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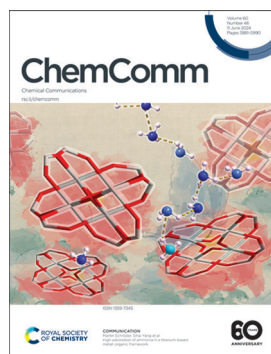
Chemical Communications

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See Martin Schröder, Sihai Yang *et al.*, pp. 5912–5915. Image reproduced by permission of Xiangdi Zeng from *Chem. Commun.*, 2024, 60, 5912.



Inside cover

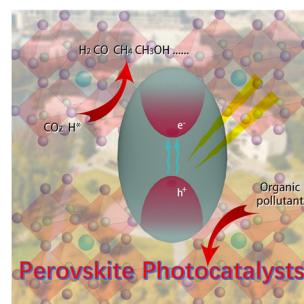
See Jing-Shuang Dang, Haitao Lei, Rui Cao *et al.*, pp. 5916–5919. Image reproduced by permission of Rui Cao from *Chem. Commun.*, 2024, 60, 5916.

HIGHLIGHT

5890

Recent advances in metal halide perovskite based photocatalysts for artificial photosynthesis and organic transformations

Hairong Zhao, Jiachen Sun,* Sonu Kumar,* Peihang Li, Sitaramanjaneya Mouli Thalluri, Zhiming M. Wang and Udayabhaskararao Thumu*

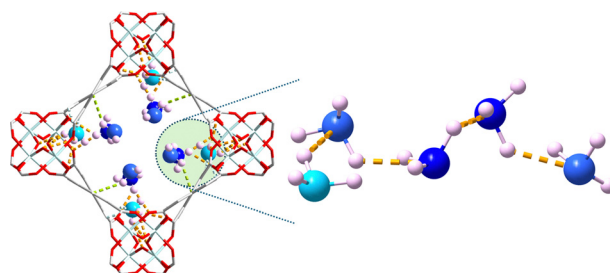


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High adsorption of ammonia in a titanium-based metal–organic framework

Xiangdi Zeng, Jiangnan Li, Meng He, Wanpeng Lu, Danielle Crawshaw, Lixia Guo, Yujie Ma, Meredydd Kippax-Jones, Yongqiang Cheng, Pascal Manuel, Svemir Rudić, Mark D. Frogley, Martin Schröder* and Sihai Yang*



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Elemental answers

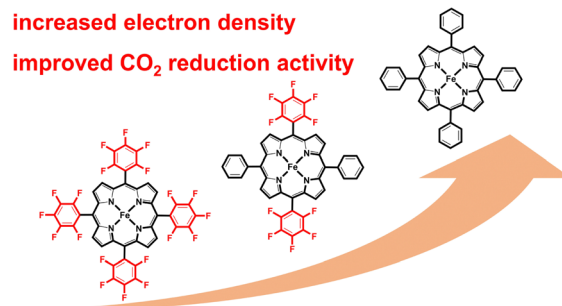


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The *meso*-substituent electronic effect of Fe porphyrins on the electrocatalytic CO₂ reduction reaction

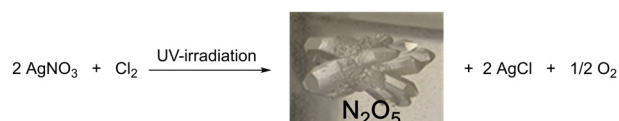
Hongyuan He, Zi-Yang Qiu, Zhiyuan Yin, Jiafan Kong, Jing-Shuang Dang,* Haitao Lei,* Wei Zhang and Rui Cao*



5920

Deville rebooted – practical N₂O₅ synthesis

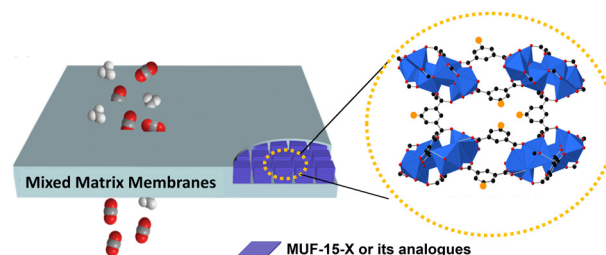
Lee E. Edwards, Benson M. Kariuki, Matthew Didsbury, Christopher D. Jones and Thomas Wirth*



5924

Functionalisation of MUF-15 enhances CO₂/CH₄ selectivity in mixed-matrix membranes

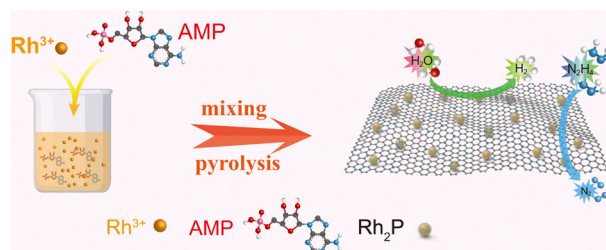
Yiming Zhang, Elnaz Jangodaz, Ben Hang Yin* and Shane G. Telfer*



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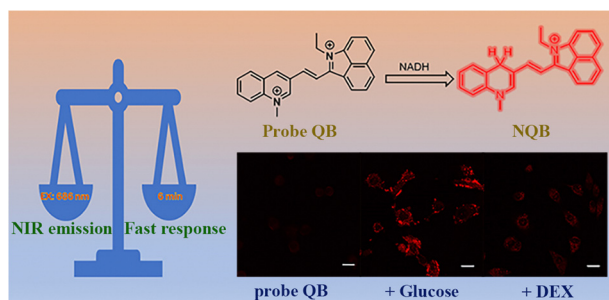
Highly bifunctional Rh₂P on N,P-codoped carbon for hydrazine oxidation assisted energy-saving hydrogen production

Simeng Zhao, Yu Sun, Haibo Li, Suyuan Zeng, Qingxia Yao, Rui Li, Hongyan Chen and Konggang Qu*



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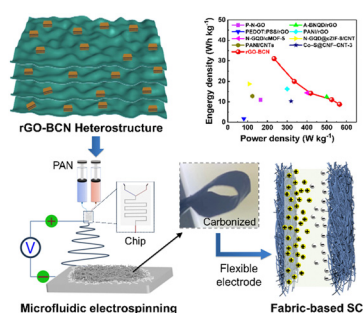
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An activated near-infrared mitochondrion-targetable fluorescent probe for rapid detection of NADH

Yaxin Sun, Yanyun Mao, Tianwen Bai, Tianqing Ye, Yanfei Lin, Fang Wang, Lei Li, Longhua Guo,* Haiying Liu* and Jianbo Wang*

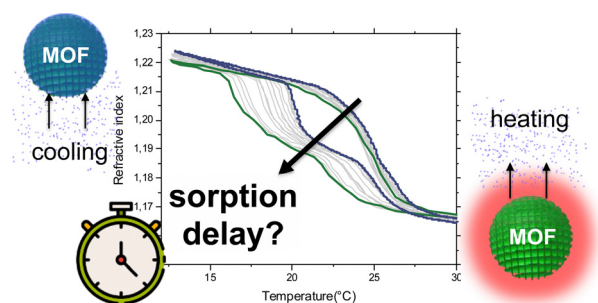
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In situ synergistic reduced graphene oxide-boron carbon nitride nanosheet heterostructures for high-performance fabric-based supercapacitors

Yujiao Zhang, Qitao Huang, Liangliang Zhou, Heng Liu, Cai-Feng Wang, Liangliang Zhu* and Su Chen*

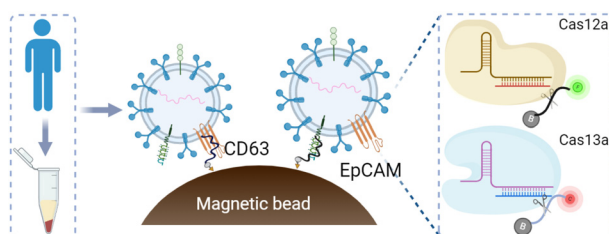
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Thermo-temporal physisorption in metal-organic frameworks probed by cyclic thermo-ellipsometry

Hajar Amyar, Civan Avci, Cédric Boissière, Andrea Cattoni, Mondher Besbes and Marco Faustini*

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Simultaneous and multiplexed phenotyping of circulating exosomes with the orthogonal CRISPR-Cas platform

Gaoxing Su, Mengting Xu, Yuedong Zhu, Yan Zhang, Yanan Lin and Yanyan Yu*

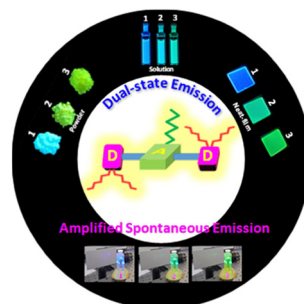


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Dual-state emission and two-wavelength amplified spontaneous emission behaviors observed from symmetric dyes based on functionalized fluorene and benzotriazole units

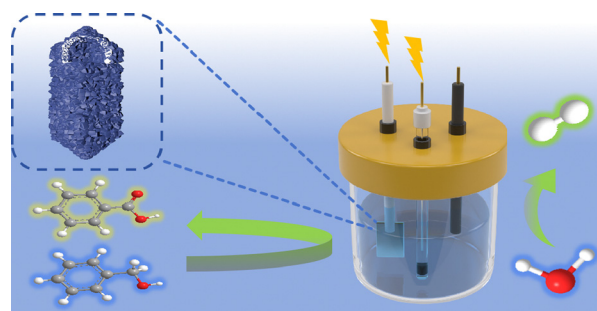
Tzu-Chau Lin,* Shu-Tse Cho, Cheng-Lin Wu, Novia Eka Setyatama, Po-Han Tung, Bing-Yi Hung, Ja-Hon Lin,* Pei-En Jan, Ping-Hsun Tsai and Hao-Wu Lin*



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Ni-Co hexacyanoferrate hollow nanoprism with CN vacancy for electrocatalytic benzyl alcohol oxidation

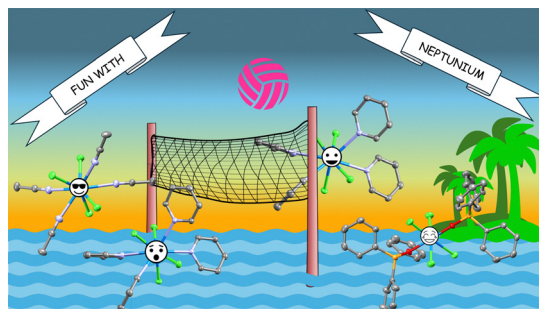
Chenghang Lv, Liang Chen,* Jingjing Bai, Hongyu Ruo, Yanlong Pan, Shoudong Xu, Jiaqi Chen, Ding Zhang and Chunli Guo*



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Lewis base adducts of NpCl_4

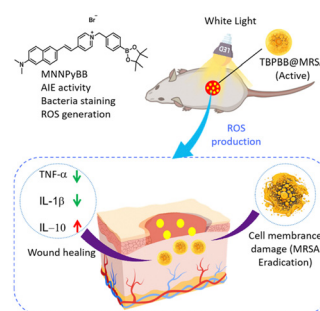
Lauren M. Lopez, Madeleine C. Uible, Matthias Zeller and Suzanne C. Bart*



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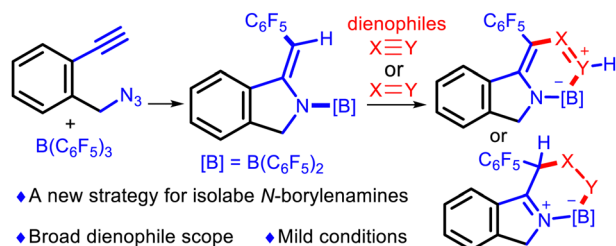
Aggregation-induced emission photosensitizer for antibacterial therapy of methicillin-resistant *Staphylococcus aureus*

Lin Kong, Rongyuan Zhang, Junyi Gong, Huan Wang, Lingyu Zhai, Dongfeng Dang, Qian Liu, Zheng Zhao* and Ben Zhong Tang*



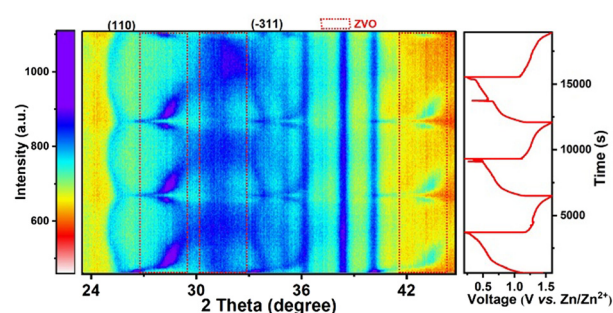
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**Hetero Diels–Alder reactions of isolable *N*-borylenamines**

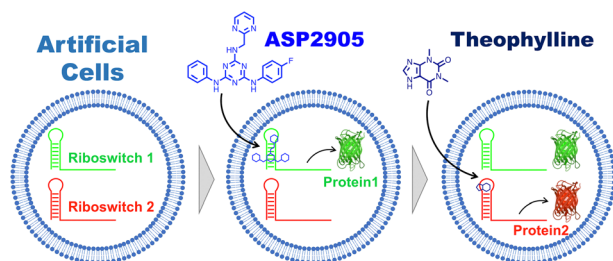
Pei Liang, Junhui Wei, Yongliang Wei, Xue Wang, Fei Liu and Tongdao Wang*

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**Zn²⁺-storage mechanism in V₆O₁₃ with nanosheets for high-capacity and long-life aqueous zinc-metal batteries**

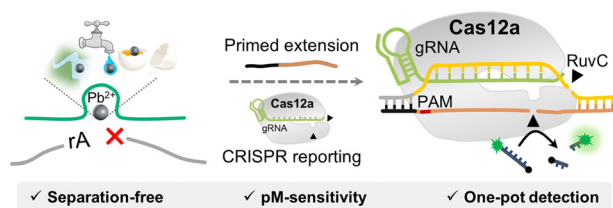
Lineng Chen, Wenwei Zhang, Jianyong Zhang and Qinyou An*

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**Switchable and orthogonal gene expression control inside artificial cells by synthetic riboswitches**

Yuta Ishii, Keisuke Fukunaga,* Aileen Cooney, Yohei Yokobayashi and Tomoaki Matsuura*

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**DNAzyme-activated CRISPR/Cas assay for sensitive and one-pot detection of lead contamination**

Ruijie Deng, Yaxuan Bai, Yumei Liu, Yunhao Lu, Zhifeng Zhao, Yi Deng and Hao Yang*

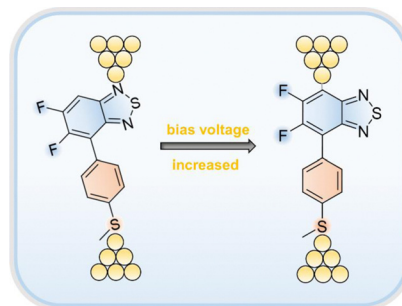


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A bias voltage controlled electrode-molecule interface in single-molecule junctions

Jiawei Yang, Yunpeng Li, Zekai Zhang and Hongxiang Li*



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Rational design of pH-responsive near-infrared spirocyclic cyanines: the effects of substituents and the external environment

Akihiro Sakama, Hyemin Seo, Joji Hara, Yutaka Shindo, Yuma Ikeda, Kotaro Oka, Daniel Citterio and Yuki Hiruta*

