How to find information for my thesis?

Marta Sadowska
Agatha Frischmuth

Reference Center – Main Library of Warsaw University of Technology
Today we will tell you about...

Electronic databases containing:
- e-books
- e-journals
- patents
- conference papers
- technical rapport
- standards

List of E-books
List of E-journals
E-books

www.bg.pw.edu.pl

E-databases

Click on “Typ bazy” = Type of database

The red marked databases on the bottom of the chart contain only E-books
E-books
Referex Engineering

It provides you with full-text content from the following collections e.g.

- Chemical
- Petrochemical
- Process
- Civil
- Environmental

Change the database from “Compendex” to “Referex”
1. Browse ⇒ “Chemistry” ⇒

2. Find the book:
“Batteries for Portable Devices”

- Full-text available
- Non-subscribed
E-books

Knovel

- Electrical & Power Engineering – 76 books
- Ceramics & Ceramic Engineering – 40 books
- Chemistry & Chemical Engineering – 208 books

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E-databases with journals

- Chemical Abstracts
- Analytical WebBase – Analytical Abstracts
- Compendex Engineering Village
- CINDAS
- INSPEC
- Wiley InterScience
- ...

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With which database should I start?

Start with bibliographic-abstract databases rather than with full text databases.

- better prepared browsers
- refining results
- thesaurus
- mapping

<table>
<thead>
<tr>
<th>Database</th>
<th>Language</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Abstracts</td>
<td>chemia</td>
<td>chemistry</td>
</tr>
<tr>
<td>Compendex Engineering Village</td>
<td>technika</td>
<td>technics</td>
</tr>
<tr>
<td>SCI - Science Citation Index (ICM)</td>
<td>interdyscyplinarna</td>
<td>interdisciplinary</td>
</tr>
<tr>
<td>lub na serwerze Wydawcy</td>
<td>interdyscyplinarna</td>
<td>interdisciplinary</td>
</tr>
<tr>
<td>CSA Technology Research Database</td>
<td>interdyscyplinarna</td>
<td>interdisciplinary</td>
</tr>
</tbody>
</table>

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Free databases

<table>
<thead>
<tr>
<th>Database</th>
<th>Subject</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAZTECH - Baza danych o zawartości polskich czasopism technicznych</td>
<td>technics</td>
<td>free</td>
</tr>
<tr>
<td>Open J-Gate - [INFO]</td>
<td>interdisciplinary</td>
<td>free</td>
</tr>
<tr>
<td>BIBLIO - Bibliografia prac pracowników PW (ALEPH) - [INFO]</td>
<td>technics</td>
<td>free</td>
</tr>
<tr>
<td>DOKTO - Bibliografia adnotowana prac doktorskich i habilitacyjnych (ALEPH)</td>
<td>technics</td>
<td>free</td>
</tr>
<tr>
<td>ASCE Journals (American Society of Civil Engineers Journals) - [INFO]</td>
<td>civil engineering, environmental engineering, architecture</td>
<td>free</td>
</tr>
<tr>
<td>SYMPONet - baza materiałów konferencyjnych - [INFO]</td>
<td>interdisciplinary</td>
<td>free</td>
</tr>
<tr>
<td>Scirus</td>
<td>chemistry, medicine, biochemistry, computer science, mathematics</td>
<td>free</td>
</tr>
<tr>
<td>Alfabetyczny katalog kartkowy BGPW - [INFO]</td>
<td>interdisciplinary</td>
<td>free</td>
</tr>
<tr>
<td>MagPortal.com</td>
<td>interdisciplinary</td>
<td>free</td>
</tr>
<tr>
<td>DOAJ (Directory of Open Access Journals) - [INFO]</td>
<td>interdisciplinary</td>
<td>free</td>
</tr>
<tr>
<td>KATALOG BIBLIOTEK PW (ALEPH)</td>
<td>interdisciplinary</td>
<td>free</td>
</tr>
<tr>
<td>Elektronische Zeitschriftenbibliothek - [INFO]</td>
<td>interdisciplinary</td>
<td>free</td>
</tr>
<tr>
<td>NTIS - National Technical Information Service</td>
<td>interdisciplinary</td>
<td>free</td>
</tr>
<tr>
<td>WorldSciNet - [INFO]</td>
<td>computer science, mathematics, economy, physics, technics</td>
<td>free</td>
</tr>
<tr>
<td>Taylor and Francis Journals</td>
<td>technics</td>
<td>free</td>
</tr>
<tr>
<td>FindArticles - [INFO]</td>
<td>interdisciplinary</td>
<td>free</td>
</tr>
<tr>
<td>Ingenta - [INFO]</td>
<td>interdisciplinary</td>
<td>free</td>
</tr>
</tbody>
</table>
Compendex Engineering Village
Disciplines

A bibliographic-abstract database with:
- articles
- conference papers
- technical rapports

Concerning
- Chemistry
- Chemical Engineering
- Physics
- Energetics
- Optics
- Mechanics
- Materials Engineering
- Electricity

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Compendex Engineering Village

Example

Li-ion batteries / 2000-2008 year / English language only = 17 000 results

Choose a database:
Compendex – journals
Referex – books

Search in
Subject/Title/Abstract

Write the phrase

Limit your search

Reference Center – Main Library of Warsaw University of Technology
You can easily refine, limit or expand your results... or exclude or include something

Refine results

Author
- Dahn, J. R. (40)
- Won, Chumrong (39)
- He, Xiangning (30)
- Aultsch, D. (29)
- Jiang, Chenglin (28)
- Jaw, T. R. (27)
- Zaghih, K. (27)
- Zhang, S. S. (26)
- Xu, K. (23)
- Ratnakumar, B. V. (23)

Author affiliation
- Department Of Chemistry, Beihang University (40)
- Institute Of Nuclear And New Technology, Tsinghua University (40)
- Jet Propulsion Laboratory, California Institute Of Technology (15)
Chemical Abstracts

- It is the most precious source of bibliographic information concerning chemistry and similar disciplines (biology, agriculture, pharmacology, materials eng., energy, geology, ...)
- Apart from articles abstracts it also contains patent descriptions, conference papers, technical rapports, dissertations, and many more...
- Access to this database → only from WUT campus

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Chemical Abstracts
How to open the database:

Click ‘WEJŚCIE DO BAZY’

Write [Użytkownik] “pwrpowar”

Write [Hasło] “powar” and click “Logon”

Click “Chemical Abstracts”

Chose a year “2000” (you can only search year by year)

Click “Click to continue”

You can search now. It’s sooo easy!
Chemical Abstracts Example

- click “Search”
- write “Tape casting”, in Search Fields select “Document Type”
- write for example “patent”, if you are looking for patents only

You will get 8 documents

To see abstract and bibliographic information click on them

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CINDAS

- This is a database concerning materials (alloys, ceramics, glasses, steel, polymers...)

- Here you will find features of materials

- It has 2 sub databases:
  - CINDAS Thermophysical Properties of Matter Database
  - CINDAS Microelectronic Packaging Materials Database
CINDAS Example

- Click “Specific Databases”
- Chose database
- Click “browse CINDAS”

Select:
- Material Group
- Material Name
- Property

Guide to Discovery
Materials Properties Data Provided by CINDAS, LLC

MPMD (data version 6.0)

Select Material Group: (Help) Ceramics - Oxides
(21 material groups)

Select Material Name: (Help) Copper Oxido Film
(54 materials)

Select Property and Independent Variable: (Help)
Oxide Thickness : Temperature
(4 property/independent variable)

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CINDAS

Results

You can view your results in different ways...
... graphs ... texts....
... or both 😊

---

Material: Copper Oxide Film
Property: Oxide Thickness micron
Independent Variable: Temperature micron

Material Description
Copper alloy leadframe, oxidized.

Measurement or Evaluation Procedure
Measurement:
Copper alloy leadframe samples were heated in an air atmosphere at temperatures of 293, range of 0.5 to 2.0 hours.
The oxide film thickness of these samples was determined using cathodic reduction method after thermal exposure.

Evaluation:
The experimental data of Takano et al. was evaluated and interpolated using a regression technique.

Measured Properties
X = Temperature, K
Y = Oxide Thickness, micron
Z1 = Oxidation Time, min

Data Points:

<table>
<thead>
<tr>
<th>X</th>
<th>Y</th>
<th>Z1</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.730e+02</td>
<td>0.000e+00</td>
<td>3.000e+01</td>
</tr>
<tr>
<td>3.800e+02</td>
<td>3.715e-04</td>
<td></td>
</tr>
<tr>
<td>3.850e+02</td>
<td>9.464e-04</td>
<td></td>
</tr>
</tbody>
</table>
CSA Technology & Research Database

- This database is located on the same platform as CINDAS
- It has 3 sub databases:
  e.g. **CSA Materials Research Database**

Concerning:
- materials science
- metals and alloys
- engineered materials
- ceramics
write e.g. “fuel cell* SOFC” (* = replacing the ending of the word)
mark that you are looking for the newest publications (2007-2008 y.)

You will get about 30 results
INSPEC
Disciplines

physics, electronics, electrical eng. communications, computers and computing, information technology

example: write “semiconductors”

you will get about 17 000 results

refine your search using Mapping Display

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How to find a full text article:
Link E-journals and library catalogue

To find the exact title of an e-journal click on our link “E-journals” - also check our library catalogue!

Steps:
1. Start with bibliographic & bibliographic-abstract databases
2. E-journals
3. Catalogue
Full text databases

If you prefer to search in full text databases you can use e.g.:

- **Science Direct**
  (write “polymer electrolytes” / in Title = 1000 documents sorted by relevance)

- **Springer**
  (write “polymer electrolytes” / in Abstract/Title = 170 documents)

- **IEEE/IEE Electronic Library**
  (chose advance search / write “batteries” / in Document Title / mark only standards = 60 results)
Searching the Internet

Instead of using Google or other general search tools choose **Scirus** or **Google Scholar** to find more scientific information !!!!

They are for free 😊
Scirus

Scirus is an online search tool using scientific resources (in such areas of science as: chemistry, medicine, biochemistry, computer science, mathematics)
In “advance search” you can limit your search to particular document types and publication dates.

**Search tips**
- `author:smith` find results that have “smith” in the author field
- `DNA -sequencing` find results that have “DNA” but not “sequencing” in the text
- `car*` finds “car” as well as “carbon”, etc.

**Dates**
- Only show results published between
  - before 1900
  - and 2009

**Information types**
- Only show results that are
  - Any information type
  - Abstracts
  - Articles
  - Books
  - Company homepages
  - Conferences
  - Patents
  - Preprints
  - Scientist homepages
  - Theses and Dissertations
Scirus Results

1-10 of 21,720 hits for high temperature batteries

1. Overview of high-temperature batteries for geothermal and oil/gas borehole power sources
   ...Easier B.V. Overview of high-temperature batteries for geothermal and...Consulting, 1536 W. High Pointe Ct., Minden...NM 87105-0614, USA Batteries currently used as power...limited to operating temperatures below 200 °C. At higher...
   Published journal article available from similar results

2. High-temperature characteristics of advanced Ni-MH batteries using nickel electrodes containing CaPs
   ...order to increase the high-temperature performance of Ni-MH batteries. Also, Mi et al...acceptance of the Ni-MH batteries at high temperatures (e.g., 50 °C).
   Published journal article available from similar results

3. Development and implementation of a high temperature electrochemical cell for lithium batteries
   ...implementation of a high temperature electrochemical cell for lithium batteries. David Munoz-Rojas...Keywords Lithium batteries High temperature electrochemistry...study of lithium batteries at high temperatures is necessary, here.
   Published journal article available from similar results

4. The effect of 2ZnO coating on LiMn2O4 cycle life in high temperature for lithium

Sponsored links

Reference Center – Main Library of Warsaw University of Technology
Each Google Scholar search result represents a body of scholarly work.

Here you can find:
conference articles, journal articles
patents, blogs...

Each search result contains bibliographic information (title, author, source)
You can limit your search to patents only (Click “more” – choose patent)

Reference Center – Main Library of Warsaw University of Technology
Do you have any questions?

Contact with the Reference Center!

Phone
(022) 234 73 00

Phone/Fax
(022) 628-71-84

E-mail
sadowska@bg.pw.edu.pl (Marta Sadowska)
oin@bg.pw.edu.pl (Reference Center)

Location
Main Building, 1st floor, room 161 a/b