



ACS Publications
Most Trusted. Most Cited. Most Read.



ACS Publications: 跨学科化学的学术资源

From American Chemical Society (ACS)
CALIS 第二十三届引进数据库培训周

赵璟 ACS培训主管 iGroup China
2025 年 5 月 13 日

关于 iGroup China



iGroup 成立于 1983 年，在全球 20 多个国家和地区都设有办事处，是亚太地区最大的学术科研资源提供商之一，独家负责各领域科研数据库的销售和服务。

在中国，iGroup China代表ACS（美国化学会）、Science（美国科学促进会）、APS（美国物理学会）、SPIE（国际光学工程学会）、SAE（国际自动机工程师学会）等四十多家国际学术出版社，助力高校机构、政府机构及企业的研发和创新，帮助科研人员获取有价值的学术文献，了解最新的科学成果。

公司网址：www.igroup.com.cn



American Chemical Society

ACS 美国化学会是世界上最大的科技学会之一

- 成立于 1876 年
- 学会总部位于美国华盛顿特区
- 全球遍布 140 多个国家，超过 15 万会员
- 出版高品质的专业科学期刊



ACS Publications 数据库出版物资源

<https://pubs.acs.org>

ACS 数据库出版物资源包含:

- ACS Journals 近 70 种订阅期刊
- ACS eBooks 1700 多本电子书
- ACS In Focus 系列电子书
- C&EN 化学与工程新闻杂志
- 试剂标准手册
- 学术交流指南

全库资源超过 140 万篇文章, 涵盖了 20 多个与化学相关的研究领域。



ACS Journals
电子期刊



ACS eBooks
电子书



ACS In Focus
系列电子书



C&EN
化学与工程
新闻杂志



ACS Reagent
Chemicals
试剂标准手册



ACS Guide
学术交流指南



ACS Publications
Most Trusted. Most Cited. Most Read.

ACS Journals 学术期刊

<https://pubs.acs.org>

已出版近 70 种高品质的订阅期刊，
发表化学各个领域的前沿研究成果。

ACS 期刊的影响因子中位数为 4.8。

根据 2023 年 JCR Citation Reports:
ACS 期刊的总被引用次数超过 440 万，
ACS 期刊是化学领域里被引用次数最多的期刊。

ACS 的全文访问量来自中国的占比最高。



ACS Publications
Most Trusted. Most Cited. Most Read.

WE COVER EVERY ASPECT OF CHEMISTRY

ACS 的很多期刊是跨学科的，涵盖了广泛的研究领域课题的前沿研究成果。
研究需要寻求的答案可能不仅限于一种 ACS 期刊。

ACS 期刊涵盖的学科领域包括但不限于：

无机化学

物理化学

能源

农业与食品化学

有机化学

理论与计算化学

催化

生物与药物化学

有机金属化学

高分子科学

材料科学

化学工程与工业化学

分析化学

化学教育

纳米科学

地球、空间与环境化学



ACS Publications
Most Trusted. Most Cited. Most Read.

Journal of the American Chemical Society

Impact Factor: 14.5 | Citations: 568,486



Editor-in-Chief
Erick M. Carreira
from ETH Zürich

美国化学会志 **JACS** 创刊于 **1879** 年，是美国化学会的第一本期刊，是学会的旗舰刊。

JACS 期刊每年发表大约 2500 篇科研文章，每周出版一期。它是化学领域里被引用次数最多的跨学科化学期刊，发表化学各个领域里顶尖的基础和应用研究成果。

期刊收录研究方向：化学，化学综合
Indexed in: CAS, SCIE, Scopus, PubMed, etc.

Chemical Reviews

Impact Factor: 51.5 | Citations: 230,879



2023 IMPACT FACTOR

51.5

Chemical Reviews 是世界杰出的期刊之一，涵盖化学学科所有的研究领域，它为有机化学，无机化学，物理化学，分析化学，理论化学和生物化学各领域的重要研究提供全面、权威、关键和可读性强的综述文章。

Chemical Reviews 是化学期刊大类里影响因子最高的期刊。

期刊收录研究方向：化学，化学综合
Indexed in: CAS, SCIE, Scopus, PubMed, etc.

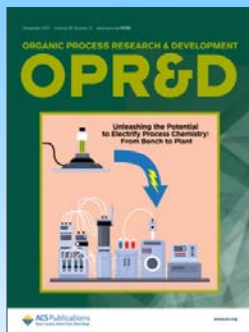
Basic Science of Chemistry 化学的基础科研领域



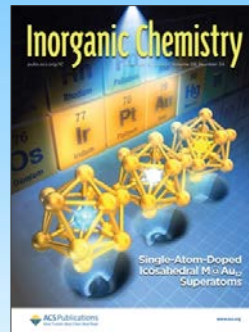
有机化学



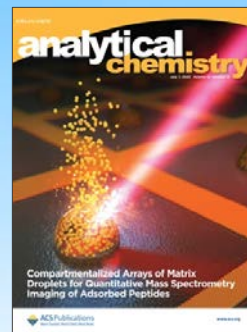
有机快报



有机工艺



无机化学



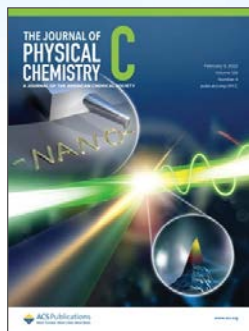
分析化学



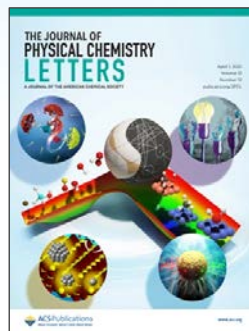
物理化学 A



物理化学 B



物理化学 C

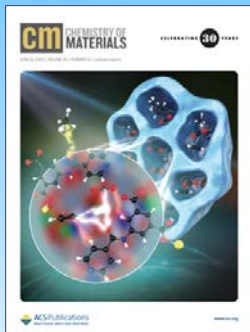


物理化学快报



化工研究

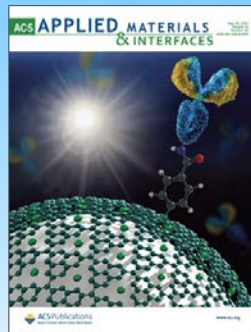
Materials Science & Engineering 材料科学与工程



材料化学



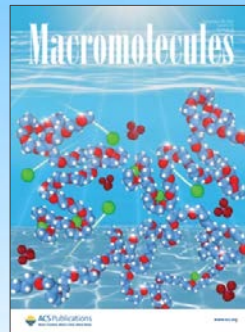
材料快报



应用材料&界面



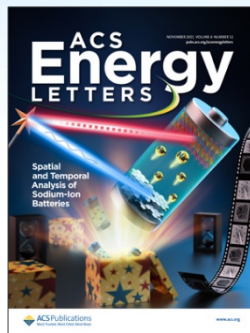
纳米材料



高分子材料



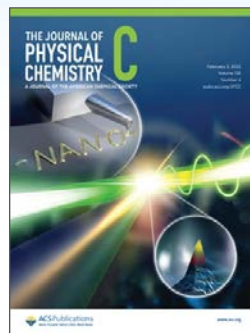
生物材料



能源材料快报



催化科学



材料物理化学



材料研究综述
与上海科技大学合办

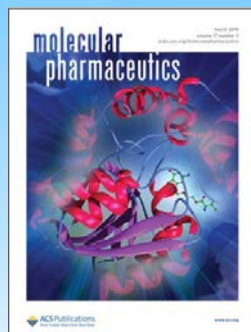
Pharmaceuticals 药物化学



药物化学领域
世界知名期刊



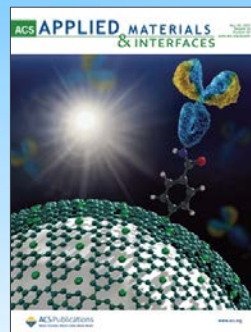
药物化学快报



分子药剂学



药物制剂



界面现象&应用



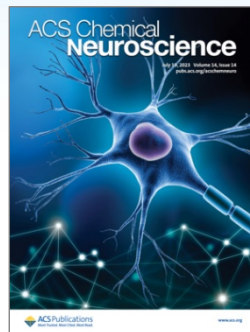
天然产物研究



毒理学



药学与转化科学



化学神经科学



传染病研究

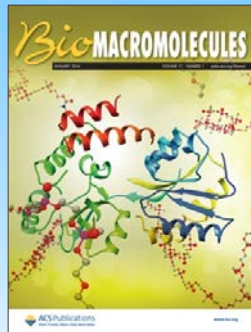
Biotechnology 生物技术



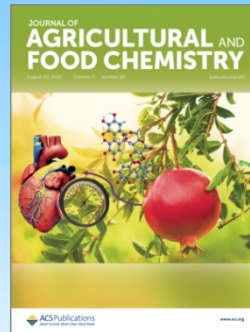
生物化学



生物共轭化学



生物大分子



农业&食品科学



生物材料



天然产物研究



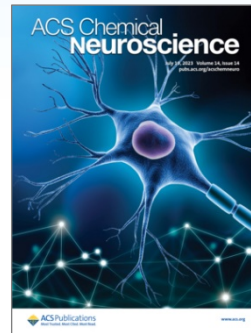
蛋白组学



合成生物学

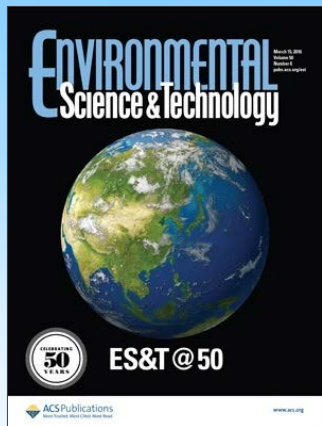


化学生物学



化学神经科学 12

Environmental Science 环境科学与技术



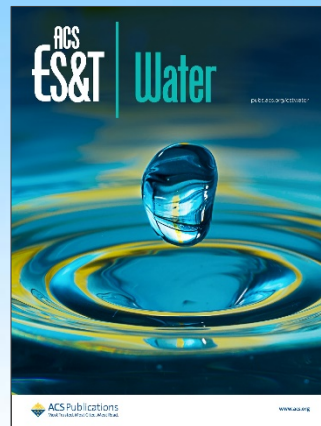
**Environmental
Science &
Technology**
环境科学与技术



**Environmental
Science &
Technology Letters**
环境科学与技术快报



**ACS ES&T
Engineering**
EST子刊: 环境工程



**ACS ES&T
Water**
EST子刊: 水环境

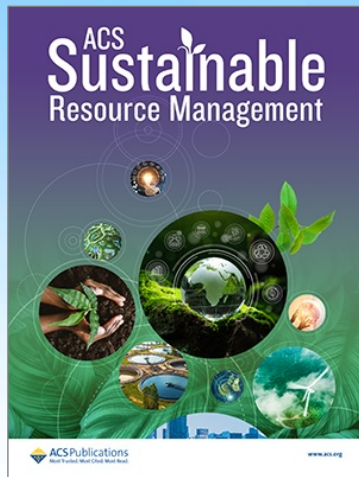


**ACS ES&T
Air**
EST子刊: 大气环境

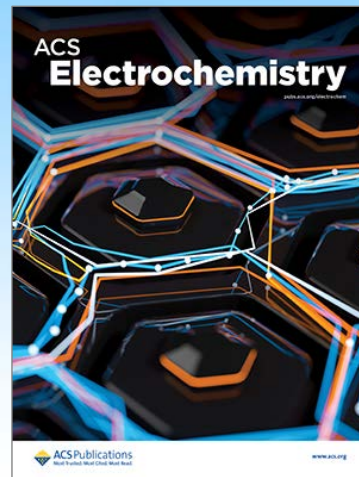
ACS 新刊介绍 2024 - 2025



ACS ES&T Air
EST子刊: 大气环境
Launched in 2024



**ACS Sustainable
Resource
Management**
ACS 可持续资源管理
Launched in 2024



**ACS
Electrochemistry**
ACS 电化学
Launched in 2025

Open Access Journals

美国化学会旗下的开放获取期刊总共有 **20** 种，分别具有不同的内容和定位。



ACS Central Science

Launched in 2015

IMPACT FACTOR

13.1

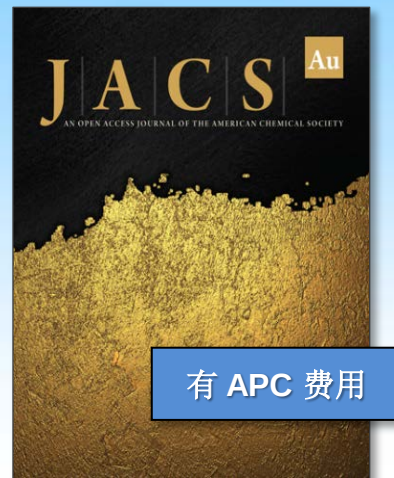


ACS Omega

Launched in 2016

IMPACT FACTOR

3.7



JACS Au

Launched in 2020

IMPACT FACTOR

8.6

AI 推动化学及相关学科的科研发展

Journal of Chemical Information and Modeling 《化学信息与建模》

Journal of Chemical Theory and Computation 《化学理论与计算》

Analytical Chemistry 《分析化学》

ACS Nano 《ACS 纳米》

Journal of Natural Products 《天然产物》：机器学习与天然产物研究

ACS ES&T Engineering 《ACS 环境科学与技术工程》：应用于环境工程的新分析方法和模拟方法

ACS Electrochemistry 《ACS 电化学》：高通量和AI助力的电化学反应



<https://pubs.acs.org/series/symposium>

- **ACS eBooks** 拥有超过 **1,700** 多本专著，37,000 个章节，正文章节都经过同行评审，每年大约新增 30 本新书。
- 由化学领域顶尖学者编写的专著，包括 **40** 多名诺贝尔奖获得者。
- ACS Symposium Series (1974 - 至今)
- Advances in Chemistry (1949 - 1998)
- Medicinal Chemistry Reviews 系列 (2022 - 至今)

ACS药化部门出品的制药行业年鉴

ACS SYMPOSIUM SERIES eBooks

Advances
in Chemistry

MEDICINAL CHEMISTRY REVIEWS

FROM THE MEDICINAL CHEMISTRY DIVISION OF THE ACS



ACS Publications
Most Trusted. Most Cited. Most Read.

ACS IN FOCUS

<https://pubs.acs.org/series/infocus>

- **ACS In Focus** 系列电子图书是快速掌握最新课题的首选读物。
- 通俗易懂的语言，介绍最前沿的新兴科学话题，其丰富的在线阅读功能，每本书可在 4 - 6 小时读完，**提供部分内容试读。**
- 系列集合与其它电子图书在同一平台访问

INAUGURAL COLLECTION

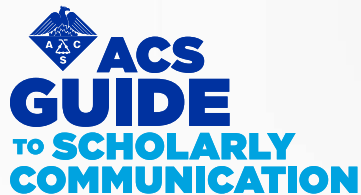
COLLECTION 1

COLLECTION 2

COLLECTION 3



INAUGURAL COLLECTION



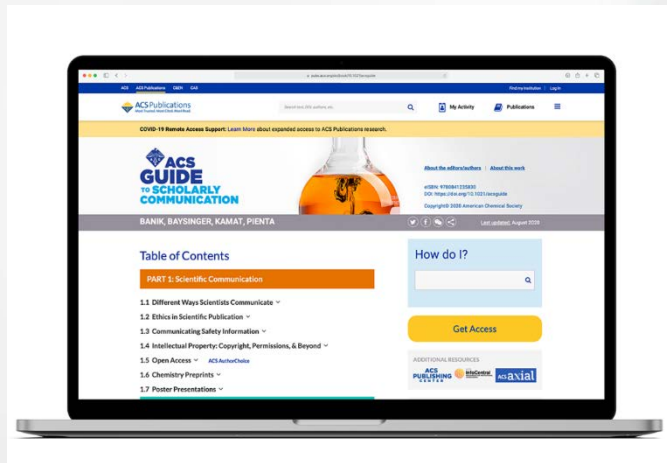
<https://doi.org/10.1021/acsguide>

■ ACS Guide to Scholarly Communication

学术交流指南是一本在线参考工具书，旨在为学生、研究人员、教育工作者和图书馆员提供掌握学术交流所需的指导与建议。

■ 适用于广泛的学科领域，蕴含生动的多媒体视频资源和科技论文写作的指导。

■ 适用人群：本科生，研究生，教师。





<https://pubs.acs.org/doi/book/10.1021/acsreagents>

- **ACS Reagent Chemicals** 是一份权威的化学品试剂标准手册。
- 已为 500 多种常用的化学品提供最高级别的纯度标准。
- 提供符合本标准的化学品理化性质，详细的规格参数以及相应的测试方法，上次更新于 **2024 年 1 月**。
- 美国药典 **USP** 使用符合此标准的化学品用于药物测试。





<https://pubs.acs.org/journal/cgeabj>

- **C&EN Global Enterprise** 是美国化学会旗下的知名杂志。
- 回溯年份自 2016 年起，每周出版一期。
- 关注化学所有领域的科技前沿动态，工业和商业信息以及政府和企业的新闻和政策等。

c&en covers:

- Cutting-edge research
- Career and employment info
- Industry trends
- Chemical regulation



1923



1943



1969



2015



2016

...2016 AND BEYOND

ACS 数据库平台主页 pubs.acs.org

The screenshot shows the ACS Publications website homepage. At the top, there is a navigation bar with links for ACS, ACS Publications, C&EN, and CAS. A search bar is located in the center, and links for 'Find my Institution' and 'Log In' are on the right. Below the navigation bar, the main header features the ACS Publications logo and the tagline 'Most Trusted. Most Cited. Most Read.'.

The main content area is divided into several sections. On the left, there is a 'FOR ORGANIZATIONS' section with a 'Get Access' button. In the center, there is a 'Browse Content' section with a grid of category tiles: 'All Subjects', 'Analytical', 'Applied', 'Biological', 'Materials Science & Engineering', 'Organic-Inorganic', and 'Physical'. On the right, there is a 'Latest from the ACS Axial Blog' section with a list of recent blog posts.

At the bottom of the page, there is a row of four buttons: 'Publish with ACS', 'New Products & Services', 'ACS Open Science', and 'Explore ACS Solutions'.

Two yellow callout boxes with arrows pointing to specific elements are present:

- A callout box pointing to the 'ACS Axial Blog' section with the text: **ACS 科研社区博客**
- A callout box pointing to the 'Browse Content' section with the text: **ACS 期刊和所有出版物的入口**

ACS 数据库平台检索

The screenshot displays the ACS Publications website interface. At the top, there is a navigation bar with links for ACS, ACS Publications, CMCN, and CAS. A search bar is prominently featured, containing the placeholder text "Search text, DOI, authors, etc." and a magnifying glass icon. To the right of the search bar are links for "My Activity", "Publications", and a "Log In" button. Below the navigation bar, the main content area is divided into sections. On the left, there is a "FOR ORGANIZATIONS" section with the text "Most Trusted. Most Cited." and a "Get Access" button. In the center, there is a "FOR AUTHORS" section with a yellow callout box containing the text "检索词, 检索式, DOI 检索, 引文检索, 作者名". To the right, there is an "EVENTS & CONFERENCES" section with the text "NEW & NOTEWORTHY". Below these sections, there is a "Browse Content" section with a grid of colored tiles representing different scientific fields: All Subjects, Analytical, Applied, Biological, Materials Science & Engineering, Organic-Inorganic, and Physical. At the bottom, there is a filter bar for "Biological" content, with a "Filter by Letter" dropdown and a "Remove Filters" button. The filter bar also shows a list of letters: A, B, C, E, I, J, M, O. Below the filter bar, there is a list of publications, including "ACS ES&T Engineering", "ACS Synthetic Biology", and "Journal of Agricultural and Food".

ACS Publications
Most Trusted. Most Cited. Most Read.

Search text, DOI, authors, etc.

My Activity Publications

FOR ORGANIZATIONS FOR AUTHORS EVENTS & CONFERENCES OPEN SCIENCE

Most Trusted. Most Cited.

ACS Publications' commitment to publishing high-quality addresses the world's most important challenges.

Get Access

Browse Content

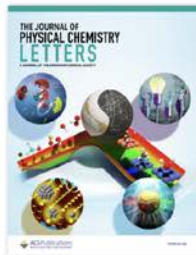
All Subjects Analytical Applied Biological Materials Science & Engineering Organic-Inorganic Physical

Biological Filter by Letter: A B C E I J M O Remove Filters

A ACS ES&T Engineering ACS Synthetic Biology Journal of Agricultural and Food

ACS Editors' Choice 编辑良择

ACS Editors' Choice Based on recommendations from the scientific editors of ACS Journals. See all articles.



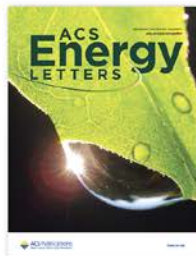
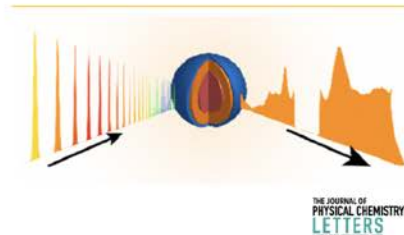
Fluctuations in the Photoluminescence Excitation Spectra of Individual Semiconductor Nanocrystals

Robert C. Keitel, Raphael Brechtbühler, Ario Cocina, Felipe V. Antolinez, Stefan A. Meyer, Sander J. W. Vonk, Henar Rojo, Freddy T. Rabouw, and David J. Norris*

J. Phys. Chem. Lett. (Article) [Open Access](#) [Editors' Choice](#)

ACS Editors' Choice Date: April 29, 2024

Cite This: *J. Phys. Chem. Lett.* 2024, 15, XXX, 4844–4850



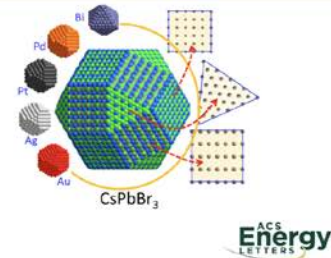
Design Strategies for Epitaxial Metal(0)–Halide Perovskite Nanocrystal Heterostructures

Narayan Prodhon*

ACS Energy Lett. (Article) [Free to Read](#) [Editors' Choice](#)

ACS Editors' Choice Date: April 28, 2024

Cite This: *ACS Energy Lett.* 2024, 9, XXX, 2378–2386



ACS Publishing Center 出版中心

Products & Services



Learn directly from our editor community as they provide expertise and tips for writing research articles, securing funding, handling rejection, and more.



These free online courses empower authors and reviewers to prepare and submit strong manuscripts, avoid common errors, and navigate the peer review process.



ACS Authoring Services provides pre- and post-publication assistance to help you excel at communicating your scientific research to the world.



This comprehensive guide provides the academic and publishing communities with the instruction and advice they need to master the art of scholarly communication.

ACS Publishing Center
是管理投稿和审稿的进度的网站。

网址: publish.acs.org

Publish with ACS

Everything you need to prepare, publish, and review manuscripts for ACS journals

The ACS Publishing Center is a resource for chemists at every stage of their career. Whether you're submitting your first scientific article or reviewing decades of publishing data, it's all at your fingertips.

Discover more

Publish with ACS

Journal Homepages 期刊页面



Volume 147, Issue 2
January 15, 2025

Journal of the American Chemical Society

The flagship journal of the American Chemical Society, JACS publishes significant, highly cited articles with broad interest across all chemical science.

Editor-in-Chief: Erick Carreira
Editors & Editorial Board

2 Year Impact Factor 2023: 14.5 | Citations 2023: 568,486 | CiteScore 2023: 24.4

[Submit Manuscript](#)
[Get Access](#)

期刊介绍

[List of Issues](#)
[Authors](#)
[About the Journal](#)

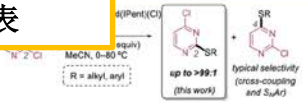
期刊影响因子 & 被引用次数

List of issues 卷期列表

ASAP Articles are edited and published online ahead of issue. [See all articles.](#)

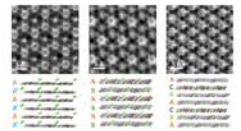
C2-Selective Palladium-Catalyzed C-S Cross-Coupling of 2,4-Dihalopyrimidines

Oliver D. Jackson, ... and Sharon R. Neufeldt*
January 19, 2025



Unraveling Various Stacking Modes and Local Structures in Poly(triazine imide) Materials via Low-Dose Electron Microscopy

Guanxing Li, ... and Yu Han*
January 19, 2025



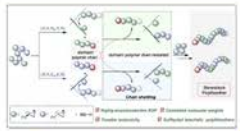
Operando Unveiling of Hydrogen Spillover Mechanisms on Tungsten Oxide Surfaces

Haoyi Li, ... and Ethan J. Crumlin*
January 18, 2025



Chain Shuttling Enantioselective Polymerization: An Effective Strategy for Synthesizing Stereoblock Polythioethers

Tian-Jun Yue, ... and Wei-Min Ren*
January 18, 2025



[SEE MORE](#)

 ACS Publications
Most Trusted. Most Cited. Most Read.

26

Article Pages 文章页面

标题&作者
出版信息

RETURN TO ISSUE | < PREV RESEARCH ARTICLE NEXT >

Reversible Spatiotemporal Control of Induced Protein Degradation by Bistable PhotoPROTACs

Patrick Pfaff, Kusal T. G. Samarasinghe, Craig M. Crews*, and Erick M. Carreira*

Cite this: ACS Cent. Sci. 2019, 5, 10, 1682–1690
Publication Date: September 17, 2019
https://doi.org/10.1021/acscentsci.9b00713
Copyright © 2019 American Chemical Society
RIGHTS & PERMISSIONS

Article Views 17882
Altmetric 36
Citations 113
LEARN ABOUT THESE METRICS

Share Add to Export
RIS



下载 PDF

PDF (11 MB)

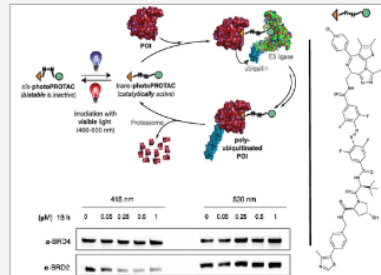
Supporting Info (1)

论文的浏览数
论文影响力指标评价
论文的被引次数

Abstract
摘要

Abstract

Off-tissue effects are persistent issues of modern inhibition-based therapies. By merging the strategies of photopharmacology and small-molecule degraders, we introduce a novel concept for persistent spatiotemporal control of induced protein degradation that potentially prevents off-tissue toxicity. Building on the successful principle of bifunctional all-small-molecule Proteolysis Targeting Chimeras (PROTACs), we designed photoswitchable PROTACs (**photoPROTACs**) by including *ortho*-F₄-azobenzene linkers between both warhead ligands. This highly bistable yet photoswitchable structural component leads to reversible control over the topological distance between both ligands. The *azo-cis*-isomer is observed to be inactive because the distance defined by the linker is prohibitively short to permit complex formation between the protein binding partners. By contrast, the *azo-trans*-isomer is active since it can engage both protein partners to form the necessary and productive ternary complex. Importantly, due to the bistable nature of the *ortho*-F₄-azobenzene moiety employed, the photostationary state of the **photoPROTAC** is persistent, with no need for continuous irradiation. This technique offers reversible on/off switching of protein degradation that is compatible with an intracellular environment and, therefore, could be useful in experimental exploration of biological signaling pathways—such as those crucial for oncogenic signal transduction. Additionally, this strategy may be suitable for therapeutic intervention to address a variety of diseases. By enabling reversible activation and deactivation of



Article Pages 文章页面

Introduction

引言

Materials & Methods

材料和方法

Results

结果

Discussion

讨论

Conclusion

结论

Abbreviations

缩写

Author Information

作者信息

Acknowledgment

致谢

References

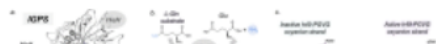
参考文献

Introduction

Proteins reshape their function in response to environmental changes through allosteric process in which two distinct sites within a protein or protein complex are functionally coupled. For regulated enzymes, effector binding at a distal site alters the thermodynamic and/or kinetic reaction at the active site. (3) The transfer of chemical information between the two sites is mediated by structural (4) and/or dynamical (5) changes that generally make accessible conformation characteristic of the enzyme active state. (6,7) To attain such a catalytic binding finely tunes the enzyme dynamic conformational ensemble by reshaping the relative conformational states and/or the time scales of structural fluctuations and conformational bidirectional communication between distal sites occurs at the ternary complex, i.e., when substrate are bound at their respective sites, and propagates through dynamic network interactions. (9,10) Capturing the time evolution of the allosteric activation of enzymes at ternary complex involves deciphering the interplay of fast and slow conformational dynamics, substrate binding. (11) The transient nature of both the ternary complex and the allosteric undergoing turnover hampers the structural and dynamic characterization of allosteric activation. Identification of functionally relevant states. (12-17) It is therefore not surprising that this remains hidden for several enzymes.

Allosteric regulation operating in the model enzyme imidazole glycerol phosphate synthase (IGPS) from *Thermotoga maritima* has been investigated from structural and dynamical perspectives. (18-30) IGPS is a heterodimeric enzyme belonging to class I glutamine amidotransferases (GATase) that encompasses the catalytic interplay between HisH and HisF subunits (Figure 1). HisH catalyzes glutamine hydrolysis producing glutamate and ammonia. The HisF cyclase monomer couples the ammonia produced by HisH, which migrates through an internal tunnel, with N-[(5-phosphoribulose-5-phosphonate)-5-aminimidazole-4-carboxamide ribonucleotide (PRFAR)]. The latter also acts as the allosteric effector for the reaction occurring in HisH. The binding of PRFAR, ca. 30 Å far away from the HisH active site, enhances 4500-fold the basal glutaminase activity of IGPS, while the substrate affinity is only moderately altered. (30)

Figure 1



ARTICLE SECTIONS

Jump To ^

Abstract

Introduction

Results

Discussion

Conclusions

Methods

Supporting Information

Author Information

Acknowledgments

Abbreviations

References

PDB: 1GPW
PDB: 3ZR4
PDB: 7AC8

Supporting Information

The Supporting Information is available free of charge at <https://pubs.acs.org/doi/10.1021/jacs.1c12629>.

Detailed description of computational methods, supplementary figures, and movies (PDF)

Movie S1: conventional molecular dynamics simulations: tryptophan hole formation in substrate-free PRFAR-IGPS (MP4)

Movie S2: accelerated molecular dynamics simulations: sp

Gln substrate binding in the HisH active site (MP4)

Movie S3: accelerated molecular dynamics simulations: sp

Gln substrate binding in IGPS (global view) (MP4)

Movie S4: accelerated molecular dynamics simulations: allosteric

activation of IGPS in the ternary complex (MP4)

Time Evolution of the Millisecond Allosteric Activation of Imidazole Glycerol Phosphate Synthase

1 views

0 shares

0 downloads

SUPPLEMENTARY INFORMATION

Download Figures

下载高清图片

Supporting Information

下载支持信息 PDF 文件

References

参考文献链接

Supporting Information 支持信息

Supporting Information

文章的支持信息
描述研究工作的
完整实验细节，
实现可重复性。

Content

化合物，表格，
实验等应在
文章中的提及
顺序呈现，对
应稿件中使用的
编号系统。

Reversible Spatiotemporal Control of Induced Protein Degradation by Bistable PhotoPROTACs

X Pfaff^{1,2}, Kusal T. G. Samarasinghe^{2,3}, Craig M. Crews^{2,3,4} and Erick M. Carreira¹

¹Department of Chemistry and Applied Biosciences, Laboratory of Organic Chemistry, University of Zurich, Winterthurerstrasse 190, CH-8057 Zurich, Switzerland

²Department of Molecular, Cell, and Developmental Biology, Yale University, 366 Prospect Street, New Haven, CT 06511, United States

³Department of Chemistry, Yale University, New Haven, CT 06511, United States

⁴Department of Pharmacology, Yale University, New Haven, CT 06511, United States

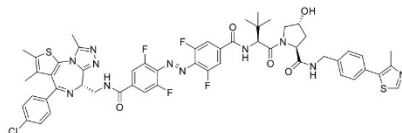
Content

1. Supplementary Figures	2
2. Materials and Methods	9
2.1 General Synthetic Methods	9
2.2 Safety Statement	9
2.3 Analysis of Synthetic Compounds	9
2.4 Photochemical Characterization	9
2.5 Cell Culture	9
2.6 Irradiation of photoPROTAC	9
2.7 Western Blot Analysis	9
2.8 GSH Stability Test	9
2.9 Quantum Yield Measurement	9
3. Synthetic Procedures	14
4. NMR Spectra	34
5. SI-references	63

活化化合物
命名，编号
结构式
合成步骤

活化化合物
表征分析
Rf, NMR, IR,
ESI-MS

(2S,4R)-1-((S)-2-(4-((E)-4-(((S)-4-(4-chlorophenyl)-2,3,9-trimethyl-6H-thieno[3,2-f][1,2,4]triazolo[4,3-a][1,4]diazepin-6-yl)methyl)carbamoyl)-2,6-difluorophenyl)diazetyl)-3,5-difluorobenzamido)-3,3-dimethylbutanoyl)-4-hydroxy-N-(4-(4-methylthiazol-5-yl)benzyl)pyrrolidine-2-carboxamide (photoPROTAC-1)



JQ-1 amine **18** (10.5 mg, 28.0 μ mol, 1.00 equiv) and acid **54** (21.4 mg, 28.0 μ mol, 1.00 equiv) were dissolved in anhydrous DMF (0.28 mL, 0.1 M). DIPEA (12 μ L, 85 μ mol, 3.00 equiv) and HATU (11.3 mg, 30.0 μ mol, 1.05 equiv) were added to the reaction mixture at room temperature. After 2 hours, the reaction mixture was quenched by addition of sat. aq. NaHCO₃ and the aq. phase was extracted three times with EtOAc. The combined org. layers were washed with brine and dried over sodium sulfate. Residual DMF and tetramethylurea were removed by lyophilization after freezing in a water/dioxane mixture. The crude product was further purified by flash column chromatography (94% EtOAc/4% iPrOH/2% H₂O) to afford photoPROTAC-1 as an orange oil (16.0 mg, 14.0 μ mol, 51%).

Rf = 0.36 (85% EtOAc/10% iPrOH/5% H₂O).

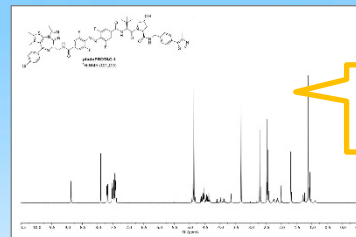
¹H NMR (500 MHz, CD₃OD) δ = 8.87 (s, 1H), 7.70 (dd, *J* = 5.1, 1.6 Hz, 2H), 7.67 (dd, *J* = 5.1, 1.6 Hz, 2H), 7.52 (d, *J* = 8.5 Hz, 2H), 7.48 (d, *J* = 8.5 Hz, 2H), 7.44 – 7.40 (m, 4H), 4.91 (s, 1H), 4.65 – 4.50 (m, 4H), 4.33 (dd, *J* = 13.6, 7.0 Hz, 2H), 4.35 (d, *J* = 15.4 Hz, 1H), 3.98 (d, *J* = 11.0 Hz, 1H), 3.87 (dd, *J* = 11.0, 3.8 Hz, 1H), 2.71 (s, 3H), 2.47 (s, 3H), 2.43 (s, 3H), 2.29 – 2.22 (m, 1H), 2.15 – 2.09 (m, 1H), 1.69 (s, 3H), 1.13 (s, 9H).

¹³C NMR (126 MHz, CD₃OD) δ = 174.4, 172.0, 166.8, 166.7, 166.5, 157.4, 156.1, 155.3, 153.0, 152.2, 149.0, 140.3, 139.2, 138.1, 138.1, 134.3, 133.5, 133.4, 133.3, 133.3, 132.0, 132.0, 131.5, 131.4, 131.3, 130.4, 129.8, 129.0, 113.4, 113.1, 71.1, 60.9, 59.9, 58.2, 56.8, 43.7, 42.9, 39.0, 37.2, 27.1, 15.8, 14.4, 12.9, 11.6.

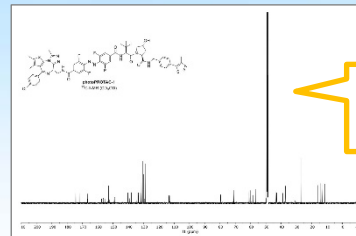
¹⁹F NMR (471 MHz, CD₃OD) δ = -121.4, -121.5.

IR: 3322, 2925, 28855, 1665, 1533, 1427, 1343, 1243, 1090, 1047, 967, 843.

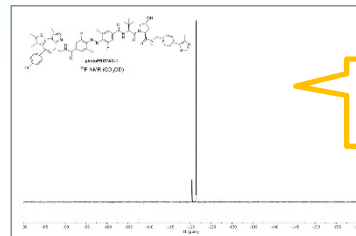
ESI-MS: calcd. for C₅₀H₅₃ClF₆N₁₁O₅S₂ [M+H]⁺ 1108.3135, found 1108.3144.



¹H-NMR



¹³C-NMR



¹⁹F-NMR

文献链接

Reference 参考文献

Cited By 施引文献

JACS
JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

Time Evolution of the Millisecond Allosteric Activation of Imidazole Glycerol Phosphate Synthase

[CAS] [Google Scholar]

52. Romero-Rivera, A.; Garcia-Borràs, M.; Osuna, S. Role of Conformational Dynamics in the Evolution of Retro-Aldolase Activity. *ACS Catal.* **2017**, *7*, 8524–8532. DOI: 10.1021/acscatal.7b02954 [ACS Full Text] [CAS] [Google Scholar]

53. Osuna, S. The Challenge of Predicting Distal Active Site Mutations in Computational Enzyme Design. *Wiley Interdiscip. Rev. Comput. Mol. Sci.* **2021**, *11*, e1502. DOI: 10.1002/wcms.1502 [Crossref] [CAS] [Google Scholar]

54. Douangamath, A.; Walker, M.; Beismann-Driemeyer, S.; Vega-Fernandez, M. C.; Sterner, R.; Wilmanns, M. Structural Evidence for Ammonia Tunneling across the (B₆)₈ Barrel of the Imidazole Glycerol Phosphate Synthase Bifunctional Complex. *Structure* **2002**, *10*, 185–193. DOI: 10.1016/S0969-2126(02)00702-5 [Crossref] [PubMed] [CAS] [Google Scholar]

55. Ahuja, L. G.; Taylor, S. S.; Kornev, A. P. Tuning the "Violin" of Protein Kinases: The Role of Dynamics-based Allostery. *IUBMB Life* **2019**, *71*, 685–696. DOI: 10.1002/iub.2057 [Crossref] [PubMed] [CAS] [Google Scholar]

56. Ahuja, L. G.; Kornev, A. P.; McLendon, C. L.; Veglia, G.; Taylor, S. S. Mutation of a Kinase Allosteric Node Uncouples Dynamics Linked to Phosphotransfer. *Proc. Natl. Acad. Sci. U.S.A.* **2017**, *114*, E931–E940. DOI: 10.1073/pnas.1620667114 [Crossref] [PubMed] [CAS] [Google Scholar]

Cited By

This article is cited by 1 publications.

1. Robert Kourist, Shina Caroline Lynn Kamerlin. A Structural View into the Complexity of Carbon Dioxide Fixation. *ACS Central Science* **2022**, Article ASAP.

Recommended Articles

Role of Water in Proton-Coupled Electron Transfer between Tyrosine and Cysteine in Ribonucleotide Reductase
Journal of the American Chemical Society

Streamlined Alkylation via Nickel-Hydride-Catalyzed Hydrocarbonation of Alkenes
Journal of the American Chemical Society

Site-Selective Deuteration of Amino Acids through Dual-Protein Catalysis
Journal of the American Chemical Society

Metal–Organic Frameworks in Mixed-Matrix Membranes for High-Speed Visible-Light Communication
Journal of the American Chemical Society

Recommended Articles 相关文献

Create your ACS ID 注册账号


Create Your ACS ID

Email *

First Name * • Last Name * •

First/Given Name Last/Family Name

Customer/Member Number •

User Name * User Name

Too Short

Are you over the age of 18? *

☐ Yes ☐ No

By creating an account, I agree to the [Terms of Use](#) and [Privacy Policy](#).

Create an account

Cancel

快速注册 ACS 个人账号
获取订阅信息推送

MY ACCOUNT

Home >

Member Benefits >

E-Mail Alerts >

Saved Searches >

Activate a Token >

Edit Profile >

INSTITUTION MANAGEMENT

View Subscriptions >

Holdings File >

Usage reports >

Access Rights >

Configure Shibboleth account >

Welcome Karen

The options in the left-hand navigation allow you to manage your profile in the following ways:

 Member Benefits

View your current publication access balance and history.

 E-Mail Alerts

Sign up for and manage your Journal TOC, article, and Content Alerts.

 Saved Searches

Access and manage the searches you have saved on the ACS Publications website.

 Activate a Token

Activate access tokens for sponsored access to content.

 Edit Profile

Edit your personal profile information, including your e-mail and password.

Email Alerts 订阅信息

检索结果存档, 引文跟踪

获取订阅信息，推送至自己的邮箱

RECOMMENDATIONSINTERESTSJOURNALSNEWSLETTERSSEARCH & CITATIONSPROFILE SETTINGS

Journals

Manage the journals you're following.

Manage your email preferences for the journals you're currently following and find recommendations for other related journals we think you'll be interested in.

Signed in as:
rudy@igroup.com.cn
[Not you?](#)

Email 订阅: 1. 科学领域 2. 期刊 3. 行业简报

You can change the frequency and type of email updates you receive for each journal you're following.



C&EN Global Enterprise

News: On e-Alerts: On

Edit



Journal of Medicinal Chemistry

News: On e-Alerts: On

Edit



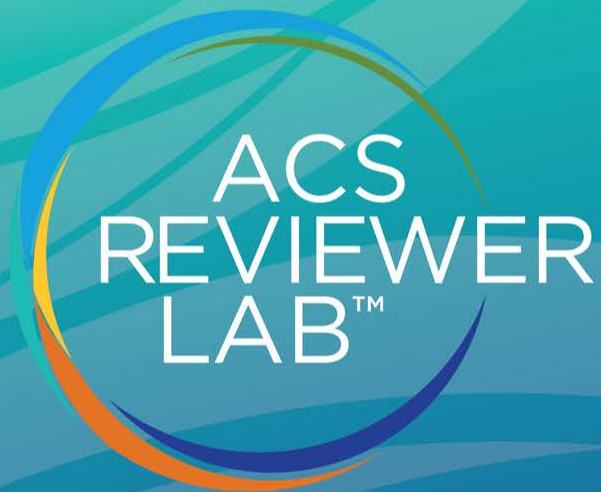
Journal of the American Chemical Society

News: On e-Alerts: On

Edit

 ACS Publications
Most Trusted. Most Cited. Most Read.

32



ACS Reviewer Lab 邀请您成为 **ACS** 期刊的审稿人
www.acsreviewerlab.org

ACS Reviewer Lab 包含了六个课程模块

开始使用 ACS 审稿人实验室



- 1. 同行审稿介绍**
什么是同行审稿？了解同行审稿的基本知识及其在学术出版中的关键作用。
- 2. 同行审稿的道德准则**
学习如何在对同行审稿过程中可能遇到的学术道德问题进行决策时做出明智和个人的决定。
- 3. 审稿准备**
了解如何准备稿件，包括建立自己的审稿人列表，并了解如何为审稿工作做好准备，包括与作者进行深入沟通。
- 4. 评估意义和技术质量**
审稿人对审稿人应评估稿件的哪些方面？了解如何有效评估稿件的技术质量。
- 5. 评估表达和出版规范**
文章表达清晰吗？使用审稿工具帮助作者提高写作质量，并了解学术写作和数据呈现的最佳实践。
- 6. 撰写审稿报告**
优秀的审稿报告包含哪些要素？学习如何撰写一份清晰、客观且具有建设性的审稿报告。



同行审稿介绍



评估意义和技术质量



同行审稿道德准则



评估表达和出版规范



审稿准备



撰写审稿报告



完成 ACS Reviewer Lab 线上培训课程并通过测验，可获得 ACS 审稿人培训证书。

申请加入 ACS 审稿人需要满足：

- 1) 审稿人培训证书
- 2) 完成 PhD

助您掌握学术交流必备知识 | ACS Guide to Scholarly Communication

ACS Publications ACS美国化学会

2022-11-22 11:57 发表于北京

机器学习/人工智能 | ACS期刊与电子图书资源合集

ACS Publications ACS美国化学会

2023-01-31 11:35 发表于北京

ACS In Focus | 材料科学领域电子书

2023-01-31 14:57 发表于北京

收录于合集
#电子书 15 #材料科学 2

该指南适用于广泛的学科领域，其中包含大量生动的多媒体资源，旨在以在线格式呈现，并及时出版，以便您快速获取。

适用于不同的

该指南是免费的，旨在帮助研究人员、教育工作者和图书馆员了解如何有效利用ACS In Focus系列电子书。

ACS In Focus | 材料科学领域电子书

2023-01-31 14:57 发表于北京

收录于合集
#电子书 15 #材料科学 2

该指南适用于广泛的学科领域，其中包含大量生动的多媒体资源，旨在以在线格式呈现，并及时出版，以便您快速获取。

适用于不同的

该指南是免费的，旨在帮助研究人员、教育工作者和图书馆员了解如何有效利用ACS In Focus系列电子书。

ACS In Focus | 材料科学领域电子书

2023-01-31 14:57 发表于北京

收录于合集
#电子书 15 #材料科学 2

该指南适用于广泛的学科领域，其中包含大量生动的多媒体资源，旨在以在线格式呈现，并及时出版，以便您快速获取。

适用于不同的

该指南是免费的，旨在帮助研究人员、教育工作者和图书馆员了解如何有效利用ACS In Focus系列电子书。

ACS In Focus | 材料科学领域电子书

2023-01-31 14:57 发表于北京

收录于合集
#电子书 15 #材料科学 2

ACS In Focus | 材料科学领域电子书

2023-01-31 14:57 发表于北京

收录于合集
#电子书 15 #材料科学 2

ACS In Focus | 材料科学领域电子书

2023-01-31 14:57 发表于北京

收录于合集
#电子书 15 #材料科学 2

ACS In Focus | 材料科学领域电子书

2023-01-31 14:57 发表于北京

收录于合集
#电子书 15 #材料科学 2

ACS In Focus | 材料科学领域电子书

2023-01-31 14:57 发表于北京

收录于合集
#电子书 15 #材料科学 2

ACS In Focus | 材料科学领域电子书

2023-01-31 14:57 发表于北京

收录于合集
#电子书 15 #材料科学 2

ACS In Focus | 材料科学领域电子书

2023-01-31 14:57 发表于北京

收录于合集
#电子书 15 #材料科学 2

ACS In Focus | 材料科学领域电子书

2023-01-31 14:57 发表于北京

收录于合集
#电子书 15 #材料科学 2

ACS In Focus | 材料科学领域电子书

2023-01-31 14:57 发表于北京

收录于合集
#电子书 15 #材料科学 2

ACS In Focus | 材料科学领域电子书

2023-01-31 14:57 发表于北京

收录于合集
#电子书 15 #材料科学 2

ACS In Focus | 材料科学领域电子书

2023-01-31 14:57 发表于北京

收录于合集
#电子书 15 #材料科学 2

ACS In Focus | 材料科学领域电子书

2023-01-31 14:57 发表于北京

收录于合集
#电子书 15 #材料科学 2

ACS In Focus | 材料科学领域电子书

2023-01-31 14:57 发表于北京

收录于合集
#电子书 15 #材料科学 2

ACS In Focus | 材料科学领域电子书

2023-01-31 14:57 发表于北京

收录于合集
#电子书 15 #材料科学 2

ACS In Focus | 材料科学领域电子书

2023-01-31 14:57 发表于北京

收录于合集
#电子书 15 #材料科学 2

ACS In Focus | 材料科学领域电子书

2023-01-31 14:57 发表于北京

收录于合集
#电子书 15 #材料科学 2

ACS In Focus | 材料科学领域电子书

2023-01-31 14:57 发表于北京

收录于合集
#电子书 15 #材料科学 2

ACS In Focus | 材料科学领域电子书

2023-01-31 14:57 发表于北京

收录于合集
#电子书 15 #材料科学 2

ACS In Focus | 材料科学领域电子书

2023-01-31 14:57 发表于北京

收录于合集
#电子书 15 #材料科学 2

ACS In Focus | 材料科学领域电子书

2023-01-31 14:57 发表于北京

收录于合集
#电子书 15 #材料科学 2

ACS 编辑部精选内容



IN COLLABORATION WITH



清华大学 深圳国际研究生院
Tsinghua Shenzhen International Graduate School

深圳市科技图书馆
深圳大学城图书馆
SHENZHEN SCIENCE
& TECHNOLOGY LIBRARY
UNIVERSITY TOWN
LIBRARY OF SHENZHEN



THE AMERICAN CHEMICAL SOCIETY IS COMING TO
UNIVERSITY TOWN OF SHENZHEN



陈晓东 教授

Editor-in-Chief,
ACS Nano



杨朝勇 教授

Associate Editor,
Analytical Chemistry



谭春燕 教授

Associate Editor, *ACS Applied Materials & Interfaces*

TUESDAY, JUNE 10, 2025 | 13:30-17:30



ACS 数据库培训服务

一. ACS 数据库学术资源最新动态

ACS 出版社简介

ACS 期刊资源最新动态

ACS 电子图书资源最新动态

ACS 支持开放科学和开放获取期刊

二. ACS 数据库平台功能和使用

数据库平台使用详解

文献检索案例和演示

文献调研案例和方法

高效获取前沿信息和跟踪热点

三. ACS 期刊投稿注意事项

ACS 期刊投稿定位与选择

ACS 期刊投稿指南详解

ACS 期刊投稿平台使用方法

四. ACS 期刊科技论文写作

如何开始期刊论文写作

期刊科技论文的基本结构

期刊科技论文各环节写作要点

如何写好一封投稿信

五. 同行评审与学术道德

同行评审的基本流程

同行评审里的学术道德

如何进行合理的审稿回复

如何成为优秀的 ACS 审稿人

六. 文献调研与科研案例

科研课题的文献调研方法

科研课题的文献案例阅读

从基础科研到 R&D 应用

ACS Publications 资源内容链接

ACS Journals

<https://pubs.acs.org>

ACS eBooks

<https://pubs.acs.org/page/books/index.html>

ACS In Focus

<https://pubs.acs.org/series/infocus>

ACS Reagent Chemicals

<https://pubs.acs.org/page/reagents/about>

C&EN Global Enterprise

<https://pubs.acs.org/loi/cgeabj>

ACS Publishing Center

<https://publish.acs.org/publish>

ACS Guide to Scholarly Communication

<https://pubs.acs.org/doi/book/10.1021/acsguide>

ACS Author Lab

<https://institute.acs.org/courses/acs-author-lab.html>

ACS Reviewer Lab

<https://institute.acs.org/courses/acs-reviewer-lab.html>

ACS Webinars

<https://www.acs.org/acs-webinars.html>



有奖答题（共**3**题）

题目 1 : ACS 出版的第一本期刊是什么？

A. ACS Catalysis

B. Chemical Reviews

C. Journal of the American Chemical Society

答案：C

A. ACS Catalysis

B. Chemical Reviews

C. Journal of the American Chemical Society (1879年出版)

题目 2：ACS 数据库目前收录了多少种期刊？

- A. 近 60 种订阅期刊、近 20 种 OA 期刊
- B. 近 70 种订阅期刊、近 20 种 OA 期刊
- C. 近 80 种订阅期刊、近 20 种 OA 期刊

答案：B

A. 近 60 种订阅期刊、近 20 种 OA 期刊

B. 近 70 种订阅期刊、近 20 种 OA 期刊

C. 近 80 种订阅期刊、近 20 种 OA 期刊

题目 3 : ACS 收录多少本电子图书 ACS eBooks?

- A. 1800 多本
- B. 1900 多本
- C. 1700 多本

答案：C

A. 1800 多本

B. 1900 多本

C. 1700 多本

关于我们

联系信息

ACS 产品培训主管: 赵璟

Tel: 13816222420

Email: rudy@igroup.com.cn

ACS 数据库主页

pubs.acs.org

ACS 投稿平台

publish.acs.org

**ACS 数据库在中国
由 iGroup China 独家代理**

