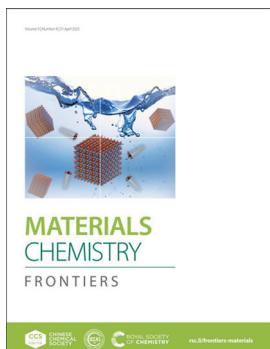


### IN THIS ISSUE

ISSN 2052-1537 CODEN MCFAC5 9(8) 1207–1332 (2025)



### Cover

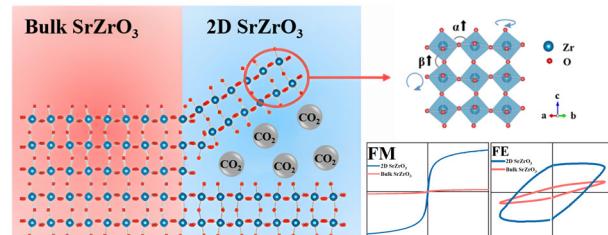
See Qun Xu  
*et al.*, pp. 1213–1219.  
Image reproduced  
by permission of  
Qun Xu from  
*Mater. Chem. Front.*,  
2025, 9, 1213.

### RESEARCH ARTICLES

1213

#### Supercritical CO<sub>2</sub>-induced plastic deformation on two-dimensional SrZrO<sub>3</sub> for its multiferroic performance

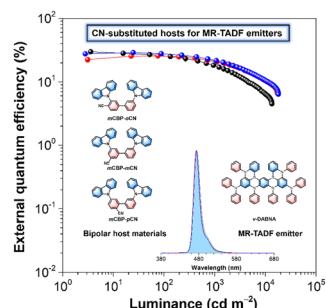
Yapeng Dong, Yuning Liang, Bo Gao and Qun Xu\*



1220

#### Improving electroluminescence efficiency and operational lifetime of multi-resonance emitters with bipolar host materials

Zhangshan Liu, Ting Guo, Dezhi Yang, Dongge Ma,  
Ben Zhong Tang and Zujin Zhao\*



GOLD  
OPEN  
ACCESS

# EES Batteries

Exceptional research on  
batteries and energy storage

Part of the EES family

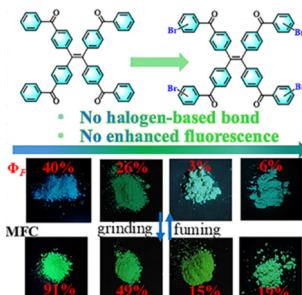
Join  
in | Publish with us  
[rsc.li/EESBatteries](http://rsc.li/EESBatteries)

## RESEARCH ARTICLES

1228

**Revisiting the anti-heavy-atom effect: absence of halogen-based bonding and lack of enhanced aggregation-induced emission in bromine-substituted tetraphenylethylene derivatives**

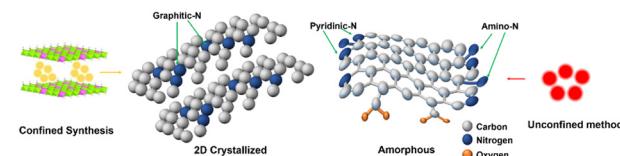
Xiaohua Liu, Xiaoyang Zhao, Xinrui Chen, Lei Ying\* and Xinrui Miao\*



1240

**Blue, green, yellow and red carbon dots: confined synthesis and mechanism study**

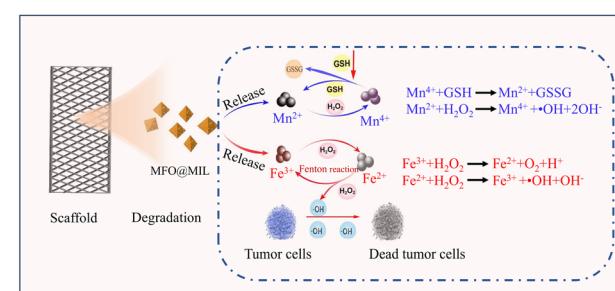
Chao Li, Yu-Quan Zhu, Xiayan Shao, Kai Song, Wenyuan Liu, Kaitao Li, Shanyue Guan, Wendi Liu\* and Yanjun Lin\*



1249

**Persistent glutathione-depleting MFO@MIL nanoreactors enhance the antitumor efficiency of a skin scaffold**

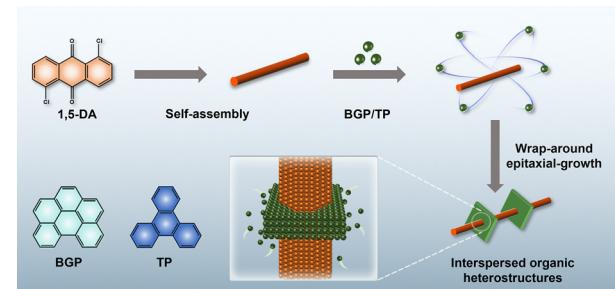
Wenjing Yang, Yibing Ji, Lang Li, Chenhang Ding, Wurikaixi Aiyiti, Feilong Xiong\* and Cijun Shuai\*



1259

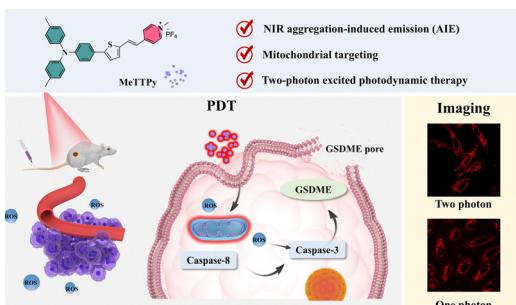
**Wrap-around self-assembly of interspersed topological organic heterostructures based on multi-faceted alignment**

Jin Feng, Yang Wu, Ze-Qi Yao, Chuan-Zeng Wang, Shu-Ping Zhuo, Hong-Tao Lin,\* Shu-Hai Chen\* and Xue-Dong Wang\*



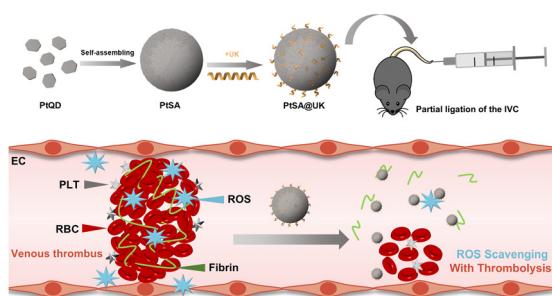
## RESEARCH ARTICLES

1267

**Enhancing photodynamic therapy for cancer: a two-photon excited approach with a novel mitochondrial-targeted photosensitizer**

Wenhai Du, Wenzhao Shang, Wei Wen, Xiepeng Deng, Dalu Xie, Yuhao Zhang, Huifang Su\* and Hongjian Liu\*

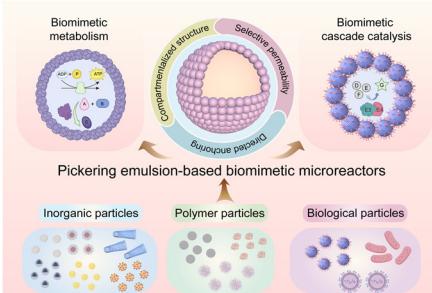
1278

**Urokinase-loaded Pt quantum dot self-assembled nanoparticles for inflammation elimination and fibrinolytic thrombus therapy**

Zhaoxi Peng, Yu Cao, Hongji Pu, Cheng Cao, Wenxin Yang, Sen Yang, Yijun Liu, Peng Qiu, Xinrui Yang, Ruihua Wang, Chaowen Yu,\* Haoqi Liu,\* Kaichuang Ye\* and Xinwu Lu\*

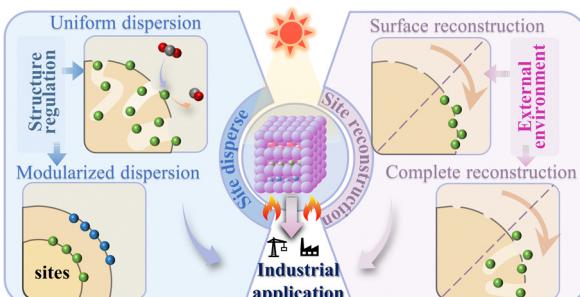
## REVIEWS

1290

**Pickering emulsion-based biomimetic microreactors**

Xiao Xu, Min Zhou, Ting Wu, Zhaowei Chen\* and Huanghao Yang\*

1312

**Photothermal effect promoting the reconstruction and mass-energy transfer for the enhancement of three-dimensional confinement catalysis**

Tingting Xia, Bingyuan Zeng, Jingwen Jiang, Tenghu Wu, Weiyang Pang, Wenjing Wang,\* Jie Zhang and Kun Zhao\*

