How to Get Published In Scientific Journals

Presented by Fiona Barron, Publishing Editor
Health Sciences, Elsevier Australia
Most importantly!

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Objectives to writing a paper

• What steps do I need to take before I write my paper?

• How can I ensure I am using proper scientific language?

• How do I build up my article properly?
What steps do I need to take before I write my paper?
Are you are ready to publish?

Yes... you should consider publishing when you have information that advances understanding in a scientific field

This could be in the form of:

- Presenting new, original results or methods
- Rationalizing, refining, or reinterpreting published results
- Reviewing or summarizing a particular subject or field

If you are ready to publish, a strong manuscript is what is needed next
What is a strong manuscript?

- Has a clear, useful, and exciting message
- Presented and constructed in a logical manner
- Reviewers and editors can grasp the scientific significance easily

Editors and reviewers are all busy scientists – make things easy to save their time
Decide which type of manuscript is most appropriate

• Conference papers

• Full articles/Original articles

• Review papers/perspectives
Conference Paper

- Excellent for presenting early or in-progress research findings
- Typically 5-10 pages, 3 figures, 15 references
- Draft and submit the paper to conference organisers
- Good way to start a scientific research career

Sample conf paper titles:

- “Global Warming Prevention Technologies in Japan” at 6th Greenhouse Gas Control Technologies International Conference
Full Article

- Standard for presenting completed research findings
- Typically 8-10 pages, 5 figures, 25 references
- Draft and submit the paper to appropriate journal
- Good way to build a scientific research career

Sample full article titles:

- “Hydrodynamic study of a liquid/solid fluidized bed under transverse electromagnetic field”
- “Biogas combustion in a chemical looping fluidized bed reactor”
- “Carbon dioxide capture and recovery by means of TSA and/or VSA”
Review Paper

• Critical synthesis of a specific research topic
• Typically 10+ pages, 5+ figures, 80 references
• Typically solicited by journal editors
• Good way to consolidate a scientific research career

Sample review paper titles:

• “Advances in CO2 capture technology—The U.S. Department of Energy's Carbon Sequestration Program ”
• “Power generation with CO2 capture: Technology for CO2 purification ”
• “Environment friendly alternatives to halogenated refrigerants—A review ”
Citation impact varies by publication type

Average cites per item

Article Review Conference Paper

Source: SCOPUS™
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If you come across the spam emails 'Call for Papers' or 'Manuscript submission' please do not respond to them. We kindly request that you forward the email to eesservices@elsevier.com. Thank you for your patience with this matter.

Beware of Phishing: Publishers and editors rarely solicit papers from authors, and usually only as an invitation for review articles.
Guideline for Authors

Submission of papers:

The entire submission and review process for the International Journal of Greenhouse Gas Control will be handled electronically, which shortens publication times. All papers should be submitted electronically via EES: http://ees.elsevier.com/igcc.

Prior to submitting your paper, please follow the instructions given below. Please note that you must have an e-mail address to use the online submission system.

Authors submit their article online by simply registering, logging-in, and submitting. Editors will then invite potential reviewers by e-mail.

Detailed instructions on the use of the online submission system are available at http://ees.elsevier.com/igcc. Please read the "Hints" for information on how to register, and review the "Tutorial for Authors" for a run-through of the submission process. If you need any further help, please do not hesitate to contact our Author Support Department: authorsupport@elsevier.ie

Submission language:
English Oxford English Dictionary

English language help service:
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Types of contributions:
Primary research papers and invited technical reviews will be published. All other paper types will be published at the discretion of the Editor in Chief.

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Clearly indicate who is responsible for correspondence at all stages of refereeing and publication, including post-publication. Ensure that telephone and fax numbers (with country and area code) are provided in addition to the e-mail address and the complete postal address. Full postal addresses must be given for all co-authors.

Original material:
Submission of an article implies that the work described has not been published previously (except in the form of an abstract or as part of a published lecture or academic thesis), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, without the written consent of the Publisher.
How can I ensure I am using proper scientific language?
Why Is Language Important?

Save your editor and reviewers the trouble of guessing what you mean

Complaint from an editor:

“[This] paper fell well below my threshold. I refuse to spend time trying to understand what the author is trying to say. Besides, I really want to send a message that they can't submit garbage to us and expect us to fix it. My rule of thumb is that if there are more than 6 grammatical errors in the abstract, then I don't waste my time carefully reading the rest.”
Do Publishers Correct Language?

• Yes...
  – Publishers often provide resources (some for a fee, some for free) for authors who are less familiar with the conventions of international journals
  – Some publishers may perform technical screening prior to peer review

• But...
  – It is the author’s responsibility to use proper language prior to submission
  – Full copyediting is only done after an article is accepted
Scientific Language - Overview

Write with clarity, objectivity, accuracy, and brevity.

- Key to successful scientific writing is to be alert to common errors:
  - Sentence construction
  - Incorrect tenses
  - Inaccurate grammar
  - Mixing languages

Check the Guide for Authors of the target journal for any language specifications.
A possible modification:

“It was expected that the intravenous administration via emulsion would have a higher retention concentration. However, the experimental results suggest otherwise. The SLN entered the tumor blood vessel more easily than the emulsion. This may be due to the smaller aperture of the SLN (46 nm) compared with the aperture of the emulsion (65 nm).”

An example of what NOT to do:

“If it is the case, intravenous administration should result in that emulsion has higher intravenous administration retention concentration, but which is not in accordance with the result, and therefore the more rational interpretation should be that SLN with mean diameter of 46nm is greatly different from emulsion with mean diameter of 65 nm in entering tumor, namely, it is probably difficult for emulsion to enter and exit from tumor blood vessel as freely as SLN, which may be caused by the fact that the tumor blood vessel aperture is smaller.”
**Scientific Language - Tenses**

- **Present tense for known facts and hypotheses:**
  “The average life of a honey bee *is* 6 weeks”

- **Past tense for experiments you have conducted:**
  “All the honey bees *were* maintained in an environment with a consistent temperature of 23 degrees centigrade…”

- **Past tense when you describe the results of an experiment:**
  “The average life span of bees in our contained environment *was* 8 weeks…”
Scientific Language - Grammar

• Use active voice to shorten sentences
  – Passive voice: “It has been found that there had been…”
  – Active voice: “We found that…”
  – Passive voice: “carbon dioxide was consumed by the plant…”
  – Active voice: “…the plant consumed carbon dioxide..”

• Avoid abbreviations: “it’s”, “weren’t”, “hasn’t”
  – Never use them in scientific writing
  – Only use abbreviations for units of measure or established scientific abbreviations, e.g. DNA
Scientific Language - Grammar

- Minimize use of adverbs: “However”, “In addition”, “Moreover”

- Eliminate redundant phrases

“Never say ‘and references therein’ - as in [1] and [25]. Any intelligent reader knows to look at the references in a paper in order to get even more information.” - Editor

“Delete ‘In present report’. It is impossible for it to be in a different report! You start the conclusions "In this report, we have prepared....." This is nonsense. The samples were prepared in the laboratory!” - Editor
Language

Finally, you should use English throughout the manuscript, including figures.
Summary – How can I ensure I am using proper scientific language?

• Proper scientific language is important so that editors and reviewers can easily understand your messages.

• Refer to the journal’s Guide for Authors for specifications.

• Check that your paper has short sentences, correct tenses, correct grammar, and is all in English.

• Have a native English speaker check your manuscript.
How do I build up my article properly?
General Structure of a Full Article

Each section of a paper has a definite purpose

- Title
- Abstract
- Keywords

Main text (IMRAD)
- Introduction
- Methods
- Results
- Discussions

Conclusion
Acknowledgement
References
Supporting Materials

The progression of the thematic scope of a paper:

general $\rightarrow$ particular $\rightarrow$ general

However, we often write in the following order:

- Figures and tables
- Methods, Results and Discussion
- Conclusions and Introduction
- Abstract and title
Tell readers what your paper is all about

- Attract the reader’s attention
- Be specific
- Keep it informative and concise
- Avoid jargon and abbreviations
<table>
<thead>
<tr>
<th>Original Title</th>
<th>Revised</th>
<th>Remarks</th>
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<td>Preliminary observations on the effect of Zn element on anticorrosion of zinc plating layer</td>
<td>Effect of Zn on anticorrosion of zinc plating layer</td>
<td>Long title distracts readers. Remove all redundancies such as “observations on”, “the nature of”, etc.</td>
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<tr>
<td>Action of antibiotics on bacteria</td>
<td>Inhibition of growth of mycobacterium tuberculosis by streptomycin</td>
<td>Titles should be specific. Think to yourself: “How will I search for this piece of information?” when you design the title.</td>
</tr>
<tr>
<td>Fabrication of carbon/CdS coaxial nanofibers displaying optical and electrical properties via electrospinning carbon</td>
<td>Electrospinning of carbon/CdS coaxial nanofibers with optical and electrical properties</td>
<td>“English needs help. The title is nonsense. All materials have properties of all varieties. You could examine my hair for its electrical and optical properties! You MUST be specific. I haven’t read the paper but I suspect there is something special about these properties, otherwise why would you be reporting them?” – the Editor-in-chief</td>
</tr>
</tbody>
</table>
Abstract

Tell readers what you did and the important findings

• One paragraph (between 50-300 words)
• Advertisement for your article
• A clear abstract will strongly influence if your work is considered further

We tackle the general linear instantaneous model (possibly underdetermined and noisy) where we model the source prior with a Student $t$ distribution. The conjugate-exponential characterisation of the $t$ distribution as an infinite mixture of scaled Gaussians enables us to do efficient inference. We study two well-known inference methods, Gibbs sampler and variational Bayes for Bayesian source separation. We derive both techniques as local message passing algorithms to highlight their algorithmic similarities and to contrast their different convergence characteristics and computational requirements.

Our simulation results suggest that typical posterior distributions in source separation have multiple local maxima. Therefore we propose a hybrid approach where we explore the state space with a Gibbs sampler and then switch to a deterministic algorithm. This approach seems to be able to combine the speed of the variational approach with the robustness of the Gibbs sampler.
**Keywords**

*Used by indexing and abstracting services*

- They are the labels of your manuscript.
- Use only established abbreviations (e.g. DNA)
- Check the “Guide for Authors”

<table>
<thead>
<tr>
<th>Article Title</th>
<th>Keywords</th>
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<tr>
<td>“Silo music and silo quake: granular flow-induced vibration”</td>
<td>Silo music, Silo quake, stick-slip flow, resonance, creep, granular discharge</td>
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<tr>
<td>“An experimental study on evacuated tube solar collector using supercritical CO2”</td>
<td>Solar collector; Supercritical CO2; Solar energy; Solar thermal utilization</td>
</tr>
</tbody>
</table>
Introduction

Provide context to convince readers that you clearly know why your work is useful

Sample 1st paragraph of an Introduction

1. Introduction

The environmental pollution and the energy crisis have brought serious problems to the world environment and sustainable development. The applications of solar energy to electricity generation and heat collection/refrigeration become important, and have received considerable attention [1], [2], [3], [4], [5], [6], [7] and [8]. The solar collector is the heart of these solar energy utilization systems. During the last two decades a number of researchers have worked on developing new and more efficient solar collector or improving existing ones [9], [10] and [11]. For example, the performance of a water-in-glass evacuated tube solar heater is investigated and factors influencing the operation of water-in-glass collector tubes are discussed. The results show the existence of inactive region near the sealed end of the tube which might influence the performance of the collector [12].

Zhang, XR; Yamaguchi, H. “An experimental study on evacuated tube solar collector using supercritical CO2” Applied Thermal Engineering. © Elsevier
Methods

Describe how the problem was studied

Sample 1st paragraph of an Experimental Set-Up section

2. Experimental set-up

In order to study the CO₂-based collector characteristics well, a closed CO₂ loop including the collector is necessary. The CO₂ loop is designed and it consists of a solar collector array, flow regulating valve (throttling valve), heat exchanging system, and feed pump. The details of the experimental set-up are shown in Fig. 1. The solar collector is used to heat CO₂ fluid contained in heating channels and increase CO₂ temperature. The supercritical CO₂ flows through the valve, which can be used to adjust the CO₂ flow rate for the present study. The CO₂ flowing out of the valve is cooled in the heat exchanging system. After that, it is pumped by the feed pump, back into the higher pressure condition in the solar collector. As shown in Fig. 1 the experimental set-up is a closed cycle of CO₂ fluid, which is mainly comprised of evacuated solar collector arrays, a throttling valve, heat exchangers 1 and 2 (CO₂/water heat exchanger), liquid CO₂ feed pump, and measurement and data acquisition system.

Zhang, XR; Yamaguchi, H. “An experimental study on evacuated tube solar collector using supercritical CO₂” Applied Thermal Engineering © Elsevier
Results

What have you found?

• Present essential/primary results

• Use sub-headings

• Use figures/illustrations
  - Graphs
  - Tables
  - Photos

<table>
<thead>
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<th>Type of attack</th>
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<th>Jazz (%)</th>
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Fig. 1. A photograph of SEM of PTFE polymerized in solid state at 77 K with a dose of 700 kGy.

Zhang, XR; Yamaguchi, H. "An experimental study on evacuated tube solar collector using supercritical CO2". Applied Thermal Engineering © Elsevier

5. Discussion

In this section, a mechanism for the production of pulsations is suggested. The results are then compared with those obtained in previous work on pulsating granular materials, and some suggestions for further work are made.

5.1. A mechanism for producing silo quake

Using the background on stick–slip friction in granular materials discussed earlier, one can compare the experimental observations in this study with those in previous studies to qualitatively explain the physical mechanism for stick–slip motion. The dynamic arch which forms in such flows is part of a force chain—that is, a particle contact network through which stresses are transmitted [28]. The arch is fragile, and consequently when the material below it has discharged enough so that the arch is unsupported from below, a slow creep typically observed in adhesive stick–slip flow begins. During this creep, the adhesive friction forces become progressively weaker and weaker, and eventually the arch will break. Once the arch collapses, complete slip occurs, a quake is observed, and a new arch is created. This quake can set up structural vibrations of decaying amplitude that then collapse the newly formed arch; in this manner, a series of self-sustained pulsations results. This is the pulsation process observed in this study, where the discharge rate is fast enough (between 1 and 8 cm/s) that it does not affect the $f_p$ unlike in Wensrich’s study [8] and [9].
Conclusion

How the work advances the field from the present state of knowledge

• Should be clear
• Justify your work in the scientific field
• Suggest future experiments

Sample Conclusion

6. Conclusion

This study has shown that stick–slip motion generates silo music and silo quake. Silo music is driven by the stick–slip pulsating motion of the granular material during discharge and is associated with a resonance in the air column above the bed. When the pulsating motion disappears, so does the silo music. Over the range of discharge rates studied here (equivalent to average velocities of descent through the tube of 1–8 cm/s), the pulsation frequency was independent of discharge velocity. Both silo music and flow pulsations stopped abruptly when the bed height fell below a critical value. The critical height could be changed by placing an overload in the case of crushed glass, but not in the case of the smooth glass beads. This may be rationalized, although only speculatively at this point, by differences in stress chain behavior.

Muite, B.K., Quinn, S.F., Sundaresan, S., Rao, K.K. “Silo music and silo quake: granular flow-induced vibration” Powder Technology. © Elsevier
Acknowledgments

Ensure those who helped in the research are recognised

Include individuals who have assisted with your study, including:

• Advisors
• Financial supporters
• Proofreaders
• Typists
• Suppliers who may have given materials
Cite the main scientific publications on which your work is based

- Do not use too many references
- Avoid excessive self-citations
- Avoid excessive citations of publications from the same region
- Conform strictly to the style given in the Guide for Authors

<table>
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<th>References</th>
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</thead>
</table>

Muite, B.K., Quinn, S.F., Sundaresan, S., Rao, K.K., "Silo music and silo quake: granular flow-induced vibration" Powder Technology. © Elsevier
Dear Professor Schmidt,

Enclosed with this letter you will find an electronic submission of a manuscript entitled "Mechano-sorptive creep under compressive loading - a micromechanical model" by John Smith and myself. This is an original paper which has neither previously nor simultaneously in whole or in part been submitted anywhere else. Both authors have read and approved the final version submitted.

Mechano-sorptive is sometimes denoted as accelerated creep. It has been experimentally observed that the creep of paper accelerates if it is subjected to a cyclic moisture content. This is of large practical importance for the paper industry. The present manuscript describes a micromechanical model on the fibre network level that is able to capture the experimentally observed behaviour. In particular, the difference between mechano-sorptive creep in tension and compression is analysed. John Smith is a PhD-student who within a year will present his doctoral thesis. The present paper will be a part of that thesis.

Three potential independent reviewers who have excellent expertise in the field of this paper are:

- Dr. Fernandez, Tennessee Tech, email1@university.com
- Dr. Chen, University of Maine, email2@university.com
- Dr. Singh, Colorado School of Mines, email3@university.com

I would very much appreciate if you would consider the manuscript for publication in the International Journal of Science.

Yours sincerely,

[Signature]

A. Professor
Revision

Revise before submission

• Check the manuscript as thoroughly as possible before submission

• Ask colleagues and supervisors to review your manuscript

Finally, SUBMIT your manuscript with a cover letter and await a response...
After Submission

• Refereeing speed varies from journal to journals

• The Editor will decide to “Accept”, “Accept with Revision (Minor or Major)”, or “Reject” the manuscript
Summary: How do I build up my article properly?

- Title
- Abstract
- Keywords
- Main text (IMRAD)
  - Introduction
  - Methods
  - Results
  - And
  - Discussions
- Conclusion
- Acknowledgement
- References
- Supporting Materials

- Structure your article properly
- Make sure each section of the paper fulfills its purpose clearly and concisely