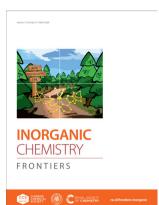
INORGANIC CHEMISTRY

FRONTIERS

rsc.li/frontiers-inorganic

IN THIS ISSUE

ISSN 2052-1553 CODEN ICFNAW 11(5) 1303-1628 (2024)



Cover

See Szymon Chorazy et al., pp. 1366-1380.

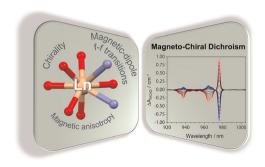
Image reproduced by permission of Szymon Chorazy and Jan Rzepiela from Inorg. Chem. Front., 2024, 11, 1366.

CHEMISTRY FRONTIERS

1313

Magneto-chiral dichroism of chiral lanthanide complexes

Fabrice Pointillart,* Matteo Atzori* and Cyrille Train

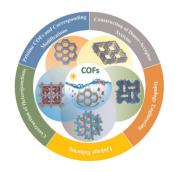


REVIEWS

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*





Advance your career in science

with professional recognition that showcases your **experience**, **expertise and dedication**

Stand out from the crowd

Prove your commitment to attaining excellence in your field

Gain the recognition you deserve

Achieve a professional qualification that inspires confidence and trust

Unlock your career potential

Apply for our professional registers (RSci, RSciTech) or chartered status (CChem, CSci, CEnv)

Apply now

rsc.li/professional-development



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*

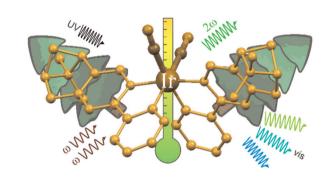


RESEARCH ARTICLES

1366

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

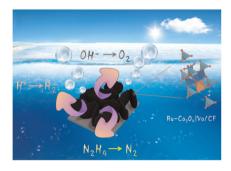
Jan Rzepiela, Michal Liberka, Mikolaj Zychowicz, Junhao Wang, Hiroko Tokoro, Kinga Piotrowska, Sebastian Baś, Shin-ichi Ohkoshi and Szymon Chorazy*



1381

Spin configuration modulation of Co₃O₄ by Ru doping for boosting the overall water splitting and hydrazine oxidation reactions

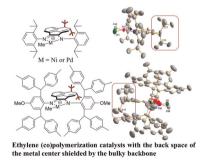
Xiaohu Xu,* Le Su, Xinyue Yu, Jikai Sun* and Xiangyang Miao*



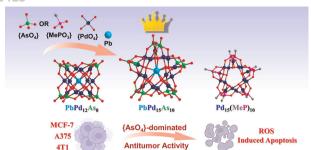
1394

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



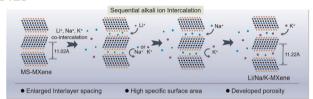
1413



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*

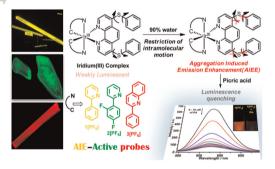
1423



Enhancing the lithium storage properties of molten salt-etched Ti₃C₂T_x through sequential intercalation of alkali ions

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

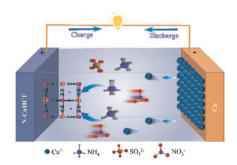
1434



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



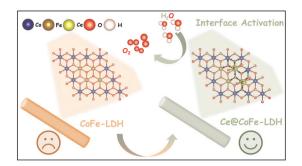
An aqueous rechargeable copper ammonium hybrid battery with good cycling performance

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

1458

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

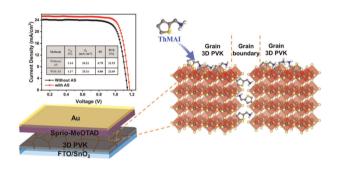
Xuxu Sun, Ruigi Wang, Qi Wang* and Kostya (Ken) Ostrikov



1472

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

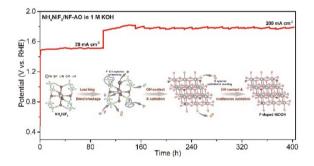
Chu Zhang, Chunying Ma, Shennan Chen and Tingli Ma*



1479

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

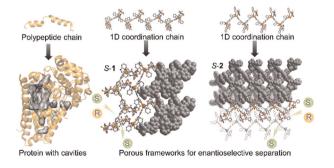
Kailu Guo, Jinzhi Jia, Xiaoyan Lu, Shuang Wang, Huijiao Wang, Haixia Wu* and Cailing Xu*



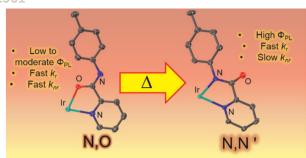
1492

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*

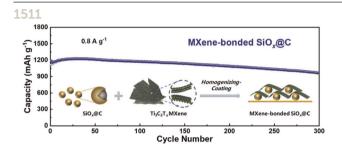


1501



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

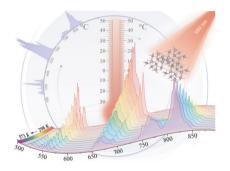
Chenggang Jiang and Thomas S. Teets*



Enhanced lithium-ion storage of the 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*

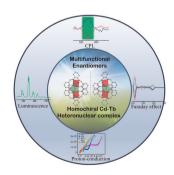
1522



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



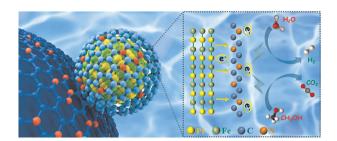
Combined performance of circularly polarized luminescence and proton conduction in homochiral cadmium(III)—terbium(IIII) complexes

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

1540

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

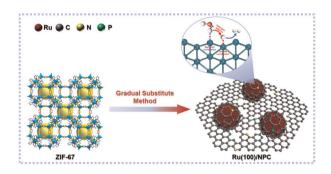
Xuxu Sun, Ruigi Wang, Qi Wang* and Kostya (Ken) Ostrikov



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(ı)-complex-modified polyoxometalate

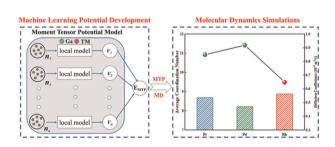
Shuang Li, Bingqian Wang, Guocheng Liu,* Xiaohui Li, Chang Sun, Zhong Zhang* and Xiuli Wang*



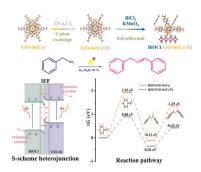
1573

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*

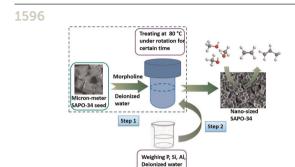


1583



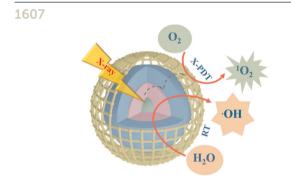
Construction of S-scheme heterojunctions of a Ti-doped Ce-MOF and BiOCl for efficient photocatalytic selective oxidation of amines

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



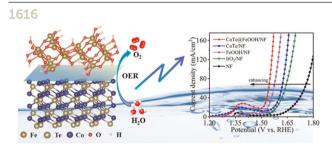
Synthesis of nano-sized SAPO-34 using a facile micron-meter seed processing method and their enhanced performance in methanol-to-olefin reactions

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



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

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



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*