

# ChemComm

Chemical Communications

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## IN THIS ISSUE

ISSN 1359-7345 CODEN CHCOFS 59(91) 13525-13658 (2023)



### Cover

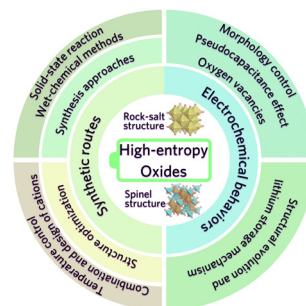
See Alysson F. Morais, Danilo Mustafa *et al.*, pp. 13571-13574. Image reproduced by permission of Danilo Mustafa from *Chem. Commun.*, 2023, 59, 13571.

## HIGHLIGHT

13535

### High-entropy oxides: an emerging anode material for lithium-ion batteries

Xikun Zou, Yi-Ruo Zhang, Ze-Ping Huang, Kan Yue\* and Zi-Hao Guo\*

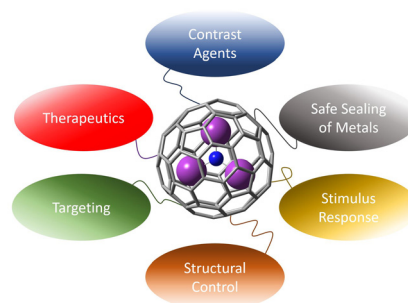


## FEATURE ARTICLES

13551

### Water-soluble endohedral metallofullerenes: new horizons for biomedical applications

William P. Kopcha, Rohin Biswas, Yue Sun, Sy-Tsong Dean Chueng, Harry C. Dorn\* and Jianyuan Zhang\*



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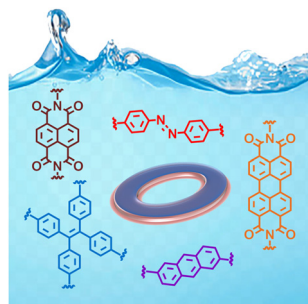


## FEATURE ARTICLES

13562

**Water-soluble organic macrocycles based on dye chromophores and their applications**

Luying Zhang, Yanqing Xu\* and Wei Wei\*

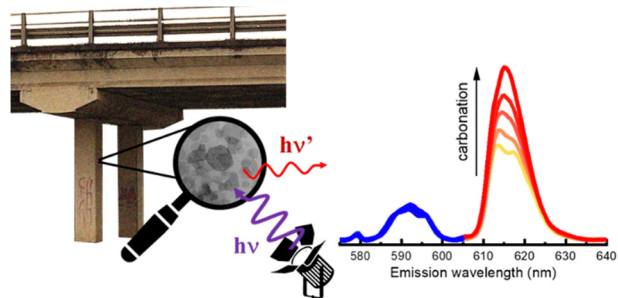


## COMMUNICATIONS

13571

**Eu<sup>3+</sup> doped ZnAl layered double hydroxides as calibrationless, fluorescent sensors for carbonate**

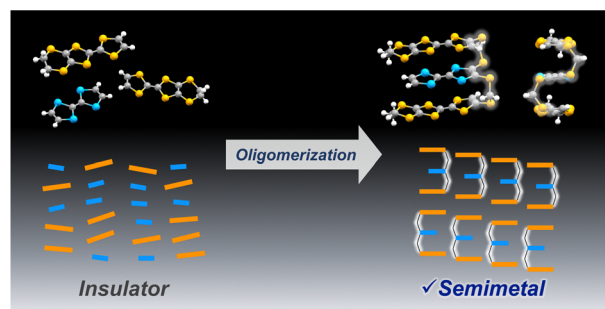
Alysson F. Morais,\* Ivan G. N. Silva, Bruno J. Ferreira, Alexandre C. Teixeira, Sreeprasanth P. Sree, Huayna Terraschke, Fernando A. Garcia, Eric Breynaert and Danilo Mustafa\*



13575

**A triad molecular conductor: simultaneous control of charge and molecular arrangements**

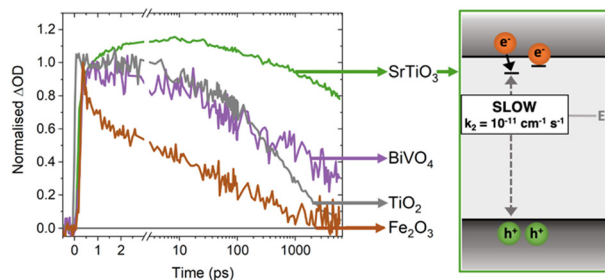
Naoya Kinoshita, Atsuya Maruyama, Takashi Shirahata,\* Toshio Naito and Yohji Misaki\*



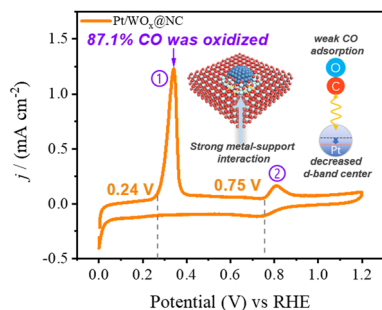
13579

**Transient absorption spectroscopy reveals that slow bimolecular recombination in SrTiO<sub>3</sub> underpins its efficient photocatalytic performance**

Anna A. Wilson, Lucy Hart, Thomas Shalvey, Michael Sachs, Weidong Xu, Benjamin Moss, Eva Mazzolini, Asim Mumtaz and James R. Durrant\*



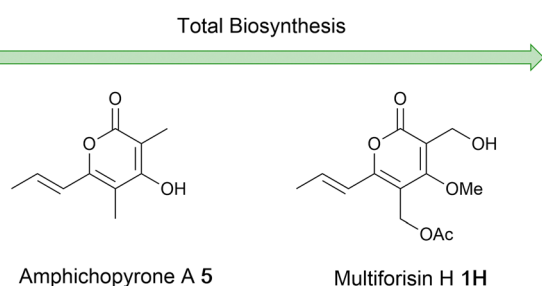
13583



### Strengthening Pt/WO<sub>x</sub> interfacial interactions to increase the CO tolerance of Pt for hydrogen oxidation reaction

Daojun Long, Xinyu Ping, Jingtian Ni, Fadong Chen, Siguo Chen,\* Zidong Wei, Lin Guo\* and Jinyu Zheng

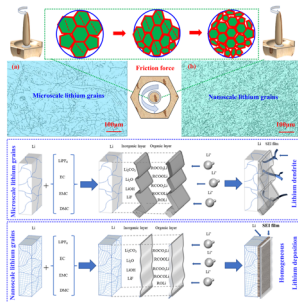
13587



### Total biosynthesis of fungal tetraketide pyrones

Yunlong Sun, Dongsong Tian, Eric Kuhnert, Geraldine Le Goff, Guillaume Arcile, Jamal Ouazzani and Russell J. Cox\*

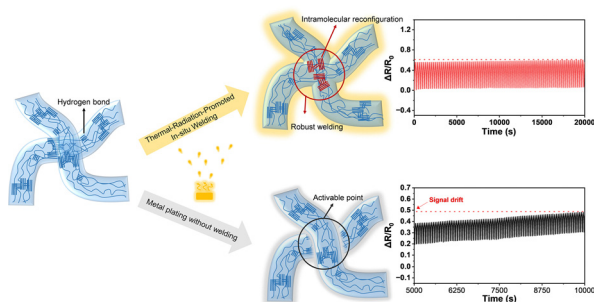
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### Room temperature solid-state deformation induced high-density lithium grain boundaries to enhance the cycling stability of lithium metal batteries

Xue-Ying Zhang, Yong Zhang,\* Yong Gao and Hong Zhao\*

13595



### A gas-permeable, durable, and sensitive wearable strain sensor through thermal-radiation-promoted *in situ* welding

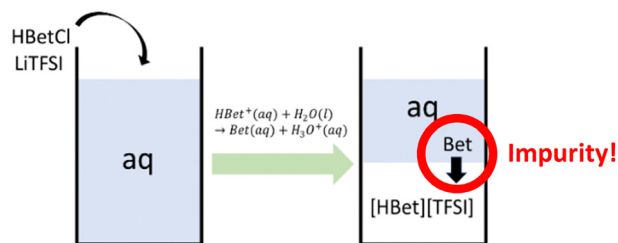
Xueyang Ren, Yuehui Yuan, Jin Li, Huaxu Ling, Yanjie Chen, Ping Yang,\* Jianqing Li\* and Benhui Hu\*



13599

### Quantification of zwitterion betaine in betaine bis(trifluoromethylsulfonyl)imide and its influence on liquid–liquid equilibrium with water

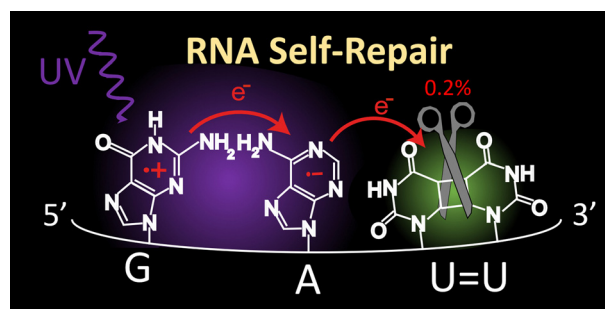
Jaeseong Lee, Melissa Fairley, George S. Goff and Joan F. Brennecke\*



13603

### UV-driven self-repair of cyclobutane pyrimidine dimers in RNA

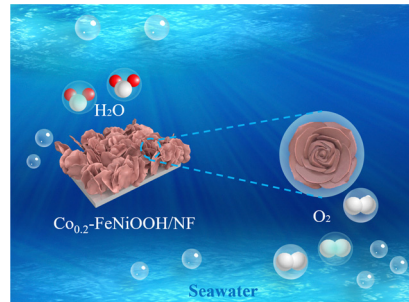
Sarah J. Crucilla, Dian Ding, Gabriella G. Lozano, Jack W. Szostak, Dimitar D. Sasselov and Corinna L. Kufner\*



13607

### In situ synthesis of rosette-like Co-doped FeNiOOH/NF for seawater oxidation

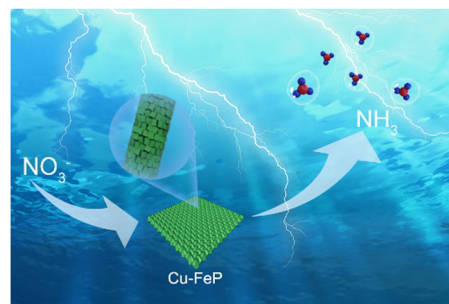
Mingyuan Shi, Tianmi Tang, Liyuan Xiao, Jingyi Han, Xue Bai, Yuhang Sun, Yuanyuan Ma\* and Jingqi Guan\*



13611

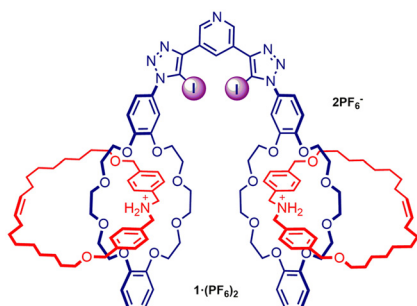
### Cu doping in FeP enabling efficient electrochemical nitrate reduction to ammonia in neutral media

Bo Li, Pengfei Xue, Man Qiao, Yujia Tang and Dongdong Zhu\*





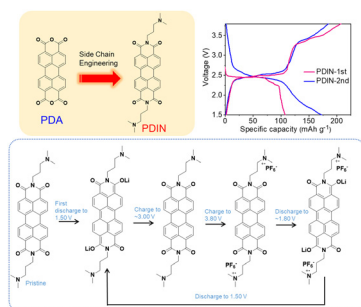
13615



### Enhanced anion recognition by ammonium [2]catenane functionalisation of a halogen bonding acyclic receptor

Thanthapatra Bunchuay, Theerapat Khianjinda, Pasit Srisawat, Yuen Cheong Tse, Christian Gateley and Paul D. Beer\*

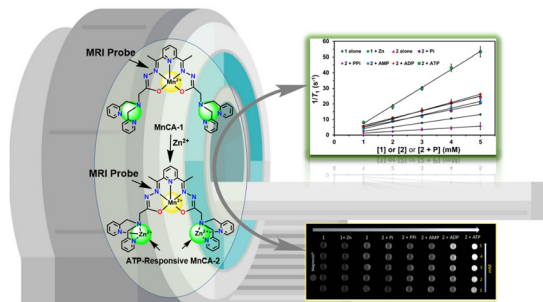
13619



### 4-Electron redox enabled by a perylene diimide containing side-chain amines for efficient organic cathode development

Zhiling He, Junfeng Zhu, Mingyu Yin, Deyi Liao, Jiabin Feng, Qingguang Zeng, Hui Yu, John H. Xin, Da Wang\* and Xi Liu\*

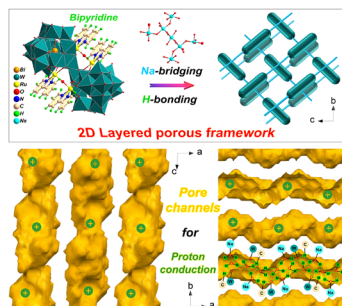
13623



### ATP-responsive Mn(II)-based $T_1$ contrast agent for MRI

Sellamuthu Anbu,\* Lawrence Kenning and Graeme J. Stasiuk\*

13627



### A heteropolytungstate based 2D layered porous framework with high proton conductivity

Mengnan Yang, Yao Zhang, Shiyan Ji, Huafeng Li, Xinyi Ma, Yuzhen Jin, Pengtao Ma, Jingping Wang\* and Jingyang Niu\*

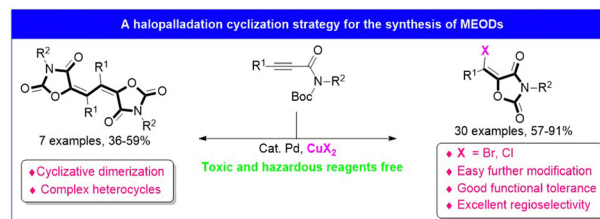


## COMMUNICATIONS

13631

### Construction of 5-methyleneoxazolidine-2,4-diones bearing modifiable halogen groups through a halopalladation strategy

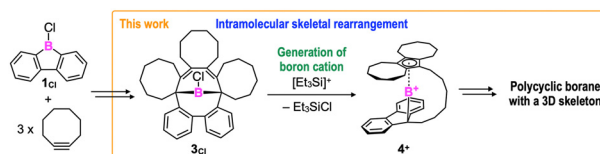
Huilin Zhan, Bin Chen, Biao Zhu, Xiang Li, Zhengyu Han, Jianwei Sun and Hai Huang\*



13635

### Skeletal rearrangement of a boron-containing annulenic molecule into a macrocycle bridged by an electronically stabilized boron cation

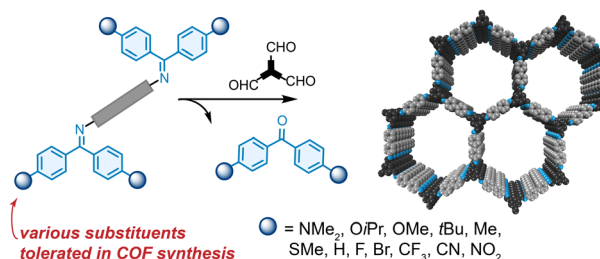
Yukihiko Murata, Cihan Özen, Satoshi Maeda,\*  
Takanori Fukushima and Yoshiaki Shoji\*



13639

### Substituted benzophenone imines for COF synthesis via formal transimination

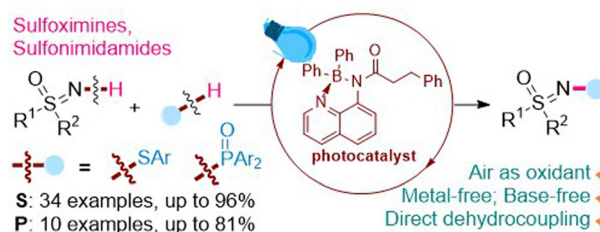
Josefine Sprachmann, Niklas Grabicki, Anna Möckel,  
Jeremy Maltitz, José Refugio Monroy, Glen J. Smales  
and Oliver Dumele\*



13643

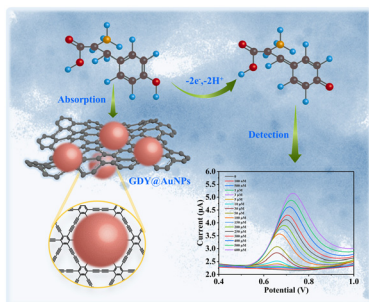
### Organoboron/iodide-catalyzed photoredox N-functionalization of NH-sulfoximines/sulfonimidamides

Jiawei Huang, Xiaoman Li, Yu Wei, Zhigang Lei\* and Liang Xu\*



## COMMUNICATIONS

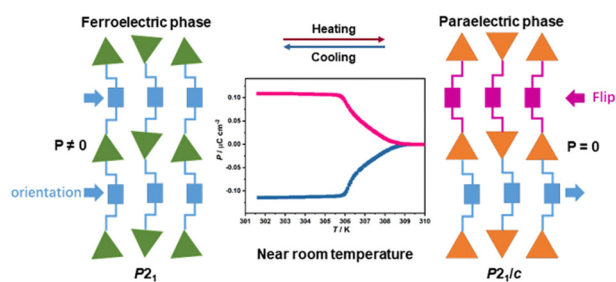
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### Graphdiyne chelated AuNPs for ultrasensitive electrochemical detection of tyrosine

Zhuanzhuan Shi,\* Yunpeng Li, Xiaoshuai Wu, Kaiwen Zhang, Jiatao Gu, Wei Sun, Chang Ming Li\* and Chun Xian Guo\*

13651



### Exceptional structural phase transition near room temperature in an organic–inorganic hybrid ferroelectric

Ping Wang, Yu-Qiao Tong, Shi-Qing Yin, Qian-Jun Gu, Bo Huang\* and Ai-Xin Zhu\*

## CORRECTION

13655

### Correction: Strengthening Pt/WO<sub>x</sub> interfacial interactions to increase the CO tolerance of Pt for hydrogen oxidation reaction

Daojun Long, Xinyu Ping, Jingtian Ni, Fadong Chen, Siguo Chen,\* Zidong Wei, Lin Guo\* and Jinyu Zheng

