



# HOW TO WRITE AND PUBLISH A PAPER IN INTERNATIONAL SCIENTIFIC JOURNALS

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29/01/2014



# HOW TO WRITE AND PUBLISH A PAPER IN INTERNATIONAL SCIENTIFIC JOURNALS

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- ACADEMIC PUBLISHING COMPANIES
- THE PUBLISHING PROCESS STEP BY STEP
- STRUCTURING A PAPER



ACADEMIC PUBLISHING COMPANIES

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ELSEVIER

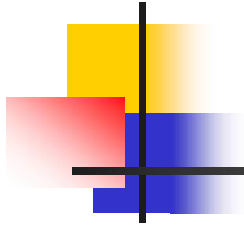
SPRINGER

WILEY

OXFORD JOURNALS

TAYLOR & FRANCIS

JOURNALS OF AMERICAN CHEMICAL  
SOCIETY



# ELSEVIER



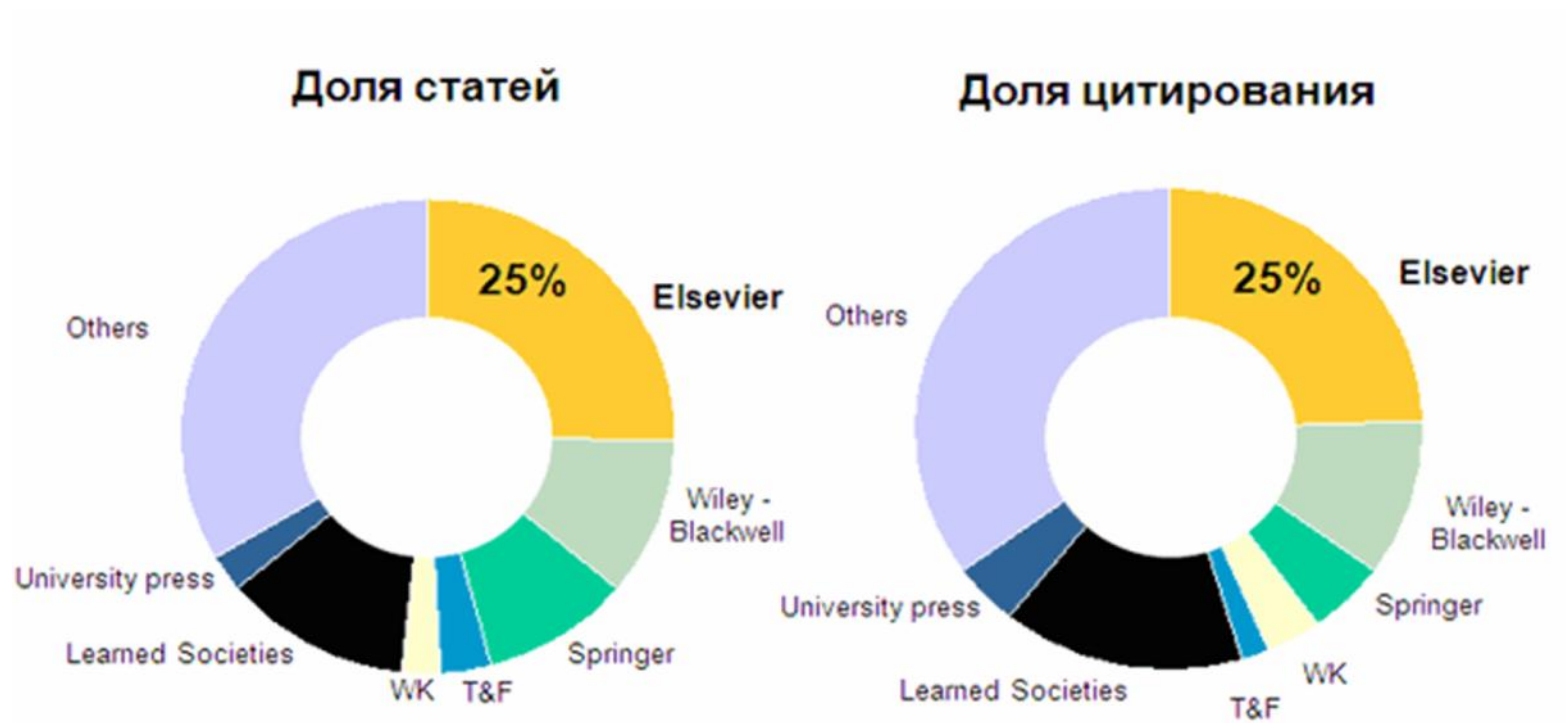
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- 70,000 editorial board members
- 300,000 reviewers
- 61 offices in 24 countries

# WHY ELSEVIER?





# WHY ELSEVIER?

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### ScienceDirect

A full-text scientific database  
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### Scopus

the world's largest abstract and citation database  
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# WHY ELSEVIER?

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Preparing your Manuscript  
Getting Your Paper Noticed  
Structuring an Article

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Language Editing	up to 500 words	€84.00
	from 501 to 1,500 words	€162.00
Translation Services	up to 500 words	€230.00
	from 501 to 1,500 words	€358.00
Illustration Services	start at just \$19	



# SPRINGER

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## The main publishing fields:

science, technology, medicine, business,  
transport and architecture

Founded 1842

Country of origin Germany

Headquarters location Berlin, Heidelberg

Official website [www.springer.com](http://www.springer.com)

Turnover in 2012: EUR 981 million

Some 2,200 English-language journals

8,000 new book titles published in 2012

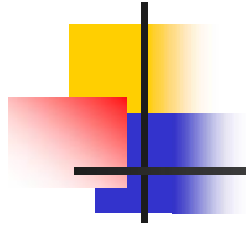
120,000 titles available on SpringerLink

350 open access journals

More than 7,000 employees worldwide







# Wiley

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Founded	1807
Country of origin	United States
Headquarters	Hoboken, New Jersey

## Nonfiction topics

Science,  
technology, medicine, professional  
development, higher education

Revenue	US\$1.8 billion
Number of employees	5,100

Official website	<a href="http://www.wiley.com">www.wiley.com</a>
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# OXFORD JOURNALS

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major international publisher of academic and research journals

Founded	1586
Country of origin	United Kingdom
Headquarters location	Oxford
Official website	<a href="http://www.oup.com">www.oup.com</a>

## Journals by subject

Economics, Humanities, Law,  
Life Sciences, Medicine,  
Social Sciences,  
Mathematical and Physical Sciences



# Taylor & Francis

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Founded 1852  
Country of origin United Kingdom

1,000 journals, and over 1,800 new books each year

## Nonfiction topics

Medicine,  
science, social science, mathematics,  
law, engineering

Official website [www.taylorandfran](http://www.taylorandfran.com)



# JOURNALS OF AMERICAN CHEMICAL SOCIETY

- Formation 1876
- Headquarters Washington, D.C.
- Location United States
- Membership 163,000
- Website <http://www.acs.org/>

Journal Of Chemical Engineering  
Journal Of Chemical Education  
Journal Of Physical Chemistry  
Journal Of Organic Chemistry  
Journal Of Chemical Information and  
Modeling  
Journal Of Chemical Theory and  
Computation





# THE PUBLISHING PROCESS STEP BY STEP

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[www.elsevier.com/journal-authors/home#find-a-journal](http://www.elsevier.com/journal-authors/home#find-a-journal)

1. Find the right journal
2. Prepare your paper
3. Submit your paper
4. Check Status



# Preparing your manuscript

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“The scientist must not only “do” science, he must “write” science.

A poorly prepared manuscript is the carrier vehicle of poor science.

Scientists become known (or remain unknown) by their publications.

Good organization is the key to good writing.”

R. Day



# Structuring a Paper

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- **Preliminary sections:**

- Title
- Abstract
- Keywords
- Nomenclature

- **Major sections:**

- Introduction
- Methods and Materials
- Results and Discussion
- Conclusion

- **Supporting sections:**

- Acknowledgements
- References
- Appendices



# What is a good Title?

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- A title is UNIQUE.
- A title is CONCISE.
- A title is CLEAR.
- A title is EASY TO FIND.
- A title is HONEST and REPRESENTATIVE of the contribution and the paper.
- A title is as CATCHY as can be.

Remember, you only have one chance and 2 seconds to interest the reader.





# Structuring a Title

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A title is composed of two parts:  
contribution and background.

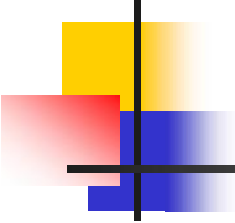
**REMEMBER!** Contribution (what is new) comes at the beginning of the title.

Compare:

“Highly efficient waveguide grating couplers using silicon-on-insulator”

and

“Silicon-on-insulator for high-output waveguide grating couplers”.



# The translation of titles from Russian into English

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of measurement of the size of particles)

(development of techniques

- 1. Use of modified nouns. E.g.:  
immobilization of enzymes vs. enzyme immobilization  
deposition of chemical vapour vs. chemical vapour deposition
- 2. Use of gerundive and infinitive verbal forms. Addition of verbal forms makes a title shorter and more dynamic. E.g.:  
Assessing the potential of a fine powder to segregate ...  
The method to determine the optimum refractive index parameter ...
- 3. Replacement of the preposition of, where possible, by another, more specific preposition. E.g.:  
Constructing an engineering model for moisture migration in bulk solids as a prelude to predicting moisture migration caking  
Studies on potential applications of biomass for the separation of heavy metals from water and wastewater.



# What is a good Abstract?

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- An abstract is COMPLETE.
- An abstract is TIED TO TITLE. All title words are found in the abstract.
- An abstract is CONCISE.
- An abstract is STAND-ALONE. It lives by itself in its own world: databases of abstracts, journal abstracts.
- An abstract is REPRESENTATIVE of the contribution of the paper. It sets expectations for the reader.



# Structuring an Abstract

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- motivation/background;
- the purpose of the study;
- the procedure/methodology used;
- the main results/findings obtained;
- the conclusions reached/any recommendations if applicable



# Examples of Abstracts

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## EFFECT OF TILE EFFLUENT ON NUTRIENT CONCENTRATION AND RETENTION EFFICIENCY IN AGRICULTURAL DRAINAGE DITCHES

Abstract. Tile drainage is a common water management practice in many agricultural landscapes in the Midwestern United States. Drainage ditches regularly receive water from agricultural fields through these tile drains. This field-scale study was conducted to determine the impact of tile discharge on ambient nutrient concentration, nutrient retention and transport in drainage ditches. Grab water samples were collected during three flow regimes for the determination of soluble phosphorus (SP), ammonium nitrogen ( $\text{NH}_4^+\text{-N}$ ), nitrate nitrogen ( $\text{NO}_3\text{-N}$ ) concentrations and their retention in three drainage ditches. Measured nutrient concentration indicated lower SP and  $\text{NH}_4^+\text{-N}$ , and greater  $\text{NO}_3\text{-N}$  concentrations in tile effluents compared to the ditch water. Net uptake lengths were relatively long, especially for  $\text{NO}_3\text{-N}$ , indicating that nutrients were generally not assimilated efficiently in these drainage systems. Results also indicated that the study reaches were very dynamic showing alternating increases or decreases in nutrient concentration across the flow regimes. The drainage ditches appeared to be nutrient-rich streams that could potentially influence the quality of downstream waters.

Agricultural Water Management



# Examples of Abstracts

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Learning with videos vs. learning with print: The role of interactive features

- Two complementary studies, one in the laboratory and one in the field, compared the usage patterns and the effectiveness of interactive videos and illustrated textbooks when German secondary school students learned complex content. For this purpose, two videos affording different degrees of interactivity and a content-equivalent illustrated textbook were used. Both studies showed that in contrast to previous studies working with non-interactive videos, the effectiveness of interactive videos was at least comparable to that of print, probably due to the possibilities provided for self-regulated information processing. It was shown that the interactive features of the videos were used spontaneously. However, features enabling micro-level activities, such as stopping the video or browsing, seemed to be more beneficial for learning than features enabling macro-level activities, such as referring to a table of contents or an index. This finding is explained by students' misconceptions about the use of features enabling macro-level activities.

Learning and Instruction

Volume 21, Issue 6, December 2011, Pages 687–704



# Graphical abstracts

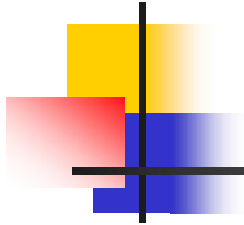
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[www.elsevier.com/journal-authors/graphical-abstract](http://www.elsevier.com/journal-authors/graphical-abstract)

A picture paints a 1000 words

a single, concise, pictorial and visual summary of the main findings of the article

- the concluding figure from the article
- a figure that captures the content of the article for readers at a single glance



# HIGHLIGHTS

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- a short collection of bullet points that convey the core findings
- provide readers with a quick textual overview of the article
- highlight what is distinctive about the article
- help readers to quickly see why the paper is of interest





# EXAMPLE OF HIGHLIGHTS

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EXAFS study of the interfacial interaction of nickel(II) on titanate nanotubes: Role of contact time, pH and humic substances

## Highlights

- Outer-sphere surface complexes formed at low pH.
- Inner-sphere surface complexes and surface precipitates formed at high pH.
- The microstructure changed from outer-sphere complexes into inner-sphere complexes over extended time.
- Ligand-bridging and metal-bridging ternary complexes formed in the presence of HA/FA



# Structuring an Introduction

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- general field of research in which the problem is set;
- aspects of the problem already studied by other researchers;
- indicating a gap;
- stating the purpose of the research;
- specifying objectives/ methods/ activities.



# Functions of an Introduction

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- Section 1 - to establish a context to help readers to understand how the present study fits into a wider field of research;
- Section 2 – to review the findings of the researchers working in your area of interest;
- Section 3 – to indicate an area which has not been studied in previous literature;
- Section 4 – to formally announce the purpose.
- Section 5 – to clarify some details of the experiment.



# Methods and Materials

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- the way you conducted your study
- the methods you used to collect and analyse the data
- detailed information on
  - participants
  - materials and equipment used in the experiment
  - procedure



# Results and Discussion

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## What have you found?

- the main findings
- findings that differ from findings in previous publications
- unexpected findings
- results of statistical analysis
- figures and tables

## What do results mean?

comparing published results with yours



# What is a good Conclusion?

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- A conclusion is **POSITIVELY CHARGED**.
- A conclusion has **PREDICTABLE** content. There are no surprises.
- A conclusion is **CONCISE**. Restate the contribution. Close the door. Open new doors.
- A conclusion is **COHERENT** with the title, abstract, and introduction. It is a part of the same story.



# The purposes of References

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- to indicate that you are aware of the debate, arguments and practices in your field;
- to add weight and credibility to your statements;
- to enable others to check the accuracy of your information and interpretations;
- to direct others to works you have found useful;
- to acknowledge other people's work and ideas;
- to enable you and your readers to review the sources of your information;



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## Summary

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- THE PUBLISHING PROCESS STEP BY STEP
- STRUCTURING A PAPER





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2. Murray, N. and Hughes G. (2008) *Writing up your University Assignments and Research Projects*. McGraw-Hill Education:Open University Press.

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