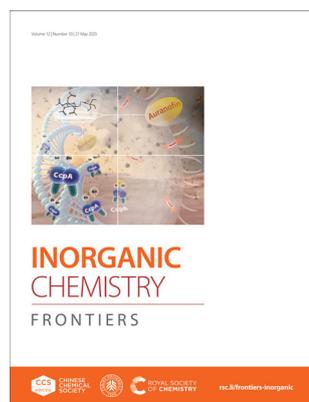


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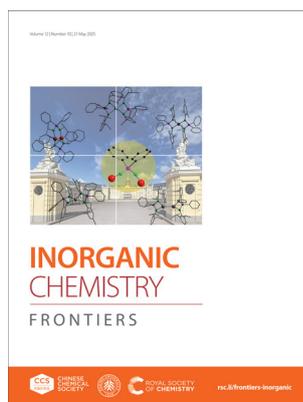
ISSN 2052-1553 CODEN ICFNAW 12(10) 3547-3730 (2025)



#### Cover

See Bingjie Han, Guijuan Jiang, Jintao Wang, Xiangwen Liao *et al.*, pp. 3582–3594.

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#### Inside cover

See Bhupendra Goswami and Peter W. Roesky, pp. 3555–3581.

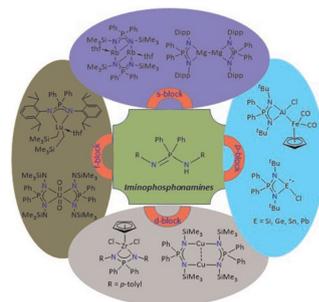
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### REVIEW

3555

#### Comprehensive coordination chemistry of iminophosphoramides

Bhupendra Goswami\* and Peter W. Roesky\*

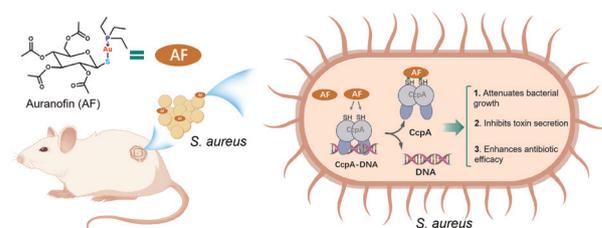


### RESEARCH ARTICLES

3582

#### Targeting catabolite control protein A in *Staphylococcus aureus* with auranofin

Wenjing Lin, Jingjing Chen, Ziyang Huang, Haijun Li, Yushou Chen, Xuemin Duan, Yanshi Xiong, Bingjie Han,\* Guijuan Jiang,\* Jintao Wang\* and Xiangwen Liao\*



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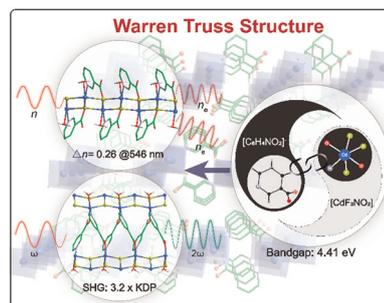
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## RESEARCH ARTICLES

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**CdF(C<sub>6</sub>H<sub>4</sub>NO<sub>2</sub>)(H<sub>2</sub>O): a UV nonlinear optical material with unprecedented SHG and birefringence via  $\pi$ -conjugated rings and a unique "Warren truss structure"**

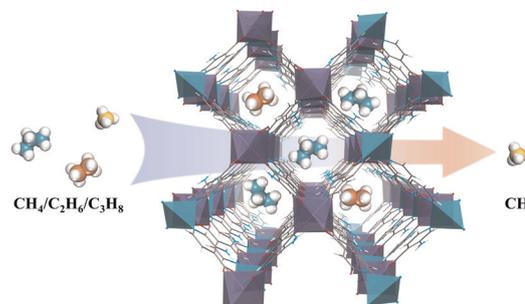
Jie Gou, Yaolong Zhu, Xin Su, Can Yang, YunJie Wang, Qingwen Zhu, Yi Xiong and Qi Wu\*



3602

**Pore-structure control in bimetallic coordination networks for natural gas purification with record C<sub>2</sub>H<sub>6</sub>/CH<sub>4</sub> selectivity**

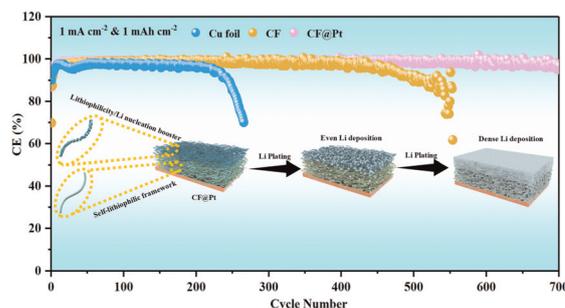
Li-Ping Zhang, Yi-Tao Li, Yu Jiang, Run-Yuan Jiang, Shuang Ni and Qing-Yuan Yang\*



3611

**Heterogeneous seeds boosting the self-lithiophilic host with dual-phase lithium storage for a stable lithium-metal anode**

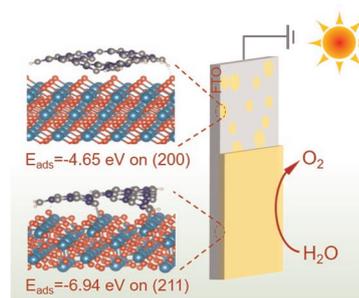
Zhicui Song, Jing Xue, Chaohui Wei, Donghuang Wang, Yingchun Ding, Aijun Zhou and Jingze Li\*



3620

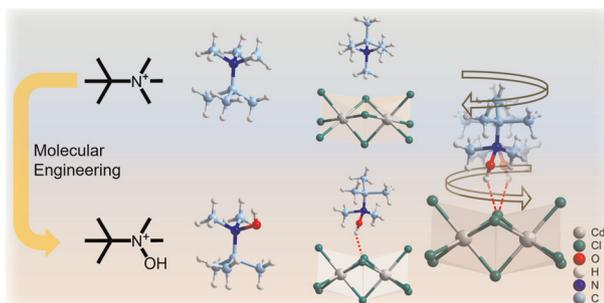
**Conducting oxide surface engineering enables the growth of a low-defect carbon nitride film for unbiased photoelectrochemical water splitting**

Suqin Wu, Wenjie Deng, Chen Lai, Fengmei Zhi, Shuai Xiong, Shubin Xiong, Mao He, Menny Shalom and Guiming Peng\*



## RESEARCH ARTICLES

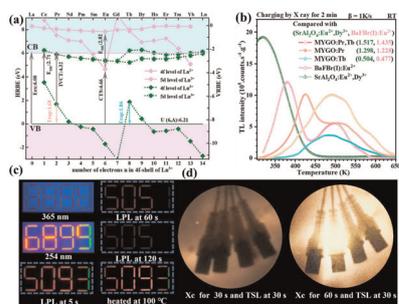
3629



### Ferroelectricity in perovskites realized by a switchable skewed conformation

Zhuoer Cai, Yanan Zhang, Xiu-Ni Hua,\* Hai-Bao Duan\* and Baiwang Sun\*

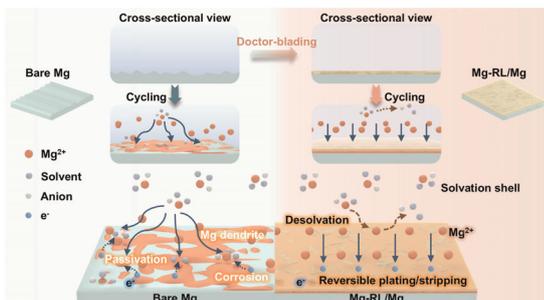
3637



### VRBE and HRBE schemes of lanthanides: design of dual-luminescence-center long persistent luminescence phosphors with Pr<sup>3+</sup> or/and Tb<sup>3+</sup> doping in Mg<sub>3</sub>Y<sub>2</sub>Ge<sub>3</sub>O<sub>12</sub> garnet with high storage capacity for anti-counterfeiting, information storage, and X-ray imaging

Yuanying Lin, Chengzhuo Ming, Ruonan Xuan and Weisheng Liu\*

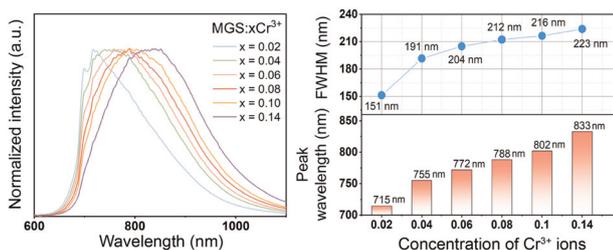
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### Mg-Rich LAPONITE® interface protective layer enables reversible, corrosion-resistant anodes for high-performance magnesium metal batteries

Jingxuan Bi, Xiaomei Huo, Zhenkai Zhou, Junhui Li, Ke Wang, Zhuzhu Du and Wei Ai\*

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### Achieving tunable ultra-broadband NIR emission originating from the two-site occupation of Cr<sup>3+</sup> ions in Mg<sub>3</sub>Ga<sub>2</sub>SnO<sub>8</sub>:Cr<sup>3+</sup>

Pengcheng Luo, Dashuai Sun,\* Zeyu Lyu, Mingxiang You, Zheng Lu, Xiaowei Zhang, Luhui Zhou and Hongpeng You\*

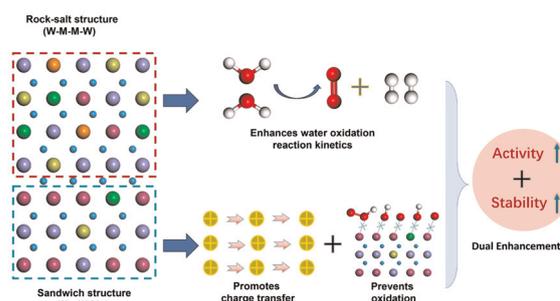


## RESEARCH ARTICLES

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**Two-dimensional high-entropy MWN<sub>2</sub> nanosheets for boosted water oxidation in alkaline media**

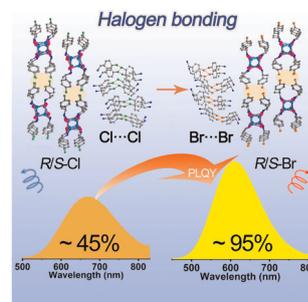
Jiajing Wu, Shida Bao, Shan Jiang, Qiting Shao, Xuexia Lan, Tao Zhang, Xiao Yan, Zhi Yang, Chengliang Chai, Zhijun Dong, Zheng-Jie Chen\* and Jing Peng\*



3680

**Near-unity room-temperature phosphorescence quantum yield induced by halogen-halogen interaction in chiral hybrid copper(I) iodide clusters**

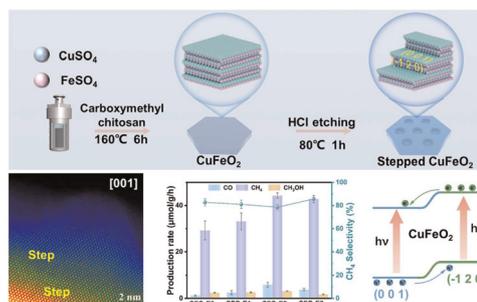
Yanjing Qin, Jianwu Wei, Jing Li, Xianli Li, Binbin Luo,\* Peican Chen, Liya Zhou, Jin Zhong Zhang and Qi Pang\*



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**High density facet junctions in nano-stepped CuFeO<sub>2</sub> enable efficient charge separation for selective photocatalytic CO<sub>2</sub> reduction to CH<sub>4</sub>**

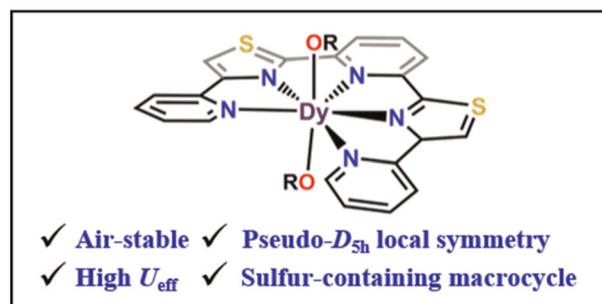
Jingying Wei, Chun Guo, Dongfen Hou, Dailing Jia, Huaiguo Xue, Jingqi Tian and Tengfei Jiang\*



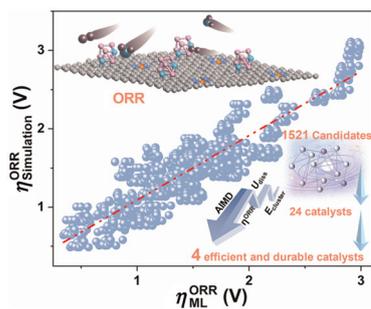
3695

**Air-stable pentagonal-bipyramidal dysprosium(III) single-molecule magnets with a sulfur-containing macrocyclic equatorial ligand**

Qian-Cheng Luo, Zi-Han Li, Jintao Lu and Yan-Zhen Zheng\*



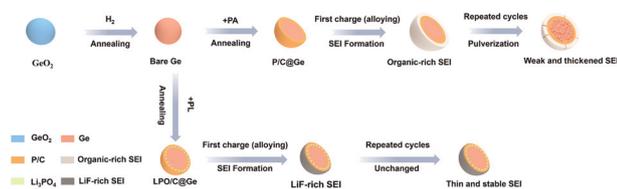
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## Unraveling active ensembles consisting of clusters and single atoms for oxygen reduction: a synergy of machine learning and DFT calculations

Xinyi Li, Dongxu Jiao, Jingxiang Zhao\* and Xiao Zhao\*

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## Regulation of solid–electrolyte interphase formation via a $\text{Li}_3\text{PO}_4$ artificial layer for ultra-stable germanium anodes

Haifeng Yan, Kun Chao, Zhonghua Zhang,\*  
Zhenfang Zhou, Yuanming Li, Xuguang Liu, Jing Liu,  
Xiaosong Guo, Changming Mao\* and Guicun Li\*

