

# ChemComm

Chemical Communications

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## IN THIS ISSUE

ISSN 1359-7345 CODEN CHCOFS 59(78) 11597-11742 (2023)



### Cover

See Yutaka Maeda, Pei Zhao, Masahiro Ehara *et al.*, pp. 11648–11651. Image reproduced by permission of Yutaka Maeda from *Chem. Commun.*, 2023, 59, 11648.



### Inside cover

See Wei Lu *et al.*, pp. 11652–11655. Image reproduced by permission of Wei Lu from *Chem. Commun.*, 2023, 59, 11652.

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11608

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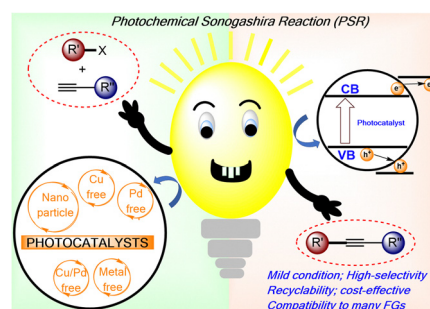


## HIGHLIGHTS

11615

### Photochemical Sonogashira coupling reactions: beyond traditional palladium–copper catalysis

Puja Singh and Aslam C. Shaikh\*



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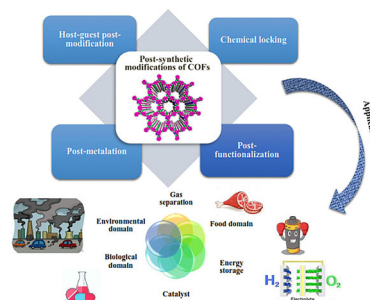


## HIGHLIGHTS

11631

### Post-synthetic modifications of covalent organic frameworks (COFs) for diverse applications

Narges Abdolhossein Rejali, Mohammad Dinari\* and Yong Wang\*

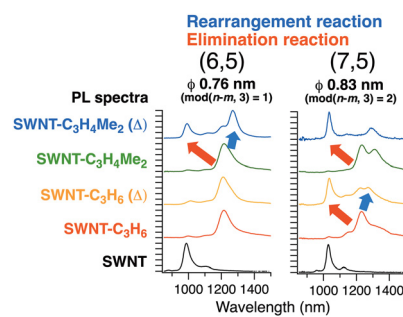


## COMMUNICATIONS

11648

### Control of functionalized single-walled carbon nanotube photoluminescence *via* competition between thermal rearrangement and elimination

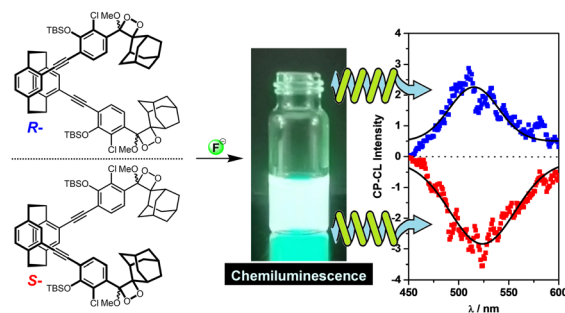
Yutaka Maeda,\* Rina Morooka, Pei Zhao,\* Michio Yamada and Masahiro Ehara\*



11652

### Circularly polarized chemiluminescence from planar chiral bis(adamantylidene-1,2-dioxetane)s

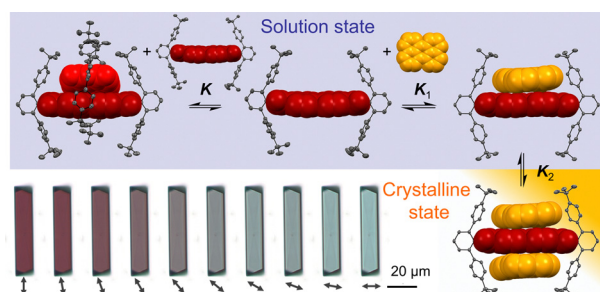
Minglin Shi, Mo Xie, Shigang Wan, Chao Zou, Yuliang Liu, Xinyan Zhou, Peng Yang, Xiaoyong Chang and Wei Lu\*



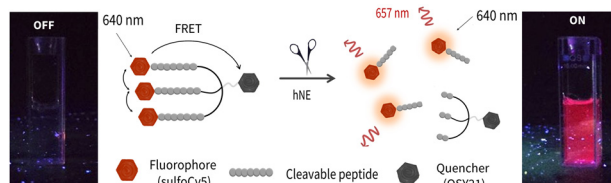
11656

### Donor–acceptor complex formation by social self-sorting of polycyclic aromatic hydrocarbons and perylene bisimides

Simon Soldner, Olga Anhalt, Menyhárt B. Sárosi, Matthias Stolte and Frank Würthner\*



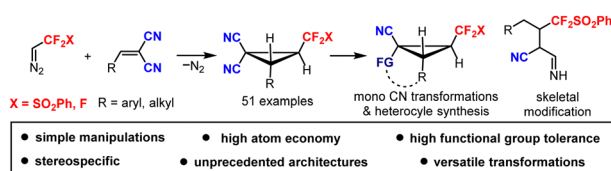
11660



### Moving into the red – a near infra-red optical probe for analysis of human neutrophil elastase in activated neutrophils and neutrophil extracellular traps

M. Rodriguez-Rios, G. Rinaldi, A. Megia-Fernandez, A. Lilienkamp, C. T. Robb, A. G. Rossi and M. Bradley\*

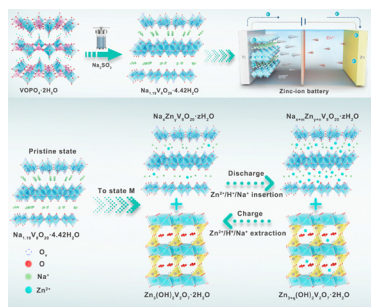
11664



### Synthesis of di/trifluoromethyl cyclopropane-dicarbonitriles via [2+1] annulation of fluoro-based diazoethanes with (alkylidene)malononitriles

Cheng-Feng Gao, Yue-Ji Chen, Jing Nie, Fa-Guang Zhang,\* Chi Wai Cheung\* and Jun-An Ma\*

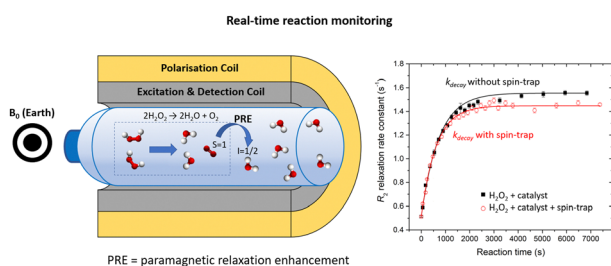
11668



### Oxygen vacancy enriched $\text{Na}_{1.19}\text{V}_8\text{O}_{20} \cdot 4.42\text{H}_2\text{O}$ nanosheets for fast and stable Zn-ion batteries

Mengcheng Wu, Jie Bai, Mengda Xue, Xun Zhao, Lei Mao and Lingyun Chen\*

11672



### Earth's field NMR relaxation of pre-polarised water protons for real-time detection of free-radical formation

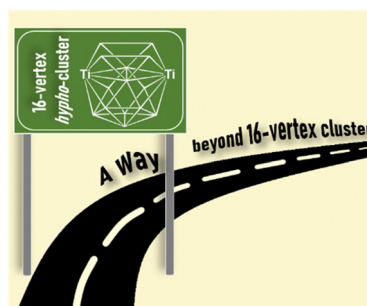
Alexandru Topor, Mihai A. Voda and Paul R. Vasos\*



11676

### 16-Vertex *oblato-hypho*-titanaborane [(Cp\*Ti)<sub>2</sub>B<sub>14</sub>H<sub>18</sub>]

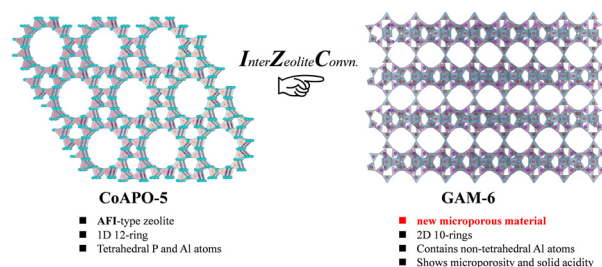
Sourav Kar, Subhash Bairagi, Jean-François Halet\* and Sundargopal Ghosh\*



11680

### Two-dimensional microporous GAM-6 formed by the interzeolite conversion of CoAPO-5

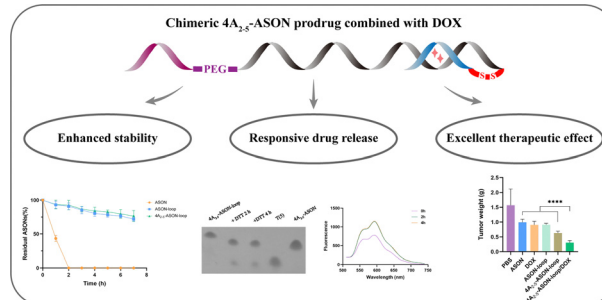
Kenichi Komura,\* Edo Imai,\* Kazuma Oka and Takuji Ikeda\*



11684

### Design, characterization and biological evaluation of a new chimeric 4A<sub>2-5</sub>-antisense prodrug combined with chemotherapy

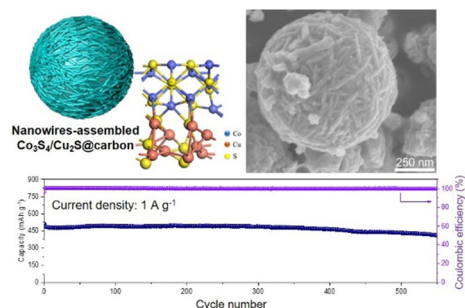
Zuyi Chen, Zhe Zhang, Shuangshuang Liu, Zhenyu Xiao, Yuan Luo, Liang Xu\* and Xuesong Feng\*



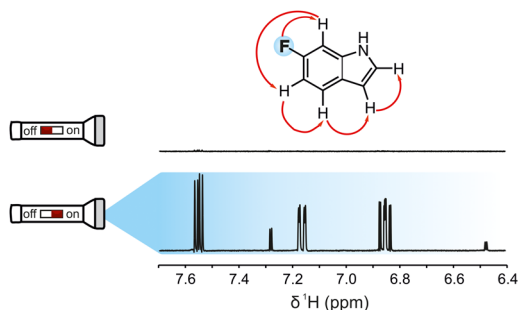
11688

### A nanowire-assembled Co<sub>3</sub>S<sub>4</sub>/Cu<sub>2</sub>S@carbon binary metal sulfide hybrid as a sodium-ion battery anode displaying high capacity and recoverable rate-performance

Jinyun Liu,\* Xiaofei Huang, Rui Wang, Tianli Han and Huigang Zhang



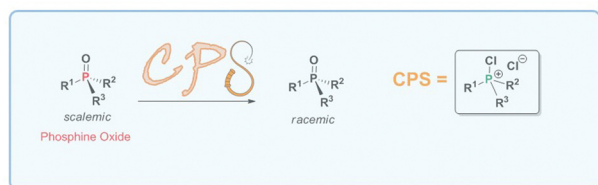
11692



### Lighting up spin systems: enhancing characteristic $^1\text{H}$ signal patterns of fluorinated molecules

Marshall J. Smith, Jack E. Bramham, Mathias Nilsson, Gareth A. Morris, Laura Castañar\* and Alexander P. Golovanov\*

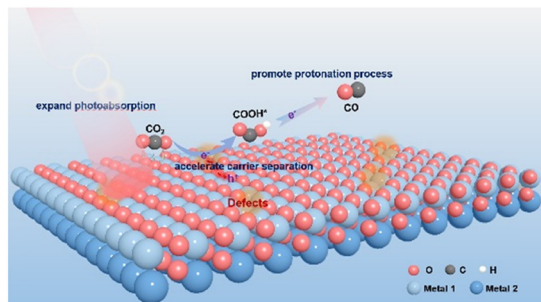
11696



### Unexpected rapid *P*-stereomutation of phosphine oxides catalysed by chlorophosphonium salts

Sulaiman Al-Sulaimi, Kamalraj Rajendran, Kirill Nikitin\* and Declan G. Gilheany\*

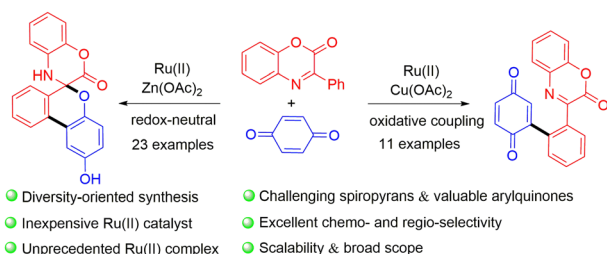
11700



### Optimized full $\text{CO}_2$ photoreduction process by defective spinel atomic layers

Yang Wu, Dongpo He, Lei Li, Zhiqiang Wang, Wensheng Yan, Junfa Zhu, Yang Pan, Qingxia Chen,\* Xingchen Jiao\* and Yi Xie

11704



### Synthesis of spiroyrans and arylquinones via Ru(II)-catalyzed condition-controlled coupling of 3-aryl-2H-benzoxazinones with benzoquinones

Mengying Zhang, Yuhao He, Song Li, Yuehua Geng, Xiangyang Liu and Xifa Yang\*

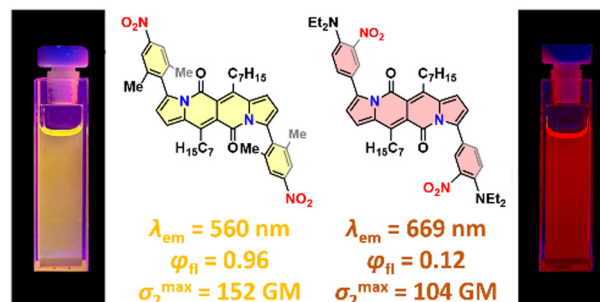


## COMMUNICATIONS

11708

## Realization of nitroaromatic chromophores with intense two-photon brightness

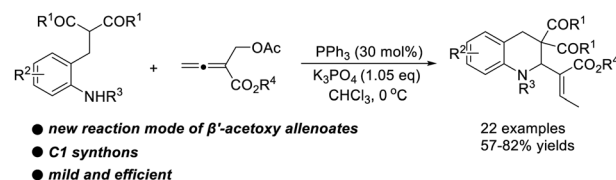
Bartłomiej Sadowski,\* Marzena Kaliszewska, Guillaume Clermont, Yevgen M. Poronik, Mireille Blanchard-Desce,\* Piotr Piątkowski\* and Daniel T. Gryko\*



11712

Phosphine-catalyzed [5+1] annulation of  $\beta'$ -acetoxy allenates: straightforward access to tetrahydroquinoline derivatives

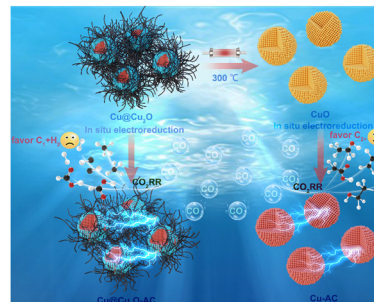
Yannan Zhu, Zhili Xu and Yi-Ning Wang\*



11716

Correlating the valence state of a Cu-based electrocatalyst for  $\text{CO}_2$  reduction to  $\text{C}_2^+$ 

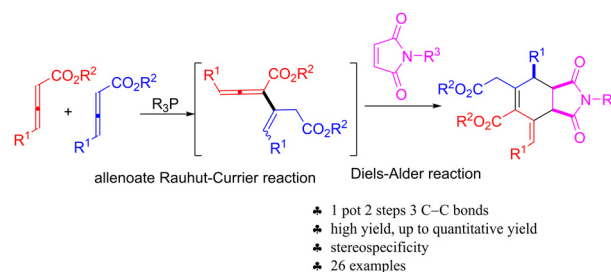
Yifan Li, Wanqing Hong, Shiyi Chen, Rui Duan, Sini Chai, Wenping Du, Jian Yang\* and Junjie Mao\*



11720

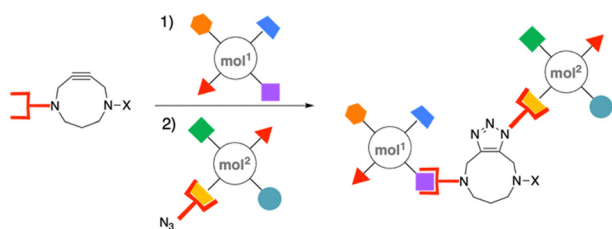
Phosphine-catalyzed Rauhut–Currier reaction of  $\gamma$ -alkyl allenates and subsequent trapping using the Diels–Alder reaction

Juan Zhang, Wei Hao, Ying Chen, Zhen Wang,\* Jinzhong Yao and Weijun Yao\*



## COMMUNICATIONS

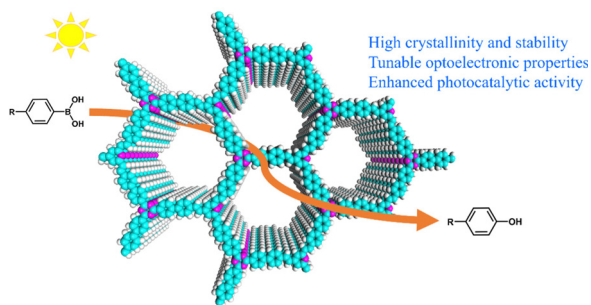
11724



### Development of DACN-NHS-ester and DACN-maleimide, and their application for the synthesis of artificial hybrid biomolecules

Yuuya Kawasaki, Tomoya Hayashibara, Yuki Seto, Yutaro Taniguchi, Kazunobu Igawa and Katsuhiko Tomooka\*

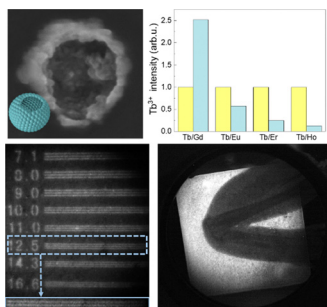
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### Fabricating s-collidine-derived vinylene-linked covalent organic frameworks for photocatalysis

Zuyi Li, Wengjing Wang, Feng Tao, Wenwen Zhou, Lianke Wang, Zhipeng Yu, Kaixuan Wang,\* Jie Zhang\* and Hongping Zhou\*

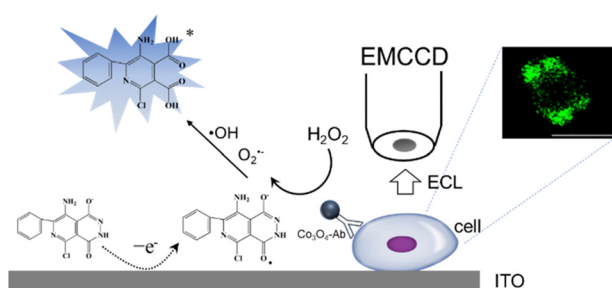
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### A hollow NaBiF<sub>4</sub>:Tb nanoscintillator with ultra-weak afterglow for high-resolution X-ray imaging

Huirong Zou, Minghao Yi, Shiqing Xu and Lei Lei\*

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### Enhanced electrochemiluminescence imaging of single cell membrane proteins based on Co<sub>3</sub>O<sub>4</sub> nanozyme catalysis

Jingjing Zhang, Lin Hao,\* Jie Chao, Lianhui Wang and Shao Su\*



## CORRECTION

11740

**Correction: Synthesis of vertically aligned carbon nanotube arrays on polyhedral Fe/Al<sub>2</sub>O<sub>3</sub> catalysts**

Jun Liu, Lixiang Yuan,\* Xiaoshuang Yang, Anthony Ebert and Andrew T. Harris\*

