University of Wisconsin Milwaukee
UWM Libraries
October 12, 2018

Graduate Students
Fall Into Research
Optimize Your Scholarly Efforts

Web of Science
Agenda

- 11:30am-12:00pm registration; 12:00pm-1:30pm session | Graduate Students
  
  o Learning the basics of citation indexing
  o Tips for effective topic searching
  o Setting up search alerts to stay up to date on a topic
  o Create citation alerts to monitor citation activity around a key paper
  o Finding an author’s work in Web of Science
  o Identifying experts and potential collaborators
  o Discover sources of funding in your field
  o Link to relevant research data sets, data studies, and software on external repositories
  o Kopernio: browser plug-in for one-click access to research articles
What is Citation Indexing?

Citation Indexes, Pioneers


Citation Indexes for Science:
*A New Dimension in Documentation through Association of Ideas*

Eugene Garfield, Ph.D.

"The uncritical citation of disputed data by a writer, whether it be deliberate or not, is a serious matter. As usual, anonymous sources are often more reliable than the text declares. And in any event, those who are unable to be critical of uncritical opinions are likely to be uncritical of themselves."

New Factors in the Evaluation of Scientific Literature Through Citation Indexing

More than one million citations from the scientific literature have been processed by the Citation Index Project at the Institute for Scientific Information. The Project, sponsored by NSF and NIH, will be described briefly, and new methods of using citation data for evaluation of publications will be discussed. Summaries of statistical data, compiled by computer methods such as the following, will be given.

1. Frequency of citation of one journal by another.
2. Frequency of citation of one journal by another.
3. Frequency of self-citation by journals and authors.
4. Number of source citations per cited paper.
5. Number of references per source paper.
6. Number of papers published per journal.

Information scientists and research workers are encouraged to use this unique reservoir of information for additional statistics applicable to their fields of work as a basis for comparative studies on the efficacy of various indexing techniques.

E. Garfield and I. M. Sher
Institute for Scientific Information
What is Citation Indexing?

There are two “indexes” at work within Web of Science discovery, though these work as one.

Web of Science – Source Record Index
Captured from indexed journals
Records contain the full bibliographic information you see when you do a topic search for example and view results.

Web of Science – Cited Reference Index
A massive compilation of all of the author bibliographies from all of the source articles indexed in Web of Science

References

Tips for Effective Topic Searching

- Don’t be too limiting at first with your search terms, you can always refine along the way. Web of Science will include an “AND” (see below) between terms if you simply enter them as a plain string of terms.

- Use wildcard characters to cover more ground efficiently.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Retrieves</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>Zero or more characters</td>
<td>hydroxy* = hydroxylace hydroxydopamine hydroxyethyl</td>
</tr>
<tr>
<td>?</td>
<td>One character only</td>
<td>en?oblast = entoblast endoblast</td>
</tr>
<tr>
<td>$</td>
<td>Zero or one character</td>
<td>eight$ = eighth eighthy</td>
</tr>
</tbody>
</table>

**Phrase Searching**

Exact matches for phrases can be found by searching on terms enclosed in quotation marks. Wildcard characters can be used inside quotation marks.

“electromagnetic field” = electromagnetic field

“electromag* field” = electromagnetic field electromagnet’s field

**Near/**

Finds terms in the same field; user specifies proximity. Default is 15 words if user does not specify a number.

electromag* near/3 field = electromagnetic field electromagnetic radiation field field pattern in electromagnetism electromagnets created a strong field

**Same**

Terms must occur within the same sentence. Use in Address field only.

**AND**

All search terms must occur to be retrieved.

**TOPIC: aspartame AND cancer**

Retrieves documents that contain both *aspartame* and *cancer*.

**OR**

Any one of the search terms must occur to be retrieved. Use when searching variants and synonyms.

**TOPIC: aspartame OR saccharine OR sweetener**

Retrieves documents that contain at least one of the terms.

**NOT**

Excludes records that contain a given search term.

**TOPIC: aids NOT hearing**

Retrieves documents with *aids*, excluding any which also contain *hearing*. 
Tips for Effective Topic Searching

- Take advantage of Web of Science Citation pathways for discovery!
  - Within your TOPIC search results click on Times Cited, Cited References, and Related Records within articles of great interest to you and follow these to additional relevant Information.

- Make use of what you see in full records, terms within titles, abstracts, and keywords and add those that are significant to your Topic search terms.

Please – utilize the assistance that Web of Science provides in the interface itself.
Setting up search alerts to stay up to date on a topic
Create citation alerts to monitor citation activity around a paper

Ionic Liquid (IL) Cation and Anion Structural Effects on Metal Ion Extraction into Quaternary Ammonium-based ILs

By: Wankowski, Jl. (Wankowski, James L.) and Dietz, Ml. (Dietz, Mark L.)

SOLVENT EXTRACTION AND ION EXCHANGE
Volume: 34 Issue: 1 Pages: 48-59
DOI: 10.1080/07366009.2015.1110410
Published: JAN 2 2016

Abstract
Numerous factors have previously been shown to influence the mode of extraction of alkali and alkaline earth cations from an acidic aqueous phase into 1,3-dialkylimidazolium-based ionic liquids (ILs) by a crown ether, among them the hydrophobicity of both the IL anion and cation. To determine if this observation is “generic” and thus, could provide the basis for guidelines for the rational design of ILs to be used as solvents in metal ion extraction, other families of ILs must be studied. A series of quaternary ammonium-based ILs have therefore been examined as solvents for the extraction of various metal ions from acidic nitrate- and chloride-containing solutions. The extraction behavior in these systems is similar to that of alpha(Sr/Na) ions are observed under certain conditions.

Keywords
Author Keywords: solvent extraction, IL, STRONTIUM, EXCHANGE, GREENNESS

Create Citation Alert

You will automatically receive an e-mail alert every time the article is cited.

Email Address: ann.smith@stanford.edu
Email Format: HTML
Expiration Date: 2019-10-10

The RSS feed will be available after creating the alert.

Create Citation Alert  [Cancel]

A citation alert notifies you by email whenever an article you choose has been cited by a new item that has been added to the Web of Science.

When viewing a full record for an article of interest, create a Citation Alert in seconds! – another reason to make sure you sign in to Web of Science.
Finding an author’s work in Web of Science

- Be sure to use the appropriate search format for Author Name.
- If known, selecting the span of years in which the author has published as this can greatly reduce “noise”.
- Refining results by the Institutions with which the author has been affiliated is another way to work toward an accurate set of results.
Identifying experts and potential collaborators

There are several routes one may take, though the most common is typically through a Topic search – key terms, often refined to recent years to ensure current activity, often refined to particular disciplines.

Analyze Results by Author will allow you to very quickly see those publishing most frequently in this realm, in this case over just the past few years.

One may select one or more authors and click View Selected at the bottom of the page to review each paper in detail.
Identifying experts and potential collaborators

To look for authors with a track record of influential work, one may wish to sort results by Times Cited and, for example, save the top 25 papers (or more of course) to a Marked List. Analyze Results is also presented within a Marked List, and this content may then be analyzed, and the authors of these recent, top cited papers reviewed.

- If you’ve published and have been cited, those citing your work are certainly potential collaborators. Just click on the Times Cited link for your paper. Of course this applies to any paper that may fall within your own area of scholarly/research interest.
- Create a Citation Alert for your papers (and others that are “on target”) to maintain ongoing awareness of who is citing yours and other publications.
Discover sources of funding in your field

Whether you’ve searched by Topic, Author, Cited Reference, etc. – whatever the method, your search results can be analyzed through Analyze Results to reveal the “who, what, and where” behind that published body of work. This includes identification of the Funders behind this research and scholarship. From 2008, Web of Science core collection journal files have captured funding acknowledgements within published research.

It may be helpful in this case to first analyze by country, select USA and view these works, and then analyze again by Funder to ensure a view of funders of US research.
Link to relevant research data sets, data studies, and software on external repositories

Multiple Routes of Pesticide Exposure for Honey Bees Living Near Agricultural Fields

Table 1

<table>
<thead>
<tr>
<th>FIELD HISTORY</th>
<th>THIAMETHOXAM LOD = 1.0</th>
<th>CLOTHIANIDIN LOD = 2.0</th>
<th>IMIDACLOPRID LOD = 1.0</th>
<th>METOLACHLOR LOD = 2.0</th>
<th>ATRAZINE LOD = 0.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAZE-MAIZE**</td>
<td>ND</td>
<td>6.3</td>
<td>2.9</td>
<td>5.9</td>
<td>52.0</td>
</tr>
<tr>
<td>SOY-SOY</td>
<td>ND</td>
<td>9.6</td>
<td>7.3</td>
<td>11.1</td>
<td>7.8</td>
</tr>
<tr>
<td>MAZE-SOY</td>
<td>ND</td>
<td>4.9</td>
<td>ND</td>
<td>6.1</td>
<td>8.5</td>
</tr>
<tr>
<td>SOY-MAIZE</td>
<td>ND</td>
<td>2.1</td>
<td>ND</td>
<td>ND</td>
<td>22</td>
</tr>
</tbody>
</table>

**ND = Not detected.
** Experimental field where hives were placed in 2010.

doi: 10.1371/journal.pone.0029268.t001

doi: https://doi.org/10.1371/journal.pone.0029268.t001
Link to relevant research data sets, data studies, and software on external repositories

IPUMS: National Youth Tobacco Survey: Version 1.0

From Repository: IPUMS
By: Sobek, Matthew J, Williams, Karl C.

IPUMS
DOI: http://dx.doi.org/10.18128/D11091.0
Advance Date: 28 Aug 2018
Published: 2017
Document Type: Data set

Abstract
IPUMS NYTS contains harmonized National Youth Tobacco Survey (NYTS) data from 1999-2014. The NYTS gathers nationally representative data about youth’s tobacco-related beliefs, attitudes, and behavior; these measures support research to design, implement, and evaluate comprehensive interventions to prevent tobacco use among youth. The NYTS is an ongoing survey conducted by NESARC spanning 1999-2014. Variables are renamed and coded consistently across time to facilitate pooled analysis of the variables and category detail of the original files; no information is lost. The codebook provides values across survey years.

Funding
Funding Agency: U.S. Food and Drug Administration
Grant Number:

Categories/Classification

FILES
- Data file
- SAS setup
- Stata setup
- SPSS setup
- R setup and YAML
- Codebook
- Questionnaires
- Technical assistance memo (NORC)
- Practical weight guidance memo
Kopernio: browser plug-in for one-click access to research articles

Kopernio provides one-click access to legal PDFs

Kopernio is a browser plug-in that delivers the best available PDF at your point of need, based on your library’s subscription.

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- Integrates with Google Scholar and Pubmed.
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![Web of Science](image-url)