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ENABLING DISCOVERY | POWERING EDUCATION | SHAPING WORKFORCES

TECHNISCHE UNIVERSITÄT DRESDEN

Publishing scientific papers with impact: Insights from a Wiley editor

Alternative title: I wish they had told me this when I wrote my first paper…

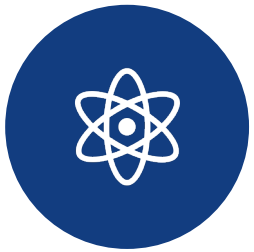
Dr. Dimitra Gkogkou

Tuesday, 25th April 2023

Time-space localization

BORN IN KOMOTINI, GREECE

1986



PHYSICS BACHELOR (FOCUS NUCLEAR P.) AND MATERIAL PHYSICS MASTER, ARISTOTLE UNIVERSITY, THESSALONIKI, GREECE

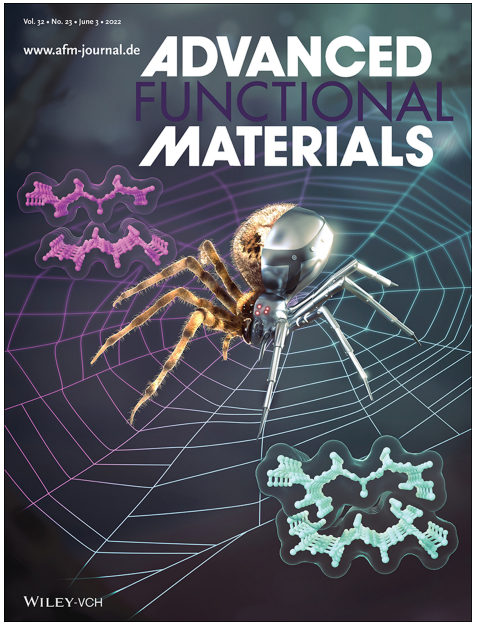
2004-2012

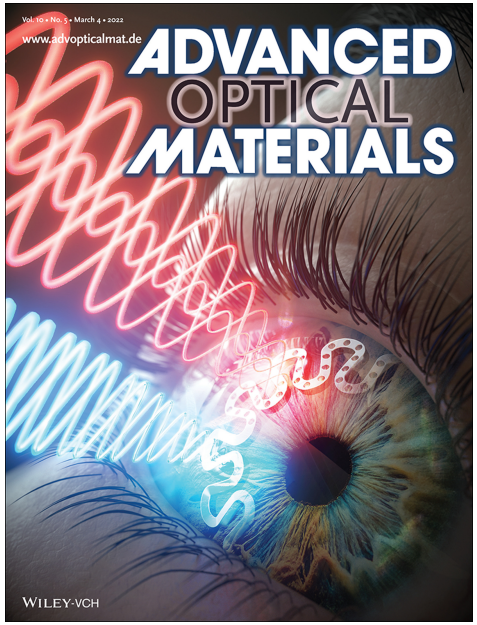
PHD AND POST-DOC IN DEVELOPING NANOSTRUCTURES FOR SURFACE ENHANCED SPECTROSCOPIES, TECHNICAL UNIVERSITY OF BERLIN, GERMANY

2013-2019

EDITOR IN WILEY, BERLIN, GERMANY, 2019-NOW

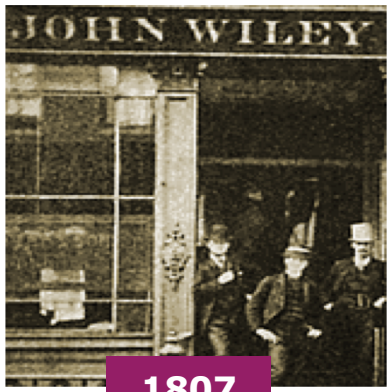
Editor in research journals





Wiley's beginning

Throughout 212 years of excellence, we have never wavered in our belief that knowledge can change the world.

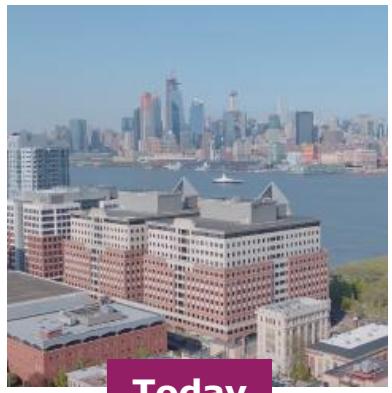


1807

Charles Wiley opened a print shop in New York City, publishing literary fiction and non-fiction.

mid 1800s

John Wiley & Sons began focusing on science, technical, and engineering publishing.



Today

Seven generations later, Wiley is one of the oldest independent publishing companies.

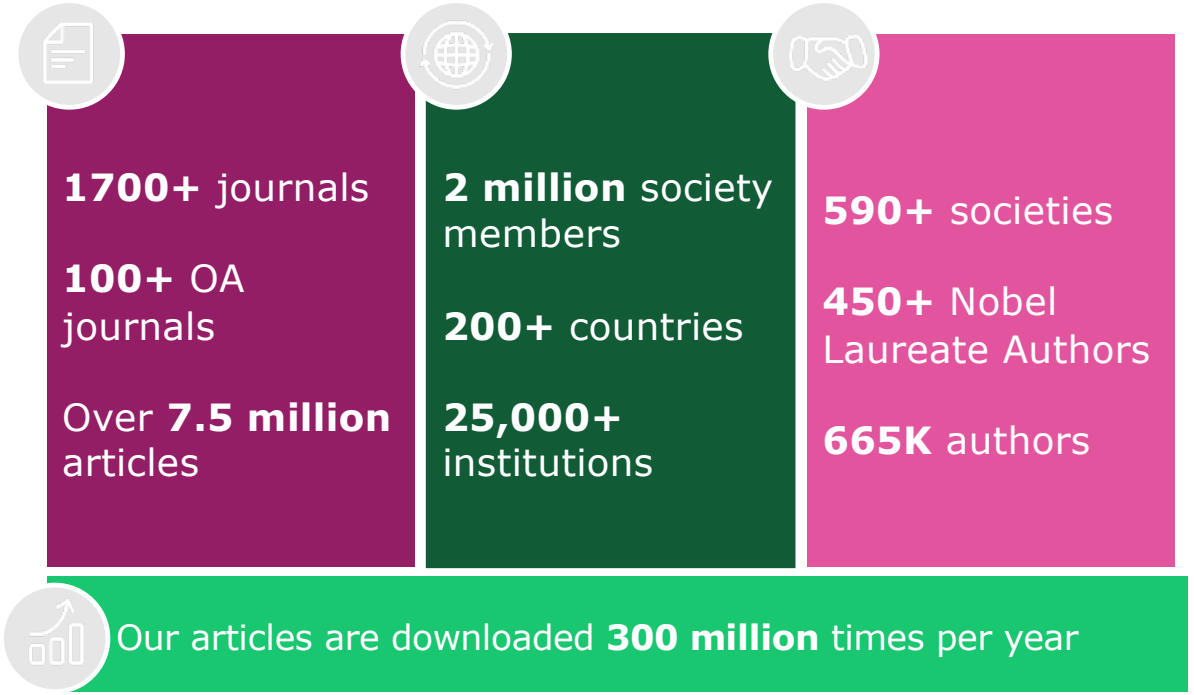
Our content

Our content is the heart of what we do.

Around the world, audiences value and trust the content we publish.

We help researchers share their work and librarians make it available to their communities.

With our customers, we build networks that help the research we publish reach the people who need it.



Why publish?

Make your research **public**

Recognition by your peers, possible collaborations

Promotions, grants applications

Responsibility – to society, tax-payers

Impact - Papers provide the basis and inspiration for further research

Why journals?

Certification

Peer-review is still the gold standard for certifying articles

Registration

Precedence of discovery is established based on article submission date to a journal

Dissemination

Spreading the word through publishing platforms

But also indexing and generally organizing knowledge

Archival

Safeguarding and preserving knowledge

Publishers play an important role preserving the scientific record

Peer-review management, Curation, Infrastructure, Ethics, & much, much more. Here's a list of 96 things publishers do: https://bit.ly/2UW3rKX

Publishing landscape- Types of journals

Subscription journals

- University Library agreement with publisher for a collection of journals and a fixed fee

Hybrid journals

- Subscription journal but can publish open access for an Article Publication Charge

Open Access journals

- Pay-to-Publish
- Gold Open Access
- Various models with embargo periods

Editorial office structure

External editorial office vs In-house model

Administrators

- Correspondence
- Queries
- Administration
- System Maintenance
- Reporting
- Support Functions

Content Management

- Service Provider Management
- Electronic Publication
- Print Publication

Technical Editors

- Technical Management (Workflows)
- Manuscript Handling
- Copyediting & Language Polishing
- Typesetting Coordination
- Proofs & Revisions
- Liaison with Content Management
- News & Portals

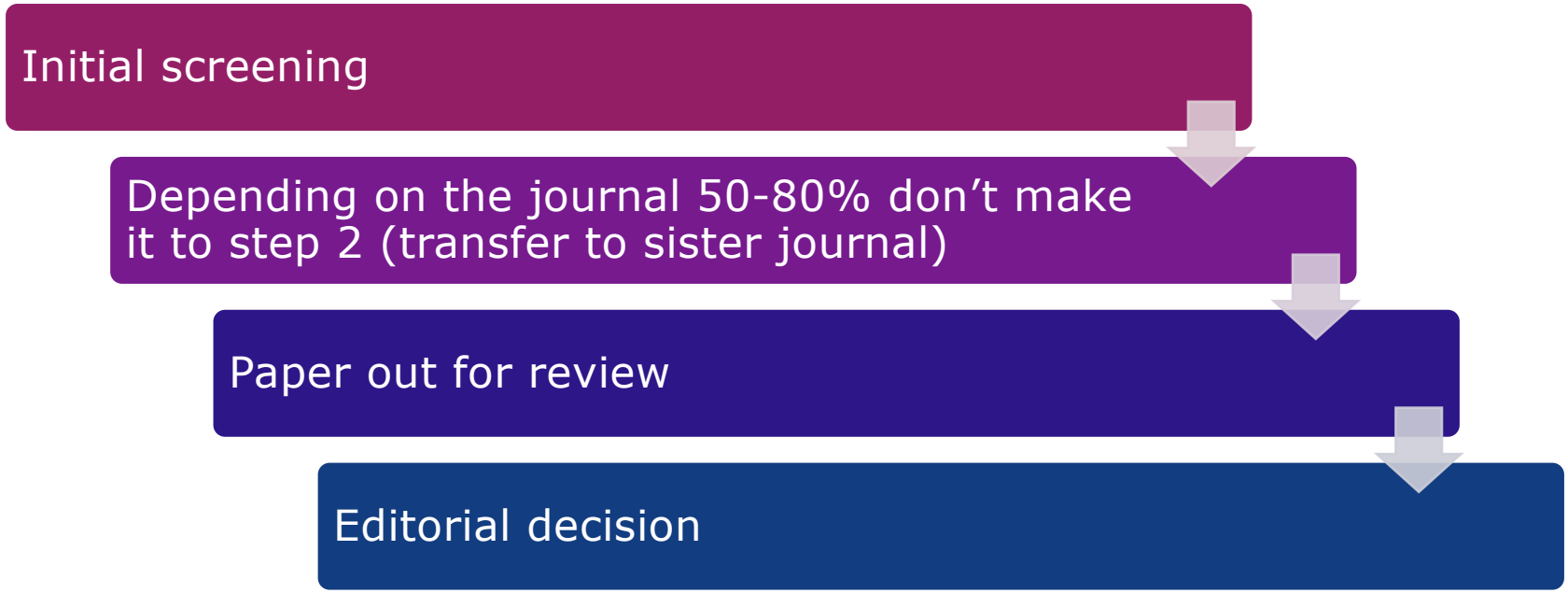
Peer Review Editors

- Manuscript evaluation
- Acquisition
- Decision on content

The roles of an editor

- Manuscript assessment
- Reviewer selection
- Decision making
- Journal strategy
- Community interaction
- News, publicity, marketing
- Scientific publishing ethics

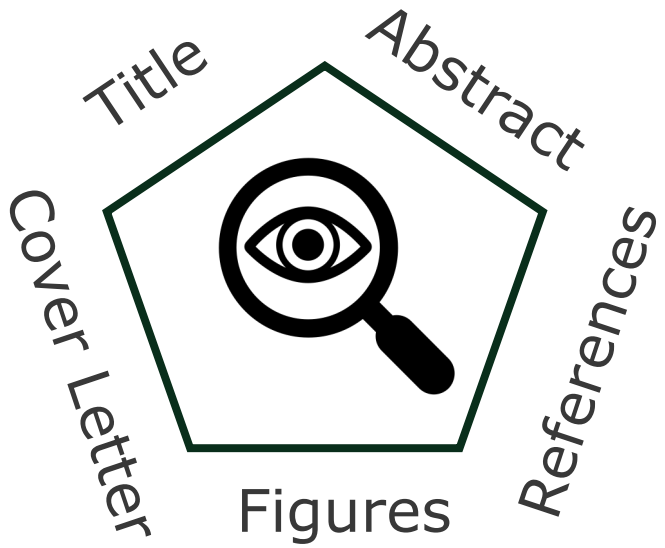
The editorial workflow



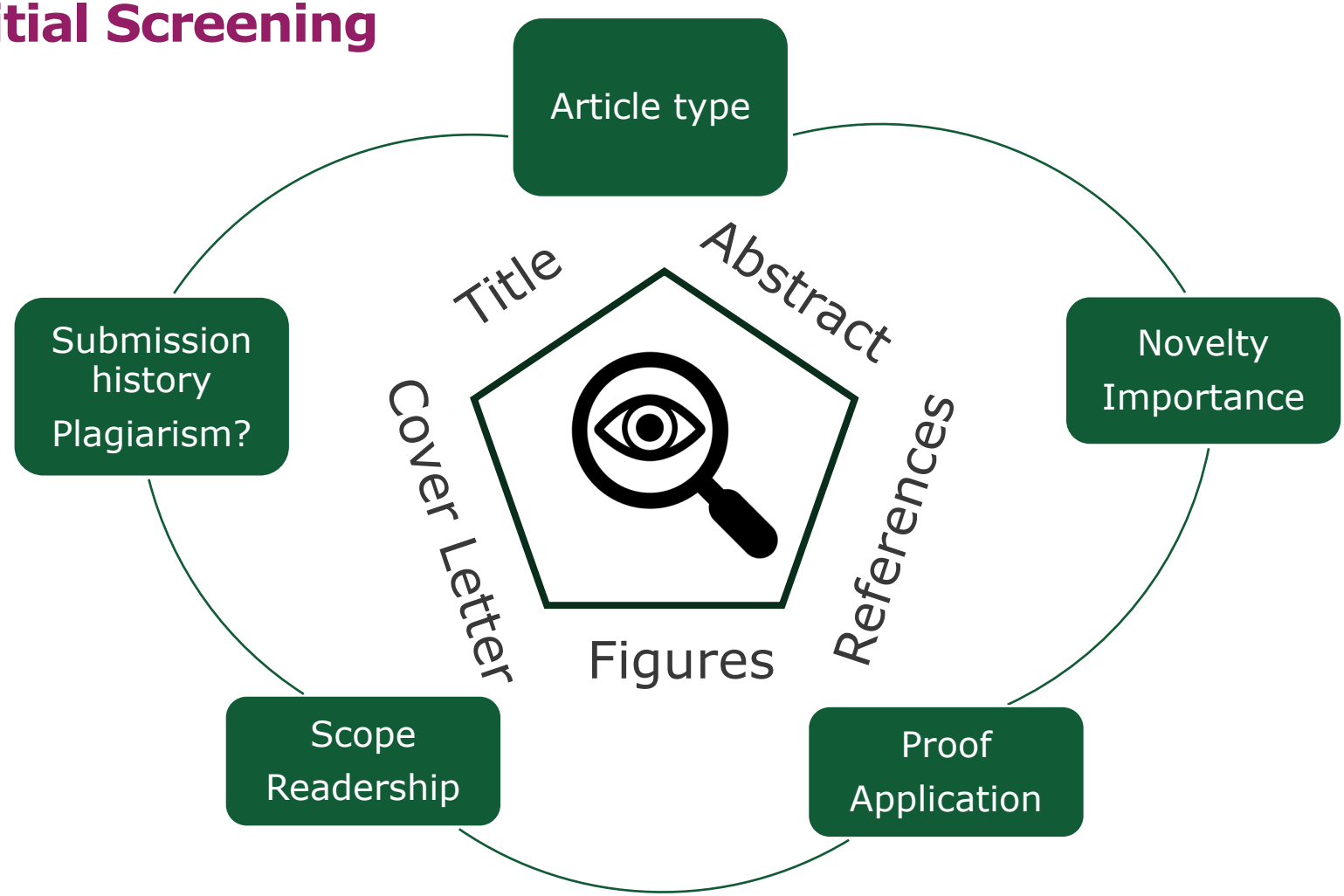
Disclaimer:

There is no universal formula, because every paper is different and the various disciplines have other standards.

Initial Screening



Initial Screening



What makes a good title?

What did you do?

What did you find?

Study of the effect of water salinity on frog size	Salt water makes Argentine frogs smaller

What makes a good title?

RETURN TO ISSUE | < PREV **PERSPECTIVE** NEXT >

Will Any Crap We Put into Graphene Increase Its Electrocatalytic Effect?

Lu Wang, Zdenek Sofer, and Martin Pumera*

Cite this: *ACS Nano* 2020, 14, 1, 21−25
Publication Date: January 14, 2020
https://doi.org/10.1021/acsnano.9b00184

Article Views 219524 | Altmetric 1334 | Citations 110

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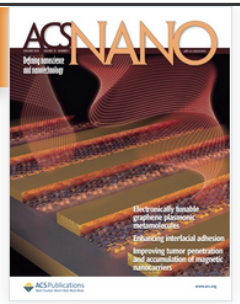
3 comments on PubPeer (by: Mutinus Albotruncatus, Plagiochila Flexuosa, Theodore S. Dibble)

PDF (5 MB) | SI Supporting Info (1) »

SUBJECTS: Doping, Elements, Evolution reactions, Redox reactions,



ACS Nano

The cover letter

Dont's

Do not Oversell

Science is very competitive. It is tempting to overstate the case in an effort to "get in".

If you use "Novel", mean it.
Or better yet, avoid it altogether

Do's

- Why is this topic important?
- What's the significance of your finding?
- How do they advance the field?
- What is the key result?
- Why does your paper fit this journal?

Keep it short!

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What makes a good abstract?

REASON AND IMPORTANCE OF RESEARCH

INTRODUCE THE PROCEDURE SIMPLY

DESCRIBE THE EXPERIMENT BRIEFLY

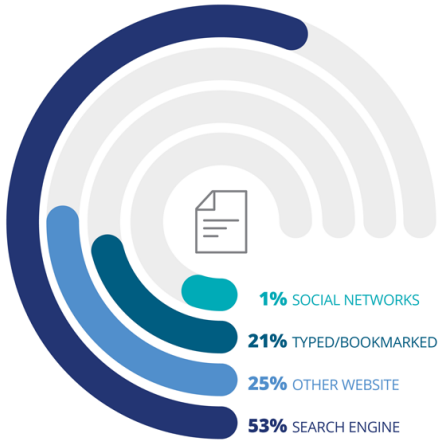
OFFER A BRIEF OVERVIEW OF THE RESULTS

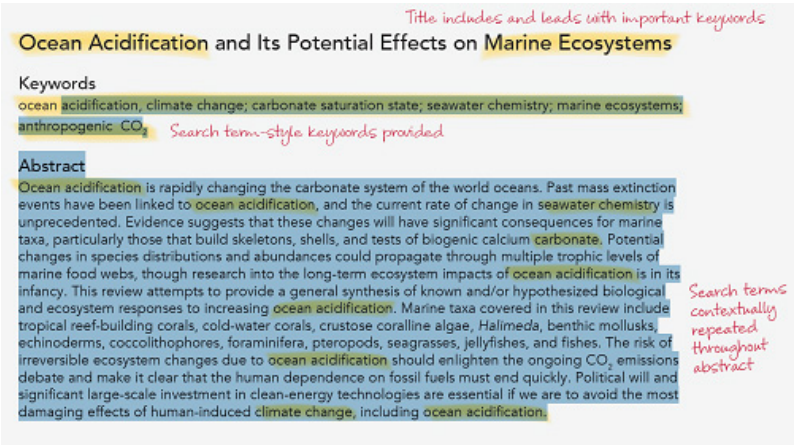
INCLUDE KEYWORDS, OMIT ABBREVIATIONS

Search Engine Optimization (SEO) for your article

HELP PEOPLE FIND YOU

- Search-Engine friendly Title/Abstract
- Use keywords throughout the article
- Be consistent with authors names
- In-bound links rule Google. Link your article across social media, networking and institutional sites
- Network, highlight/elevate your colleagues, they will do the same for you!
- Share data, code. Open science leads to greater collaboration, increased confidence in results and goodwill between researchers
- Most journals welcome preprints!




Title includes and leads with important keywords

Ocean Acidification and Its Potential Effects on Marine Ecosystems

Keywords

ocean acidification, climate change; carbonate saturation state; seawater chemistry; marine ecosystems; anthropogenic CO_2

Search term-style keywords provided

Abstract

Ocean acidification is rapidly changing the carbonate system of the world oceans. Past mass extinction events have been linked to ocean acidification, and the current rate of change in seawater chemistry is unprecedented. Evidence suggests that these changes will have significant consequences for marine taxa, particularly those that build skeletons, shells, and tests of biogenic calcium carbonate. Potential changes in species distributions and abundances could propagate through multiple trophic levels of marine food webs, though research into the long-term ecosystem impacts of ocean acidification is in its infancy. This review attempts to provide a general synthesis of known and/or hypothesized biological and ecosystem responses to increasing ocean acidification. Marine taxa covered in this review include tropical reef-building corals, cold-water corals, crustose coralline algae, *Halimeda*, benthic mollusks, echinoderms, coccolithophores, foraminifera, pteropods, seagrasses, jellyfishes, and fishes. The risk of irreversible ecosystem changes due to ocean acidification should enlighten the ongoing CO_2 emissions debate and make it clear that the human dependence on fossil fuels must end quickly. Political will and significant large-scale investment in clean-energy technologies are essential if we are to avoid the most damaging effects of human-induced climate change, including ocean acidification.

Search terms contextually repeated throughout abstract

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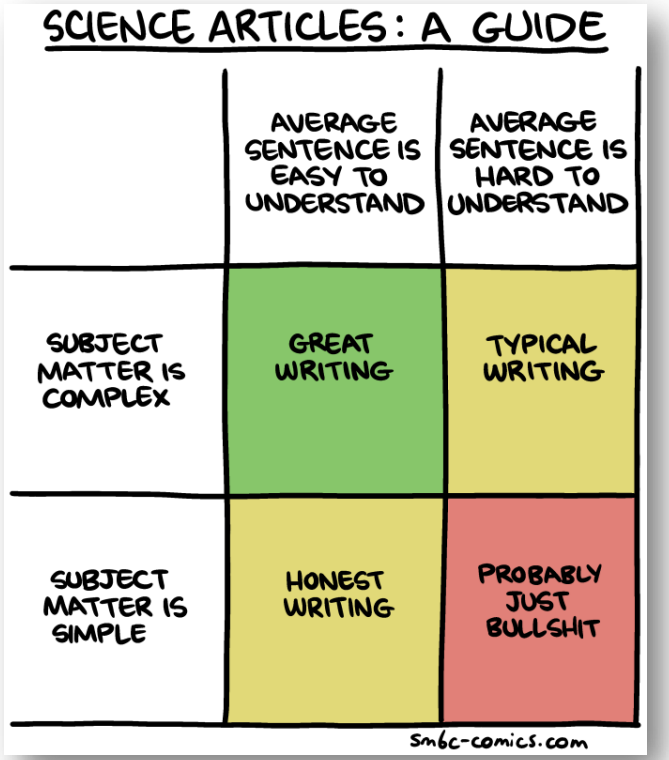
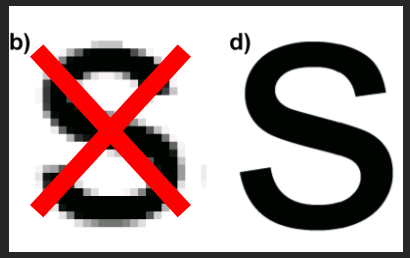
https://authorservices.wiley.com/author-resources/Journal-Authors/Prepare/writing-for-seo.html

Writing for impact

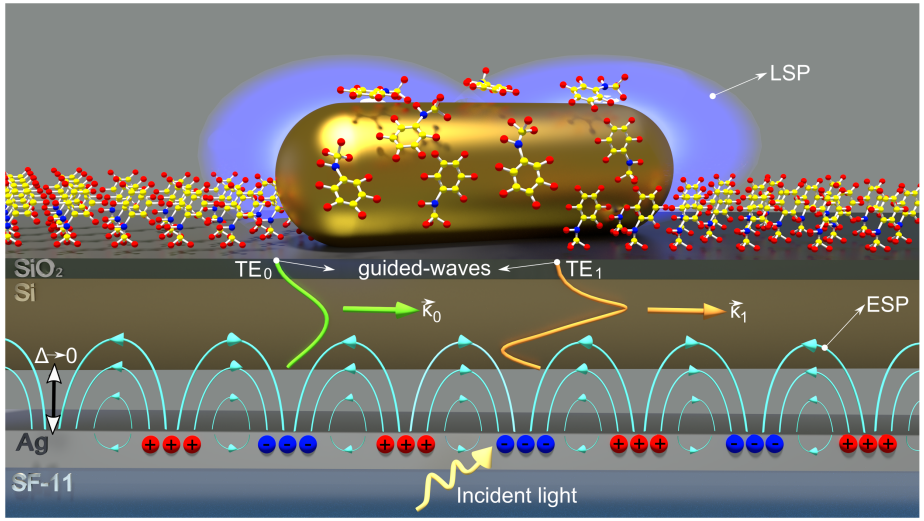
- Read (and learn from the others)
- Follow the author's guidelines of the journal to help with structure
- Science communication. Data does not talk for itself!
- Lost objectivity? Ask an outsider to comment on the context
- Proof-reading (native speaker if possible)
- Mention all terms before using abbreviations



What makes a good figure



- Figures are "read" **first** by editors, by reviewers, and by the readers
  Figures summarize the **results**
- Figures should be designed for **clarity**, **simplicity** and **impact**
- … and in good **quality**
- Secure copyright for images you reproduce or edit



https://doi.org/10.1002/adom.202070076
Alina Karabchevsky, Adir Hazan, Aliaksei Dubavik

References

Put your work in context	Comparison to the standard system that is being used and/or to other similar systems that have been reported "recently"
Time scale	"Recently" in materials science should not be more than three years ago.
Comparisons	Tables with compared values are a plus
Be precise	"The use of X in combination with Y has been rarely reported. [no reference]" Are there reports? Cite them. Are there none? Say it.

Avoid plagiarism

a p-Si was doped heavily with donor (n^+p-Si) to acquire a larger open circuit voltage in photoelectrochemical (PEC) H_2 production.[12-13] Metal oxides were deposited on the surface of the n-Si photoanodes as a protective layer in PEC water oxidation.[14] Although planar p-Si is promising,[15] charge carrier recombination can occur due to the low diffusion length of the minority carriers in the same absorber thickness.[16] However, a wire-array geometry possesses long optical paths for efficient photon absorption and increased collection efficiency for the minority carrier. A comparison of planar p-Si and p-Si wire arrays indicated that the latter exhibits a significantly lower reflectance[17] and 0.1–0.3 V higher anodic onset potentials in PEC water splitting processes.[13,18]

With this in mind, this study attempted, for the first time, to fabricate Sn-coupled p-Si nanowire arrays for application to solar CO_2 conversion. Vertically aligned, free-standing p-Si nanowire arrays of varying lengths were grown on p-Si wafers using an electroless

Inevitable- Small matches of frequently used standard terms or expressions.

$WO_3 + O^{2-} = WO_4^{2-}$

b) As a result, the oxide ion activity of the environment decreases to a level where acidic fluxing reaction with the protective alumina and chromia can occur easily

$Al_2O_3 = Al^{3+} + O^{2-}$

$Cr_2O_3 = Cr^{3+} + O^{2-}$

A similar reaction mechanism occurs if the superalloys contain other refractory elements such as vanadium and molybdenum [8].

The following section describes an electrochemical phenomenon that explains the advanced superalloy degradation process in detail under hot corrosion conditions:

Hot corrosion of an advanced superalloy takes place by oxidation of nickel as well as alloying elements like cobalt, chromium, aluminium, tantalum, rhenium etc. at the anodic site and forms Ni^{2+}, Co^{3+}, Cr^{3+}, Al^{3+}, Re^{4+}, Ta^{5+} ions etc. while at the cathodic site, SO_4^{2-} reduces to SO_3^{2-} or S or S^{2-} and oxygen to O^{2-}. Since the metal ions i.e. Ni^{2+}, Co^{3+}, Cr^{3+}, Al^{3+}, Re^{4+}, Ta^{5+} ions etc. are unstable at the elevated temperature and therefore reacts with the sulphur ions to form metal sulphides. The metal sulphides can easily undergo oxidation at elevated temperatures and form metal oxides by releasing free sulphur (MS + 1/2 O_2 = MO + S). As a result, sulphur

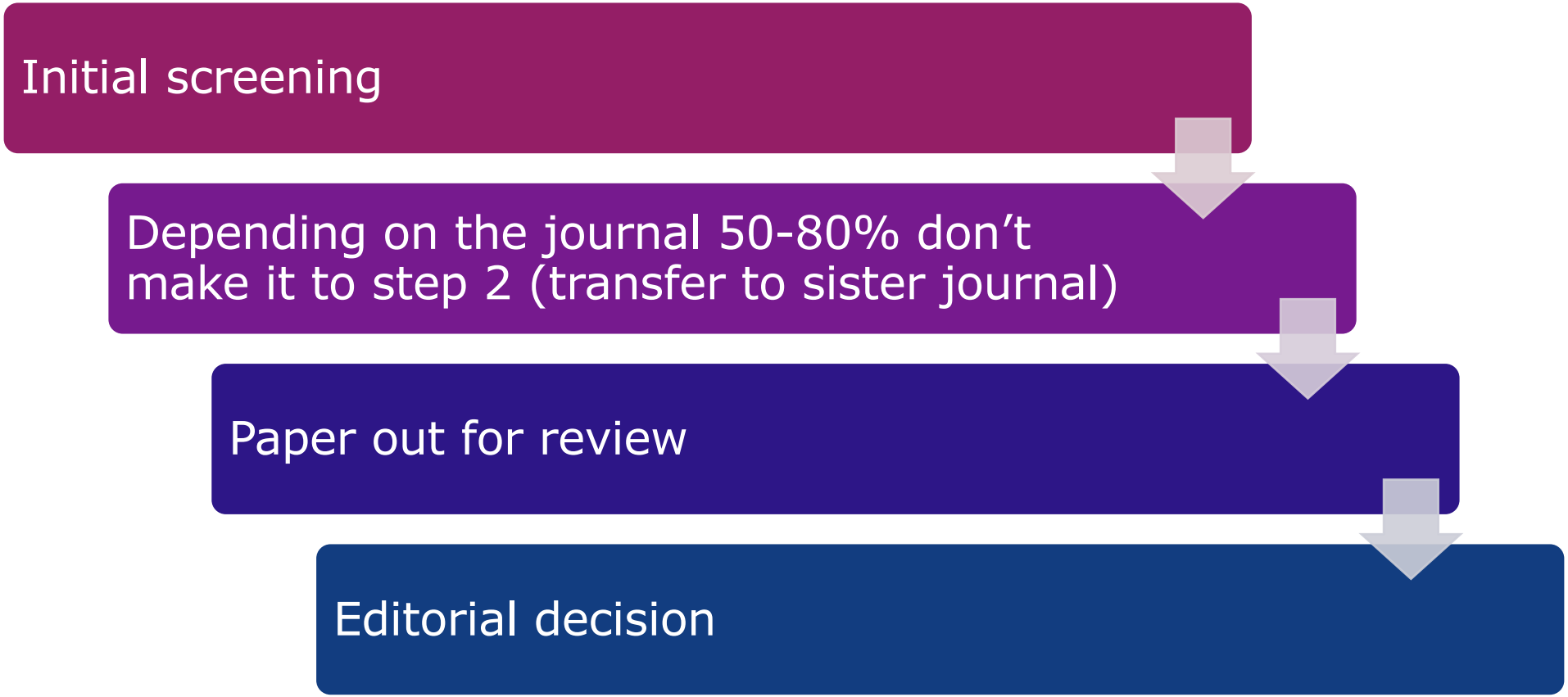
Outrageous- Long highlighted sections without even referencing the source

Ethical obligations as an author

- Disclose conflicts of interest in cover letter
- List related papers in press or under consideration
- Proper reviewer suggestions:
  - Some big names, but also some peers
  - Diverse mix (expertise, geographical location)
  - Not too well connected (= current or former collaborators, colleagues within your institute, PhD or postdoc advisor or student…)
- Also oppose those reviewers who might be unfairly negative (direct competitors)

DO NOT submit to several journals at the same time

The editorial workflow



Most Common Peer-Review Types

SINGLE BLIND: Reviewers know authors' identities.

DOUBLE BLIND: Authors' identities are also hidden to reviewers

OPEN: All identities are known.

Credit: Andrew Bissette, @andrewbissette

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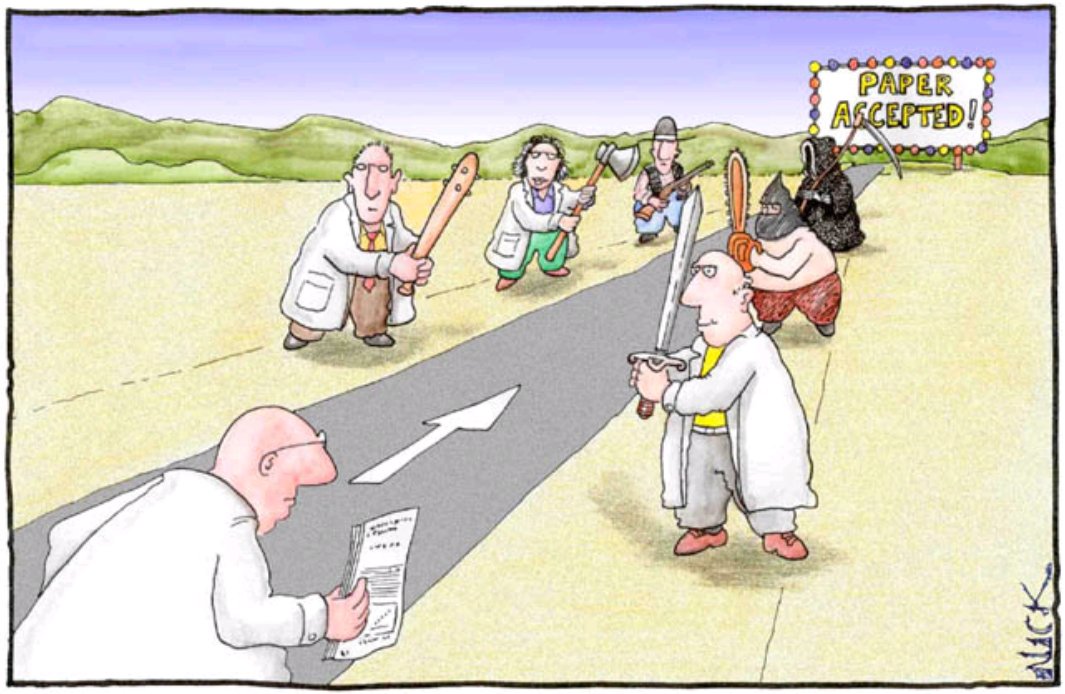

Most scientists regarded the new streamlined peer-review process as 'quite an improvement.'

Revisions

How should you revise?

CAREFULLY CONSIDER REVIEWER COMMENTS

NOT ALL CHANGES HAVE TO BE MADE, BUT…YOU NEED CONVINCING ARGUMENTS FOR CHANGES NOT MADE

HIGHLIGHT CHANGES IN MANUSCRIPT

POINT-BY-POINT RESPONSE LETTER TO ALL REVIEWER ISSUES

RESPONSE LIKELY WILL GO BACK TO REVIEWERS

NEED TO CONVINCE BOTH REVIEWERS AND EDITOR

Reasons for rejection

Novelty/originality (this material/system/method has already been reported)	Motivation is unclear/not sufficiently important for this journal (there are better systems/methods already reported, this does not address a really important challenge)	Results are uninteresting/expected/predictable (I could guess the outcome already from the scientific question)	Technical/scientific concerns (the method/analysis/science behind the work is incorrect)
Claims/conclusions are not supported by data	Too preliminary	Ethical concerns (suspicion of data manipulation/plagiarism/authorship issues)	Unclear/illogical presentation

Should you appeal a decision?

Usually No

- Risk of longer time to publication
- Editor and reviewers know journal well
- Criticisms may be valid

Occasionaly yes

- Importance / impact / novelty missed by editor and/or reviewers
- Factual errors in reviewer reports that led to rejection

Be polite and provide scientific arguments, do not attack the reviewers!

Select the right journal

Choosing the right audience will allow your work to have the most impact!

Open Access would help too

Scope?

Audience?

Implications of your research?

Where do you read related papers?

What is the journal's copyright policy?

Is that subscription based or Open Access?

Does the journal allow you to comply with your funder's mandates?

Impact Factor is not everything!

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Beware of predatory journals

PREDATORY JOURNALS

- Use the Open Access publication model (Most Open Access journals are okay)
- Do not provide legitimate writing, peer-review, and publishing services
- Send frequent spam messages
- Sometimes use names of researchers without their consent
- Look carefully at the publishing company, the affiliated scholarly society and the journal indexation

INFORM/DEFEND YOURSELF

- Beall's List of Predatory Journals and Publishers: **https://beallslist.net/**
- Cabells' Journal Blacklist: **https://www2.cabells.com/about-predatory ($)**
- Useful Appraisal Tool: **https://thinkchecksubmit.org/**
- Directory of Open Access Journals: **https://doaj.org/**

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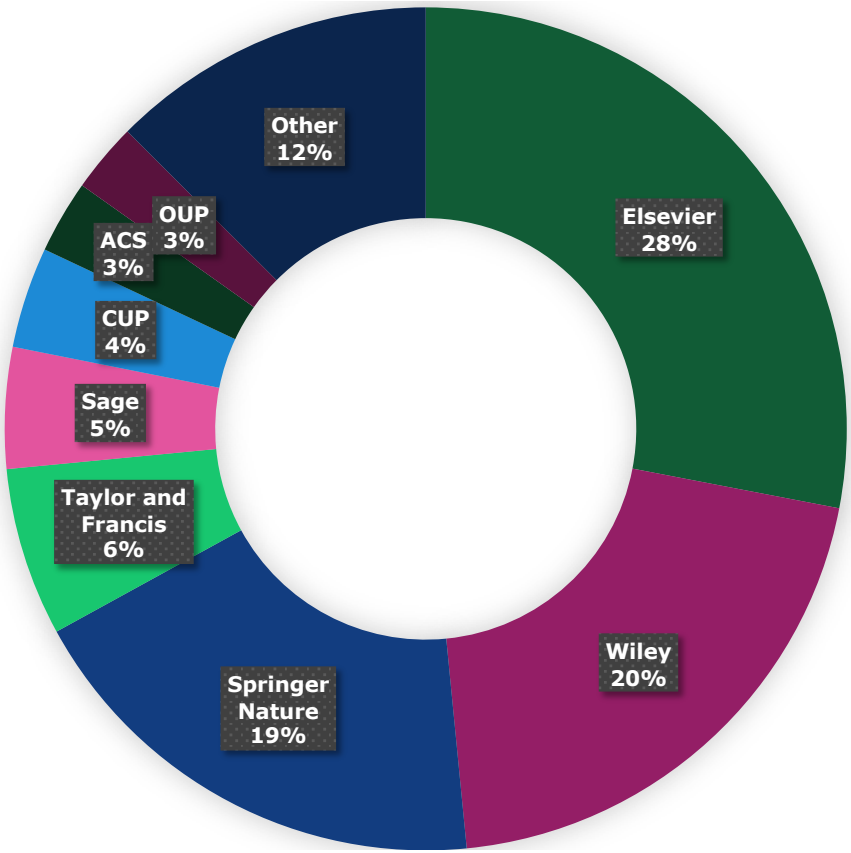
The Evolving Open Access Landscape

Transformational Agreements

Wiley is committed to delivering Open Access options on a larger scale via the negotiation of country-level agreements combining access (reading) and publishing.

A diverse range of publishers have now entered into transformational agreements which now cover almost 150,000 articles.

Projekt DEAL gives advantage to authors from German Institutes



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Natural Sciences

The new flagship interdisciplinary journal by Wiley

- Founded following the DEAL
- Run by an esteemed board of active researchers in physics, biology and chemistry
- Chief Editors

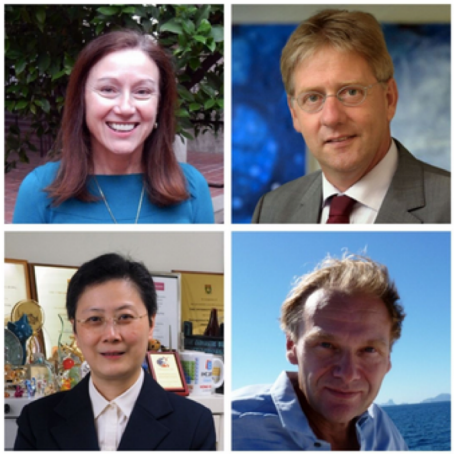
Prof. Marianne Bronner – Biology

Prof. Vivian Yam – Chemistry

Prof. Gerard Meijer – Physics

and their team of associate editors handling the submissions

- Open Access & Open Science
- Data Sharing Policy
- Transparent Peer Review



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