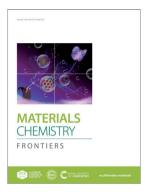
# **MATERIALS** CHEMISTRY

# **FRONTIERS**

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#### Cover

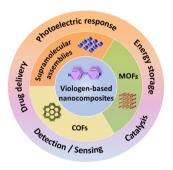
See Jie Yang, Ying-Wei Yang et al., pp. 1463-1481. Image reproduced by permission of Ying-Wei Yang from Mater. Chem. Front., 2023, 7, 1463.

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# Recent advances of stimuli-responsive viologen-based nanocomposites

Xin Li, Jie Yang\* and Ying-Wei Yang\*



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# All-alkynyl-protected coinage metal nanoclusters: from synthesis to electrocatalytic CO<sub>2</sub> reduction applications

Leyi Chen, Lei Wang, Quanli Shen, Yonggang Liu and Zhenghua Tang\*



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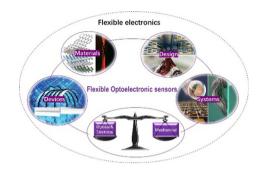
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#### **REVIEWS**

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# Flexible optoelectronic sensors: status and prospects

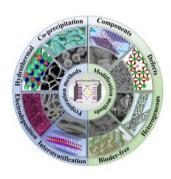
Zhuoran Wang and Guozhen Shen\*



#### 1520

# Progress of layered double hydroxide-based materials for supercapacitors

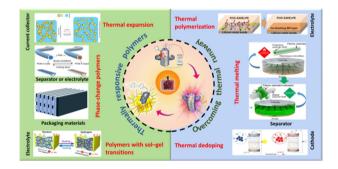
Xue Li, Jianning Ren, Deepak Sridhar, Ben Bin Xu, Hassan Algadi, Zeinhom M. El-Bahy, Yong Ma,\* Tingxi Li\* and Zhanhu Guo\*



#### 1562

# Thermally responsive polymers for overcoming thermal runaway in high-safety electrochemical storage devices

Shaoshan Chen, Yu Li, Yiyu Feng and Wei Feng\*

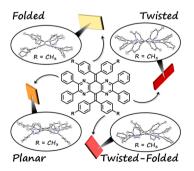


#### **RESEARCH ARTICLES**

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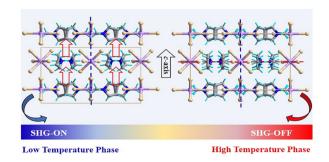
# Exceptionally flexible quinodimethanes with multiple conformations: polymorph-dependent colour tone and emission of crystals

Kazuma Sugawara, Toshikazu Ono,\* Yoshio Yano, Takanori Suzuki and Yusuke Ishigaki\*



### **RESEARCH ARTICLES**

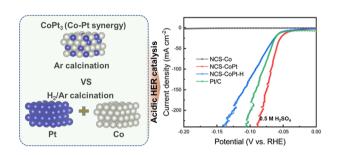
#### 1599



# [C<sub>5</sub>H<sub>12</sub>N]<sub>2</sub>SnBr<sub>6</sub>: a lead-free phase transition compound with switchable quadratic nonlinear optical properties

Xinxin Hu, Haojie Xu, Wuqian Guo, Shiguo Han, Yi Liu, Yu Ma, Qingshun Fan, Junhua Luo and Zhihua Sun\*

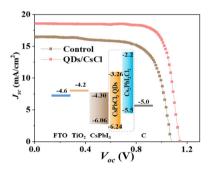
#### 1607



# Cobalt-platinum intermetallic composite loaded on pyridinic N-enriched carbon for acidic hydrogen evolution catalysis with ultralow overpotential

Qiushi Xie, Jiankun Li, Keyu Wang, Shiyi Li, Weiyi Xu, Yixing Wang, Linfeng Lei, Siyao Li, Linzhou Zhuang\* and Zhi Xu\*

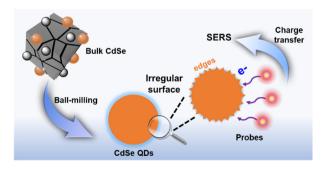
#### 1617



# Forming a composite electron blocking layer to enhance the performance of carbon-based CsPbl<sub>3</sub> perovskite solar cells

Yongfa Song, Weiping Li,\* Hailiang Wang, Huicong Liu, Yue Deng, Qixian Zhang, Han Rao, Xiaoyu Jiang\* and Haining Chen\*

#### 1624



# Top-down produced CdSe quantum dots as an ultrasensitive SERS platform for the detection of uric acid

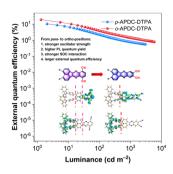
Kangkang Wang, Zhexue Chen, Yueqi Li and Yong Zhang\*

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#### 1633

Efficient thermally activated delayed fluorescence emitters with regioisomeric effects for red/near-infrared organic light-emitting diodes

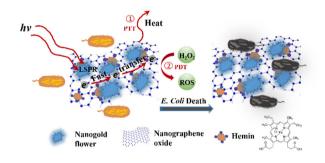
Hongbo Wang, Jianghui Wang, Peng Zou, Jingwen Xu, Jinshi Li, Heping Shi,\* Zujin Zhao\* and Ben Zhong Tang\*



#### 1642

A nanozyme composite with high near-infrared photothermal ability for synergistic bacterial elimination

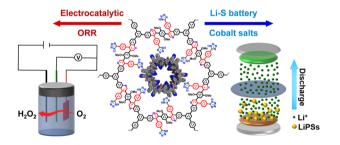
Jing Liu,\* Ruke Wang, Fenfen Zhai, Wengan Zhang, Bo Wang\* and Hong Zhou\*



#### 1650

Tetrazole-functionalized benzoquinoline-linked covalent organic frameworks with efficient performance for electrocatalytic H<sub>2</sub>O<sub>2</sub> production and Li-S batteries

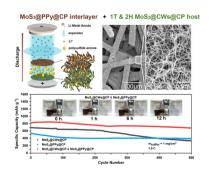
Zhuangzhuang Wu, Junming Luo, Ying Liang, Xinxin Yu, Yuzhen Zhao, Yongpeng Li, Wenxin Wang, Zhuyin Sui,\* Xinlong Tian\* and Qi Chen\*



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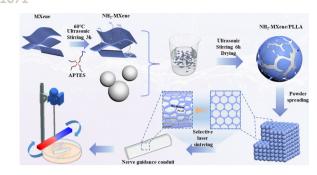
Free-standing  $MoS_x$ -based dual functional polysulfide catalyzer and immobilizer for high performance Li-S batteries

Binchao Shi, Yue Wang, Chenxing Zhang, Xianhe Chen, Ertai Liu, Shilin Mei\* and Chang-Jiang Yao\*



### **RESEARCH ARTICLES**

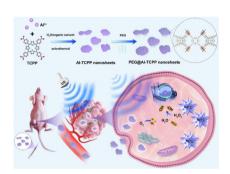
## 1671



# An electrical microenvironment constructed based on electromagnetic induction stimulates neural differentiation

Fangwei Qi, Ruobing Liao, Ping Wu, Huixing Li, Jun Zan, Shuping Peng\* and Cijun Shuai\*

#### 1684



# Facile synthesis of 2D Al-TCPP MOF nanosheets for efficient sonodynamic cancer therapy

Zhan Zhou, Tao Wang, Tingting Hu, Chunhua Cheng, Shilong Yu, Hai Li, Shuyan Liu, Lufang Ma,\* Meiting Zhao,\* Ruizheng Liang\* and Chaoliang Tan\*

#### **CORRECTION**

#### 1694

Correction: Highly homogeneous bimetallic core-shell Au@Ag nanoparticles with embedded internal standard fabrication using a microreactor for reliable quantitative SERS detection

Suyang Li, Junjie Chen, Wanbing Xu, Biao Sun, Jiechen Wu, Qiang Chen\* and Pei Liang\*