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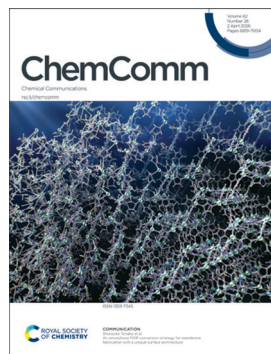
Chemical Communications

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IN THIS ISSUE

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Cover

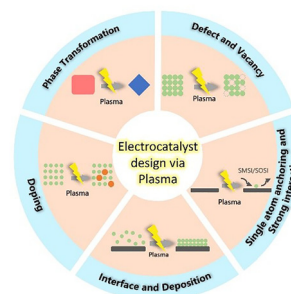
See Shunsuke Tanaka
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FEATURE ARTICLE

6830

Non-thermal plasma restructuring of electrocatalyst surfaces for efficient hydrogen and oxygen reactions

Chu Qin, Zhenglong Tao, Xuanhao Wu* and Zhongqing Jiang*

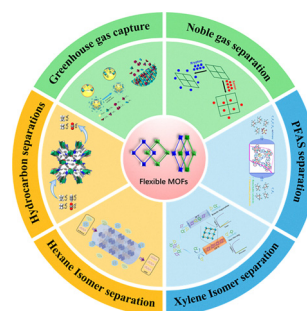


REVIEWS

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Flexible metal–organic frameworks: Frontiers in dynamic pore engineering for adsorptive separation

Andong Ouyang, Haozhe Yan, Yaoyao Peng,* Jing Chen* and Yu Fang*



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Fundamental questions
Elemental answers

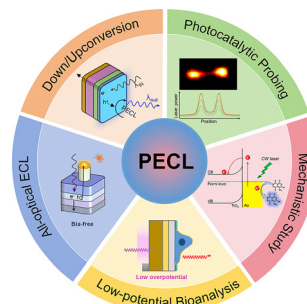


REVIEWS

6865

Photoinduced electrochemiluminescence: mechanistic insights and emerging applications

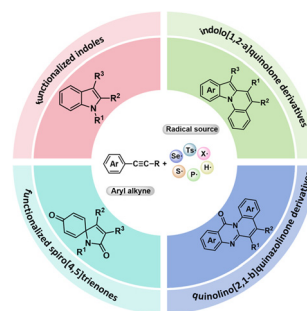
Yao Xiong, Cong-Hui Xu* and Wei Zhao*



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Recent advances in the synthesis of polycyclic and spiro N-heterocycles via aryl alkyne-based strategies

Lili Wang, Qiyang Liu and Jinwei Yuan*

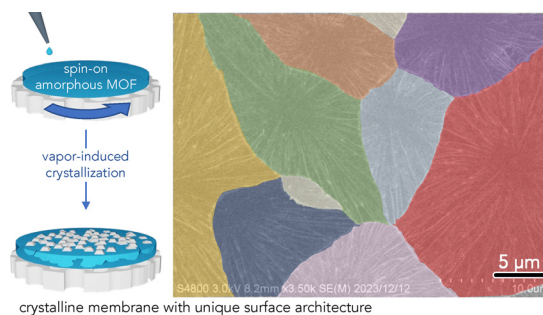


COMMUNICATIONS

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An amorphous MOF conversion strategy for membrane fabrication with a unique surface architecture

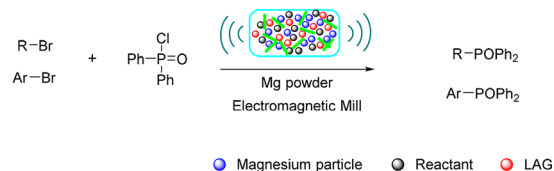
Zilun Guo, Hiroto Maruta and Shunsuke Tanaka*



6899

A mechanochemical construction of C–P bonds through radical–radical coupling

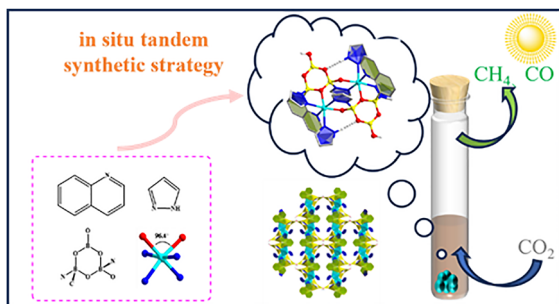
Ruizhi Sun, Juxin Jiang, Wenhao Li, Zengdian Zhao, Dong Liu,* Hui Liu* and Lizhi Zhang*



- single step reaction, easy to operate
- transition-metal catalyst free
- air tolerance
- organic solvent free



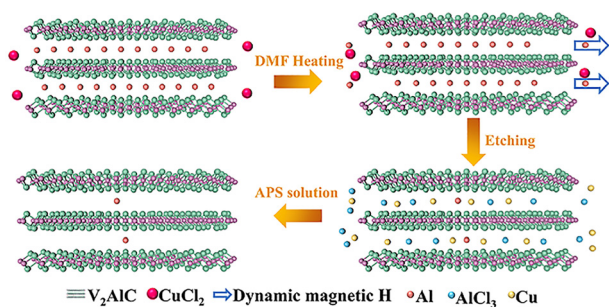
6904



Synthesis of hybrid nickel boron–oxo clusters for photocatalytic CO₂ reduction

Xiang-Ming Zhang, Jiang-Hong Fu, Pan-Pan Zhao, Shumei Chen,* Hai-Xia Zhang* and Jian Zhang

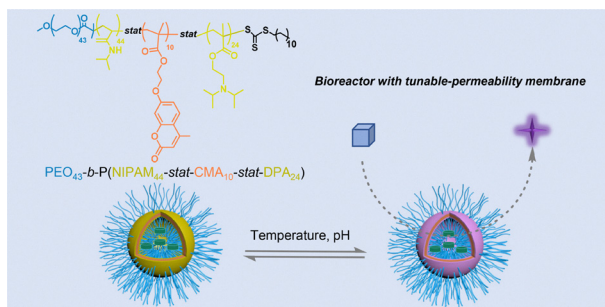
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Rapid and green etching of MAX into MXene phase via a physical process

Feng Gao, Junqi Liu, Xiaohua Qiao, Qilin Zheng, Ruifeng Qi* and Qingsong Huang*

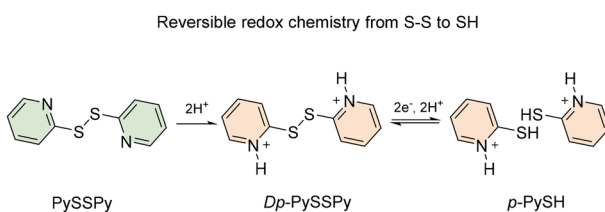
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A dual-gated polymersome nanoreactor

Ping Wei,* Dongjing Guo and Jinghua Chen*

6919



Reversible redox chemistry of disulfide/thiol for aqueous organic flow batteries

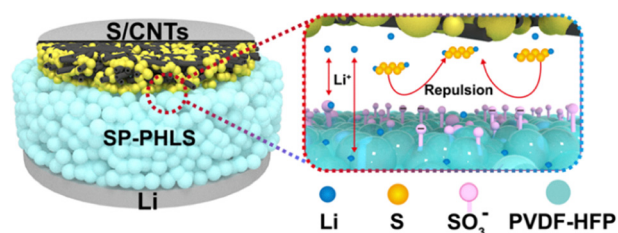
Qiliang Chen, Wei Guo and Yongzhu Fu*



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Spherulite-packed polymer electrolytes with high ion selectivity for stable lithium–sulfur battery performance

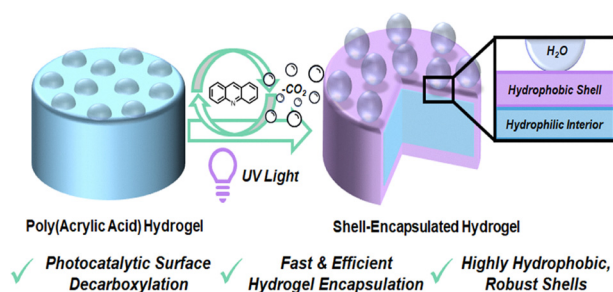
Miaofa Yuan, Leyuan Ma, Kangdong Tian, Rutao Wang, Luyuan Zhang and Chengxiang Wang*



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Photocatalytic surface grafting of hydrophobic shells onto hydrogels

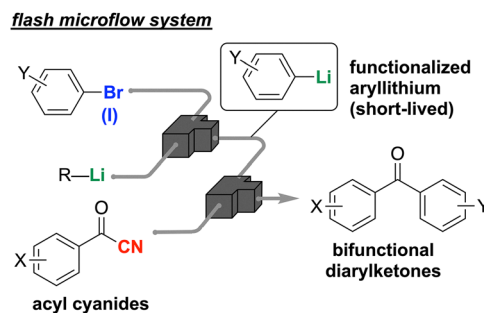
Yanru Zhao, Cabell B. Eades, Peng Yu, Xinjin Li, Xianye Li* and Brent S. Sumerlin*



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Selective nucleophilic addition of aryllithium reagents to α -ketonitriles giving ketones under microflow conditions

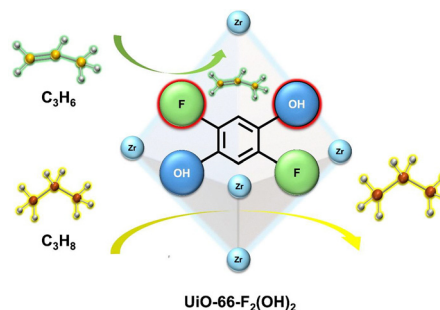
Mohammad S. Qenawy, Kazuhiro Okamoto and Aiichiro Nagaki*



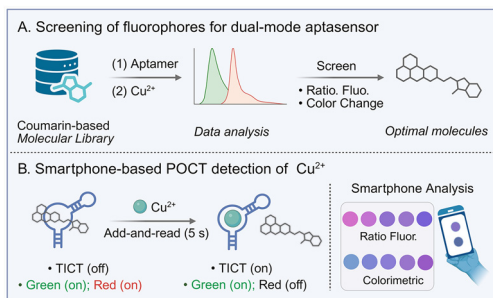
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Rational integration of fluorine and hydroxyl functionalities in UiO-66 metal–organic framework for enhanced propylene/propane separation

Yao-Ting Wang, Yu-Tung Chou, Po-Chuan Chao, Anton S. Pozdeev, Alexander S. Ivanov, Yu-Chun Chuang, Chung-Kai Chang, Ilja Popovs, Watchareeya Kaveevivitchai* and Teng-Hao Chen*



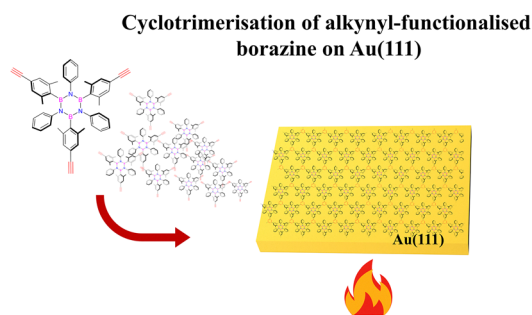
6941



A dual-mode aptasensor integrating ratiometric fluorescence and colorimetry for on-site Cu²⁺ detection

Lingli Bu, Xia Yang, Shenao Qu, Junhao Hu, Qingwei Cui, Mengqi Wang, Yue Wang,* Kai Shi,* Sheng Lei* and Jiaheng Zhang*

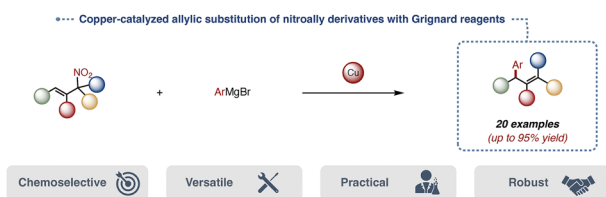
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Nanoporous BNC network on Au(111) from a borazine-based arylalkyne

Carolina M. Ibarra-Barreno, Martina Crosta, Joel Deyerling, Alida J. van Hunnik, Knud Seufert, Davide Bonifazi,* Willi Auwärter* and Petra Rudolf*

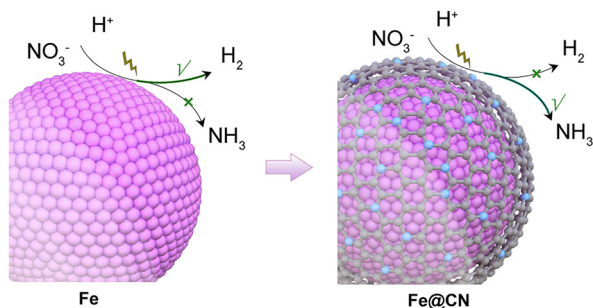
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Copper-catalyzed allylic substitution of nitroallyl derivatives with Grignard reagents

Louis Clavier, Nicolas Fincias, Stelios Arseniyadis* and Laurent El Kaim*

6954



Interface modulation boosts the nitrate reduction performance of iron-based catalysts

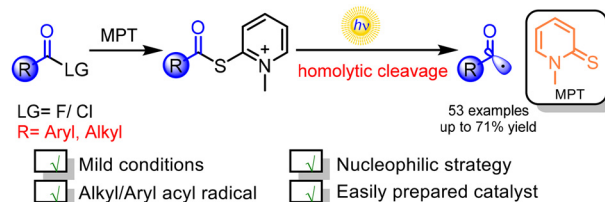
Jianlong Ma, Jiahao An, Yunpeng Zuo, Huimin Jia, Wenbiao Zhang* and Tingting Li*



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Photocatalyzed generation of acyl radicals from aryl/alkyl acyl halides *via* nucleophilic substitution

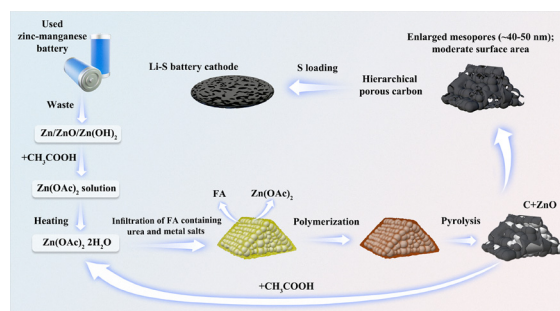
Haowen Zhan, Jiansheng Chen, Yajing Luo, Yang Ke and Xinjun Tang*



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Macro-mesoporous carbon architectures for confining sulfur and facilitating Li⁺ transport in high-performance Li–S batteries

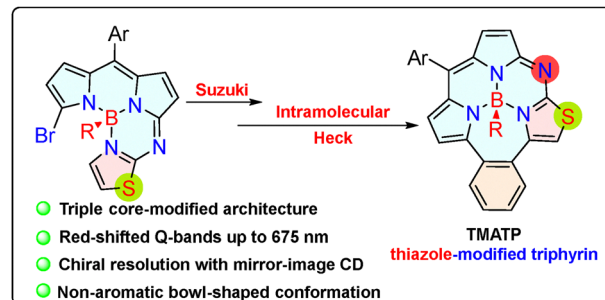
Huanyu Zhang and Limin Huang*



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Chiral bowl-shaped thiazole-embedded B(III)-azatriphyrins(2.1.1): a nonaromatic platform *via* triple core-modification

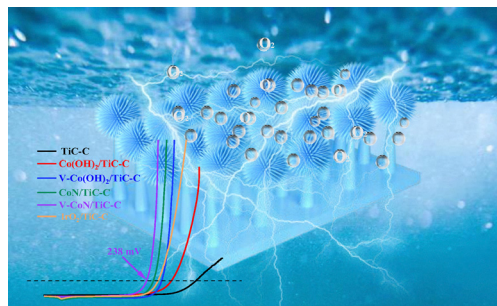
Lei Zhang, Qinghua Wu, Zhongxin Li,* Wenxin Gu, Zhengxin Kang, Hua Wang, Long Wang, Yingjian Shang, Lijuan Jiao* and Erhong Hao*



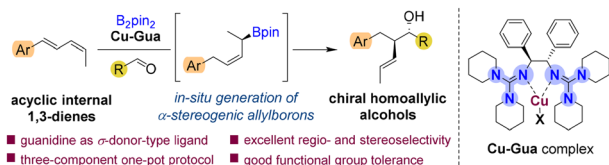
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Electronic structure modulation of a CoN/TiC–C nanoarray by vanadium doping for enhanced alkaline oxygen evolution

Yi Sun, Weiye Shi, Zhongbao Wang, Xueyu Du, Yan Zhang, Chunqing Huo,* Shengjue Deng* and Shiwei Lin*



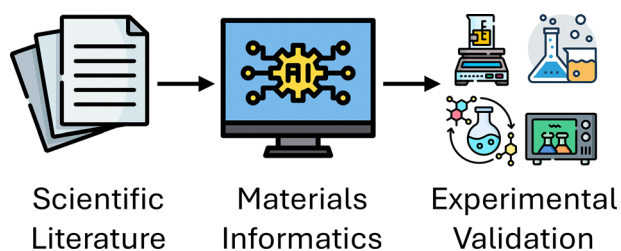
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Cu-guanidine-catalysed asymmetric protoboration of internal 1,3-dienes for one-pot access to chiral homoallylic alcohols

Huangfeng Zhang, Ai Zhang, Tao Tang, Tao Jin, Chengzhi Wang, Yao Qin, Xiaoyan Ma, Jinghua Tang, Jinyu Liu and Yicen Ge*

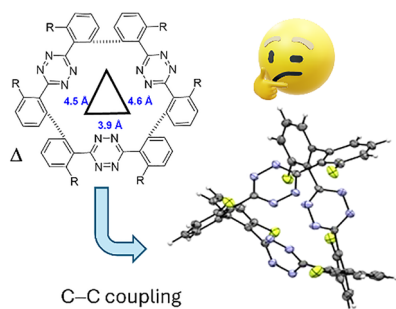
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Domain-adapted discovery of PET depolymerisation routes using in-house curated scientific literature

Dawn Sivan, Saima Zafar, K. Satheesh Kumar, T. K. Manoj Kumar, Kohbalan Moorthy, Izan Izwan Misnon, Chun-Chen Yang and Rajan Jose*

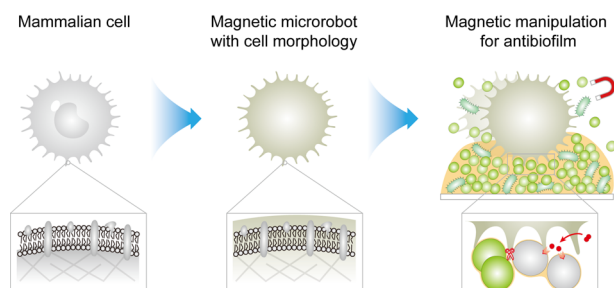
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Small cavitated macrocycles from direct C-C coupling of *s*-aryl tetrazine units

Clève D. Mboyi, Henri Sabbadin, Marie-José Penouilh, Quentin Bonnin, Régine Amardeil, Hélène Cattey, Sophie Fournier, Charles H. Devillers, Julien Roger and Jean-Cyrille Hierso*

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Bioinspired antibacterial microrobots derived from mammalian cells for biofilm disruption

Yanan Chen, Junkai Ma, Liwei Fu, Zijian Zheng* and Wenshuo Wang*



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From molecular tweezers to pliers: a significant enhancement of fullerene grasping capability

Mahboob Subhani, Xinliang Liu, Zhi Yu, Martin Saunders and Hai Xu*

