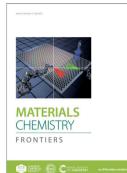
## MATERIALS CHEMISTRY

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#### REVIEWS

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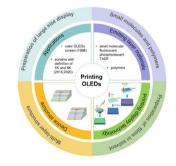
#### Solution-processed OLEDs for printing displays

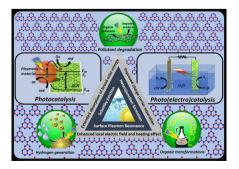
Xin-Yi Zeng, Yan-Qing Tang, Xiao-Yi Cai, Jian-Xin Tang\* and Yan-Qing Li\*

#### 1197

Frontier nanoarchitectonics of graphitic carbon nitride based plasmonic photocatalysts and photoelectrocatalysts for energy, environment and organic reactions

Ajay Kumar, Priyanka Choudhary, Tripti Chhabra, Harpreet Kaur, Ashish Kumar, Mohammad Qamar and Venkata Krishnan\*





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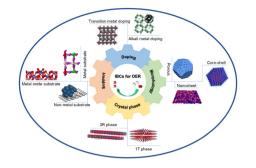
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#### REVIEWS

#### 1248

Iridium-based electrocatalysts for the acidic oxygen evolution reaction: engineering strategies to enhance the activity and stability

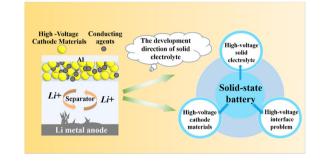
Hongzhe Xu, Yun Han, Qilong Wu, Yi Jia, Qin Li,\* Xuecheng Yan\* and Xiangdong Yao



#### 1268

A review of all-solid-state electrolytes for lithium batteries: high-voltage cathode materials, solid-state electrolytes and electrode-electrolyte interfaces

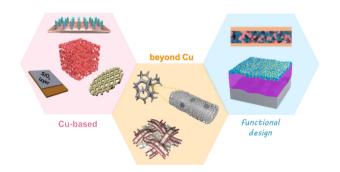
Mingming Ma, Menghui Zhang, Bitao Jiang, Yang Du, Bingcheng Hu\* and Chengguo Sun\*



#### 1298

Recent developments in current collectors for lithium metal anodes

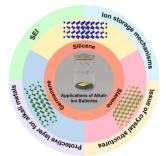
Qitao Shi, Chen Lu, Yutong Cao, Yufeng Hao, Alicja Bachmatiuk and Mark H. Rümmeli\*



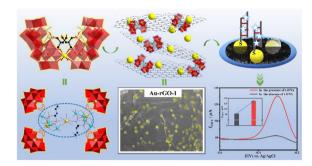
#### 1312

## Group IV elemental 2D materials beyond graphene used as electrodes for alkali-ion batteries

Hsu-Sheng Tsai, Jing Li, Zhengguang Shi, Mingxue Huo\* and Shih-Hsin Ho\*



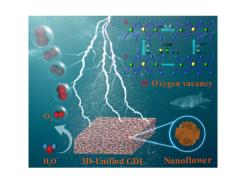
1321



Organophosphonic acid and cerium functionalized antimonotungstate with electrochemical promise in biosensing bacterial dissimilatory sulfite reductase gene sequence

Zhigang Tang, Wenshu Zhang, Yalun Hu, Xiaodan Jia, Lina Meng, Dan Wang,\* Lijuan Chen\* and Junwei Zhao\*

1335



Six

Coord.

400 500 600 700 800

Wavelength / nm

Five

Coord.

Construction of a NiFe-LDH catalyst with a three-dimensional unified gas diffusion layer structure *via* a facile acid etching route for the oxygen evolution reaction

Dong Shi, Yajun Ji,\* Faxue Lu, Junnan Yao and Lijun Pei

Vapochromic films of  $\pi$ -conjugated polymers based on coordination and desorption at hypervalent tin(IV)-fused azobenzene compounds

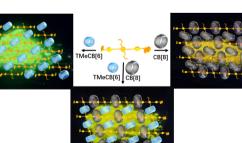
Masayuki Gon, Yusuke Morisaki, Kazuya Tanimura, Kazuo Tanaka\* and Yoshiki Chujo

1354

1345

DMSO

vano



= 597 nm

Normalized absorbance

300

2D supramolecular organic framework with tunable luminescence *via* cucurbit[*n*]uril-based hydrogen bonds, outer-surface interactions and host-guest interactions

Shuai-Peng Jin, Huai-Li Wu, Le-Ping Zhang, Guan-Yu Yang and Bo Yang\*

#### 1365

#### Bimetallic Ni-Co selenide heterostructure aerogel for highly efficient overall water splitting

Hongchen Liu, Fan Yang,\* Fengjiang Chen, Sai Che, Neng Chen, Chong Xu, Ni Wu, Wenkai Wei and Yongfeng Li\*



#### Sulfur-oleylamine copolymer synthesized via inverse vulcanization for the selective recovery of copper from lithium-ion battery E-waste

Suchithra Ashoka Sahadevan, Xiong Xiao, Yigian Ma, Kerstin Forsberg, Richard T. Olsson and James M. Gardner\*



A 1.6 Voltage (V)

🔵 Ni

🔵 Co 🔵 Se 0

•

### 1385

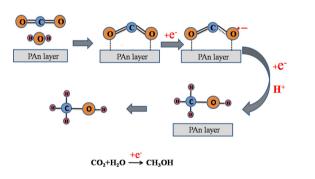
Nano-polyaniline enables highly efficient electrocatalytic reduction of CO<sub>2</sub> to methanol in supporting electrolyte-free media and the detection of free-radical signals

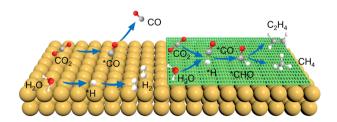
Shaolin Mu,\* Qiaofang Shi, Chong Chen, Xiangxiang Gong and Huaiguo Xue

#### 1395

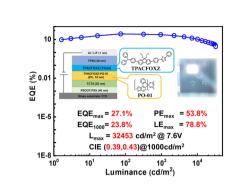
#### Steering CO<sub>2</sub> electroreduction selectivity towards CH<sub>4</sub> and C<sub>2</sub>H<sub>4</sub> on a tannic acid-modified Cu electrode

Keqiang Xu, Jinhan Li, Fangming Liu, Wence Xu, Tete Zhao and Fangyi Cheng\*









Highly efficient white organic light-emitting diodes based on balanced bipolar-transporting blue hybridized local charge transfer fluorophores

Tengyue Li, Shian Ying, Huayi Zhou, Runze Wang, Chenglin Ma, Mizhen Sun, Mingliang Xie, Qikun Sun, Wenjun Yang and Shanfeng Xue\*

1411



0.6 Voltage (V) 0.9

0000000000

#### Morphology-controllable bimetallic MOFs/textile composite electrodes with high areal capacitance for flexible electronic devices

Shixiong Zhai, Zhendong Jin, Chengcheng Li, JiaFeng Sun, Hong Zhao, Zhehai Jin, Zaisheng Cai and Yaping Zhao\*

#### Efficient and stable hybrid conjugated polymer/ perovskite quantum dot solar cells

Hehe Huang, Xuliang Zhang, Chenyu Zhao and Jianyu Yuan\*

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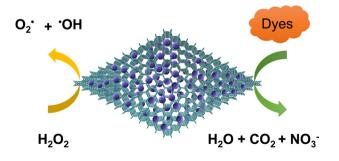
cm<sup>-2</sup>)

Density (mA

Current

0.0

0.3



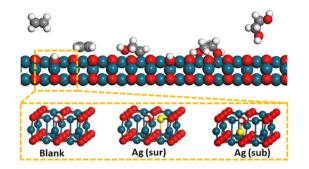
## An $FeS_x$ doped three-dimensional covalent organic framework for degradation of dyes

Jialong Song, Chengyang Yu, Yaozu Liu, Junxia Ren, Jianchuan Liu, Zitao Wang, Liangkui Zhu, Jing Fu, Bin Tang, Shilun Qiu, Yujie Wang\* and Qianrong Fang\*

#### 1437

# Ag-doped Pd nano-dendritic for promoting the electrocatalytic oxidation of ethylene to ethylene glycol

Xinwei Li, Xiaoyu You, Zhuang Yan, Caoyu Yang, Lulu Zuo, Xuewei Huang, Lin Chang, Siyu Lu and Zhiyong Tang\*



#### 1446

#### Dinuclear coumarin-containing alkynylplatinum(II) terpyridine complexes with supramolecular assembly-assisted photodimerization

Shishi Fang, Michael Ho-Yeung Chan and Vivian Wing-Wah Yam\*

Supramolecular Assembly-Assisted Photodimerization

