

# ChemComm

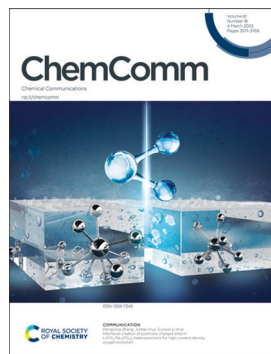
Chemical Communications

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## IN THIS ISSUE

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### Cover

See Dongsong Zhang, Juntao Huo, Guowei Li *et al.*, pp. 3669–3672. Image reproduced by permission of Guowei Li from *Chem. Commun.*, 2025, 61, 3669.



### Inside cover

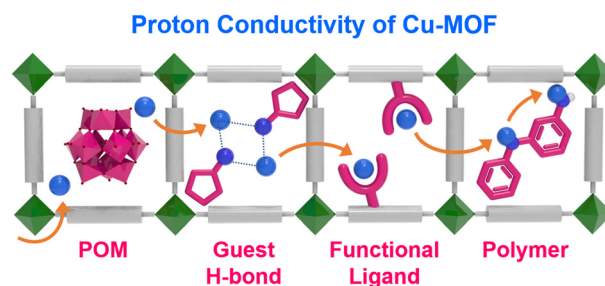
See Zhou Lu and Shengyu Dai, pp. 3673–3675. Image reproduced by permission of Shengyu Dai from *Chem. Commun.*, 2025, 61, 3673.

## HIGHLIGHTS

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### Proton-conducting copper-based MOFs for fuel cells

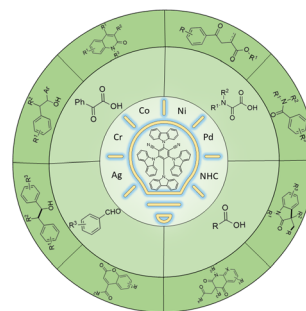
Byong June Kim, Sun Ho Park, Mariana L. Diaz-Ramirez and Nak Cheon Jeong\*



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### Recent advances in 4CzIPN-mediated functionalizations with acyl precursors: single and dual photocatalytic systems

Ajay Uppuluru, Pratheepkumar Annamalai\* and Kishor Padala\*



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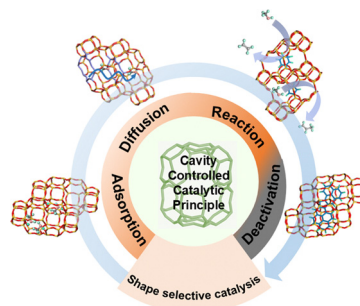
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## FEATURE ARTICLES

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## Shape-selective catalysis in cavity-type molecular sieves: cavity-controlled catalytic principle

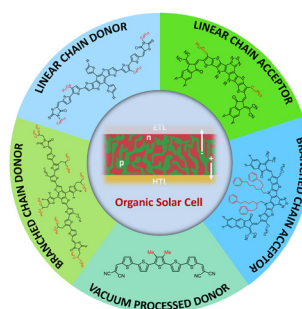
Shushu Gao, Fangxiu Ye, Shutao Xu,\* Yingxu Wei\* and Zhongmin Liu



3649

## Influence of alkyl chain length on solar cell performance of molecular organic semiconductors: a review

Abhisekh Mishra, Sarbeswar Mahalik and Amaresh Mishra\*

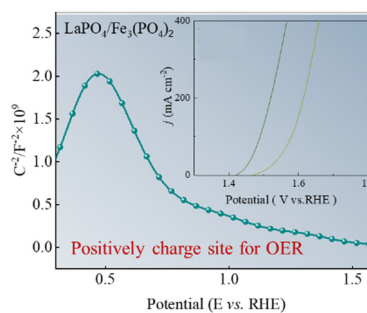


## COMMUNICATIONS

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Interfacial creation of positively charged sites in  $\text{LaPO}_4/\text{Fe}_3(\text{PO}_4)_2$  heterojunctions for high-current-density oxygen evolution

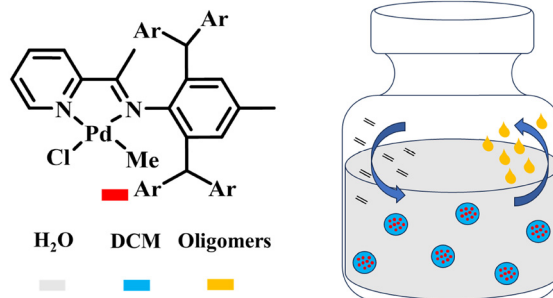
Sitong Liu, Yudi Zhang, Wen Sun, Junqiang Wang, Dongsong Zhang,\* Juntao Huo\* and Guowei Li\*



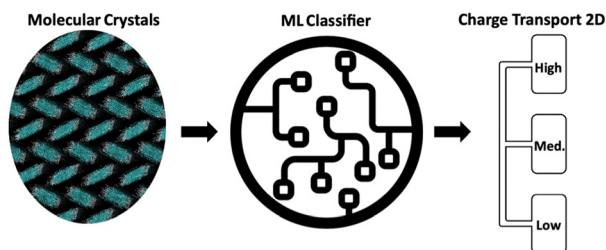
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## Controlled oligomerization in water to hyperbranched ethylene oligomers

Zhou Lu and Shengyu Dai\*



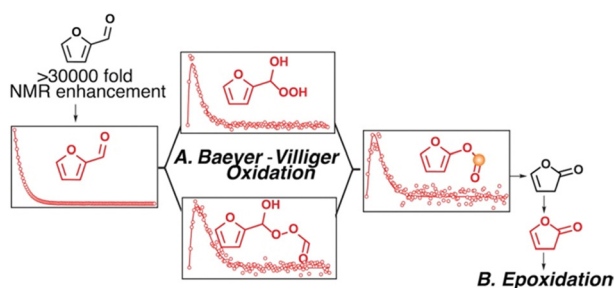
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### Accelerating the discovery of high-mobility molecular semiconductors: a machine learning approach

Tahereh Nematiamram,\* Zenon Lamprou and Yashar Moshfeghi

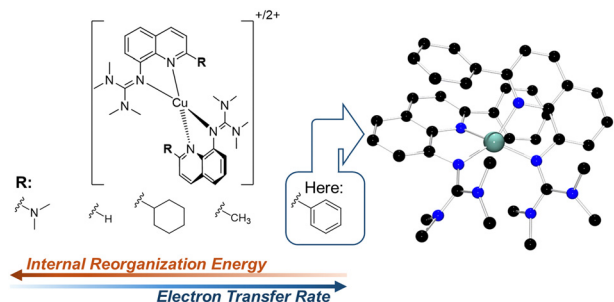
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### Hyperpolarized NMR reveals transient species and elusive routes in acid-catalyzed furfural oxidation at natural isotope abundance

Stefan S. Warthegau, Magnus Karlsson, Pernille Rose Jensen and Sebastian Meier\*

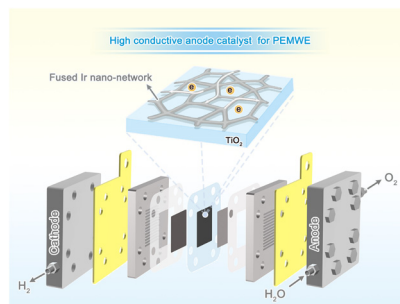
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### The golden goal of entatic state model design: lowering the internal reorganization energy leads to exponential increase in electron transfer rate

Tobias Seitz, Aylin Karabulut, Rafael Mugi Suzuki, Alexander Hoffmann, Joshua Heck and Sonja Herres-Pawlis\*

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### Highly conductive composite anode catalysts featuring a fused Ir nano-network towards proton exchange membrane electrocatalysis

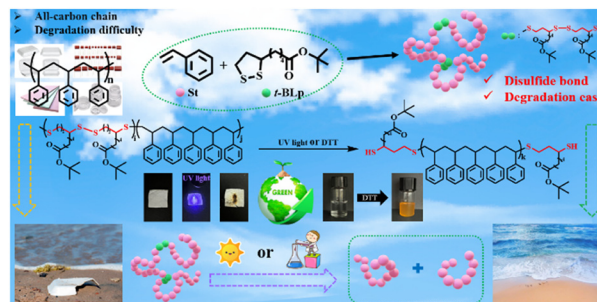
Lu Zhang, Qiannan Wu, Xiao Zhao, Xiao Liang, Xiaoxin Zou and Hui Chen\*



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### A new strategy to synthesize degradable polystyrene of ultra-high molecular weight

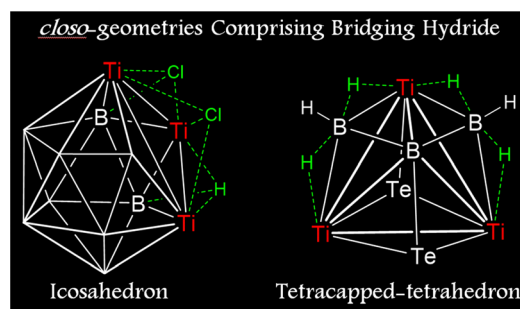
Jianhan Li, Hongjun Yang, Qimin Jiang, Jiang Li, Bibiao Jiang,\* Xiaoqiang Xue, Sridhar Komarneni\* and Wenyan Huang\*



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### Hypoelectronic titanaboranes: icosahedral and tetrapped tetrahedral clusters comprising bridging hydrides

Subhash Bairagi, Debipada Chatterjee, Soumen Giri and Sundargopal Ghosh\*



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### Molten salt-mediated electrosynthesis of MoS<sub>2</sub> nanosheet-supported Rh nanoclusters for highly efficient electrocatalytic hydrogen evolution

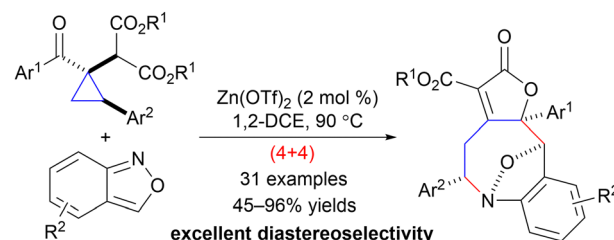
Qing Yan, Yuhui Liu,\* Yang Zhao,\* Xiangqian Zhou and Weiyong Yuan\*



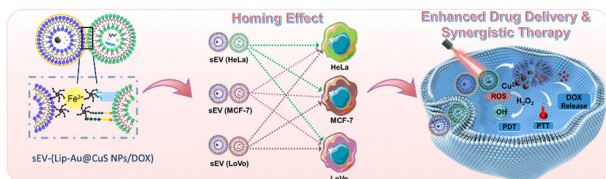
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### Diastereoselective synthesis of benzazocines by Zn(OTf)<sub>2</sub>-catalyzed (4+4) cyclocondensation of multisubstituted donor-acceptor cyclopropanes with anthranils

Xuelian Huang, Gaosheng Yang\* and Zhuo Chai\*



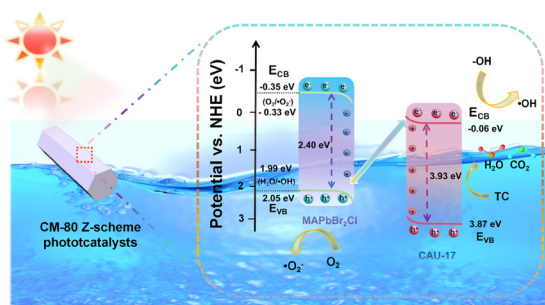
3708



### Exploring the homing effect and enhanced drug delivery potential of small extracellular vesicles

Qi Zhang, Ke Cao, Ting-Ju Ren, Hao Wu and Zhang-Run Xu\*

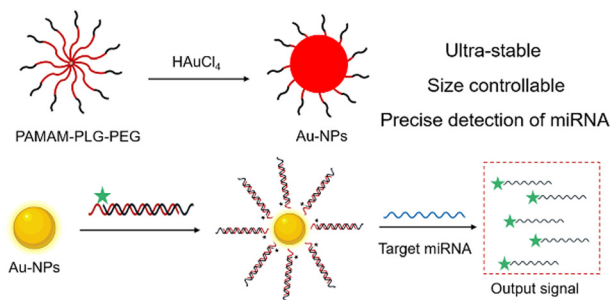
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### Encapsulation of perovskite quantum dots in CAU-17 organic frameworks for stable photocatalysis

Wen Wang, Jing Hu,\* Dengping Zhang, Yuqing Lv, Yunchuan Long, Juan Jiang and Shaoqi Zhou

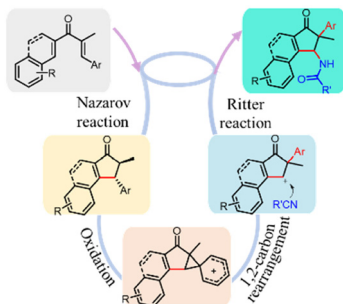
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### Precise and controllable synthesis of ultra-stable gold nanoparticles based on polymer templates for miRNA detection

Longwei Xiang, Tong Li, Guanhe Fang, Zongwei Shi, Zhimin Luo, Meng Meng, Ruiying Wu, Yumeng Xing, Huixin Li, Zhaoyuan Tu, Haoming Feng, Chi Zhang, Qiong Yu, Kai Hao\* and Huayu Tian\*

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### One-pot Nazarov cyclization/oxidative 1,2-carbon rearrangement/Ritter reaction to access 5-quaternary-4-amidocyclopent-2-enones and 2-quaternary-3-amidoindanones

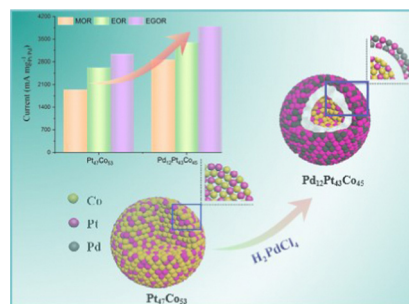
Yue-Hong Hu, Yu-Ting Chen, Zhi-Juan He, Zhang-Yan Gan, Ling-Hui Zhang, Wen-Jie Xi, Baosheng Li\* and Fu-Min Zhang\*



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## Galvanic replacement mediated morphological adjustments boost nanoparticle performance in electrocatalytic alcohol oxidation

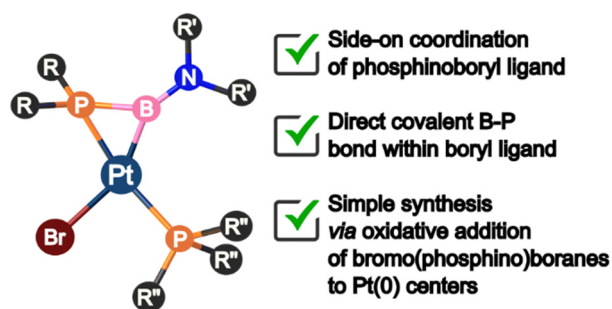
Dongze Ma, Jin Zhao\* and Jianfeng Jia\*



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## Side-on phosphinoboryl platinum(II) complexes

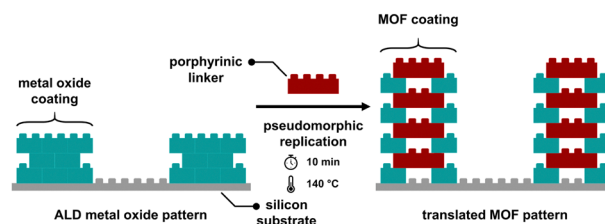
Anna Ordyszewska,\* Antoni Czaplewski, Tomasz Wojnowski, Iwona Anusiewicz, Jarostaw Chojnacki and Rafat Grubba\*



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## Pseudomorphic replication for surface patterning with porphyrinic metal–organic frameworks

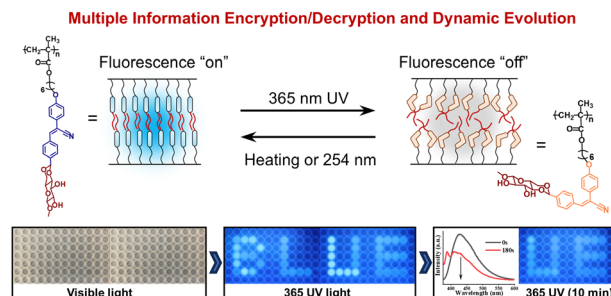
Nina F. Suremann and Sascha Ott\*



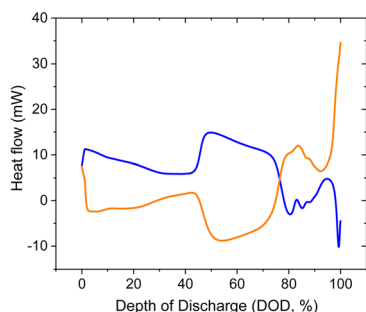
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Dynamic encryption systems enabled by novel  $\alpha$ -cyanostilbene-based AIE-active liquid crystalline polymers with self-assembling saccharide units

Jun-Bo Hou, Ya-Ru Ma, Zhi-Chao Jiang,\* Yao-Yu Xiao\* and Yue Zhao\*



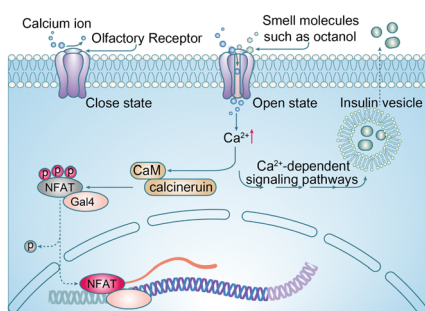
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### Thermal management challenges in lithium-ion batteries: understanding heat generation mechanisms

Kenza Maher,\* Ameni Boumaiza and Ruhul Amin\*

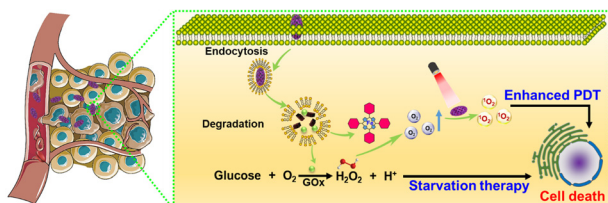
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### Development of MhOR1 as a chemogenetic tool for odorant-mediated regulation of insulin release

Hanbing Li, Gaojun Chen, Xiayan Lou, Changyi Hu, Ninghuai Zheng, Lian He\* and Yuanfa Yao\*

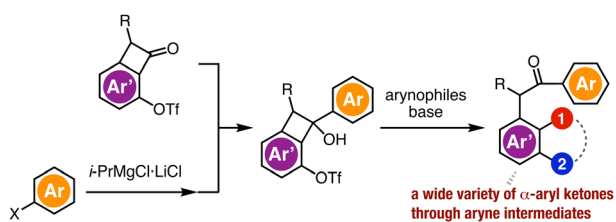
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### Oxygen self-supplying porphyrinic MOFs to alleviate tumor hypoxia for starvation-amplified photodynamic therapy

Shajun Zhu, Jian An, Jia Pu, Xufeng Liang, Shiyue Zhang, Jingjing Ma, Jianxia Zhang, Yujia Meng, Yiqiao Bai, Wenqiang Yu, Yunhan Gao, Yong Yao, Tingting Chen\* and Yang Wang\*

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### Synthesis of $\alpha$ -arylacetophenone derivatives by Grignard reactions and transformations of arynes via C–C bond cleavage

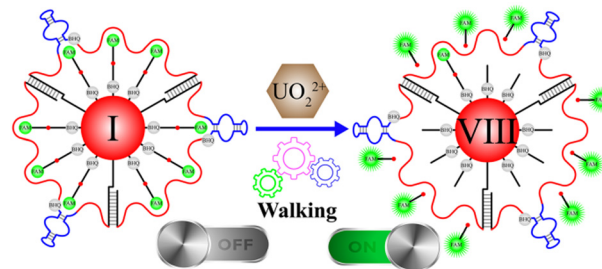
Yukitaka Hoshi, Shinya Tabata and Suguru Yoshida\*



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### An enzyme-free fluorescence biosensor for $\text{UO}_2^{2+}$ detection using Y-shaped wheel-mediated triple walking as a signal amplifier

Ying Zeng, Yuyan Wang, Xiaoya Ren, Jun Qiu, Jiafeng Pan\* and Fei Yang\*



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### Palladium-catalyzed domino cyclization and C–H amination of 1,7-enynes toward N-containing fused quinolin-2(1H)-ones

Jiajun Zhao, Shuwei Li, Linqi Wang and Jun Ying\*

