# ACS期刊论文投稿与写作



" To be the world's most trusted source of the comprehensive knowledge needed to cultivate the chemists of tomorrow "

- 1 ACS期刊和平台
- 2 ACS投稿与写作
- 3 学术道德和同行评议

主讲人: 赵璟

# 1 ACS期刊和平台



# ACS美国化学会是全球最大的科技学会

- 战立于1876年,至今拥有超过16万名会员
- ▲ 众多诺贝尔奖得主和顶尖的研究者
- → 为高校和企业提供高品质的科技文献
- 促进化学及相关学科的交流与发展,推动行业进步





# **ACS**期刊简介





## • 58种 高品质的学术期刊

- 均为 SCI 收录
- 半数的期刊影响因子IF超过5
- 在12个化学核心和相关学科 具有最高的引用量或影响因子
- · 化学领域最高的引用量 2018年被引用次数超过 340 万
  - 被 Journal Citation Report (JCR) 评为 "化学领域被引用次数最多的期刊"

# 覆盖广泛的学科领域

普通化学 高分子科学 食品科学与技术 生物化学

晶体学 材料科学 农学与林学 生物技术

无机化学 纳米科学 理论化学 临床化学

有机化学 化学工程 计算化学 药物化学

物理化学能源与燃料化学信息学药理学和药剂学

分析化学 环境科学 分子生物学 毒理学

### JOURNAL

OF THE

AMERICAN CHEMICAL SOCIETY.

VOLUME I.

1879

1885

1870

1875

1880

JACS

H. ENDEMANN, Editor, ARNO BEHR, GIDEON E. MOOKE.

获得其有史以来最高的影响因子14.695 它是化学领域中获得引用最多的期刊 2018年的被引用次数超过55万 更新频率: Published weekly



1905

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# 两本综述型期刊

### **Accounts of Chemical Research**

(影响因子21.661) 主要对近期的研究进展进 行简要总结,对化学及相关领域的基础和应用 研究进行简单易懂的概述。

### **Chemical Reviews**

(影响因子54.301) 主要发表关于开创性研究 的权威综述,这些综述在化学领域中被公认是 最全面的。





## 基础化学领域: 无机、有机、物化、分析



Crystal Growth & Design IF = 4.153



Inorganic Chemistry IF = 4.850



Analytical Chemistry IF = 6.350



ACS Sensors IF = 6.944



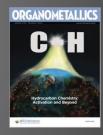
The Journal of Organic Chemistry IF = 4.745



Organic Letters IF = 6.555



Organic
Process
Research &
Development
IF = 3.327



Organometallics
IF = 4.100



The Journal of Physical Chemistry A IF = 2.641



The Journal of Physical Chemistry B
IF = 2.923



The Journal of Physical Chemistry C IF = 4.309



The Journal of Physical Chemistry Letters

### 催化



ACS
Catalysis
IF = 12.221





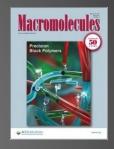
Chemistry of Materials
IF = 10.159





ACS NANO IF = 13.903





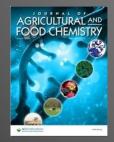
**Macromolecules** IF = 5.997

### 药物化学

### 农业与食品化学 化学工程



Journal of Medicinal Chemistry IF = 6.054



Journal of Agricultural and Food Chemistry IF = 3.571

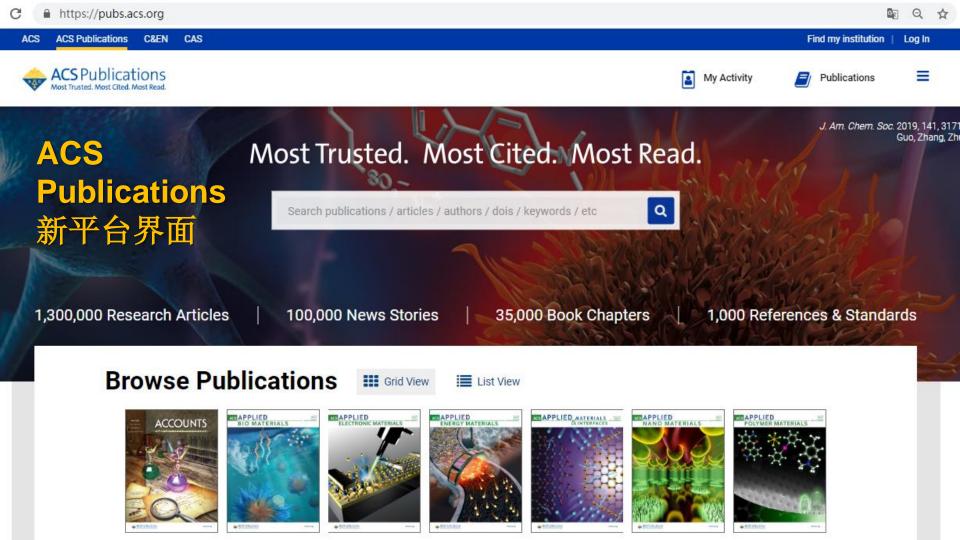


Industrial & Engineering Chemistry Research IF = 3.375



Environmental Science & Technology IF = 7.149

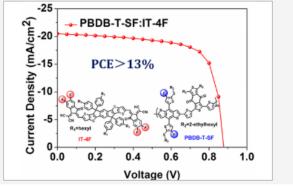
环境科学与技术



RETURN TO ISSUE < PREV ARTICLE JACS Molecular Optimization Enables over 13% Efficiency in Organic Solar Cells Wenchao Zhao<sup>†‡</sup>, Sunsun Li<sup>†‡</sup>, Huifeng Yao<sup>\*†‡</sup>, Shaoqing Zhang<sup>†‡</sup>, Y<u>un Zhang<sup>†‡</sup>, Bei Yang<sup>†‡</sup> and Jianhui</u> Hou<sup>\*†‡</sup> 标题和作者 Hide Author Information ^ † Beijing National Laboratory for Molecular Sciences, State Key Laboratory of Polymer Physics and Chemistry, CAS Research/Education Center for Excellence in Molecular Sciences, Institute of Chemistry, Chinese Academy of Sciences, Beijing 100190, China ‡ University of Chinese Academy of Sciences, Beijing 100049, China 机构信息 \*hihzlz@iccas.ac.cn Journal of the American \*yaohf@iccas.ac.cn Chemical Society Cite This: J. Am. Chem. Soc. 2017, 139, 21, Article Views Altmetric Citations Export 7148-7151 21162 23 1176 分享至社交媒体 Publication Date: May 17, 2017 https://doi.org/10.102/ Copyright © 2017 Am 出版信息 统计Citation 添加到Mendeley RIGHTS & PERMISSIO 导出RIS PDF (1 MB) Get Access Supporting Info (1) » Supporting Abstract 下载 PDF全文 Information A new polymer d PBDB-T-SF:IT-4F

organic solar cells (OSCs) were designed and synthesized. The influences of fluorination on the absorption spectra, molecular energy levels, and charge mobilities of the donor and acceptor were systematically studied. The PBDB-T-SF:IT-4F-based OSC device showed a record high efficiency of 13.1%, and an efficiency of over 12% can be obtained with a thickness of 100-200 nm, suggesting the promise of fullerene-free OSCs in practical applications.

Abstract 摘要

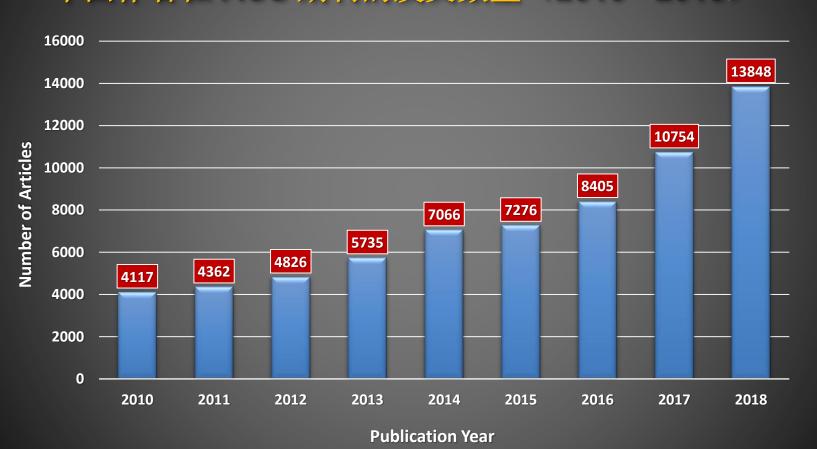


# 2 ACS期刊投稿

SCI科技论文写作



### 中国作者在 ACS 期刊的发文数量(2010 - 2018)



# 高影响因子的ACS期刊

发表所有化学相关的学科领域的著作,要求是其研究工作达到最高水准和新颖性



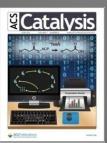
















ACS NANO **NANO** IF = 13.903

Letters IF = 12.279

ACS Catalysis IF = 12.221

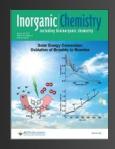
**Chemistry of** Materials IF = 10.159

**ACS Applied Materials** & Interfaces IF = 8.456

**ACS Energy** Letters IF = 16.331

## 多学科的"合理科学"期刊

要求该研究在科学上是有效的,但不要求对重要性或新颖性进行主观评价。大多数的期刊都有一个更窄的主题范围并强调重要性,投稿时能了解该稿件是否适合该期刊



Inorganic Chemistry IF = 4.850



The Journal of Organic Chemistry IF = 4.745



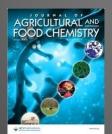
Organic Letters IF = 6.555



Analytical Chemistry IF = 6.350



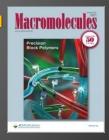
Journal of Medicinal Chemistry IF = 6.054



Journal of Agricultural and Food Chemistry IF = 3.571



Environmental Science & Technology IF = 7.149



**Macromolecules** IF = 5.997



第一步: 选择 你想投稿的期刊

期刊投稿指南 Author Guidelines

期刊范围 Journal Scope

第二步: 了解 学术道德/出版政策

学术道德指南 Ethical Guidelines

期刊出版协议 Copyright and Permissions

资金提供来源 Funder Reporting Requirement

第三步: 写作 准备你的稿件

投稿模板 Document Templates

格式和语言 Writing Style and Language

文章架构 Manuscript Components

投稿信 Cover Letter

图表 Graphics

第四步: 提交 使用在线投稿平台

注册和登录 ACS Paragon Plus 投稿平台

在投稿平台内完成稿件上传

同行评议 Peer Review

第五步: 出版 后续注意事项

Just Accepted Manuscripts

**ASAP Publication** 

开放资源共享

出版信息确认

校对稿件

文章更正

分享您发表的文章到 Social Media

### Journal Guidelines And Templates

第一步:选择一本期刊 第二步:下载投稿指南

Everything you need to prepare and submit your manuscript

The Journal of Organic Chemistry

Looking for information on book publishing?

Get the basics here.

The Journal of Organic Chemistry

The Journal of Organic Chemistry publishes fundamental research in all branches of the theory and practice of organic chemistry, including synthetic methods, catalysis, natural product total synthesis, and polymer chemistry.

More about *The Journal of Organic Chemistry* 

#### For Authors & Reviewers

**Author Guidelines** 

**Prior Publication Policy** 

Copyright

Permissions

Open Access Compliance

Open Access Options

For Reviewers

**Submit Manuscript** 



### The Journal of Organic Chemistry

#### Guidelines for Authors

Updated January 2018

### 1 Scope and Editorial Policy

### 1.1 Scope of the Journal

# SCI 科技论文基本结构

# 前段



# 中段

## 正文

**」**引言

M 方法

R 结果

D 讨论

# 后段



# 稿件模板 Template for Submission of Manuscripts to American Chemical Society Journals

<u>TITLE</u> (Word Style "BA\_Title"). The title should accurately, clearly, and concisely reflect the emphasis and content of the paper. The title must be brief and grammatically correct. The space above the title is provided for the Journal logo. Do NOT delete this space.

AUTHOR NAMES (Word Style "BB\_Author\_Nam substantial contributions to the work, even if th Use first names, initials, and surnames (e.g., Joh names (e.g., J. Robert Smith). Do not use only in causes indexing and retrieval difficulties and in not include professional or official titles or acad nated with an asterisk as the author to whom contributions.

AUTHOR ADDRESS (Word Style "BC\_Author\_Address"). I conducted. If the present address of an author differs fro and give the Present Address under Author Information. names to address(es).

KEYWORDS (Word Style "BG\_Keywords"). If you are submi significant keywords to aid the reader in literature retriev

ABSTRACT: (Word Style "BD\_Abstract"). All manuscripts n state the problem or purpose of the research, indicate the findings, and point out the major conclusions. Abstract length

TEXT (Word Style "TA\_Main\_Text"). For full instructions, please see the journal's Instructions for Authors. Do not modify the font in this or any other section, as doing so will not give an accurate estimate of the formatting for publication and final length of the paper.

FIGURES (Word Style "VA\_Figure\_Caption"). Each figure must have a caption that includes the figure number and a brief description, preferably one or two sentences. The caption should follow the format "Figure 1. Figure caption." All figures must be mentioned in the text consecutively and numbered with Arabic numerals. The caption should be understandable without reference to the text. Whenever possible, place the key to symbols in the artwork, not in the caption. To insert the figure into the template, be sure it is already sized appropriately and paste before the figure caption. For formatting double-column figures, see the instructions at the end of the template. Do NOT modify the amount of space before and after the caption as this allows for the rules, space above and below the rules, and space above and below the figure to be inserted upon editing.

SCHEMES (Word Style "VC\_Scheme\_Title"). Groups of reactions that show action are called schemes.

Schemes may have brief titles describing their contents. The title should follow the format "Scheme 1. Scheme Title". Schemes may also have footnotes (use Word Style "FD\_Scheme\_Footnote"). To insert the scheme into the template, be sure it is already sized appropriately and paste after the scheme title. For formatting double-column schemes, see the instructions at the end of the template. Do NOT modify the amount of space before and after the title as this allows for the rules, space above and below the rules, and space above and below the scheme to be inserted upon editing.

CHARTS (Word Style "VB\_Chart\_Title"). Groups of structures that do not show action are called charts. Charts may have brief titles describing their contents. The title should follow the format "Chart 1. Chart Title". Charts may also have footnotes (use Word Style "FC\_Chart\_Footnote"). To insert the chart into the template, be sure it is already sized appropriately and paste after the chart title. For formatting double-column charts, see the instructions at the end of the template. Do NOT modify the amount of space before

# 标题,摘要,图片,语言



## Title 起一个引人注目的标题

简明,包含本研究最核心的信息,通常是名词性的结构 CONCISE, Contains relevant information

## 避免

- 难以理解的缩写
- 复杂的语法或用语
- 难以证实的断言或者主观的词语 ,比如 "first" and "only"等
- 把标题写成设问句

**TOPIC - focussed** (What is it about?) **RESULT - focussed** (What did we find?)

### 方法: 组合重要的字段 科学意义: 需要读者去体会

Mechanism of Catalytic Oxidation of Styrenes with Hydrogen Peroxide in the Presence of Cationic Palladium(II) Complexes

J. Am. Chem. Soc., 2017, 139 (36), pp 12495-12503 催化氧化的机理研究

Radical Route to 1,4-Benzothiazine Derivatives from 2-Aminobenzenethiols and Ketones under Transition-Metal-Free Conditions

Org. Lett., 2016, 18 (24), pp 6424-6427 某种化合物的新合成方法

### 11-Step Total Synthesis of Pallambins C and D

J. Am. Chem. Soc., 2016, 138 (24), pp 7536-7539 某个天然物的全合成

Cu and Cu-Based Nanoparticles: Synthesis and Applications in Catalysis Chem. Rev., 2016, 116 (6), pp 3722–3811 综述文献 Review Article

## Abstract 摘要

ACS Abstract Guide 摘要文字的若干组成部分

Objective/Sensing Issue | How this was addressed | Findings

### Example of an abstract for a conceptual paper

A challenge for sensors detecting ultralow amounts of analyte is that for reliable sampling, large volumes of samples must be analyzed. The implication of large volumes is slow response times. Herein, we introduce the concept of utilizing conductive gold-coated magnetic nanoparticles (Au@MNPs) as 'dispersible electrodes', which serve as the active element in the selective capture and direct electro-analytical quantification of analytes. The Au@MNPs are modified with self-assembled monolayers containing a peptide for the selective detection of Cu²+. The particles scavenge any Cu²+ in solution and are then magnetically drawn back to the macroelectrode where the Cu²+ is detected amperometrically. This concept reduces response times and decreases detection limits by bringing the sensor to the analyte rather than the conventional paradigm of the analyte finding the sensor. The higher sensitivity and lower detection limit is shown to be because all the analyte in the sample is collected, while the shorter response times are because by dispersing the Au@MNPs in solution, the diffusional pathlength of the analyte is drastically reduced.

### Graphics 图片

- Be clear, precise
- Informative
- Support your text
- Use color
- Original
- Unpublished

### **TOC Graphics**

### TOC作图要求:

- 简单,信息丰富
- 直观地描述研究工作

#### **Article**

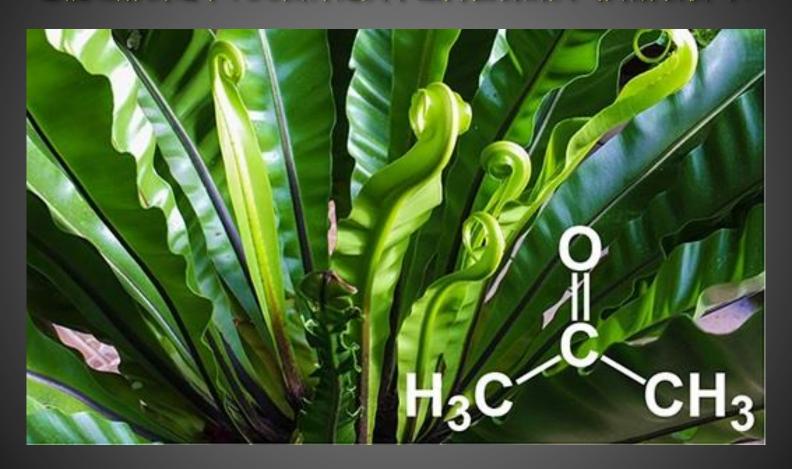
### Mechanism of Catalytic Oxidation of Styrenes with Hydrogen Peroxide in the Presence of Cationic Palladium(II) Complexes

Katherine L. Walker<sup>†</sup>§ (D), Laura M. Dornan<sup>†‡</sup>§ (D), Richard N. Zare<sup>†</sup> (D), Robert M. Waymouth<sup>\*†</sup> (D), and Mark J. Muldoon<sup>\*‡</sup> (D)

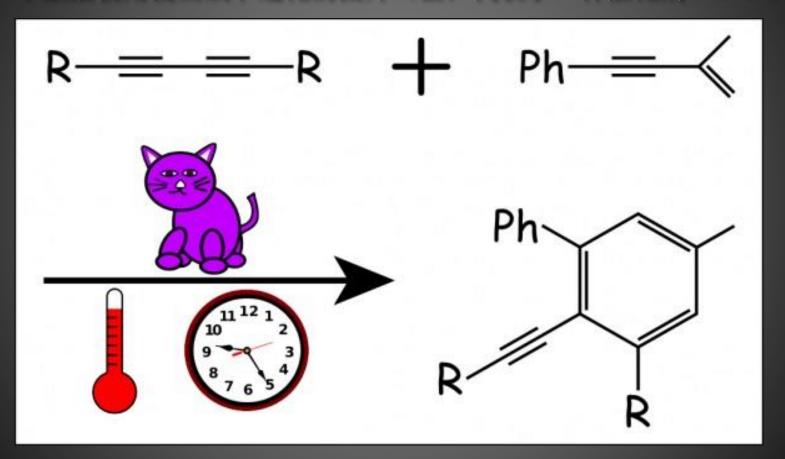
- † Department of Chemistry, Stanford University, Stanford, California 94305, United States
- <sup>‡</sup> School of Chemistry and Chemical Engineering, Queen's University Belfast, Belfast, Northern Ireland, BT9 5AG, United Kingdom

J. Am. Chem. Soc., 2017, 139 (36), pp 12495-12503 DOI: 10.1021/jacs.7b05413 Publication Date (Web): August 29, 2017 Copyright © 2017 American Chemical Society \*waymouth@stanford.edu, \*m.j.muldoon@qub.ac.uk 主要方法 Abstract [OTfl<sub>2</sub> ✓ Kinetic Studies ✓ Isotope-Labeling High-Resolution Mass Spectrometry 直观形象 J. Am. Chem. Soc. 2017, 139(36), 12495-12503

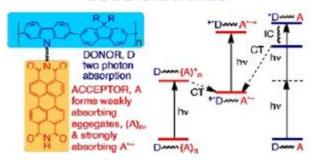
## 您能理解到这个TOC图片是关于室内植物的大气丙酮吸收吗?



### 不鼓励使用漫画或卡通化的图片(猫:代表了一种催化剂???)

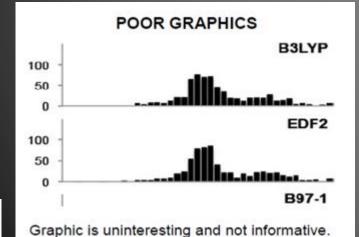


#### **GOOD GRAPHICS**

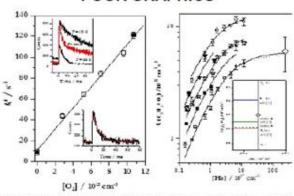




This graphic has a good balance of images and description. All of the type is crisp and easy to read.

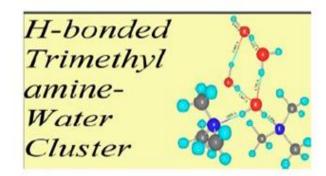






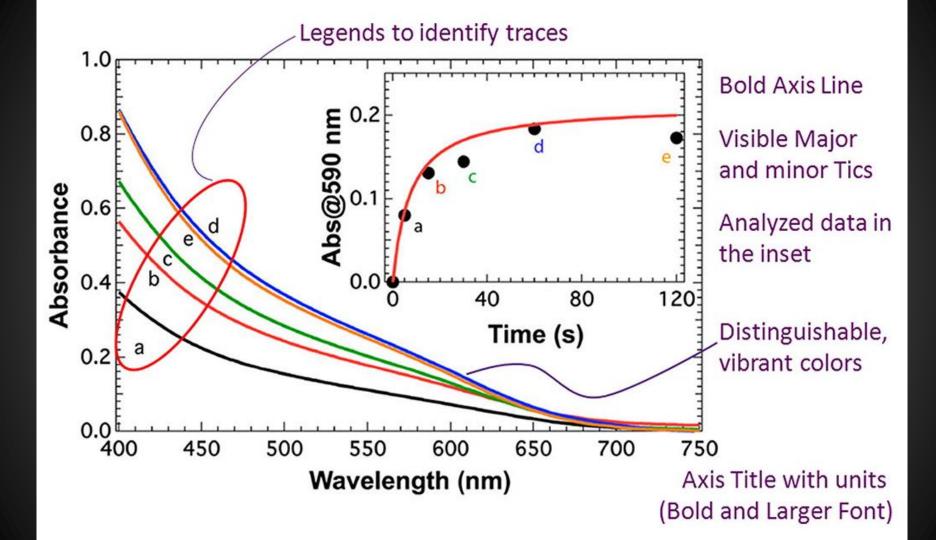
Graphic is very cluttered and most of the fonts are too small or faint to be readable.





The font is too big, the image says nothing about the article, and the type on the image is unreadable.





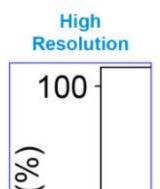
### **Minimum Resolution:**

Black and white line art 1200 dpi Grayscale art 600 dpi Color art 300 dpi

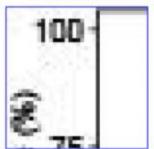
#### Size:

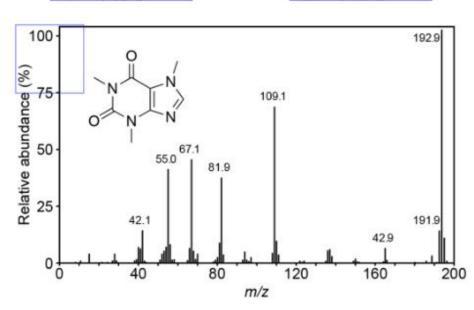
single-column graphics
240 points wide
double-column graphics
300 and 504 points
maximum depth 660 points
including Caption (allow 12 pts.)

**Fonts:** Helvetica or Arial









# Language and Text 语言文字表述

- 专业词汇的积累
- IUPAC 和 缩写
- 母语和英语的不同
- 不断练习
- 客观表达 避免主观语句
- 逻辑清晰 > 句式复杂
- 自我修改 / 他人修改
- 写作编辑服务
- 论文查重:原创检测

#### Abstract

Pulmonary vessel stapling is the most important but challenging part in of thoracoscopic pulmonary lobar and segmental resection. Many thoracoscopy specialists use a guiding method with an introducer for stapler applying to apply staples. After Since the commercialization introduction of the modified stapler with a curved and ansular angle anvil tip, more and more surgeons prefer applying have come to prefer stapling pulmonary vessels without guidance. However, many problems are still concerned when using termain with the use of this new product in current clinical practice. We Rere we propose an easy method with an additional handmade Nelaton cap applied at the anvil tip of the stapler. Through this instrumental modification of the instrument, we may perform pulmonary vessel stapling without the aids of an introducer and reduce the possibility of vascular injury during the looping and the dividing of the pulmonary vessels by the staplers with using a safer and lower cost method.

#### Introduction

Pulmonary vessel dissection was is the most technically "demanding part in of thoracoscopic pulmonary lobectomy, and the surgical technique used for it has evolved much greatly with the development of new instruments. Since the commercialization of the flexible Endo "GIATM, and applying to the application of the anul to the pulmonary vessel was much cusicr from optimal directionshas become optimized. However, it is still aremains critical concern during surgery to put pass the anul of the stapler pass through the pulmonary vessels, and various methods was reported, such as the Penrose drain tube, or Nelaton tube tubeguided [1] methods have been reported. The current product [2], a curved—tip stapler, was invented from the proto-type of a long guiding tube placed over the stapler tip. There are still both methods have concerns and drawbacks with both methods and both methods and require further modifications. We here we propose and invente a new design we invented in our recent daily practice which that is now our most preferred approach for to pulmonary vessel stapling.

# 怎样把格式写得更漂亮





# The Journal of Organic Chemistry

#### **Author Guidelines:**

http://pubsapp.acs.org/paragonplus/submission/joceah/joceah\_authguide.pdf?

#### Standard Abbreviations and Acronyms:

http://pubsapp.acs.org/paragonplus/submission/joceah/joceah\_abbreviations.pdf?

#### Compound Characterization Checklist:

https://pubs.acs.org/page/joceah/submission/ccc.html

#### **Crystallographic Information File:**

https://pubs.acs.org/page/joceah/submission/cif.html



## Organic Letters

#### **Overview:**

https://pubs.acs.org/page/orlef7/submission/authors.html

#### **Author Guidelines:**

http://pubsapp.acs.org/paragonplus/submission/orlef7/orlef7\_authguide.pdf?

#### **Common Abbreviations & Formatting Checklist:**

http://pubsapp.acs.org/paragonplus/submission/orlef7/orlef7\_abbreviations\_checklist.pdf?

#### FORMATTING CONVENTIONS

- Reagents and solvents are lowercase in <u>all</u> text, tables, and graphics:
  - toluene
  - acetone
- $\square$  Trade names and proper nouns are capitalized in <u>all</u> text, tables, and graphics:
  - PhenoFluor
- Compound numbers are **bolded** in <u>all</u> text, tables, and graphics:
  - compound 5
  - compounds 6a-j
- ☐ Space before <u>and</u> after mathematical operators:
  - 5+7
    - time = 5 h
- No space between mathematical symbols and numbers:
  - **<**50
  - **45**%
  - 1:9

#### TABLE FORMATTING

#### Sample Table

entry	acid	cat. (mol %)	solvent	time (h)	compd	yield (%)
1	3a	<b>2</b> (5)	$CH_2Cl_2$	12	1a	35
2	3a	6 (20)	MeOH	24	1b	72

- Column headings:
  - Lowercase
  - Light gray background shading (select gray 15% in Word)
- ☐ Units of measure next to column headings acceptable formats:
  - Parentheses: yield (%) time (h)
  - Comma: yield, % time, h
  - Slash: yield/% time/h

☐ No lines

#### **SCHEME FORMATTING**

#### Sample Scheme

- ☐ Font either Arial or Helvetica in structures and text
- ☐ Reagents and conditions are above/below arrows
- $\square$  No punctuation at the end of line(s)
- ☐ Acceptable formats for yield:
  - In parentheses after compound name:
     4c (79%)
  - Below compound name without parentheses: 3a
     85%

# 致某位 ACS期刊编辑 Dear Professor XXX

# Cover Letter 投稿信

## 标题是什么,并提及投稿的期刊

We wish to submit our manuscript "TITLE" for publication in ACS XXXX Journal.

## 研究工作的重点和亮点 (a synopsis of the article)

We describe a new, non-natural enzyme-catalyzed reaction, aziridination of olefins via intermolecular nitrene transfer.

We discovered that a variant of cytochrome P450BM3 used in our previous studies of intermolecular sulfimidation also catalyzes aziridination.

We were able to improve this activity more than 50-fold and the enantioselectivity of enzyme-catalyzed aziridination was improved to 99% ee for a range of styrenyl substrates. (有亮点的关键性数据)



#### ACS Paragon Plus

# 注册 ACS ID 登录投稿平台

#### Our Login Process Has (

You must have an ACS ID to log in to Show Me What To Do | Frequently

## Log in here if you have an ACS ID

# Password Log in with ACS ID Forgot your ACS ID or Password? Need Help?

#### **Checklist for Submission:**

- Title

Don'

- Abstract
- Manuscript File (.doc, .pdf)
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# 4 学术道德与同行评议





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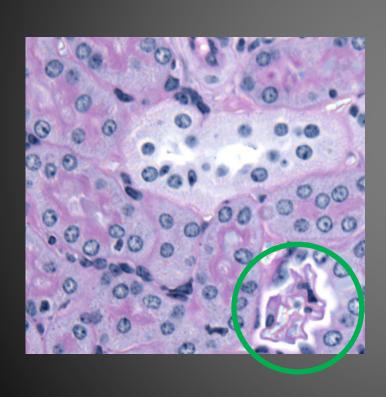
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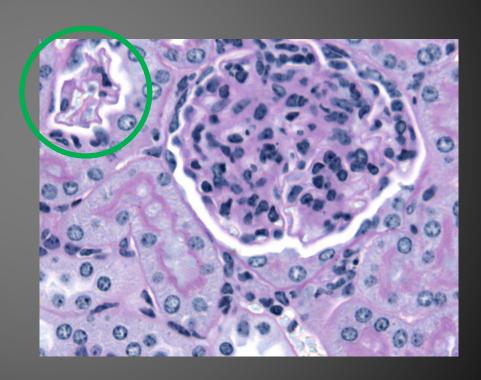
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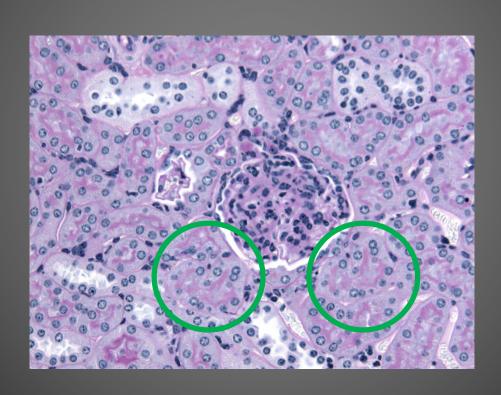
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- 3. Incorrect analysis 错误的分析
- 4. Accidental ethical violations 意外违反学术道德
- 5. Intentional ethical violations 故意违反学术道德



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ADDITION / CORRECTION This article has been corrected. View the notice.

#### Photocatalytic Gas Phase Reactions

Murielle Schreck and Markus Niederberger\*

Cite This: Chem. Mater. 2019, 31, 3, 597-618 Publication Date: January 16, 2019 > https://doi.org/10.1021/acs.chemmater.8b04444 Copyright © 2019 American Chemical Society

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Murielle Schreck and Markus Niederberger\*

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In our review on photocatalytic gas phase reactions, we should have included in Section 3.2, Specific Examples from Literature, the work of Ozin and coworkers. The topic of this particular section is how to increase the efficiencies of photocatalytic gas phase reactions. Since their first papers in 2014,(1,2) Ozin and co-workers have been significantly contributing to the field of photocatalytic gas-phase reduction of CO2 to chemicals and fuels, addressing different aspects like selectivity, the role of residual carbon contamination on the sample, influence of illumination, batch vs flow reactors, surface chemistry of the photocatalysts, or photothermal effects. (3-5)

#### References

ARTICLE SECTIONS

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This article references 5 other publications.

1. O'Brien, P. G.; Sandhel, A.; Wood, T. E.; Jelle, A. A.; Hoch, L. B.; Perovic, D. D.; Mims, C. A.; Ozin, G. A. Photomethanation of Gaseous CO2 over Ru/Silicon Nanowire Catalysts with Visible and Near-Infrared Photons. Adv. Sci. 2014, 1, 1400001, DOI: 10.1002/advs.201400001 [Crossref], [CAS] [Google Scholar]







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#### Mechanical Reconfiguration of Stereoisomers

Kelly M. Wiggins<sup>†</sup>, Todd W. Hudnall<sup>†</sup>, Qilong Shen<sup>‡</sup>, Matthew J. Kryger<sup>‡</sup>, Jeffrey S. Moore<sup>‡</sup> and Christopher W. Bielawski\*†

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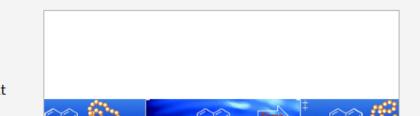
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## Abstract

Poly(methyl acrylate) of varying molecular weight was grown from the enantiopure ditopic initiator (R)- or (S)-1,1'-binaphthyl-2,2'-bis-(2bromoisobutyrate). Subjecting CH<sub>3</sub>CN solutions of high-molecular-weight derivatives  $(M_N > 25 \text{ kDa})$  to sonication at 0 °C resulted in >05%



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#### Retraction of "Mechanical Reconfiguration of Stereoisomers"

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# Retraction







Based on an investigation conducted by The Office of Research Integrity at The University of Texas at Austin, it was determined that the data and scientific conclusions of this article are unreliable as a result of scientific misconduct by one of the co-authors affiliated with the University at the time of its publication. The authors retract this article accordingly.

The original paper was published February 18, 2010 (*J. Am. Chem. Soc.***2010**, *132*, 3256–3257. DOI: 10.1021/ja910716s), and retracted March 11, 2015.

This publication has no figures.



# Retraction of "Mechanical Reconfiguration of Stereoisomers"

Kelly M. Wiggins, Todd W. Hudnall, Qilong Shen, Matthew J. Kryger, Jeffrey S. Moore, and Christopher W. Bielawski\*

J. Am. Chem. Soc. 2010, 132, 3256-3257. DOI: 10.1021/ja910716s

Based on an investigation conducted by The Office of Research Integrity at The University of Texas at Austin, it was determined that the data and scientific conclusions of this article are unreliable as a result of scientific misconduct by one of the co-authors affiliated with the University at the time of its publication. The authors retract this article accordingly.

The original paper was published February 18, 2010 (J. Am. Chem. Soc. 2010, 132, 3256-3257. DOI: 10.1021/ja910716s), and retracted March 11, 2015.

#### **Retraction:**

基于德克萨斯大学奥斯汀分校诚信研究 办公室进行的一项调查,在发表这篇文章时,由于该大学的一名联合作者在科学上的不端行为,因此确定这篇文章的数据和科学结论是不可靠的。作者据此撤回了这篇文章。

#### Electronic Supporting Information

This paper was retracted on March 11, 2015 (J. Am. Chem. Soc. 2015, 137, DOI: 10.1021/jag8.5b01988).

#### Mechanical Reconfiguration of Stereoisomers

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Department of Chemistry & Biochemistry, The University of Texas, Austin, Texas 78712 Department of Chemistry, University of Illinois at Urbana-Champaign, IL 61801

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SI

Grazzal Considerations. (5)-, (8)- and rur-1,11-hisspirity/-2,21-his-(2-homoindustriate),1 (5)-1,11-broughthyl-2-ol-2-pixalate1 and (5)-1,11-broughthyl-2,21-bro-(pivalate) was prepared following literature procedures. All other charactel reagents were purchased from commercial merces and used without additional purification, All everbases were performed under an inert atmosphere of nitrousn using standard Schlink. techniques or in a nitrogen-filled drybes. Solvente were dited over 3A melecular sicion or Al<sub>2</sub>O<sub>3</sub> and decognosted (via a Q5 catalyet) using a Vacuum Atteorphores Congular solvent partication system (Model No. 107991), and then subesquently stored two reclocular sievos (1A) in a drybus. "Il and "C NMR data wore collected on Various Listry INOVA 400 MHz and Varian Moroury 200 MHz spectrometers. Chemical shifts 686 are reported to pore and are referenced deverfield from pCHc) to using the standard oction, 7.24 post for 'H and 77.0 post for 'C NMR. respectively). Sociation experiments were carried out under argonizing a Sociat & Materials VC-505 Liquid Cell Ultrasonic processor operating at 20 falls appropriately at 124 mm replaceable by interest print. Centern Socials cells were better and a facility of the processor of the contrast of the cells UV-via spectra wate recorded using a Perkin Elmer Instruments Lambda spectrometer CD spectra ware recorded on a large 3-615 CD apactrometer. Highprodution mass spectra (HRMS) were obtained with a VO analytical ZARS-6 instrument (Cl). Howartal analysis were performed at Midway Microlab, £1.0 (Bullanapolis, DV). Thomographenic analyses (TGA) were performed soling a Metiler-Teledo TGA/SDTARS14 under an atmosphere of N<sub>2</sub> at a temporature scan rate of 10 °C min' Gel permantion chromatography (GPC) and medicated on a Visconk system equipped with a VK 1122 pump, a VK 7510 degrees; this fluctuated polystyrane columns (5-MHH+-670 and 5-MHE-MW-670); thereogened a N ≈ C (using a ELDEX CH 150 culum haster) and arranged in series. Medicular mights and polyaloperony data are reported relative to polyaryme diseducts in terrallydrollams (TSF). Optical strate-in measuraments were philament forms as NT-ARD APPSO automate polarization.

(5)-LF-Binaprityl-J (pirature)-J'-(2-brome-industryrate). To a stirral solution of (5)-1,1'-biasphthyl-2-ol-2'-picking (100 mg, 0.27 mosel) and methylamine (0.05 ml., 0.36 menol) in ClibCla (LinL) creded to 6 °C was added dropwine 2-brome-coducy rythromide (6.04 ml., 6.36 world). The creating suspension was allowed to slowly warm to ambient compensating and their strong for an additional 20 h. After diluting the resulting reaction microso with additional CBEC), until the total volume was 20 mL, it was poured slowly tornics cold teger (20 ml find stime for 30 min. The organic layer was then reputated and the associat phase was extracted with CH(Ch (5 × 10 mL). The combined segmic layers were marked with a summand solution of NaHCO<sub>2</sub> (1 × 20 mL), deted over Marking and then proved ever a short plug of neutral attention. The solvent was removed under sudwed pressure to afford the desired product as a white powder (120 mg, 6.2) mmol) in 85% yield map. 126-122 °C. "H NMR (CDC), 400-27 MHz): 8-0-72 (s. 91). pay-CM9, 1.25 p., 301, CBr-CW1, 1.46 pr. 3H, CBr-CW1, 7.26-7.36 pn. 3H, Ar-CW1, T302-7.50 pp. 301, Ar-CW1, 7.91 pr. 57 – 8.0 Hz. 3H, Ar-CW1, 7.95 pt. 57 – 8.8 Hz. 3H.

Sociation of an Utratigh Molecular Weight Polymer. It has been pryviously observed that high molecular weight polymers are subject to degradation upon merication.1 Subjecting an ultrahigh melocular weight polymer (M., = 2.8 MHs. PDR = 1.36; prepared from S<sub>1</sub> ([mothy/ acrylate],/[S<sub>ch</sub> = 53,680) to constation in CN<sub>2</sub>CN for 24 h of Kindod a maneral with a significantly induced molecular weight ( $M_{\odot}$  = 156 kDe (PRO) = 1.90; sac Figure 510) but a minimal loss in its CD signal intensity. In this calls classings events may be occurring in non-chain centered locations along the polymer chains at a rate that is higher than isomerization of the uniholded bised revioles:



Figure S18. Gel permanten chromotograms of an ultrahigh teallicular weight polymer proposed from St and mothyl acrylers believ (black the  $20 \times 10^{-2}$  MDs, POS = 1.50) and after 24 h of being subjected to some stress in CRECN (and time:  $M_{\star} = 156$  kfm, POS = 1.00).

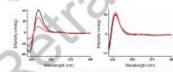


Figure SEL CER spectra of CHACK solutions of (A) (3)-2.2-binaphol (0.05 mg mL) and (i) (5)-1,1'-bingfithyl-2,2'-bis-pinalate) (0.05 raginsL) before (black) and after (red) fising heated in the molt (240 °C, sand both) for I and 65 h. The former sample showed a \$6% loss in CD signal imposity after 3 h and 73% loss after 65 h; no significant change in CERciprol intensity was observed in the latter sample even after being heated for 65 h.

Carrier, M. M., Ehren, D. A., Shan, Q., Okion, S. A., Solton, N. R., White S. R., Shore, J. S. Chew, Rev.

Attempts at Thormady Raconiding  $S_{\rm total}$ . The decomposition temperature of  $S_{\rm total}$ was determined to be 364 °C by TGA (Figure STA). A 50 ml. round feature flask was charged with  $S_{max}$  (100 mg), nitrogen purged PbyO (10 mL), and a etir flur, and thus fitted with a reflex condenser. After vigorously reflexing the resulting solution gader nitrogen in a could both thornoutsted to 270 °C for 72 h, it was pound into expen trachasel. The precipitated polymer was instead by filtration, dried under reduced pressure, and examined by CD spectroscopy in CH,CN (Figure STR).

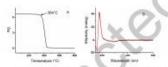


Figure A3. (A) TGA of Since under subsquare at a scar rate  $^{-}$  10  $^{\circ}$ C rate  $^{\circ}$ . (B) CD spaces of  $S_{\rm core}$  in CH<sub>2</sub>CN 30.4 mg/mL; below (Nink) and after (red) being reflexed in Ph<sub>2</sub>O for 72 at

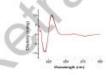


Figure S4. CD spaces of an end-functionalized PMA (M<sub>1</sub> = 90.5 kDs, PDI = 1.02). prepared from (S)-1, F-binapitally-12-(produte)-2'-(2-brons-isobutycate) and methyl acrylate in CH<sub>2</sub>CN (0.1 mg/ml.) before (black) and after (red) being subjected to sonication for 24 h.

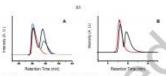


Figure S12. (A) IFFLC chromotograms of sur-2,2 designful (black), \$2,2 houghful (rad), \$2,2 houghful after being bound in Ph/O at 220 °C Sq 24 under an armoghese of simeges (blue). (B) HPLC chromotograms of suc-1. ("bingshits/52.2"-bis-conduct-(black), S-I,1'-biasphilyi-2,2'-bia-(pivalan) (salt, S-I,1'-biasphilyi-2,2'-bia-(pivalan) after being heated in PhyO at 220 °C for 24 h under an atmosphere of nitrogen (blue). BIFLC conditions: Chicalpuk OD column (250 x 4.6 gm); softwart: 5%-v-20% isopropunel in hexagos (VV), rate: 0.5 ral, rate, UV detection: 254 mm.

510

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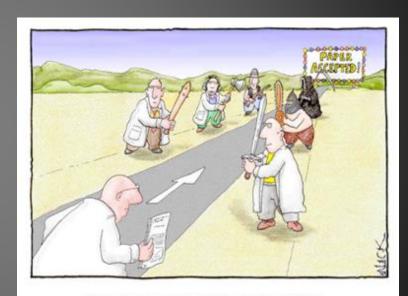
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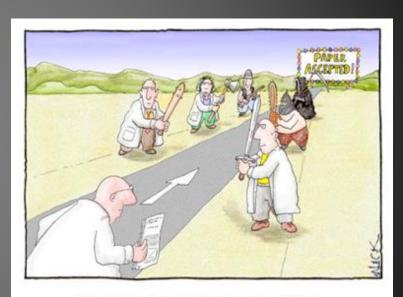
Most scientists regarded the new streamlined peer-review process as 'quite an improvement.'

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