LIBRARY WORKSHOP FOR LIFS, CHEM & OCES RESEARCH POSTGRADUATE

Jacky Leung
SciTech Librarian
ljacky@ust.hk
SCIENCE RESEARCH GUIDES

HTTPS://LIBGUIDES.UST.HK/SCIRESEARCH
LEARNING OUTCOMES

- Review the habits of researcher
- Search for literature using Subscribed Databases & Google Scholar
- Locate High Impact Journals for publishing
RESEARCH HABITS
SURVEY ON RESEARCH HABITS?

• Please fill in the online survey:
  – https://ust.az1.qualtrics.com/jfe/form/SV_08jYRzcSL1ITNc9v
  – Where do you go (or which search tools do you use) to find information
  – How do you keep records and organize references (documents you have read and will use in writing your paper)
QUESTIONS IN MIND?

Are you usually looking for articles from NIH, NCBI (PubMed), PNAS, and get data from DataOne?

How you get to the site? Bookmarked links, search in Google?

Can you get the full-text articles all the time?
SHARE YOUR EXPERIENCE

THEN WE MOVE ON TO SEARCHING TIPS
IS GOOGLE WHERE YOU START FIRST?
Settings: 1. Off-campus full-text access
2. Bibliography manager > RefWorks
STARTING POINT... GOOGLE SCHOLAR??

Click for "Advanced Search"

Stand on the shoulders of giants
ANALYZE GOOGLE SCHOLAR RESULTS

Different versions of the same paper

Track Impact

Manage References

Find full-text

[PDF] from ulaval.ca
Find@HKUST

[PDF] from ucsb.edu
Find@HKUST
## METRICS

### Top Publications - Life Sciences & Earth Sciences

<table>
<thead>
<tr>
<th>Publication</th>
<th>h5-index</th>
<th>h5-median</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Nature</td>
<td>349</td>
<td>504</td>
</tr>
<tr>
<td>2. Science</td>
<td>297</td>
<td>426</td>
</tr>
<tr>
<td>3. Cell</td>
<td>218</td>
<td>334</td>
</tr>
<tr>
<td>4. Proceedings of the National Academy of Sciences</td>
<td>213</td>
<td>281</td>
</tr>
<tr>
<td>5. Nature Genetics</td>
<td>187</td>
<td>280</td>
</tr>
<tr>
<td>7. Nature Reviews Molecular Cell Biology</td>
<td>139</td>
<td>255</td>
</tr>
<tr>
<td>8. PLoS One</td>
<td>131</td>
<td>168</td>
</tr>
<tr>
<td>10. Neuron</td>
<td>125</td>
<td>184</td>
</tr>
</tbody>
</table>

*Stand on the shoulders of giants*
LIBRARY CAN HELP!!

1. **Library PowerSearch**
2. **E-book Collections**
3. **E-journals**: browse by titles, subjects or call numbers
   - Some back issues may only be available in print or microforms
4. **HKUST SPD**
   - One stop platform to aid the discovery of HKUST research output
5. **HKUST E-Theses**
6. **Databases**: alphabetical or by subject
   - Off-campus access to databases, e-books and e-journals requires ITSC username & password for authentication
<table>
<thead>
<tr>
<th>Category</th>
<th>Resources</th>
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</thead>
<tbody>
<tr>
<td>E-books</td>
<td>Books 24x7, ENGnetBASE, Knovel, SpringerLink</td>
</tr>
<tr>
<td>Patents</td>
<td>Patsnap, Google Patents</td>
</tr>
<tr>
<td>Standards</td>
<td>ASTM Standards on Disc, British Standards Online, IEEE Xplore</td>
</tr>
<tr>
<td>Statistics</td>
<td>OECD iLibrary, Passport</td>
</tr>
<tr>
<td>These &amp; dissertations</td>
<td>ProQuest Dissertation &amp; Theses (A&amp;I) HKUST E-theses</td>
</tr>
</tbody>
</table>
Library E-Resources Cover?

- Most databases have full-text.
- Some only provide citations
  - authors, article title, publication title, volume, issue, page numbers & abstract (article summary).
- In that case…
  - Use links resolvers
  - Search the catalog for journal title or book info
- Still can’t find the full-text, paper or microform?
  - Use Document Delivery (from HKUST’s collection)
  - or InterLibrary Loan via http://library.ust.hk/illiad
SCIENCE SPECIFIC DATABASES

http://library.ust.hk/collections-resources/databases/all-databases/?subj=Science
POWERSEARCH
DATABASES SEARCHING...

SciFinder Scholar

Web of Science
DATABASE SEARCH (GENERAL)

Use Boolean to refine/focus your search [AND, OR]
E.g. “Renewable energy” AND “Clean power sources”; (Renewable OR Clean) energy

Exact Phrase [“ ”] double inverted commas
E.g. “Renewable energy”; “Clean power sources”

Use Truncation to look for variants [* or ! or $ check database or search engine]
E.g. ident* retrieves: identity, identities, identify, etc.

Use Wildcard [? check database and search engine]
E.g. wom?n will retrieve both woman and women
Also for words that have British and American spelling variations, e.g. organisation Vs. organization
GO SEARCHING...

SciFinder Scholar
For off campus access, it requires your ITSC login / password.
Database Guide:  
http://libguides.ust.hk/scifinder
Reference Search: Find the most up-to-date chemistry and related science information found in journals, patents, dissertations and more.

Substance Search: Find substance information including chemical structures, chemical names, CAS Registry Numbers®, properties, commercial availability and regulatory information.

Reaction Search: Find dependable and current chemical reaction information including reaction schemes, experimental procedures, conditions, yields, solvents, catalysts.
REFERENCE SEARCH

Research topic

To begin, click **Research Topic**.

1. **Enter your search concept(s) in the query entry text box.**
   - A search concept, or keyword, is a term or phrase relevant to your topic of interest.
   - Enter up to seven concepts, separated by prepositions, in English.
   - Recommendation: enter two or three concepts, separating each concept with a preposition. Use additional concepts to refine your answer set later.
   - Use “not” or “except” to exclude a term.

2. **Click **Search**.**

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**Tip**
You can include up to three synonyms or acronyms for a concept. Place them in parentheses immediately following the concept and separate them with commas. E.g., cat (kitten, feline, fells fatus).
### SCIFINDER CONSIDERS TERMS TO BE...

<table>
<thead>
<tr>
<th>SCIFINDER CONSIDERS TERMS TO BE...</th>
<th>WHEN THE TERMS ARE FOUND...</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;As entered&quot;</td>
<td>Exactly as you have entered them.</td>
</tr>
<tr>
<td>&quot;Closely associated with one another&quot;</td>
<td>Within the same sentence or title.</td>
</tr>
<tr>
<td>&quot;Present anywhere within a reference&quot;</td>
<td>Anywhere (perhaps widely separated) within a record's title, abstract, or indexing.</td>
</tr>
<tr>
<td>&quot;Containing the concept&quot;</td>
<td>Somewhere in the record.</td>
</tr>
</tbody>
</table>

**Tip**

All concepts “present anywhere in the reference” is often a good starting point. If the number of references is too large or you find many non-relevant references, consider selecting the narrower option in which all of the concepts are “closely associated with one another.”

**Now what?**

After you click Get References, SciFinder will retrieve the answers which meet your query requirements. To learn about working with the answers, please see the companion document titled, “How to... Work with Reference Answer Sets.”
REFERENCE SEARCH
Sort by accession number

**Reference Search Results**

1. Deepwater Horizon oil slick characterization with LUMIRAS: Continuing investigations
   
   In June 2010, the LUMIRAS platform was deployed to the Gulf of Mexico in response to the Deepwater Horizon (DWH) oil spill. We have analysed the quad-polarized L-band SAR data collected near the main oil slick, to develop and validate algorithms for improved discrimination of all slicks on water and identification of oil properties. Our results show that radar backscatter from both clean water and oil in the slick is predominantly from a single surface/scattering, consistent with the limited wave scattering mechanism across the incident angle range of 26-60°. We find that the change of backscattering parameters can be used as a tool for oil spill characterization.

2. Comparative study of different exposure routes on the biotransformation and genotoxicity of PAHs in the fish species Scophthalmus maximus

   In this study, fish were exposed to PAHs in order to come to a better understanding of the fate of polycyclic aromatic hydrocarbons (PAHs) in the marine environment and their biotransformation and genotoxic effects in fish. Juveniles of the target Scophthalmus maximus were exposed to PAHs through different routes: (1) a diet of contaminated fish, (2) a PAH-polluted feed and (3) an oral food-ultimate. Fish were exposed for 14 days followed by a 28-day observation period. In each experiment, the seawater in the tanks were analyzed regularly by gas chromatography.

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**Tip**

An **Accession Number** is a unique identifier given to a record when it is entered in the database. In the CAplus® database, it begins with the year in which the record is put into the database, followed by a colon and sequential numbering.
REFERENCE SEARCH
Access Full Text

Three Display options are available:
1. One bar shows the bibliographic information.
2. Two bars show the bibliographic information and a partial abstract. It is the default, shown here.
3. Three bars show the bibliographic information and the full abstract.

Use the page controls to navigate through your answer set.

The magnifying glass is a link to a “Quick View.” Click it to open a new window that contains the reference details. Close the window to return to your active session.

Click the Full Text link to launch the CAS Full Text Options page (not shown).

Click the molecule icon to see the Substances indexed for a document (not shown). CAS analysts identified these substances as being important to the science reported in the document.

Click the Citings icon to retrieve the documents that have cited this reference.

Tip
With the Full Text link, European and US patents are often immediately available via Espacenet. If your company purchases journal subscriptions, your Knowledge Center or SciFinder Administrator can set up the CAS Full Text Options page to let you immediately access records from those journals from your desktop.
REFERENCE SEARCH
Analyze by document type

1. Click the Analyze tab. By default, the answer set is analyzed by Author Name.
2. Click the drop-down arrow to see the available Analyze by options.
3. Click Show More to see additional data when it is available (see inset), or to select more than one analysis subset.
   - E.g., it is useful when you want to select several variations of an author’s name.

Tip
Some document types are listed in all capital letters. These subsets are unique to MEDLINE® (aka PubMed). The 30 JOURNAL ARTICLE(s) in MEDLINE are also included in the Journal subset which contains the documents from both MEDLINE and CAplus.
REFERENCE SEARCH
Analyze by document type

Tip
The Analyze capability is an effective way to learn more about your results because you can use Clear Analysis to return to the original answer set. After you have explored the answer set several ways, you can then decide how you want to narrow it, make that selection, and then click Keep Analysis or choose to narrow the answer set using other techniques.
REFERENCE SEARCH
Narrow down your research topic using “Refine”

The Answer Set is Narrowed to 236 References

According to an embodiment, a method of limiting the rate of oil sea releases comprises disposing of a device for directing the flow of a liquid additive to an inlet, whereby the device comprises a first passageway, a 2nd fluid passageway, a 2nd fluid passageway, a 3rd fluid passageway, a 3rd fluid passageway, and a 4th fluid passageway, the fluid passageway being operatively connected to the 2nd and 3rd passageways, and a fluid director, wherein the fluid director is operatively connected to the first fluid passageway, the 2nd fluid passageway, and the 3rd fluid passageway, and a fluid director, wherein the fluid director is operatively connected to the 2nd and 3rd passageways, and a fluid director, wherein the fluid director is operatively connected to the 2nd and 3rd passageways, and a fluid director, wherein the fluid director is operatively connected to the 2nd and 3rd passageways, and a fluid director, wherein the fluid director is operatively connected to the 2nd and 3rd passageways.

Tips:
- SciFinder automatically searches for both singular and plural forms of a word (method, methods), alternate word endings and forms (clear, cleaning), and common synonyms (ocean, sea, marine) to save you time and increase comprehensiveness.
- When searching or refining by Research Topic, you can include up to three synonyms, separated by commas and enclosed in one set of parentheses.
- When you refine by Research Topic, both the old and new hit terms are highlighted in the title and are bolded in the abstract.
Types of Substance Searches

Tip: If you are using the stand-alone drawing editor (available from www.cas.org), then click Import CXF to upload the structure.

1. On the Explore tab, under SUBSTANCES, you can search by any of the five options.
2. Click Advanced Search to see criteria that you can add to a search to make it more specific.

- These search limiters are available as part of the Refine and Analyze functions, so you can also apply them later in your search process.

Chemical structure query

SUBSTANCE SEARCH
SUBSTANCE SEARCH
Chemical structure query

Tip
To learn about structure drawing, refer to the online help or the "Introduction to the SciFinder Drawing Editor" tutorial on cas.org.

1. Select Chemical Structure (the default).
2. Click the picture of the structure drawing window to launch the Structure Editor.
3. Draw your structure.
4. Specify the type of structure search.
5. Click OK to transfer the structure and type of search to the search page.

SELECT...
IF YOU WANT TO RETRIEVE...

Exact Search
- The specific structure as drawn in the query, including:
  - Stereoisomers
  - Salt and mixtures
  - Polymers with one exactly matching monomer
  - Isotopes
  - Tautomers

Substructure Search
- The structure as drawn or as part of a larger molecule in which there is:
  - Substitution at open positions
  - Additional ring fusion

Similarity Search
- Similar chemical structures containing:
  - Positional isomers
  - Different or fewer substituents
  - Different ring systems
SUBSTANCE SEARCH
Chemical structure query

Tip
Optional: Select Show precision analysis to include additional structure criteria in your search:
Conventional Exact, Closely Associated Tautomers and Zwitterions, Loosely Associated Tautomers and Zwitterions, and Other.

Now what?
After you click Search, SciFinder will retrieve the answers that meet your query requirements. To learn about working with the answers, please see the companion document titled, “How to... Work with a Substance Answer Set.”
SCIFINDER SCHOLAR
Reaction structure query

1. To begin, go to the left navigation pane and click Reaction Structure.

2. Click the picture of the reaction drawing window to launch the Reaction Editor.

Tip
Click ? to access context-specific online help.

Tip
If you are using the stand-alone drawing editor (available from www.cas.org), then click Import CXF to upload the structure.
SCIFINDER SCHOLAR
Reaction structure query

When you click OK in the Reaction Editor, your reaction and search type are transferred to the reaction search page.

1. (optional) Click Advanced Search to see additional search options.
2. (optional) Select limiters, such as Number of Steps, to further restrict your search.
3. Click Search.

Tip
The limiters are available as part of the Refine and Analyze functions, so it is often advantageous to start with a broad search and narrow the answer set later.

Now what?
After you click Search, SciFinder will retrieve the answers which meet your query requirements. To learn about working with the answers, please see the companion document titled, “How to... Work with Reaction Answer Sets.”
SCIFINDER SCHOLAR

Reaction structure query

1. Draw your reaction.
   Learn about drawing in the Reaction Editor with the following tutorials, available in the online SciFinder Help:
   - "Introduction to the SciFinder Drawing Editor"
   - "Introduction to Reaction Searching"

2. Select the type of reaction search that you want to conduct.

3. Click OK to transfer the reaction and type of search to the search page.

Tip on Stereo Searching
CAS scientists apply structure data to a record by reporting the information in the original document. If no stereo is identified, then the molecule is listed as a “flat” (2-dimensional) structure. If you search stereo bonds, you can miss relevant data that was listed in the literature only in a 2-dimensional format, whereas searching the flat structure will retrieve both 2-dimensional and 3-dimensional (stereo) structures.
GO SEARCHING...

Web of Science
WEB OF SCIENCE

• Citations cover over 10,000 high-impact journals
• Provides citation analysis on:
  – **Times cited** (cited n times 被引用次數): indicates the number of times a published paper was cited by other papers.
  – **View related records**: other documents that have one or more cited references in common with the reference you are viewing.
• Citation analysis
  – Discover the high impact (most highly cited) journals and articles in a subject area
• Library Guide for Web of Science:
  – [http://libguides.ust.hk/wos](http://libguides.ust.hk/wos)
ACCESS WEB OF SCIENCE

For off campus access, it required your ITSC login / password
Results: 264

You searched for:
TOPIC: (direct dye* or reactive dye*) AND ...More

Create Alert

Refine Results

Search within results for...

Multifunctional properties of cotton fabric treated with chitosan and carboxymethyl chitosan

By: Gupta, Deepal; Hale, Adam
CARBOHYDRATE POLYMERS Volume: 69 Issue: 1 Pages: 164-171 Published: MAY 1 2007

Full Text  View Abstract

Times Cited: 49
(From Web of Science Core Collection)

Nanosilver functionalized cotton fabric

By: Gorenshek, Marija; Recebi, Petra
TEXTILE RESEARCH JOURNAL Volume: 77 Issue: 3 Pages: 138-141 Published: MAR 2007

Full Text  View Abstract

Times Cited: 45
(From Web of Science Core Collection)
1. **Times Cited** – “49” indicates the number of times this paper was cited (quoted) by other papers, i.e., who used Gupta’s paper?

2. **Find@HKUST** - to locate full-text from other databases
WEB OF SCIENCE
Inter-library loan

Fill-in the request form

Photocopy Request
Enter information below and press the Submit Request button.
(please use traditional characters when entering Chinese)

- Article Author
- Article Title
- Title
- Volume
- Issue
- Month
- Year
- Pages
- ISSN/ISBN
WEB OF SCIENCE
Record information

Multifunctional properties of cotton fabric treated with chitosan and carboxymethyl chitosan
By: Gupta, D (Gupta, Deep); Halie, A (Haile, Adane)

Abstract
A water soluble carboxymethyl derivative of chitosan was prepared with a view to develop a multifunctional finish on cotton. Results show that treated cotton has better dyeability with direct and reactive dyes. Treatment with modified chitosan makes it possible to dye cotton in bright shades with cationic dyes having high wash dyeability.

Journal Information
Impact Factor: Journal Citation Reports®

Other Information
IDS Number: 164TA

Cited References in Web of Science Core Collection: 13
Times Cited in Web of Science Core Collection: 49

1. Cited Reference – “13” indicates the number of articles, books or other materials listed in the reference list (or bibliography) of this research paper, i.e., these are what Gupta cited!

2. Impact factor – is a measure of the relative importance of a journal

49 Times Cited
13 Cited References
View Related Records
View Citation Map
Create Citation Alert
(data from Web of Science™ Core Collection)
1. From the first Web of Science screen, click on the link to 'Sign-in.'
2. Enter the information required and Submit your registration.
WEB OF SCIENCE (ADVANCED FEATURES)

Create alert / Save search history
WEB OF SCIENCE (ADVANCED FEATURES)
Check your search history

### Search History: Web of Science™ Core Collection

<table>
<thead>
<tr>
<th>Set</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>264</td>
</tr>
</tbody>
</table>

**TOPIC:** (direct dye* or reactive dye*) AND TOPIC: ("cotton fabric")

Indexes: SCI-EXPANDED, SSCI, CPCI-S, CPCI-SSH Timespan: All years

- **Save History / Create Alert**
- **Open Saved History**

**Edit Sets**

- **Combine Sets**
- **AND**
- **OR**

**Delete Sets**

- **Select All**
- **Delete**
WEB OF SCIENCE (ADVANCED FEATURES)

Cited-Reference Searching
WEB OF SCIENCE (ADVANCED FEATURES)
Cited-Reference Searching

What is it?

"Cited-Reference Searching" is a process where you start with a reference (normally a journal article or book) that you have read and which is important for your research.

You then search for other publications that have cited that reference.

If the reference that you started with was highly relevant to your research, it is quite possible that other publications that have cited that reference are also relevant to your research.
WEB OF SCIENCE (ADVANCED FEATURES)
Cited-Reference Searching

Cited author: Tang, BZ
Cited work: Macromolecules
Cited year: 1999

Other publications that have cited that reference
ORGANIZE REFERENCES

RefWorks
- Online tool to help you organize your citations and create a consistently formatted bibliography (reference list)
- You can import citations directly to RefWorks from most Library databases & Google Scholar
- Create folders to organize your citations
- Generate a bibliography in different styles (AIP, ACM, Elsevier,)
- Use "Write-N-Cite" to create in-text references
- Library Guide for RefWorks:
  - https://libguides.ust.hk/newrefworks
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• Article links can be also be shared via email and various social media platforms and exported to Refworks.
• Library Guide for BrowZine:
  – https://libguides.ust.hk/browzine
“View Journal Contents” – open the current issue of the journal

“View Issue Contents” – open and highlight the article in the particular issue of the journal

“Download PDF” – Get full-text PDF in one-click!
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• Open Access Button
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Resources for Authors:

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- Springer (Author workshop - video)
- Taylor & Francis

Research Bridge

- Open Access

Tips on Managing Your Publications

- Use a consistent, unique name
- Update your publication list regularly
- Keep track of times cited by others
- Set up Google Author Profile, ResearcherID (WoS), ORCID
- Inform database providers of any errors in their records
MAKE SURE... CREATE YOUR ORCID!

http://repository.ust.hk/orcid/

- The aim is to provide a persistent digital identifier that distinguishes you from every other researcher

- A profile to showcase your outstanding works, suitable for applying scholarship, research funding
DATA MANAGEMENT... IS ALSO IMPORTANT

HTTPS://LIBGUIDES.UST.HK/DATA-CURATION
DEPOSIT YOUR DATASET IN **DATASPACE@HKUST**
Library Services for Postgraduate:

- One-to-one coaching
- Jacky Leung
- lbjacky@ust.hk
• Go to http://library.ust.hk/feedback
• Find the workshop
  – PDEV6770A Search Research Literature (for LIFS, CHEM & OCES)
  – Click “Feedback”
Ask a Librarian @
WhatsApp: 9701 1055
Tel: 2358 6760
Email: lbref@ust.hk
one-to-one coaching: lbjacky@ust.hk