

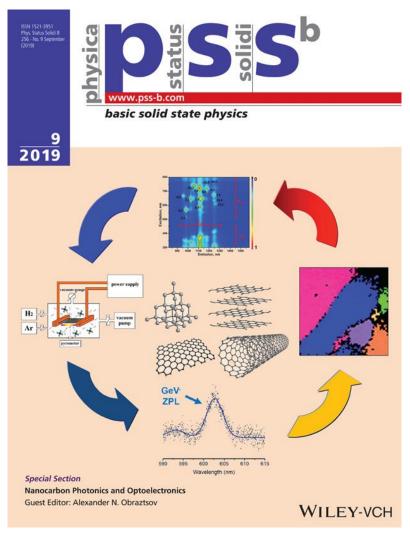
Scientific publishing within the new "Open Science" world: how to write for high-impact factor journals

Dr. Gaia Tomasello Associate Editor



CONTACT: gtomasello@wiley.com

The **NPO 2022 conference publications** will appear in a <u>Special Issue</u> of *Physica Status Solidi (b)*



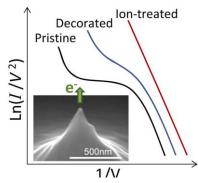
Workshop participants are strongly encouraged to contribute!



Original Paper | 🖻 Full Access

A Comparative Study of Field Emission From Pristine, Ion-Treated and Tungsten Nanoparticle-Decorated p-Type Silicon Tips

Victor I. Kleshch X. Pavel Serbun, Dirk Lützenkirchen-Hecht, Anton S. Orekhov, Victor E. Ivanov, Christian Prommesberger, Christoph Langer, Rupert Schreiner, Alexander N. Obraztsov





Original Paper | 🗗 Full Access

Stretching and Tunability of Graphene-Based Passive Terahertz Components

Konstantin G. Batrakov 🔀 Nadezhda I. Volynets, Alesia G. Paddubskaya, Polina P. Kuzhir, Maria Stella Prete, Olivia Pulci, Evgeni Ivanov, Rumiana Kotsilkova, Tommi Kaplas, Yuri Svirko

Guest Editors: Alexander Obraztsov and Yuri Svirko



MSc, PhD (Chemistry) Theoretical Photochemistry University of Bologna, IT Imperial College, UK



Imperial College London







Post-doc (Material Science)

Polytechnique Montreal



Scientific Content Editor

ResearchGate

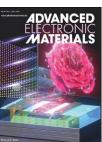




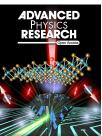
Associate Editor

Wiley (Materials Science & Physics)









Dr. Gaia Tomasello gtomasello@wiley.com

Outline of this publishing seminar:

1. Introduction to Wiley: from the *Advanced* brand to *PSS* family

2. Open access and the transitional agreement

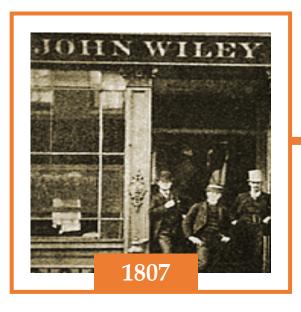
3. Peer Review process: tips on how to write a scientific paper to make it to peer review (and what to avoid...)

Concluding remarks



Our beginning

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



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



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



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

We are global

We work around the world to help share knowledge

Our customers are in over **200** countries, and we meet them where they are.

Our **76** offices and facilities in **30** countries span the globe to provide services and support.

Our 5000+ employees work every day to bring knowledge to the world help our customers succeed.



Why publishing?

- Make your research **public**
- **Fame** recognition by your peers
- **Fortune** promotions, grants applications
- Papers provide the **basis for further research**



Research should be competitive <u>but fair!</u>

Our community

We don't do it alone

RESEARCHERS



Our products for researchers make the publishing process easier and help their work get noticed.

- Video abstracts
- Wiley Researcher Academy
- Editorial tools

LIBRARIANS



Our products for librarians make access easy and intuitive so patrons can find what they need.

- Wiley Online Library
- Wiley Digital Archives
- Cochrane Library

SOCIETIES



Our products for societies help their members access the latest research and discipline trends.

- Hubs
- Web products
- Taxonomies

CORPORATIONS



Our products for corporations help them find new audiences and customers.

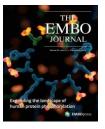
- Marketing
- Lead generation
- Advertising
- Special projects

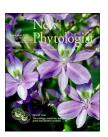
LIFE SCIENCES





HEALTH SCIENCES





Angewandte



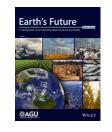


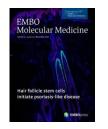


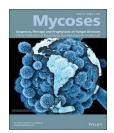






















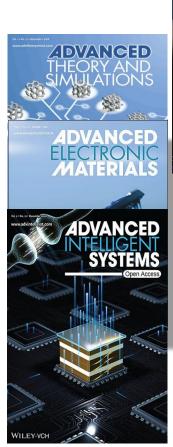
PHYSICAL SCIENCES

SOCIAL SCIENCES

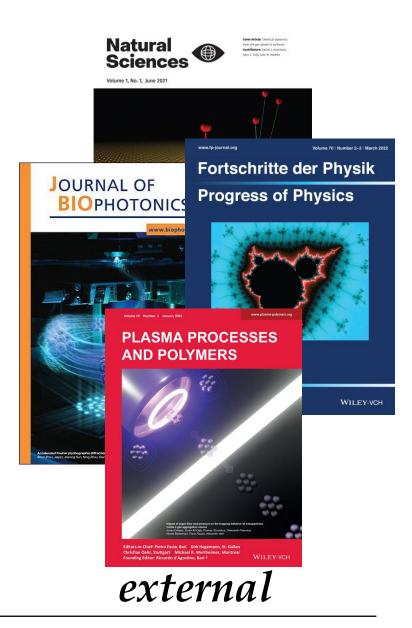


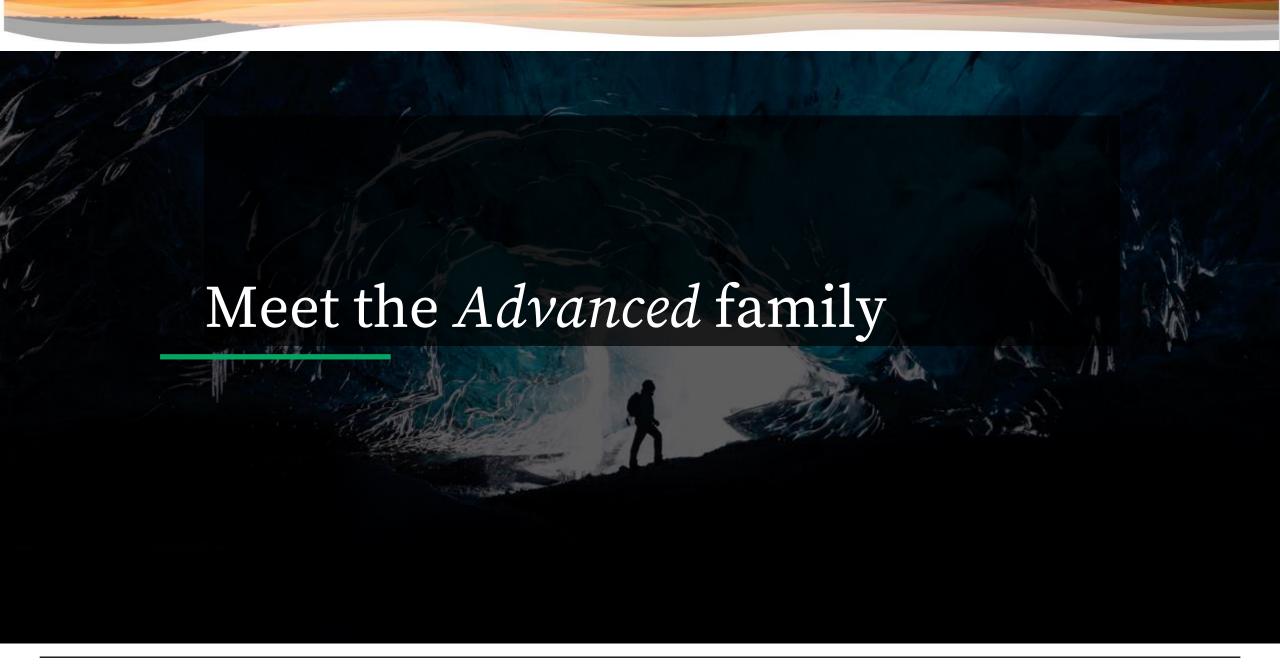
MATERIALS SCIENCE & PHYSICS





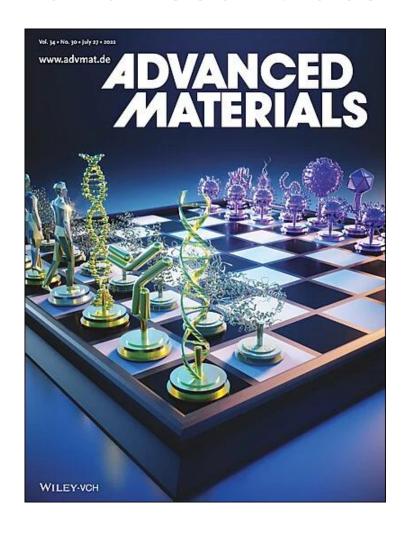






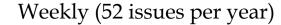


Advanced Materials

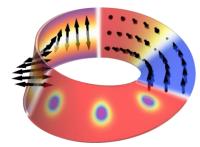


Breakthrough research in:

- Photonics
- Electronics
- Condensed Matter Physics
- Interface Science
- System and Modelling
- Biomedical Engineering









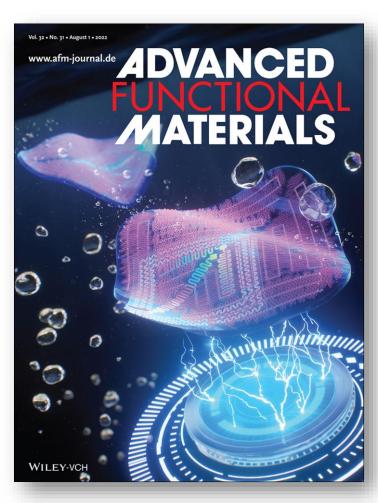
ADVANCED MATERIALS

Review 🗈 Open Access 😊 🕦

New Dimension in Magnetism and Superconductivity: 3D and Curvilinear Nanoarchitectures

Denys Makarov ズ Oleksii M. Volkov, Attila Kákay, Oleksandr V. Pylypovskyi, Barbora Budinská, Oleksandr V. Dobrovolskiy ズ

Advanced Functional Materials



Breakthrough research in:

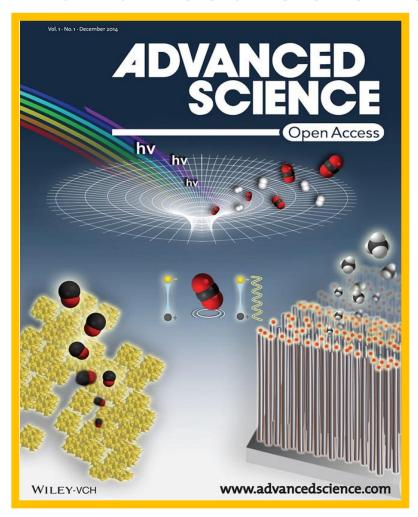
- Energy Storage
- Interface Science
- Photonics
- Electronics
- Biomedical Engineering
- Diagnosis & Therapy
- Condensed Matter Physics

Weekly (52 issues per year)

Impact Factor 19.924 (2022)



Advanced Science



Launched in 2014, has now an impact factor of 17.521 (2022); it is well-know for its interdisciplinary nature (from physical to life and social sciences) rapid publication, high visibility

GOLD

OPEN ACCESS

Upon an Article Publication Charge, and the article is immediately freely available online for all to read, download, and share – two ways to OA (fully OA journal vs subscription journal)

Celebrating Excellence in the Advanced Materials Family: Women in Materials Science

First published: 1 January 2021 | Last updated: 1 February 2022

WOMEN in MATERIALS SCIENCE





Advanced sister journals family: (Optics & Photonics)



Laser & Photonics Reviews (LPR)

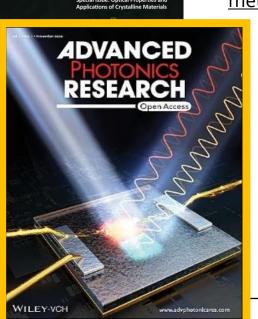
mostly focused on reviews and perspectives, publishes also original papers with top-quality (IF 13.138) content covering the current range of <u>photonics</u> and <u>optics</u>, both theoretical and experimental.

Advanced Optical Materials (AOM)

launched in 2013 optics (IF 9.926), with a scope dedicated to publish breakthrough discoveries and fundamental research in <u>photonics</u>, <u>plasmonics</u>, <u>optoelectronics</u>, metamaterials, and more.

Advanced Photonics Research (ADPR)

As a member of the Advanced X Research titles it was launched in 2020, ADPR is an international **Gold Open Access** journal publishing significant and high-quality results in all areas of the thriving field of <u>optics</u>, <u>physics</u>, <u>biophotonics</u>, <u>electrooptics</u>, <u>quantum photonics</u>, <u>nanophotonics</u>, <u>optofluidics</u>.



LASER

Advanced Optical Materials Hall of Fame

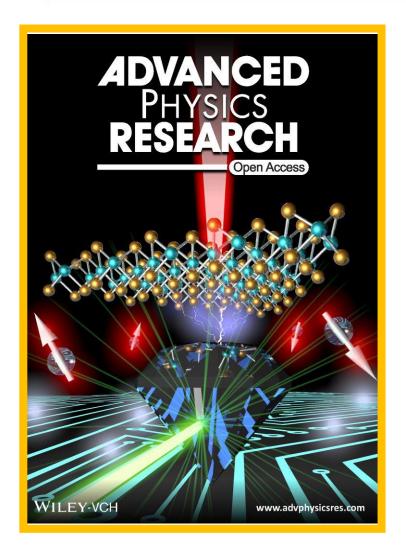
First published: 1 January 2018 | Last updated: 3 March 2022

ADVANCED OPTICAL MATERIALS
HALL of FAME

gtomasell

ADVANCED PHYSICS RESEARCH

is now open for submissions!



- •Condensed matter physics, materials physics, semiconductor physics;
- •Physics of correlated systems, quantum physics, magnetism, spintronics, superconductivity, etc.
- Optics, photonics, plasmonics, etc.
- •Atomic physics, molecular physics, computational physic, etc.
- •High-energy physics, particle physics, nuclear physics, astrophysics, etc.

Discover and publish cutting edge, open research.

Browse 19,682 multi-disciplinary research preprints

COVID-19 2216 TERRESTRIAL 495 INFECTIOUS DISEASES 406 GENERAL 402 CLINICAL PHARMACOLOGY 369
EPIDEMIOLOGY 333 ONCOLOGY 326 VERTEBRATE 305 VIRUS 279 ECOLOGICAL EXPERIMENT 277 GENERAL OBSTETRICS 261
ECOSYSTEM 256



Physica Status Solidi family





basic solid state physics

Feature Article 🔯 Open Access 🚾 📵

Higher-Order Topological Band Structures

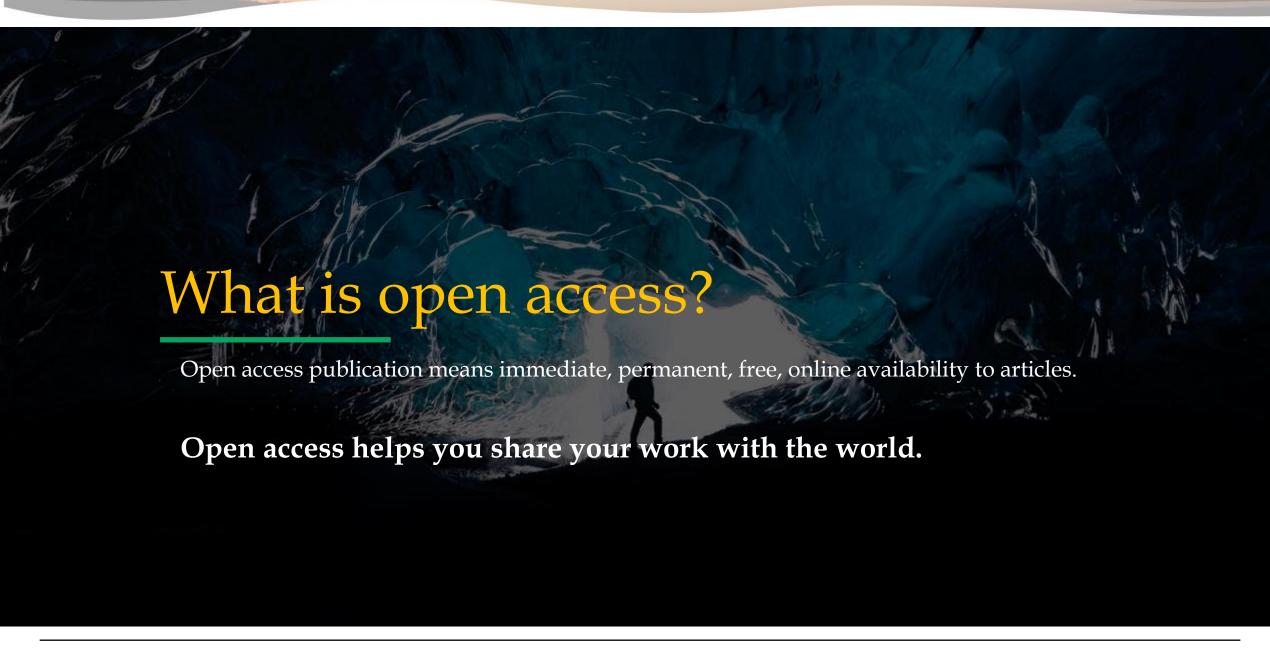
Luka Trifunovic 🔀 Piet W. Brouwer











Definition of open research

... broad term, covering the many exciting developments in how science is becoming more open, accessible, efficient, democratic, and transparent. This Open Science revolution is being driven by new, digital tools for scientific collaboration, experiments and analysis and which make scientific knowledge more easily accessible by professionals and the general public, anywhere, at any time ...

- European Commission



Gold Open Access & OA benefits

- The article is published in a fully open access journal or openly in a hybrid journal
- Article publication charge (APC) is typically applied
- Article is usually published under a Creative Commons (CC) license and author usually retains the copyright
- **same high-quality** peer review, production, and publishing **standards** as subscription-based articles
- Article can be immediately shared on personal, institutional or public websites, enabling broader distribution and increased visibility



Open research

OPEN ACCESS

Increasing accessibility of publicly funded research



Enabling reproducibility and verification of researcher data, methodology, and reporting standards

OPEN PRACTICES

Embracing greater transparency throughout the research process

OPEN COLLABORATION

Supporting inclusive and networked research practices

OPEN RECOGNITION & REWARD

Helping to integrate researcher identification and evaluation tools











The OA Revolution

2000-2008 emergence 2009-2016 mainstreaming 2017-2019 acceleration

policy landscape & publisher experimentation

funders & national governments

processes & systems begin to change

2020 & Beyond

- More agreements between national/state consortia and publishers
- Further refinement of Plan S
- Practical solutions to overcome the difficulties of this large shift

Different types of Open Access



The article is immediately, freely available online for all to read, download, reuse and share

An Article Publication Charge (APC) is typically applied. This may be covered by an institution or funder

Published under a Creative Commons (CC) license, author retains copyright



Author self-archives a version of the subscription article in an online repository (embargo period, 12 or 24 months, may apply) and retains the right to use their articles for certain purposes



Subscription articles are made free to read by the publisher, are not formally licensed for reuse (no fee or charge, but publisher is not under any obligation to keep the article free to read)



The article is immediately, freely available online for all to read, download, reuse and share; author retains copyright; no fees to publish – usually covered by the publisher, sponsor or not-for-profits

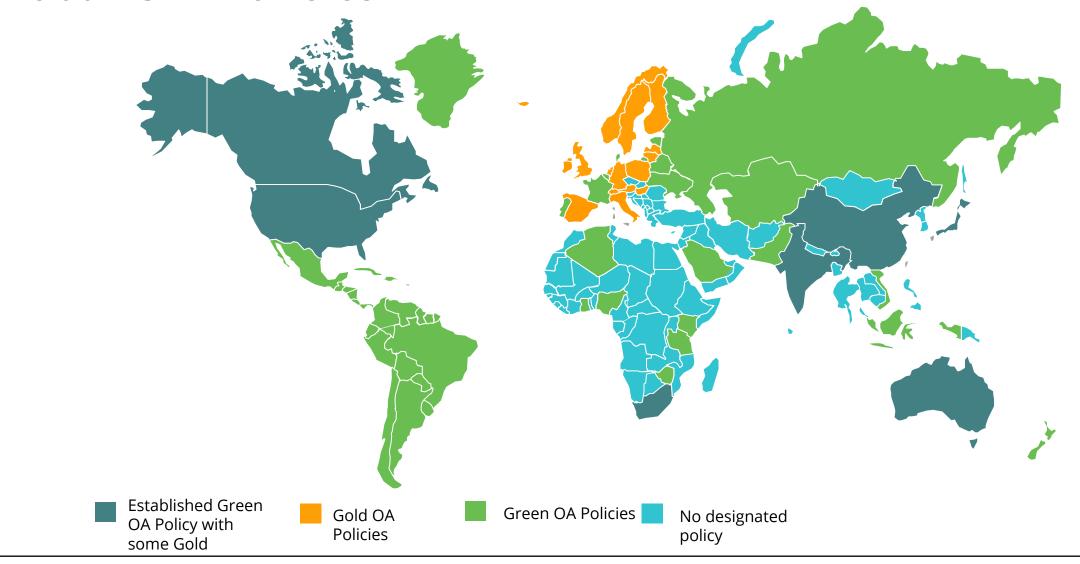


Bring your research to a bigger audience with Open Access



Open access: Helping researchers share their work with the world **www.wileyopenaccess.com**

Global OA Policies



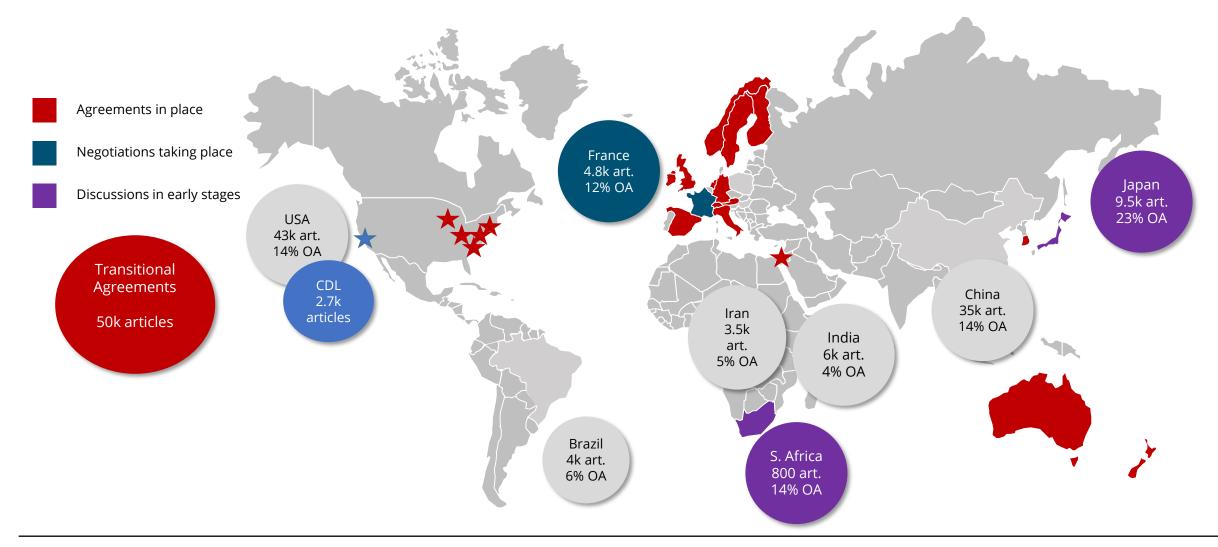
How is Wiley supporting you in this transition?

Transitional Agreement (definition)

Transitional agreements (TAs) allow researchers unlimited access (reading) to journals, plus coverage of Article Publication Charges (APCs) when authors choose to publish open access

Open Access publishing options on a larger scale, at no costs for Authors (or with discounts on APCs)

Transformational Agreements - What's Next?



Transformational Agreements - EMEA



Country	Consortium	Approx Wiley Output	Eligible Institutions	Read Access	Hybrid OA	Gold OA	Discount on Gold APCs?
Netherlands	VSNU	2400	15	✓	✓	*	*
Austria	KEMO	650	24	✓	✓	*	×
Norway	Unit	250	50	✓	✓	✓	✓
Germany	DEAL	9500	707	✓	√ *	✓	✓
Hungary	EISZ	500	13	✓	✓	✓	×
Sweden	Bibsam	1850	45	✓	✓	✓	✓
Finland	FinELib	865	22	✓	✓	✓	✓
UK	Jisc	9,500	151	✓	✓	✓	✓
Italy	CRUI	2800	65	✓	✓	*	*
Ireland	IReL	530	10	✓	✓	✓	✓
Spain	CRUE-CSIC	2900	59	✓	✓	*	✓
Switzerland	CSAL	1600	46	✓	✓	*	✓
Israel	MALMAD	880	24	✓	✓	*	*
Slovenia	СТК	125	10	✓	✓	*	*
Denmark	RDL	1000	30	✓	✓	*	×
Cyprus	CLC	50	8	✓	✓	*	×

The Wiley / Project FinElib agreement (2020-2022)

opens research results from Finland to a global readership

- ✓ All **primary research** and **review articles** qualify
- ✓ You must publish open access in one of Wiley's **fully open access journals** or a subscription journal that offers **Online Open (hybrid journal)**.
- ✓ You must be the responsible **corresponding author** who is affiliated with an <u>eligible FinELib institution</u> at the point of acceptance
- ✓ You should **select your institution affiliation** during the submission process and this affiliation must be stated on the published paper

Check your eligibility!



For more information on this and other Transitional Agreements, please visit:



Open access: Helping researchers share their work with the world **www.wileyopenaccess.com**

There are clear advantages when you choose to publish open access with Wiley

You can be confident that your work has the best chance to be read, cited and shared. Here's the data to prove it.



3x Downloads

On average, open access articles were downloaded 3x as much as subscription articles 66 33

1.7x Citations

Open access articles were cited nearly twice as much compared to subscription articles

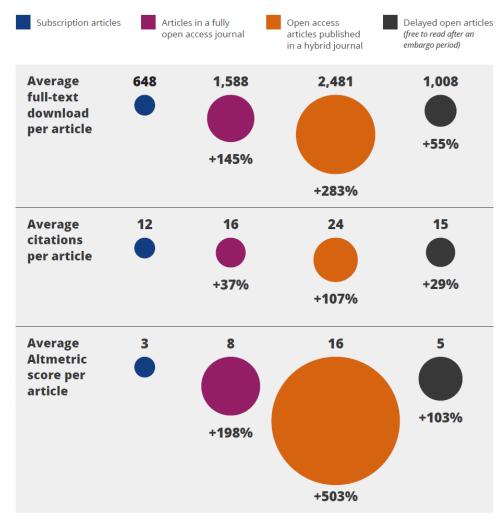


4.5x Altmetric Score

Open access articles received 4.5x as much Altmetric attention as subscription articles

See the **white paper** on The Wiley Network **www.wiley.com/network**

Article performance four years after publication across all publication models:



What other benefits for authors?

The aim of each agreement is to help democratize open access publishing for all researchers at participating institutions covered under each consortium



Simple process

Authors don't need to arrange payment (APCs are paid centrally by their eligible institution)



Increased access and readership

Articles published open access are immediately freely available online for all to read, download, and share



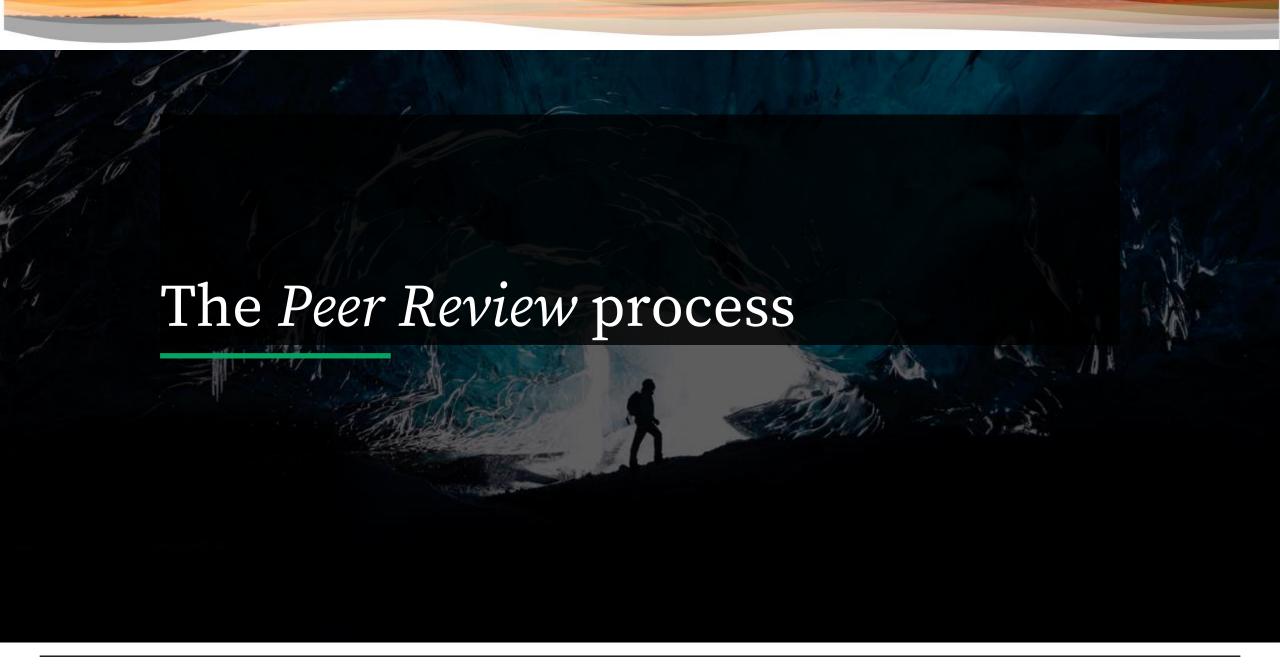
Subject coverage is broadened

Transitional agreements are a way to create **parity towards OA for all fields of research** – not just those that traditionally offered APC funding



Compliance with funder mandates

Transitional agreements open routes to **publishing OA in line with** the increasing number of **funder mandates**



The role of a peer review editor

- Manuscript assessment
- Reviewer selection
- Decision making
- Journal strategy
- Community interaction

Acquisition, up-to-date knowledge, hot topics, etc.

- News, publicity, marketing
- Scientific publishing ethics



Manuscript submitted

The editorial workflow

Editorial Screening

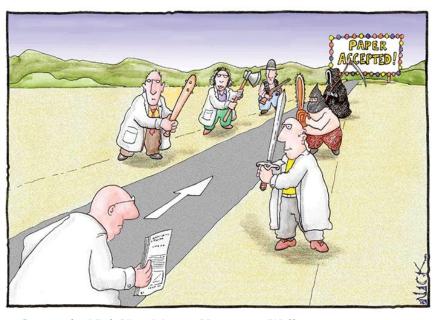
Peerreview

Editorial Decision

Depending on the journal, 60-80% don't make it past screening



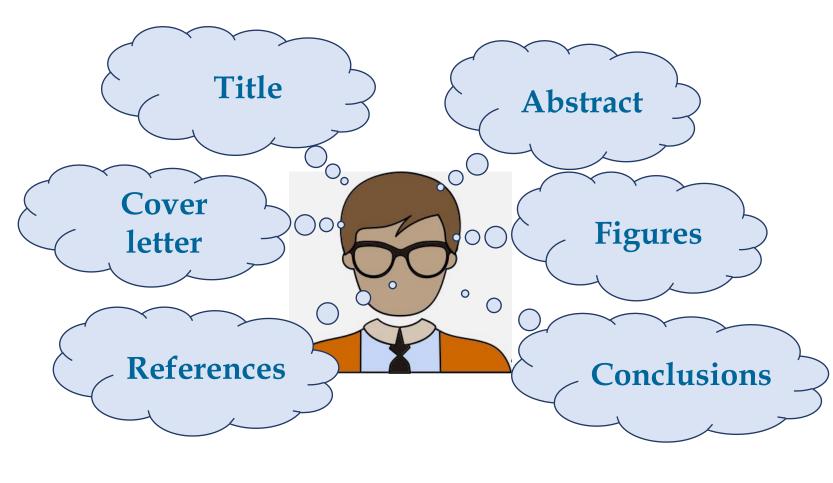
Direct reject or transfer to a sister journal



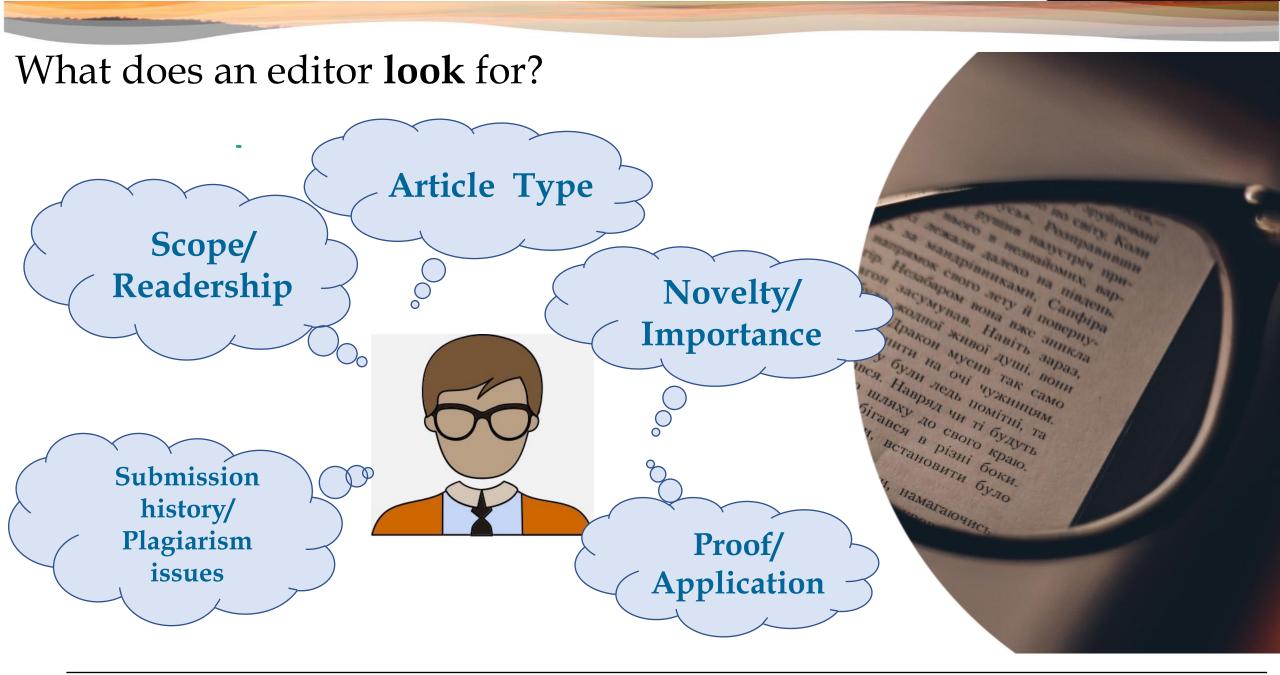
Cartoon by Nick Kim, Massey University, Wellington

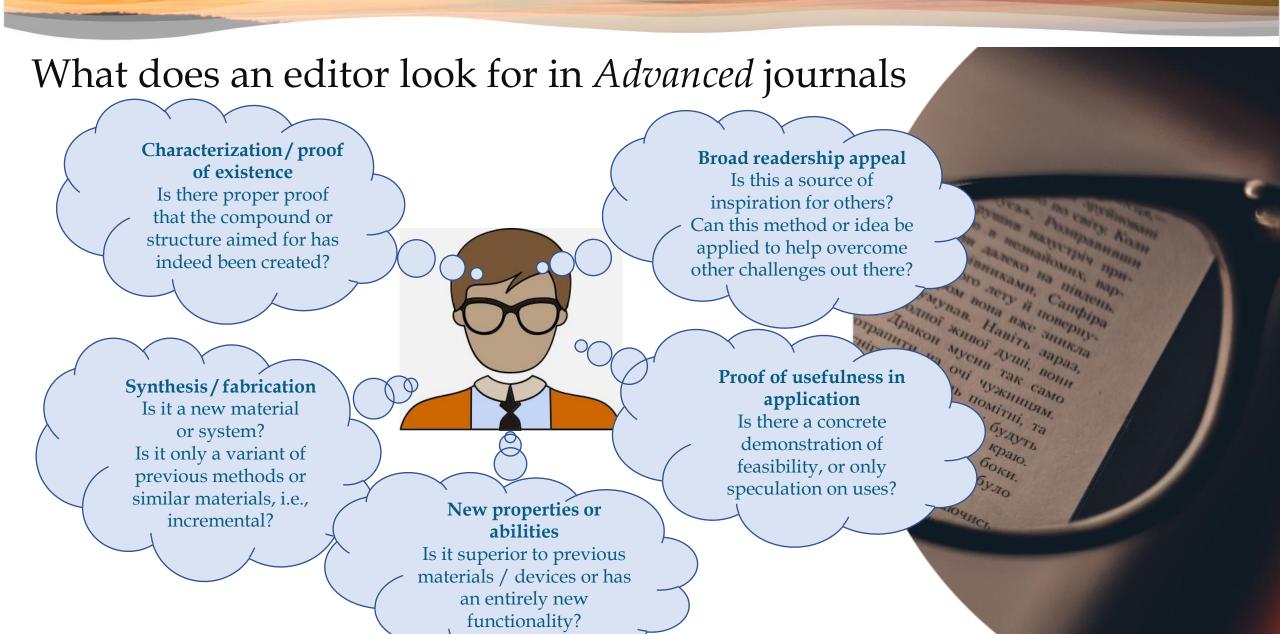


What does an editor **look** for?









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 Horn Frogs smaller

- ✓ Specific
- **✓** Concise
- ✓ Contains many keywords



Let's talk Cover Letter (DO's)

- Why does your paper **fit** this journal?
- Why is this **topic** important?
- What is the **key result**?
- What is the **significance** of your result?
- How does it advance the field?



Let's talk Cover Letter (DONT's)

- Don't be vague
- Don't write a long essay
- Don't oversell your work
 - "new" \rightarrow "novel" \rightarrow "groundbreaking"
 - "good"→ "excellent" → "amazing"



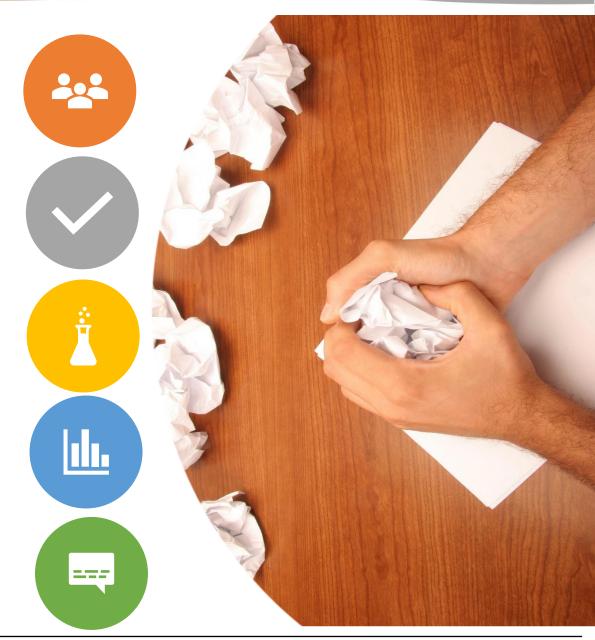
What makes a good abstract?

• Importance of research to a broad audience

- Introduce the procedure simply
- Describe the experiment briefly

Offer a brief overview of the results

• Include keywords, omit abbreviations

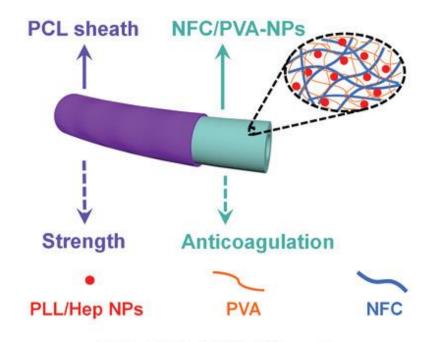


What makes a good figure?

- 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



PCL-NFC/PVA-NPs tube

A well-designed figure is worth a thousand words

References are important

Puts your work in context

Comparison to the standard system that is being used and/or to other similar systems that have been reported "recently".

Recent

"Recently" in materials science – pretty much in any research field-should not be more than two or three years ago.

Always 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.

Comparisons

Tables with compared values are a plus.



Avoid plagiarism

Silicon (Si) has a great potential as a photoelectrode because it is an earth-abundant element with several desirable properties, including a narrow energy band gap of ~1.2 eV, high carrier mobility, stability over a wide pH range, non-toxicity, and commercial availability. Si is a key material in the solid-state photovoltaic industry, whilst modified Si has been used increasingly in solid/liquid photoelectrochemistry. For example, the surface of a p-Si was doped heavily with donor (n*p-Si) to acquire a larger open circuit voltage in photoelectrochemical (PEC) H₂ production. Heavily Metal oxides were deposited on the surface of the n-Si photoanodes as a protective layer in PEC water oxidation. Help Although planar p-Si is promising. Charge carrier recombination can occur due to the low diffusion length of the minority carriers in the same absorber thickness. Help 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

Small matches of frequently used standard terms or expressions.

formate formation of the planar and wire electrodes were similar at < 10%, presumably due to the same surface characteristics. In an attempt to catalyze formate production, Sn nanoparticles were strategically photo-electrodeposited onto the p-Si electrodes because of its

Inevitable / Harmless

pH and others-driven smart surfaces. The change of pH value will dominate stereo configurations of binary cooperative complementary molecules, yielding hydrophilic or hydrophobic molecular segments exposed to the water contact.

Smart surfaces that can switch between superhydrophilicity and superhydrophobicity using i-motif DNA have been reported. This macroscopic surface phenomenon originates from the collaborative effects of surface microstructure and collective nanometer scale motion of DNA nanomachine. They modified hydrophilicity and with a fluoride-containing hydrophobic group and immobilized it onto a gold surface through a gold-thoil bond to create an intelligent switching surface converted into the stretched single-stranded structure. The original state of the DNA was able to recover by adding acid. Thus, pH-arreen switching could be manipulated among the two states. Accordingly, the water CA on rough surfaces was 8.8° at pH 4.5, and the CA was 148.3° at pH 8.5.

The trowetting is a more mature technique that can induce a transition of droplets from a large to Wenzel state [125]. However, traditional electrowetting always happens on a liquid-solid contact area, which can not realize a localized controlled wetting state transition.

Recently, a patterned wetting-state transition on a superhydrophobic aligned composite nanorod array (ACNA) surface has been built based on a photoelectric co-operative wetting process. [76-78] The patterned wetting-state transition can induce a localized wetting adhesion switching on liquid/solid interfaces. For example, when the applied voltage was below the threshold value of electrowetting, a drop of red ink placed on the ACNA surface was in the Cassie state, with air trapped in the troughs between the individual nanorods. Then, a patterned wetting-state can transfer to the Wenzel state through the UV irradiation due to the existing electrocappillary pressure.

11

Unacceptable/ Outrageous

What feedback we ask our reviewers for

Are the conclusions supported by the data?

Are the results important? (Are they interesting?)

Are there any ethical questions?

Is the work novel and original?

Is the motivation important?



Were any flaws or mistakes found?

Should anything be added or removed?

"Besides your general opinion, please give clear reasons for rejection or acceptance!"

Revisions requested: how should you revise?

Carefully consider reviewer comments

Not all changes have to be made, but...

...you need convincing arguments for changes not made

Prepare revision

Make changes to the manuscript
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

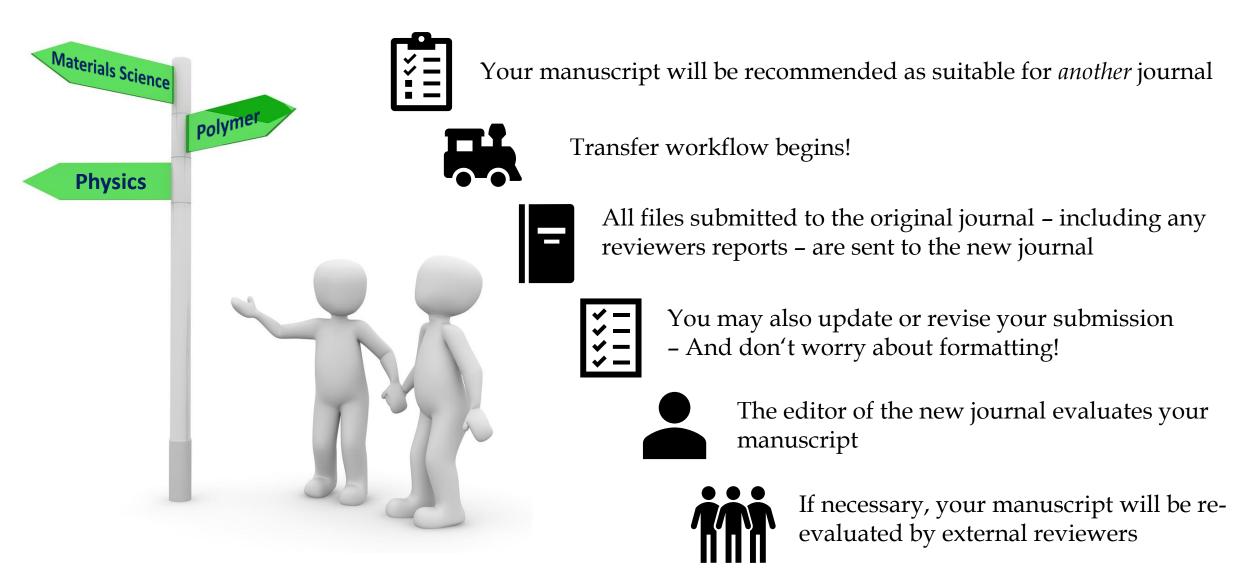
Reasons for Rejection

- Novelty/originality material/system/method has already been reported
- Motivation is unclear/not sufficiently important for this journal better systems/methods already reported does not address a really important challenge
- Results are unsurprising/expected/predictable you can guess the outcome from the title, even as a non-specialist
- Technical/scientific concerns *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

transfer to a suitable sister journal

transfer probably not possible

The Transfer Network



Should I accept the transfer?

Which benefits would I have?



Quicker publication

Up to three times more likely to be accepted

Minimizing redundant reviews

Lessening the load on the peer review community

Editors are here to help

Decisions: should you appeal a rejection?

Usually, no

Risk of longer time to publication

Editor and reviewers know journal well

Criticisms may be valid



Occasionally, yes

Importance / impact / novelty missed by editor and/or reviewers

Factual errors in reviewer reports that led to rejection

Once accepted, how do you share and promote your paper?

l want to share:		I have:		
		Accepted Version	Final Article (Version of Record)	Wiley Sharing Link
www	 On a Website Personal website Company or institutional repository Not-for-profit subject repository 	Deposit subject to embargo listed on copyright transfer agreement	There should be no public posting other than by agreement	Can share at any time
	On a Blog	Cannot be shared	shared	Can share at any time
	In an Email to Colleagues	Can share at any time		
\ll	Using Social Media	Cannot be shared	Cannot be shared	Can share at any time

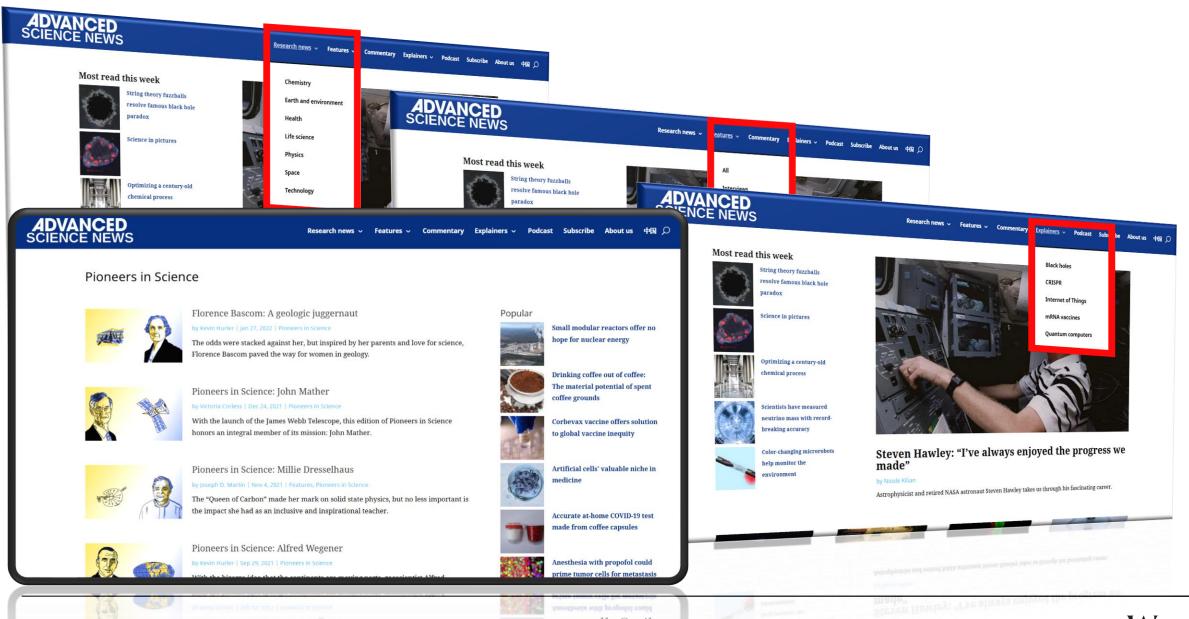
Accepted version – version that incorporates all amendments made during the peer review process, but **prior to** the final published version

Version of Record – final published version (on Wiley Online Library)

Wiley Sharing Link - https://doi.org/10.1002/aelm.xxxx



Advanced Science News content



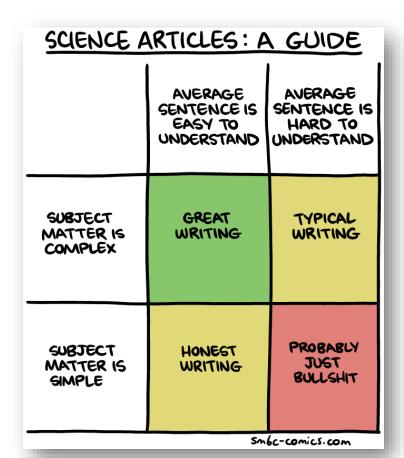
WILEY

Conclusions and take-home messages

- ➤ Global research output grows fast strong publication competition and new journal launches
- > Openness, collaboration and integrity first, and then "impact"

➤ Peer review isn't perfect...but it's the best we have : select the right journal for your work!

➤ NPO 2022 workshop participants are strongly encouraged to submit to the Special Issue in *PSSB*!





Find out more on www.wileyopenaccess.com