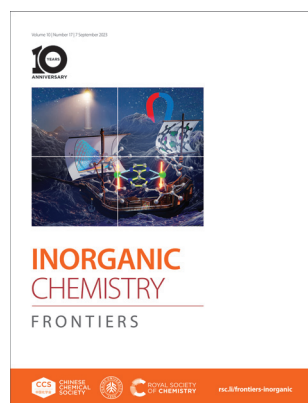


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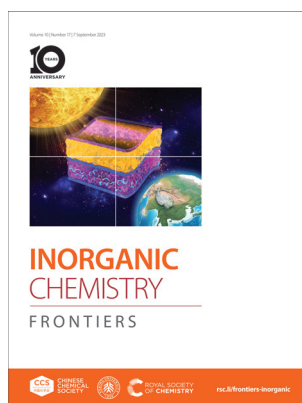
ISSN 2052-1553 CODEN ICFNAW 10(17) 4891-5200 (2023)



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See Florian Benner and Selvan Demir, pp. 4981–4992.

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See Lianfeng Duan, Fushen Lu *et al.*, pp. 4993–5003.

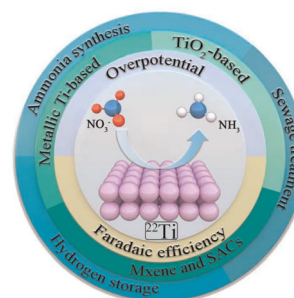
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#### Recent developments in Ti-based nanocatalysts for electrochemical nitrate-to-ammonia conversion

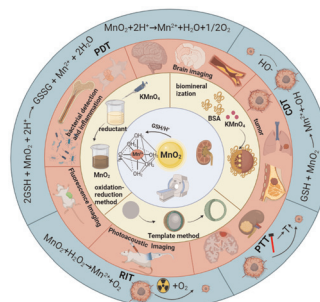
Wenda Chen, Yuan Xu, Jiaxin Liu, Huiqun Cao, Yongliang Li, Xiangzhong Ren, Shenghua Ye,\* Jianhong Liu\* and Qianling Zhang\*



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#### Advances in the application of manganese dioxide and its composites for theranostics

Jiaqi Hao, Yu Zhao, Yiqi Ma, Beibei Liu, Yonglan Luo, Sulaiman Alfaifi, Xuping Sun\* and Min Wu\*



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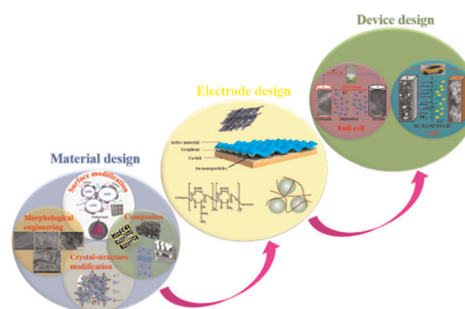


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**Li<sub>2</sub>ZnTi<sub>3</sub>O<sub>8</sub> anode: design from material to electrode and devices**

Huanhuan Liu, Xue Zhang, Haoran Xu, Wenzhao Ma, Lijuan Wang,\* Zhaohui Meng\* and Fei Wang\*

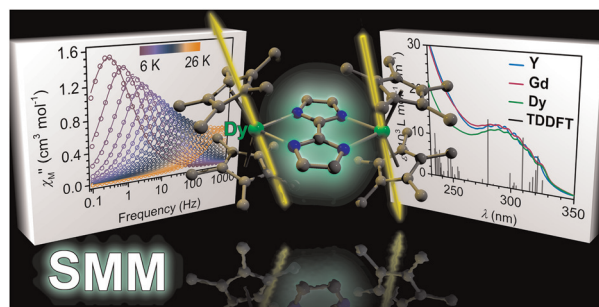


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**From unprecedented 2,2'-bisimidazole-bridged rare earth organometallics to magnetic hysteresis in the dysprosium congener**

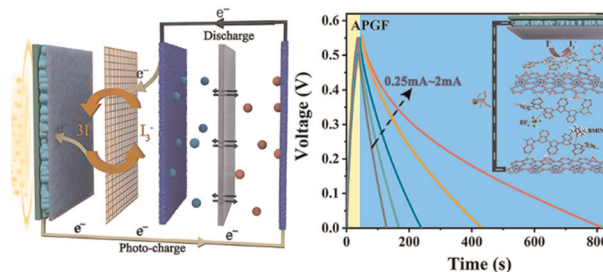
Florian Benner and Selvan Demir\*



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**Compatible and high-efficiency quasi-solid-state integrated photocapacitor based on the synergism of PEDOT/RGO electrode and gel electrolyte to improve the carrier migration**

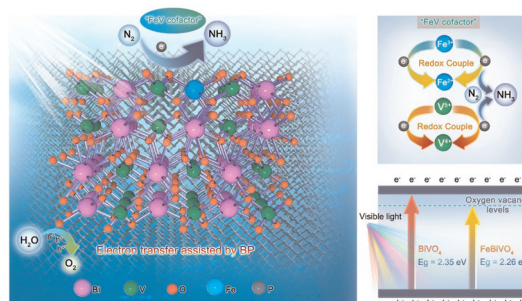
Yuanduo Qu, Siqi Liao, Liangyi Wu, Junkai Wang, Lianfeng Duan,\* Xia He and Fushen Lu\*



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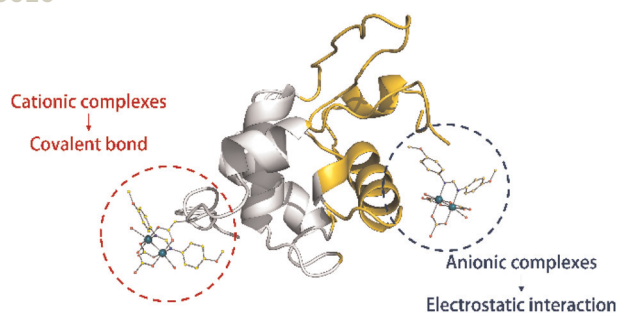
**"FeV-cofactor"-inspired bionic Fe-doped BiVO<sub>4</sub> photocatalyst decorated with few-layer 2D black phosphorus for efficient nitrogen reduction**

Hongda Li, Shuai Jian, Boran Tao, Guoxiao Xu, Baosheng Liu, Shaonan Gu,\* Guofu Wang\* and Haixin Chang\*



## RESEARCH ARTICLES

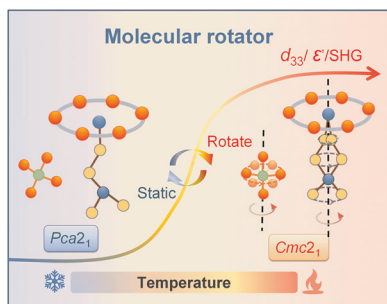
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### Charge effect in protein metalation reactions by diruthenium complexes

Aarón Terán, Giarita Ferraro, Ana E. Sánchez-Peláez, Santiago Herrero\* and Antonello Merlino\*

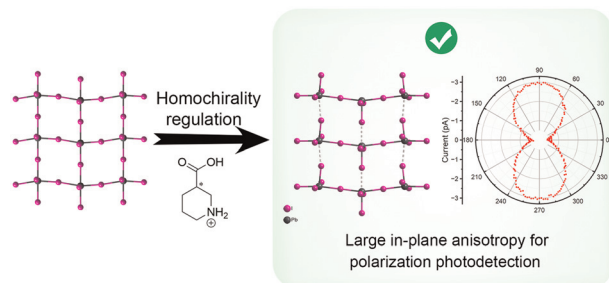
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### Remarkable enhancement of optical and electric properties by temperature-controlled solid-phase molecular motion

Meng-Meng Lun, Chang-Yuan Su, Qiang-Qiang Jia, Zhi-Xu Zhang, Jie Li, Hai-Feng Lu,\* Yi Zhang\* and Da-Wei Fu\*

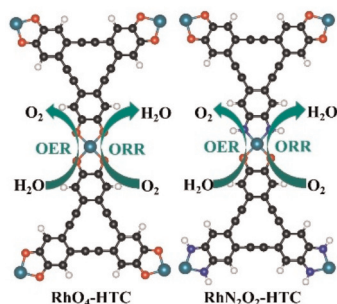
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### Large in-plane anisotropic 2D perovskites toward highly linear polarized light responses

Bei-Dou Liang, Chang-Chun Fan, Cheng-Dong Liu, Tong-Yu Ju, Chao-Yang Chai,\* Xiang-Bin Han\* and Wen Zhang\*

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### Two-dimensional conductive metal–organic frameworks as efficient electrocatalysts for oxygen evolution and reduction reactions

Yanan Zhou, Li Sheng, Lanlan Chen, Qiquan Luo, Wenhui Zhao,\* Wenhua Zhang\* and Jinlong Yang\*



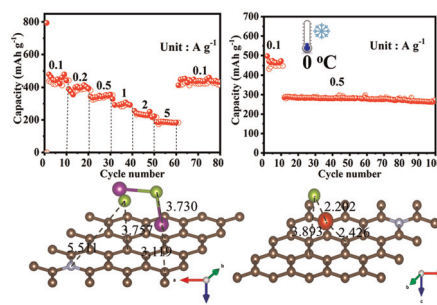


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### Rational construction of $VSe_2$ encapsulated in seleniumized polyacrylonitrile toward a high-rate capacity and wide temperature tolerance for potassium-ion batteries

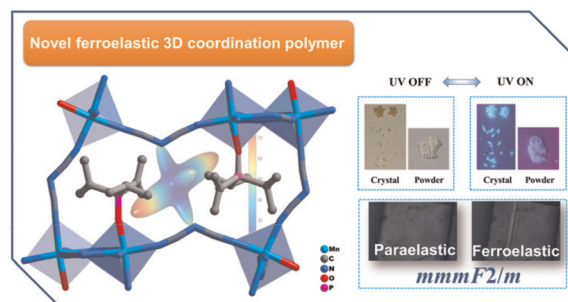
Lihong Xu, Jiefeng Ye, Wenti Guo, Tingjie Chen, Xiaochuan Chen,\* Qingrong Qian, Jianmin Zhang,\* Mingdeng Wei, Xiangfang Peng\* and Lingxing Zeng\*



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### A three-dimensional Mn(II) coordination polymer with ferroelasticity obtained by introducing coligands to form novel networks

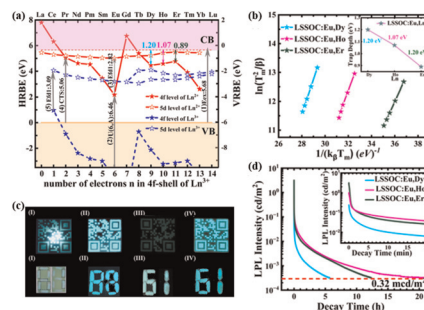
Ke Xu, Zining Zhou, Jintao Men, Qingjie Zhou and Qiong Ye\*



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### Co-doped long persistent luminescence materials $LiSr_3SiO_4Cl_3:Eu^{2+}, Ln^{3+}$ ( $Ln = Dy, Ho, Er$ ): construction and verification of VRBE and HRBE scheme and their multifunctional applications

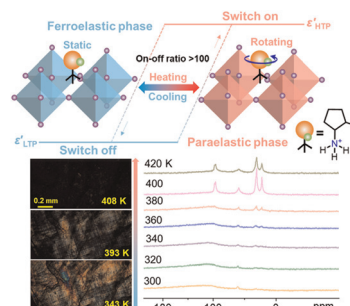
Yuanying Lin, Chengzhuo Ming, Zhenbin Wang, Bin Yu, Yuzhu Yang and Weisheng Liu\*



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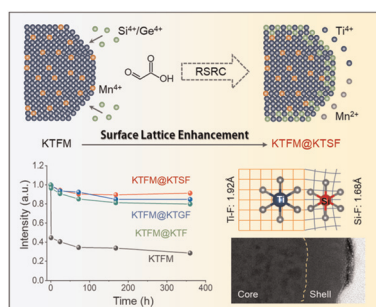
### Fast rotating dipole array inducing large dielectric response in a Ruddlesden–Popper hybrid perovskite ferroelastic

Wang Luo, Na Wang, Hua-Kai Li, Ze-Jiang Xu, Yan Feng, Xiao-bin Fu,\* Chao Shi,\* Heng-Yun Ye and Le-Ping Miao\*



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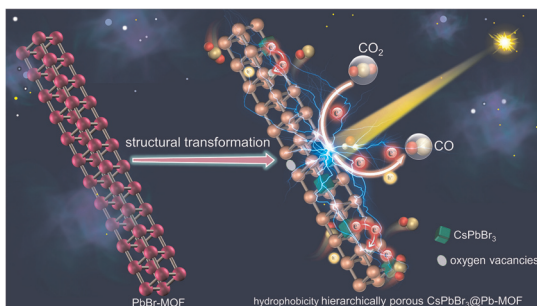
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### Surface lattice enhancement of red-emitting fluorides enabled by embedding small cations

Pingping Wan, Chen Yang, Aolin Wang, Liping Yu, Shixun Lian and Wenli Zhou\*

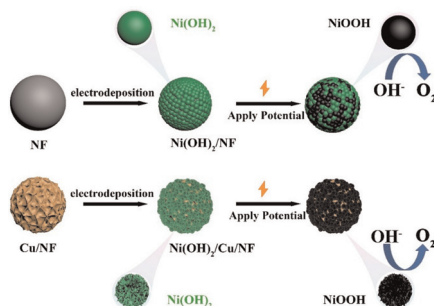
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### Oxygen vacancies confined in hierarchically porous CsPbBr<sub>3</sub>@Pb-MOF through *in situ* structural transformation for promoting photocatalytic CO<sub>2</sub> reduction

Yangwen Hou, Man Dong, Jingting He, Jing Sun, Chunyi Sun,\* Xiao Li, Xinlong Wang and Zhongmin Su\*

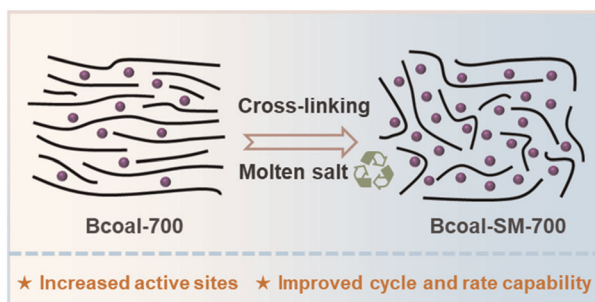
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### A copper interface promotes the transformation of nickel hydroxide into high-valent nickel for an efficient oxygen evolution reaction

Junjun Zhang, Fengchen Zhou, Aiming Huang, Yong Wang, Wei Chu\* and Wen Luo\*

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### Molten salt assisted fabrication of coal-based carbon anode materials for efficient Na ion storage

Wei Zhang, Ning Sun,\* He Chen, Razium Ali Soomro and Bin Xu\*

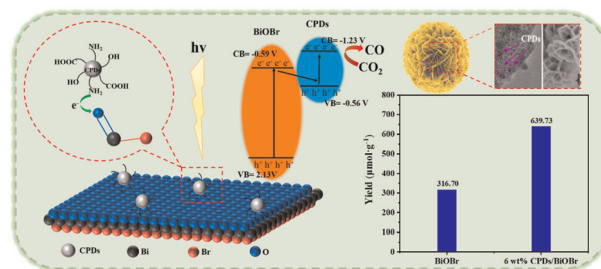


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### Up-conversion effect boosted the photocatalytic CO<sub>2</sub> reduction activity of Z-scheme CPDs/BiOBr heterojunction

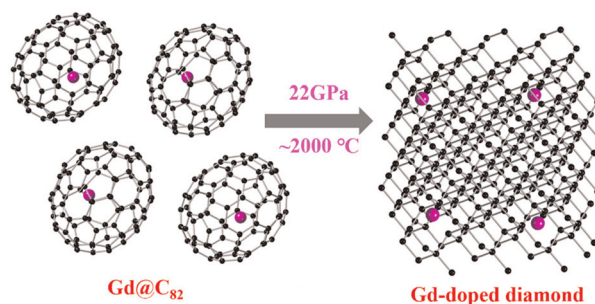
Jing Xie,\* Xiaojing Zhang, Zhenjiang Lu, Jindou Hu, Aize Hao, Yue Feng and Yali Cao\*



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### Gd-doped diamond synthesized using Gd@C<sub>82</sub> under high pressure and high temperature

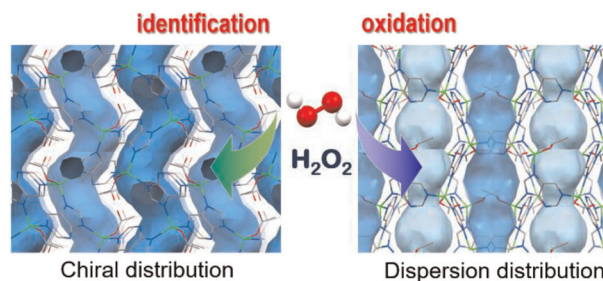
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### Recognition, detection and host-guest chemistry of hydrogen peroxide in a fluorescent metal-organic framework with chiral helical channels

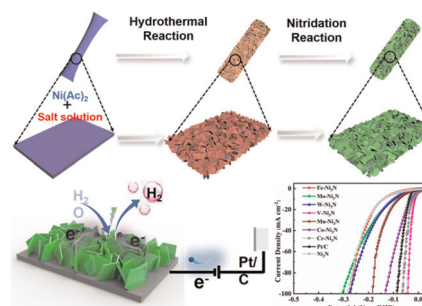
Hong Cai,\* Jie-Wen Wu, Xiao-Jun Cai, Zhou Lu, Ya-Liang Lai, Jing-Xuan Sun, Zhuo-Li Yuan, Yang-Ying Huang, Jing-Wen Cai, Wen Lu, Yi-Hong Lu, Hui-Ying Zhang and Dan Li\*



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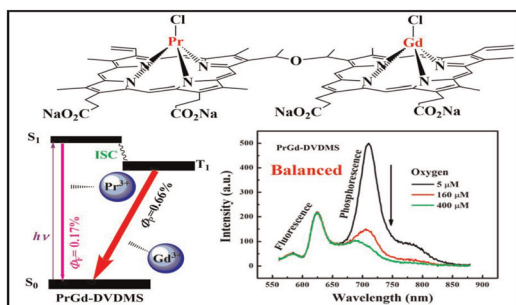
### Formulating a heterolytic cleavage process of water on Ni<sub>3</sub>N nanosheets through single transition metal doping for ultra-efficient alkaline hydrogen evolution

Wansen Ma, Meng Wang, Chaowen Tan, Jiancheng Wang, Yanan Dai, Liwen Hu, Xuwei Lv, Qian Li and Jie Dang\*



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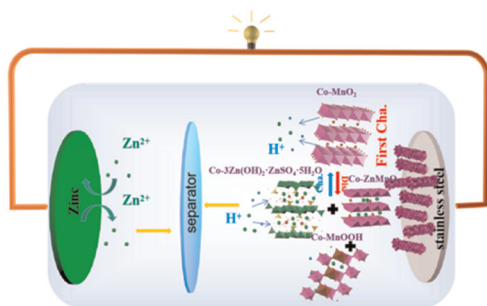
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### Balancing the phosphorescence and fluorescence of a double-ring porphyrin using different lanthanides for ratiometric oxygen sensing

Huimin Zhao,\* Qingqing Wang, Shumin Wang, Junyue Yin, Huibin Wang, Wenhao Shao, Zixin Yao, Jianting Yao and Lixin Zang\*

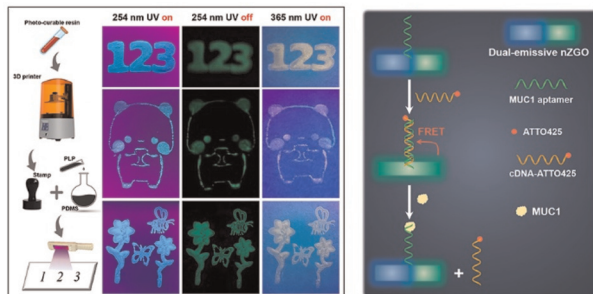
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### Cobalt-doped $\delta$ -MnO<sub>2</sub>/CNT composites as cathode material for aqueous zinc-ion batteries

ShuLing Liu,\* Jie Wang, ZiXiang Zhou, Ying Li, Wei Zhang and Chao Wang

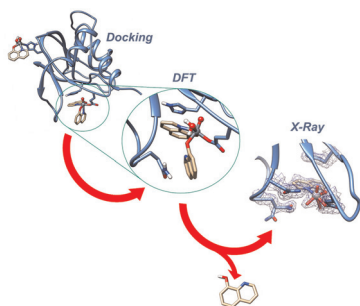
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### Dual-emissive persistent luminescent phosphors for multi-mode anti-counterfeiting and ratiometric luminescent aptasensors

Peng Lin, Junpeng Shi,\* Lin Liu, Yile Kang, Liang Song, Maochun Hong\* and Yun Zhang\*

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### Interaction of V<sup>IV</sup>O–8-hydroxyquinoline species with RNase A: the effect of metal ligands in the protein adduct stabilization

Giarita Ferraro, Luigi Vitale, Giuseppe Sciortino, Federico Pisanu, Eugenio Garribba\* and Antonello Merlino\*

