISSNから検索 - SEARCH e-journals by title or ISSN

Title begins with

日本語タイトルはTitle begins withかISSN equalsで検索してください

分野別リスト - BROWSE e-journals by subject

-- Please select a subject category --

主な導入パッケージ

東北大学附属図書館

Last Updated on 25 February 2009 © 2000-09 [Serials Solutions, Inc.](#)

#### 4) Reviewing your search results

The screenshot shows a web browser window with the URL <http://ec2xm3xr4v.search.serialssolutions.com>. The page title is "東北大学附属図書館 電子ジャーナルリスト" (Tohoku University Library Electronic Journal List). The page content includes a search bar with the text "0-9,日本語タイトル\* A B C D E F G H I J K L M N O P Q R S T U V W X Y Z" and a search button labeled "検索". Below the search bar, it states "1 record retrieved for the search: Title begins with 'ultramicroscopy'". The search result is for "Ultramicroscopy (0304-3991)", with links to "ScienceDirect Physics General Backfile" (from 1975 to 1994) and "ScienceDirect Journals" (from 1975/07/01 to present). A red oval highlights the "ScienceDirect Journals" link, and a red arrow points from a text box below to this link. The text box contains the text "Link to the journal at the publisher site.".

#### The Fair Use Guidelines for Electronic Journals

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.

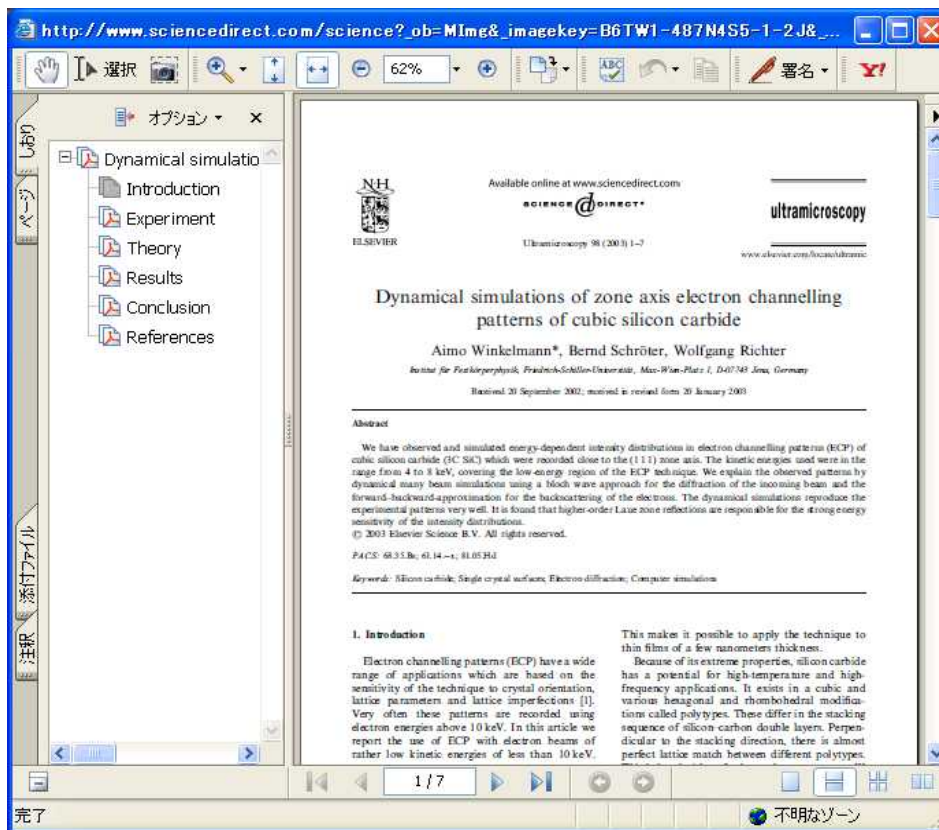
## 5) Select volume and issue

The screenshot shows the ScienceDirect website interface. On the left sidebar, under 'Volumes 91 - 100 (2002 - 2004)', the entry for 'Volume 98, Issue 1' is circled in red. The main content area displays a list of articles for this volume and issue. The first article is 'SPM 2003: Proceedings of the Fifth International Conference on Scanning Probe Microscopy, Sensors and Nanostructures'. Other articles include a Preface, Contents, and two full-text articles: 'IFC (Editorial Board)' and 'Mapping of enzyme activity by detection of enzymatic products during AFM imaging with integrated SECM-AFM probes'. The 'Links' option for the second article is also circled in red.

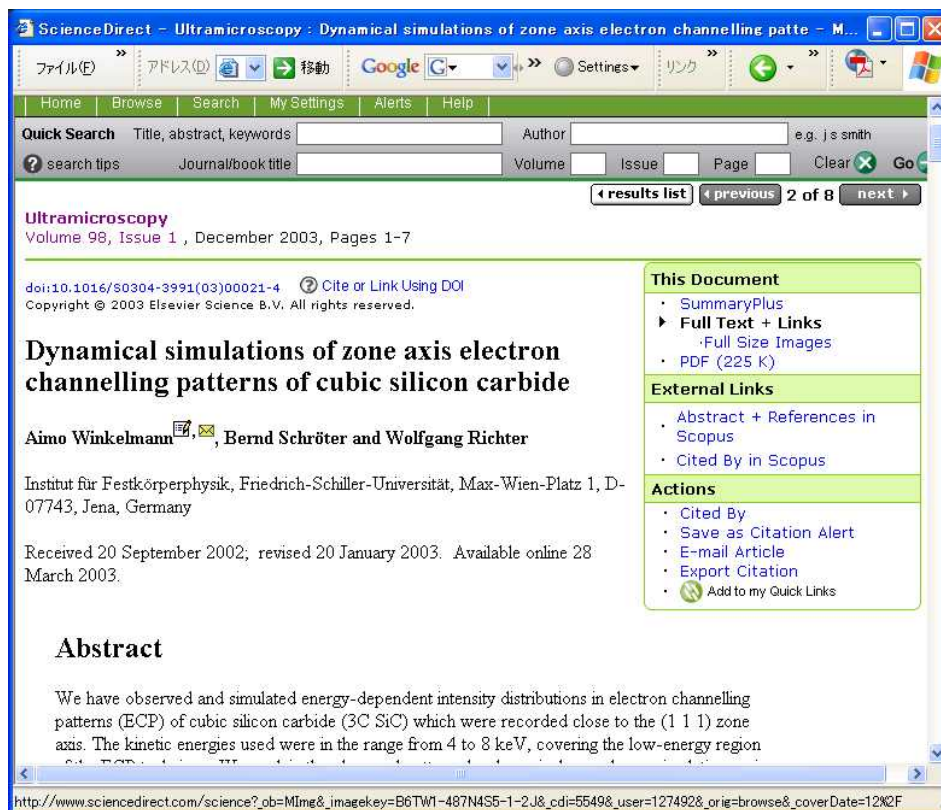
## 6) Click "PDF" to see full-text.

The screenshot shows the ScienceDirect website interface for 'Ultramicroscopy, Volume 98, Issue 1, Pages 1-72 (December 2003)'. The article list shows three items. The second item, 'Dynamical simulations of zone axis electron channelling patterns of cubic silicon carbide', has its 'Links | PDF (225 K)' option circled in red. The URL at the bottom of the browser window is: [http://www.sciencedirect.com/science?\\_ob=PublicationURL&\\_tockey=%23TOC%235549%232003%23999029998%23433666%23FLA%238\\_cd=5549&\\_p](http://www.sciencedirect.com/science?_ob=PublicationURL&_tockey=%23TOC%235549%232003%23999029998%23433666%23FLA%238_cd=5549&_p)

### 7) PDF format full-text

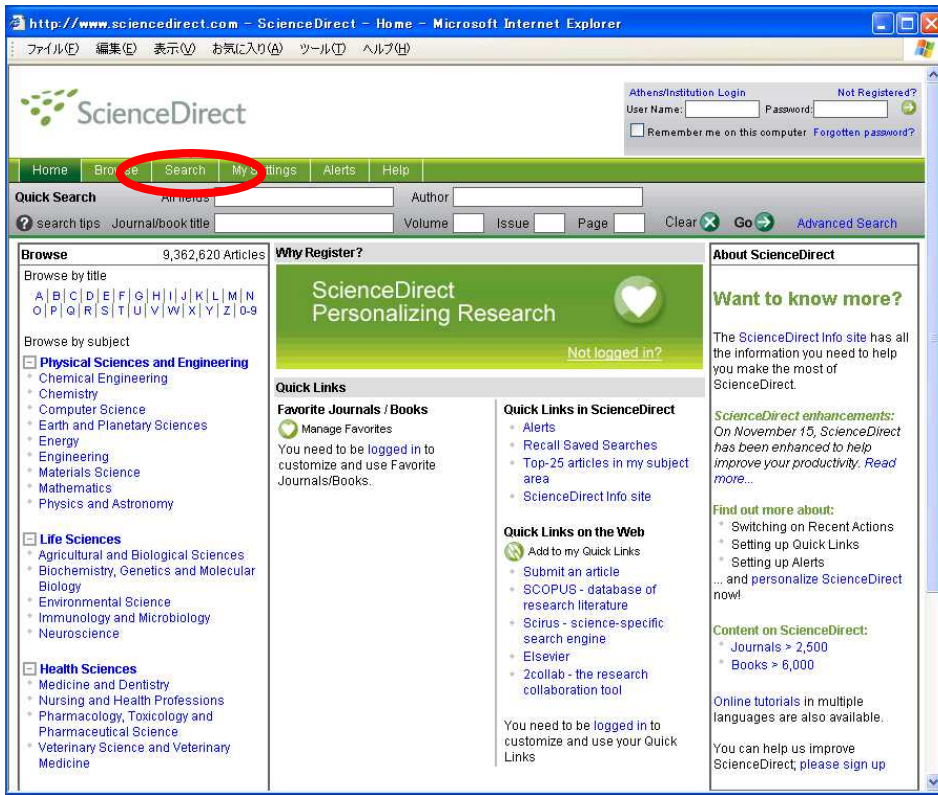


### 8) HTML format full-text

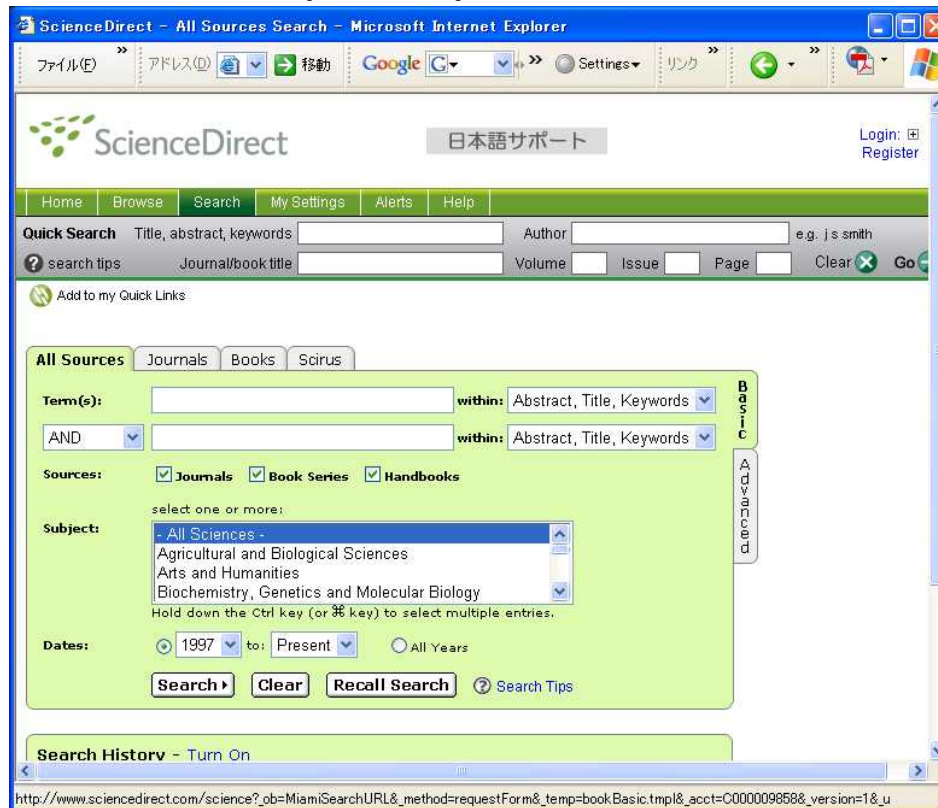


### 3.2.1 Search Articles at Publisher's Websites

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

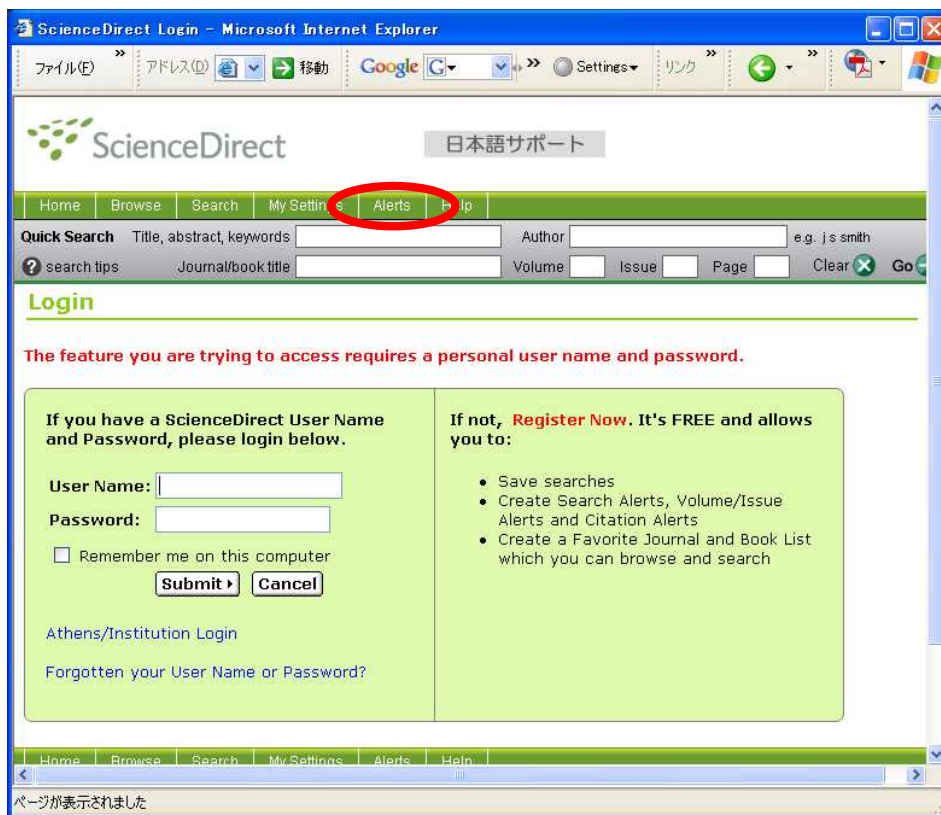


2) You can search by title, keyword, author and so on.



### 3.2.2 Contents Alert

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



2) Set an alert according to your needs.

