

ChemComm

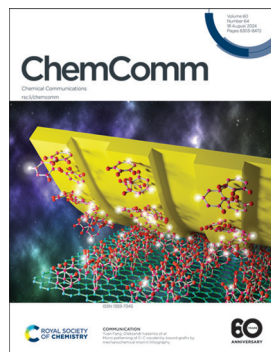
Chemical Communications

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IN THIS ISSUE

ISSN 1359-7345 CODEN CHCOFS 60(64) 8303-8472 (2024)



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See Yuan Fang, Oleksandr Ivasenko *et al.*, pp. 8375–8378. Image reproduced by permission of Xiaoli Chang and Oleksandr Ivasenko from *Chem. Commun.*, 2024, 60, 8375.



Inside cover

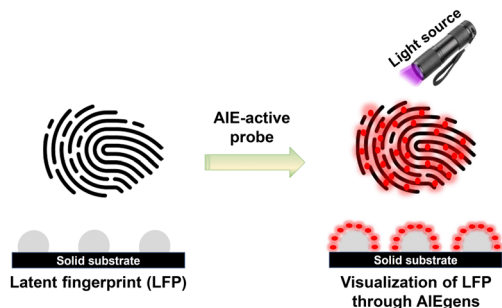
See Tatsuya Nishimura, Katsuhiro Maeda *et al.*, pp. 8379–8382. Image reproduced by permission of Katsuhiro Maeda from *Chem. Commun.*, 2024, 60, 8379.

HIGHLIGHT

8314

Aggregation-induced emission luminogens for latent fingerprint detection

Sonali Bera, Abishake Selvakumaraswamy, Biswa Prakash Nayak and Puja Prasad*

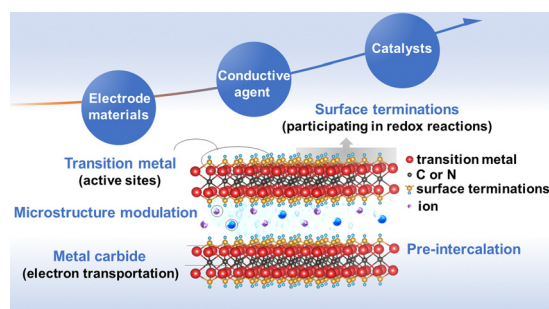


FEATURE ARTICLES

8339

MXene materials in electrochemical energy storage systems

Qinhua Gu, Yiqi Cao, Ming Lu* and Bingsen Zhang*



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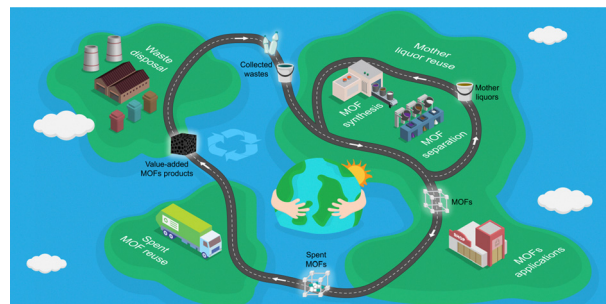


FEATURE ARTICLES

8350

Sustainable production and applications of metal–organic frameworks

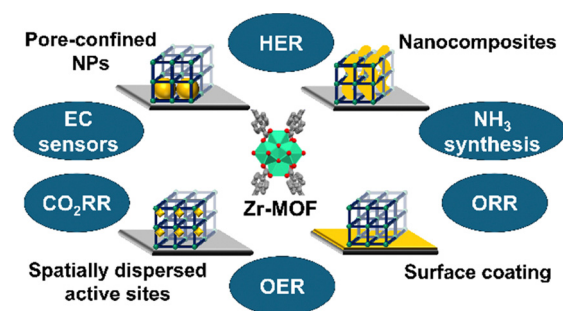
Hongyu Chu, Zhengxing Liu, Chong-Chen Wang* and Peng Wang



8360

Zirconium-based metal–organic frameworks and their roles in electrocatalysis

Meng-Dian Tsai, Kuan-Chu Wu and Chung-Wei Kung*

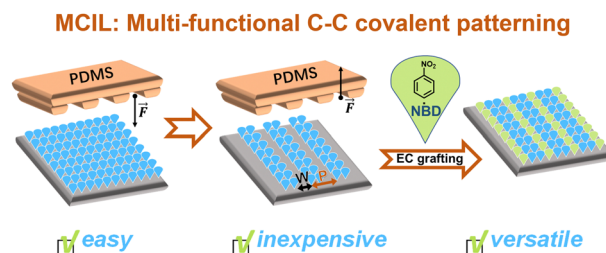


COMMUNICATIONS

8375

Micro-patterning of C–C covalently-bound grafts by mechanochemical imprint lithography

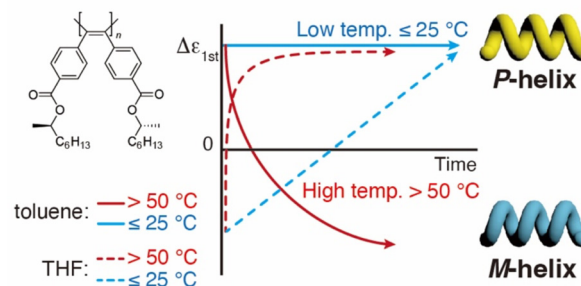
Xiaoshi Xie, Xiaoli Chang, Shuilong Kang, Yuan Fang* and Oleksandr Ivasenko*



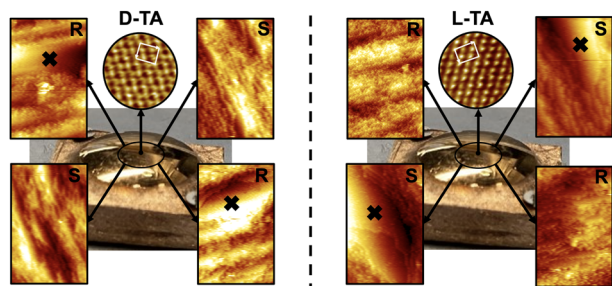
8379

Optically active poly(diphenylacetylene)s showing solvent-dependent helix inversion accompanied by modulation of helix inversion barriers

Abilesh Kumar Ravikumar, Tatsuya Nishimura,* Tsuyoshi Taniguchi and Katsuhiro Maeda*



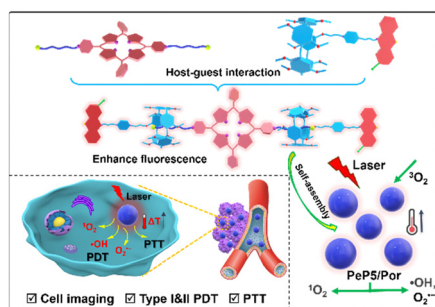
8383



Atomic-scale origin of the enantiospecific decomposition of tartaric acid on chiral copper surfaces

Avery S. Daniels, Andrew J. Gellman and E. Charles H. Sykes*

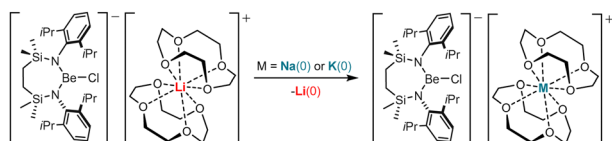
8387



Perphenazine modified pillar[5]arene based nano-assemblies for synergistic photothermal and photodynamic cancer therapy

Longtao Ma, Yu Dai, Yujia Meng, Wenqiang Yu, Yiqiao Bai, Yan Cai,* Ying Han,* Jin Wang, Long Yao and Yong Yao*

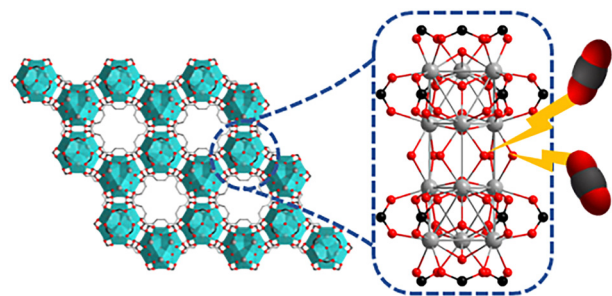
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Alkali metal reduction of crown ether encapsulated alkali metal cations

Kyle G. Pearce, Samuel E. Neale, Mary F. Mahon,* Claire L. McMullin* and Michael S. Hill*

8395



Modulated synthesis of hcp MOFs for preferential CO₂ capture

Jiaxi Zhang, Mehak Nawaz Khan, Zhigang Hu* and Jianxin Zou*

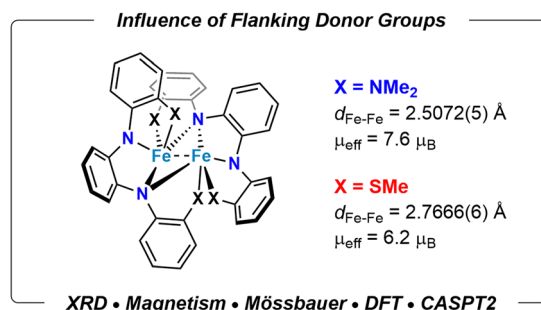


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8399

Modulation of Fe–Fe distance and spin in diiron complexes using tetradentate ligands with different flanking donors

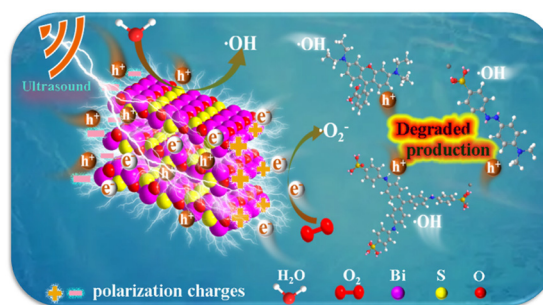
Kyle D. Spielvogel, Emily J. Campbell, Sabyasachi Roy Chowdhury, Florian Benner, Selvan Demir, Gillian P. Hatzis, Hayley R. Petras, Dunya Sembukuttirachchige, James J. Shepherd, Christine M. Thomas, Bess Vlasisavljevich and Scott R. Daly*



8403

Scalable synthesis of Bi₂O₂S nanoplates with large piezoelectric potential induced by a built-in electric field in a [Bi₂O₂]²⁺ layer for the degradation of organic contaminants

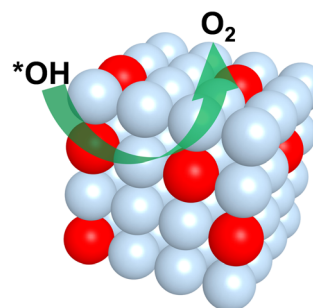
Zhende Wu, Jing Xie,* Suixin Yin, Zhenjiang Lu, Jindou Hu and Yali Cao*



8407

Robust bifunctionality in an oxygen electrode via core–shell heterostructure construction

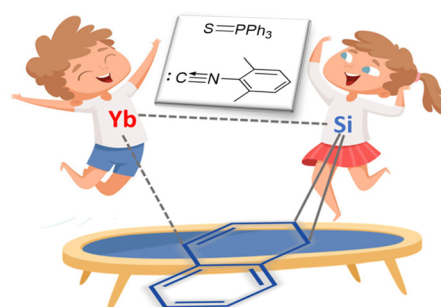
Yumei Feng, Xianwei Li, Zhiyong Ma, Kaiyi Liu, Yi Li, Chen Li,* Chunsheng Li, Yan Sun* and Zehui Yang*



8411

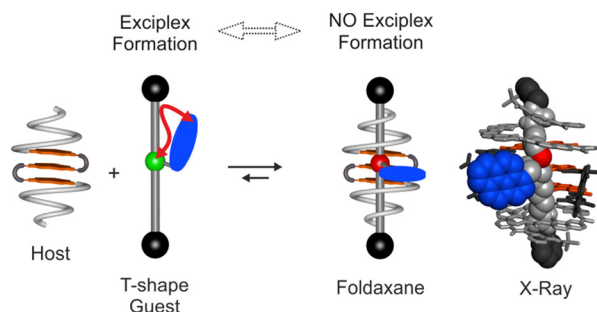
Yb/Si frustrated Lewis pairs with a labile naphthalenyl bridge

Cheng Xu, Sixuan Zhao, Heng Zhang, Qian Peng* and Yaofeng Chen*



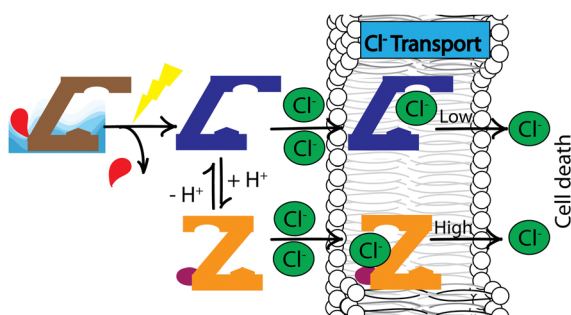
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**Photon-gated foldaxane assembly/disassembly**

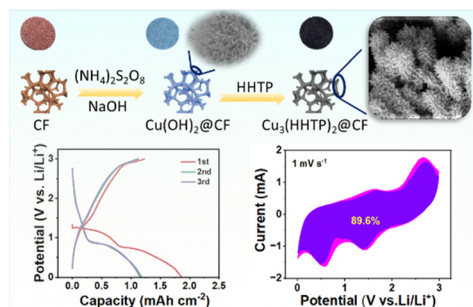
Chenhao Yao, Bappaditya Gole, Anh Thy Bui, Brice Kauffmann, Ivan Huc, Nathan D. McClenaghan* and Yann Ferrand*

8419

 **β -Carboline-based light and pH dual stimuli-responsive ion transporters induce cancer cell death**

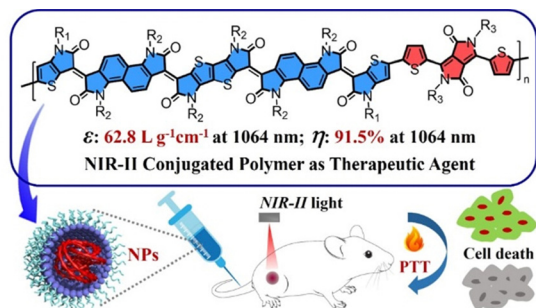
Mrinal Kanti Kar, Rumpa Mahata, Soumya Srimayee, Nandan Haloi, Rahul Kumar, Erik Lindahl, Manas Kumar Santra and Debasis Manna*

8423

**Self-sacrifice template construction of a conductive $Cu_3(HHTP)_2$ nanowhisker arrays@copper foam toward robust lithium storage**

Jinfeng Sun, Chanjuan Liu, Qian Zhang, Anning Zhang, Linrui Hou and Changzhou Yuan*

8427

**A NIR-II absorbing conjugated polymer based on tetra-fused isoindigo with ultrahigh photothermal conversion efficiency for cancer therapy**

Junjie Wu, Mei Rao, Yangwei Zhu, Pai Wang, Min Chen, Yijie Qu, Xiaohua Zheng* and Yu Jiang*

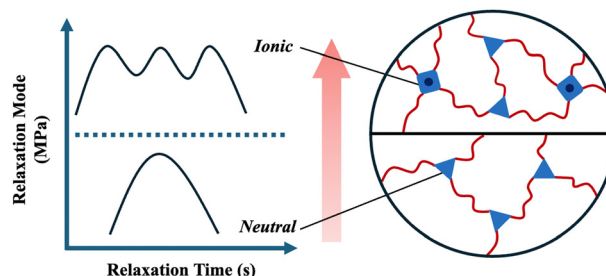


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Multiple energy dissipation modes in dynamic polymer networks with neutral and ionic junctions

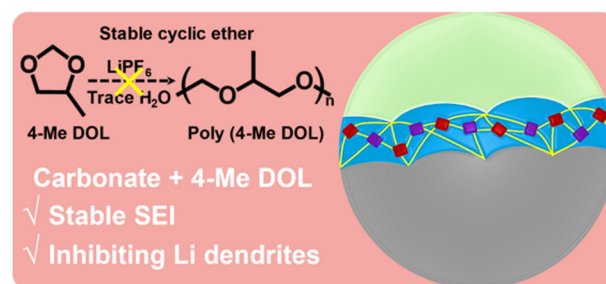
Seongon Jang, Charles M. Schroeder and Christopher M. Evans*



8435

Stable cyclic ether as an electrolyte additive for high-performance lithium metal batteries

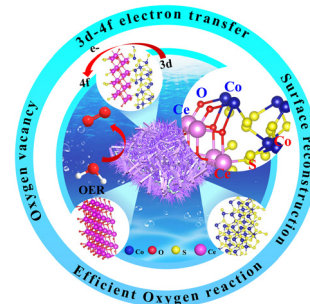
Tao Yang, Hanxu Yang, Jiahang Zou, Liang Li, Shilin Wu, Meinan Zhao,* Zhipeng Jiang* and Yongtao Li*



8439

The 3d–4f electron transition of the CoS₂/CeO₂ heterojunction for efficient oxygen evolution

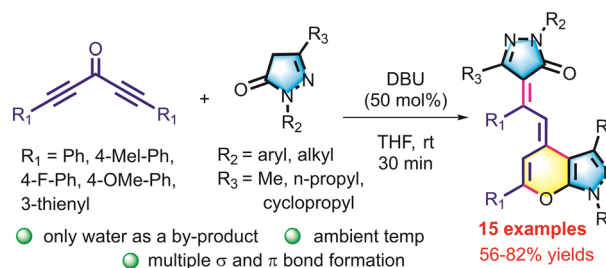
Yaqin Chen, Yuchao Zhang, Hui Xue,* Jing Sun, Niankun Guo, Tianshan Song, Jiawen Sun, Yi-Ru Hao and Qin Wang*



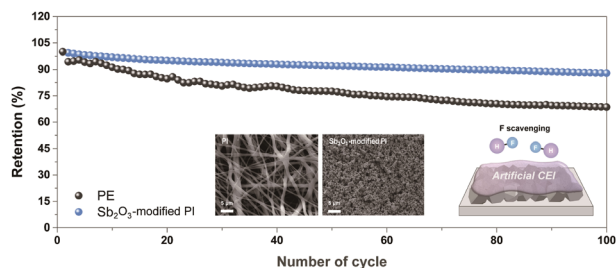
8443

One flask cascade approach to a complex pyrano[2,3-c]pyrazole-pyrazolone hybrid heterocyclic system and its initiatory neurobiological profiling

Alagesan Balasubramani, K. A. Sudarshana, Roli Kushwaha, Sumana Chakravarty, Srihari Pabbaraja* and Goverdhan Mehta*



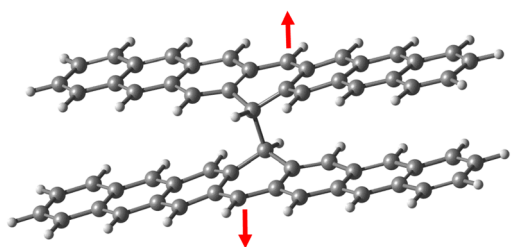
8447



Fluoride scavengeable Sb₂O₃-functionalized poly(imide) separators for prolonged cycling of lithium-ion batteries

Juhwi Park, Ji Seong Heo, Sung Joon Park, Ki Jae Kim* and Taeun Yim*

8451

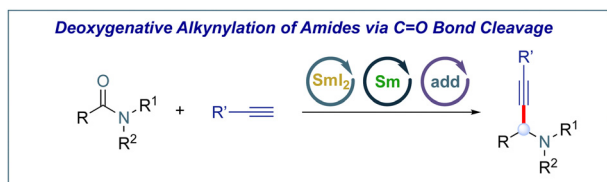


Singlet-Triplet Gap: -20.2 J mol⁻¹

Detection of diheptacendiyl diradical intermediate in the cycloreversion of diheptacene to heptacene

Marie S. Wagner, Heiko Peisert, Thomas Chassé and Holger F. Bettinger*

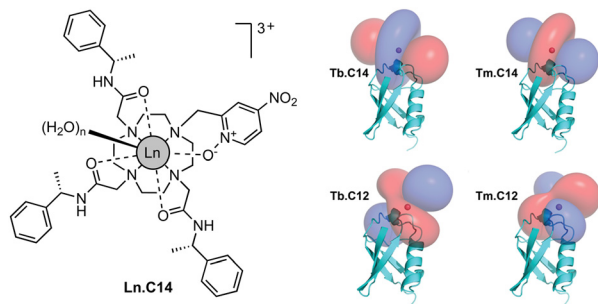
8454



Deoxygenative alkynylation of amides via C=O bond cleavage

Lan Chen, Wei Zhou, Jianwen Zhang, Yimin Ding,* Michal Szostak* and Chengwei Liu*

8458



A lanthanide tag for a complementary set of pseudocontact shifts

Lydia Topping, Adarshi P. Welegedara, Martyna Judd, Elwy H. Abdelkader, Nicholas Cox, Gottfried Otting and Stephen J. Butler*

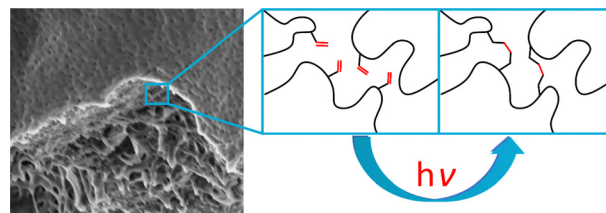


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An anchor for help: a cross-linking moiety for block copolymer membrane stabilization for ultrafiltration applications in water

Florian Volker Frieß and Markus Gallei*



8466

Visual detection and efficient capture of hydrogen chloride and ammonia vapours by a sustainable dual emissive metal–organic framework

Susanta Dinda, Sourav Deb, Bidyadhar Mahato, Sujoy Baitalik* and Debajyoti Ghoshal*

