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# Chemical Communications

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#### Cover

See Huatang Zhang, Yin Jiang, Hongyan Sun et al., pp. 13703–13706. Image reproduced by permission of Huatang Zhang from Chem. Commun., 2023, **59**, 13703.

# FEATURE ARTICLES

### 13668

Recent applications of organic cages in sensing and separation processes in solution

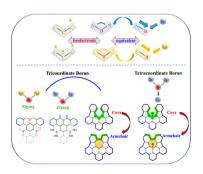
Sonia La Cognata and Valeria Amendola\*



#### 13679

Heteroatom-boron-heteroatom-doped  $\pi$ -conjugated systems: structures, synthesis and photofunctional properties

Tinghao Ma, Jiaqi Dong and Deng-Tao Yang\*



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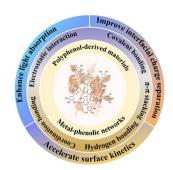


### FEATURE ARTICLES

#### 13690

# Functions of metal-phenolic networks and polyphenol derivatives in photo(electro)catalysis

Xiao-Long Liu, Hai-Chao Wang, Tao Yang, Xin-Zheng Yue and Sha-Sha Yi\*

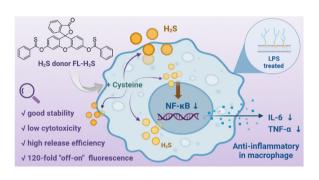


# COMMUNICATIONS

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# A new dual functional H<sub>2</sub>S donor for fluorescence imaging and anti-inflammatory application

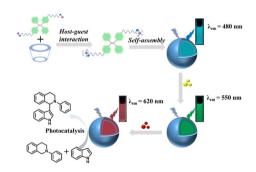
Shumei Huang, Zejun Li, Wenhui You, Guansheng Zheng, Huatang Zhang,\* Yin Jiang\* and Hongyan Sun\*



### 13707

A cavitand-based supramolecular artificial light-harvesting system with sequential energy transfer for photocatalysis

Qian Liu, Minzan Zuo, Kaiya Wang\* and Xiao-Yu Hu\*

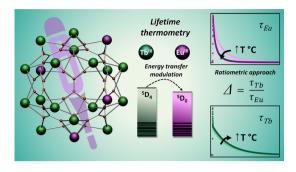


# Visible-light-induced bifunctionalisation of (homo)propargylic amines with CO2 and arylsulfinates

Mandapati Bhargava Reddy and Eoghan M. McGarrigle\*



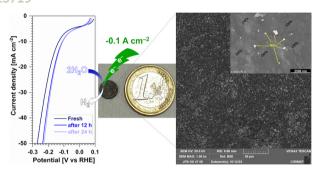
#### 13715



# Intra-cluster energy transfer editing in a dual-emitting system to tap into lifetime thermometry

Claudia Manuela Santos Calado, Diogo Alves Gálico and Muralee Murugesu\*

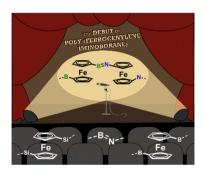
#### 13719



# Spark plasma sintered catalytic nickel-copper alloy and carbon nanotube electrodes for the hydrogen evolution reaction

Jean-Félix Boué, Cédric Espinet, Simon Amigues, David Mesquich, David Cornu, Yaovi Holade,\* Julien Cambedouzou\* and Christophe Laurent\*

### 13723



# Poly(ferrocenylene iminoborane): an inorganic-organic hybrid polymer comprising a backbone of moderately interacting ferrocenes

Vivien Zeh, Johannes S. Schneider, Jonas Bachmann, Ivo Krummenacher, Holger Braunschweig and Holger Helten\*

#### 13727



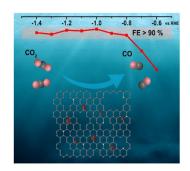
# Carborane-based heteromolecular extended networks driven by directional C-Te...N chalcogen bonding interactions

Maxime Beau, Olivier Jeannin, Marc Fourmiqué,\* Emmanuel Aubert, Enrique Espinosa, Sunhee Lee, Won-Sik Han and le-Rang Jeon\*

#### 13731

Facile synthesis of supported CuNi nano-clusters as an electrochemical CO<sub>2</sub> reduction catalyst with broad potential range

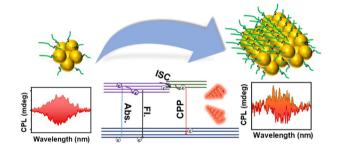
Jiale Wang, Fan Li, Runhua Li, Qian Xiang, Wencong Zhang, Chengyi Song, Peng Tao, Wen Shang, Tao Deng, Hong Zhu and Jianbo Wu\*



# 13735

Dual emissive optically active gold nanoclusters endowed with circularly polarized phosphorescence

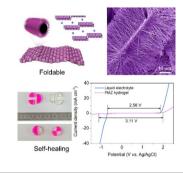
Camelia Dutta, Sonia Maniappan and Jatish Kumar\*



# 13739

A foldable self-healing rocking chair zinc-ion battery using a three-dimensional zinc metal-free anode

Jiawei Long, Tianli Han, Xirong Lin, Yajun Zhu and Jinyun Liu\*

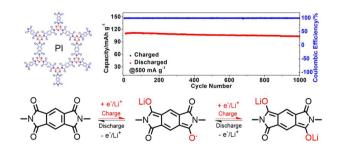


#### 13743

Fabrication of porous polyimide as cathode for high performance lithium-ion battery

Xianyu Liu,\* Mingxun Xie, Yunxia Wei, Yongliang Guo and Zheng Liu

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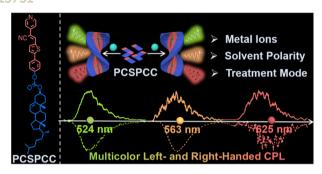


#### 13747

# An interrupted Heyns rearrangement approach for the regioselective synthesis of acylindoles

Minakshi Altia and Pazhamalai Anbarasan\*

#### 13751



# Multicolor circularly polarized luminescence inversion of metal-organic supramolecular polymers

Kuo Fu and Guofeng Liu\*

### 13755

# Transition metal-free and temperature dependent one-pot access to phenanthrene-fused heterocycles via a 1,3-dipolar cycloaddition pathway

Mokilla Ramachandra Reddy, Eerappa Rajakumara and Gedu Satyanarayana\*

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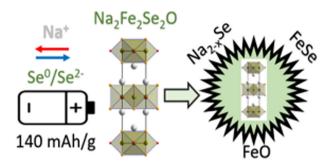
# Visible-light-mediated synthesis of non-anomeric S-aryl glycosides via a photoactive electron-donor-acceptor complex

Le Zhang, Shiyun He, Jinyu Hou, Meiling Ye, Jian Chen, Guanghui Lv, Tianle Huang, Zhongzhen Yang\* and Yong Wu\*

#### 13763

Na<sub>2</sub>Fe<sub>2</sub>Se<sub>2</sub>O: a double anti-perovskite with prevalence of anionic redox activity in Na-ion batteries

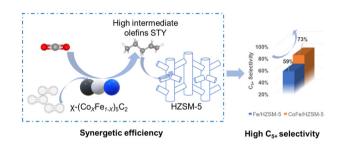
Mikhail V. Gorbunov,\* Thomas Doert and Daria Mikhailova



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Bifunctional CoFe/HZSM-5 catalysts orient CO<sub>2</sub> hydrogenation towards liquid hydrocarbons

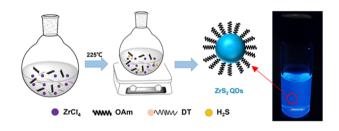
Kai Wang, Na Liu, Jian Wei,\* Yang Yu, Jixin Zhang, Joshua Iseoluwa Orege, Lifei Song, Qingjie Ge and Jian Sun\*



# 13771

Facile synthesis of wide bandgap ZrS2 colloidal quantum dots for solution processed solar-blind **UV** photodetectors

Zan Wang, Yunjiao Gu, Fenghua Liu and Weiping Wu\*



# 13775

A high-performance crystalline Ti<sub>2</sub>O<sub>1.3</sub>(PO<sub>4</sub>)<sub>1.6</sub>/TiO<sub>2</sub> carbon-coated composite as an anode for lithium-ion batteries

Yayun Zheng, Yuefo Yi, Ziyi Yang, Wenbin Zhou, Yichao Wang and Zhengfei Chen\*

