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赵 璟
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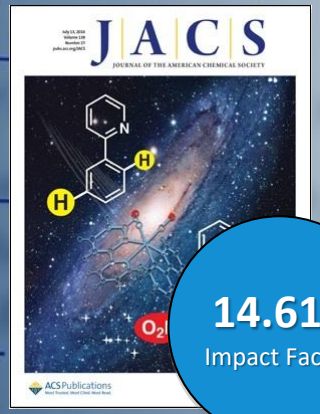
1870

1875

1879

1880

1885



14.612
Impact Factor

1905

JOURNAL

OF THE

AMERICAN CHEMICAL SOCIETY.

VOLUME I.

PUBLICATION COMMITTEE:

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

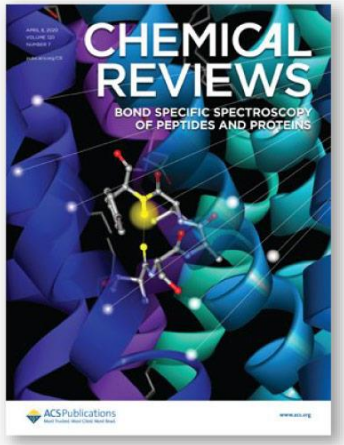
ABSTRACTORS:

P. T. AUSTEN,
J. P. BATTERSHALL,
ARNO BEHR,
E. H. S. BAILEY,
A. BOURGOUGNON,
P. CASAMAJOR,
H. ENDEMANN,
GIDEON E. MOORE,
EDGAR EVERHART,
JAS. H. STEBBINS, JR.,
GEO. A. PROCHAZKA.

综述期刊 Chemical Reviews / Accounts of Chemical Research
美国化学会志 Journal of the American Chemical Society

Chemical Reviews

期刊影响因子在多学科化学类别中名列第一，说明该期刊已成为各化学领域对重要成果展开全面评论的重要科学资源。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。



2019 IMPACT FACTOR

52.758

Accounts of Chemical Research

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。

2019 IMPACT FACTOR

20.832

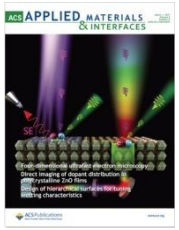
Journal of the American Chemical Society

美国化学会志 JACS 是化学领域中获得引用最多的期刊(2019年的引用数超过50万)，持续领先于其他主要的综合性化学期刊。

2019 IMPACT FACTOR

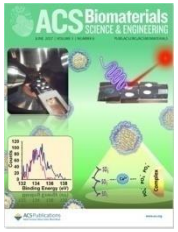
14.612

材料科学期刊 Materials Science

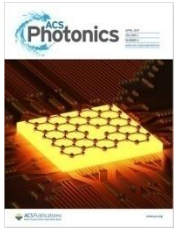


ACS Applied Materials & Interfaces
IF = 8.758

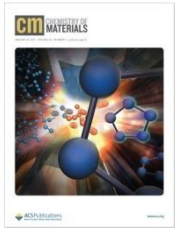
ACS NANO
IF = 14.588



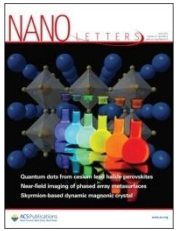
ACS Biomaterials Science & Engineering
IF = 4.152



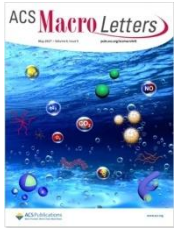
ACS Photonics
IF = 6.864



Chemistry of Materials
IF = 9.567

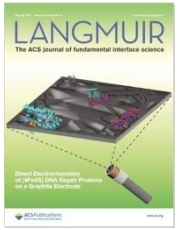


NANO Letters
IF = 11.238

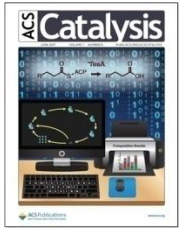


ACS Macro Letters
IF = 6.042

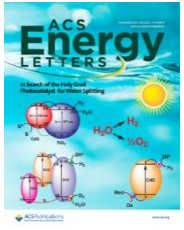
ACS Central Science
IF = 12.685



Langmuir
IF = 3.557



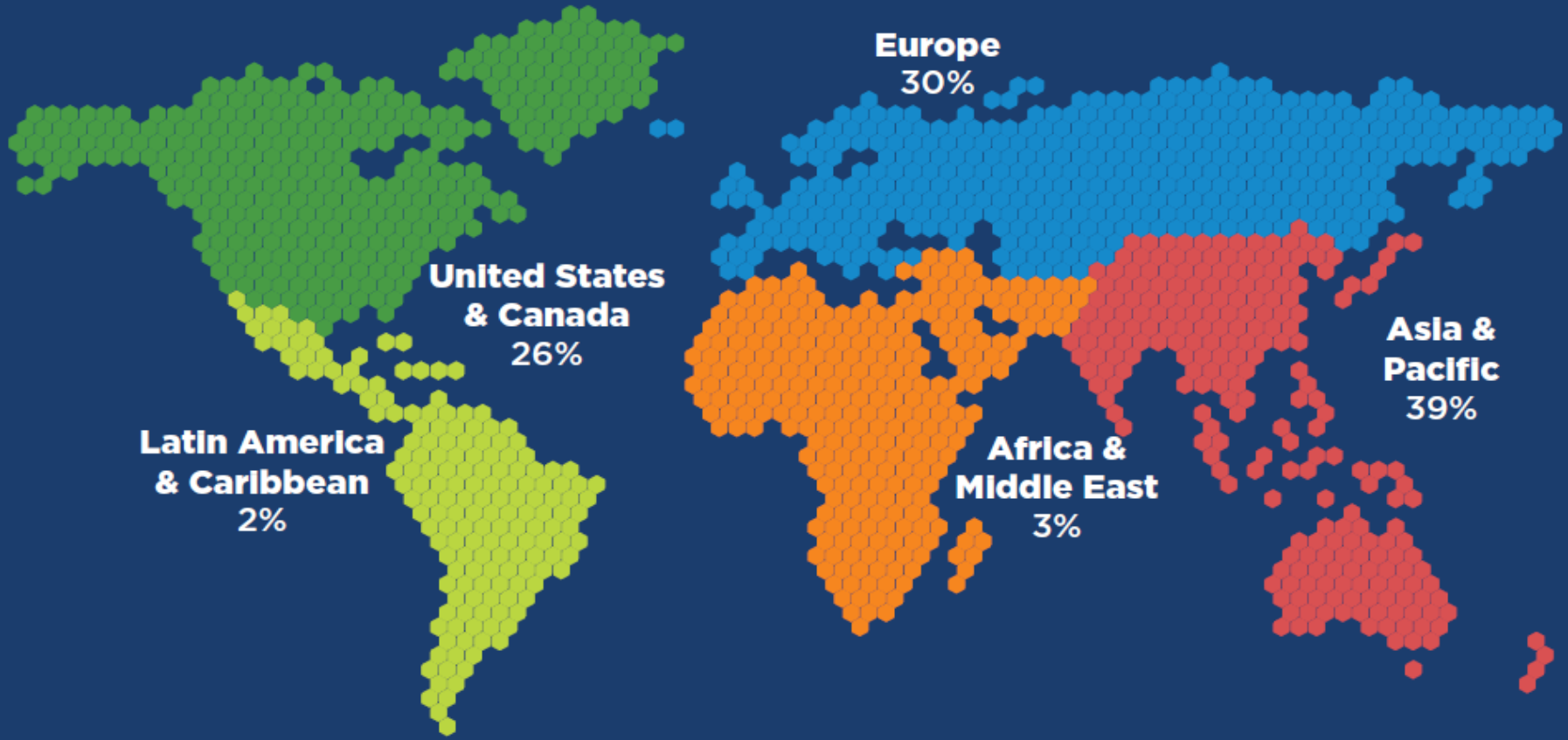
ACS Catalysis
IF = 12.350



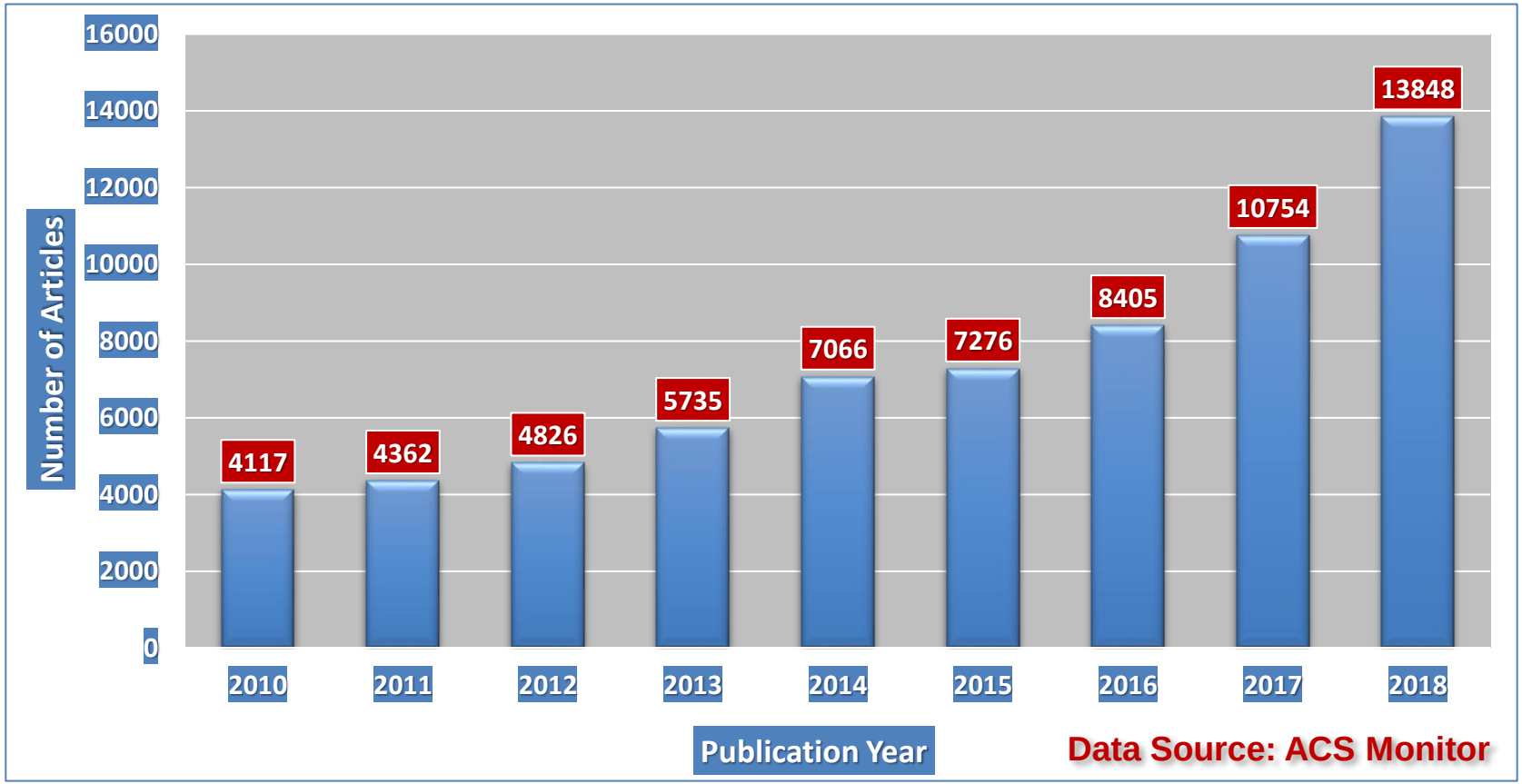
ACS Energy Letters
IF = 19.003

JACS
IF = 14.612

ACS Published Manuscripts by Author Origins in 2018



中国作者在ACS期刊的发文统计（2010 - 2018）



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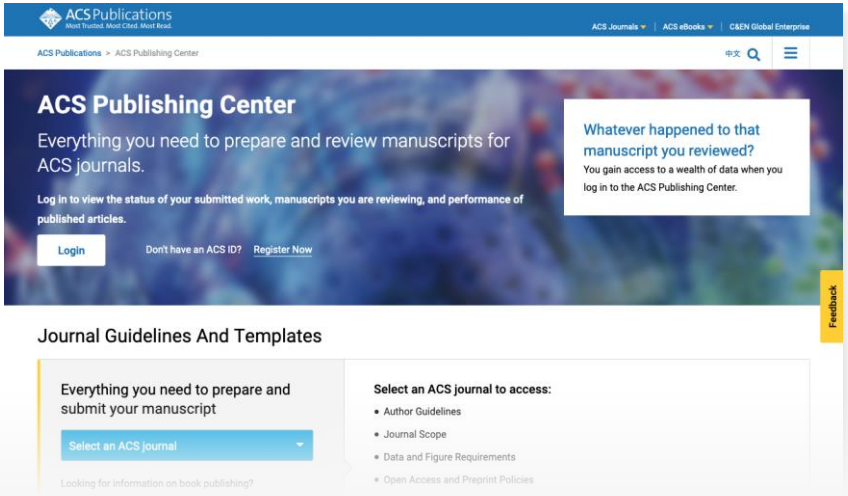

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3. 投稿指南

For Authors & Reviewers

Author Guidelines

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Permissions

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Open Access Options

For Reviewers

Submit Manuscript

4. 上传稿件

Submission

Step 1: Type, Title, & Abstract >

第1步:

稿件的文献类型, 标题, 摘要

Step 1: Type, Title, & Abstract

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* = Required Fields

* Type:

CHOICE	TYPE
○	Additions and Corrections
○	Article → 研究文献
○	Correspondence/Rebuttal
○	Letter → 快报
○	Perspective
○	Review → 综述

Submission

Step 1: Type, Title, & Abstract

Step 2: File Upload

Step 3: Authors & Institutions

Step 4: Reviewers & Editors

Step 5: Details & Comments

Step 6: Review & Submit

* Title → 标题

Preview | Ω Special Characters

0 OUT OF 400 CHARACTERS

* Abstract → 摘要

Write or Paste Abstract

Preview | Ω Special Characters

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If your paper is for a special issue, please select which issue:

Select...


Submission
Step 1: Type, Title, & Abstract
Step 2: File Upload
Step 3: Authors & Institutions
Step 4: Reviewers & Editors
Step 5: Details & Comments
Step 6: Review & Submit
Files
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0.00 OUT OF 244.14 MB
ORDER
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FILE
* FILE DESIGNATION
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UPLOADED BY
No files uploaded
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Remove All Files
Manuscript PDF
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FILE DESIGNATION
Select File 1 ...
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Web Enhanced Object
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Select File 4 ...
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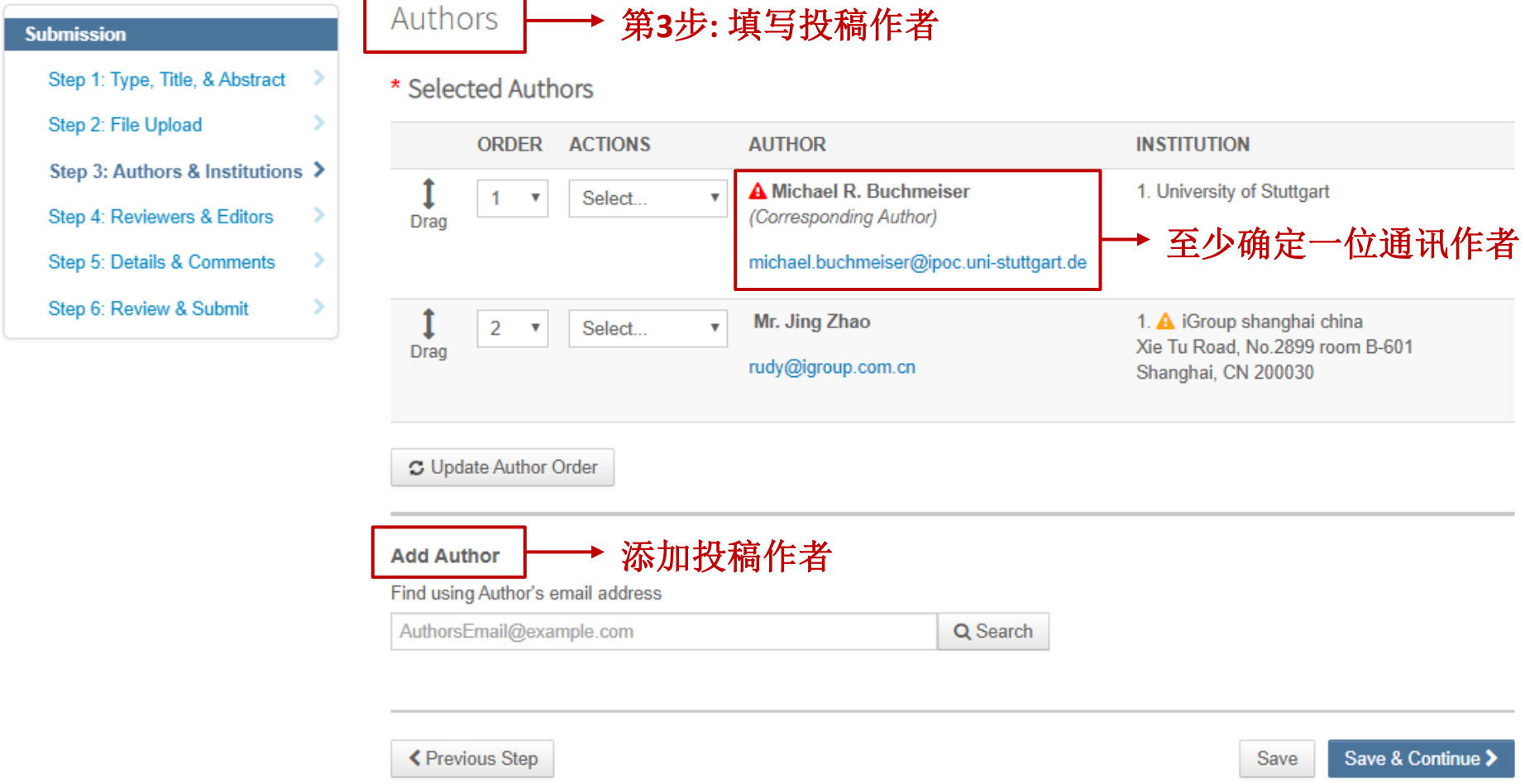
Select File 6 ...
Choose File Designation ...


Submission
Step 1: Type, Title, & Abstract
Step 2: File Upload
Step 3: Authors & Institutions
Step 4: Reviewers & Editors
Step 5: Details & Comments
Step 6: Review & Submit
Authors
第3步: 填写投稿作者
* Selected Authors
ORDER
ACTIONS
AUTHOR
INSTITUTION
Drag
1
Select...
Michael R. Buchmeiser
(Corresponding Author)
michael.buchmeiser@ipoc.uni-stuttgart.de
1. University of Stuttgart
至少确定一位通讯作者
Drag
2
Select...
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rudy@igroup.com.cn
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Find using Author's email address
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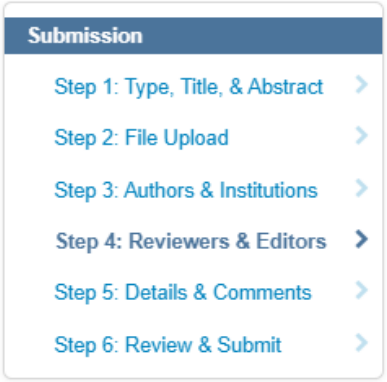

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审稿人

RECOMMENDED: 0 OUT OF 6 MIN

ACTIONS	PREFERENCE	REVIEWER	INSTITUTION

Add Reviewer

* Preferred Editors

了解期刊的编辑

RECOMMENDED: 0 OUT OF 1 MIN

ACTIONS	PREFERENCE	EDITOR	INSTITUTION

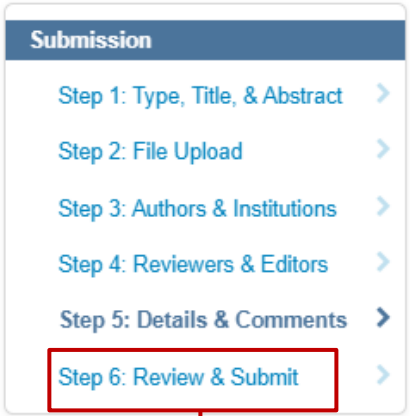
Add Editor

编辑的名字与机构

Select Editor(s)

SELECT	EDITOR	INSTITUTION
Select	Banin, Uri	Hebrew University of Jerusalem Institute of Chemistry and the Center for Nanoscience and Nanotechnology

Reason 0 OUT OF 100 CHARACTERS



第6步:

Review & Submit

审核填写信息

完成稿件提交

Step 5: Details & Comments

第5步: 填写其它信息

Cover Letter

Funding

Conflict of Interest

Unpublished Work

Graphics Software

Previous Submission

Confirm Ethical Guidelines

* Cover Letter

Write Cover Letter

Preview | Ω Special Characters

0 OF 32768 CHARACTERS

Upload Cover Letter

1. Select File | 2. Attach File

Funding

Is there funding to report for this submission?

Yes | No

Funders

ACTIONS	FUNDER	GRANT / AWARD NUMBER
No Funders Entered		

Add Funder

ACS 期刊的审稿时间

- *ACS* 期刊的审稿时间是多久？

答：对于不同的 *ACS* 期刊，审稿时间长度略有不同。
通常来说，审稿得到回复的时间在 4 - 6 周， Letters 稿件更快 1 - 2周。
*OA*开源期刊 *ACS Omega*，从投稿到最终出版，只要 4 周。

ACS 期刊的投稿选择

- *ACS* 的顶级期刊：*JACS, Chemical Reviews, ACS Central Science* (通常IF > 10)
- *ACS* 的专业科学期刊：有机化学 *JOC* 分析化学 *Anal. Chem.* 环境 *EST*
  农业与食品化学 *JAFC* 高分子 *Macromolecules* 物理化学 *JPC A, B, C ….*

SCI 科技论文基本结构

前段

中段

后段

标题，摘要，图片，语言
投稿信 Cover Letters

Title 起一个引人注目的标题

- 简明扼要，通常是名词性的短语结构
- 避免 复杂且难以理解的缩写：B97-1，DEF2Y

  复杂的语法，命名或分子式：$[(PBO)Pd(NCMe)_2][OTf]_2$

  难以证实的断言或者主观的词语： “First”, “Only”, “Novel” …

  把标题写成设问句： “Why …… ?”
- 表达： TOPIC - focussed (What is it about ?)

  RESULT - focussed (What did we find ?)

Abstract 摘要

ACS Abstract Guide 摘要的组成

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 Cu^{2+}. The particles scavenge any Cu^{2+} in solution and are then magnetically drawn back to the macroelectrode where the Cu^{2+} 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

Article

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

Katherine L. Walker†§, Laura M. Dornan†‡§, Richard N. Zare†, Robert M. Waymouth*†, and Mark J. Muldoon*‡

† Department of Chemistry, Stanford University, Stanford, California 94305, United States

‡ 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

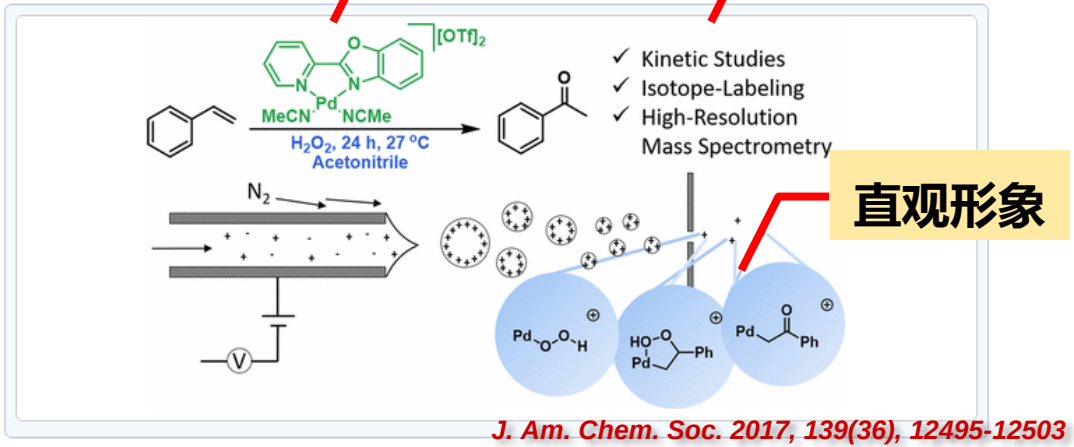
Publication Date (Web): August 29, 2017

*waymouth@stanford.edu, *m.j.muldoon@qub.ac.uk

主要步骤

主要方法

Abstract

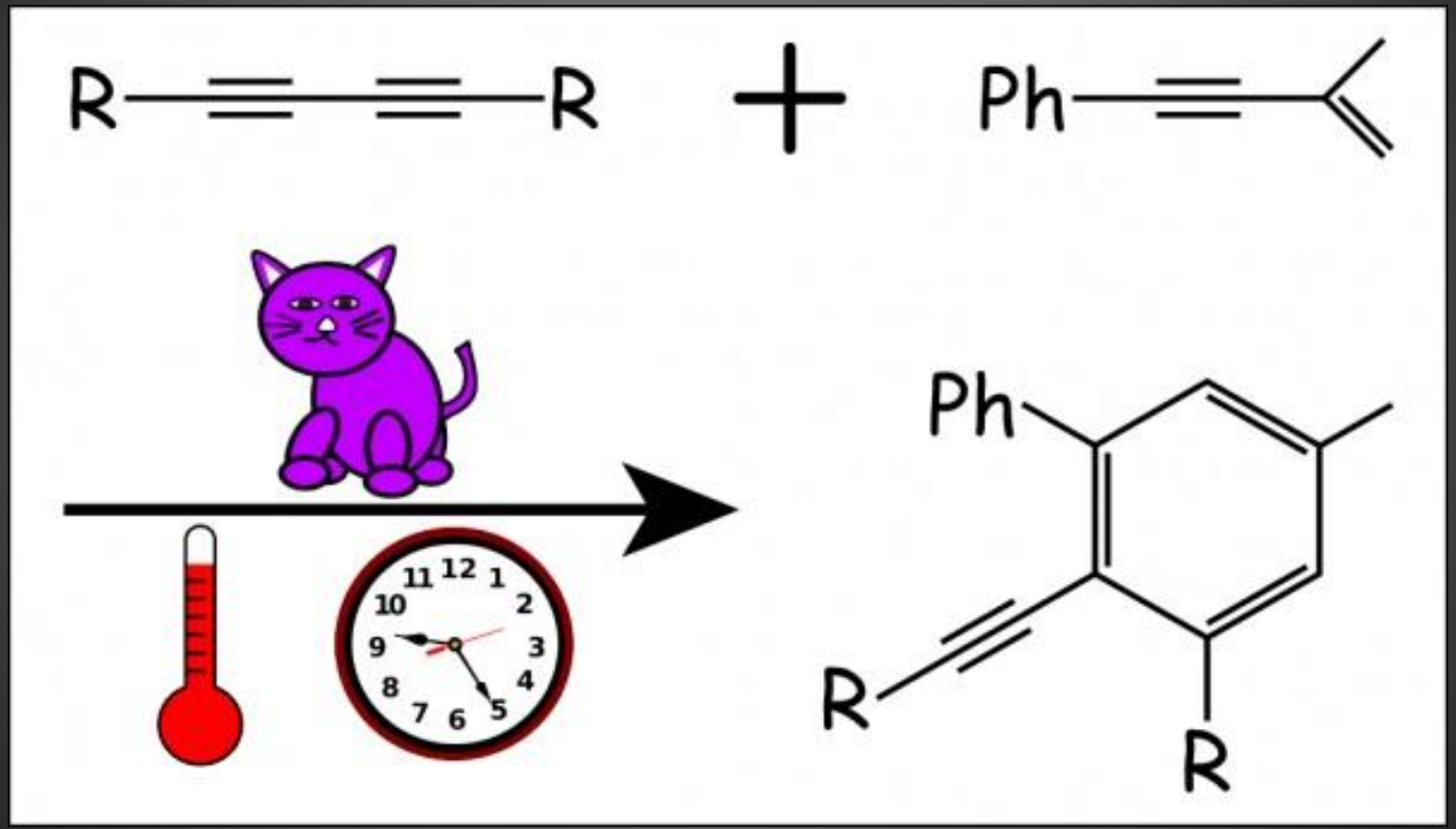


直观形象

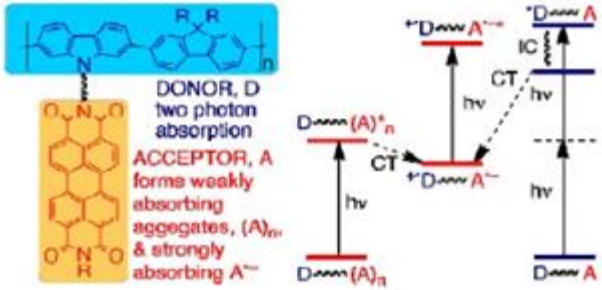
J. Am. Chem. Soc. 2017, 139(36), 12495-12503

您能理解到这幅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？？？）

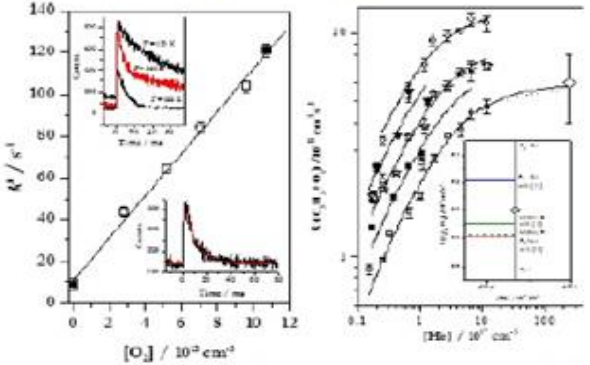


GOOD GRAPHICS



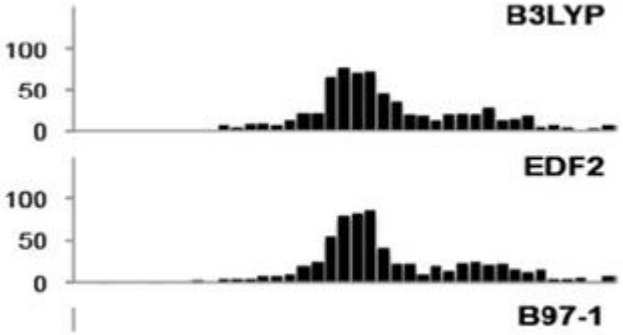
This graphic has a good balance of images and description. All of the type is crisp and easy to read.

POOR GRAPHICS

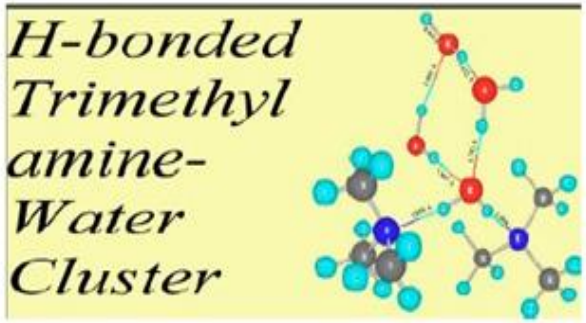


Graphic is very cluttered and most of the fonts are too small or faint to be readable.

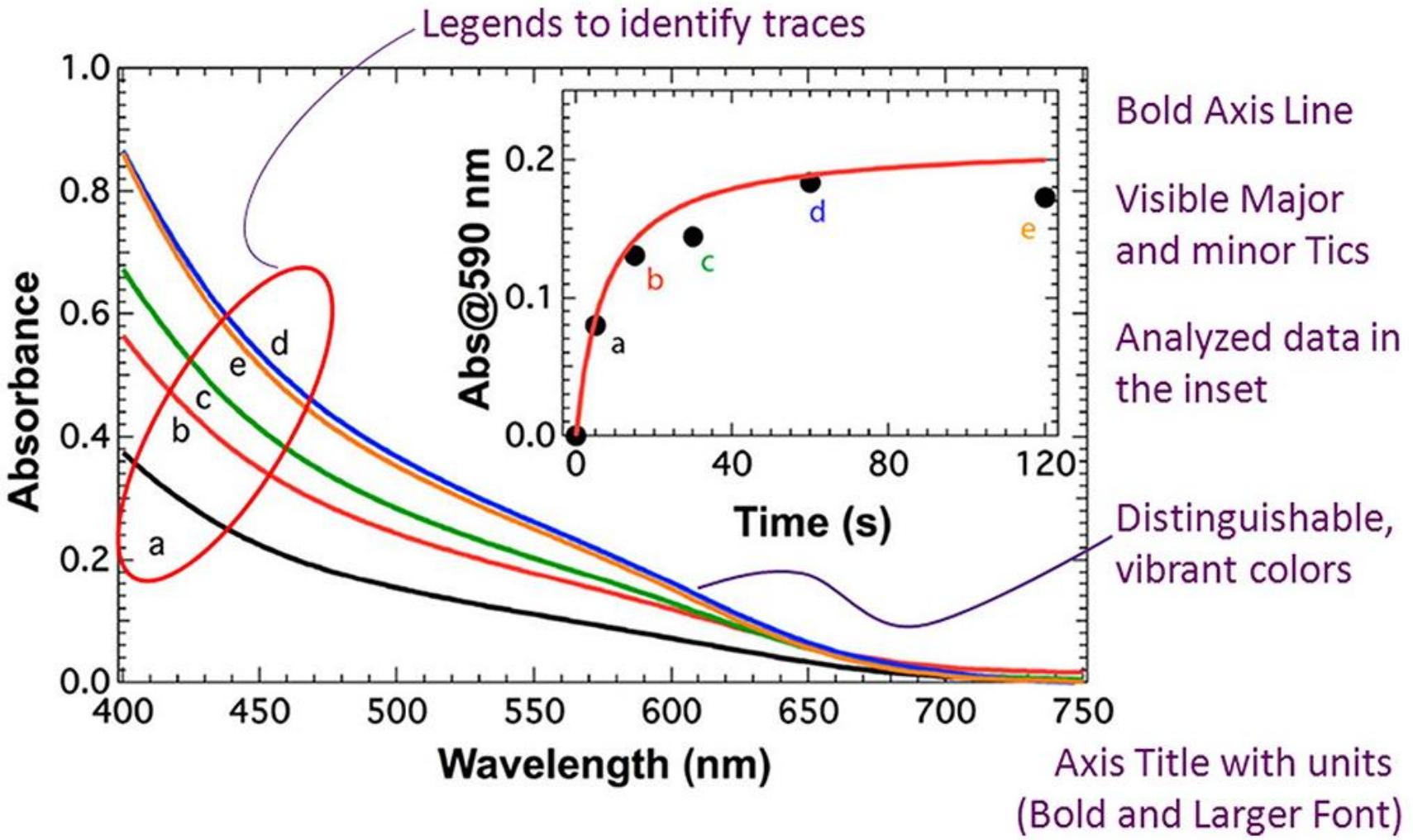
POOR GRAPHICS



Graphic is uninteresting and not informative.



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


Legends to identify traces
Absorbance
Wavelength (nm)
Abs@590 nm
Time (s)
a
b
c
d
e
Bold Axis Line
Visible Major and minor Tics
Analyzed data in the inset
Distinguishable, vibrant colors
Axis Title with units (Bold and Larger Font)

Minimum Resolution:

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

Size:

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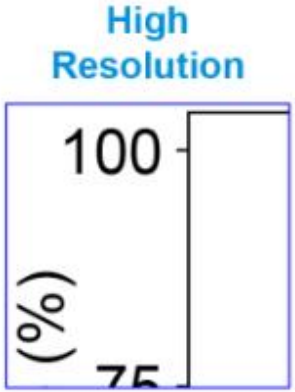
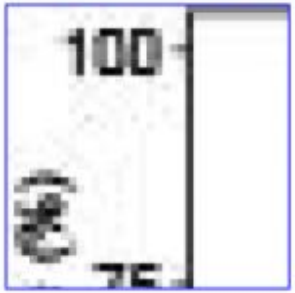
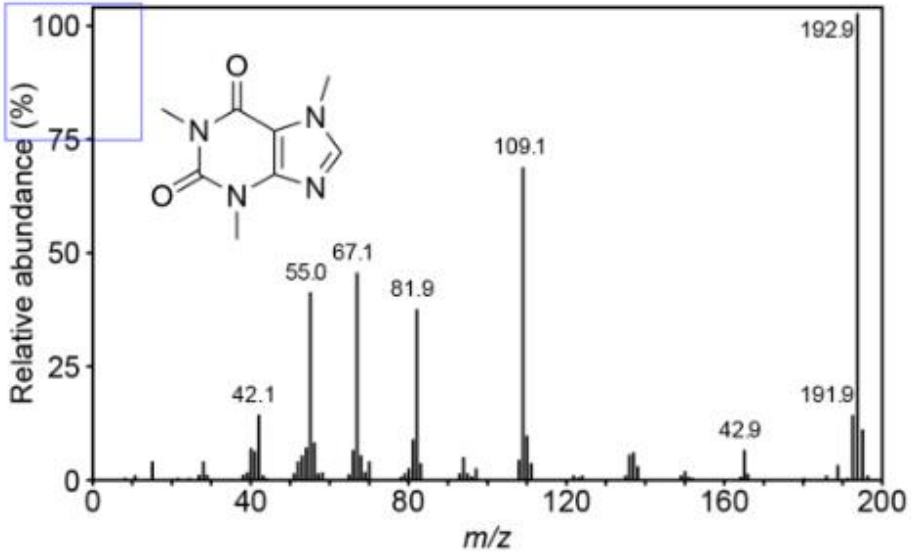
240 points wide
double-column graphics
300 and 504 points
maximum depth
660 points
Caption
12 pts
Fonts
Helvetica or Arial



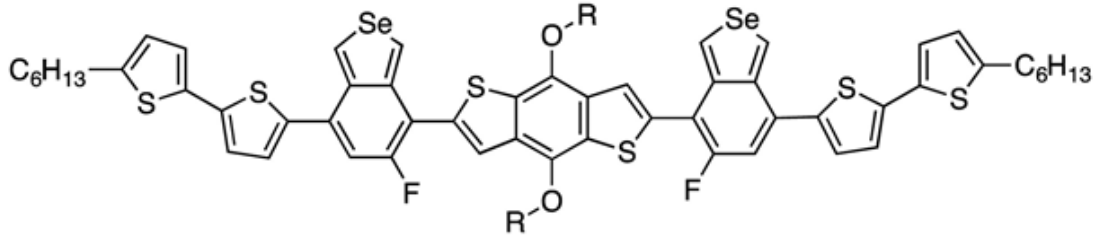
High Resolution



Unacceptable Resolution



Good: ACS document setting (Helvetica)



Materials (Arial)
Materials (Helvetica)
Materials (Times)
Materials (Times New Roman)
Materials (Calibri)

Question: "Which font looks best in a scientific figure?"

Answer: "Arial or Helvetica, always."

Times is a 'serif font ○ = serif

Helvetica is a sans-serif font

A

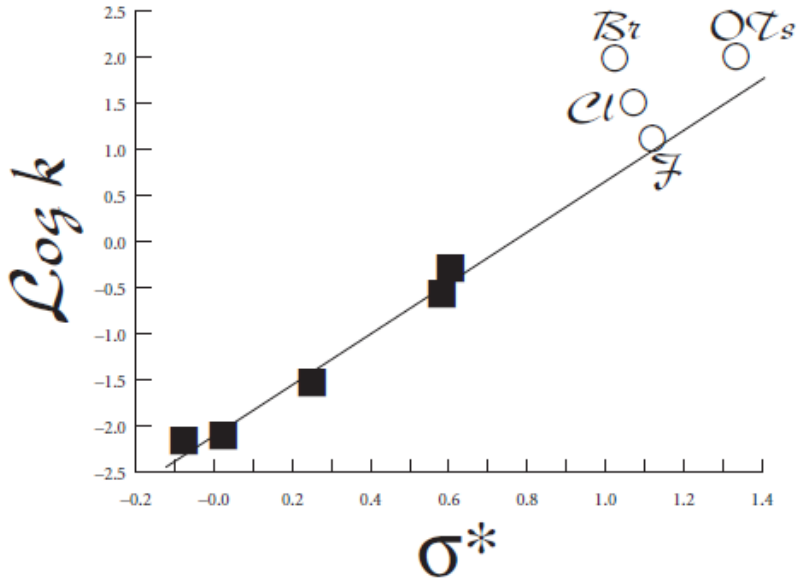


Figure 15-2. (A) Example of a poorly rendered line graph, with lines that are too thin, a type font that is too ornate, and type and symbols that are sized disproportionally to the figure. (B) Example of the same line graph properly rendered.

Source: Adapted from Alunni, S.; De Angelis, F.; Ottavi, L.; Papavasileiou, M.; Tarantelli, F. *J. Am. Chem. Soc.* **2005**, *127*, 15151–15160. Copyright 2005 American Chemical Society.

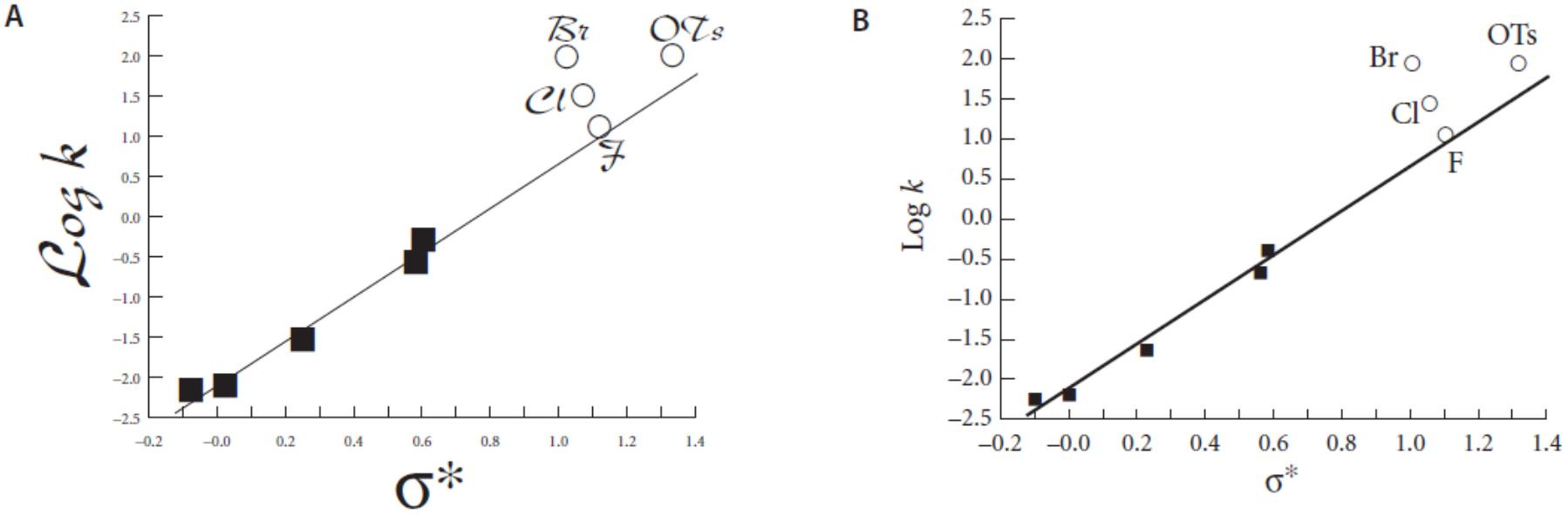


Figure 15-2. (A) Example of a poorly rendered line graph, with lines that are too thin, a type font that is too ornate, and type and symbols that are sized disproportionally to the figure. (B) Example of the same line graph properly rendered.

Source: Adapted from Alunni, S.; De Angelis, F.; Ottavi, L.; Papavasileiou, M.; Tarantelli, F. *J. Am. Chem. Soc.* **2005**, *127*, 15151–15160. Copyright 2005 American Chemical Society.

怎样把格式写得更漂亮

ORGANIC LETTERS – COMMON ABBREVIATIONS & FORMATTING CHECKLIST

(For additional abbreviations & formatting details, see the ACS Style Guide and *Organic Letters* Author Guidelines)

COMMON ABBREVIATIONS

Abbreviation	Term/Description	Example	Note
Å	angstrom	4 Å	Space between # and Å
aq	aqueous	aq	No period
°C	degrees Celsius	100 °C	Space between # and °C
cat.	catalyst	cat.	With period
compd	compound	compd **5**	No period
ee	enantiomeric excess	ee	No periods – Add 's for plural – e.g. ee's
eq	equation	eq 7	No period – Add s for plural – e.g. eqs 2-4
equiv	equivalent	2 equiv	Space between # and equiv – No period
h	hour	6 h	Space between # and h – No period
min	minute	20 min	Space between # and min – No period
mol	mole	10 mol %	Space between mol and %
quant	quantity	quant	No period
ref	reference	ref 3	No period – Add s for plural – e.g. refs 3-5
rt	room temperature	rt	No period
t	temperature *or* time	*t*	No period – *Italicized*
temp	temperature	temp	No period

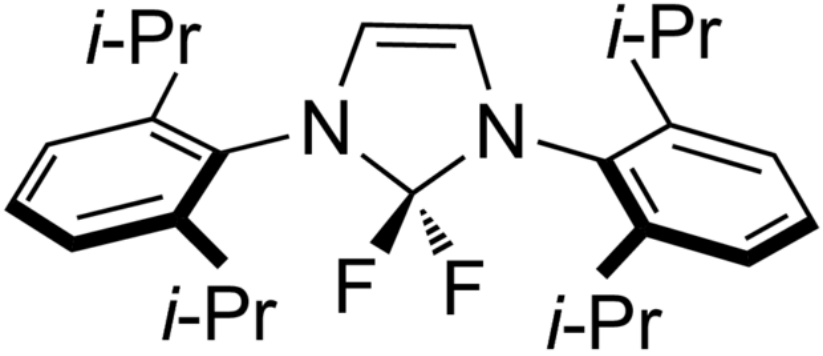
FORMATTING CONVENTIONS

☐ Reagents and solvents are lowercase in all text, tables, and graphics:

- toluene 甲苯 toluene
- acetone 丙酮 acetone

☐ Trade names and proper nouns are capitalized in all text, tables, and graphics:

- PhenoFluor



Synonym:
1,3-Bis(2,6-diisopropylphenyl)-2,2-difluoro-4-imidazoline

TABLE FORMATTING

Sample Table

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

☐ Column headings: 首行：小写，gray 15%

- 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

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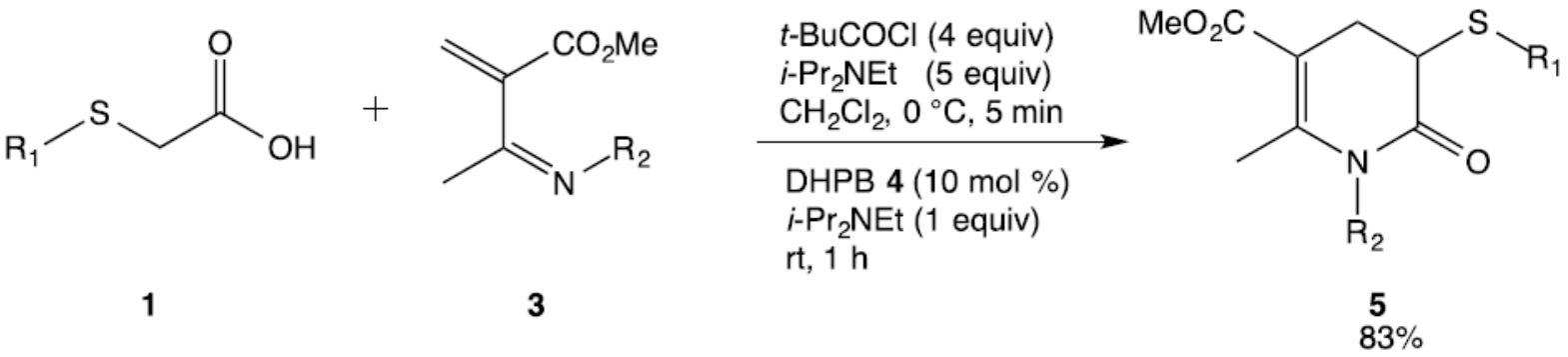
SCHEME FORMATTING

Sample Scheme



1 **3** **5** 83%

- ☐ Font either Arial or Helvetica in structures and text
- ☐ Reagents and conditions are above/below arrows
- ☐ 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%

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A list of acceptable software formats for each File Designation is provided below. Files that are not in an acceptable format will be rejected by the ACS Paragon Plus system.

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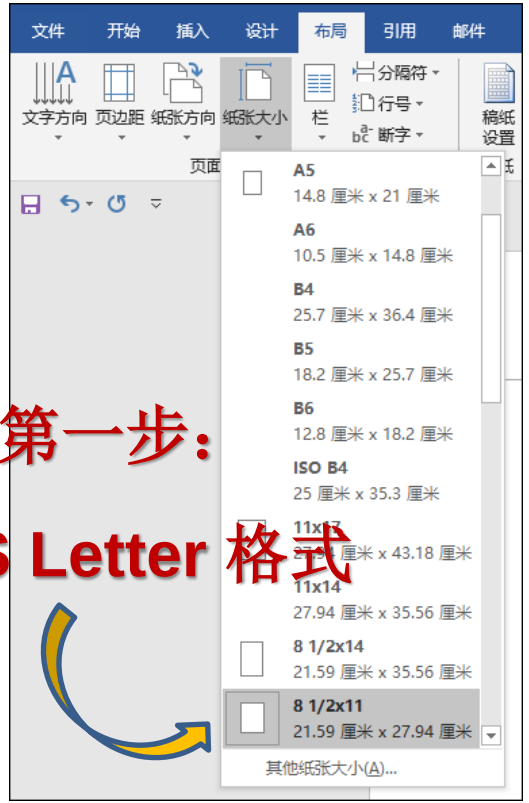
Microsoft Word 98 or higher (Mac)	.doc, .docx, .dot, .rtf
Word Perfect up through version 9 (PC)	.wp, .wpd, .rtf
Word Perfect 3.5 (Mac)	.wp, .rtf
TeX/LaTeX/REVTeX	.zip

Manuscript PDF File	File Extension
Portable Document Format	.pdf

Graphic for Manuscript	File Extension
Tagged Image File Format	.tif
Portable Document Format	.pdf



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Cover Letter 投稿信

致某位 ACS期刊编辑
Dear Professor *XXX*

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. （具有亮点的关键性数据）

Cover Letter 投稿信

为什么自己的研究工作适合该期刊？

This work should be of interest to the broad audience that ACS XXXXX Journal wishes to reach. It touches on evolution ---- how new enzyme Activities can appear and be improved through evolution ---- as well as Inorganic catalysis, biocatalysis, and chemical synthesis.

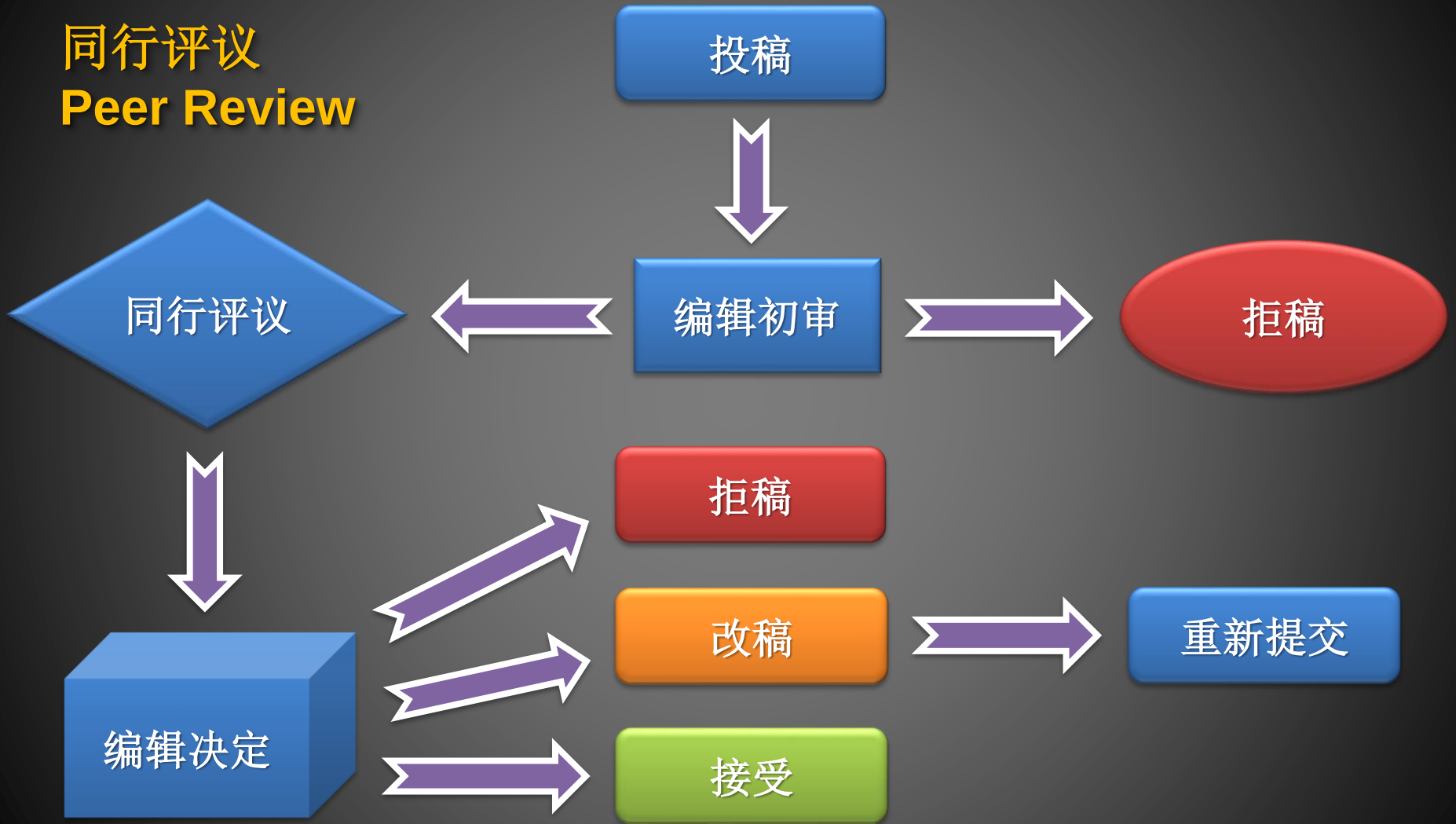
通讯作者（详见期刊指南里有关投稿信的部分）

Name of the Corresponding Author
postal and e-mail addresses, telephone and fax numbers

其它

A point-by-point response to reviewer comments (for resubmissions and transfers after peer review) 转投另一期刊时，附上之前评审人的意见

同行评议
Peer Review



External Review 外审

What Are the Editors Looking For?

– **Appropriate Scope 符合范围** The work should resonate with the journal's target audience, which improves its chances for reaching its intended readers.

– **Novelty/Urgency 新颖原创** The manuscript should be original and provide insight into a challenging problem or fundamental issue, advancing the discipline in a timely way. Avoid reporting just an incremental improvement with a slightly different set of conditions.

– **Technical Validity 技术要求** The research should be well designed, and the experiments, data collection and interpretation should be completed at a high level.

– **High Quality 稿件质量** The manuscript should be clear, concise, and formatted correctly. If the writing is confusing and contains grammatical errors, reviewers may be unable to judge the scientific quality.

具体的问题

Please rank the manuscript according to the criteria below, as compared to all papers published in the field, not just those published in *TJAC*	Not suitable for *TJAC*		Suitable for *TJAC*	
	Low	Moderate	High	Top 5%
Significance	○	○	○	○
Novelty	○	○	○	○
Presentation	○	○	○	○
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*Please respond to the following:	Yes	No	In Part
Are the conclusions adequately supported by the data?	○	○	○
Are the literature references current and appropriate?	○	○	○
Are the figures clear and professional?	○	○	○
Are all data in the SI relevant and presented clearly?	○	○	○

出版建议

* **Recommendation**

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- ○ Publish after minor revisions
- ○ Consider after major revisions
- ○ Do not publish

给编辑的保密意见（可选）

Comments to the Editor (optional)

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回复评审意见

"Reviewers are so important because they help us maintain high standards for scientific publications."

Jillian Buriak, Ph.D.
Editor-in-Chief, *Chemistry of Materials*

1. 阅读评语和编辑决定
Read the decision letter and reviewer comments.

2. 如何回复（及时，注意期限，你的改动是什么？）
Be timely!
Respond to each comment, noting what changes (if any) were made.
If you cannot complete a revision by the deadline, contact the editorial office to request an extension.

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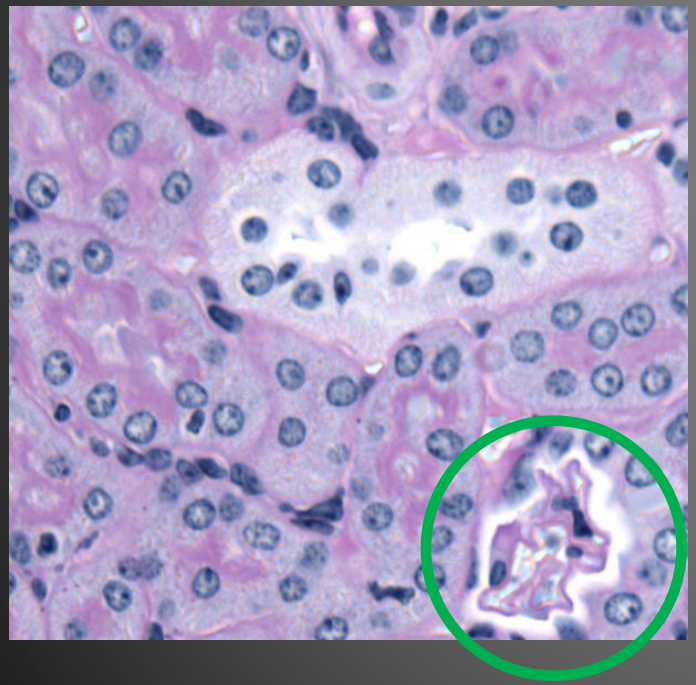

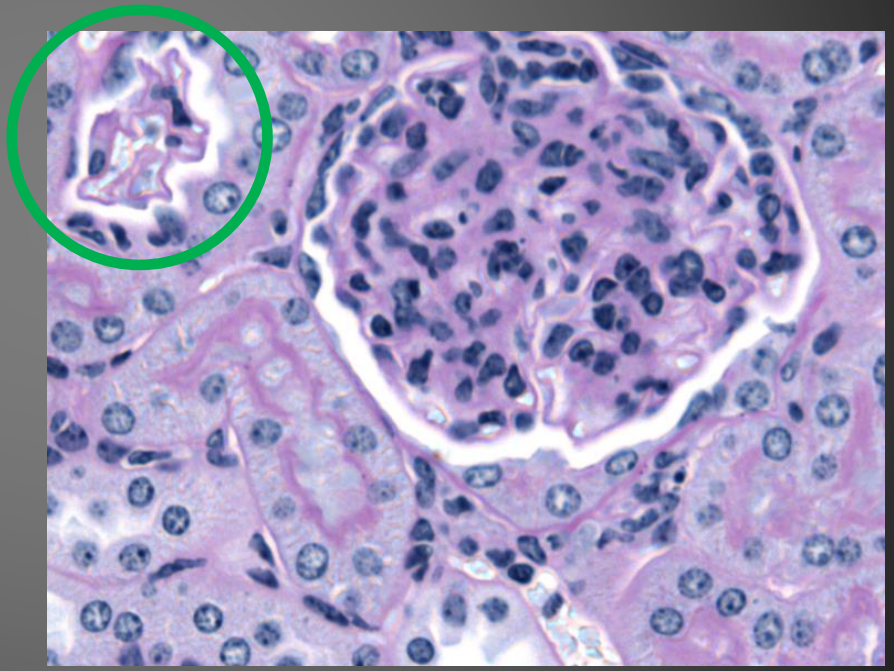

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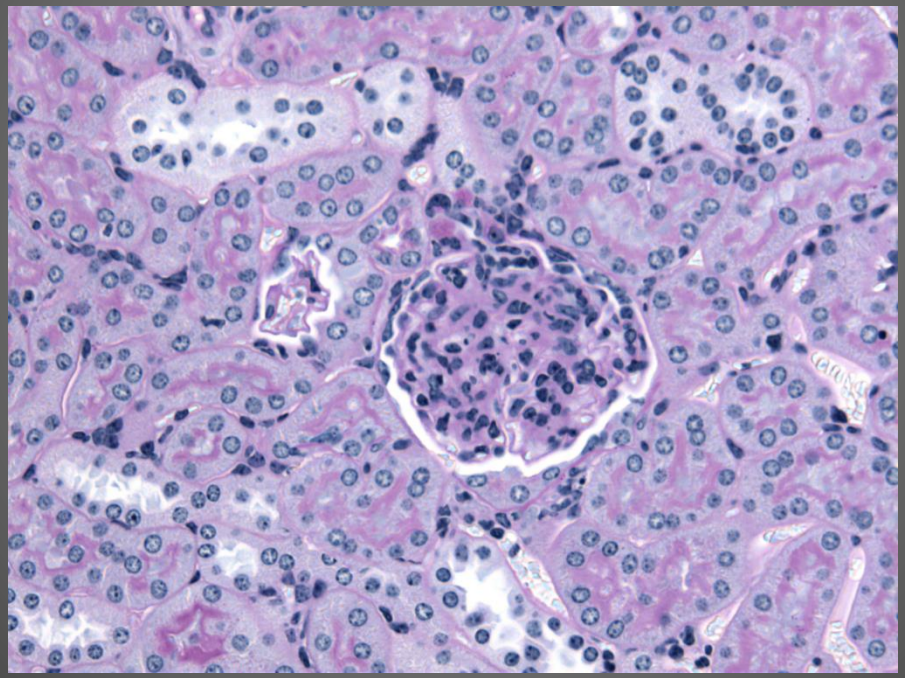

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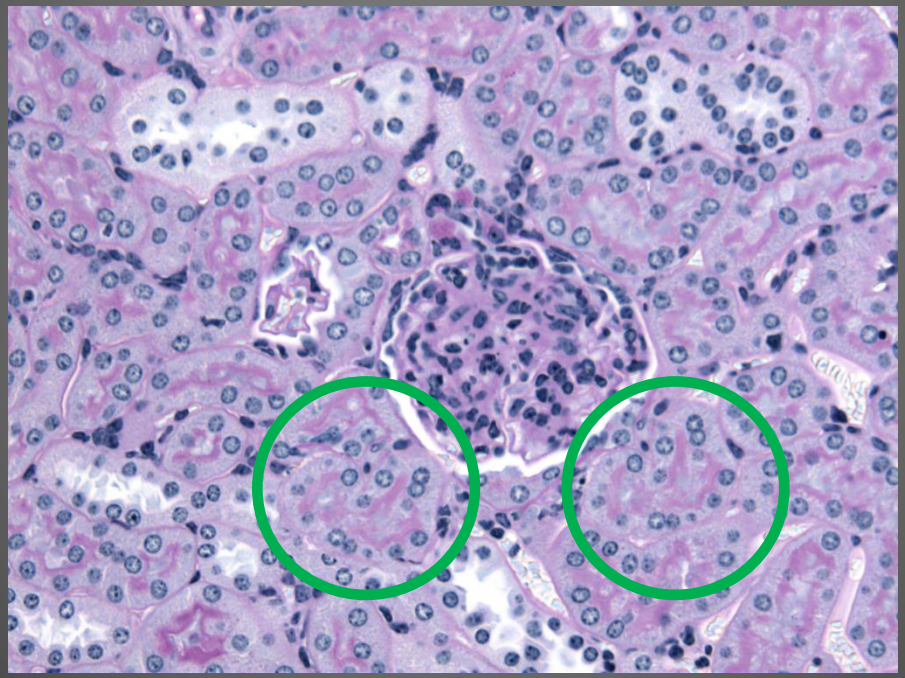

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   意外违反学术道德
5. **Intentional ethical violations**
   故意违反学术道德

Mechanical Reconfiguration of Stereoisomers

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

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Publication Date: February 18, 2010
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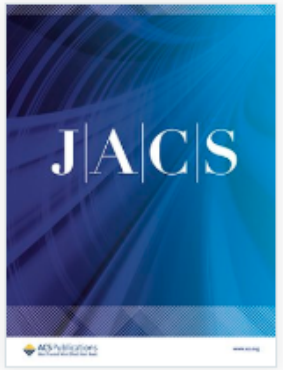
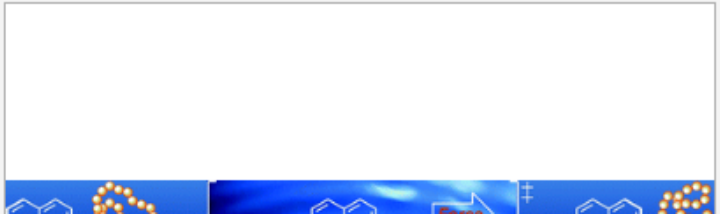


Journal of the American Chemical Society

Abstract

Poly(methyl acrylate) of varying molecular weight was grown from the enantiopure ditopic initiator (*R*)- or (*S*)-1,1′-binaphthyl-2,2′-bis-(2-bromoisobutyrate). Subjecting CH_3CN solutions of high-molecular-weight derivatives (M_N > 25 kDa) to sonication at 0 °C resulted in >95%



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Retraction

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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/jacs.5b01988).

Mechanical Reconfiguration of Stereoisomers

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

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E-mail: bielawski@cm.utexas.edu

General Considerations. (*S*)-, (*R*)- and *rac*-1,1′-binaphthyl-2,2′-bis-(2-bromo-isobutyrate),[1] (*S*)-1,1′-binaphthyl-2-ol-2′-pivalate[2] and (*S*)-1,1′-binaphthyl-2,2′-bis-(pivalate)[3] were prepared following literature procedures. All other chemical reagents were purchased from commercial sources and used without additional purification. All syntheses were performed under an inert atmosphere of nitrogen using standard Schlenk techniques or in a nitrogen-filled drybox. Solvents were dried over 3Å molecular sieves or Al_2O_3 and deoxygenated (via a Q5 catalyst) using a Vacuum Atmospheres Company solvent purification system (Model No. 103991), and then subsequently stored over molecular sieves (3Å) in a drybox. ^{1}H and ^{13}C NMR data were collected on Varian Unity INOVA 400 MHz and Varian Mercury 300 MHz spectrometers. Chemical shifts (δ) are reported in ppm and are referenced downfield from $(CH_3)_4Si$ using the residual solvent peak as an internal standard ($CDCl_3$, 7.24 ppm for ^{1}H and 77.0 ppm for ^{13}C NMR, respectively). Sonication experiments were carried out under argon using a Sonics & Materials VC-505 Liquid Cell Ultrasonic processor operating at 20 kHz equipped with a 12.8 mm replaceable tip titanium probe. Custom Suslick cells[4] were fabricated in house. UV–vis spectra were recorded using a Perkin Elmer Instruments Lambda 35 spectrometer. CD spectra were recorded on a Jasco J-815 CD spectrometer. High-resolution mass spectra (HRMS) were obtained with a VG analytical ZAB2-E instrument (CI). Elemental analyses were performed at Midwest Microlab, LLC (Indianapolis, IN). Thermogravimetric analyses (TGA) were performed using a Mettler-Toledo TGA/SDTA851e under an atmosphere of N_2 at a temperature scan rate of 10 °C min^{-1}. Gel permeation chromatography (GPC) was performed on a Viscotek system equipped with a VE 1122 pump, a VE 7510 degasser, two fluorinated polystyrene columns (I-MBHW-3078 and I-MBLMW-3078) thermostated to 30 °C (using a ELDEX CH 150 column heater) and arranged in series. Molecular weight and polydispersity data are reported relative to polystyrene standards in tetrahydrofuran (THF). Optical rotation measurements were obtained using an ATAGO AP300 automatic polarimeter.

(*S*)-1,1′-Binapthyl-2-(pivalate)-2′-(2-bromo-isobutyrate). To a stirred solution of (*S*)-1,1′-binaphthyl-2-ol-2′-pivalate (100 mg, 0.27 mmol) and triethylamine (0.05 mL, 0.36 mmol) in CH_2Cl_2 (3 mL) cooled to 0 °C was added dropwise 2-bromo-isobutyrylbromide (0.04 mL, 0.36 mmol). The resulting suspension was allowed to slowly warm to ambient temperature and then stirred for an additional 20 h. After diluting the resulting reaction mixture with additional CH_2Cl_2 until the total volume was 20 mL, it was poured slowly into ice cold water (20 mL) and stirred for 30 min. The organic layer was then separated, and the aqueous phase was extracted with CH_2Cl_2 (3 × 10 mL). The combined organic layers were washed with a saturated solution of $NaHCO_3$ (1 × 20 mL), dried over $MgSO_4$, and then passed over a short plug of neutral alumina. The solvent was removed under reduced pressure to afford the desired product as a white powder (120 mg, 0.23 mmol) in 85% yield. m.p. 120–122 °C. ^{1}H NMR ($CDCl_3$, 400.27 MHz): δ 0.72 (s, 9H, piv-CH_3), 1.25 (s, 3H, CBr-CH_3), 1.46 (s, 3H, CBr-CH_3), 7.20-7.36 (m, 5H, Ar-CH), 7.42-7.50 (m, 3H, Ar-CH), 7.91 (t, ^3J = 8.0 Hz, 2H, Ar-CH), 7.95 (d, ^3J = 8.8 Hz, 1H,

[1] Dayananda, K.; Dhamodharan, R. *J. Poly. Sci., Part A* **2004**, *42*, 902.
[2] Cai, D.; Larsen, R. D.; Reider, P. J. *Tetrahedron Lett.* **2002**, *43*, 4055.
[3] Suslick, K. S.; Goodale, J. W.; Schubert, P. F.; Wang, H. H. *J. Am. Chem. Soc.* **1983**, *105*, 5781.

Sonication of an Ultrahigh Molecular Weight Polymer. It has been previously observed that high molecular weight polymers are subject to degradation upon sonication.[7] Subjecting an ultrahigh molecular weight polymer (M_n = 2.8 MDa, PDI = 1.36; prepared from S_1 ([methyl acrylate]$_0$/[S_1]$_0$ = 33,680) to sonication in CH_3CN for 24 h afforded a material with a significantly reduced molecular weight (M_n = 156 kDa, PDI = 1.93; see Figure S10) but a minimal loss in its CD signal intensity. In this case, cleavage events may be occurring in non-chain centered locations along the polymer chains at a rate that is higher than isomerization of the embedded binol moieties.

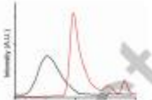


Figure S10. Gel permeation chromatograms of an ultrahigh molecular weight polymer prepared from S_1 and methyl acrylate before (black line; M_n = 2.8 MDa, PDI = 1.36) and after 24 h of being subjected to sonication in CH_3CN (red line; M_n = 156 kDa, PDI = 1.93).

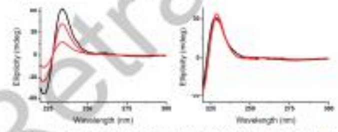


Figure S11. CD spectra of CH_3CN solutions of (A) (*S*)-2,2′-binapthol (0.05 mg/mL) and (B) (*S*)-1,1′-binaphthyl-2,2′-bis-(pivalate) (0.05 mg/mL) before (black) and after (red) being heated in the melt (240 °C, sand bath) for 3 and 65 h. The former sample showed a 35% loss in CD signal intensity after 3 h and 73% loss after 65 h; no significant change in CD signal intensity was observed in the latter sample even after being heated for 65 h.

[7] Caruso, M. M.; Davis, D. A.; Shen, Q.; Odom, S. A.; Sottos, N. R.; White S. R.; Moore, J. S. *Chem. Rev.* **2009**, *109*, 5755.

Attempts at Thermally Racemizing S_{100K}. The decomposition temperature of S_{100K} was determined to be 364 °C by TGA (Figure S3A). A 50 mL round bottom flask was charged with S_{100K} (300 mg), nitrogen purged Ph_2O (10 mL), and a stir bar, and then fitted with a reflux condenser. After vigorously refluxing the resulting solution under nitrogen in a sand bath thermostated to 270 °C for 72 h, it was poured into excess methanol. The precipitated polymer was isolated by filtration, dried under reduced pressure, and examined by CD spectroscopy in CH_3CN (Figure S3B).

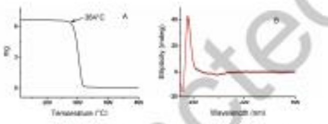


Figure S3. (A) TGA of S_{100K} under nitrogen at a scan rate = 10 °C min^{-1}. (B) CD spectra of S_{100K} in CH_3CN (0.4 mg/mL) before (black) and after (red) being refluxed in Ph_2O for 72 h.

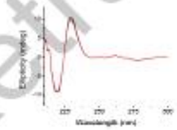


Figure S4. CD spectra of an end-functionalized PMA (M_n = 90.5 kDa, PDI = 1.02), prepared from (*S*)-1,1′-binaphthyl-2-(pivalate)-2′-(2-bromo-isobutyrate) and methyl acrylate in CH_3CN (0.1 mg/mL) before (black) and after (red) being subjected to sonication for 24 h.

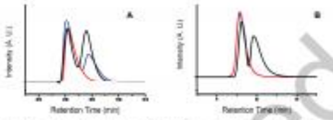
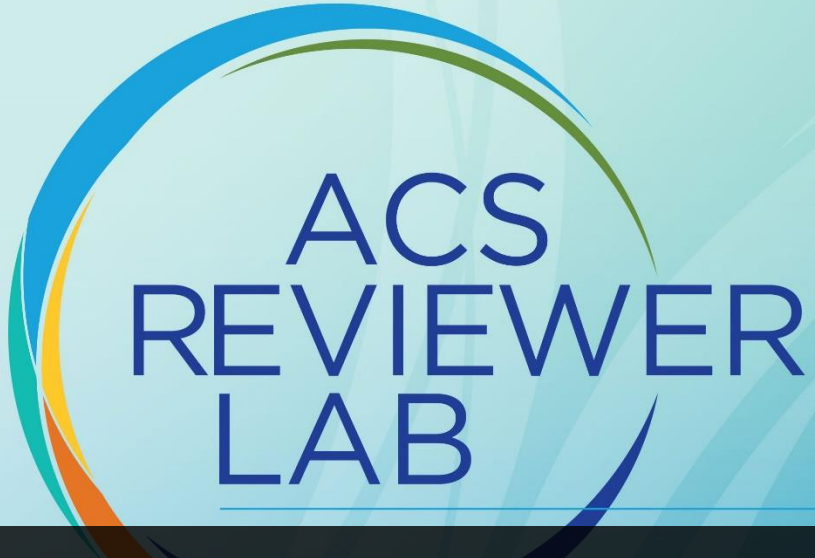


Figure S12. (A) HPLC chromatograms of *rac*-2,2′-binapthol (black), *S*-2,2′-binapthol (red), *S*-2,2′-binapthol after being heated in Ph_2O at 220 °C for 24 under an atmosphere of nitrogen (blue).[8] (B) HPLC chromatograms of *rac*-1,1′-binaphthyl-2,2′-bis-(pivalate) (black), *S*-1,1′-binaphthyl-2,2′-bis-(pivalate) (red), *S*-1,1′-binaphthyl-2,2′-bis-(pivalate) after being heated in Ph_2O at 220 °C for 24 h under an atmosphere of nitrogen (blue). HPLC conditions: Chiralpak OD column (250 x 4.6 mm); solvent: 5%→20% isopropanol in hexanes (v/v); rate: 0.5 mL/min, UV detection: 254 nm.

[8] Meca, L.; Řeha, D.; Havlas, Z. *J. Org. Chem.* **2003**, *68*, 5677.



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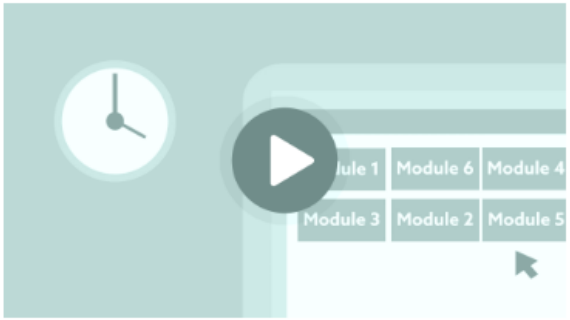

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