Organic Chemistry Laboratory II Workshop

Scientific Writing Literature Search

ORG LAB II WEBSITE

https://koutentisresearchgroup.weebly.com/org-lab-ii.html

LITERATURE SEARCH – WRITING A REVIEW

KEYWORDS, OPERATORS & FILTERS

Literature Search: a librarian's handout to introduce tools, terms and techniques



BRAINSTORM keywords

These are the main ideas of your research question/topic sentence.

EXPAND your keywords

Look at the subject headings of the materials you find and use those terms as applicable.

Or look up your keywords in a subject-specific database thesaurus to find predefined terms (called *"controlled vocabulary"*).

USE Boolean operators

Insert AND, OR, and NOT into your search to broaden or narrow it.

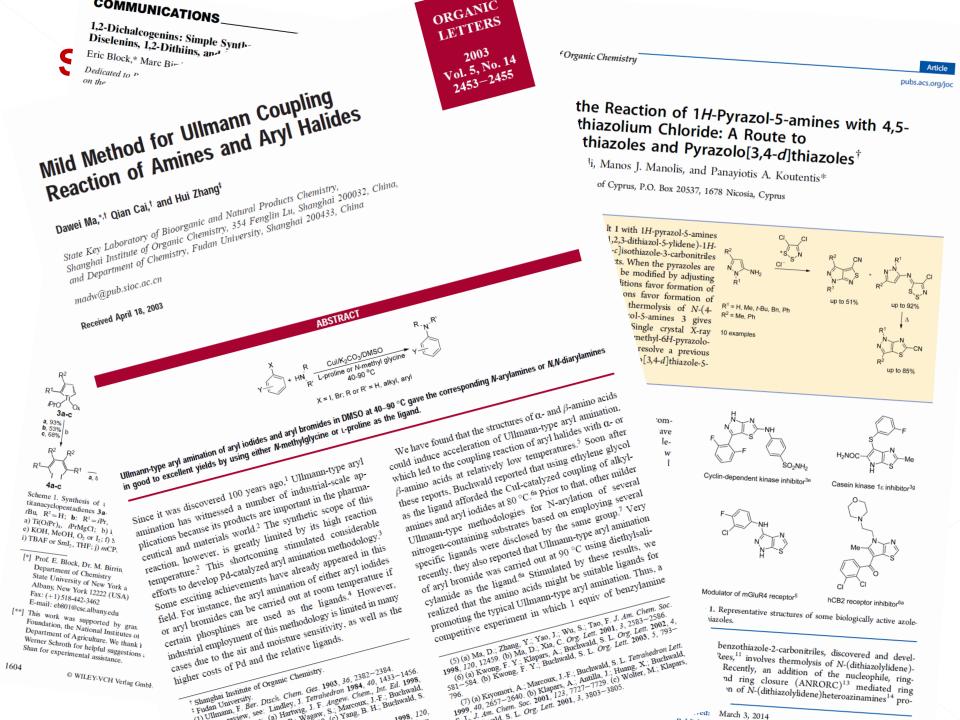
For example: PTSD OR Post Traumatic Stress Disorder AND soldiers NOT Navy.

REFINE your search results

Filters in the database allow you to narrow a search by year, content type, etc.



https://libraryconnect.elsevier.com/sites/default/files/ELS_Webb-LC_litsearch_handout.pdf https://www.elsevier.com/__data/assets/pdf_file/0004/711346/ACAD_L_BRO_LitSearchSupportf orResearchers_WEB.pdf



Scientific Papers – Original Research Articles

"A scientific paper is a written and published report describing original research results"

http://www.nature.com/scitable/topicpage/scientific-papers-13815490

Let's have a look on a scientific paper

Abstract - Importance

- For busy readers the Abstract, sometimes called the Summary, may be the only part of the paper they read, unless it succeeds in convincing them to take the time to read the whole paper!
- For readers in developing countries with limited access to the literature, the Abstract may be the only information on your work that is available to them.

 Abstracting services may use the text of the title plus the Abstract and keywords for their searchable databases

Abstract - Content

- Some background information
- The principal activity (or **purpose**) of the study and its scope
- Some information about the **methods** used in the study
- The most important **results of the study**
- A statement of **conclusion** or recommendation

Introduction

- As your primary reading audience of editor and referees will probably start reading at the Introduction, an effective Introduction is particularly important. Referees are likely to look here for evidence to answer the following questions.
- 1. Is the contribution **new**?
- 2. Is the contribution **significant**?
- 3. Is it **suitable for publication** in the journal?

Introduction

- Statements about the field of research to provide the reader with a setting or context for the problem to be investigated and to claim its centrality or importance.
- 2. More specific statements about the aspects of the problem already studied by other researchers, laying a foundation of **information already known**.
- 3. Statements that indicate the **need for more investigation**, creating a gap or research niche for the present study to fill.
- Statements giving the purpose/ objectives of the writer's study or outlining its main activity or findings.
- Optional statement(s) that give a positive value or justification for carrying out the study.

Results & Discussion

Conclusions

Experimental Section

References

References: Styles

ACS style

Surname1, X1.; Surname2, X2.;; SurnameX, XX. Journal Abbreviation Year, Volume, xxx-xxx.

e.g. Borsdorf, R.; Hofmann, H.-J.; Kohler, H.-J.; Scholz, M.;

Fabian, J. Tetrahedron 1970, 26, 3227-3231.

• RSC Style

X1. Surname1, X2. Surname2, ...and XX. SurnameX, *Journal Abbreviation*, Year, **Volume**, xxx-xxx.

e.g. W. R. Bowman, M. O. Cloonan, A. J. Fletcher and T. Stein, *Org. Biomol. Chem.*, 2005, **3**, 1460–1467.

• Wiley Style

Journals' Abbreviations

http://cassi.cas.org/search.jsp

CASS CAS Source Index (CASSI) Search Tool

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CAS Source Index (CASSI) Search Tool

The CAS Source Index (CASSI) Search Tool is an online resource intended to support researchers and librarians who need accurate bibliographic information. Use this complimentary tool to quickly identify or confirm journal titles and abbreviations for publications indexed by CAS since 1907, including serial and non-serial scientific and technical publications.

Save time and effort. Locate the bibliographic details you need quickly and easily. Search by Title, Abbreviation, CODEN, ISBN, or ISSN. Note that there is a limit of 100 answers per search, so it is recommended that you make your search as specific as possible.

Exact match	Title or Abbreviation Search Tips	
Search		Exact match
	Search	

Exercises

(1) What is the abbreviation for the Journal "Chemical Communications"

(2) What is the full name for the abbreviated Journal name "J. Org. Chem."

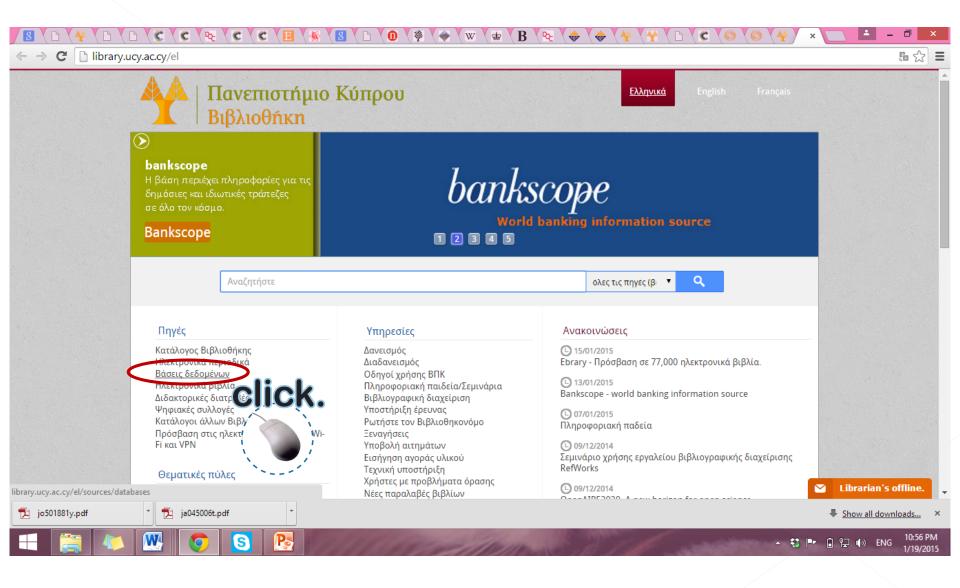
Searching the Literature



Major Publishers of Organic Chemistry Journals

http://www.organicdivision.org/organic_journals.html

- ACS Journals: <u>http://pubs.acs.org/</u> (Journal of Organic Chemistry, Organic Letters, Chemical Reviews)
- RSC Journals: <u>http://pubs.rsc.org/</u> (Organic Biomolecular Chemistry, Chemical Communications, Perkin Transactions 1 etc.)
- Elsevier/ Science Direct Journals: <u>http://www.sciencedirect.com/</u> (*Tetrahedron, Tetrahedron Letters*)
- Wiley Journals: http://onlinelibrary.wiley.com/browse/publications (European Journal of Organic Chemistry)
- Thieme Journals: <u>https://www.thieme.de/en/thieme-</u> chemistry/journals-54617.htm (Synthesis, Synlett)



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Example: oil spill* mediterranean	8	Topic + Add ro	Search Search	Search tips

Timespan

All years (1970 - 2020) 🔹 🔻

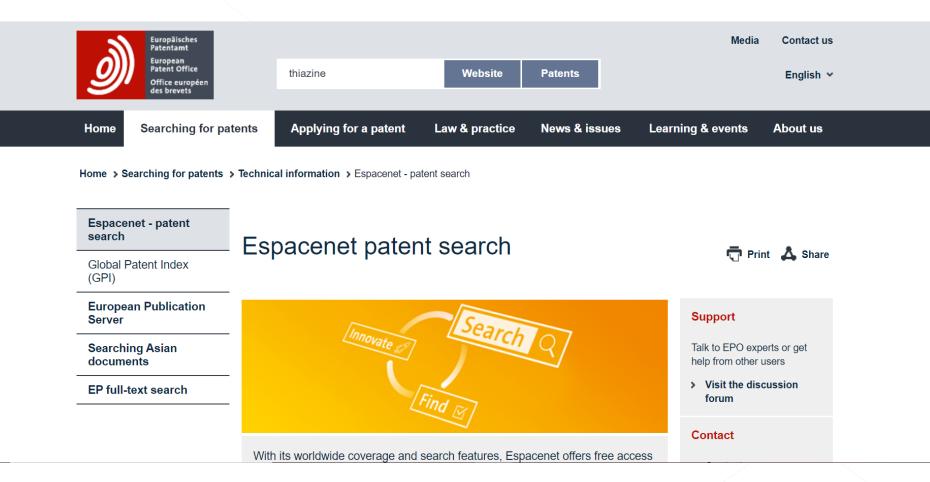
More settings 🔻

• Scopus <u>http://www.scopus.com/</u>

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Espacenet Patents database

http://www.epo.org/searching/free/espacenet.html



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Organic Syntheses (<u>http://www.orgsyn.org/</u>)



EXERCISES

(1) Find the following articles from the corresponding journal website:

(a) Org. Lett. 2018, 20, 1384-1387; (b) Tetrahedron Lett. 2014, 55, 7147-7155; (c) J.

Pharm. Pharmacol. 2013, 65, 1701-1725; (d) Nat. Prod. Rep. 2008, 25, 166-187.

(2) Find the articles that have cited the article: Nat. Prod. Rep. 2008, 25, 166.

How many articles have cited this work?

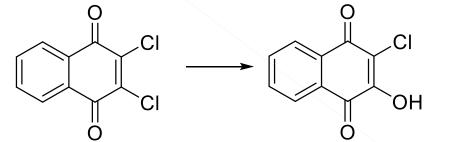
(3) How many publications does Phil Baran have?



Exercises

(1) Find the ¹H-NMR spectrum of the following compound:

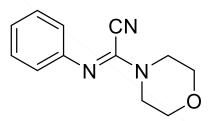
(2) Find conditions for the following reaction:

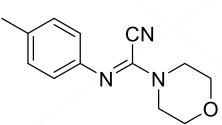


(3) What are the precursors for the following compound:

(4) Find a synthesis for the following compound:

(5) Find the melting point for the following compound:





ЮH

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Υπηρεσίες	Διαδανεισμός			
Ο Λογαριασμός μου στη Βιβλιοθήκη				
Δανεισμός	Η Υπηρεσία Διαδανεισμού αναλαμβάνει να αναζητήσει βιβλία, άρθρα περιοδικών	ν <mark>, πρακτικά συνεδ</mark>	ρίων, ανακοινώς	σεις/
Διαδανεισμός	δημοσιεύσεις συνεδρίων, τα οποία είναι αναγκαία για την μελέτη και έρευνα σας	και τα οποία δεν	υπάρχουν στη σ	υλλογή τ <mark>η</mark> ς
📰 Παραγγελία	Βιβλιοθήκης του Πανεπιστημίου Κύπρου.	Wind How Torters		
📰 Παραλαβή	Είναι πολύ σημαντικό για την ταχύτερη εξυπηρέτησή σας να βεβαιώνεστε ότι το ι <u>ΒΠΚ</u> (έντυπη και ηλεκτρονική).	υλικό που ζητάτε	σεν σπαρχει στη	
📰 Κόστος	Δυνατότητα παραγγελίας βιβλιογραφίας προς την υπηρεσία Διαδανεισμού έχουν	όλα τα μέλη της τ	τανεπιστημιακήα	ς κοινότητας
Δικαιώματα και υποχρεώσεις	καθώς και εξωτερικοί χρήστες που είναι μέλη της <u>ΒΠΚ</u> . Παραγγελία			
Παραγγελίες που δεν ικανοποιήθηκαν	Παραλαβή			
Πανεπιστημιακή κάρτα/Κάρτα	 Κόστος Δικαιώματα και υποχρεώσεις 			
Βιβλιοθήκης Φωτοτυπίες-Εκτυπώσεις	 Παραγγελίες που δεν ικανοποιήθηκαν 			

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