A scientists view on Open Science

Doing Research on a topic

How to find a reference?

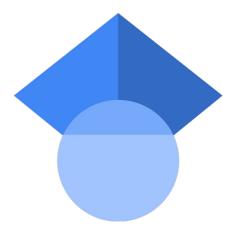
- Do you know a colleague who did it?
- What does your library provide?
- Which results do search engines provide?

Google Scholar https://scholar.google.de

- Scopus https://www.scopus.com/

Statista https://de.statista.com/







Scopus

Doing Research on a topic

How to access the reference?

- Hope for Open Access!!
- Pay the fee (university or in private)
- Join the peer community ResearchGate
 - Many saved manuscripts
 - Others available on request
 - https://www.researchgate.net/
- Use fully open access databases:
 - Refseek https://www.refseek.com
 - Science.gov https://www.science.gov
 - Pdfdrive https://www.pdfdrive.com
 - BASE https://www.base-search.net

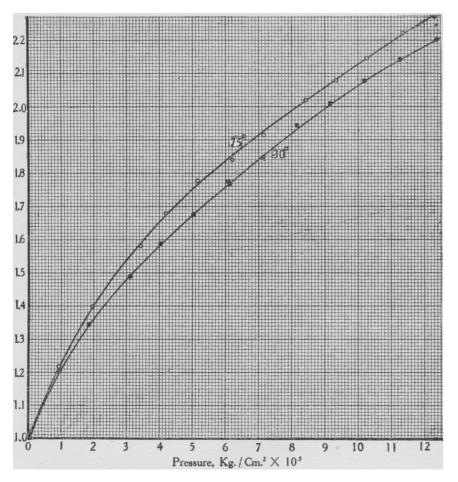




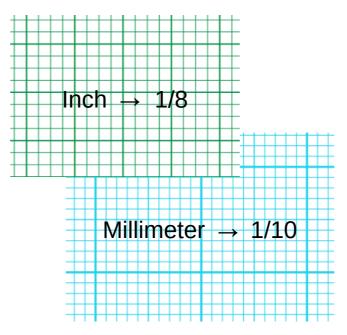


ResearchGate

How to get the data out of a graphic?

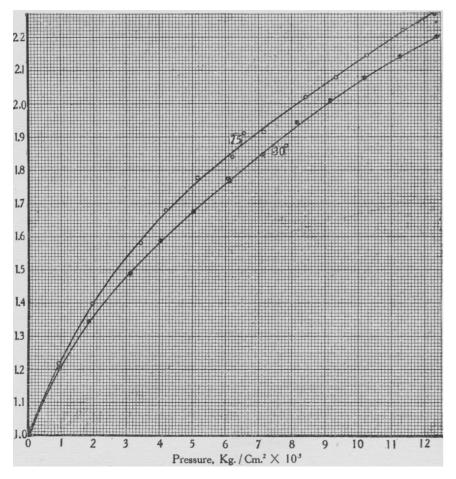


- Easy case: millimeter paper used
- Danger! There is also inch paper!

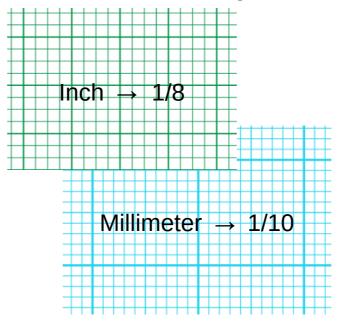


P. W. Bridgman: *The thermal conductivity of liquids under pressure*, Proceedings of the American Academy of Arts and Sciences, 59(7) 141 (1923)

How to get the data out of a graphic?



- Easy case: millimeter paper used
- Danger! There is also inch paper!
- What if there is no grid?
- What if the scale is logarithmic?



Ca DOPED KCl CRYSTAL NV. Ca X 1018 CM-3 3.4 20 TEMPERATURE IN DEGREES KELVIN

P. Carruthers: Theory of thermal conductivity of solids at low temperatures,

Provious of Modern Physics, 22(1) 92 (1961)

Reviews of Modern Physics, 33(1) 92 (1961)

P. W. Bridgman: *The thermal conductivity of liquids under pressure*, Proceedings of the American Academy of Arts and Sciences, 59(7) 141 (1923)

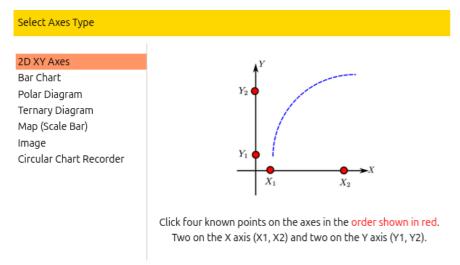
How to get data out of a graphic?

webplotdigitizer

There is a service! (open access)

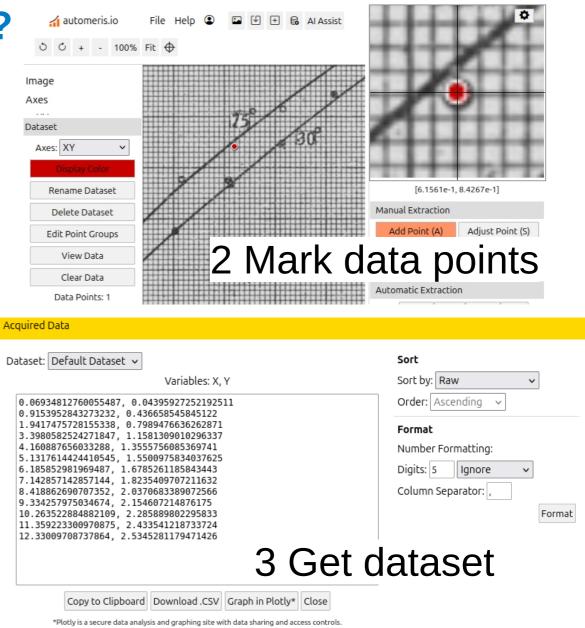
webplotdigitizer

https://automeris.io/wpd/



1 Calibrate axes

Calibrate Cancel



Visit http://plot.ly for details

How to get data out of a graphic?

The future is now...

Changing policies: "data availability statement"

- Link between a paper's results and the supporting evidence
- Science, Nature, Elsevier, ScienceDirect, Springer, ...

nature portfolio



SPRINGER NATURE



<u>nature</u> > <u>nature portfolio</u> > <u>editorial policies</u> > <u>reporting standards and availability of data,</u> materials, code and protocols

Editorial policies

Reporting standards and availability of data, materials, code and protocols

<u>Authorship</u>

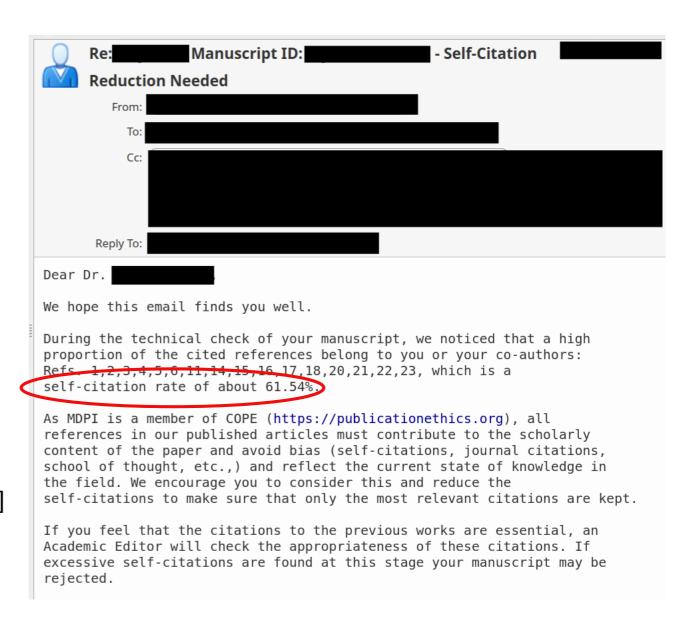
Competing interests

Research

Data availability statements

Self-Citations

- Indicator for relevance and quality of paper/author:
 - impact on follow-up research
 - measured by citations
- Trick: increase citations by citing your own working-group
- "any citation not justified by honest scientific reasons is a seriously unethical misconduct" [https://akjournals.com/page/244]
- "median percentage of self-citations is 12.7%"
 [https://doi.org/10.1371/journal.pbio.3000384]



Data availability

No data was used for the research described in the article.



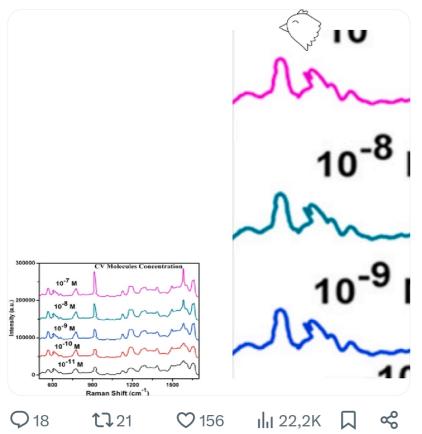
Journal of Molecular Structure
Volume 1304, 15 May 2024, 137647



Exploring the untapped potential of marine sponge compounds as anticancer agents against $ER\alpha$ of breast cancer



Mu Yang, Ph.D. @mumumouse2 · 23. Juni : This Raman shift is what..... chicken Ramen? doi.org/10.1016/j.cera...



Public, well-founded criticism

 PubPeer: online platform for post-publication peer review

https://pubpeer.com/static/about





Update on J Mol Liquids review length.
There is another layer of issue: The lab
is based in southern India. But all these
papers only listed funding from one of two
universities in Saudi Arabia: King Khalid and
King Saud.

Post übersetzen

Journal of Molecular Liquids review length Studies are from the same group				
Funding	Year	Received-To-Revised (days)	Received-To-Accepted (days)	DOI
KKU	2021	20	25	10.1016/j.molliq.2021.117719
KKU	2021	17	23	10.1016/j.molliq.2021.117304
KKU	2021	19	25	10.1016/j.molliq.2021.117271
KKU	2021	19	24	10.1016/j.molliq.2021.116335
KKU	2022	15	18	10.1016/j.molliq.2022.119166
KKU	2022	21	22	10.1016/j.molliq.2022.118756
KKU	2022	16	20	10.1016/j.molliq.2022.120533
KKU	2023	21	31	10.1016/j.molliq.2023.121709
King Saud	2023	16	23	10.1016/j.molliq.2023.123465
King Saud	2023	12	17	10.1016/j.molliq.2023.123105
King Saud	2023	19	29	10.1016/j.molliq.2023.122552
KKU	2023	18	27	10.1016/j.molliq.2023.121313
KKU	2023	22	25	10.1016/j.mollig.2023.122937

15:53 · 13 Juli 24 · **10,2K** Mal angezeigt

Public, well-founded criticism

 Pubpeer: online platform for post-publication peer review

https://pubpeer.com/static/about

- Success story:
 - A papermill network was uncovered!
 - 90 papers in 2023, 27 in same journal
 - 36 in 2024 already
 - Submission to acceptance: average 3 weeks





Finally! One Elsevier journal woke up!
Bioresource Technology is kicking ass.
Their former EIC, Ashok Pandey, a big time
#fraud, #papermill author and corrupt
editor from @CSIR_IITR is losing papers en
mass! At least 10 retractions! This is how it
should be done!

Post übersetzen



Public, well-founded criticism

Pubpeer: online platform for post-publication peer review

https://pubpeer.com/static/about

- Success story:
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 - 36 in 2024 already
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0:12 · 13 Juli 24 · **257K** Mal angezeigt