How to Become a Highly Cited and Successful Author of Scientific Papers

Journals Editor Message to Authors and Reviewers

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ECOSSE Edinburgh, Scotland DPI UMIST Manchester, England CPI The University of Manchester, UK CPI<sup>2</sup> University of Pannonia, Veszprém, Hungary SPIL, NETME Centre, FME, BUT, VUT BRNO, CZ

# Summarising my experience form being an editor and thanks to:

- Applied Thermal Engineering (Elsevier)
- Journal of Cleaner Production (Elsevier)
- ENERGY (Elsevier)
- Heat Transfer Engineering (Francis & Taylor)
- Chemical Engineering Transactions (AIDIC)
- Clean Technologies and Environmental Policies (Springer)

Experience form being an Editor/Reviewer and thanks to:

- Waste Management (Elsevier)
- Hungarian Journal of Industrial Chemistry (HU Academy of Sciences)
- Resources, Conservation and Recycling (Elsevier)
- Integrated Technologies and Energy Saving (KhPI, UA)

Experience form being an Editor/Reviewer and thanks to:

- Chemical Engineering Science (Elsevier)
- AIChE Journal (Willey)
- Trans IChemE Chemical Engineering Research and Design (Elsevier)
- Asia-Pacific Journal of Chemical Engineering (Wiley)
- Chemical Engineering Research and Design (Elsevier)

# Writing a paper

- Why I am writing a paper?
- Just because I need two papers for PhD?
- It should be
- Based on a piece of **reasonable work**
- Carry a message about my research results
- Relevant
- Make sense and fit the context
- Novel
- Some use to the other researchers

- Many good English speaking universities are offering wed based tutorials
- Examples:

<www.ruf.rice.edu/~bioslabs/tools/report/reportform.html> <owl.english.purdue.edu/owl/resource/658/01> <www.ccc.commnet.edu/mla/index.shtml> <www.library.ualberta.ca/guides/writingresearch/index.cfm

However those advises are mostly rather general

- Steps In Writing The Research Paper
- 1. Choose your subject
- 2. Narrow your subject
- 3. Provide a focus for narrowing material
- 4. Find references and select bibliography
- 5. Gather notes
- 6. Categorize notes

- 7. Decide upon an approach and point of view to gain control over your material
- 8. Draw up a detailed outline
- 9. Write a detailed outline
- 10. Make a clear copy
- 11. Leave for a day
- 12. Edit your work go over you paper four times :

a) Reposition paragraphs and sentences

- b) Add and delete material to achieve balance and to advance the stated objective of your paper
- c) Look to insert transitional words and phrases
- d) Read the paper aloud
- 13. Make a copy
- 14. Know rules for using quotations
- 15. Know rules for using footnotes
- 16. Know how to make a bibliography

# More specific advice

- Ask more or well experienced colleagues
- The more experienced is the person the better (citations, *h* index)
- Experience with the right field and journals
- Editors and reviewers are most valuable to get the right information
- The most valuable is personal experience

   try it by yourself

- Depends on Journals
- Different Journals accept different type of manuscripts
- Most common is ORIGINAL RESEARCH PAPER
- An example from Journal of Cleaner Production

- Original Research Papers: Standard research papers of 6000-8000 words, with tables, illustrations and references, in which hypotheses are tested and results reported.
- Educational Initiatives: Reports of research activities, education and training and new courses in the area of cleaner production and sustainable development of approximately 2000-4000 words.

- Governmental Initiatives: Reports on new or existing government programmes and developments, of approximately 2000-4000 words
- Technical Product News: Concise scientific summaries/reports of approx.
   500 words of new products/technologies of relevance to cleaner production.
   Illustrations may be included, but not company logos.

- Book Reviews, Software Reviews and Video Reviews: Reviews of 500-1000 words on new books, software and videos relevant to the scope of the Journal
- Letters to the Editor: Letters designed to clarify or respond to the content of a paper previously published in the Journal or to raise questions about future directions or other issues that a reader may wish to pose that are relevant to the Journal.

 Calendar of Events: A listing of forthcoming conferences and meetings of relevance to this area of research, providing information on the date, title and venue, and who to contact for further details.

- Conference Reports: Reports on major international conferences of particular interest to The Journal of Cleaner Production, 1000-2000 words
- Notes from the Field: Short reports 1000-2000 words, designed to explore preliminary results of new studies that are not yet sufficiently documented to warrant publication as a full document.

- The scope of the Journal e.g. Mathematics, Computer science, Process synthesis, Environmental protection
- The publisher and the visibility and availability on the web www.sciencedirect.com (Elsevier)
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# Searching in Scopus

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- How fast is the publication? Some journals would complete the reviewing within 6 months, in some you may wait a year for the last review.
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- Geographical coverage or popularity

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JCR provides quantitative tools for evaluating journals

The Impact factor is one of these; it is a measure of the frequency with which the "average article" in a journal has been cited in a given period of time

Advantages (quantitative tool) and disadvantages (not very representative)

Short term (2 years) and long term (5 years)

- The 2016 impact factor of a journal would be calculated as follows:
- A = the number of times articles published in 2014 and 2015 were cited by indexed journals during 2016
- B = the total number of "citable items" published by that journal in 2014 and 2015.

A/B = 2016 impact factor

# Impact Factor (IF)

- The Two Year IF of a journal is the average number of citations received per paper published in that journal during the two preceding years
- For example, if a journal has an impact factor of 3 in 2016, then its papers published in 2015 and 2016 received 3 citations each on average

# Impact Factor (IF)

- Note that the impact factor 2016 will be actually published in 2017, because it could not be calculated until all of the 2016 publications had been received. Impact factor 2017 will be published in 2018
- Science Watch provides ranking and impact factor for selective journals. The list is located here:
  - www.sciencegateway.org/rank/index.html

IF 2016 cannot be calculated until all of the 2015 publications have been processed by the indexing agency:

- Institute for Scientific Information (ISI)
- now part of Thomson Reuters (TSI)
- Journal Citation Reports (JCR) includes a
- 2 and 5 year IF

## **Examples of Journal IF**

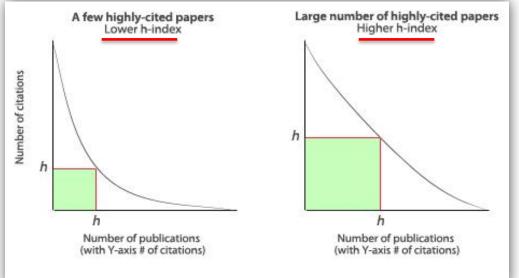
Impact Factors (2016)	2 year	5 year
Renewable and Sustainable Energy	8.050	9.122
Reviews		
Applied Energy	7.182	7.500
Journal of Cleaner Production	5.715	6.207
Energy	4.520	5.182
Applied Thermal Engineering	3.356	3.634
Clean Technologies and Environmental	3.331	3.019
Policy		
Resources, Conservation and Recycling	3.313	4.141
Computers & Chemical Engineering	3.024	3.041
Chemical Engineering Science	2.895	3.077
Industrial & Engineering Chemistry	2.843	3.027
Research		

## **Examples of Journal IF**

Impact Factors (2016)	2 year	5 year
AIChE Journal	2.836	2.892
Chemical Engineering Research and	2.538	2.820
Design		
Frontiers of Chemical Science and	1.712	n/a
Engineering		
Heat Transfer Engineering	1.235	1.431
Revista de Chimie	1.232	0.955
Optimisation and Engineering	1.135	1.524
Asia-Pacific Journal of Chemical	0.836	0.850
Engineering		
Theoretical Foundations of Chemical	0.494	0.554
Engineering		

#### Quantifying Your Impact: H - Index

- The *h*-index, or Hirsch index, is an authorlevel metric that measures your impact based on indexed publications.
- The definition is that a scholar with an index of *h* has published *h* papers each of which has been cited in other papers at least *h* times.



#### H - Index

- A measure of the number of highly impactful papers.
- The larger the number of important papers, the higher the h-index.
- Scopus (www.scopus.com):

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Analyze docur	nents published betweer	n: 1974 🔹 to 2017 🔹 🗆 Exclude self ci	itations 🔘 Exclude citations from books Update Graph
Documents	Citations =	Title	This author's <i>h</i> -index is 40
1	308	Targeting and design methodology	The <i>h</i> -index is based upon the number of documents and number of citations.
2	284	A review of footprint analysis tools	
3	239	Integrating waste and renewable e	
4	186	The Environmental Performance St	400
5	172	Cleaner energy for sustainable future	
6	132	Cost estimation and energy price f	Out at a second se
7	112	Forty years of Heat Integration: Pin	
8	108	Minimising carbon footprint of regio	per of
9	106	Total footprints-based multi-criteria	
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11	97	MicroCHP: Overview of selected te	100
12	96	Synthesis of regional networks for t	
13	90	Optimisation of regional energy su	
14	87	Handbook of Process Integration (	0 50 100 150 200 250 300 350 400 450
15	81	A process integration targeting met	Documents
16	76	Recent cleaner production advanc	Note: Scopus is in progress of updating pre-1996 cited references going back to 1970. The h-index might increase over time.

## **Advices for Authors**

- Use enough references to show that you know the most recent state-of-the-art (i.e. 2016 and even 2017)
- DO NOT use SELF-REFERENCES mainly
- Judge who can be a potential (suggested) reviewer and include some of that person's works – they would be much more positive to your paper
- Make references correct otherwise they do NOT count in SCOPUS and TSI

# Advices for Authors

- Learn to use SCOPUS and the WoK/ WoS efficiently
- Beside them powerful tools are www.sciencedirect.com;

www.springerlink.com;

www.aidic.it/CET

Google Scholar

 Suggesting reviewers – some persons are infamous, they never deliver

# Starting with the manuscript

- Check the selected Journal "Guide for Authors"
- It is available on the website for each Journal
- It should be studied carefully
- And also supplemented by looking into recent publications of experiences authors

## Advices for Authors

- Well structured, tidy manuscript makes a reviewer happy and vice versa
- Follow closely the Guidelines specific to a journal
- Use always <full first name< <full second name>
- The right structure of the address for English journals <group, lab, centre>, <institute>, <university>, <postal address with post code>, <town> < country>

# **Typical paper structure**

- 1. Abstract
- 2. Introduction
- 3. Methodological sections one or more
- 4. Demonstration of the methodology case studies
- 5. Conclusions
- 6. Acknowledgements
- 7. References
- 8. Nomenclature
- 9. Appendices

### Abstract

- Summary of the paper concise
- Autonomous the reader should be able to understand the paper goals, have an idea of its method and results significance
- The reader should be enabled to decide from the abstract whether he/she needs to read the paper in detail
- Do not use references in the abstarct

# Introduction

- Outlines the context of the described issues research or overview
  - General perspective
  - Specific area/context
- Describes and analyses RECENT the state of the art
- Sets research goals
  - The goals may fit the paper results exactly or be a little broader
- Optionally –a brief overview of the paper content

# Methodological sections

- Describe the methodology of your research
- May include
  - Reasoning and mathematical derivations
  - Equations
  - Algorithms ...
- Should provide a convincing story
- Should be reproducible and traceable

# Methodology Demonstration

- Solution of a simple problem for illustration of certain algorithmic features and general benefits
- Solution of larger scale problems to illustrate the power and scalability
- Should provide the means of reproducing the results by the readers
- Should enable better understanding of the methodology and further development in the research area

# Conclusions

- Short summary of the methodological developments in the paper
- Underline the offered novelty, advantages and benefits – do not repeat the Abstract
- Should use preferably quantitative reasoning to support the conclusion theses
- Critically analyse the outcomes and suggest future research developments

# Acknowledgements

- Thank to sponsors
- Thank to collaborators for advice and other help, when they are not co-authors
- Very critical when certain funding (especially institutional – EU, governmental) needs to be reported later

### **References and Nomenclature**

- The references list should list the references in the required format, including some very recent
- All referenced sources should be reasonably accessible. Do not use lumped references
- Nomenclature
  - Contains the "legend" for all symbols used in the paper – provide units used
  - Provides the reader with "keys" to understanding the paper

# Appendices

- The general body of the paper has to be streamlined and avoid excessive details or well known enumerations
- The above are usually separated in appendices. Examples:
  - Detailed equation derivations
  - Algorithm listings and reasoning
  - Detailed model feature descriptions when the paper focus is on small parts of the model or on algorithm development

- Introduction
- Applied Thermal Engineering publishes original, high-quality research papers and ancillary features, spanning activities ranging from fundamental research to trouble-shooting in existing plant and equipment.

#### Types of paper

Original research papers, reviews, short communications, letters, letters to the editor, news items, calendar inserts.

#### Page charges

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The velocities of flow of protective gas and purge gas are 60 ml/min and 20 ml/min respectively. In the experiment, the control temperature is from -150 °C to 150°C. The increasing velocity of temperature is 8°C/min. 1 .2 Experimental materials The experimental materials are 46 # paraffin, liquid paraffin, capric acid(CA), stearic acid (SA), palmitic acid (PA), lauric acid (LA) and myristic acid (MA) from Beijing Chemical Reagent Corporation. Experimental samples	acids and liquid paraffin as PCMs used for energy-storing wallboard", International Journal of Sustainable Energy, 03/2010			
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- Authors who require information about language editing and copyediting please visit

<webshop.elsevier.com/languageediting>
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#### Submission

- Is totally online and you will be guided stepwise through the creation and uploading of your files.
- The system automatically converts source files to a single PDF file of the article, which is used in the peer-review process.

- Even though manuscript source files are converted to PDF files at submission for the review process, these source files are needed for further processing after acceptance.
- All correspondence, including notification of the decision and requests for revision, by e-mail
- Submit your article <ees.elsevier/com/ate>

#### Referees

- Please submit, with the manuscript, the names, addresses and e-mail addresses of 3 potential referees
- Note that the Editor retains the sole right to decide whether or not the suggested reviewers are used.

- Use of word-processing software
- It is important that the file be saved in the native format of the word-processor used. The text should be in single-column format. Keep the layout of the text as simple as possible.
- Most formatting codes will be removed and replaced on processing the article. Do not use the word-processor's options to justify text or to hyphenate words.

 Do use bold face, italics, subscripts, superscripts etc. When preparing tables, if you are using a table grid, use only one grid for each individual table and not a grid for each row. If no grid is used, use tabs, not spaces, to align columns. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the Guide to Publishing with Elsevier: <www.elsevier.com/guidepublication>

 Note that source files of figures, tables and text graphics will be required whether or not you embed your figures in the text.
 See also the section on Electronic illustrations.

To avoid unnecessary errors you are strongly advised to use the "spell-check" and "grammar-check" functions of your word-processor.

- Article structure
- Subdivision-numbered sections Divide your article into clearly defined and numbered sections. They should be numbered 1.1 (then 1.1.1, 1.1.2, ...), 1.2, etc. (the abstract is not included in section numbering). Use this numbering also for internal cross-referencing: do not just refer to "the text". Any subsection may be given a brief heading.

- Each heading should appear on its own separate line.
- Follow this order when typing manuscripts: Title (an abbreviated title of less than 40 characters [including spaces] should also be suggested)

- Authors, Affiliations, Abstract (not exceeding 200 words in length), Keywords, Main text (divided in to numbered sections and subsection), Acknowledgements, Appendix, References, Figure captions and Tables.
- Do not import figures into the text see Illustrations.

#### Abstract

- A concise and factual abstract is required. The abstract should state briefly the purpose of the research, the principal results and major conclusions.
- An abstract is often presented separately from the article, so it must be able to stand alone.

- For this reason, References should be avoided, but if essential, then cite the author(s) and year(s).
- Also, non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself.

- Graphical abstract
- A Graphical abstract is optional and should summarize the contents of the article in a concise, pictorial form designed to capture the attention of a wide readership online. 96 dpi.
- Preferred file types: TIFF, EPS, PDF or MS Office files. See
   <www.elsevier.com/graphicalabstracts>

#### Highlights

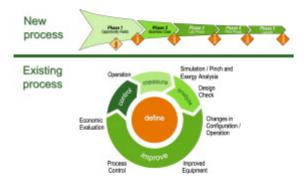
- Highlights are mandatory for this journal. They consist of a short collection of bullet points that convey the core findings of the article.
- Please use 'Highlights' in the file name and include 3 to 5 bullet points (maximum 85 characters including spaces, or, maximum 20 words per bullet point).
   <www.elsevier.com/highlights>

# Guide for Authors Example Graphical Abstract and Highlights

3 T Supplied Thermal Engineering, Volume 31, Issue 13, September 2011, Pages 2067-2072 Norbert Asprion, Bernd Rumpf, Achim Gritsch

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#### **Graphical abstract**



#### Highlights

Work flow for development of energy efficient processes for new and existing plants in the chemical industry is presented. Exergy analysis has been used to identify favorable process concepts. Examples with annual savings of about 7 million euro emphasize the use of the method.

#### Keywords

- Immediately after the abstract, provide a maximum of 6 keywords, avoiding general and plural terms and multiple concepts (avoid, for example, "and", "of").
- Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible.
- These keywords will be used for indexing purposes.

- Theory/Calculation
- It should extend, the background to the article dealt with in the Introduction and lay the foundation for further work.
- Calculation section represents a practical development from a theoretical basis

• Experimental

- Provide sufficient detail to allow the work to be reproduced
- Methods already published should be indicated by a reference: only relevant modifications should be described
- Stress the novelty of your experiments

#### Results

Results should be clear and concise and cover the main achievements

#### Discussion

It should explore the significance of the results of the work, not repeat them.

 A combined Results and Discussion section is often appropriate

#### Conclusions

- The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion or Results and Discussion section
- They should be really conclusive, not an extended and repeated abstract

- Essential title page information
- Paper Title. Concise and informative. Titles are often used in information retrieval systems. Avoid abbreviations and formulae where possible.
- Author names and affiliations. Full first name first followed by full family name.. Present the authors' affiliation addresses (where the actual work was done) below the names.

- Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address:
- Zsófia Fodor<sup>a</sup>, <sup>a</sup>Research Institute of Chemical and Process Engineering, Faculty of Information technology
- Provide the full postal address of each affiliation, including the country name, and the e-mail address of each author

- Corresponding author
- Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication activities
- Ensure that telephone and fax numbers (with country and area code) are provided.

- Present/permanent address
- If an author has moved since the work described in the article was done, or was visiting at the time, a "Present address" (or "Permanent address") may be indicated as a footnote to that author's name.
- The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

#### Acknowledgements

- Collate acknowledgements in a separate section at the end of the article before the references and do not include them on the title page, as a footnote to the title or otherwise.
- You can list here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article).

#### Units

- Follow internationally accepted rules and conventions: use the International System of units (SI)
- If other units are mentioned, please give their equivalent in SI
- Use proper SI symbols s not sec., h not hr, d for day, y for year, t not tonne etc.

- Math formulae
- Present simple formulae in the line of normal text where possible and use the solidus (/) instead of a horizontal line for small fractional terms, e.g., X/Y.
- Variables are to be presented in italics.
   Powers of *e* are often more conveniently denoted by *exp*.

- Number consecutively all equations that have to be displayed separately from the text (if referred to explicitly in the text).
- Refer them in text as e.g.
   Eq (1), Eq (16).
- The numbers should be at the right page margin as e.g. (1), (16)

#### Footnotes

- Footnotes should be used sparingly. Number them consecutively throughout the article, using superscript Arabic numbers.
- Indicate the position of footnotes in the text and present the footnotes themselves separately at the end of the article.
- Do not include footnotes in the Reference list.

- Electronic artwork (Figures)
- General points
  - Make sure you use uniform lettering and sizing of your original artwork.
  - Save text in illustrations as "graphics" or enclose the font.
  - Only use the following fonts: **Arial**, Courier, Times, Symbol.
  - Number the illustrations according to their sequence in the text.

- Use a logical naming convention for your artwork files.
  - Provide captions to illustrations separately.
  - Produce images near to the desired size of the printed version.
  - Submit each figure as a separate file
- A detailed guide on electronic artwork is available on our website: <www.elsevier.com/artworkinstructions>

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The files are in an acceptable format (TIFF, EPS or MS Office files) and with the correct resolution.

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- Please submit in addition usable black and white versions of all the colour illustrations.

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- Ensure that each illustration has a caption.
   Supply captions separately, not attached to the figure.
- A caption should comprise a brief title (not on the figure itself) and a description of the illustration.
- Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations used.

#### Tables

- Number tables consecutively in accordance with their appearance in the text.
- Avoid vertical rules.
- Be sparing in the use of tables and ensure that the data presented in tables do not duplicate results described elsewhere in the article.

- References
- Citation in text

Please ensure that every reference cited in the text is also present in the reference list (and vice versa).

• Any references cited in the abstract must be given in full.

- Unpublished results and personal communications are not recommended in the reference list, but may be mentioned in the text.
- If these references are included in the reference list they should follow the standard reference style of the journal and should include a substitution of the publication date with either "Unpublished results" or "Personal communication"

- Citation of a reference as "in press" implies that the item has been accepted for publication.
- If you want to refer to them always use doi: (Digital Object Identification)
- Each paper, which is accepted has allocated this unique doi: - e.g.

[4] L. Sikos and J. Klemeš, Reliability, availability and maintenance optimisation of heat exchanger networks, *Appl. Thermal Eng.*, 2009, doi: 10.1016/j.applthermaleng.2009.02.013.

- Web references
- The full URL should be given and the date when the reference was last accessed. Do not repeat http://, modern browser do not need it.
- Use <www.....>
- Remove the hyperlinks blue colour and underlining

- Authoring information, if known (DOI, author names, dates, reference to a source publication, etc.), should also be given in front of the URL
- Web references should be included in the reference list

#### • E.g.

[31] Conference PRES <www.conferencepres.com> (accessed 09.05.11)

- Reference style
- Text: Indicate references by number(s) in square brackets in line with the text.
- The actual authors can be referred to, but the reference number(s) must always be given
- E.g. "..... as demonstrated [3,6]. Barnaby and Jones [8] obtained a different result "

- List: Number the references (numbers in square brackets) in the list in the order in which they appear in the text.
- Examples: Reference to a journal publication:

[1] J. van der Geer, J.A.J. Hanraads, R.A. Lupton, The art of writing a scientific article, J. Sci. Commun. 163 (2000) 51–59.

• Reference to a book:

[2] W. Strunk Jr., E.B. White, The Elements of Style, 3rd ed., Macmillan, New York, USA, 1979.

• Reference to a chapter in an edited book: [3] G.R. Mettam, L.B. Adams, How to prepare an electronic version of your article, in: B.S. Jones, R.Z. Smith (Eds.), Introduction to the Electronic Age, World Publishing Inc., New York, USA, 1999, pp. 281–304.

- Always provide names of all authors in the List of Publications
- E.g. This is not ethically correct

[21] G. Krajačić, N. Duić, Z. Zmijarević, et al, Planning for a 100 % independent energy system based on smart energy storage for integration of renewables and  $CO_2$  emissions reduction, *Applied Thermal Engineering* **31** (13) (2011), pp. 2073–2083.

#### Correct version is

[21] G. Krajačić, N. Duić, Z. Zmijarević, B.V. Mathiesen, A.A. Vučinić, M.G. Carvalho, Planning for a 100 % independent energy system based on smart energy storage for integration of renewables and CO<sub>2</sub> emissions reduction, *Applied Thermal Engineering* **31** (13) (2011), pp. 2073–2083.

- Submission checklist
- One Author designated as corresponding Author providing:
  - E-mail address
  - Full postal address
  - Telephone and fax numbers

- All necessary files have been uploaded Keywords
   All figure captions
   All tables (including title, description, footnotes)
- Further considerations
  - Manuscript has been "spellchecked" and "grammar-checked"
  - References are in the correct format for this journal

- All references mentioned in the Reference list are cited in the text, and vice versa
- Permission has been obtained for use of copyrighted material from other sources (including the Web)
- Colour figures are clearly marked as being intended for colour reproduction on the Web (free of charge) and in print or to be reproduced in colour on the Web (free of charge) and in black-and-white in print

- If only colour on the Web is required, black and white versions of the figures are also supplied for printing purposes
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- Use of the Digital Object Identifier
- DOI may be used to cite and link to electronic documents
- The DOI consists of a unique alphanumeric character string which is assigned to a document by the publisher upon the initial electronic publication
- The assigned DOI never changes

- It is an ideal medium for citing a document, particularly 'Articles in press' because they have not yet received their full bibliographic information.
- The correct format for citing a DOI is shown as follows doi:10.1016/j.physletb.2010.09.059
- When you use the DOI to create URL hyperlinks to documents on the web, they are guaranteed never to change.

#### After the submission

- You can tract your paper progress in the EES for most journals
- Within a months or max two you should receive review results
- If not make a polite inquiry
- How to deal with the review results Accept, Minor revision, Major Revision, Reject with resubmission, Reject ?
- See the second part of the lecture dealing with reviewing

#### Deal with reviewer comments

- Always read the review very carefully
- Avoid emotions when review is negative
- A reviewer is not always right, but most of them try to be helpful
- Prepare a thorough rebuttal, comment on each point of the critique
- Mark the revised text where all improvement (changed words, figs etc) are marked by TRACK CHANGES or by coloured font/background

#### After the review

#### Proofs

- One set of page proofs (as PDF file) will be sent by e-mail to the corresponding author or a link will be provided in the email so that authors can download the files themselves.
- Elsevier provides authors with PDF proofs which can be annotated; you will need to download Adobe Reader version 7 (or higher) free from <get.adobe.com/reader>

- Brno University of Technology, Faculty of Mechanical Engineering, Institute of Process and Environmental Engineering, Technická 2896/2, 616 69 Brno, Czech Republic
- <u>www.upei.fme.vutbr.cz</u>
- Filip M., 2002, Technological units for flue gas cleaning, Master's thesis, Brno University of Technology, Brno (in Czech)

- Máša V., Pavlas M., Švarc I., Mathematical model of biomass boiler for control purposes, 14th International Conference on Process Integration,
  - Modelling and Optimisation for Energy Saving and Pollution Reduction PRES 2011, Florence, Itálie, 2011

Should be

Chemical Engineering Transactions, 2011, 24, 246 - 251

- http://www.shell.com/home/content/globalsolu tions/
- should read as a proper reference
  - Shell Global Solutions <www.shell.com/home/ content/globalsolutions> accessed 14.4.2011

- Writing the conclusions as a repetition of the abstract
- Omitting critical information or definitions. Comes from the writer conscious or unconscious belief that the information is obvious. Results in poor clarity.
- Poor use of English language. Usually caused by direct picking the first equivalent word from the dictionary. May produce laughable results

# Reviewing

- It is a crucial activity for publication of research papers, conferences and project applications
- It has been very little rewarded
- A very few researchers like and enjoy it
- Everybody wants to publish, nobody to review

# Take it bottom up

- Reviewing reveals a lot about the reviewer
- During interviews we all try willingly or unwillingly - look and sound better
- When we are on the other side of the fence we are much less on-guard and express our personality, management and research abilities, and even attitude to the other people

# What we can learn about ourselves?

- When we honestly answer the points listed in this presentation and some others we can find a good deal about ourselves.
- Are we well organised?
- Are we efficient?
- Are we good nature or sour personalities?
- Are we ready to help others by delivering as soon as possible?

# Managerial abilities

- The first step is the replay how long it takes me to replay?
- I can either replay positively, negatively or ignore the request – each of those actions tells something about me.
- It is no shame to decline the invitation if I am overloaded, but how long it takes me?
- BTW Am I really so overloaded or rather unwilling to take an extra load?

# Managerial abilities

- How long it take me to deliver the review? It is well know fact that the work takes very similar time done today or within a month. Actually later could take even longer as I probably forgot some consequences.
- Am I able to work efficiently? If yes I would be with a high probability delivering the review very soon.

#### Personality

- Is my review sour, patronising, offending or tries to be helpful and suggest real improval ?
- It is my review fair or am I trying to push some other agenda?
- Am I ready to spend sufficient time to provide really honest feedback?

#### **Research Abilities**

- The review rather well reveals my understanding of the subject.
- Am I able to provide a real evaluation and suggestions?
- If this topic is not exactly my own and I still agreed the review am I flexible and competed enough to evaluate outside my filed of expertise?

# Ability to formulate

- Am I able to formulate my opinion clearly enough?
- Am I able to spot the main weaknesses and appreciate strong points?
- Is the review just touching formalities or language correction (where I can't be a real expert anyway if a journal is not in my mother tongue)

#### Potential to learn

- From reviewed papers we can learn a lot of new information
- This is probably the most rewarding part
- We can get very novel ideas well before they have been published
- You can even influence the author to cover the features, which are interested in.

#### Assessing for a PhD candidate or a new researcher

- Invite her/him to review a paper or two:
- How fast they make the decision?
- How fast they deliver?
- What personality they express?
- What is their understanding of the topic?
- How well can they formulate?
- Are they suggestions helpful?
- Are they looking for details, conceptual issues or both?

#### Assessing for a PhD candidate or a new researcher

- What is their language proficiency?
- How well organised and neat they are?
- Do they bother to use a spellchecker?
- Can they deliver a meaningful message?
- Are they obsessed with details or are they perusing the convectional issues?

#### **Case studies**

#### How to understand this:

The research have already obtained quite encouraging result both in laboratory and several tanneries, his problem is how to develop the chemical (ZODINE ZE) and the pickling regime nationwide or even worldwide to really reduce the impact of neutral salt to the environment, which needs his continued efforts, however, his regime is new and effective, no similar literature appeared up till today, so i think it is acceptable for publication. ps: he expesses himself very well in english. **Best wishes** 

#### **Case studies**

How to reject a paper: REJECT:

- 1. How are recycling rate in Table 1 measured experimentally?
- 2. No verbal descriptions for "the quantity of residual solder" in Tables 1, 2, 3, 4, and 5 are needed.
- 3. Is the technology used in the experiment novel? What is the orginal contribution to the knowledge?
- 4. Why is the suggested recycling technology "pollution-free, low-power and high-efficiency"? No comparison or demonstration has been made, against other existing methods or technologies.
- 5. English proof-reading is needed.

#### **Case studies**

#### Or rather in this way:

Overall, this paper is poorly written. Not only that the language is poor, the concept is also not well presented. I was not able to understand the mathematical model, and also the "Material and method" section of the work. Even though the case study might be worth for publication, it becomes meaningless as I could not reproduce the work due to the vaguely presented model. The authors are urged to improve the work if a future submission is attempted. In particular, please improve the following aspects:

- 1. Many references in the introduction are inappropriately cited.
- For instance, references 17 and 18 are not reporting the principles of stream segregation.
- Instead, the authors should cite the work of EI-Halwagi (1997), Pollution Prevention through Process Integration; and Foo et al. (2006) CTEP.
- Ref 20 is on simultaneous energy and water reduction, not for waste treatment network.
- Hence I doubt the authors have actually read these papers before citing them.

2. The description for "Material and Methods" is very vaguely presented. I am confused whether the method used for the work is based on simulation or process integration, or a combination of both. This section needs significant improvement.

3. The mathematical model is also poor described. A diagram will be useful in assisting the description of the concept. Please explain why Eqs 1 & 3 are identical; and Eqs 2 & 4 are also identical.

4. HowCase study description is overly simplified. Not much info is given for the process.

5. Conclusion is too lengthy.

6. English use needs to be improved throughout the whole paper. Many sentences need to be rephrased to make the description clearer and readable.

#### 7. Minor points:

\* The first 4 paragraphs in the introduction are too short. Some of them may be combined.

The authors have overly cited their own works in the introduction. There are lot more good works produced by other researchers, which are also worth for citation.

\* Description of the Brazilian textile industry is too lengthy, a brief description of 2 paragraphs is sufficient.

In summary, the paper does not meet the quality for publication. Major improvement is needed to enhance its quality and readability.

Extreme cases (reviews of the same paper):

The paper provides precious experimental data on the use of R218 as refrigerant fluid. It confirms also the generic correlation formula available in literature lack of the required precision when applied to other fluids. It is original the use of the Artificial Neural Network correlation, which at the end provide the best results.

I am not an expert on induction heating. However, I find the paper doesn't provide enough information, except some basic simulation results. The topic seems more suitable for an Electrical Engineering journal for publication.

Extreme cases (reviews of the same paper):

•Good paper and should be published without any corrections.

This work presents a superimposing model to predict the maximum velocity decay in a buoyant attached jet. A twodimensional cooled attached jet is considered in this study. The idea of simplifications of the analytical study by superimposing models or superposition techniques can not be accepted nowadays where more efficient numerical techniques and codes can be used to solve these types of problems without ignoring the interactions of the parameters effects on each other as the superimposing model is assumed. Also two dimensional analyses can not be accepted for such types of problems.

The effective state of the stat

Finally I see that no new finding or technique relevant to the problem was obtained or used. Also the techniques used in the paper are not accurate. I see that the paper does not deserve publications in an international journal The present study does not present and add any new information and results. The numerical methodology and analysis is not new or innovative techniques and is less accurate techniques.

The author claimed that the heat flux to the wall did not exceed 20% of the overall heat loss due to entrainment of the surrounding air by the jet. How he has got this number from his measurements. The heat radiation to the wall is expected to be higher than these values. Even with this 20 % we can not simplify the wall as adiabatic wall as the author did in his analysis. I am surprised from the agreement between the analytical and experimental results with these simplifications in the analytical techniques. The data in Table 2 are doubtable since there is no any difference between the input and out put power and this contradict with the above point. To calculate the parameters D3 and D4 in Eq. (5) that are needed to solve the analytical problems, measurement data were used. This is not fair and this is the reason of vanishing the difference between the analytical results and the measurements. The method used for uncertainty calculations is very simple and not accurate. Fig. 7 is unreadable. Labels of the theoretical and the measured data are not clearly shown. I only see one label.

Finally I see that no new finding or technique relevant to the problem was obtained or used. Also the techniques used in the paper are not accurate. I see that the paper does not deserve publications in an international journal.

### Would you appoint this reviewer?

I am afraid that the above mentioned manuscript has to be shortened for publication in the Journal of Applied Thermal Engineering. One of the reasons is that it is specialized at hydraulics and particle processing.

The chapter 3. and special subsections 3.1.1. and 3.1.2 are very interesting.

It is necessary to correct some of the used dimension units. For instance, specific heat of CaO.SiO2 [J/mol CaO.SiO2] (page 11) and the unusual dimension of "Total heat capacity of the slag" [kJ/min] (page 12). In any case it is necessary to add "List of used symbols" with dimensions.

### And this one? - Accept as it is

Dear!

This paper is very interesting. It includes a lot of historical and present references. The theoretical concept is well but in practically is not so easy. The both processes have to place in the same neighbourhood. The heat transformation was needed the isolated tubes.

The second part of paper (3. Cogeneration Potential) is not presented very clear, it must be included more figures with graphical presentation.

This paper is very intersting. The fist part is presented very clearly. The second part (3. Cogeneration Potentical) is not very clearly. May be can be added more graphical presentations.

Figure are unusual numbered.

Figure 1a did not have any text, but it is not mentioned in the text of the paper.

Dear!

This paper was more clearly after the revision. This paper was included the simple graphical presentation between the processes.

#### Language purists:

The topic is very current and of importance to humanity

Technically I do not have any problems with the quality of the work. However, like me English is most probably not the first language of the authors. The English need serious and in depth attention and I would recommend to the author that they ask a professional with a very good command of English to correct the English grammar, style, syntax, etc.

#### Language purist:

Style and English language need to be improved. Examples include:

- p 2 line 7 : "Beside that," should become "Besides,"
- p 2 line 13 "to amount of NOx emissions. From another viewpoint," should become "to the amount of NOx emissions. From another point of view,"
- p 2 line 14 "in wide range" should become "in a wide range"
- p 2 line 17 "Two stage" should become "A two stage"
- p 2 line 18 "Nominal heat" should become "Nominal power" p 2 line 19 "On the burner lance there is installed a primary fuel nozzle head equiped with" should become "On the burner lance, a primary fuel nozzle head is installed. This is equipped with"
- p 2 line 21 "Beside that, natural gas enters combustion" should become "Besides, natural gas enters the combustion"

### Good observers:

I think that a section of the paper (Introduction) has been copied from:

L. Mihok, P. Demeter, D. Baricova, K. Seilerova, Utilization of ironmaking and steemaking slags, Metalurgija 45 (2006) 3, 163-168.

The manuscript must to be original to be published

#### Good observers:

The authors published recently entitled "Graphically based analysis of water system with zero liquid discharge" (by Chun Deng, Xiao Feng, Jie Bai, 2008, Chemical Engineering Research and Design, 86, 165-171).

It seems that difference between the above paper and the current submitted paper is "limiting stream data", and all the design procedures and methodology applied in the both papers are almost the same.

# Conclusions

- Be responsive to requests for reviewing
- However, be aware that your response is revealing a lot of your personality, personal attitude and qualifications
- Do not spend too much time on reviewing, but try to catch the real issues
- Make your publications formally correct

# An Interesting Question

- Why am I flooded with more than 100 review requests per annum ?
- Is it any benefit from it?

### YES

- Getting information before they are published
- High international status
- At world-leading Universities reviews have a status close to the publications