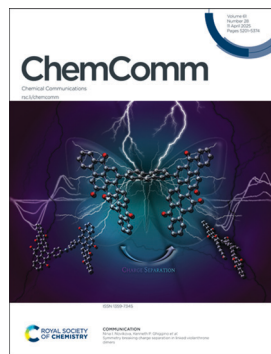


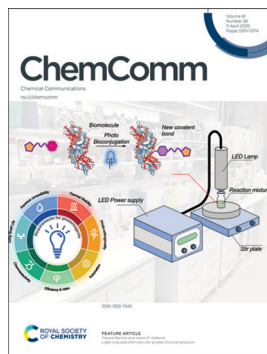
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ISSN 1359-7345 CODEN CHCOFS 61(28) 5201-5374 (2025)



Cover

See Nina I. Novikova, Kenneth P. Ghiggino *et al.*, pp. 5281–5284. Image reproduced by permission of Nina I. Novikova from *Chem. Commun.*, 2025, 61, 5281.



Inside cover

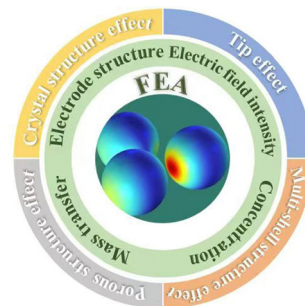
See Cesare Berton and Jason P. Holland, pp. 5234–5252. Image reproduced by permission of Cesare Berton and Jason P. Holland from *Chem. Commun.*, 2025, 61, 5234.

HIGHLIGHTS

5212

Advanced development of finite element analysis for electrochemical catalytic reactions

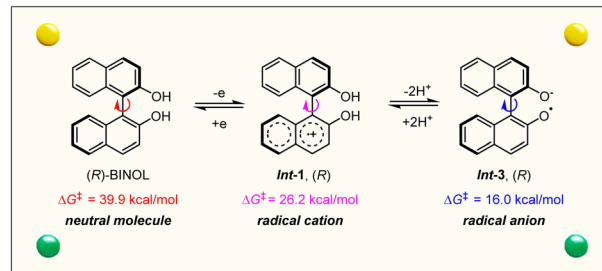
Xianya Liu, Ning Sun, Zefei Wu, Zhongzhong Luo, Anlei Zhang* and Longlu Wang*



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Changing the absolute configuration of atropisomeric bisnaphthols (BINOLs)

Yun Wu and Can Zhu*



Environmental Science: Atmospheres

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Fundamental questions
Elemental answers

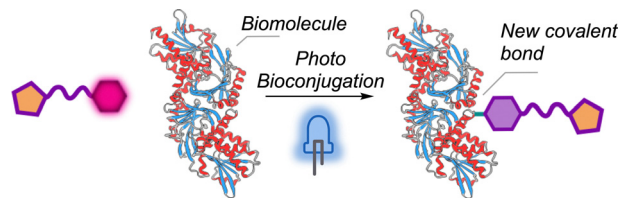


FEATURE ARTICLES

5234

Light-induced chemistry for protein functionalisation

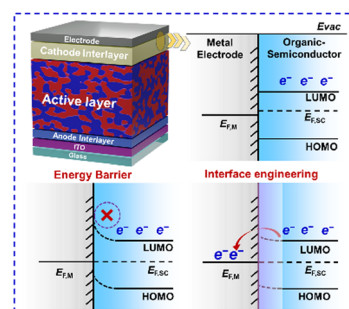
Cesare Berton and Jason P. Holland*



5253

Interfacial modification in organic solar cells

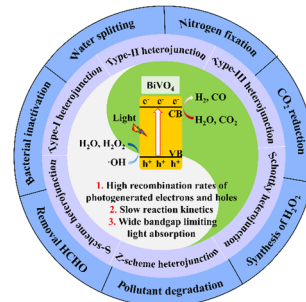
Zuhao You, Aijun Gao* and Yao Liu



5264

Recent advances in BiVO₄-based heterojunction photocatalysts for energy and environmental applications

Yajie Bai,* Zhenyuan Fang, Yuning Fang, Chenxiao Lin, Hongye Bai and Weiqiang Fan*

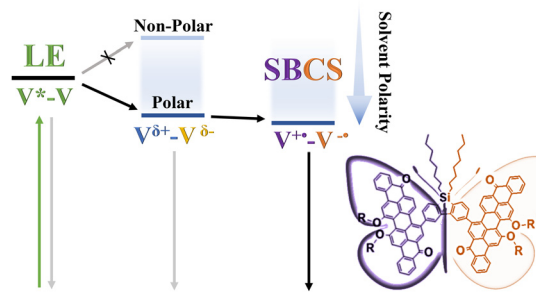


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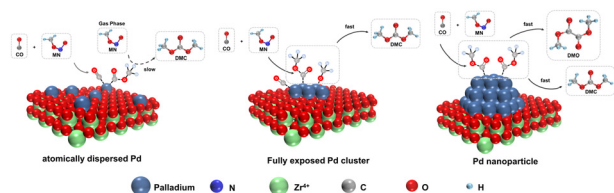
Symmetry breaking charge separation in linked violanthrone dimers

Nina I. Novikova,* Mina Barzegaramiriolya, Yiheng Lu, Wallace W. H. Wong and Kenneth P. Ghiggino*



COMMUNICATIONS

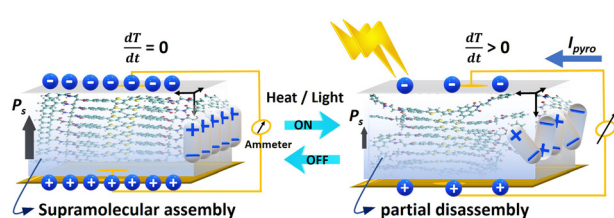
5285



Enhanced methyl nitrite carbonylation to dimethyl carbonate *via* fully exposed palladium cluster catalysts

Lingqian Ji, Lifeng Zhang, Jingbao Li, Jiachun Su, Ye Ding, Jing Lv, Mei-Yan Wang, Shouying Huang,* Ji Qi* and Xinbin Ma

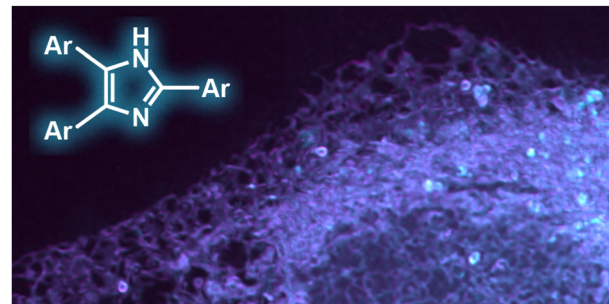
5289



Electronic pyroelectricity in a supramolecular assembly of an acceptor-donor-acceptor-type ambipolar π -system

Pritam Sadhukhan, Sk Kalimuddin, Aritri Pal, Tuhin Debnath, Swadesh Paul, Shubhankar Barman, Suhrit Ghosh,* Mintu Mondal* and Anuja Datta*

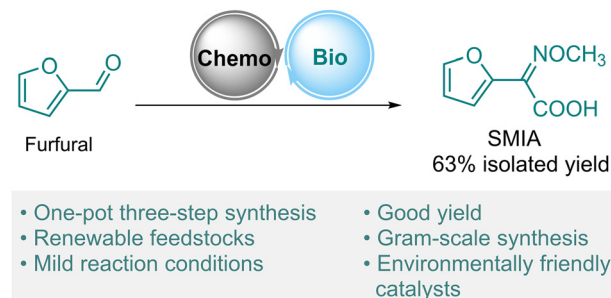
5293



Lophine analogues as fluorophores for selective bioimaging of the endoplasmic reticulum

Danica Drpic, Fabián A. Amaya-García* and Miriam M. Unterlass*

5297



One-pot chemoenzymatic access to a cefuroxime precursor *via* C1 extension of furfural

Jian Yu, Jin-Wang Sun and Ning Li*

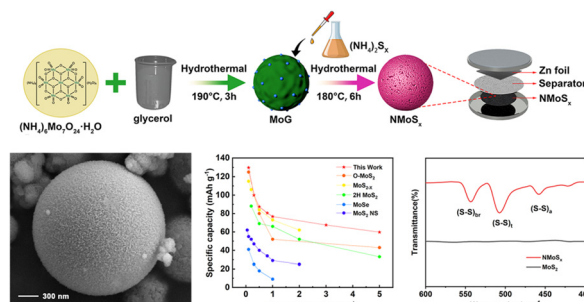


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5301

Enhancing aqueous zinc-ion battery performance through a dual-mechanism strategy

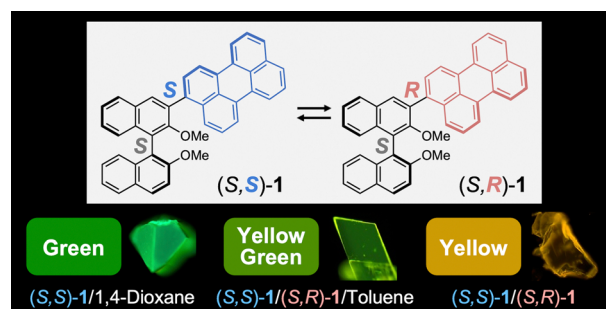
Zihao Zhao, Sufang Chen,* Daohong Zhang and Qiufan Wang*



5305

Multi-color luminescent crystals derived from dynamic diastereomers of a perylene-substituted binaphthol derivative

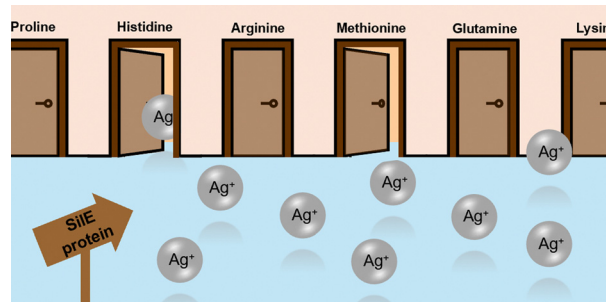
Riko Yano and Suguru Ito*



5309

Toward predicting silver ion binding in proteins

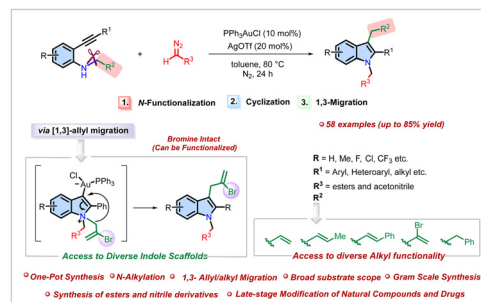
A. Bianchi, F. Marquenet, L. Manciocchi, M. Spichy and K. M. Fromm*

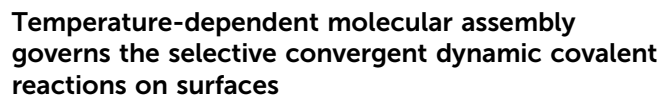


5313

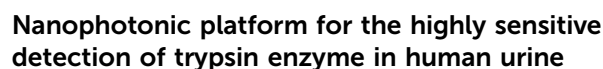
Gold/silver-catalyzed synthesis of functionalized indoles from *N*-allyl-2-alkynylanilines and α -diazo compounds via 1,3-allyl migration

Deepika Thakur, Shivam A. Meena, Manvi Sharma and Akhilesh K. Verma*

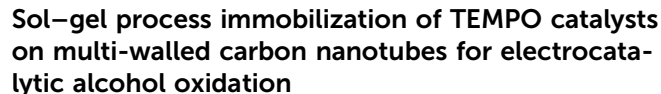




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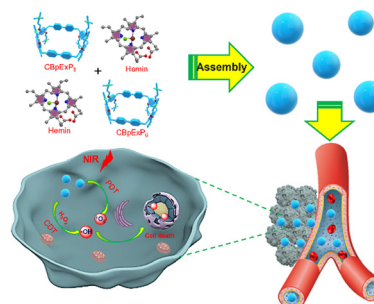
Zechen Ma, Zhibin Li, Wenjie Mai, Jinliang Li,* Likun Pan*
and Xiaohong Ji*

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A water-soluble cationic [2]biphenyl-extended pillar[6]arene: synthesis, host–guest interaction with hemin and application in chemodynamic/photodynamic cancer therapy

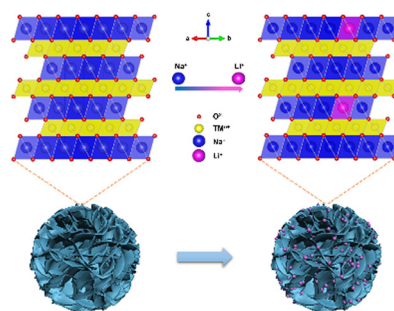
Yan Cai, Yue Zhang, Xufeng Liang, Chunlin Deng, Jianxia Zhang, Haotian Wang, Hui Duan and Yong Yao*



5337

A trace lithium occupation strategy enhances the structural stability of a layered $\text{NaNi}_{0.4}\text{Fe}_{0.2}\text{Mn}_{0.4}\text{O}_2$ cathode enabling stable cycling

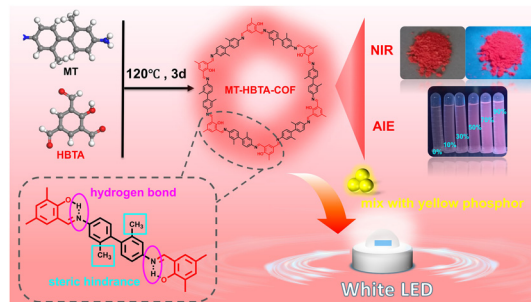
Yu-jing Chen, Jia-feng Zhang, Chao Sun, Pei-yao Li, Qing Wen, Pei Yang, Tian Chen, Xia-hui Zhang* and Jun-Chao Zheng*



5341

A near-infrared emitting covalent organic framework with AIE characteristics for light-emitting diodes

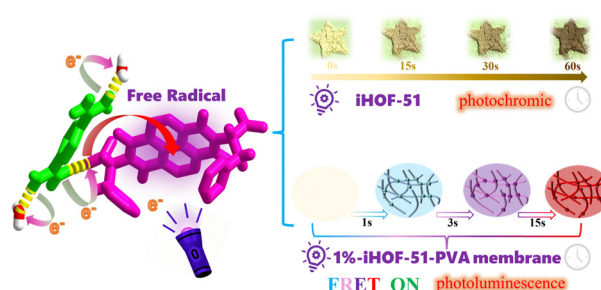
Jingrui Liu, Xilang Jin,* Xiao Li, Xuehao Ma, Peiyu Cui, Tongyu Zhang, Wenxing Chen and Wenhuan Huang*



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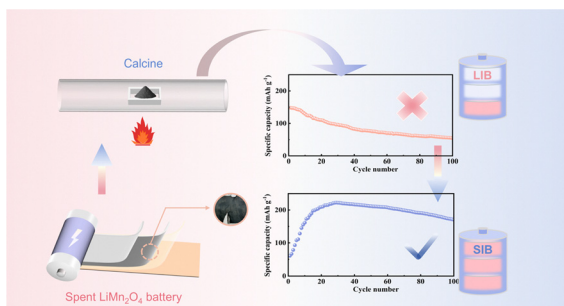
Encryption application of a fast stimulus-responsive hydrogen-bonded organic framework based on FRET

Bing-Sha Li, Li-Hui Cao,* Xu-Yong Chen and Yu Tian*



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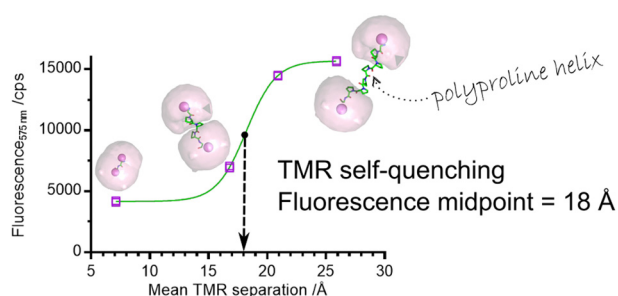
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Electrochemical Na doping of spent lithium-ion batteries takes on an entirely new look

Xiang Li, Zeyuan Bu, Haining Liu, Lihao Qin, Binghao Qiu, Ke Sun, Zengshi Zhang, Shuxuan Liao, Leqing Zhang, Xiaoshan Wang and Qiang Li*

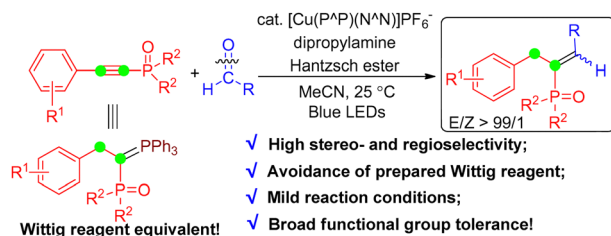
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Tetramethylrhodamine self-quenching is a probe of conformational change on the scale of 15–25 Å

Paul Girvan, Liming Ying and Charlotte A Dodson*

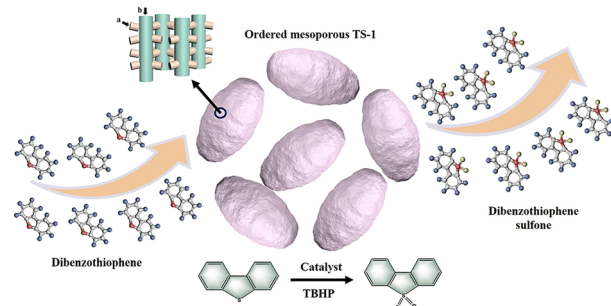
5357



Photocatalytic and straightforward olefination of alkyl aldehydes with alkynylphosphonates enabled by Cu(I)-photosensitizers

Yan Zhou, Lang Chen, Ziwen Huang, Qinxu Sun, Xinyue Xu, Kun Zhang and Yunkui Liu*

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Highly ordered mesopores modification of TS-1 from azobenzene-containing surfactant and its excellent deep desulfurization performance

Shuting Du,* Wanyu Dou, Jiayi Liu, Tianyang Wang, Tingrui Lv, Zehao Huang, Yaxuan Li and Chengpeng Li*

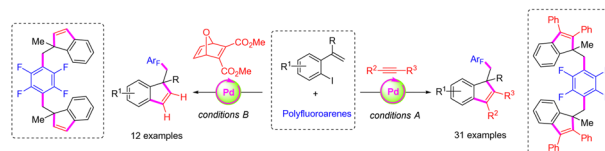


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Palladium-catalyzed intermolecular formal [3+2] cyclization/C–H alkylation of polyfluoroarenes

Zhongyao Jiang, Chenglin Liu, Mingxia Wu, Erhao Xu and Xin-Xing Wu*



CORRECTION

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Correction: Carbon-dot-based ratiometric fluorescent sensor for detecting hydrogen sulfide in aqueous media and inside live cells

Changmin Yu, Xizhen Li, Fang Zeng,* Fangyuan Zheng and Shuizhu Wu*

