Publishing good journal papers with the help of engineering village

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IEEE distinguished lecturer of electronic devices society;

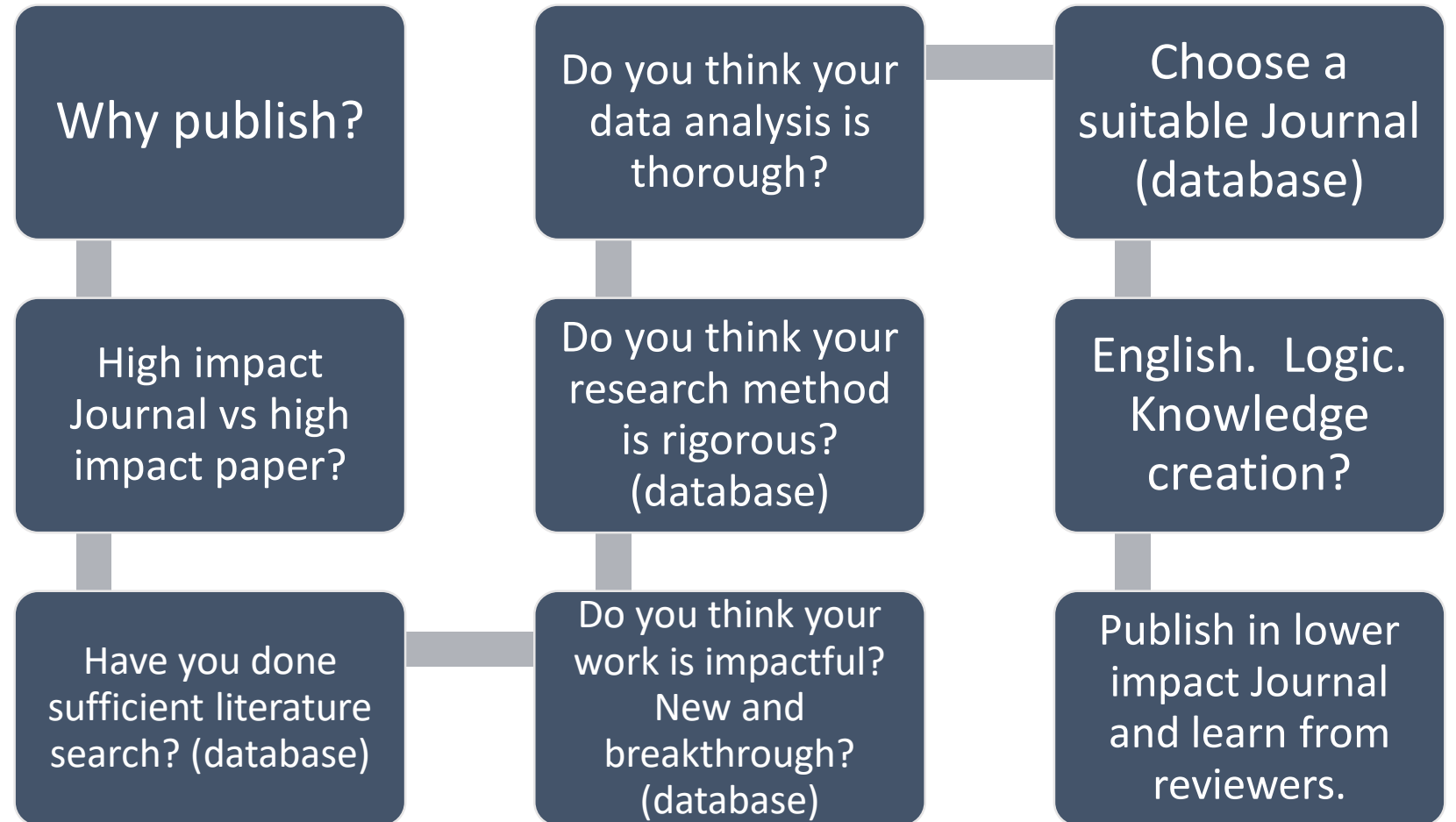Editor, IEEE transaction on device and materials reliability;

Editor of Scientific Report, Nature Publishing Group; Editorial advisory board member, microelectronics reliability

Ishikawa-kano quality awardee of 2014, individual category (only one in Singapore)

Fellow of Singapore quality institute; Fellow of institute of engineer, Singapore

Senior member of IEEE and American society of quality

Tan Cher Ming

When we about to publish our work, questions to ask yourself

Why publish?

High impact Journal vs high impact paper?

Have you done sufficient literature search? (database)

Do you think your data analysis is thorough?

Do you think your research method is rigorous? (database)

Do you think your work is impactful? New and breakthrough? (database)

Choose a suitable Journal (database)

English. Logic. Knowledge creation?

Publish in lower impact Journal and learn from reviewers.

Steps in publishing

1. Do not rush submitting your article for publication.

- Authors sometimes rely on the fact that they will always have an opportunity to address their work's shortcomings after the feedback received from the journal editor and reviewers has identified them. – not true.

- A proactive approach and attitude will reduce the chance of rejection and disappointment. You need to carefully re-reading your manuscript at different times and perhaps at different places. Re-reading is essential in the research field and helps identify the most common problems and shortcomings in the manuscript, which might otherwise be overlooked. Then, share your manuscripts with other researchers in your network, request their feedback.

Steps in publishing

2. Select an appropriate publication outlet.

- Finding the right journal for your article can dramatically improve the chances of acceptance and ensure it reaches your target audience.

- Elsevier provides an innovative Journal Finder search facility on its website. Authors enter the article title, a brief abstract and the field of research to get a list of the most appropriate journals for their article.

- Less experienced scholars sometimes choose to submit their research work to two or more journals at the same time. Research ethics and policies of all scholarly journals suggest that authors should submit a manuscript to only one journal at a time. Doing otherwise can cause embarrassment and lead to copyright problems for the author, the university employer and the journals involved. **- Reviewer can sit in the review committee in different Journals**

Steps in publishing

3. Read the aims and scope and author guidelines of your target journal carefully.

- Read the aims and scope of the journals in your target research area. Doing so will improve the chances of having your manuscript accepted for publishing.

- Another important step is to download and absorb the author guidelines and ensure your manuscript conforms to them.

- Rejection can come at different times and in different formats. For instance, if your research objective is not in line with the aims and scope of the target journal, or if your manuscript is not structured and formatted according to the target journal layout, or if your manuscript does not have a reasonable chance of being able to satisfy the target journal's publishing expectations, the manuscript can receive a desk rejection from the editor without being sent out for peer review.

Steps in publishing

4. Make a good first impression with your title and abstract.

- The title and abstract are incredibly important components of a manuscript as they are the first elements a journal editor sees.

- **The title** should summarize the main theme of the article and reflect your contribution to the theory.

- **The abstract** should be crafted carefully and encompass the aim and scope of the study; the key problem to be addressed and theory; the method used; the data set; key findings; limitations; and implications for theory and practice.

Database such as EI can help

What EI Compendex can help?

Find relevant papers of your research topic

To see if your area is an emerging area, or no one has yet explored

To help you to think "out of box" by getting papers from an unfamiliar discipline

To find key researchers in your research topics (to suggest reviewers sometimes)

To find the right keywords for searching literatures

Compendex vs Google

Papers coverage in Google Scholar is larger than Compendex

But compendex has advanced features, namely the ability to re-sort articles by

Authors
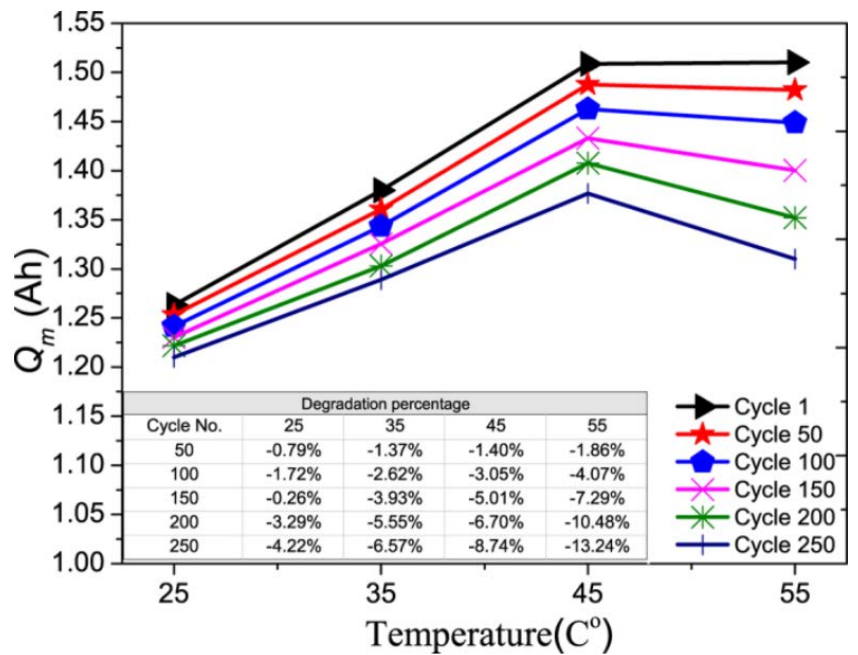
Type of document

Citations

Thus, Compendex will be useful if

1. We want to find out who are the leading scientists in a given research area

2. Focus only on Journal articles

3. Focus on high cited articles

Example 1 Effect of temperature on the aging rate of Li ion battery operating above room temperature


- Published in 2015. Citation: 104
- Li Ion battery is a hot topic
- Aging of Li Ion battery is important for its application
- Temperature effect studied? In what way? How could the results be useful for practical applications?
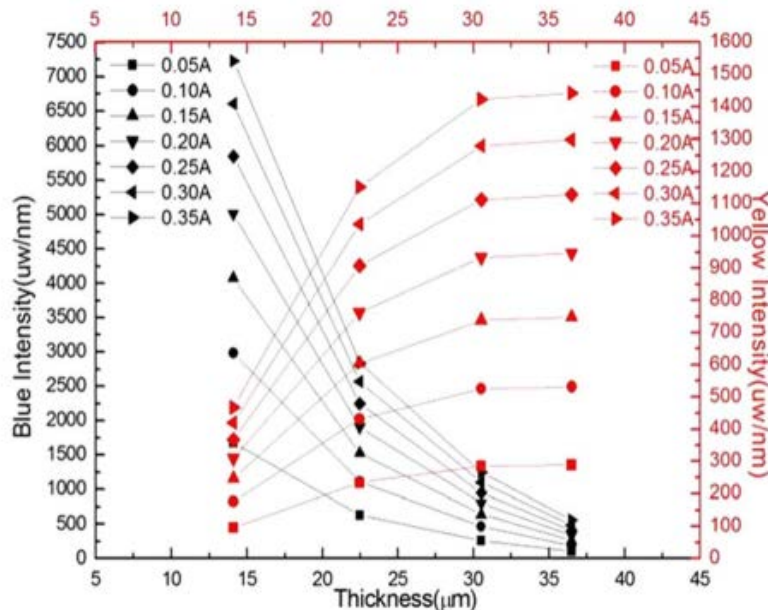
Example 2 Physical Limitations of Phosphor Thickness and concentration in High power LEDs

- High efficacy is good (lm/W)
- Increase phosphor thickness/concentration is a common method
- Limitations? Reliability?
- Material Science, Optics and wavelength transformation, thermal

Example 3 Metal-Graphene-Metal Interconnection for VLSI
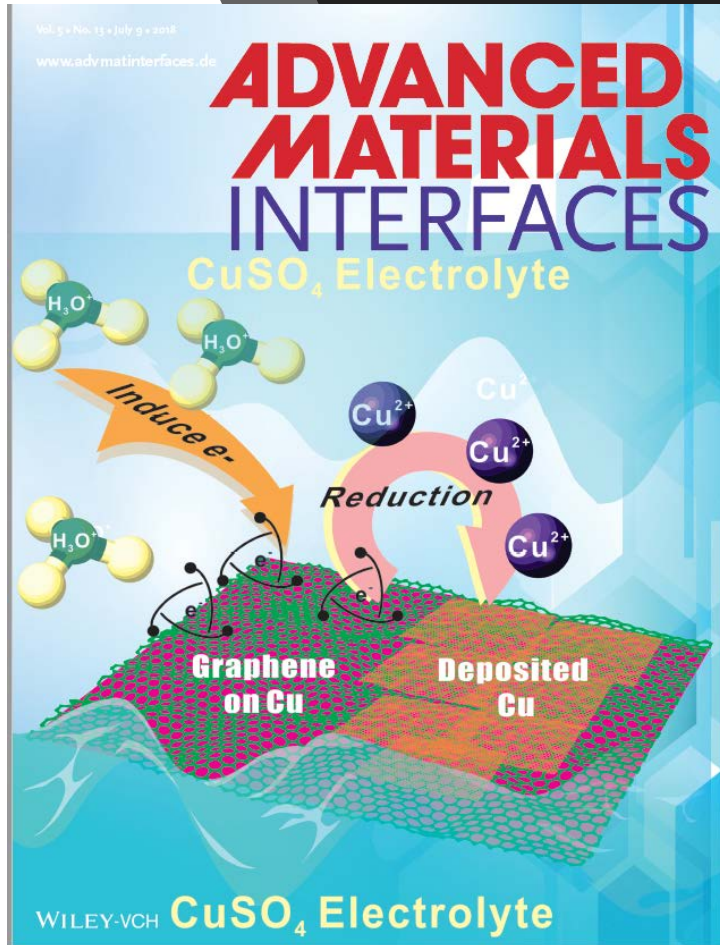
- VLSI interconnects is running out of steam
- Graphene, CNT etc were proposed
- Graphene properties and synthesis
- Interconnect processes
- Need a metal-graphene-metal interconnect
- Electroless process and the underlying electrochemistry
- **Material science, electrochemistry, IC fabrication processes**

About Knovel

Provide database for material properties for simulation

Provide an overview of a subject matter for beginners

A self-learning tool

Self-learning

Self-learning is the modern form of learning. Not that it has replaced traditional, instructional learning, but it has supplemented it and with some great results.

Self-directed learning has been proven to be effective, convenient, and fast, thanks to the rise of the internet. Nowadays, you can learn how to do almost anything through a simple Google search, by watching a YouTube tutorial, and by simply reading instruction manuals.

Self-learning is the new form of learning that is equipping people with skills that are relevant to their daily activities.

Self-learning gives you the ability to identify problems and quickly look for effective solutions on your own. This could be from colleagues, the internet or by exploration.

Whatever the case, challenges and obstacles do not kill your drive to get things done, instead, they provide you with new opportunities to learn something new at your own pace and time.

You get to learn how to actively look for solutions instead of having solutions brought to you. Moreover, you can easily adapt to changes in the environment due to the ability to learn fast.

Thank you for listening

Q & A