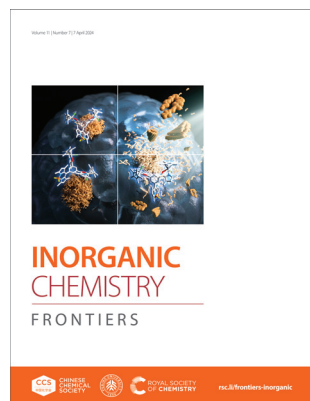


IN THIS ISSUE

ISSN 2052-1553 CODEN ICFNAW 11(7) 1939–2190 (2024)



Cover

See Gajendra Gupta,
Mi Hee Lim, Chang Yeon Lee
et al., pp. 1966–1977.

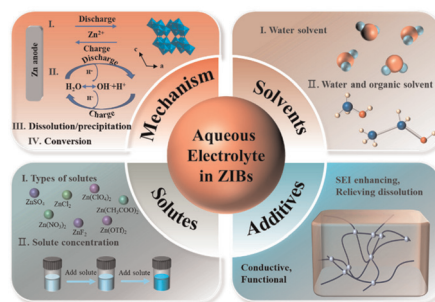
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Chang Yeon Lee
from *Inorg. Chem. Front.*,
2024, **11**, 1966.

REVIEW

1949

Critical insights into the recent advancements and future prospects of zinc ion battery electrolytes in aqueous systems

Lingjiang Kou, Yong Wang, Jiajia Song,* Taotao Ai,*
Wenhu Li, Panya Wattanapaphawong, Koji Kajiyoshi,
Mohammad Yeganeh Ghotbi and Yongqiang Feng*

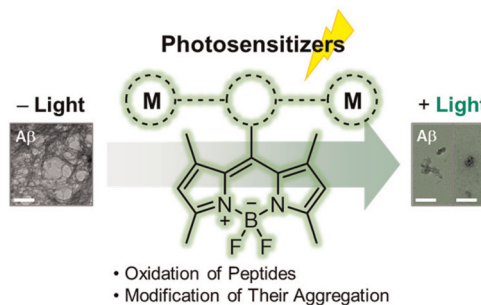


RESEARCH ARTICLES

1966

Metal–BODIPY complexes: versatile photosensitizers for oxidizing amyloid-β peptides and modulating their aggregation profiles

Mingeun Kim, Gajendra Gupta,* Junseong Lee,
Chanju Na, Jimin Kwak, Yuxi Lin, Young-Ho Lee,
Mi Hee Lim* and Chang Yeon Lee*



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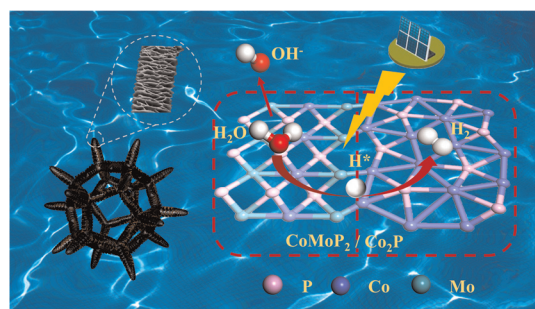
**Fundamental questions
Elemental answers**

RESEARCH ARTICLES

1978

An interface-engineered $\text{Co}_2\text{P}/\text{CoMoP}_2$ heterojunction with greatly improved electrocatalytic activity in water/seawater splitting

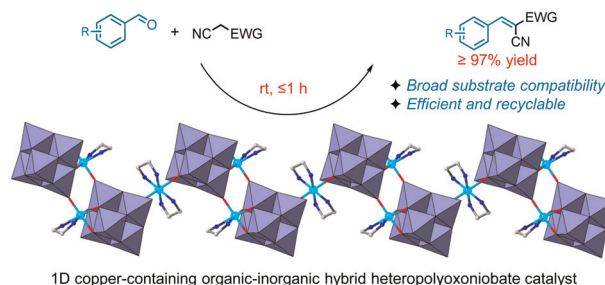
Bo Sun, Chunhu Li,* Jie Yang, Hongcun Bai and Xiangchao Meng*



1993

Efficient catalysis of Knoevenagel condensation by 1D copper-containing heteropolyoxoniobate at room temperature

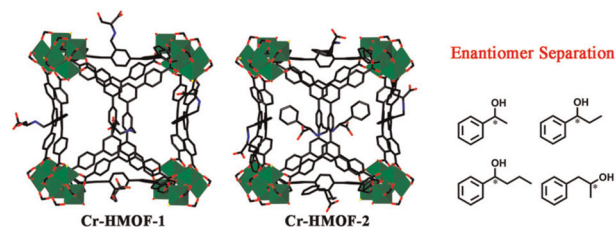
Ya-Kun Zuo, Yan-Ru Li, Yan-Qiong Sun, Xin-Xiong Li, Cai Sun* and Shou-Tian Zheng*



1998

Highly stable chiral Cr(III)-based metal–organic frameworks for enantioadsorption separation of aromatic alcohols

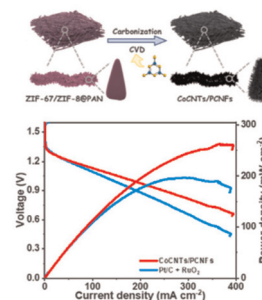
Mengna Li, Benlai Wu* and Maochun Hong*



2007

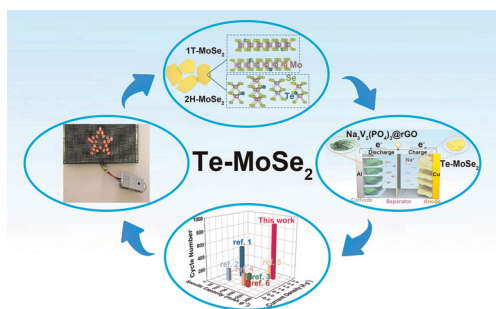
Highly efficient bifunctional nanofiber catalysts with 3D hierarchical nanostructures as building blocks for rechargeable Zn–air batteries

Yao Guo, Xueting Zhao, Junheng Huang, Ximeng Yin, Kai Chen, Xiang Hu, Yangjie Liu and Zhenhai Wen*



RESEARCH ARTICLES

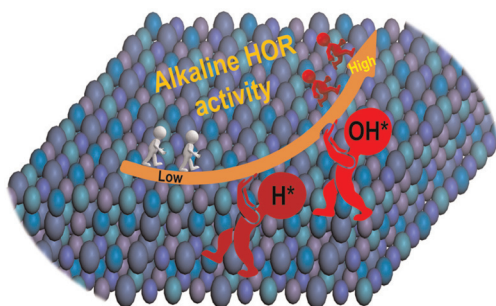
2017



Te doped 1T/2H-MoSe₂ nanosheets with rich defects as advanced anode materials for high-rate sodium ion half/full batteries

Zhiqi Li, Jiawen Yan, Qiming Li, Ao Xu, Jianchao Sun, Yijing Wang, Xiaoyu Zhang, Xueqin Sun, Fuyi Jiang* and Yanli Zhou*

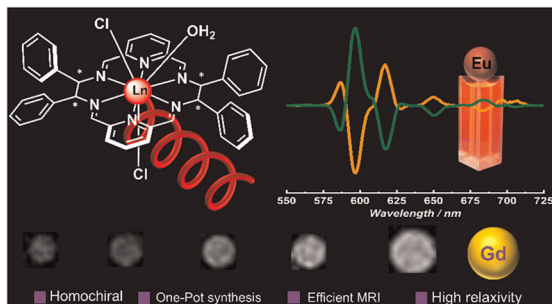
2029



Non-precious metal high-entropy alloys with d-d electron interactions for efficient and robust hydrogen oxidation reactions in alkaline media

Jin-Tao Ren, Lei Chen, Hao-Yu Wang and Zhong-Yong Yuan*

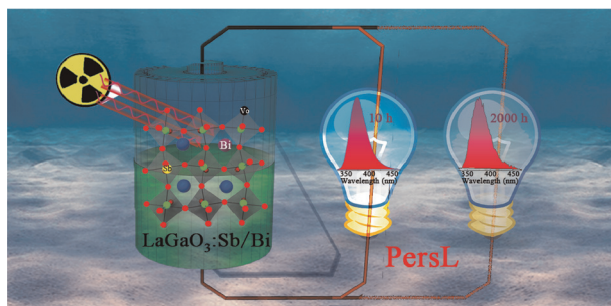
2039



Chiral lanthanide hexaazamacrocycles for circularly polarized luminescence, high relaxivity and magnetic resonance imaging

Yuxin Tang, Minghong Jian, Baobing Tang, Zhenhua Zhu, Zhenxin Wang and Yunling Liu*

2049



X-ray-activated ultra-long UVA persistent luminescence from a Bi-doped perovskite LaGaO₃ for photodynamic activation

Bo-Mei Liu, Yue Lin, Yingchun Liu, Shanqing Zhang, Jing Wang,* Hui Zhang* and Jesse Zhu



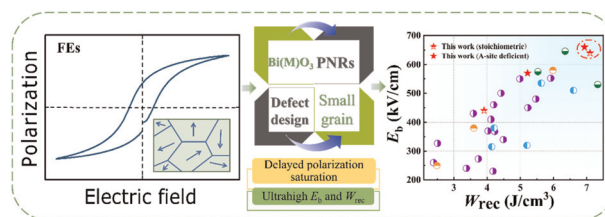
RESEARCH ARTICLES

2058

Effective regulation of breakdown strength through the synergistic effect of defect chemistry and energy band engineering in

$\text{Ba}_{0.85}\text{Ca}_{0.15}\text{Zr}_{0.1}\text{Ti}_{0.9}\text{O}_3$ -based lead-free ceramics

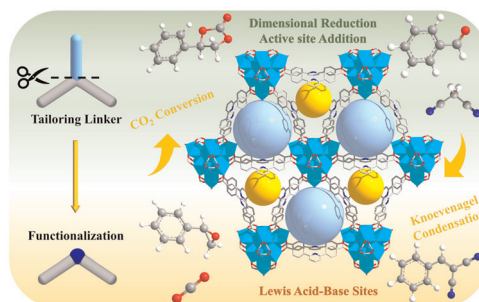
Dandan Han, Longxiao Duan, Changhao Wang,*
Longfei Yuan, Raz Muhammad, Pengfei Ma,
Fanxu Meng, Dawei Wang* and Fanling Meng*



2071

Combination of dimensional reduction and active site addition strategies for preparing unique $\{\text{RE}_9\}$ -cluster-based MOFs: efficient CO_2 fixation and Knoevenagel condensation

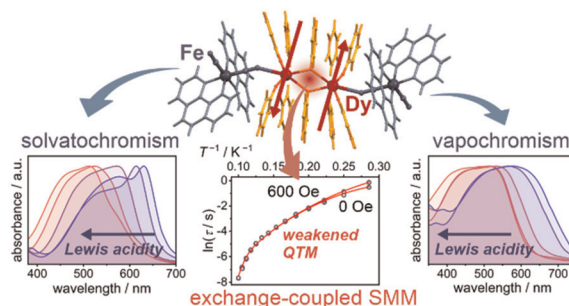
Ying Zhao, Dan Wu, Yidan Qiao, Guo-Ping Yang,*
Lu-Fang Ma* and Yao-Yu Wang



2081

Solvato- and vapo-chromic exchange-coupled Dy_2 single-molecule magnets achieved by attaching iron-cyanido metalloligands

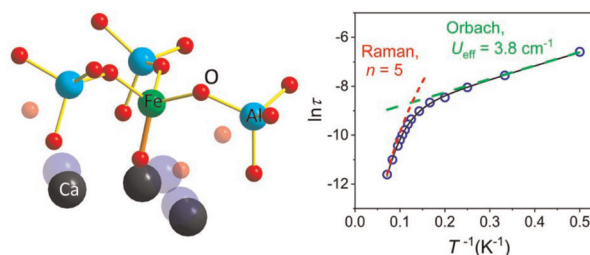
Michal Liberka, Mikolaj Zychowicz and
Szymon Chorazy*



2098

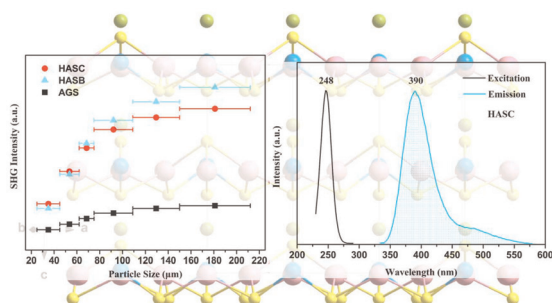
Slow magnetization relaxation of a high-spin iron(III) in mayenite $\text{Ca}_{12}\text{Al}_{14}\text{O}_{33}$

Timur Z. Sharifullin, Alexander V. Vasiliev,
Vladimir D. Dolzhenko, Sebastian Bette,
Robert E. Dinnebier, Reinhard K. Kremer and
Pavel E. Kazin*



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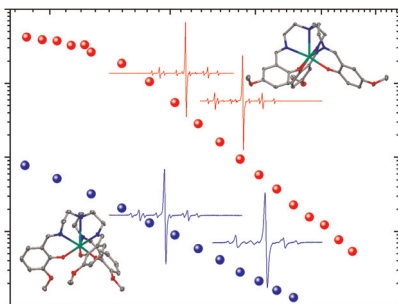
2105



Hg₃AsS₄X (X = Cl and Br): two Hg-based chalcogenides as long-wave infrared nonlinear optical crystals with superior comprehensive performances

Feng Xu, Xiang Xu, Bingxuan Li, Ge Zhang, Chan Zheng,* Jindong Chen* and Ning Ye*

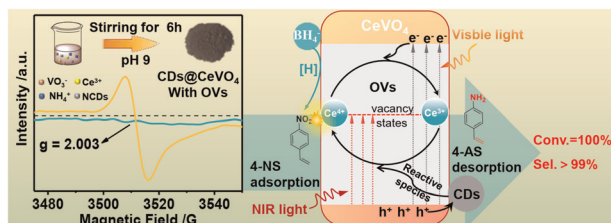
2116



Structural isomerism-tuned magnetisation relaxation dynamics in lanthanide coordination complexes

Steen H. Hansen,* Christian D. Buch and Stergios Piligkos*

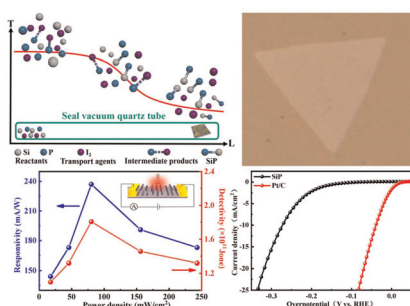
2128



Carbon dots induce abundant oxygen vacancies in CeVO₄ for promoting photocatalytic selective hydrogenation of functionalized nitroarenes

Ernan Pang, Shijia Li, Jie Wu, Qing Chang, Ning Li, Jinlong Yang and Shengliang Hu*

2136



Synthesis of monolayer SiP via chemical vapor transport toward superior optoelectronic and catalytic performance

Tong Yu, Hailong Qiu,* Hongjun Liu, Zhanggui Hu and Yicheng Wu

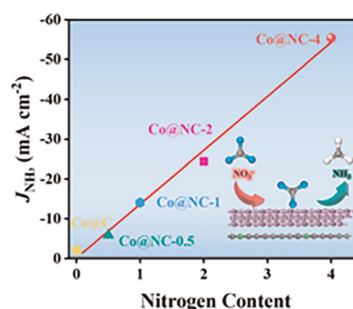


RESEARCH ARTICLES

2144

Electron-deficient Co modulated by the construction of heterojunctions Co@NC boosts the electroreduction of nitrate to ammonia

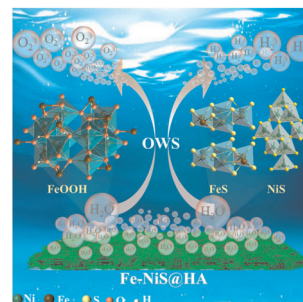
Bo Zhang, Fengshou Yu, Yaohua Hong, Yuzhuo Zhou, Yaheng Wang, Shaobo Zhang and Lu-Hua Zhang*



2152

Reasonable regulation of flexible sulfur-based bifunctional catalytic electrodes for efficient seawater splitting

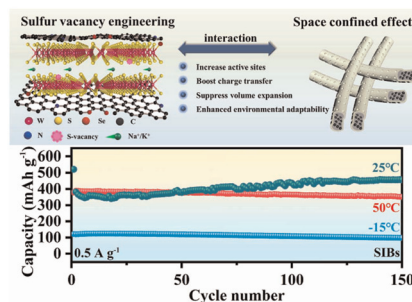
Fengjing Lei, Xunwei Ma, Xinyun Shao, Ziyang Fang, Yuqin Wang and Weiju Hao*



2164

Defect-engineered WS_xSe_{2-x} nanocrystals anchored on selenized polyacrylonitrile fibers toward high-performance sodium/potassium-ion batteries with a wide working temperature range

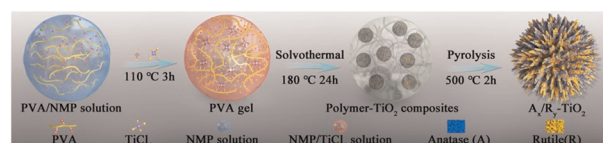
Fuyu Xiao, Jingran Zhang, Weiming Zhou,* Yixing Fang,* Xiaotong He, Wenbin Lai, Chuyuan Lin, Mingyang Ge, Haosen Fan,* Qingrong Qian, Mingdeng Wei, Qinghua Chen and Lingxing Zeng*



2178

Gelation-induced controlled synthesis of TiO₂ with tunable phase transition for efficient photocatalytic hydrogen evolution

Wenwei Lei,* Ying Wang, Hongji Wang, Norihiro Suzuki, Chiaki Terashima* and Akira Fujishima



CORRECTION

2187

Correction: *In situ* construction of a continuous ionic conductive coating for a high-performance Li_3VO_4 anode

Lulu Wang, Cheng Zeng, Jianing Liang, Chun Zhai,* Hao Liu, Tianyou Zhai and Huiqiao Li*

