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How Editors & Reviewers Evaluate Your Manuscript

编辑和审稿人如何评审您的文章

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For a Full Understanding of Peer Review from Editors and Reviewers Point of View, Please visit

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Bioconjugate Chemistry

Biomacromolecules

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Chemical Research in Toxicology

Chemical Reviews

Chemistry of Materials

Crystal Growth & Design

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Environmental Science & Technology Letters

Industrial & Engineering Chemistry

Journal of Industrial & Engineering Chemistry

Industrial & Engineering Chemistry Research

- I&EC Process Design and Development
- I&EC Fundamentals
- Product Research & Development
- Product R&D
- I&EC Product Research and Development

Inorganic Chemistry

Journal of the American Chemical Society Journal of Agricultural and Food Chemistry Journal of Chemical & Engineering Data

- I&EC Chemical & Engineering Data Series

Journal of Chemical Education

Journal of Chemical Information and Modeling

- Journal of Chemical Documentation
- Journal of Chemical Information and Computer

Sciences

Journal of Chemical Theory and Computation

Journal of Medicinal Chemistry

Journal of Natural Products

The Journal of Organic Chemistry

J (continued)

The Journal of Physical Chemistry A

The Journal of Physical Chemistry B

The Journal of Physical Chemistry C

- The Journal of Physical Chemistry
- The Journal of Physical and Colloid Chemistry

The Journal of Physical Chemistry Letters Journal of Proteome Research

Langmuir

Macromolecules Molecular Pharmaceutics

N

Nano Letters

Organic Letters

Organic Process Research & Development

Organometallics





















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INTRODUCTION 编辑流程介绍 BASIC PEER REVIEW KNOWLEDGE WILL HELP YOU BECOME A MORE THOROUGH AND OBJECTIVE REVIEWER 2 ETHICS 审稿道德 UNDERSTANDING POTENTIAL
ETHICAL ISSUES IS CRITICAL TO
PROVIDING AUTHORS WITH A FAIR
AND OBJECTIVE EVALUATION OF
MANUSCRIPT

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PREPARING

审稿准备

BEING PROPERLY PREPARED IS CRITICAL FOR WRITING AN OBJECTIVE, HIGH-QUALITY REVIEW SIGNIFICANCE & TECHNICAL QA 研究重要性和 技术质量

DETERMINING IF A MANUSCRIPT CONTAINS SIGNIFICANT RESEARCH FINDINGS AND IS SCIENTIFICALLY SOUND ARE KEY FUNCTIONS

与
PRESENTATION &
READINESS
表达和出版规范

EVALUATE THE READINESS OF A MANUSCRIPT FOR POTENTIAL PUBLICATION

WRITING 撰写审稿报告 A THOUGHTFUL, WELL-PRESENTED EVALUATION WITH TANGIBLE SUGGESTIONS IS THE MOST VALUABLE CONTRIBUTION



"Editors are interested in considering papers that are within their Journal's Scope and will be well appreciated by their Readership" *



1

INTRODUCTION 编辑流程

BASIC PEER REVIEW KNOWLEDGE WILL HELP YOU BECOME A MORE THOROUGH AND OBJECTIVE REVIEWER

- Features of a Standout Paper 好文章的特征
- Editorial Process 编辑评审过程
- Editorial Review 编辑初审
- How to Write Title, Abstract & Cover Letter 题目/摘要/致编辑的信
- How Are Peer-Reviewers Selected 挑选审稿人

FEATURES OF A STANDOUT PAPER* 好文章的特征



FIGURES & SCHEMES 图表精准反映文章主题

are well drawn and self-explanatory. They comply with the representation of scientific notation.

TOPIC 选题解决科学重要问题,广泛/启发性

addresses an important scientific issue, the results provide new insights, and the discussion of related papers fits within the scope of the journal. It is essential that the paper appeals to the broader readership of the communities.

TITLE & ABSTRACT 标题和摘要简洁明了,吸引人

are written in such a way that they are simple and attractive. They draw sufficient interest and lead to the reading of the rest of the paper. The new advances and the importance of the study are clearly pointed out in the abstract.

DISCUSSION 讨论数据分析严谨,讨论深入,支持文章结论

The paper is not just a scientific report of empirical observations; it provides a detailed analysis of the data and in-depth mechanistic insights. Scientific arguments and claims are supported by the results.

EXPERIMENTAL/METHODS 实验方法详尽,可重复性

section provides sufficient details so that a reader can reproduce the experiment in another laboratory.

SCIENTIFIC STORY 故事文章整体表达逻辑清晰,层次分明

is compelling and exciting, and the key points are clearly indicated in the abstract and conclusions. If the message is compelling and convincing, reviewers will enthusiastically recommend publication.

EDITORIAL PROCESS

编辑流程





EDITORIAL PRE-SCREENING



编辑初审

"Prescreening ensures that only those manuscripts that we believe have potential to be published in our pages reach the referees" *

Not all submissions are reviewed externally

并非所有稿件均送外审

The editors pre-screen for

编辑初审考量三点

Scope 是否符合期刊范围 Scientific Merit 科学价值 Significance 重要性

On the basis of this initial review, a decision is made about whether the manuscript warrants external peer-review or will be declined after editorial review. 文章经过初审,编辑决定送外审或初审拒稿。

CONSTRUCT A WELL-WRITTEN COVER LETTER

利用致编辑的信



FUNCTIONALITY

- Interest the editor enough to read your paper carefully and choose to send it out for peer review 激起编辑兴趣
- The chance for authors to persuade the editors of the significance of their work in a less formal manner 非正式格式交流研究成果重要性

CONTENT

- Highlight your **most important** findings 突出最重要的研究
- State **impact** to the community 阐明研究的影响力
- DO NOT copy Abstract! 复制摘要不可取
- **DO NOT** simply state that your manuscript is "of interest to the field" or "novel." Address **specific aspects** of the journal's Aims & Scope statement. 有理有据,紧扣期刊主题

ATTRACT READERS WITH A STRONG TITLE 题目吸引读者



"We strongly believe that the science should speak for itself and that the <u>use</u> of adjectives that sound too self-promoting can only <u>backfire</u> on authors because they hint that your work is superficial or, even worse, dubious.*

FUNCTIONALITY

- Attracts potential audience 吸引读者
- Aids in retrieval and indexing 文献索引

CONTENT **

- Simple 少即是多
- Effective 有效
- Accurate 精确 短小精悍 紧扣研究主题



Craft a Compelling Title Describe your results/findings in as few words as possible (< 20 words*), in an evocative and exciting way 少既是多

Avoid Buzz Words and Hard-to-Justify Claims Like "first", "novel", "new", and "only", "on the", "a study of", "research on", "regarding", and "use of" 慎用形容词

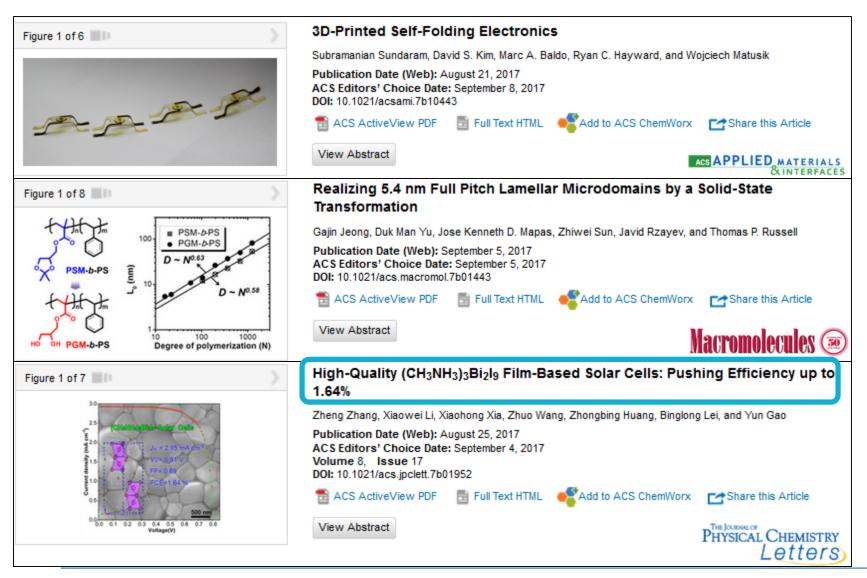
Spell out All Terms in the Title Avoid jargon, symbols, formulas, abbreviations 全称

Avoid Asking a Question in Title 尽量不用问题

Write 3-4 different titles and get the opinion of group members and colleagues 实验室内部讨论



ACS Editors' Choice



ABSTRACT 摘要



Extra effort should be taken to compose an effective and concise abstract!*

FUNCTIONALITY

- Allows readers to **determine** paper scope 帮助读者理解研究范围,是否继续读全文
- Aids in **retrieval and indexing** 文献索引

CONTENT

Any reader who is not familiar with the topic will be able to understand and appreciate the main points

- Concise 言简意赅
- Self-contained 独立
- Informative 信息全面
- **DO NOT** supplement or evaluate the conclusions
- **DO NOT** cite references, tables, figures

HOW ARE PEER-REVIEWERS SELECTED



编辑如何挑选审稿人

Editors often invite both suggested reviewers and reviewers from an independent pool in order to ensure a fair review process.

Pool of Experts 审稿专家库

Author Recommended 作者推荐

Broad

KNOWLEDGE 知识

& Understanding of the field

TECHNICAL EXPERTISE 技能

To evaluate experiments, data and interpretation

ABILITY 道德

to offer constructive, fair and unbiased opinions

HOW DOES THE EDITOR MAKE A DECISION





The **ultimate DECISION** on a paper comes from the **Handling Editor**, but the editor relies on peer reviewers to inform the decision. 最终决定由编辑决定,但编辑依赖于审稿专家提供的建议。

Reads & Examines

Manuscript 全面审视文章 **Analyzes**

Each Review Report 评估每份报告 **Determines**

if Additional Experiments/Info are Required 评估是否需要增加实验或信息 **Provides Decision**

to Author 通知作者结果



2

ETHICS 审稿道德

UNDERSTANDING POTENTIAL ETHICAL ISSUES IS CRITICAL TO PROVIDING AUTHORS WITH A FAIR AND OBJECTIVE EVALUATION OF MANUSCRIPT

- Conflict of Interest 利益冲突
- Potential Bias 避免偏见
- Confidentiality 审稿过程的保密性
- Recommend Reviewers 推荐审稿人

CONFLICT OF INTEREST 利益冲突



In peer review, a conflict of interest occurs when you have a **CONNECTION** to the authors or their work that could **INTERFERE** with your ability to remain objective while evaluating the manuscript.

在同行评议过程中,审稿人和**作者**或者作者的**研究**有任何关联,均视为**可能**的利益冲突。

POTENTIAL BIAS 避免偏见



Always be SPECIFIC and avoid vague criticisms

CONFIDENTIALITY 审稿的保密性



- Confidentiality Begins with the Reviewer Invitation 从接收到审稿邀请起,所有信息都是需要保密的。
- Confidentiality Within the Lab 在实验室内部也是保密的。如果需要实验室其他人审稿,需要征求编辑同意。
- If you choose to recommend reviewers, share names and contact information to Editor. You **SHOULD NOT contact these researchers yourself** regarding the manuscript to inquire about their interest.推荐审稿人不可提前联系









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RECOMMEND REVIEWERS 作者推荐审稿人



Preferred Reviewers

Prof. Dr. XXXXXX

Department of XXXXXX

University of XXXXXX

Address: XXXXXX

Email: a university or institute email

address, not a gmail or yahoo email

address

Lab Website:

Research Interests:

Non-Preferred Reviewers (<5)

Prof. Dr. XXXXXX

Department of XXXXXX

University of XXXXXX

Address: XXXXXX

Email:

Lab Website:

Conflict of Interests/Reason:

Avoid Recommending

Friends
Collaborators
Anyone with a conflict of interest
Faked reviewers



3

PREPARING 审稿准备

BEING PROPERLY PREPARED IS CRITICAL FOR WRITING AN OBJECTIVE, HIGH-QUALITY REVIEW

- Understand the Journal & MS Format 熟悉期刊范围/读者/文章类型
- The Review Form 熟悉审稿报告要求
- The Current Literature 追踪领域最新进展
- An Initial Read 全文略读





THE CURRENT LITERATURE 追踪领域最新进展*



Before reviewing the manuscript, a quick literature search will let you know if there have been any publications since your last search that could impact the current state of the field or the novelty of the manuscript you are evaluating

About the Research

Abstract + Keywords + Introduction

- Challenge in this area 领域亟待解决问题
- Related researchers 相关其他研究组

About Research Group

Name + Affiliation

Author publications 相关领域文章,本文相比之改进



4

SIGNIFICANCE & TECHNICAL QA 研究重要性和技术质量

DETERMINING IF A MS CONTAINS SIGNIFICANT RESEARCH FINDINGS AND IS SCIENTIFICALLY SOUND ARE KEY FUNCTIONS

- Novel Contributions 新颖性
- Sauging Impact 影响力
- Manuscript Fit 适合性
- Study Design and Execution 实验设计合理,实行合规, 可重复性
- Data Analysis 数据分析合规
- Conclusions 结论合理

NOVEL CONTRIBUTIONS 新颖性



Make a list of novel contributions that the work would make to the current literature

Are the authors claiming novel contributions that have already been published by themselves or others?

GAUGING IMPACT 影响力



Outside authoring group(s) 其他课题组 Outside the field 其他领域 Outside discipline 其他学科 Public 公众

Study Design and Execution 实验设计合理, 实行合规, 可重复性



Experimental and Computational Approach 实验和计算过程方法

Reproducibility 可重复性

- Have the author stated the number of times they replicated each experiment, and given a measure of the consistency and accuracy of the results? 实验次数
- Reagents: Source, Unreliable, Validate? 试剂可信可靠
- Instruments/Settings: All Reported, Key Settings Provided for Analysis? 仪器设定
- Number of times replicated: Consistency and accuracy of the results? 结果一致性
- Procedures: well cited or described in enough detail? 细节
- Limitations: any limitations to approaches, experiments, and instruments used? 局限性



5

PRESENTATION & READINESS 表达和出版规范

EVALUATE THE READINESS OF A MANUSCRIPT FOR POTENTIAL PUBLICATION

- Readability 逻辑合理,结构清晰
- Evaluating Graphics 图表清晰,表达清楚
- Supporting Information 支持材料
- Safety 安全性
- Author Misconduct 学术不端

Readability 逻辑合理,表达清晰





- Is the Manuscript Appropriately Organized? 逻辑最重要
- Is the Writing Clear? 句式结构易懂
- Are There Under or Over-developed Areas of the Manuscript?
 重点是否突出,笔墨太多
- Are the Data Presented Clearly Enough? Can the Tables and Figures Be Improved?
 图表/数据清晰准确反映结论
- Are the References to Previous Work Appropriate and Complete? 参考文献完善
- Technical editors will correct the more minor issues of standard style, grammar, and spelling in the body of the manuscript prior to publication.
- At NO POINT should you edit the manuscript yourself your time as a reviewer is too valuable.

Reference 参考文献



Well-balanced citations provide readers with additional resources, including background material, scientific issues that motivated the research, procedures and computational or theoretical models, and data used in the research.*

■ Do the References Reflect the Broader Discipline of the Journal? 是否反映期刊领域?

If This Study Appears to build directly on previous work, where those works published in journals with similar scopes?

是否在前人基础上, 常发表期刊?

Do the citations represent recent advances in the field or are there no papers cited from the past several years?

是否反映近期进展?

Are there excessive self-citations

是否过多自引?

Evaluating Graphics 图表清晰,表达清楚





A figure or graphic is a well-designed presentation of interesting data that consists of complex ideas communicated with **clarity** (no ambiguity or confusion), **precision** (truthful results with no distortions), and **efficiency** (minimal "chart junk") 清晰,精准,高效

"A well-composed graphic art with a complete description should **stand alone**, and the reader should be able to **grasp the essence** of the experiment as well as the analysis of the result." 独立,读者一下子就能抓住中心思想

Well-drawn, scientifically correct figures make the first impression of the scientific findings "It gives the viewer the greatest number of ideas in the shortest time with the least ink in the smallest space." 最少的笔墨表达最全最精准的意思

There are two aspects that need to be considered while drawing figures:

- (1) accuracy of data presentation
- (2) aesthetics



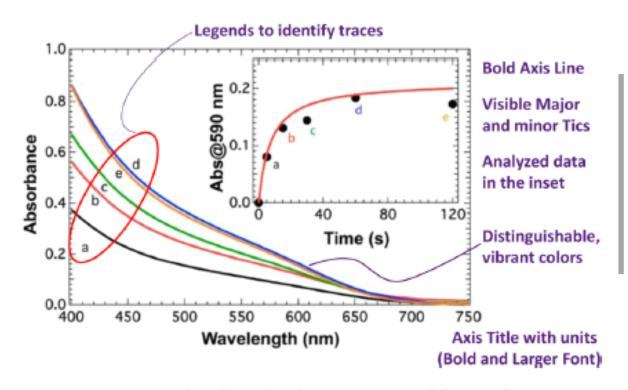


Figure 1. An example of graphical presentation of data. A few items in the figure are highlighted for clarity and accuracy of the presentation. Reproduced from ref 4.

Height/width, 1:1.6
Selecting Proper Axis & Units
Error Bars
Figure Captions

Safety 安全注意



- Have all explosive or toxic compounds been identified?
- Have proper precautions been described for all of these compounds?

If a manuscript contains an experiment that presents a potentially significant hazard, simply add

"All potentially significant hazardous procedures or chemicals have been properly identified"







Author Misconduct 学术不端





You should contact the editor if you have any reason to believe that any of the data or figures have been falsified or altered inappropriately, presented in previous publications, or if you notice any plagiarism in the text.

Note: It is NOT Reviewer's responsibility to discover any possible **plagiarism** in manuscript, and reviewer should not spend time and energy specifically checking for plagiarism. However, reviewer should **alert** the editor so that he/she can take a closer look at the report using a software-based analysis tool that many publishers employ.



6

WRITING 撰写审稿报告

A THOUGHTFUL, WELL-PRESENTED EVALUATION WITH TANGIBLE SUGGESTIONS IS THE MOST VALUABLE CONTRIBUTION

- Write an Opening Summary to Show you understand the work 开篇总结介绍稿件内容
- ▋ Organize Your Comments 逻辑清晰,1次1个问题
- Be Specific 建议要具体
- Remain Professional 稿件优缺点客观分析,态度中立
- Proofread Your Review 提交之前再次检查
- Fill in the Review Form 填写审稿报告
- Alert the Editor Confidentially If You Have Any Concerns 特殊问题,告知编辑

RESPONDING TO REVIEWER COMMENTS

ACS Publications
MOST TRUSTED. MOST CITED. MOST READ.

回复编辑和审稿人建议

REVIEWER 1

This manuscript provides important information about the self-assembly and self-replication of nanoscale rabbits. I have a number of concerns, however, related to the characterization of their fur.

1) The authors state that the fur appears brown, but the UV-vis spectra suggest that it is usually white. Please explain.

We thank the referee for noticing this oversight. The referee is correct, in that the nanorabbits are white in the winter, and brown in the summer. We did not label the effects of the seasons on the UV-vis spectra of the nanorabbits and thus we have added these labels to the revised manuscript on page 6. This clarification does not change the conclusions of the work because the color of the fur has no effect on their dual-auricle morphology.





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1 INTRODUCTION TO PEER REVIEW 2. ETHICS IN PEER REVIEW 3. PREPARING FOR REVIEW

4 ASSESSING SIGNIFICANCE AND TECHNICAL QUALITY 5. ASSESSING PRESENTATION AND READINESS FOR PUBLICATION 6. WRITING YOUR REVIEW

FINAL ASSESSMENT



SUMMARY MODULE

Introduction to Peer Review



PEER REVIEW IS CRITICAL TO THE ADVANCEMENT OF SCIENCE, AND THROUGH **APPLICATION OF THEIR EXPERTISE, REVIEWERS HELP MAINTAIN THE QUALITY OF THE PUBLISHED LITERATURE** AND ADVANCE THE FIELD. IN ADDITION, REVIEWERS **GET A PREVIEW OF THE** LATEST RESEARCH AND GAIN INSIGHT INTO BEST PRACTICES WHEN IT COMES TO PREPARING THEIR OWN MANUSCRIPTS.

Common Types of Peer Review

- · Single-blind (the most common): The authors do not know the identity of the reviewers.
- · Double-blind: The authors do not know the identity of the reviewers AND the reviewers do not know the identity of
- · Open: The identity of the reviewers is known to the authors, and the identity of the authors is known to the reviewers.

Overcoming Challenges

Reviewers must learn to overcome challenges to providing a fair, objective review including conflicts of interests, differing scientific perspectives and backgrounds, and gender- and culturally-based biases.

The Editorial Review Process

In the most common editorial process, a manuscript is evaluated by two different editors before being sent out to peer reviewers.



Downloadable PDFs



Transcript

THE PEER REVIEW PROCESS

If you've published research before, you're probably already familiar with the peer review process. But in case you haven't - or have never thought much about why the peer review process is set up the way it is - here's a refresher.

FROM OUR EDITORS

What advice do you have for peer reviewers?

Advice from ACS Editors







HOME MODULES RESOURCES FAQ PROFILE

bias







Search results

Pages

Module: 6. Writing Your Review - Proofread Your Review

... checked the spelling and grammar of your comments? Note that authors and editors can bring the same bias es to poorly written reviews that reviewers can bring to poorly written manuscripts. ...

Module: 2. Ethics in Peer Review - What If I Am Still Not Sure?

... ign a different reviewer, or may consider having you write the review anyway, taking your potential bias into account. It is always better to let the editor know of any potential biases you may have so th ...

Module: 2. Ethics in Peer Review -

... Some potential bias es that could affect how you evaluate a manuscript are as follows: Ethnic and Gender Bias Unconsci ...

Module: 2. Ethics in Peer Review - Types of Conflict of Interest

... several scenarios in which a conflict may arise. Ultimately, editors request that you provide an un bias ed report about the manuscript you reviewed, so it is important to understand how conflicts of inter...

Module: 3. Preparing for Review - Read the Manuscript

... pective on the whole story before you dive into the details can help you avoid some of the types of bias es that were discussed in Module 2. ...

Module: 1. Introduction to Peer Review -

... ith any human endeavor, scholarly peer review is imperfect, fallible, and certainly not without its bias es and flaws. Conflicts of interest, perspective, belief, and background are natural and common - ...

Module: 2. Ethics in Peer Review -

... research groups often compete to publish similar results first, you may not be able to provide an un bias ed opinion of the authors' work. In such a case, it is best to inform the editor that you have a pot ...







CERTIFICATE OF COMPLETION

This certificate is awarded to

Stephanie Monasky

For successfully completing the online course ACS Reviewer Lab, demonstrating their understanding on the principles of high quality of peer review including reviewer ethics, instructions for reviewers, and tools and components for writing a constructive review.

May 30, 2017

DATE GRANTED

Sarah Tegen, PhD

Vice President, Global Editorial & Author Services at American Chemical Society



AMERICAN CHEMICAL SOCIETY

Episode 1 - How to Write a Paper to **Communicate Your Research**

as Reviewers

Manuscript Using the ACS Paragon Plus Environment









Episode 10: My Manuscript Has Been Accepted! Now What?



PUBLISHING YOUR RESEARCH 101

Practical Guidelines for Authors & Reviewers from ACS Publications

Episode 8 - Tips for English as a Second Language Speakers

Episode 7 - Open Access and ACS AuthorChoice

Episode 5 - Ethical Considerations for **Authors and Reviewers**



Episode 6 - The Review Process for **Authors and Reviewers**



Episode 9 - The Basics of Copyright

and Fair Use







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MOST MOST MOST TRUSTED. CITED. READ.



