

Introduction to Web of Science & Scopus

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Introduction to Web of Science & Scopus

Alena Chodounská, Vladimír Blažek²
November 2021

Which institution are you from?

- A. Czech Technical University in Prague
- B. University of Chemistry and Technology Prague
- C. Czech University of Life Sciences Prague
- D. Charles University
- E. Other

Which citation database do you use the most often, if any?

- A. Web of Science
- B. Scopus
- C. Google Scholar
- D. Other (+ comment in chat)
- E. None, that's why I'm here

Outline

1. [Introduction to citation databases](#)
2. [Searching by topic](#)
3. [Searching for journals and journal metrics](#)
4. [Searching for authors and author metrics](#)
5. [Summary](#)
6. [Getting assistance](#)

1. Introduction to citation databases

Evaluating research impact

*“Hopefully, your PhD research will make an **impact** by advancing knowledge in your field or by contributing to real-world applications.”¹*

The results of research are usually presented in form of scientific articles, proceedings, and books.

One of the (limited) ways of measuring the impact of a researcher in their field is the **number of citations** for papers published in **quality, peer-reviewed scientific** journals.

1) PhD On Track. (n.d.). Citation impact. <https://www.phdontrack.net/share-and-publish/citation-impact/>

Scientific communication & quality control

- Submitted papers are evaluated via a **rigorous [peer review process](#)** in quality scientific journals.
- Citation databases include resources (usually journals) in them according to selection criteria ([Scopus criteria](#), [Web of Science criteria](#)).
- Citation information is then analyzed within citation databases and **citation metrics** for journals, articles, and authors are calculated.
- **Web of Science** and **Scopus** citation databases are currently used in the Czech academic performance evaluation system.

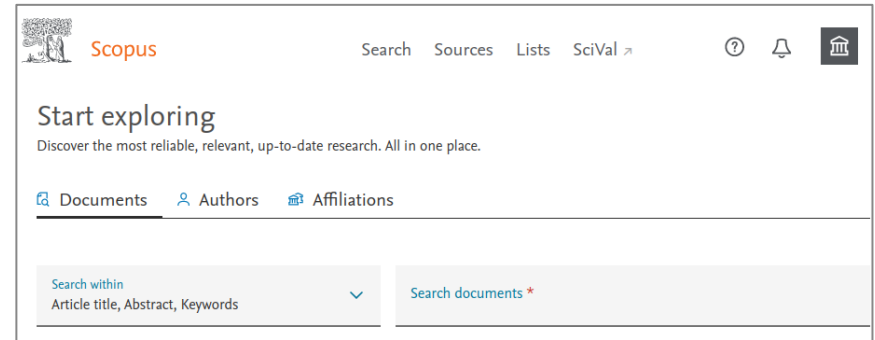
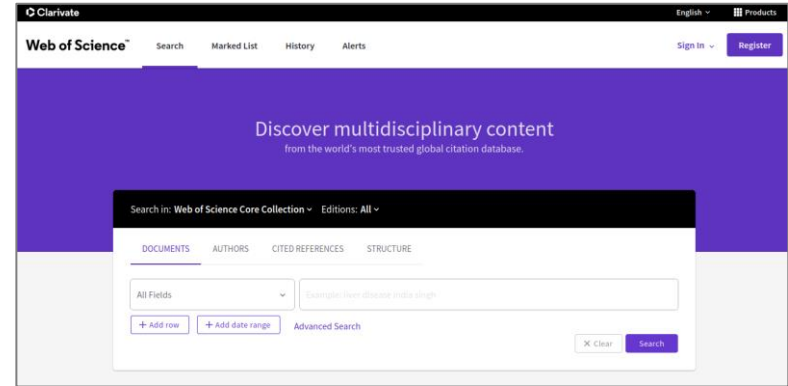
Citation metrics are important if you choose a career in academia, and they are also used to evaluate scientific institutions around the world.

How can citation databases help you?

- In searching for reliable, peer-reviewed resources (better chances of avoiding low-quality/[predatory journals](#))
- In checking journal metrics to make better decisions about where to publish (to build your academic reputation and get RIV points)
- In looking up author metrics (*h*-index counts) for proposals or one's own CV
- In identifying new trends and seminal articles in your field

Web of Science (WoS) and Scopus

- **Peer-reviewed scholarly literature:**
 - Journals, books, and conference proceedings
- **Content policy and selection criteria:**
 - **Evaluation of included literature** by standards, subject/content relevance, and impact
- **Citation information:**
 - Others who cite a work (times cited)
 - Views (usage count) and analysis
- Other citation metrics
- **No full texts, but links to full texts and abstracts**



How do you use citation databases? (if you use them)

- A. Searching for peer-reviewed resources
- B. Checking journal metrics (impact factor, citation scores)
- C. Getting author metrics (*h*-index counts)
- D. Other (+ comment in chat)
- E. I don't, that's why I'm here

Comparison

| Features | WoS | Scopus |
|----------------------|--|---------------------------------|
| Developer/Producer | Clarivate Analytics | Elsevier |
| Coverage | 1900 to present | 1970 to present |
| Author identifier | Assigned automatically and edited manually via Publons | Auto-generated Scopus Author ID |
| Alerts service | Yes | Yes |
| Export citations | Yes | Yes |
| Citation analysis | Yes | Yes |
| Main journal metrics | Journal Impact Factor | CiteScore |
| Author metrics | <i>h</i> -index | <i>h</i> -index |

Limitations/risks

- Metrics: learning about the different kinds of metrics may be confusing at first
- Delay in indexing (up to 6 months after publication)
- No full texts, but links to full texts (abstracts are available)
- Beware of potential biases
 - Uncritical acceptance of the assumptions, reasoning, conclusions of indexed papers
 - An overly negative attitude (“the paper is not good”) for papers with low numbers of citations or in journals not in WOS or Scopus
- Don't rely only on citation databases. Not enough for a comprehensive literature search; quality research can be found in other places as well

Access to WoS & Scopus

- Subscribed to via NTK and university libraries
- You have direct access within your university network (in your office or classrooms)
- For **off-campus access**, check with your library:
 - [NTK](#), [CTU](#), [UCT & IOCB](#), [Charles Univ.](#), [CZU](#)
- The list of journals (including citation metrics) is open to all
 - [Scopus sources](#)
 - [Web of Science Master Journal List](#) (for access to impact factor information, registration is required)

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CENTRAL LIBRARY

15 May 2019 is a Rector's day. Due to the shutdown of Oracle and the entire CTU IS, the services of the central CTU library

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Information resources catalogue

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Citations index

Citation databases are databases that track quoted responses to published review texts. In the Czech Republic, two of the most significant citation databases, SCOPUS and Web of Science, are used for ISI VeiVal review. Specifically, for reviewing articles published in journals and conference proceedings (Web of Science is part of Citation Reports and SCOPUS).

WEB OF SCIENCE | JCR | SCOPUS | INCITES

Web of Science

Direct access Remote access (Shibboleth)

The Web of Science (WoS) is a bibliographic and citation database used for VeiVal evaluation in the Czech Republic. Together with JCR evaluates the **Impact Factor (IF)** of journals.

WoS Components:

- Science Citation Index Expanded (SCI-Expanded)
- Social Science Citation Index (SSCI)
- Arts & Humanities Citation Index (AHCi)
- Conference Proceedings Citation Index (CPCI)
 - Science
 - Arts & Humanities

Journals in WoS¹²

Conferences in WoSConferences in WoS¹²

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Scopus Springer Taylor & Francis **Web of Science** Wiley

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2. Searching by topic in citation databases

Finding scholarly literature

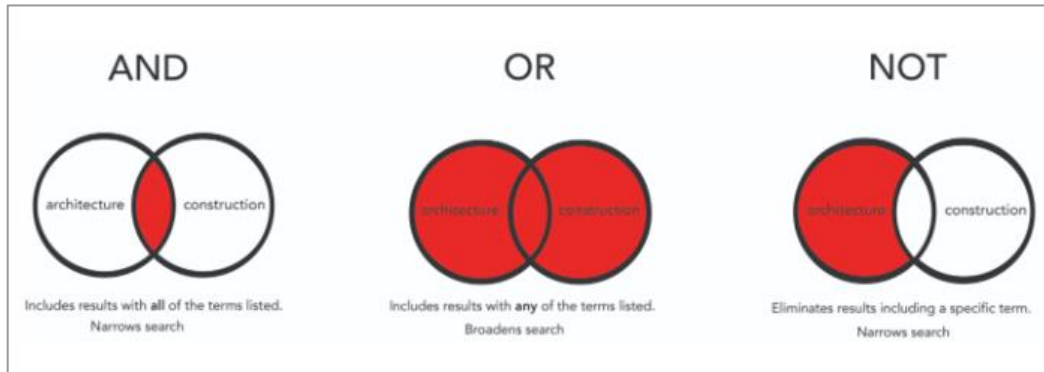
CASE STUDY #1: I need to find high quality sources for my dissertation about technologies for **carbon capture and utilization**

The screenshot displays a search interface for the 'Web of Science Core Collection'. At the top, a black bar contains the text 'Search in: Web of Science Core Collection' (highlighted with a red box) and 'Editions: All'. Below this, there are four tabs: 'DOCUMENTS', 'AUTHORS', 'CITED REFERENCES', and 'STRUCTURE'. The 'DOCUMENTS' tab is active. A search input field contains the text '"carbon capture storage"'. Below the input field, a dropdown menu is open, showing a list of search fields: 'All Fields', 'Topic', 'Title', 'Author', 'Publication Titles', and 'Year Published'. The 'Topic' option is highlighted with a purple background and a red box. To the right of the dropdown, there is a description for the 'Topic' search field: 'Searches title, abstract, author keywords, and Keywords Plus. Example: robot* control* "input shaping"'. At the bottom right of the search area, there are 'Clear' and 'Search' buttons.

Database searching tips

Topic ▾ "carbon capture storage" ×

⊖ Or ▾ Topic ▾ "carbon capture utilisation" ×



*industr**
industry
industrial
industrialism
industrialization

*sul*ur*
sulfur
sulphur

Managing results

189 results from Web of Science Core Collection for

Search: "carbon capture storage" (Topic) OR "carbon capture utilisation" (Topic)

Buttons: Analyze Results, Citation Report, Create Alert

Refine results: Search within results for...

Quick Filters: Highly Cited Papers (2), Review Articles (5), Early Access (1), Open Access (64), Associated Data (2)

Publication Years: 2022 (1), 2021 (29), 2020 (21), 2019 (23), 2018 (17)

Document Types: Articles (112), Proceedings Papers (46), Review Articles (25), Editorial Materials (9), Book Chapters (3)

Web of Science Categories: Energy Fuels (77), Engineering Chemical (54), Environmental Sciences (41), Engineering Environmental (31)

0/189 results. Sort by Citations: highest first. 1 of 4 pages.

1. **Carbon capture, storage and utilisation technologies: A critical analysis and comparison of their life cycle environmental impacts** (618 Citations)
Cuéllar-Franca, R.M. and Azapagic, A. Mar 2015 | JOURNAL OF CO2 UTILIZATION 9, pp.82-102
This paper presents a first comprehensive comparison of environmental impacts of carbon capture and storage (CCS) and carbon capture and utilisation (CCU) technologies. Life cycle assessment studies found in the literature have been reviewed for these purposes. In total, 27 studies have been found of which 11 focus on CCS and 16 on CCU. The CCU... [Show more](#)
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2. **Surface and Interface Engineering in Copper-Based Bimetallic Materials for Selective CO2 Electroreduction** (255 Citations)
Vasileff, A., Xu, C., Jiao, Y., Zheng, Y., Qiao, S.-Z. Aug 9 2018 | CHEM 4 (8), pp.1809-1831
The electrochemical CO2 reduction reaction (CO2RR) can couple **carbon-capture-storage** with renewable energy to convert CO2 into chemical feedstocks. For this process, copper is the only metal known to catalyze the CO2RR to hydrocarbons with adequate efficiency, but it suffers from poor selectivity. Copper bimetallic materials have recently shc... [Show more](#)
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3. **Electrocatalytic reduction of CO2 to formate using particulate Sn electrodes: Effect of metal loading and particle size** (81 Citations)
Del Castillo, A.; Alvarez-Guerra, M. (-); Irabien, A. Nov 1 2015 | APPLIED ENERGY 157, pp.163-173
The development of electrochemical processes for the conversion of CO2 into value-added products allows innovative carbon capture & utilisation (CCU) instead of **carbon capture & storage** (CCS). In addition, coupling this conversion with renewable energy sources would make it possible to chemically store electricity from these intermittent renewal... [Show more](#)
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4. **CO2 stability of Portland cement based well cementing systems for use on carbon capture & storage (CCS) wells** (61 Citations)
Levi, M.; Tsemmer, C. and Plank, J. Mar 2013 | CEMENT AND CONCRETE RESEARCH 45, pp.45-54
Three Portland cement based systems formulated with specific inorganic particles and organic admixtures were tested against conventional API Class G oil well cement with respect to CO2 tolerance. Hardened specimens (30 x 30 mm) were prepared and

Web of Science

798 document results

(TITLE-ABS-KEY ("carbon capture storage") OR TITLE-ABS-KEY ("carbon capture utilisation"))

Edit Save Set alert

Search within results...

Refine results: Limit to Exclude

Open Access: All Open Access (214), Gold (120), Hybrid Gold (24), Bronze (45), Green (79)

Year: 2022 (4), 2021 (148), 2020 (118), 2019 (93), 2018 (72)

Author name: Cormos, C.C. (15), Cormos, A.M. (12), Leonzio, G. (9), Li, Q. (9), Zhao, D. (9)

Subject area: Energy (362), Environmental Science (294), Engineering (75)



Documents Secondary documents Patents. View Mendely Data (21)

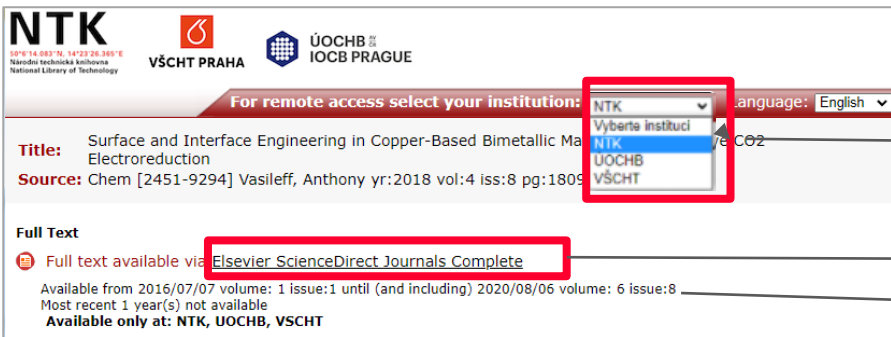
Analyze search results. Show all abstracts. Sort on: Cited by (highest)

| Document title | Authors | Year | Source | Cited by |
|--|--|------|---|----------|
| 1. Carbon capture, storage and utilisation technologies: A critical analysis and comparison of their life cycle environmental impacts | Cuéllar-Franca, R.M., Azapagic, A. | 2015 | Journal of CO2 Utilization 9, pp. 82-102 | 677 |
| 2. The effects of electricity consumption, economic growth, financial development and foreign direct investment on CO2 emissions in Kuwait | Salahuddin, M., Alam, K., Ozturk, I., Sohag, K. | 2018 | Renewable and Sustainable Energy Reviews 81, pp. 2002-2010 | 268 |
| 3. Surface and Interface Engineering in Copper-Based Bimetallic Materials for Selective CO2 Electroreduction | Vasileff, A., Xu, C., Jiao, Y., Zheng, Y., Qiao, S.-Z. | 2018 | Chem 4(8), pp. 1809-1831 | 259 |
| 4. CO2 capture by accelerated carbonation of alkaline wastes: A review on its principles and applications | Pan, S.-Y., Chang, E.E., Chiang, P.-C. | 2012 | Aerosol and Air Quality Research 12(5), pp. 770-791 | 222 |
| 5. Assessing the feasibility of CO2 storage in the New Albany Shale (Devonian-Mississippian) with potential enhanced gas recovery using reservoir simulation | Liu, F., Ellett, K., Xiao, Y., Rupp, J.A. | 2013 | International Journal of Greenhouse Gas Control 17, pp. 111-126 | 171 |
| 6. A systematic review on CO2 capture with ionic liquids: Current status and future prospects | Aghale, M., Rezaei, N., Zendehebudi, S. | 2018 | Renewable and Sustainable Energy Reviews 96, pp. 502-525 | 166 |



Scopus

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Source: Chem [2451-9294] Vasileff, Anthony yr:2018 vol:4 iss:8 pg:1809

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Article details (WoS)

4 **Carbon Capture and Storage: How Green Can Black Be?** 1,301 Citations

Haszeldine, RS
Sep 25 2009 | SCIENCE 325 (5948) , pp.1647-1652

The capture of carbon dioxide at the point of emission from coal- or gas-burning power plants is an attractive route to reducing carbon dioxide emissions into the atmosphere. To commercialize carbon capture, as well as transport of liquified carbon dioxide and its storage in exploited oil fields or saline formations, many technological, commercial, and political hurdles remain to be overcome. Urgent action is required if carbon capture and storage is to play a large role in limiting climate change.

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Carbon Capture and Storage: How Green Can Black Be?

By: Haszeldine, RS (Haszeldine, R. Stuart)
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SCIENCE
Volume: 325 Issue: 5948 Page: 1647-1652
DOI: [10.1126/science.1172246](https://doi.org/10.1126/science.1172246)
Published: SEP 25 2009
Document Type: Review

Abstract
The capture of carbon dioxide at the point of emission from coal- or gas-burning power plants is an attractive route to reducing carbon dioxide emissions into the atmosphere. To commercialize carbon capture, as well as transport of liquified carbon dioxide and its storage in exploited oil fields or saline formations, many technological, commercial, and political hurdles remain to be overcome. Urgent action is required if carbon capture and storage is to play a large role in limiting climate change.

Keywords
Keywords Plus: DIOXIDE

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Affiliation
University of Edinburgh

E-mail Addresses: s.haszeldine@ed.ac.uk

Categories/Classification
Research Areas: Science & Technology - Other Topics

Funding

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|---|--------------|------------------|
| UK Research & Innovation (UKRI) | | Show details |
| Natural Environment Research Council (NERC) | | Show details |
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Carbon capture, storage and utilisation technologies: A critical analysis and comparison of their life cycle environmental impacts

Cuéllar-Franca, R.M., Azapagic, A.

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School of Chemical Engineering and Analytical Science, University of Manchester, The Mill, Sackville Street, Manchester, M13 9PL, United Kingdom

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Abstract

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Abstract

This paper presents a first comprehensive comparison of environmental impacts of carbon capture and storage (CCS) and carbon capture and utilisation (CCU) technologies. Life cycle assessment studies found in the literature have been reviewed for these purposes. In total, 27 studies have been found of which 11 focus on CCS and 16 on CCU. The CCS studies suggest that the global warming potential (GWP) from power plants can be reduced by 63–82%, with the greatest reductions achieved by oxy-fuel combustion in pulverised coal and integrated gasification combined cycle (IGCC) plants and the lowest by post-combustion capture in combined cycle gas turbine (CCGT) plants. However, other environmental impacts such as acidification and human toxicity are higher with than without CCS. For CCU, the GWP varies widely depending on the utilisation option. Mineral carbonation can reduce the GWP by 4–48% compared to no CCU. Utilising CO₂ for production of chemicals, specifically, dimethylcarbonate

Cited by 678 documents

Optimization of low carbon fuels operation on a CI engine under a simplified driving cycle for transportation de-fossilization
García, A., Monsalve-Serrano, J., Villalta, D. (2022) *Fuel*

Nanoscale geochemical heterogeneity of organic matter in thermally-mature shales: An AFM-IR study
Wang, K., Ma, L., Taylor, K.G. (2022) *Fuel*

Hybrid CO₂-N₂ huff-n-puff strategy in unlocking tight oil reservoirs
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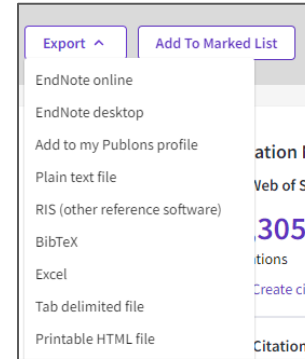
From Paris agreement to business cases for upgraded biogas: Analysis of potential market uptake for biomethane plants in Germany using biogenic carbon capture and utilization technologies
Horschig, T., Welfe, A., Billig, E. (2019) *Biomass and Bioenergy*

Life cycle assessment of natural gas combined cycle integrated with CO₂ post-combustion capture using chemical solvent
Fateji, S., Arafat, H.A., Abu-Zahra, M.R.M. (2013) *International Journal of Greenhouse Gas Control*

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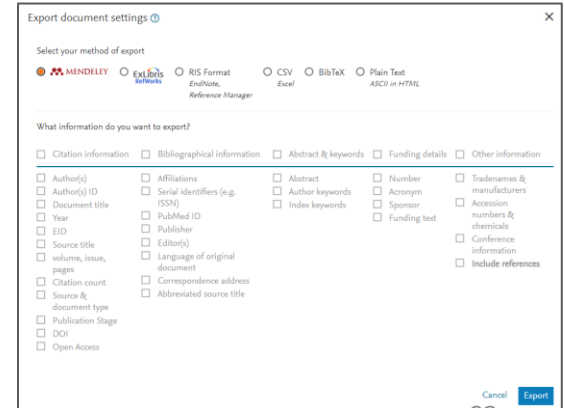
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Personal accounts

Creating personal accounts enables you to:

- **Save** your search history and lists of documents
- **Create alerts** for each search

Setting search alerts: Scopus




Scopus

17,537 document results

TITLE-ABS-KEY ("air traffic control")

 Edit  Save  Set alert





Search terms
TITLE-ABS-KEY ("air traffic control")  Edit

* Required fields


Name of alert *
"air traffic control"

Email address(es) *

E.g., j.smith@mail.com, p.smith@mail.com
Separate multiple email addresses by a semicolon, comma, space or enter.

Frequency
Every week  on Monday 

Status
 Active Inactive



Setting search alerts: WoS

4,091 results from Web of Science Core Collection for:

Q "air traffic control" (Topic)

∞ Copy query link

Analyze Results Citation Report Create Alert

- You can create alerts for any search

Create search alert

Alert Name

26
Air traffic control

Send me email alerts

CREATE

3. Searching for journals

What are journal metrics?

- Measurements of quality/impact of a journal
- They assist in quantifying the importance of a journal

Journal metrics

Web of Science's Journal Citation Reports:

- [Journal Impact Factor](#)

Scopus sources:

- [CiteScore](#)

Impact factor (WoS)

"The impact factor is a measure of the frequency with which the 'average article' in a journal has been cited in a particular year or period."

*"The impact factor of a journal is calculated by dividing the number of current year citations to the source items published in that journal during the **previous two years.**"¹*

$$\text{IF}_{2017} = \frac{\text{Citations}_{2016} + \text{Citations}_{2015}}{\text{Publications}_{2016} + \text{Publications}_{2015}} = \frac{32389 + 41701}{880 + 902} = 41.577$$

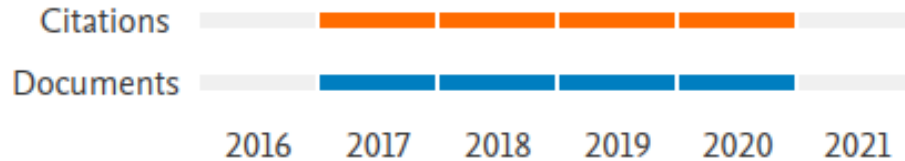
Image source: https://en.wikipedia.org/wiki/Impact_factor

1) Garfield E. (1994, June 20), The Impact Factor. Originally published in the *Current Contents*, Available also at: <https://clarivate.com/webofsciencegroup/essays/impact-factor/>

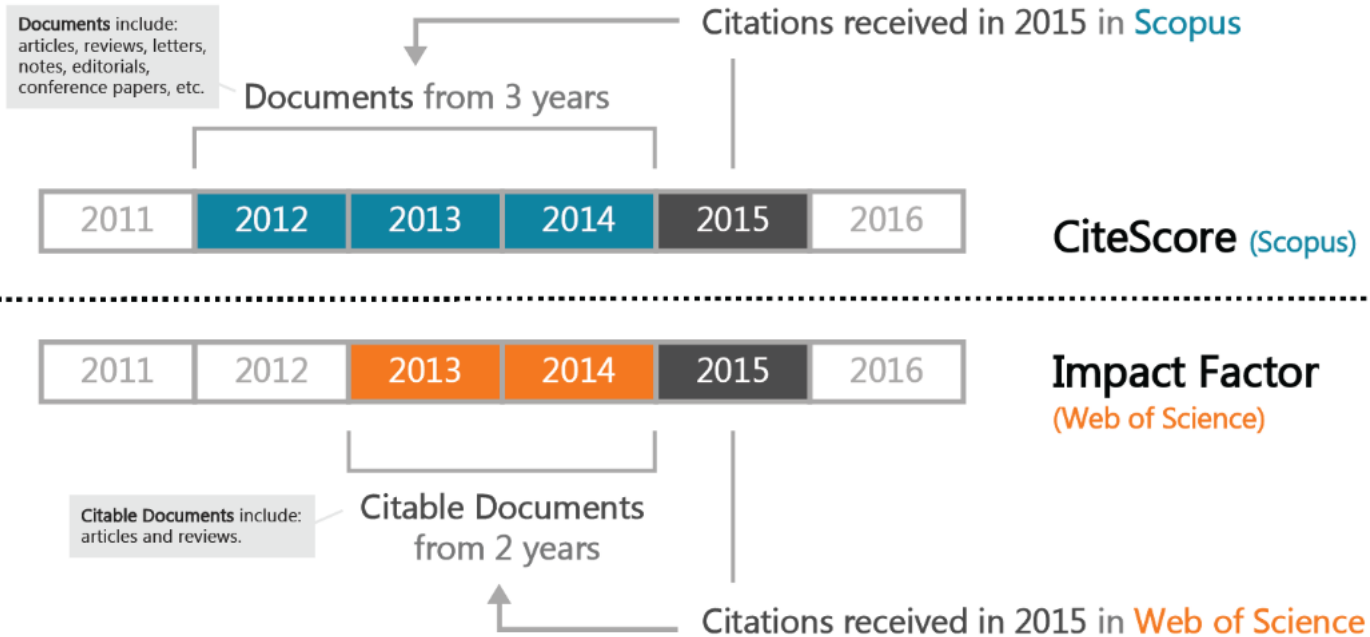
CiteScore (Scopus)

CiteScore 2020 methodology

CiteScore 2020 counts the citations received in 2017-2020 to articles, reviews, conference papers, book chapters and data papers published in 2017-2020, and divides this by the number of publications published in 2017-2020.



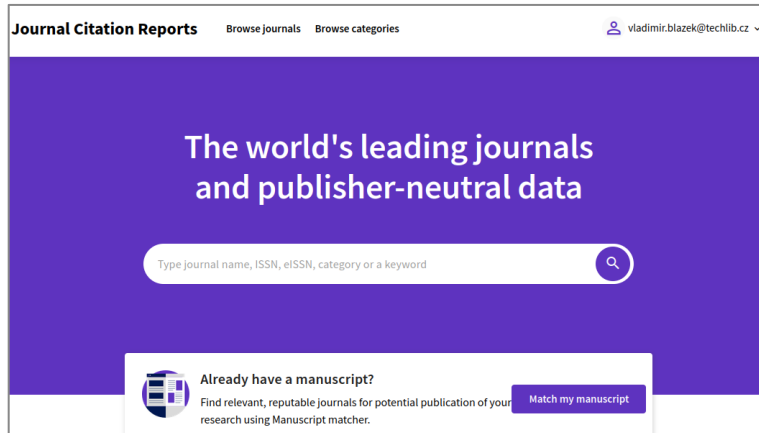
CiteScore (Scopus) vs. WoS impact factor



Checking impact factor/CiteScore

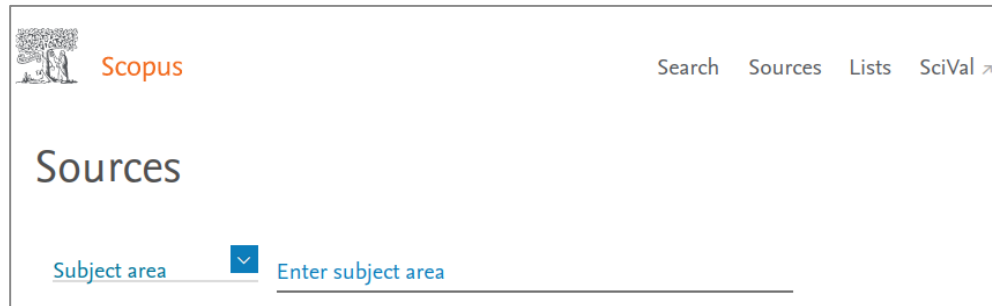
CASE STUDY #2: I need to check the quality and reliability of the *Journal of Modern Power Systems and Clean Energy*

- **Journal Citation Report** for WoS impact factor



The screenshot shows the homepage of Journal Citation Reports. The header includes the site name, navigation links for 'Browse journals' and 'Browse categories', and a user profile for 'vladimir.blazek@techlib.cz'. The main content area has a purple background with the text 'The world's leading journals and publisher-neutral data'. Below this is a search bar with the placeholder text 'Type journal name, ISSN, eISSN, category or a keyword'. At the bottom, there is a section titled 'Already have a manuscript?' with a subtext 'Find relevant, reputable journals for potential publication of your research using Manuscript matcher.' and a 'Match my manuscript' button.

- **Source** for Scopus CiteScore

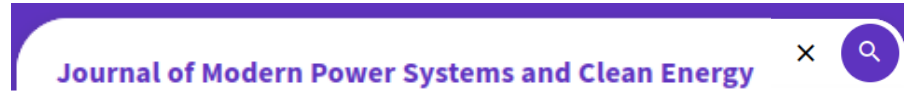


The screenshot shows the 'Sources' page on the Scopus website. The header includes the Scopus logo, navigation links for 'Search', 'Sources', 'Lists', and 'SciVal', and a user profile. The main content area has the title 'Sources' and a search bar with the placeholder text 'Subject area' and a dropdown menu icon. Below the search bar is a text input field with the placeholder text 'Enter subject area'.

Checking impact factor/CiteScore

Journal of Modern Power Systems and Clean Energy

Web of Science™



Search results > Journal profile

JCR YEAR

2020

Journal of Modern Power Systems and Clean Energy

Open Access since 2013

ISSN

2196-5625

E-ISSN

2196-5420

JCR ABBREVIATION

J MOD POWER SYST CLE

ISO ABBREVIATION

J. Mod. Power Syst. Clean Energy

Journal's performance

Journal Impact Factor

2020 JOURNAL IMPACT FACTOR

3.265

[View calculation](#)

JOURNAL IMPACT FACTOR WITHOUT SELF CITATIONS

2.720

[View calculation](#)

Scopus

Source details

Journal of Modern Power Systems and Clean Energy

Open Access ⓘ

Scopus coverage years: from 2013 to Present

Publisher: IEEE

ISSN: 2196-5625 E-ISSN: 2196-5420

Subject area: [Energy: Energy Engineering and Power Technology](#) [Energy: Renewable Energy, Sustainability and the Environment](#)

Source type: Journal

[View all documents >](#)

[Set document alert](#)

[Save to source list](#)

CiteScore

[CiteScore rank & trend](#)

[Scopus content coverage](#)

CiteScore 2020

7.8 =

3 675 Citations 2017 - 2020

477 Documents 2017 - 2020

Calculated on 05 May, 2021

CiteScoreTracker 2021 ⓘ

7.6 =

3 607 Citations to date

473 Documents to date

Last updated on 05 October, 2021 • Updated monthly

CASE STUDY #3: I need to check the quality and reliability of the *International Journal of Energy Engineering*

| International journal of energy | |
|--|-----------------------|
| JOURNAL NAME | ISSN/eISSN |
| INTERNATIONAL JOURNAL OF ENERGY RESEARCH | 0363-907X / 1099-114X |
| International Journal of Energy Sector Management | 1750-6220 / 1750-6239 |
| International Journal of Energy Optimization and Engineering | 2160-9500 / 2160-9543 |
| International Journal of Energy and Environmental Engineering | 2008-9163 / 2251-6832 |
| See all 4 results > | |



INTERNATIONAL JOURNAL OF ENERGY RESEARCH

ISSN
0363-907X

2020 JOURNAL IMPACT FACTOR

5.164

[View calculation](#)

EISSN
1099-114X

JCR ABBREVIATION
INT J ENERG RES

ISO ABBREVIATION
Int. J. Energy Res.

International Journal of Energy Sector Management

ISSN
1750-6220

Emerging journal

EISSN
1750-6239

JCR ABBREVIATION
INT J ENERGY SECT MA

ISO ABBREVIATION
Int. J. Energy Sect. Manag.

International Journal of Energy Optimization and Engineering

ISSN
2160-9500

Emerging journal

EISSN
2160-9543

JCR ABBREVIATION
INT J ENERGY OPTIM E

ISO ABBREVIATION
Int. J. Energy Optim. Eng.

International Journal of Energy and Environmental Engineering

ISSN
2008-9163

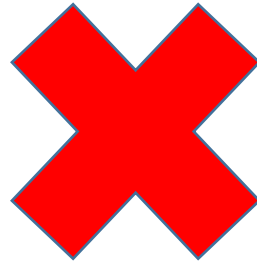
Emerging journal

EISSN
2251-6832

JCR ABBREVIATION
INT J ENERGY ENVIR E

ISO ABBREVIATION
Int. J. Energy Environ. Eng.

CASE STUDY #3: I need to check the quality and reliability of the *International Journal of Energy Engineering*



**INTERNATIONAL
JOURNAL OF ENERGY
RESEARCH**

ISSN
0363-907X

EISSN
1099-114X

JCR ABBREVIATION
INT J ENERG RES

ISO ABBREVIATION
Int. J. Energy Res.

**International Journal
of Energy Sector
Management**

ISSN
1750-6220

EISSN
1750-6239

JCR ABBREVIATION
INT J ENERGY SECT MA

ISO ABBREVIATION
Int. J. Energy Sect. Manag.

**International Journal
of Energy
Optimization and
Engineering**

ISSN
2160-9500

EISSN
2160-9543

JCR ABBREVIATION
INT J ENERGY OPTIM E

ISO ABBREVIATION
Int. J. Energy Optim. Eng.

**International Journal
of Energy and
Environmental
Engineering**

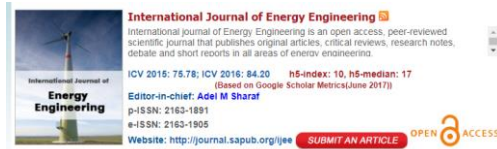
ISSN
2008-9163

EISSN
2251-6832

JCR ABBREVIATION
INT J ENERGY ENVIR E

ISO ABBREVIATION
Int. J. Energy Environ. Eng.

International Journal of Energy Engineering



Link:

<http://www.sapub.org/journal/aimsandscope.aspx?journalid=1005>

Publisher: Scientific & Academic Publishing (SAP)

ISSN: 2163-1905

WoS JCR: **NO**

Scopus Sources: **NO**

Beall's archive: **YES**

International Journal of Energy Research



Link:

<https://onlinelibrary.wiley.com/journal/1099114x>

Publisher: John Wiley & Sons Ltd.

ISSN: 1099-114X

WoS JCR: **YES** (2017-IF 3.009)

Scopus Sources: **YES** (2017-CS 2.72)

Beall's archive: **NO**

Tracking a specific journal

- Be careful: one word or one letter can make a great difference
- [Ulrichsweb](#): check journal details and ISSNs
- [Beall's archive](#) of potential predatory publishers and journals
 - Beware! The original list has not been updated since 2016
 - There are successors to Jeffrey Beall, but they prefer to remain anonymous

4. Searching for authors & *h*-index counts

Why use author identifiers?

- Names are sometimes confusing; there are different ways to write/transliterate them
- Names are not unique
- People can change their names

- Author identifiers give you the ability to reliably distinguish two authors with the same name or to track one author across multiple databases

Author identifiers

| Features | ResearcherID (Publons) | Scopus Author Identifier | ORCID (Open Researcher & Contributor ID) |
|--|---|--|--|
| How to get author identifier? | Author identifier will be created automatically with your first publication in WoS. You can then claim the profile with Publons and manage it similarly to ORCID. | Author identifier will be generated automatically if you have at least one publication in Scopus. You can edit author profiles (Edit profile tool) or use Author Feedback Wizard or Support. Merging profiles is possible on the results page. | Create your profile at orcid.org . You can join all your author IDs in ORCID. |
| How to link your publication with your ID? | Manage via Publons: You can import your citations from Web of Science, ORCID, via DOI or add them manually. | Imported automatically from Scopus, add manually in Edit profile. | You can import from many platforms (WoS, Scopus, arXiv) or add manually. |
| Supporting platforms | Web of Science | Scopus | Open non-profit initiative |

- Link all papers published under different variants of your name
- Distinguish papers written by other authors with the same name
- Create your author profiles

h-index

“The h-index is based on a list of publications ranked in descending order by the Times Cited. The value of h is equal to the number of papers (N) in the list that have N or more citations. (...)

A researcher (or a set of papers) has an h-index of N if he/she has published N papers that have N or more citations each. The h-index is based on Times Cited data from the database. It will not include citations from non-indexed resources.”¹

| Paper | Number of citations | |
|--------------|----------------------------|----------------|
| Paper 1 | 101 | } h = 7 |
| Paper 2 | 86 | |
| Paper 3 | 77 | |
| Paper 4 | 56 | |
| Paper 5 | 16 | |
| Paper 6 | 12 | |
| Paper 7 | 8 | |
| Paper 8 | 4 | |
| Paper 9 | 4 | |
| Paper 10 | 1 | |

Image source: <https://toptipbio.com/h-index-how-to-calculate-yours/>

1) Clarivate Analytics (2019, February 5), *Web of Science: h-index information*. Available at: https://support.clarivate.com/ScientificandAcademicResearch/s/article/Web-of-Science-h-index-information?language=en_US 42

***h*-index: potential traps**

- The source or records for analysis:
 - Web of Science **vs.** Scopus **vs.** Google Scholar
- The number and accuracy of records in a dataset:
 - Basic search **vs.** ORCID search **vs.** author profile
- Exclude self-citations of selected author **vs.**
exclude self-citations of all co-authors

Tracking an author in WoS

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Full Professors

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Oddělení:

[Advanced Materials Group](#)

ORCID:

<http://orcid.org/0000-0002-0863-6287>

<https://usermap.cvut.cz/profile/577dec31-a2d6-4eda-a02e-c9b1c370447b?lang=en>

CASE STUDY #4: I want to find papers by **Prof. Tomáš Polcar** (and check his *h*-index)

Author search: WoS

DOCUMENTS **AUTHORS** CITED REFERENCES STRUCTURE

Author Polcar T

195 results

Including all articles authored by people with the name "Polcar T", regardless of field

DOCUMENTS **AUTHORS** CITED REFERENCES STRUCTURE

Search for an author to see their author record. An author record is a set of Web of Science Core Collection documents likely authored by the same person. You can claim and verify your author record from your author record page.

Name Search

Last Name POLCAR

First Name and Middle Initial(s) T

| | | |
|--------------------------|---|--|
| <input type="checkbox"/> | 1 Polcar, Tomas Czech Technical University Prague Fac Elect Engrg, Fac Engrg & Phys Sci PRAGUE, CZECH REPUBLIC Web of Science ResearcherID: G-5742-2013 Published names: Polcar, T. Polcar, T Top Journals: Surface & Coatings Technology, Applied Surface Science, Tribology International Recent publications | 146 Documents 2005-2019 Years |
| <input type="checkbox"/> | 2 Polcar, Tomas University of Southampton Natl Ctr Adv Tribol/Fac Elect Engrg SOUTHAMPTON, HANTS, ENGLAND Published names: Polcar, T. Polcar, T Top Journals: Surface & Coatings Technology, Applied Surface Science, Acta Materialia Recent publications | 48 Documents 2003-2021 Years |
| <input type="checkbox"/> | 3 Polcar, T. Czech Technical University Prague Fac Elect Engrg PRAGUE, CZECH REPUBLIC Published names: Top Journals: Materials & Design Recent publications | 1 Documents 2021-2021 Years |

146 records
Author profile based on analysis of records (name, field, affiliation, and so on)

DOCUMENTS **AUTHORS** CITED REFERENCES STRUCTURE

Search for an author to see their author record. An author record is a set of Web of Science Core Collection documents likely authored by the same person. You can claim and verify your author record from your author record page.


Author Identifiers

Web of Science ResearcherID or ORCID G-5742-2013

146 records

Including all articles connected to Prof. Polcar via his ResearcherID

Author search: WoS



Polcar, Tomas ✓
University of Southampton
Web of Science ResearcherID: G-5742-2013 ⓘ

[View public profile](#)

See a complete view of this researcher's scholarly contributions, including peer review and editorial work.

Verify your Author Record


Get your own verified author record. Enter your name in Author Search, then click "Claim My Record" on your author record page.

[Go to author search](#)

About

Published names Polcar, T. Polcar, Tomas Polcar, T

Organizations
2013-2019 University of Southampton
2005-2019 Czech Technical University Prague
2007-2011 Universidade de Coimbra

Other Identifiers  <https://orcid.org/0000-0002-0863-6287>

[PUBLICATIONS](#) [PEER REVIEW](#)

146 Publications from the Web of Science Core Collection

[View as set of results](#) Date: Newest first ▾ All Publications ▾ < 1 of 3 >

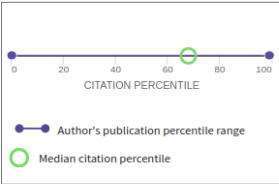
[Deformation-Controlled Design of Metallic Nanocomposites](#) **0** Times Cited
[Yavas, Hakan ; Fralle, Alberto ; \(...\); Polcar, Tomas](#)
Published 2019 | ACS APPLIED MATERIALS & INTERFACES

[Microstructural evolution of helium-irradiated 6H-SiC subjected to different irradiation](#) **26**

Metrics

[Dashboard](#)

Author Impact Beamplot Summary ⓘ



Author's publication percentile range
Median citation percentile

Percentile range displays for authors from 1980 to 2019. View all publications in full beamplot.

[View full beamplot](#)

Citation Network ⓘ

| | |
|------------------------------------|----------------------------------|
| 33 H-Index | 146 Total Publications |
| 3,222 Sum of Times Cited | 2,135 Citing Articles |

[View citation report](#)

Author search: Scopus

Documents **Authors** Affiliations Search tips

Search using: Author name

Enter last name *
Polcar

Enter first name
T

+ Add affiliation Search

| Author | Documents | h-index | Affiliation | City | Country/Territory |
|--|-----------|---------|--------------------------------------|--------|-------------------|
| <input type="checkbox"/> 1 Polcar, Tomas Polcar, Tomáš Polcar, Tomas Polcar, Tomáš View last title | 195 | 33 | Czech Technical University in Prague | Prague | Czech Republic |
| <input type="checkbox"/> 2 Polcar, Tomáš View last title | 2 | 2 | České vysoké učení technické v Praze | Prague | Czech Republic |

Scopus

Search Sources Lists SciVal

This author profile is generated by Scopus [Learn more](#)

Polcar, Tomas

© Czech Technical University in Prague, Prague, Czech Republic [Show all author info](#)

55881689000 [Connect to ORCID](#)

[Edit profile](#) [Set alert](#) [Save to list](#) [Potential author matches](#)

[Export to SciVal](#)

47

Metrics overview

195
Documents by author

3621
Citations by 2367 documents

33
h-index: [View h-graph](#)

Document & citation trends

| Year | Documents | Citations |
|------|-----------|-----------|
| 2005 | 1 | 0 |
| 2006 | 1 | 0 |
| 2007 | 1 | 0 |
| 2008 | 1 | 0 |
| 2009 | 1 | 0 |
| 2010 | 1 | 0 |
| 2011 | 1 | 0 |
| 2012 | 1 | 0 |
| 2013 | 1 | 0 |
| 2014 | 1 | 0 |
| 2015 | 1 | 0 |
| 2016 | 1 | 0 |
| 2017 | 1 | 0 |
| 2018 | 1 | 0 |
| 2019 | 1 | 0 |
| 2020 | 1 | 0 |
| 2021 | 1 | 631 |
| 2022 | 1 | 0 |

Analyze author output Citation overview

Most contributed Topics 2016–2020

- Grain Boundaries; Radiation Injuries; Dislocation
[10 documents](#)
- Solid Lubricants; Tribometers; Friction Coefficient
[7 documents](#)
- Ion Plating; Hard Coatings; Physical Vapor Deposition
[6 documents](#)

[View all Topics](#)

Google Scholar metrics



Milan Jirásek

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Verified email at fsv.cvut.cz - [Homepage](#)

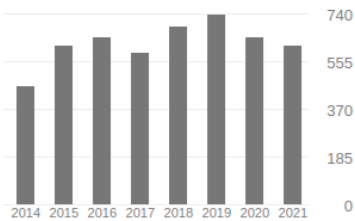
[Fracture](#) [Failure](#) [Plasticity](#) [Damage](#) [Creep](#)

[GET MY OWN PROFILE](#)

Cited by [VIEW ALL](#)

| | All | Since 2016 |
|-----------|------|------------|
| Citations | 9257 | 3934 |
| h-index | 43 | 31 |
| i10-index | 80 | 56 |

| TITLE | CITED BY | YEAR |
|---|----------|------|
| Nonlocal integral formulations of plasticity and damage: survey of progress ZP Bazant, M Jirásek Journal of engineering mechanics 128 (11), 1119-1149 | 1327 | 2002 |
| Inelastic Analysis of Structures M Jirasek, ZP Bazant Wiley | 1004 | 2002 |
| Comparative study on finite elements with embedded discontinuities M Jirásek Computer methods in applied mechanics and engineering 188 (1-3), 307-330 | 565 | 2000 |
| Damage-plastic model for concrete failure P Grassi, M Jirásek International journal of solids and structures 43 (22-23), 7166-7196 | 538 | 2006 |
| Nonlocal models for damage and fracture: comparison of approaches M Jirasek International Journal of Solids and Structures 35 (31-32), 4133-4145 | 451 | 1998 |
| Comparison of integral-type nonlocal plasticity models for strain-softening materials M Jirásek, S Rolshoven International journal of engineering science 41 (13-14), 1553-1602 | 270 | 2003 |
| Meso-scale approach to modelling the fracture process zone of concrete subjected to uniaxial tension | 239 | 2010 |



48

Public access [VIEW ALL](#)




Based on funding mandates

5. Summary

Summary of advantages

- **Contain high-quality, peer-reviewed articles**
- You can use the number of citations to identify seminal articles
- Searching for authors and evaluating them
- Searching for journals and their metrics
- Creating alerts to track new trends

Keep in mind

- **Access to full texts** can be problematic 
- To make your research more comprehensive, also **use other search tools** (e.g., Google Scholar, an academic library discovery system)
- **Delay** in indexing sometimes (up to 6 months after publication for some journals)

6. Getting assistance

STEMskiller

<https://www.techlib.cz/en/84109-stemskiller>

SKILL SET MAP FOR MENTORS OF EARLY CAREER RESEARCHERS

Definitions, annotations, and links to high-quality open educational resources in English useful in guiding students towards excellence. [\[Read more...\]](#)

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1. [Research and scholarship](#)
2. [Learning, teaching, and supervising](#)
3. [Career management](#)
4. [Engagement, involvement, collaboration, transdisciplinarity, and inquisitiveness](#)

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- [Propose high-quality open resources in English](#)

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- Informal peer discussion about academic careers and life as a doctoral student, with other doctoral students

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- info@techlib.cz

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Bibliometrics can assist you in evaluating published research results, assessing the impact of basic and applied research, or in making decisions about funding (scientometrics).

What we offer

Consultations

- Learn to effectively search citation databases.
- Quickly find your publications and h-index variants.
- Manage your published output with author identifiers (ORCID, ResearcherID, Scopus Author ID).
- Evaluate journal impact factor or other citation metrics.

The service is **free**.

Publication Overview with Citation Counts

We can prepare a customized citation report for you based on information you provide to us such as an author's name or particular research field. For these reports, we primarily use **citation databases and resources** such as Scopus, Web of Science, Journal Citation Reports, Google Scholar.


How to order our services

Arrange a consultation [in person](#), [by phone](#) (+420 232.002.535) or [email](#).

Editor: [Vladimir Blazek](#)

Last modified: 6.4. 2020 16:04

Your contact



Vladimir Blazek
✉ [vladimir.blazek](mailto:vladimir.blazek@techlib.cz)
☎ 232 002 535

Subjects

Bibliometrics and Scientometrics, Free and Open Source Software, Unix, Internet Privacy, Data Protection

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Original Author: Jakub Szarzec

<https://www.techlib.cz/en/83534-bibliometric-services>

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If you wish to meet and discuss your research topic in detail, please fill out the form and we will confirm our appointment within one business day.

We suggest to bring a tablet or laptop to your confirmed appointment.

I would like to discuss . . .

Question -

Preferred time and date -

First and last name -

Email -

Phone -

<https://www.techlib.cz/en/8340-1-scheduled-consultations>

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Thank you

Questions?