

### IN THIS ISSUE

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#### Cover

See Szymon Chorazy *et al.*, pp. 1366–1380.

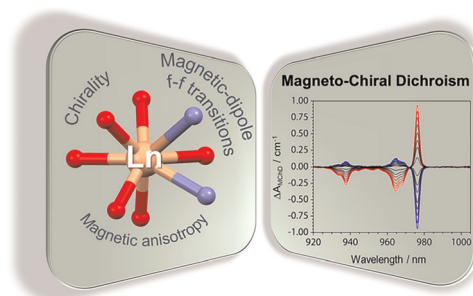
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### CHEMISTRY FRONTIERS

1313

#### Magneto-chiral dichroism of chiral lanthanide complexes

Fabrice Pointillart,\* Matteo Atzori\* and Cyrille Train

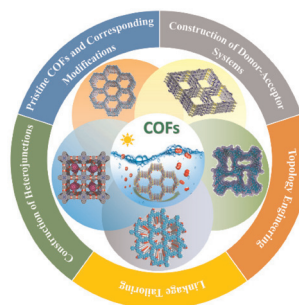


### REVIEWS

1322

#### Covalent organic framework based photocatalysts for efficient visible-light driven hydrogen peroxide production

Ke-Hui Xie, Guang-Bo Wang,\* Fei Zhao, Miao-Can Wang, Hao-Yu Zhang, Hao-Ran Ma, Zi-Zheng Chen, Lin Jiang, Yan Geng\* and Yu-Bin Dong\*



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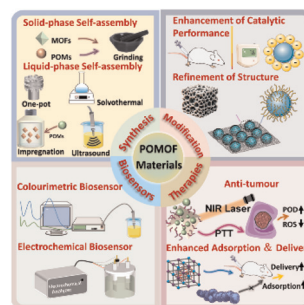


## REVIEWS

1339

### Advancing biomedical applications of polyoxometalate-based metal–organic frameworks: from design to therapeutic potential

Lijin Wang, Pengyu Dai, Hongli Ma,\* Tiedong Sun\* and Jinsong Peng\*

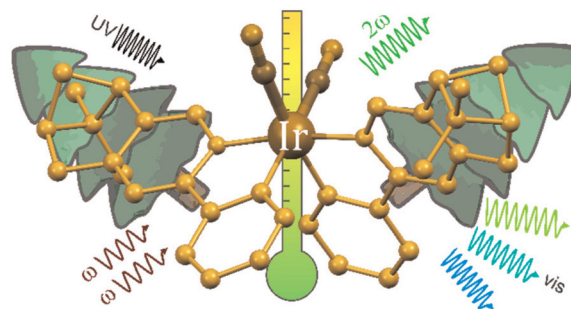


## RESEARCH ARTICLES

1366

### SHG-active luminescent thermometers based on chiral cyclometalated dicyanidoiridate(III) complexes

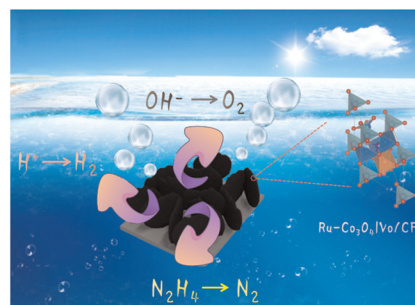
Jan Rzepiela, Michal Liberka, Mikolaj Zychowicz, Junhao Wang, Hiroko Tokoro, Kinga Piotrowska, Sebastian Baś, Shin-ichi Ohkoshi and Szymon Chorazy\*



1381

### Spin configuration modulation of Co<sub>3</sub>O<sub>4</sub> by Ru doping for boosting the overall water splitting and hydrazine oxidation reactions

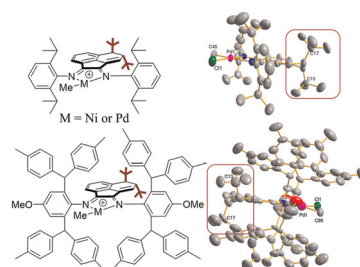
Xiaohu Xu,\* Le Su, Xinyue Yu, Jikai Sun\* and Xiangyang Miao\*



1394

### Dearomatized diimines for nickel(II) and palladium(II) catalyzed ethylene polymerization and copolymerization

Lihua Guo,\* Wei Zhao, Mingjun Ji, Weiqiang Chen, Pengwei Li, Lijie Li, Jiaxing Li and Zhe Liu

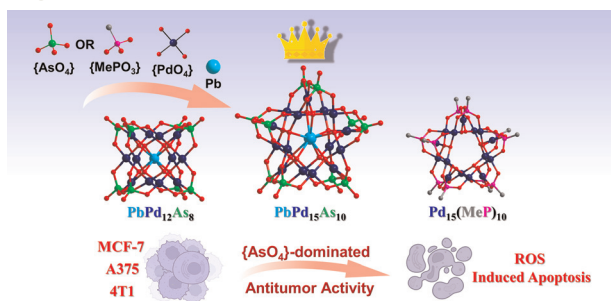


Ethylene (co)polymerization catalysts with the back space of the metal center shielded by the bulky backbone



## RESEARCH ARTICLES

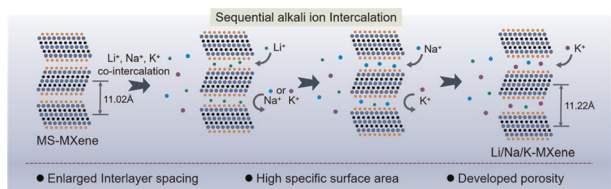
1413



### Last piece of the puzzle: lead-assisted assembly of an arsenopalladate nanostar as an antitumor metallodrug

Yue Zhao, Cheng-Lan Li, Chao-Qin Chen, Jing Du, Ulrich Kortz,\* Teng Gong\* and Peng Yang\*

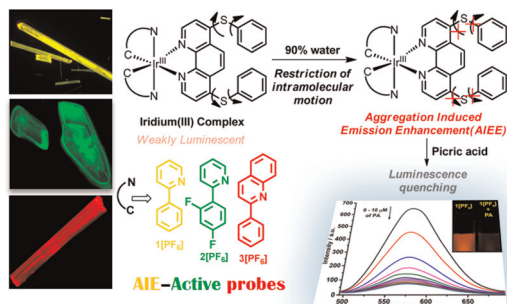
1423



### Enhancing the lithium storage properties of molten salt-etched Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> through sequential intercalation of alkali ions

Yanchao Ou, Peng Zhang,\* Razium Ali Soomro, Ning Qiao,\* Haonan Cui and Bin Xu\*

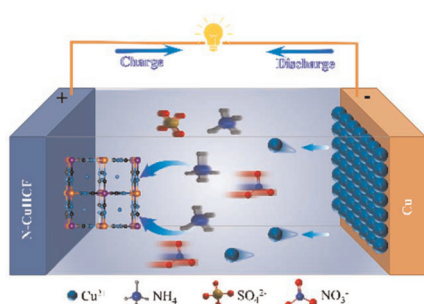
1434



### AIE-active cyclometalated iridium(III) complexes for highly efficient picric acid detection in aqueous media

Monosh Rabha, Deikrisha Lyngdoh Lyngkhoi, Sumit Kumar Patra and Snehadrinarayan Khatua\*

1450



### An aqueous rechargeable copper ammonium hybrid battery with good cycling performance

Wenhui Yang, Xikun Zhang, Guangchang Shu, Haoxiang Yu, Liyuan Zhang, Lei Yan\* and Jie Shu\*

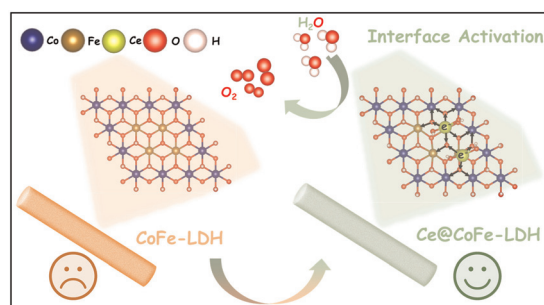


## RESEARCH ARTICLES

1458

### Interface-engineered urchin-like CoFe-layered double hydroxide for high-efficiency electrocatalytic oxygen evolution

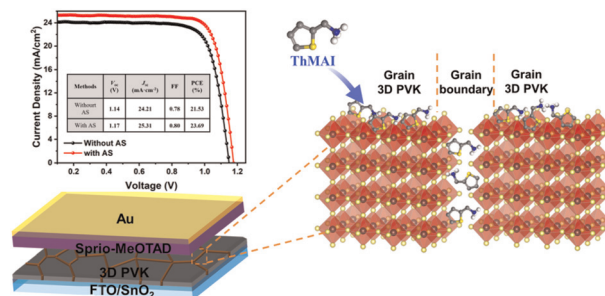
Xuxu Sun, Ruiqi Wang, Qi Wang\* and Kostya (Ken) Ostrikov



1472

### Antisolvent solubilization achieves simultaneous passivation of shallow and deep defects in perovskite solar cells

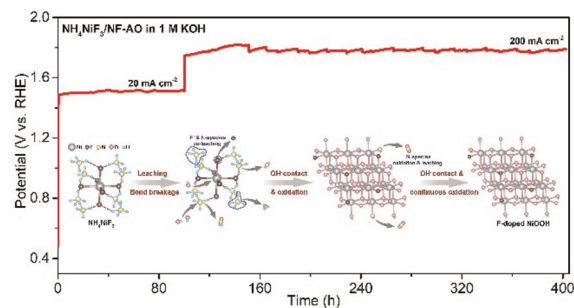
Chu Zhang, Chunying Ma, Shennan Chen and Tingli Ma\*



1479

### F-doped NiOOH derived from progressive reconstruction for efficient and durable water oxidation

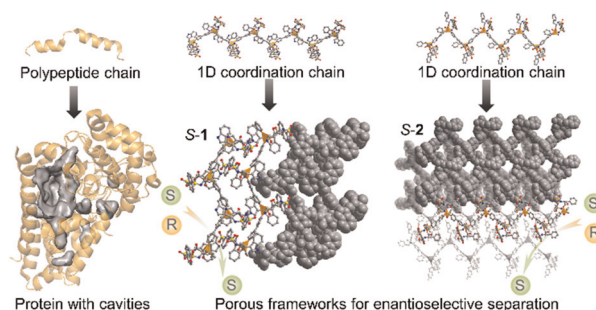
Kailu Guo, Jinzhi Jia, Xiaoyan Lu, Shuang Wang, Huijiao Wang, Haixia Wu\* and Cailing Xu\*



1492

### Polypeptide-inspired supramolecular assemblies for enantioselective sorption of chiral molecules

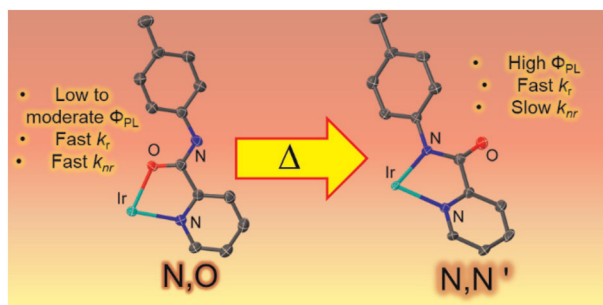
Chengfeng Zhu,\* Yongfei Mu, Ying Li, Kun-Yu Wang, Xiaoyu Ma, Siyu Tu, Yanming Fu, Lanjun Cheng, Xiang Wu and Yougui Li\*





## RESEARCH ARTICLES

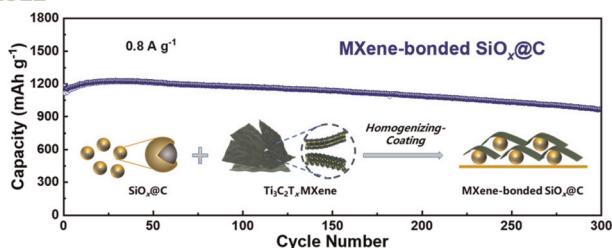
1501



### Impacts of ancillary ligand coordination modes on red-emitting cyclometalated iridium complexes

Chenggang Jiang and Thomas S. Teets\*

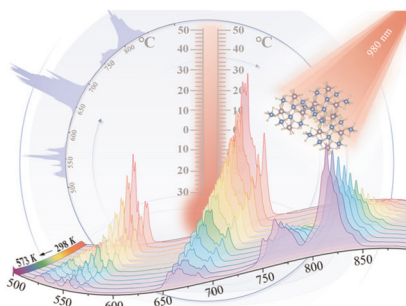
1511



### Enhanced lithium-ion storage of the $\text{SiO}_x@C$ anode enabled by carbon coating coupled with MXene as a conductive binder

Zhenqiang Liu, Yong Yang, Qizhen Zhu,\* Meng Li\* and Bin Xu\*

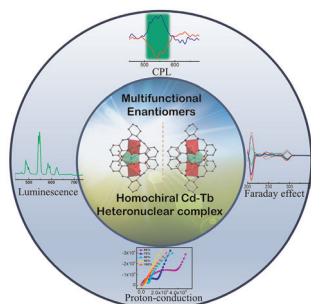
1522



### Achieving ultrasensitive temperature sensing through non-thermally coupled energy levels to overcome energy gap constraints

Guotao Xiang,\* Yuanyuan Yi, Zhiyu Yang, Yongjie Wang, Lu Yao, Sha Jiang, Xianju Zhou, Li Li, Xiaojun Wang\* and Jiahua Zhang\*

1531



### Combined performance of circularly polarized luminescence and proton conduction in homochiral cadmium(II)–terbium(III) complexes

Shui-Dong Zhu,\* Yu-Lin Zhou, Yu Lei, He-Rui Wen,\* Sui-Jun Liu, Cai-Ming Liu, Shi-Yong Zhang and Ying-Bing Lu\*

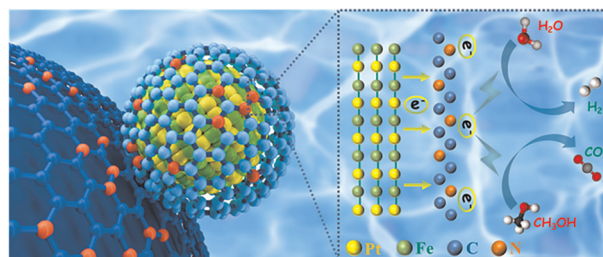


## RESEARCH ARTICLES

1540

### Scalable production of bifunctional ordered PtFe alloy electrocatalysts for efficient methanol oxidation and hydrogen evolution

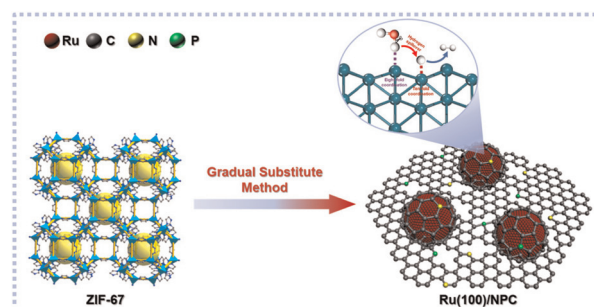
Xuxu Sun, Ruiqi Wang, Qi Wang\* and Kostya (Ken) Ostrikov



1552

### Anomalous dominated (100) index facet endows ruthenium nanoparticles with accelerated alkaline hydrogen evolution

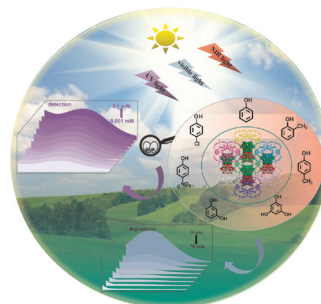
Xuemei Cui, Zijian Li, Haeseong Jang, Min Gyu Kim, Shangguo Liu,\* Liqiang Hou\* and Xien Liu\*



1561

### Achieving ultra-trace analysis and multi-light driven photodegradation toward phenolic derivatives via a bifunctional catalyst derived from a Cu(I)-complex-modified polyoxometalate

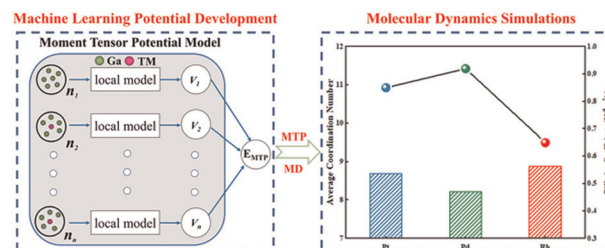
Shuang Li, Bingqian Wang, Guocheng Liu,\* Xiaohui Li, Chang Sun, Zhong Zhang\* and Xiuli Wang\*



1573

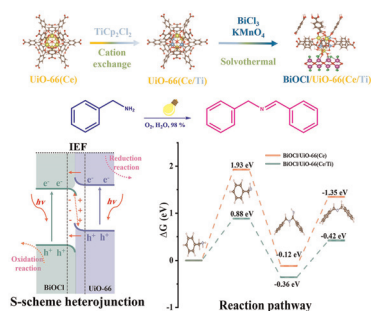
### Molecular dynamics simulations of liquid gallium alloy Ga-X (X = Pt, Pd, Rh) via machine learning potentials

Fang Fang, Jie Lin, Jiajia Li, Yu Zhang, Qiuyi Fu, Quanquan Zhou, Wei Li, Guobing Zhou\* and Zhen Yang\*



## RESEARCH ARTICLES

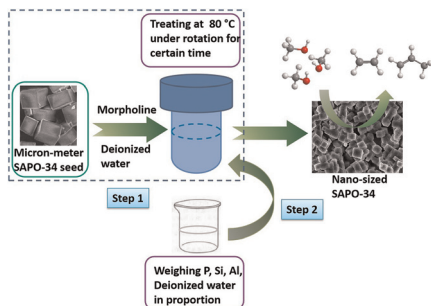
1583



### Construction of S-scheme heterojunctions of a Ti-doped Ce-MOF and BiOCl for efficient photocatalytic selective oxidation of amines

Danxia Zhao,\* Pengyu Wu, Huayue Zhu, Ru Jiang, Jingwei Chen, Chuhan Qiu, Shengtao Jiang and Guoping Lu\*

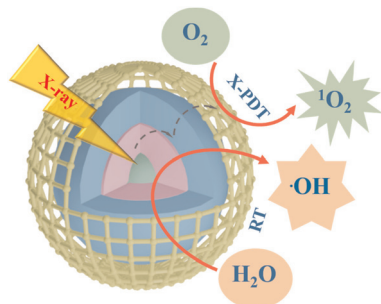
1596



### Synthesis of nano-sized SAPO-34 using a facile micron-meter seed processing method and their enhanced performance in methanol-to-olefin reactions

Dehua Wang, Minghui Mo, Man Xu, Zhijun Xia, Xuebin Zhao\* and Beibei Gao\*

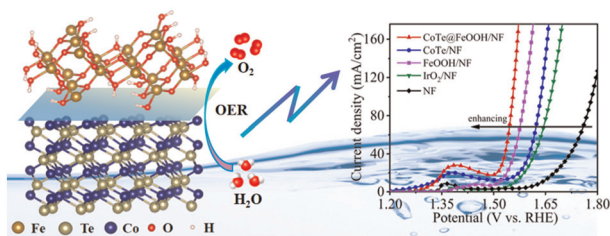
1607



### Synthesis of lanthanide-based scintillator@MOF nanocomposites for X-ray-induced photodynamic therapy

Lantian Zhang, Fan Gao, Shiqi Liu, Mei Ju, Chao Sun, Gengzhi Sun, Qiang Ju,\* Kai Yang\* and Zhenlan Fang\*

1616



### Interfacial engineering of heterostructured CoTe@FeOOH nanoarrays with tailored d-band centers for electrocatalytic oxygen evolution

Jiangying Liu, Taotao Ai,\* Weiwei Bao,\* Jie Han, Junjun Zhang, Mameng Yang, Xueling Wei, Xiangyu Zou and Liangliang Feng\*

