

# Supporting Teachers

**Paper Writing** 





#### Content

- How to start
- The common structure
- How to find a proper journal
- Tools for literature management
- Working with Microsoft Word
- Submission and further steps

#### How to start?

- Get ready with your data
- Are my datasets good / sufficient enough to get published?
- Collect important tables, graphs and structure them in a logical manner
- Discuss the data with your colleagues and supervisor
  --> is it logical and the structure clear?

#### Common structure

- Title
- Abstract
- TOC Graphics
- Introduction
- Methods (Some papers require this section to be at the end)
- Results and Discussion
- Conclusions
- Acknowledgments
- References
- Supporting Information

#### Title

- Compose a title that is simple, attractive and accurately reflects the investigation
- Phrases to avoid: Investigation, Study, Novel, Facile etc.
- Avoid acronyms that are known only to specialized community

#### Study of SERS Chemical Enhancement Factors Using Buffer Layer Assisted Growth of Metal Nanoparticles on Self-Assembled Monolayers

Masato M. Maitani<sup>†</sup>, Douglas A. A. Ohlberg<sup>§</sup>, Zhiyong Li<sup>§</sup>, David L. Allara<sup>†‡</sup>, Duncan R. Stewart<sup>§</sup> and R. Stanley Williams<sup>§</sup>

Publication Date (Web): April 16, 2009 (Communication) DOI: 10.1021/ja809347v

#### Which of these two titles make you read the paper?

#### "Signal-On" Detection of DNA Hole Transfer at the Single Molecule Level

Tadao Takada, Yuichiro Takeda, Mamoru Fujitsuka and Tetsuro Majima\*

Publication Date (Web): April 23, 2009 (Communication)

DOI: 10.1021/ja9009919

#### Also try to get it right

#### How Graphene Is Cut upon Oxidation?

Zhenyu Litz, Wenhua Zhangtz, Yi Luotz, Jinlong Yangt and Jian Guo Hout

Publication Date (Web): April 17, 2009 (Communication)

DOI: 10.1021/ja8094729

#### **Abstract**

- First couple of sentences should focus on what the study is about. Include major findings in a style that a general readership can read and understand (i.e., avoid detailed experimental procedures and data.)
- Keep it short and effective (simple and informative)
- Be creative in generating curiosity

#### **Content - Introduction**

- Start the section with a general background of the topic.
- Add 2-3 paragraphs that discuss previous work.
- Point out issues that are being addressed in the present work.

## Content – Methods

• Divide this section into Materials & Methods, Characterization, Measurements and Data analysis

#### Content – Results and Discussion

(These two sections can be combined or separate)

- Describe the results in detail and include a healthy, detailed discussion
- The order of figures should follow the discussion themes and not the sequence they were conducted
- Discuss how your data compare or contrast with previous results
- Include schemes, photographs to enhance the scope of discussion

#### Avoid

- Excessive presentation of data/results without any discussion
- Citing every argument with a published work

### Content – Conclusion

 Include major findings followed by brief discussion on future perspectives and/or application of present work to other disciplines

#### Important:

- Do **not** rewrite the abstract.
- Statements with "Investigated" or "Studied" are not conclusions!

# Content – Acknowledgements, References, Supporting Information

#### Acknowledgments

• Remember to thank the funding agency and colleagues / scientists / technicians who might have provided assistance

#### References

- Styles vary for different journals (e.g. use ENDNOTE, RefWorks)
- Some journals require complete titles of cited references
- Please check for accuracy of all citations

#### **Supporting Information**

• Include methods, analysis, blank experiments, additional data

# Hints to write a research paper

Find an appropriate journal

#### your research = scope of the journal

- Use meaningful and proper literature to underpin your research
- Cite every literature you use --> include this literature in the list of reference (use a reference style)

# Take an example

- Analyze the structure, content and layout of an example paper
- How is the text written?
- Examine the quality of the graphics and how these graphics or tables are described in the text?
- What kind of literature is used?
- Try to copy the structure, but never the content!

# Where you want to publish?

- Vietnamese journal in Vietnamese?
- Vietnamese journal in English?
- International journal in English?

# How to find an appropriate journal

- Identify to journals where your citation comes from
- What is the scope of your paper?
- Select 2-3 journals if possible

#### Scimago Journal & Country Rank

• <a href="http://www.scimagojr.com/journalrank.php">http://www.scimagojr.com/journalrank.php</a>

#### **Genamics JournalSeek**

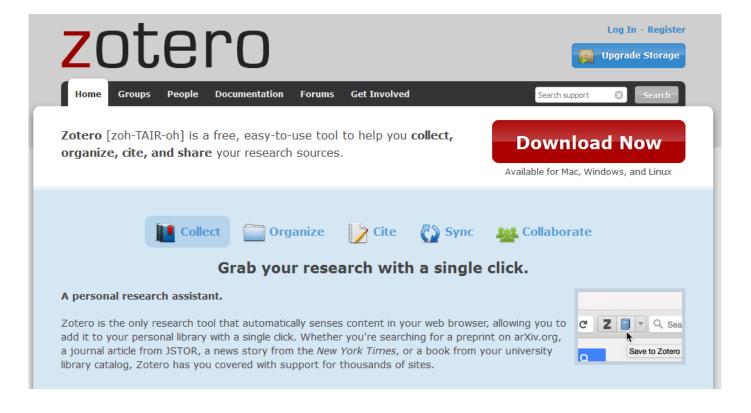
http://journalseek.net/

# Tools for literature management

| Software <b>♦</b> | Developer <b>♦</b>      | First<br>public ♦<br>release        | Latest<br>stable <b>♦</b><br>version  | Cost (USD)  | Free software | License <b>♦</b>         | Notes <b>♦</b>  |
|-------------------|-------------------------|-------------------------------------|---------------------------------------|---|---------------|--------------------------|---|
| Aigaion           | Aigaion developers      | 2005-01                             | 2012-01-18<br>(2.2)                   | Free  | Yes           | GPL                      | web-based   |
| Bebop             | ALaRI Institute         | 2007-11-08                          | 2009-11-10<br>(1.1)                   | Free  | Yes           | BSD                      | web-based BibTeX front-end  |
| BibBase           | Christian Fritz         | 2005                                | 2013-07 (v3)                          | Free  | No            | proprietary              | centrally hosted website, intended for publication pages  |
| BibDesk           | BibDesk developers      | 2002-04                             | 2014-08-11<br>(1.6.3)                 | Free  | Yes           | BSD                      | BibTeX front-end + repository   |
| Biblioscape       | CG Information          | 1997                                | 2012-04-01<br>(9.0.8.8)               | US\$79-299 <sup>[1]</sup>   | No            | proprietary              | ODBC; web access in Pro ed; optional<br>client/server   |
| BibSonomy         | University of Kassel    | 2006-01                             | 2013-10-29<br>(2.0.48)                | Free  | Yes           | GPL, LGPL <sup>[2]</sup> | centrally hosted website  |
| Bibus             | Bibus developers        | 2004-06-03                          | 2009–10<br>(1.5.0)                    | Free  | Yes           | GPL                      |   |
| Bookends          | Sonny Software          | 1988 (Mac) /<br>1983 (Apple<br>II+) | 2015-10-03<br>(12.6.0) <sup>[3]</sup> | US\$99 <sup>[1]</sup>   | No            | proprietary              | integrated web search, pdf download,<br>auto-completion   |
| Citavi            | Swiss Academic Software | 2006-02-13                          | 2015-10-27<br>(5.2)                   | US\$70-949 / Free for projects up<br>to 100 references <sup>[4]</sup> | No            | proprietary              | data can be saved locally, or, for team access, in an intranet Microsoft SQL Server, or on Windows Azure; <sup>[5]</sup> search databases from interface <sup>[6]</sup> |

#### From Wikipedia, the free encyclopedia

## One of the best freeware - Zotero





# Working with Word



# Working with Word

- Everyday work
- Great freedom to create own documents
- BUT: WYSIWYG
- "What you see is what you get"

"I have never seen a book done in Word that didn't look like the dogs breakfast."

# When writing a book

• For bigger documents more typesetting software packages are available:

Lyx

□ LaTex

☐ Adobe In Design

**l**etc.

# It looks simple, but has many pitfalls

- Using in general full justification
- Using same format for all sections
- Use a clear structure
- Be careful with <u>copy & paste</u>

Butchart and colleagues (3) add the missing piece required to evaluate conservation impact. Using data on population sizes, population trends, threatening processes, and conservation actions, they identify at least 26 bird species surviving in the wild that would have very probably gone extinct if conservation programs for them had not been undertaken. Four additional species are classified as "Extinct in the Wild" and one as "Critically Endangered (Possibly Extinct in the Wild)," only surviving (or possibly only surviving) in captive breeding programs (2.8).

¶

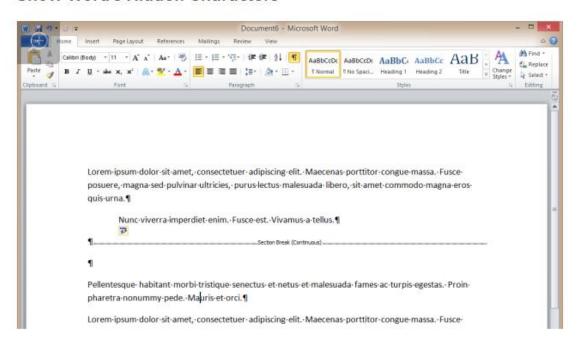
These 31 species represent the gain in extant bird species attributable to conservation action, providing a measure of the success of global conservation in preventing bird extinctions (see the second figure). In the absence of conservation, the rates of bird extinctions would thus have increased dramatically into the present (see the first figure. This is the first time that global conservation impact has been quantified with a direct biodiversity measure, rather than with indicators of conservation effort such as area protected (10) or money invested (11).

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Nonetheless, this is a crude appraisal that uses a narrow measure of biodiversity and inevitably underestimates the overall impact of conservation efforts. Conservation efforts aim at much more than avoiding the ultimate extinction of species, including preventing species from becoming threatened in the first place and ensuring the health of the ecosystem processes that support biodiversity. Measures of conservation impact with finer temporal and ecological resolution are urgently needed to assess progress toward the United Nations 2010-Biodiversity Target of reducing the rate of biodiversity loss (5).

## Show hidden characters

#### Show Word's Hidden Characters



## **Submission**

- Read the finalized paper carefully. Check for accuracy of figures and captions. Are figures correctly referred to in the text?
- Get feedback from advisor and colleagues. Make sure the paper is read by at least one or two colleagues who is not familiar with the specific work.
- Have all coauthors approve the finalized version of the paper
- Submit the paper online along with copyright form.

# A paper got rejected?

- Do not get discouraged
- Read editorial comments and discuss with advisor / students / collaborators. Find out how you can make this study stronger and acceptable for publication.
- Do not just turn around and submit the paper to another journal.
- Read carefully the comments and find ways to improve the scientific quality of the papers
- If you have questions, please feel free to contact the editorial office.

#### What to do?

- Authors should make every effort to make a good presentation with proper usage of English grammar.
- Ask a colleague to comment on your paper before sending it for publication.
- "English is not my Native Language" is not a valid justification for reviewer who cannot comprehend.
- Reviewers do not wish to review papers that are not readable.
  Badly written papers are often recommended as "REJECT" by the Reviewers

# Ten characteristics of an incredibly dull paper

By Sand-Jenson in Oikos 2007, 116 723 (C&E News Sept 10, 2007)

- 1. Avoid Focus
- 2. Avoid originality and personality
- 3. Make the article really really long
- 4. Do not indicate any potential implications
- 5. Leave out illustrations (...too much effort to draw a sensible drawing)
- 6. Omit necessary steps of reasoning
- 7. Use abbreviations and technical terms that only specialists in the field can understand
- 8. Make it sound too serious with no significant discussion
- 9. Focus only on statistics
- 10. Support every statement with a reference



# Good Luck!

