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## IN THIS ISSUE

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### Cover

See Dengsong 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

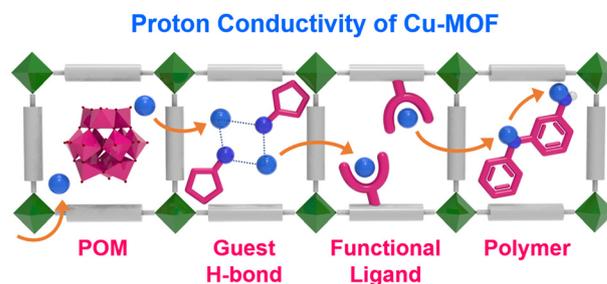
See Zhou Lu and Shengyu Dai, pp. 3673–3675. Image reproduced by permission of Shengyu Dai from *Chem. Commun.*, 2025, **61**, 3673.

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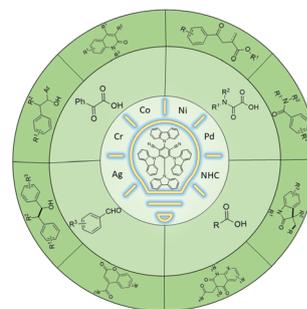
Byong June Kim, Sun Ho Park, Mariana L. Diaz-Ramirez and Nak Cheon Jeong\*



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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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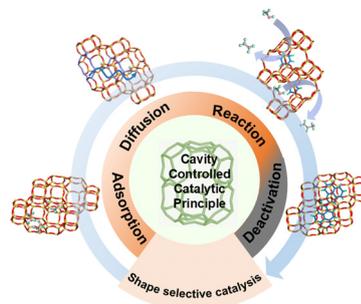
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## FEATURE ARTICLES

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

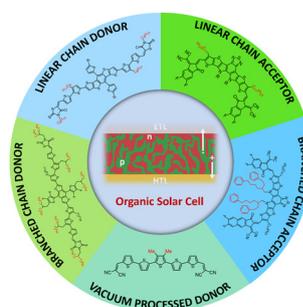
Shushu Gao, Fangxiu Ye, Shutao Xu,\* Yingxu Wei\* and Zhongmin Liu



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

Abhisekh Mishra, Sarbeswar Mahalik and Amaresh Mishra\*

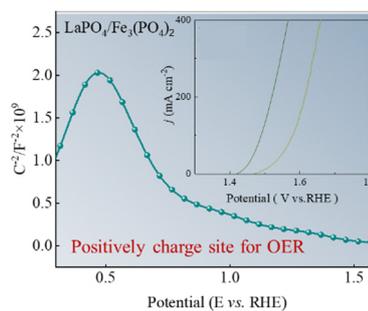


## COMMUNICATIONS

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Interfacial creation of positively charged sites in LaPO<sub>4</sub>/Fe<sub>3</sub>(PO<sub>4</sub>)<sub>2</sub> heterojunctions for high-current-density oxygen evolution

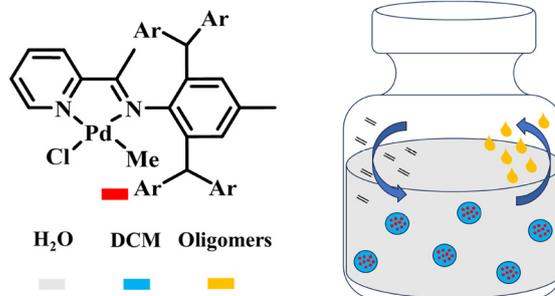
Sitong Liu, Yudi Zhang, Wen Sun, Junqiang Wang, Dongsong Zhang,\* Juntao Huo\* and Guowei Li\*



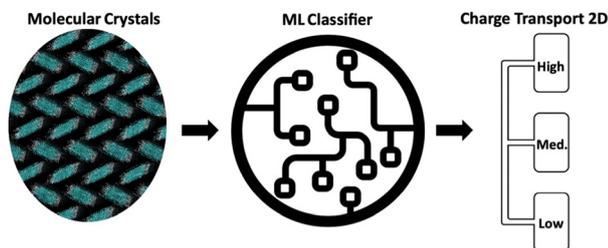
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## Controlled oligomerization in water to hyperbranched ethylene oligomers

Zhou Lu and Shengyu Dai\*



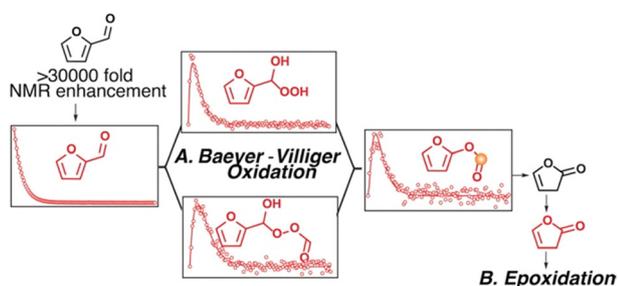
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### Accelerating the discovery of high-mobility molecular semiconductors: a machine learning approach

Tahereh Nematiamram,\* Zenon Lamprou and Yashar Moshfeghi

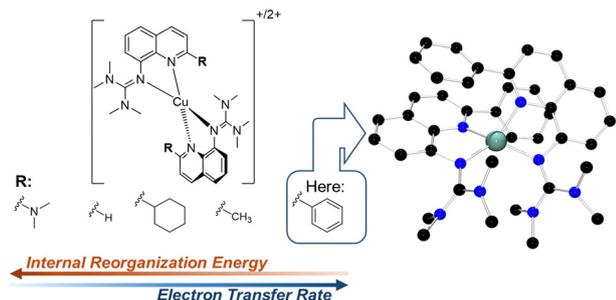
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### Hyperpolarized NMR reveals transient species and elusive routes in acid-catalyzed furfural oxidation at natural isotope abundance

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

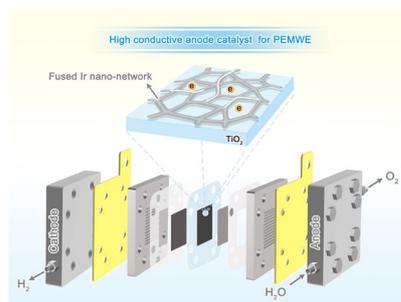
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### The golden goal of entatic state model design: lowering the internal reorganization energy leads to exponential increase in electron transfer rate

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

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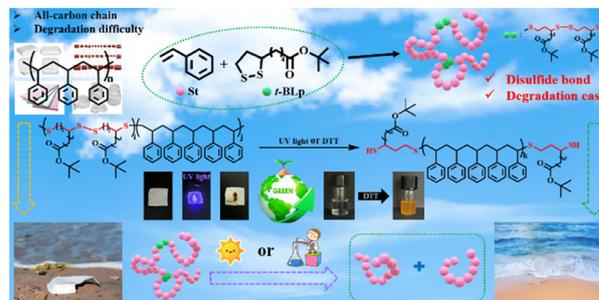
Lu Zhang, Qiannan Wu, Xiao Zhao, Xiao Liang, Xiaoxin Zou and Hui Chen\*



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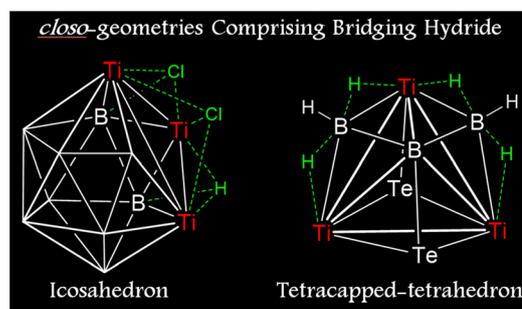
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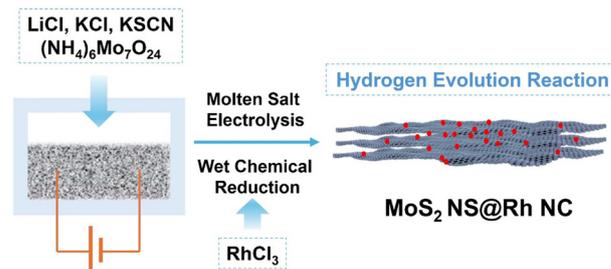
Subhash Bairagi, Debipada Chatterjee, Soumen Giri and Sundargopal Ghosh\*



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



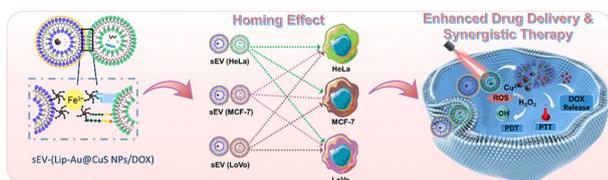
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Xuelian Huang, Gaosheng Yang\* and Zhuo Chai\*



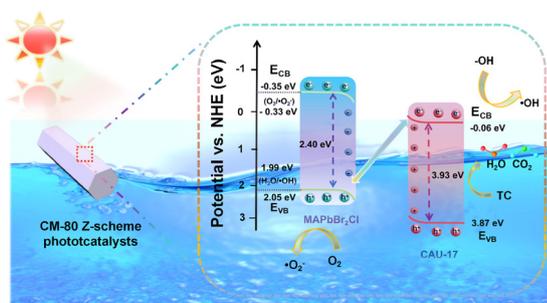
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### Exploring the homing effect and enhanced drug delivery potential of small extracellular vesicles

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

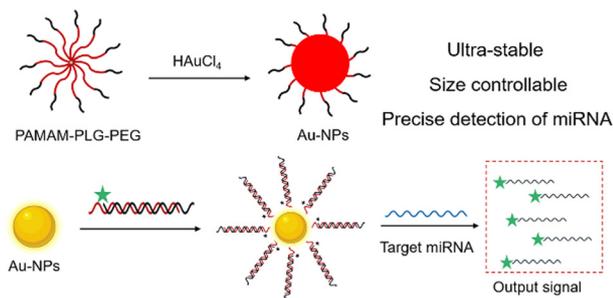
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### Encapsulation of perovskite quantum dots in CAU-17 organic frameworks for stable photocatalysis

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

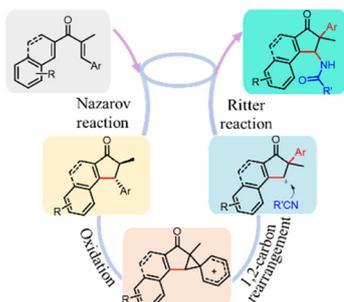
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Longwei Xiang, Tong Li, Guanhe Fang, Zongwei Shi, Zhimin Luo, Meng Meng, Ruiying Wu, Yumeng Xing, Huixin Li, Zhaoyuan Tu, Haoming Feng, Chi Zhang, Qiong Yu, Kai Hao\* and Huayun Tian\*

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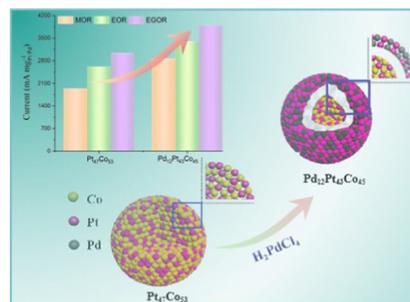
Yue-Hong Hu, Yu-Ting Chen, Zhi-Juan He, Zhang-Yan Gan, Ling-Hui Zhang, Wen-Jie Xi, Baosheng Li\* and Fu-Min Zhang\*



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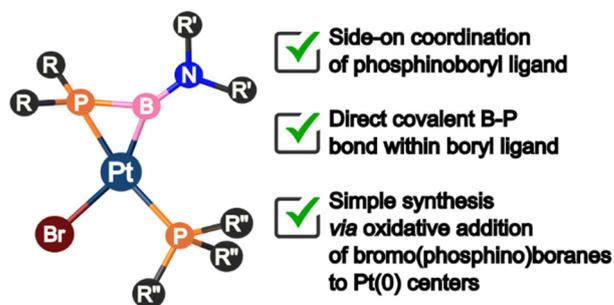
Dongze Ma, Jin Zhao\* and Jianfeng Jia\*



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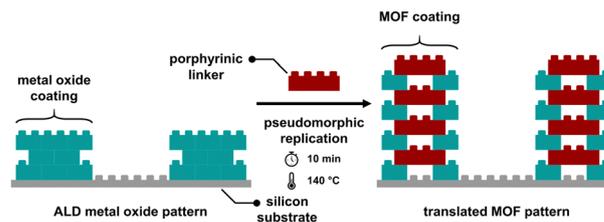
Anna Ordyszewska,\* Antoni Czaplewski, Tomasz Wojnowski, Iwona Anusiewicz, Jarostaw Chojnacki and Rafat Grubba\*



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

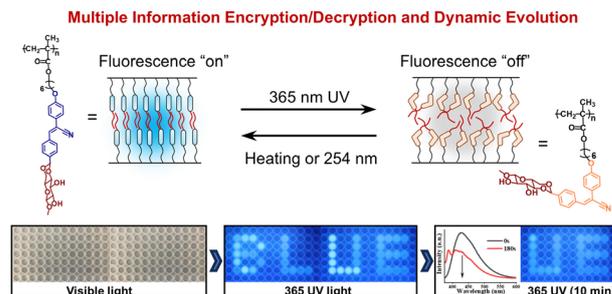
Nina F. Suremann and Sascha Ott\*



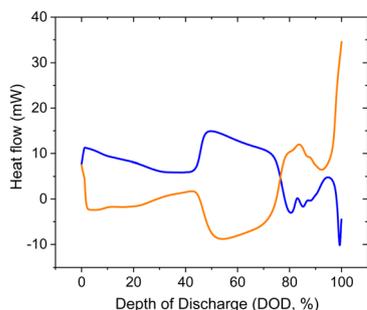
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Dynamic encryption systems enabled by novel  $\alpha$ -cyanostilbene-based AIE-active liquid crystalline polymers with self-assembling saccharide units

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



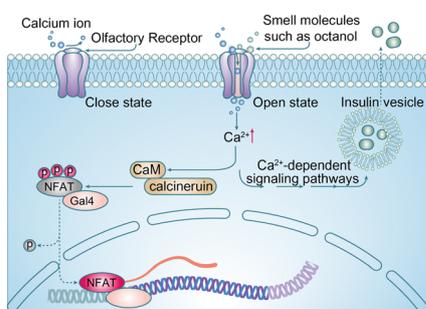
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### Thermal management challenges in lithium-ion batteries: understanding heat generation mechanisms

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

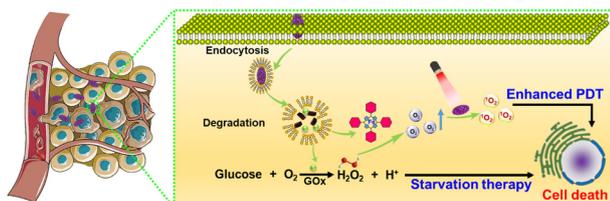
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### Development of MhOR1 as a chemogenetic tool for odorant-mediated regulation of insulin release

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

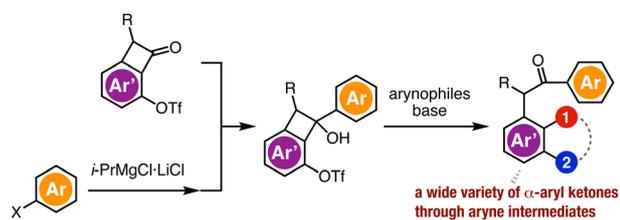
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### Oxygen self-supplying porphyrinic MOFs to alleviate tumor hypoxia for starvation-amplified photodynamic therapy

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

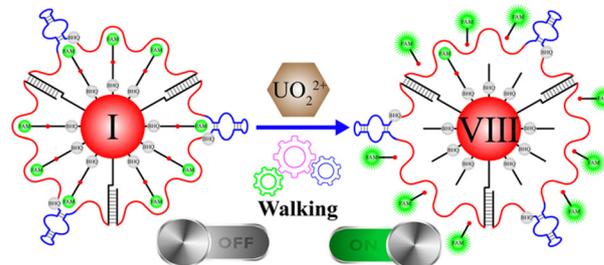
Yukitaka Hoshi, Shinya Tabata and Suguru Yoshida\*



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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\*

