
scopusreport Documentation

Release 1.4.0

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scopusreport is an easy way to generate reports using data from the Scopus database.

CHAPTER 1

Installation

Install *scopus* from PyPI:

```
$ pip install scopusreport
```

or directly from the GitHub repository (may be unstable):

```
$ pip install git+https://github.com/scopus-api/scopusreport
```

To generate reports using the Scopus database, set up *scopus* first: <https://scopus.readthedocs.io/en/latest/configuration.html>.

See extended description and examples in the *Examples* section.

CHAPTER 2

Classes

Currently there is one class to interact with:

There is one class to provide reports:

`report(query, label[, refresh])`

Print out an org-mode report for search results.

- `genindex`
- `modindex`
- `search`

3.1 Examples

3.1.1 report

This class provides a function to generate a report using results from a Scopus query. It outputs text in [Emacs org-format](#).

reports summarizes the results in a variety of ways, such as the number of hits, which journals they are published in, who the coauthors are, their affiliations (here *reports* makes use of potentially cached author and affiliation views), how many times the articles have been cited.

```
>>> from scopusreport import report
>>> query = 'FIRSTAUTH ( kitchin j.r. )'
>>> report(query, 'Kitchin - first author')
*** Report for Kitchin - first author

#+attr_latex: :placement [H] :center nil
#+caption: Types of documents found for Kitchin - first author.
| Document type | count |
| -
| Journal | 11 |
| Conference Proceeding | 1 |

11 articles (1861 citations) found by 12 authors
```

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```

#+attr_latex: :placement [H] :center nil
#+caption: Author publication counts for Kitchin - first author.
| name | count | categories |
|-
| [[https://www.scopus.com/authid/detail.uri?authorId=7004212771][Kitchin J.]] | 11 |
↳Electronic, Optical and Magnetic Materials (9), Surfaces and Interfaces (9),
↳Physics and Astronomy (all) (9) |
| [[https://www.scopus.com/authid/detail.uri?authorId=7005171428][Barteau M.]] | 5 |
↳Catalysis (83), Surfaces and Interfaces (81), Condensed Matter Physics (80) |
| [[https://www.scopus.com/authid/detail.uri?authorId=7501891385][Chen J.]] | 5 |
↳Physics and Astronomy (miscellaneous) (9), Chemistry (all) (80), Condensed Matter
↳Physics (80) |
| [[https://www.scopus.com/authid/detail.uri?authorId=7007042214][Nørskov J.]] | 3 |
↳Chemistry (miscellaneous) (9), Nuclear Energy and Engineering (9), Physics and
↳Astronomy (all) (85) |
| [[https://www.scopus.com/authid/detail.uri?authorId=50761335600][Van Gulick A.]] |
↳1 | Cognitive Neuroscience (3), Experimental and Cognitive Psychology (3), Arts and
↳Humanities (miscellaneous) (2) |
| [[https://www.scopus.com/authid/detail.uri?authorId=55755405700][Zilinski L.]] | 1
↳Library and Information Sciences (7), Information Systems (4), Computer Science
↳(all) (1) |
| [[https://www.scopus.com/authid/detail.uri?authorId=35514271900][Gellman A.]] | 1 |
↳Physical and Theoretical Chemistry (90), Biochemistry (9), Surfaces and Interfaces
↳(74) |
| [[https://www.scopus.com/authid/detail.uri?authorId=7006349643][Reuter K.]] | 1 |
↳Energy (all) (8), Physics and Astronomy (all) (73), Condensed Matter Physics (64) |
| [[https://www.scopus.com/authid/detail.uri?authorId=7102229641][Scheffler M.]] | 1
↳Electronic, Optical and Magnetic Materials (93), Physical and Theoretical
↳Chemistry (76), Hardware and Architecture (7) |
| [[https://www.scopus.com/authid/detail.uri?authorId=7401797491][Khan N.]] | 1 |
↳Physical and Theoretical Chemistry (7), Surfaces and Interfaces (4), Catalysis (4) |
| [[https://www.scopus.com/authid/detail.uri?authorId=6602686751][Yakshinskiy B.]] |
↳1 | Applied Mathematics (9), Computer Science Applications (9), Physics and
↳Astronomy (miscellaneous) (8) |
| [[https://www.scopus.com/authid/detail.uri?authorId=35477902900][Madey T.]] | 1 |
↳Process Chemistry and Technology (9), Instrumentation (8), Chemistry (all) (8) |

#+attr_latex: :placement [H] :center nil
#+caption: Journal publication counts for Kitchin - first author.
| Journal | count |
|-
| [[https://www.scopus.com/source/sourceInfo.url?sourceId=12284][Surface Science]] |
↳3 |
| [[https://www.scopus.com/source/sourceInfo.url?sourceId=11000153773][Physical
↳Review B - Condensed Matter and Materials]] | 2 |
| [[https://www.scopus.com/source/sourceInfo.url?sourceId=145200][International
↳Journal on Digital Libraries]] | 1 |
| [[https://www.scopus.com/source/sourceInfo.url?sourceId=16275][AIChE Journal]] | 1 |
| [[https://www.scopus.com/source/sourceInfo.url?sourceId=19700188320][ACS
↳Catalysis]] | 1 |
| [[https://www.scopus.com/source/sourceInfo.url?sourceId=16377][Catalysis Today]] |
↳1 |
| [[https://www.scopus.com/source/sourceInfo.url?sourceId=29150][Physical Review
↳Letters]] | 1 |
| [[https://www.scopus.com/source/sourceInfo.url?sourceId=28134][Journal of Chemical
↳Physics]] | 1 |

```

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```

#+attr_latex: :placement [H] :center nil
#+caption: Top cited publication counts for Kitchin - first author. h-index = 8.
| title | cite count |
|-
| [[10.1063/1.1737365][Modification of the surface electronic and chemical properti]] | 732 |
| [[10.1103/PhysRevLett.93.156801][Role of strain and ligand effects in the modification of the]] | 682 |
| [[10.1016/j.cattod.2005.04.008][Trends in the chemical properties of early transition metal ]] | 141 |
| [[10.1016/j.susc.2003.09.007][Elucidation of the active surface and origin of the weak met]] | 127 |
| [[10.1103/PhysRevB.77.075437][Alloy surface segregation in reactive environments: First-pr]] | 84 |
| [[10.1103/PhysRevB.79.205412][Correlations in coverage-dependent atomic adsorption energie]] | 50 |
| [[10.1016/S0039-6028(02)02679-1][A comparison of gold and molybdenum nanoparticles on TiO<inf]] | 31 |
| [[10.1021/acscatal.5b00538][Examples of effective data sharing in scientific publishing]] | 8 |
| [[10.1002/aic.15294][High-throughput methods using composition and structure spre]] | 3 |
| [[10.1016/j.susc.2015.05.007][Data sharing in Surface Science]] | 2 |

#+caption: Number of authors on each publication for Kitchin - first author.
[./Kitchin - first author-nauthors-per-publication.png]]
**** Bibliography :noexport:
      :PROPERTIES:
      :VISIBILITY: folded
      :END:
1. [[https://www.scopus.com/inward/record.uri?partnerID=HzOxMe3b&scp=85019169906&origin=inward][2-s2.0-85019169906]] John R. Kitchin, Ana E. Van Gulick and Lisa D. Zilinski, Automating data sharing through authoring tools, International Journal on Digital Libraries, 18(2), pp. 93-98, (2017). https://doi.org/10.1007/s00799-016-0173-7, https://www.scopus.com/inward/record.uri?partnerID=HzOxMe3b&scp=85019169906&origin=inward, cited 1 times (Scopus).
    Affiliations:
      Carnegie Mellon University
2. [[https://www.scopus.com/inward/record.uri?partnerID=HzOxMe3b&scp=84971324241&origin=inward][2-s2.0-84971324241]] John R. Kitchin and Andrew J. Gellman, High-throughput methods using composition and structure spread libraries, AIChE Journal, 62(11), pp. 3826-3835, (2016). https://doi.org/10.1002/aic.15294, https://www.scopus.com/inward/record.uri?partnerID=HzOxMe3b&scp=84971324241&origin=inward, cited 3 times (Scopus).
    Affiliations:
      Carnegie Mellon University
3. [[https://www.scopus.com/inward/record.uri?partnerID=HzOxMe3b&scp=84930349644&origin=inward][2-s2.0-84930349644]] John R. Kitchin, Data sharing in Surface Science, Surface Science, 647, pp. 103-107, (2016). https://doi.org/10.1016/j.susc.2015.05.007, https://www.scopus.com/inward/record.uri?partnerID=HzOxMe3b&scp=84930349644&origin=inward, cited 2 times (Scopus).
    Affiliations:

```

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Carnegie Mellon University

4. [[<https://www.scopus.com/inward/record.uri?partnerID=HzOxMe3b&scp=84930616647&origin=inward>][2-s2.0-84930616647]] John R. Kitchin, Examples of effective data sharing in scientific publishing, ACS Catalysis, 5(6), pp. 3894–3899, (2015). <https://doi.org/10.1021/acscatal.5b00538>, <https://www.scopus.com/inward/record.uri?partnerID=HzOxMe3b&scp=84930616647&origin=inward>, cited 8 times (Scopus).

Affiliations:

Carnegie Mellon University

5. [[<https://www.scopus.com/inward/record.uri?partnerID=HzOxMe3b&scp=67449106405&origin=inward>][2-s2.0-67449106405]] John R. Kitchin, Correlations in coverage-dependent atomic adsorption energies on Pd(111), Physical Review B - Condensed Matter and Materials Physics, 79(20), (no pages found) (2009). <https://doi.org/10.1103/PhysRevB.79.205412>, <https://www.scopus.com/inward/record.uri?partnerID=HzOxMe3b&scp=67449106405&origin=inward>, cited 50 times (Scopus).

Affiliations:

Carnegie Mellon University

6. [[<https://www.scopus.com/inward/record.uri?partnerID=HzOxMe3b&scp=40949100780&origin=inward>][2-s2.0-40949100780]] John R. Kitchin, Karsten Reuter and Matthias Scheffler, Alloy surface segregation in reactive environments: First-principles atomistic thermodynamics study of Ag₃ Pd(111) in oxygen atmospheres, Physical Review B - Condensed Matter and Materials Physics, 77(7), (no pages found) (2008). <https://doi.org/10.1103/PhysRevB.77.075437>, <https://www.scopus.com/inward/record.uri?partnerID=HzOxMe3b&scp=40949100780&origin=inward>, cited 85 times (Scopus).

Affiliations:

Carnegie Mellon University

Fritz Haber Institute of the Max Planck Society

7. [[<https://www.scopus.com/inward/record.uri?partnerID=HzOxMe3b&scp=20544467859&origin=inward>][2-s2.0-20544467859]] John R. Kitchin, Jens K. Nørskov, Mark A. Barteau and Jingguang G. Chen, Trends in the chemical properties of early transition metal carbide surfaces: A density functional study, Catalysis Today, 105(1 SPEC. ISS.), pp. 66–73, (2005). <https://doi.org/10.1016/j.cattod.2005.04.008>, <https://www.scopus.com/inward/record.uri?partnerID=HzOxMe3b&scp=20544467859&origin=inward>, cited 141 times (Scopus).

Affiliations:

Danmarks Tekniske Universitet

University of Delaware

8. [[<https://www.scopus.com/inward/record.uri?partnerID=HzOxMe3b&scp=13444307808&origin=inward>][2-s2.0-13444307808]] J. R. Kitchin, J. K. Nørskov, M. A. Barteau and J. G. Chen, Role of strain and ligand effects in the modification of the electronic and chemical Properties of bimetallic surfaces, Physical Review Letters, 93(15), (no pages found) (2004). <https://doi.org/10.1103/PhysRevLett.93.156801>, <https://www.scopus.com/inward/record.uri?partnerID=HzOxMe3b&scp=13444307808&origin=inward>, cited 686 times (Scopus).

Affiliations:

Danmarks Tekniske Universitet

University of Delaware

9. [[<https://www.scopus.com/inward/record.uri?partnerID=HzOxMe3b&scp=2942640180&origin=inward>][2-s2.0-2942640180]] J. R. Kitchin, J. K. Nørskov, M. A. Barteau and J. G. Chen, Modification of the surface electronic and chemical properties of Pt(111) by subsurface 3d transition metals, Journal of Chemical Physics, 120(21), pp. 10240–10246, (2004). <https://doi.org/10.1063/1.1737365>, <https://www.scopus.com/inward/record.uri?partnerID=HzOxMe3b&scp=2942640180&origin=inward>, cited 799 times (Scopus).

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```

Affiliations:
  Danmarks Tekniske Universitet
  University of Delaware

10. [[https://www.scopus.com/inward/record.uri?partnerID=HzOxMe3b&scp=0141924604&
↪origin=inward][2-s2.0-0141924604]]  John R. Kitchin, Neetha A. Khan, Mark A.
↪Barteau, Jingguang G. Chen, Boris Yakshinskiy and Theodore E. Madey, Elucidation of
↪the active surface and origin of the weak metal-hydrogen bond on Ni/Pt(1 1 1)
↪bimetallic surfaces: A surface science and density functional theory study, Surface
↪Science, 544(2-3), pp. 295-308, (2003). https://doi.org/10.1016/j.susc.2003.09.007,
↪https://www.scopus.com/inward/record.uri?partnerID=HzOxMe3b&scp=0141924604&
↪origin=inward, cited 127 times (Scopus).
  Affiliations:
    University of Delaware
    Rutgers, The State University of New Jersey

11. [[https://www.scopus.com/inward/record.uri?partnerID=HzOxMe3b&scp=0037368024&
↪origin=inward][2-s2.0-0037368024]]  John R. Kitchin, Mark A. Barteau and Jingguang
↪G. Chen, A comparison of gold and molybdenum nanoparticles on TiO2(1 1 0) 1 × 2
↪reconstructed single crystal surfaces, Surface Science, 526(3), pp. 323-331, (2003).
↪ https://doi.org/10.1016/S0039-6028(02)02679-1, https://www.scopus.com/inward/
↪record.uri?partnerID=HzOxMe3b&scp=0037368024&origin=inward, cited 31 times (Scopus).
  Affiliations:
    University of Delaware

```

After rendering, this yields

Report for Kitchin - first author

Document type	count
Journal	11
Conference Proceeding	1

Table: Types of documents found for Kitchin - first author.

11 articles (1861 citations) found by 12 authors

name	count	categories
Kitchin J.	11	Electronic, Optical and Magnetic Materials (9), Surfaces and Interfaces (9), Physics and Astronomy (all) (9)
Barteau M.	5	Catalysis (83), Surfaces and Interfaces (81), Condensed Matter Physics (80)
Chen J.	5	Physics and Astronomy (miscellaneous) (9), Chemistry (all) (80), Condensed Matter Physics (80)
Nørskov J.	3	Chemistry (miscellaneous) (9), Nuclear Energy and Engineering (9), Physics and Astronomy (all) (85)
Van Gulick A.	1	Cognitive Neuroscience (3), Experimental and Cognitive Psychology (3), Arts and Humanities (miscellaneous) (2)
Zilinski L.	1	Library and Information Sciences (7), Information Systems (4), Computer Science (all) (1)
Gellman A.	1	Physical and Theoretical Chemistry (90), Biochemistry (9), Surfaces and Interfaces (74)
Reuter K.	1	Energy (all) (8), Physics and Astronomy (all) (73), Condensed Matter Physics (64)
Scheffler M.	1	Electronic, Optical and Magnetic Materials (93), Physical and Theoretical Chemistry (76), Hardware and Architecture (7)
Khan N.	1	Physical and Theoretical Chemistry (7), Surfaces and Interfaces (4), Catalysis (4)
Yakshinskiy B.	1	Applied Mathematics (9), Computer Science Applications (9), Physics and Astronomy (miscellaneous) (8)
Madey T.	1	Process Chemistry and Technology (9), Instrumentation (8), Chemistry (all) (8)

Table: Author publication counts for Kitchin - first author.

Journal	count
Surface Science	3
Physical Review B - Condensed Matter and Materials	2
International Journal on Digital Libraries	1
AIChE Journal	1
ACS Catalysis	1
Catalysis Today	1
Physical Review Letters	1
Journal of Chemical Physics	1

Table: Journal publication counts for Kitchin - first author.

title	cite count
<i>Modification of the surface electronic and chemical properties</i>	732
<i>Role of strain and ligand effects in the modification of the</i>	682
<i>*Trends in the chemical properties of early transition metal *</i>	141
<i>Elucidation of the active surface and origin of the weak metal</i>	127
<i>Alloy surface segregation in reactive environments: First-principles</i>	84
<i>Correlations in coverage-dependent atomic adsorption energies</i>	50
<i>A comparison of gold and molybdenum nanoparticles on TiO₂</i>	31
<i>Examples of effective data sharing in scientific publishing</i>	8
<i>High-throughput methods using composition and structure space</i>	3
<i>Data sharing in Surface Science</i>	2

Table: Top cited publication counts for Kitchin - first author. h-index = 8.

1.

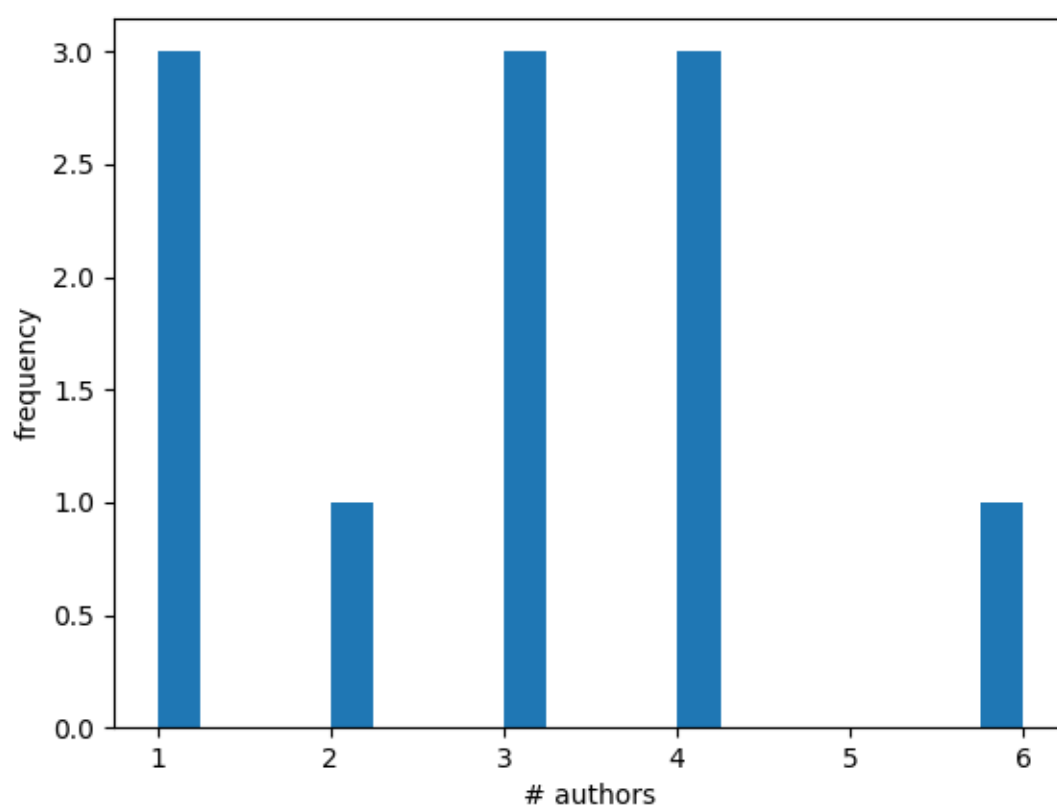


Fig. 1: Number of authors on each publication for Kitchen - first author.

3.2 Reference

References to individual classes and their functions, methods and properties.

3.2.1 scopusreport.report

`scopusreport.report(query, label, refresh=True)`

Print out an org-mode report for search results.

Parameters

- **query** (*str*) – The search query based on which results the report should be generated.
- **label** (*str*) – The label used in the document title (“Report for ...”).
- **refresh** (*bool (optional, default=True)*) – Whether to refresh a cached file containing results of a previous query or not.

3.3 Change Log

3.4 Contributing

Contributions are welcome, and they are greatly appreciated! Every little bit helps, and credit will always be given.

You can contribute in many ways:

3.4.1 Types of Contributions

Submit Feedback

The best way to send feedback is to file an issue at <https://github.com/scopus-api/scopus/issues>.

If you are proposing a feature:

- Explain in detail how it would work.
- Keep the scope as narrow as possible, to make it easier to implement.
- Respect the [Python Code of Conduct](#)

Report Bugs

Before are reporting a bug, please upgrade to the newest version (*pip install scopusreport --upgrade*) to verify your bug exist in the actual version as well.

Report bugs at <https://github.com/scopus-api/scopus-report/issues>. Please include:

- Your operating system name and version (after *import scopusreport* in Python, type *print(scopusreport.__version__)*).
- Any details about your local setup that might be helpful in troubleshooting.
- Detailed steps to reproduce the bug.

Fix Bugs

Look through the GitHub issues for bugs. Anything tagged with “bug” is open to whoever wants to fix it.

Implement Features

Look through the GitHub issues for features. Anything tagged with “enhancement” is open to whoever wants to implement it.

Write Documentation

This repo could always use more documentation, whether as part of the official scopus docs, in docstrings, or even on the web in blog posts, articles, and such.

3.4.2 Get Started!

Ready to contribute? Here’s how to set up *scopus* for local development.

1. Fork the *scopus-report* repo on GitHub.
2. Clone your fork locally:

```
$ git clone https@github.com:your_name_here/scopus-report.git
```

3. Install your local copy into a virtualenv. Assuming you have virtualenvwrapper installed, this is how you set up your fork for local development:

```
$ mkvirtualenv scopus-report
$ cd scopus-report/
$ python setup.py develop
```

4. Create a branch for local development:

```
$ git checkout -b name-of-your-bugfix-or-feature
```

Now you can make your changes locally.

5. Commit your changes and push your branch to GitHub:

```
$ git add .
$ git commit -m "Your detailed description of your changes."
$ git push origin name-of-your-bugfix-or-feature
```

6. Submit a pull request through the GitHub website.

3.4.3 Pull Request Guidelines

Before you submit a pull request, check that it meets these guidelines:

1. Adhere to [PEP8](#)
2. Run nosetests locally *python -m nose -verbose* (on Windows) or *nosetests3 -verbose*.
3. The pull request should work for 3.5.

3.5 Credits

3.5.1 Development Lead

- John Kitchin
- Michael E. Rose

3.5.2 Contributors

See [contributors](#)

R

`report()` (in module `scopusreport`), [14](#)