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# 简报 Newsletter



## 新概念传感器与分子材料研究院 Institute of New Concept Sensors and Molecular Materials



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## 房喻院士应邀赴榆林市参观考察并作报告

Fang Yu visits Yulin City and delivers a report



2025年6月30日至7月2日，房喻院士应邀赴榆林市参观考察并作专题报告。

6月30日下午房喻院士参观考察榆阳数字农业示范园区；7月1日上午参观考察榆林功昌书院，下午在榆林图书馆作专题学术报告；2日上午参观考察榆林高新区煤化工产业园，与企业家座谈交流。

在功昌书院，房喻院士与陕师大前党委副书记武国玲一起代表陕西师范大学出版总社向书院捐赠了120余册陕北革命史和文学著作等图书，并接受了功昌书院的高级顾问聘书。

在榆林图书馆报告厅所作的题为《创新驱动所需要的人才培养和科学研究》的报告中，房喻院士指出当今世界的竞争核心在于人才和科技，要实施创新驱动高质量发展战略，就必须高度重视人才培养和科学研究。面对人工智能等颠覆性技术重塑产业格局的新趋势，房喻院士认为教育需要聚焦学生综合素养与创新能力的培育，致力于培养出兼具专业深度与家国情怀的复合型人才，并且要推动科研与国家重大需求深度对接。

报告会由榆林市决策咨询委员会和榆林功昌书院联合举办，近300名来自榆林市决策咨询委员会、市直机关、企事业单位、中小学及榆林功昌书院的代表参加了报告会。

From June 30 to July 2, 2025, Prof. Fang Yu visited Yulin City in northern Shaanxi province and delivered a special report during the visit.

On the afternoon of June 30, Fang Yu visited Yuyang Digital Agriculture Demonstration Park; on the morning of July 1, he visited Yulin Gongchang Academy, and delivered a special report at the Yulin Library in the afternoon; on the morning of the 2nd, he visited Yulin High-Tech Zone Coal Chemical Industry Park and held discussions and exchanges



with entrepreneurs.

At Gongchang Academy, Fang Yu and Wu Guoling, former deputy secretary of the Party Committee of Shaanxi Normal University, represented Shaanxi Normal University General Publishing House in donating more than 120 books on the history of the revolution in northern Shaanxi and literary works to the academy. Fang Yu also accepted appointment as a senior advisor to the academy.

In his report titled “Talent Development and Scientific Research Required for Innovation-Driven Development”, delivered at the Yulin Library auditorium, Fang Yu said that the core of global competition today lies in talent and technology, and to implement an innovation-driven high-quality development strategy, it is essential to place high priority on talent development and scientific research. In light of the new trend where disruptive technologies like artificial intelligence are reshaping industrial landscapes, Fang Yu believes that education should focus on cultivating students’ comprehensive qualities and innovative capabilities, aiming to nurture composite talents who are both professional and patriotic, while also promoting



the deep integration of scientific research with national strategic needs.

The report session was jointly organized by Yulin City Decision-

Making Advisory Committee and Yulin Gongchang Academy. Nearly 300 representatives from the Yulin Advisory Committee, municipal government

agencies, enterprises and institutions, primary and secondary schools, and Gongchang Academy attended the event.

## 房喻院士一行赴中电科 39 所走访交流

### Fang Yu visits CETC 39th Institute

2025 年 7 月 4 日，陕西师范大学新概念传感器与分子材料研究院房喻院士一行赴中国电子科技集团公司第三十九研究所走访交流。中电科 39 所党委书记李东伟、科技委主任李红卫及相关部门负责人与房喻院士一行进行了座谈交流。

中国电科 39 所测控事业部副主任刘熠介绍了 39 所发展历程、重点业务版块及与陕师大新概念研究院前期合作情况。房喻院士作了题为《面向先进技术的分子材料创新——从高性能传感器到高增益透镜》的专题报告。双方还就陕师大新概念研究院宽频低损耗消色差可定制介质材料的应用前景进行了探讨。

西安交通大学新概念传感器与分子材料研究院执行院长刘峰教授、前

沿科学技术研究院副院长何刚教授，陕西师范大学新概念传感器与分子材料研究院副院长丁立平教授、行政副院长杨小刚、研发工程师何怡楠陪同走访交流。

On July 4, 2025, Prof. Fang Yu and his delegation from the Institute of New Concept Sensors and Molecular Materials of Shaanxi Normal University visited the 39th Institute of China Electronics Technology Group Corporation. Li Dongwei, party secretary of CETC 39th Institute, Li Hongwei, director of the Science and Technology Committee, and relevant department heads held discussions with Fang Yu and his delegation.

CETC 39th Institute Measurement and Control Division deputy director Liu Yi introduced the development

history, key business areas, and previous cooperation with the SNNU INCSMM. Fang Yu delivered a report titled “Innovation in Molecular Materials Toward Advanced Technologies: From High-Performance Sensors to High-Gain Lenses”. The two sides also discussed the application prospects of broadband low-loss achromatic customizable dielectric materials developed by the SNNU INCSMM.

Pro. Liu Feng, Executive dean of the Institute of New Concept Sensors and Molecular Materials of Xi'an Jiaotong University, Prof. He Gang, deputy dean of XJTU Institute of Frontier Science and Technology; SNNU INCSMM deputy dean Prof. Ding Liping, administrative deputy dean Mr. Yang Xiaogang, and R&D Engineer Ms He Yinan, participated in the visit.

## 房喻院士为 2025 年陕西省市县（区）教育局长高级研修班作报告

### Fang Yu speaks at 2025 Advanced Training Course for Education Bureau Directors of Shaanxi Province



2025 年 7 月 6 日，在陕西师范大学长安校区举行的“2025 年陕西省市县（区）教育局长高级研修班”开班仪式上，房喻院士应邀作了题为“创新驱动发展背景下的人才培养与科学研究：我的一些思考”的报告。

陕西省委教育工委书记、省教育厅厅长王树声，陕西省委教育工委委员、省教育厅副厅长申雪峰、吴振磊，陕西师范大学省委常委、副校长陈新兵出席开班仪式，来自全省各市、区、县的 130 余位教育局局长、研修班学员参加了开班仪式。

On July 6, 2025, at the opening ceremony of the “2025 Shaanxi Advanced Training Course for Municipal, District and County Education Bureau Directors” held at the Chang'an campus of Shaanxi Normal University, Prof. Fang Yu delivered a report titled “Talent Cultivation and Scientific Research in the Context of Innovation-Driven

Development: Some of My Thoughts”.

Wang Shusheng, secretary of the Shaanxi Provincial Party Committee Education Work Committee and director of the Provincial Department of Education; Shen Xuefeng and Wu Zhenlei, members of the Shaanxi Provincial Party Committee Education Work Committee and deputy directors of the Provincial Department of

Education; and Chen Xinbing, member of the Standing Committee of the Party Committee and vice president of Shaanxi Normal University, attended the opening ceremony. Over 130 education bureau directors and training program participants from cities, districts, and counties across the province participated in the opening ceremony.

## 房喻院士在《科技日报》发表《聚集体》期刊点评

Fang Yu publishes a review of the journal *Aggregate* in the *Science and Technology Daily*

近日，房喻院士在《科技日报》上发表了对《聚集体》期刊的点评，全文如下：

《聚集体》是一本特色鲜明、充满力的新兴期刊，专注于聚集体科学这一前沿交叉领域。自创刊以来，期刊以多学科与综合性的定位、严谨的学术标准、高效的审稿流程为办刊理念，迅速赢得了化学、材料、生物等领域科学工作者的广泛关注。

我欣喜地见证了《聚集体》创刊5年来取得的成果，其发表的创新性成果和组织的特色专刊充分展现了期刊的专业性和引领性。特别值得指出的是，《聚集体》自创刊之始，就高度关注青年学者的培养，通过组建青年编委团队、开设新锐科学家专刊、举办研究生学术论坛、设立“聚集体科学新秀奖”，以及打造“聚贤集才”青年科学家采访专栏等多项举措，支持青年学者的成长与发展。

我相信在期刊编委会、编辑部和业界学者的共同努力下，《聚集体》一定能够成为引领聚集体科学发展的标杆，为我国学术期刊的高水准国际化树立典范。

在同一版面，《聚集体》期刊主编、香港中文大学（深圳）理工学院院长唐本忠院士发表了题为“《聚集体》：着眼于分子之上的广阔天地”的文章，回顾总结了《聚集体》创刊5年来的发展历程，表示“发表聚集体科学领域高质量研究成果的初心不曾改变”，希望“将《聚集体》期刊乃至聚集体科学领域做大做强”。

Recently, Prof. Fang Yu published a review of the journal *Aggregate* in *Science and Technology Daily*, and the full text is as follows:

*Aggregate* is a distinctive and dynamic emerging journal dedicated to the cutting-edge interdisciplinary field of aggregate research. Since its inception, the journal has adhered to a multidisciplinary and comprehensive orientation, rigorous

## 《聚集体》：着眼于分子之上的广阔天地

国际学术期刊荟萃

唐本忠



《聚集体》创刊5周年纪念刊

唐本忠院士寄语

图片来源：《聚集体》期刊编辑部

在物质科学领域，分子与其聚集体在结构和性质上可以有很大的差异。《聚集体》(Aggregate)期刊的创办，旨在为聚集体科学提供一个学术平台，为研究成果提供一个交流空间，促进这一新兴领域的进步和发展。

“从分子科学到聚集体科学”研究范式的转移

长期以来，科学研究在方法上受还原论思维的影响，倾向于将复杂系统拆解成基本的单元进行分步研究。分子科学以还原论思维为基础，通过研究分子本身认识物质，认为物质的宏观性质是分子结构的简单线性叠

加。然而，随着分子科学范式，人们逐渐理解和掌握聚集体过程中涌现出的新结构和性质，更重视它们的功能性、稳定性和工作机制。

在聚集体科学界持续理论建设和理论、实验于分子之上的“真实”地，它关注分子的组织模式和相互作用以及由分子聚集形成的多尺度结构和行为。聚集体科学的研究为从分子到科学问题提供了新的思路和方法。

科学“微观”与“宏观”

《聚集体》是国际上第一本专注于聚集体科学相关主题和前沿研究的学术期刊。2020年，在材料科学领域的王宇、华南理工大学、广东大湾区华南理工大学等顶尖高等研究院和团队由王宇、Wang Yu共同创办了《聚集体》杂志，旨在鼓励人们打破学科壁垒，追求跨学科和交叉科学之间的协同。

《聚集体》是国际上第一本专注于聚集体科学相关主题和前沿研究的学术期刊。2020年，在材料科学领域的王宇、华南理工大学、广东大湾区华南理工大学等顶尖高等研究院和团队由王宇、Wang Yu共同创办了《聚集体》杂志，旨在鼓励人们打破学科壁垒，追求跨学科和交叉科学之间的协同。

“化学-多学科”“化学-物理”“材料科学-多学科”三个学科Q1区。2025年5月，本杂志入选2025中国科学文献统计中心(第四版)化学类一区TOP期刊。

重视年轻科研力量

为了办好《聚集体》这本期刊，我们

■ 点评

《聚集体》是一本特色鲜明、充满活力的新兴期刊，专注于聚集体科学这一前沿交叉领域。自创刊以来，期刊以多学科与综合性的定位、严谨的学术标准、高效的审稿流程为办刊理念，迅速赢得了化学、材料、生物等领域科学工作者的广泛关注。

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我相信在期刊编委会、编辑部和业界学者的共同努力下，《聚集体》一定能够成为引领聚集体科学发展的标杆，为我国学术期刊的高水准国际化树立典范。

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## Journal Review

*Aggregate* is a distinctive and dynamic emerging journal dedicated to the cutting-edge interdisciplinary field of aggregate research. Since its inception, the journal has adhered to a multidisciplinary and comprehensive orientation, rigorous academic standards, and an efficient peer-review process, quickly garnering widespread attention from researchers in chemistry, materials science, biology and related fields.

I am delighted to witness the healthy growth of *Aggregate* over its first five years. The innovative research it has published and the special issues it has organized fully demonstrate the journal's professionalism and leadership. Notably, from the very beginning, *Aggregate* has placed a strong emphasis on nurtur-

ing young scholars. Through initiatives such as forming a youth editorial board, launching special issues for rising stars, organizing postgraduate student forums, establishing the "Aggregate Science Rising Star Award," and creating the "Gathering Talents" column for young scientists, the journal has supported the growth and development of early-career researchers.

With the collective efforts of the editorial team and the scholars in the field, I am confident that *Aggregate* will become a benchmark in advancing aggregate science.

—— Fang Yu, academician of the Chinese Academy of Sciences, and professor at the Shaanxi Normal University.

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On the same page, Academician Ben Zhong Tang, editor-in-chief of the journal

*Aggregate* and dean of the School of Science and Engineering at The Chinese University of Hong Kong (Shenzhen), published an article titled "Aggregates: A Broad Horizon Beyond the Molecular Level". In the article, he reviewed and summarized the development of *Aggregate* over the past five years since its inception, stating that "the original intention of publishing high-quality research results in the field of aggregate science has not changed," and expressing his hope to "expand and strengthen the *Aggregate* journal and the field of aggregate science."

## 刘凯强教授参加中国材料大会 2025 并作邀请报告

Liu Kaiqiang presents an invited report at China Materials Conference 2025

2025 年 7 月 5 至 8 日, 新概念传感器与分子材料研究院刘凯强教授参加了在厦门举办的“中国材料大会 2025”, 并应邀在超分子材料分会作了题为“功能软物质的限域结晶与界面粘附”的邀请报告, 介绍了近年来课题组取得的研究进展及面临的学术困境。

From July 5 to 8, 2025, Prof. Liu Kaiqiang from the Institute of New Concept Sensors and Molecular Materials attended the China Materials Conference 2025 held in Xiamen and presented an invited report titled "Confined Crystallization and Interface Adhesion of Functional Soft Matters" at the Supramolecular Materials Session, where he introduced the research progress made by his research group in recent years and the academic challenges they face.



## 薄鑫参加 2025 年电化学研究范式暑期学校

Bo Xin participates in 2025 Electrochemistry Summer School



2025 年 7 月 4 至 10 日, 新概念传感器与分子材料研究院薄鑫副研究员在厦门参加了 2025 年电化学研究范式暑期学校培训。

培训课程聚焦电化学核心领域, 包含基础电化学、经典电化学研究方法、电子转移理论、电催化理论等理论方法和计算电化学, 以及原位振动光谱、X 射线、质谱、电镜等测试方法, 注重规范化的电化学性能测试与表征方法, 帮助有一定基础的学员深入理解研究范式, 精准把握实验细节, 避免文献常见误区, 学会对实验数据进行严谨分析



与解读，提升科研实践的规范性与可靠性。

该暑期学校创办于2009年，由厦门大学化学化工学院、表面化学全国重点实验室、嘉庚创新实验室和能源材料化学协同创新中心共同建立。

From July 4 to 10, 2025, Assoc. Prof. Bo Xin from the Institute of New Concept Sensors and Molecular Materials participated in the 2025 Electrochemistry Summer School in Xiamen.

The training course focuses

on core areas of electrochemistry, including fundamental electrochemistry, classical electrochemistry research methods, electron transfer theory, electrocatalysis theory, and computational electrochemistry, as well as testing methods such as in situ vibrational spectroscopy, X-ray spectroscopy, mass spectrometry, and electron microscopy. It emphasizes standardized electrochemistry performance testing and characterization methods, helping participants with a solid foundation to deeply understand research paradigms, precisely grasp experimental

details, and avoid common pitfalls in the literature, and learn to conduct rigorous analysis and interpretation of experimental data, so as to enhance the standardization and reliability of research practices.

The summer school was founded in 2009 and jointly established by the College of Chemistry and Chemical Engineering of Xiamen University, the State Key Laboratory of Physical Chemistry of Solid Surface, the Tan Kah Kee Innovation Laboratory, and the Collaborative Innovation Center for Chemistry for Energy Materials.

## 房喻院士出席中国化学会第三届化学哲学与化学文化化学学术研讨会并作报告

### Fang Yu speaks at CCE Third Symposium on Philosophy of Chemistry and Chemical Culture

2025年7月14日，房喻院士出席了在延安大学召开的中国化学会第三届化学哲学与化学文化化学学术研讨会，并作题为“创新驱动发展所需要的人才培养与科学研究：我的一些思考”的报告。

本次会议由中国化学会化学教育学科委员会主办，延安大学、榆林学院化学与化工学院、延安市科学技术协会承办，以“化学哲学和化学文化化学的多维度探索与思考”为主题，聚焦化学伦理、实验设计文化视角、化学美学内涵暨课程思政等内容，由房喻、钱旭红、俞书宏等3位院士、8名国家级人才等带来了43场学术报告。

会议期间还召开了延安大学化学与化工学院学科建设座谈会，30多位专家为延安大学化学与化工学院的学科发展、人才培养等方面建设提出了建议。

On July 14, 2025, Prof. Fang Yu attended the Third Symposium on Philosophy of Chemistry and Chemical Culture of the Chinese Chemical Society held at Yan'an University and delivered a report titled "Talent Cultivation and Scientific Research for Innovation-driven Development: Some of My Reflections".

Under the theme of "Multi-dimensional Exploration and Reflection on Chemical Philosophy and Chemical Culture", the conference was hosted by CCE's Chemical Education Discipline Committee, and organized by Yan'an University, the School of Chemistry and Chemical Engineering of Yulin University, and Yan'an Science and Technology Association, and focused on



chemical ethics, cultural perspective of experimental design, the connotation of chemical aesthetics and curriculum ideology, etc. Three CAS and CAE academicians such as Fang Yu, Qian Xuhong, and Yu Shuhong, as well as eight national-level talents, presented 43 academic reports.

During the meeting, a symposium on the construction of disciplines in the School of Chemistry and Chemical Engineering of Yan'an University was also held, in which more than 30 experts put forward suggestions for the development of disciplines and the cultivation of talents and other aspects of the construction of the School of Chemistry and Chemical Engineering of Yan'an University.

## 房喻院士出席全国高师第二十五届物理化学教学研讨会并作报告

### Fang Yu speaks at 25th National Teaching Symposium on Physical Chemistry for Normal Universities

2025年7月15日，房喻院士出席在扬州举行的全国高师第二十五届物理化学（含实验）教学研讨会暨优秀教学案例展示活动，并作了题为“创新驱动发展所需要的人才培养与科学研究——我的一些思考”的报告。

本次会议由扬州大学化学与材料学院承办，来自北京师范大学、华东师范大学、南京大学、扬州大学等三十余所师范和综合性高校的70余位代表参加了会议。

On July 15, 2025, Prof. Fang Yu attended the 25th National Teaching Symposium on Physical Chemistry (Including Experiments) for Normal Universities and Excellent Teaching Cases Showcase in Yangzhou, and presented a report titled “Talent Cultivation and Scientific Research Needed for Innovation-Driven Development - Some of My Reflections”.

The conference was organized by the School of Chemistry and Materials of Yangzhou University, and was attended by more than 70 delegates from more than thirty teacher-training



and comprehensive universities, including Beijing Normal University, East China Normal University, Nanjing University and Yangzhou University.

## 房喻院士在中国科学院 2025 年科普工作培训会作报告

### Fang Yu speaks at 2025 CAS science popularization training session



2025年7月17日，房喻院士在长春举行的中国科学院2025年科普工作培训会上作了题为《创新驱动发展所需要的人才培养与科学研究：我的

一些思考》的科普报告，强调了教育和人才培养在科普工作中的重要地位。

会议邀请了17位院内外专家作专题报告，研讨中国科学院科普工作

和科学教育工作的理论路径和实践策略。大会还公布了“2024年全国优秀科普作品获奖名单”和“2024年全国科学实验展演汇演活动获奖名单”。



本次培训会由中国科学院学部工作局主办，长春分院承办。长春市科学技术协会、中国科学院各分院、近百个科研院所和大学的科普主管以及各协作组负责人等 130 人参加培训。

On July 17, 2025, Prof. Fang Yu gave a science popularization report titled “Talent Cultivation and Scientific Research Needed for Innovation-Driven Development: Some of My Thoughts”, at the Chinese Academy of Sciences (CAS) 2025 Science Popularization Training Session held in Changchun, emphasizing the importance of education and talent cultivation in science popularization work.

Seventeen experts from inside and outside the academy were invited to give presentations to discuss the theoretical paths and practical strategies for the popularization of science and science education at CAS. The session also announced the “2024 National Outstanding Science Popularization Work Award Winners” and the “2024 National Science Experiment Exhibition and Performance Award Winners”.

The training session, organized by CAS Bureau of Academic Affairs and hosted by the Changchun Branch, was attended by 130 people, including the heads of Changchun Science and Technology Association, CAS branches, nearly 100 research institutes and universities, as well as collaborative groups.



## 房喻院士出席第 27 届中国科协年会“核生化灾害防护化学前沿技术”专题论坛并作报告

Fang Yu speaks at Forum of Chemical Frontier Technology for Nuclear, Biological and Chemical Disaster Protection of 27th CAST Annual Meeting

2025 年 7 月 29 日，房喻院士出席在北京中国科技馆举行的第二十七届中国科协年会“核生化灾害防护化学前沿技术”专题论坛，并作了题为“传感驱动分子材料创新”的大会主旨报告。

本次会议由中国科学技术协会主办，中国化学会联合核生化灾害防护化学全国重点实验室共同承办，全国各地核生化灾害防护化相关的专家学者近百人参加论坛。

On July 29, 2025, Prof. Fang Yu attended the Forum of “Chemical Frontier Technology for Nuclear, Biological and Chemical Disaster Protection” of the 27th Annual Conference of China Association for Science and Technology held in China Science and Technology Hall, Beijing, and gave a keynote speech titled “Sensor-Driven Innovation in Molecular Materials”.

This forum was organized by the China Association for Science and Technology, and jointly hosted by the Chinese Chemical Society and the National Key Laboratory of Chemical



Defense against Nuclear, Biological and Chemical Disasters. Nearly 100 experts and scholars from across China specializing in nuclear, biological and chemical disaster prevention and control attended the forum.

# Photocatalytic Mechanism of Azidoarylation of Alkenes by a Cu(I) Complex: Open-Shell Singlet Is Preferred over Triplet

Jia-Jia Ma, Dong-Yi Xiao, Xin-Xin Liu, Ling-Ya Peng\*, Qiu Fang\*, Wei-Hai Fang, and Ganglong Cui\*



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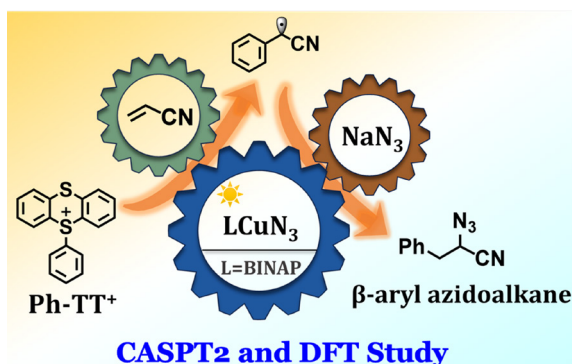


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## 可见光诱导的铜催化烯烃叠氮芳基化反应机理

Jia-Jia Ma, Dong-Yi Xiao, Xin-Xin Liu, Ling-Ya Peng\*, Qiu Fang\*, Wei-Hai Fang, and Ganglong Cui\*. *ACS. Catal.* 2025, 15, 13645–13656.

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光诱导 Cu(I) 催化反应在烯烃叠氮芳基化领域展现出重要应用价值，然而其微观反应机制仍有待阐明。本研究结合完全活性空间二阶微扰理论 (CASPT2)、密度泛函理论 (DFT) 计算及从头算分子动力学 (AIMD) 模拟，深入揭示了芳基噻蒎盐参与的烯烃叠氮芳基化机制。研究表明：该反应首先形成  $[\text{Cu}^{\text{I}}(\text{N}_3)]$  活性中间体，经光激发及一系列光物理过程后，最终布居到  $[\text{Cu}^{\text{I}}(\text{N}_3)]$  的三重态。随后，叠氮配体与铜中心配位，诱导芳基噻蒎盐发生单电子转移，生成关键中间体  $[\text{Cu}^{\text{II}}(\text{N}_3)_2]$  和  $\alpha$ -氰基苄基自由基。该自由基随后通过叠氮化反应完成催化循环，高效生成  $\beta$ -芳基叠氮烷烃产物。值得注意的是，自由基叠氮化过程更易在开壳层单重态下进行，其决速步骤为  $\alpha$ -氰基苄基自由基选择性进攻  $[\text{Cu}^{\text{II}}(\text{N}_3)_2]$  叠氮基团的内端氮原子（而非外端氮原子），这一区域选择性主要受空间位阻效应调控。此外，无辐射跃迁在反应过程中起关键作用。最后，通过系统考察不同取代基效应，发现  $-\text{CF}_3$  修饰的烯烃底物不仅反应活性最优，同时表现出显著的对映选择性。

第一作者：北京师范大学博士研究生马佳佳

通讯作者：北京师范大学崔刚龙教授和方道副教授，陕西师范大学彭灵雅博士

全文链接：<https://pubs.acs.org/doi/10.1021/acscatal.5c02258>

The photoinduced Cu(I)-catalyzed reaction has drawn significant attention and has been successfully applied to the azidoarylation of alkenes. However, the underlying reaction mechanism remains elusive. In this study, we employ the complete active space second-order perturbation theory (CASPT2) and density functional theory (DFT) calculations as well as ab initio molecular dynamics (AIMD) simulations to study the mechanism of azidoarylation of alkenes via arylthianthrenium salt. The reaction initiates with the formation of a  $[\text{Cu}^{\text{I}}(\text{N}_3)]$  complex. Upon photoexcitation and after a series of photophysical processes, the lowest triplet state of  $[\text{Cu}^{\text{I}}(\text{N}_3)]$  is eventually populated. Subsequently, an additional azide ligand coordinates to the Cu center, triggering a single-electron transfer process with the arylthianthrenium salt. This step leads to the formation of  $[\text{Cu}^{\text{II}}(\text{N}_3)_2]$  and a homobenzyl radical. The radical carboazidation reaction then completes the catalytic cycle, yielding a  $\beta$ -aryl azidoalkane product. Notably, the radical carboazidation reaction prefers to occur in the open-shell singlet state rather than the triplet state. The rate-determining step is identified as the electrophilic attack of the homobenzyl radical on the internal N atom instead of the external N atom in the azido group of  $[\text{Cu}^{\text{II}}(\text{N}_3)_2]$ , which is governed by the steric effects. And nonradiative processes play a vital role in the reaction. Furthermore, investigations into substituent effects on alkenes reveal that the  $-\text{CF}_3$  substitution demonstrates superior reaction performance and enantioselectivity.

First Author: Ma Jiajia, PhD candidate, Beijing Normal University

Correspondence Authors: Prof. Cui Ganglong and A/Prof. Fang Qiu, Beijing

Normal University; Dr. Peng Lingya, Shaanxi Normal University

Full Text Link: <https://pubs.acs.org/doi/10.1021/acscatal.5c02258>

## 化学化工学院 91 级返校校友参观研究院

SCCE Class '95 alumni visitors received



2025 年 7 月 19 日，参加“毕业 30 年校友返校日”回访学院活动的化学化工学院 91 级 20 余位校友到访新概念传感器与分子材料研究院。杨小刚副院长带领返校校友参观了研究院展厅，并介绍了研究院的基本情况、发展理念、科研方向、技术优势、研

究成果及战略布局等情况。

On July 19, 2025, more than 20 Class 1995 alumni of the School of Chemistry and Chemical Engineering, who participated in the activity of “Alumni Homecoming 30 Years after Graduation”, visited the Institute of New Concept

Sensors and Molecular Materials.

Vice dean Mr. Yang Xiaogang led the alumni to visit the INCSMM exhibition hall and introduced to them the basic situation, development concept, research direction, technical advantages, research results and strategic layout of the institute.

## 西安高新区管委会副主任王海若一行来访

Xi'an Hi-Tech Zone deputy director Wang Hairuo received



2025 年 7 月 22 日，西安高新技术产业开发区管委会党工委委员、副主任王海若一行到访新概念传感器与

分子材料研究院。

房喻院士带领来宾参观了综合展厅，介绍了研究院的基本情况、发展

理念、科研方向、技术优势、研究成果及战略布局，并与王海若一行进行了座谈交流。



高新区配套公司总经理吴明亮、招商部李毅，高新区组织人事部范鑫、科技创新局刘阳，高新区长安园主任胡忻、副主任马丽娟等陪同来访。新概念研究院副院长丁立平、杨小刚，彭军霞教授等参加了座谈。

On July 22, 2025, Wang Hairuo, member of the Party Working Committee and deputy director of the Administrative Committee of Xi'an Hi-Tech Industries

Development Zone, and her delegation visited the Institute of New Concept Sensors and Molecular Materials.

Prof. Fang Yu led the guests to visit the comprehensive exhibition hall, introduced the basic situation, development concept, research direction, technical advantages, research results and strategic layout of the Institute, and had a discussion with them.

General manager Wu Mingliang and Li Yi of Investment Promotion

Department of Xi'an Hi-Tech Zone Supporting Company, Fan Xin of Organization and Personnel Department, Liu Yang of Science and Technology Innovation Bureau of Xi'an Hi-Tech Zone, and Chang'an Park director Hu Xin and deputy director Ma Lijuan of Xi'an Hi-Tech Zone, accompanied the visit. INCSMM vice deans Ding Liping and Yang Xiaogang and Prof. Peng Junxia participated in the meeting.

## 中国科学院新疆天文台和中电科 39 所来访

### CAS Xinjiang Observatory and CETC 39th Institute visitors received

2025 年 7 月 25 日，中国科学院新疆天文台马军高级工程师、中国电子科技集团有限公司第 39 研究所王珂主任和刘熠博士一行到访新概念传感器与分子材料研究院并与房喻院士座谈交流。

马军作了关于 110 米射电望远镜电介质材料关键技术的专题报告，介绍了该望远镜对高性能电介质材料的需求及当前技术挑战，并与房喻院士讨论了新型分子材料在射电望远镜核心部件的应用。

新疆天文台与中电科 39 所专家对研究院在新型电介质材料领域的研究成果表示高度认可，双方就下一步

合作达成初步共识。研究院副院长丁立平教授、杨小刚副院长、彭军霞教授以及研发工程师何怡楠、罗艳彦、马剑飞参加了报告和座谈。

On July 25, 2025, Senior Engineer Ma Jun from Xinjiang Observatory of the Chinese Academy of Sciences, director Wang Ke and Dr. Liu Yi from the 39th Research Institute of China Electronics Technology Group Corporation visited the Institute of New Concept Sensors and Molecular Materials and had a meeting with Prof. Fang Yu.

Ma Jun presented a report on the key technology of dielectric materials for 110-meter radio telescope, introducing the

demand for high-performance dielectric materials for this telescope and the current technical challenges, and discussed with Fang Yu the application of new molecular materials in the core components of radio telescope.

CAS Xinjiang Observatory and CETC 39th Institute experts highly recognized INCSMM research results in the field of new dielectric materials, and both sides reached a preliminary consensus on the next step of cooperation. INCSMM vice dean Prof. Ding Liping, vice dean Mr. Yang Xiaogang, Prof. Peng Junxia, and R&D engineers He Yinan, Luo Yanyan, and Ma Jianfei attended the report and meeting.

