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IN THIS ISSUE

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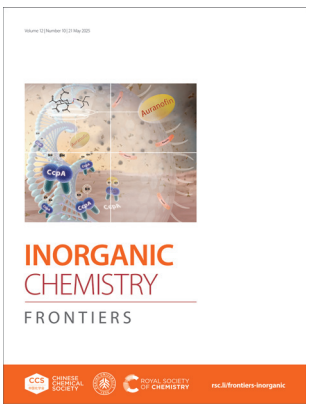

Cover
See Bingjie Han, Guijuan Jiang, Jintao Wang, Xiangwen Liao *et al.*, pp. 3582–3594.

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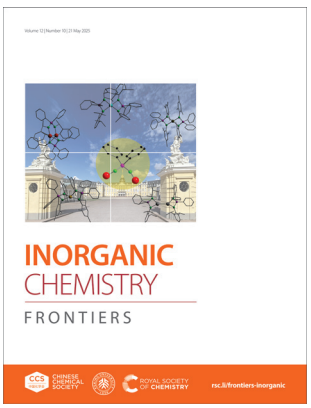

Inside cover
See Bhupendra Goswami and Peter W. Roesky, pp. 3555–3581.

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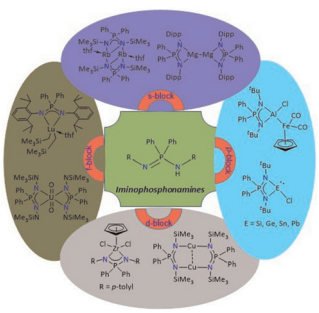
REVIEW

3555

Comprehensive coordination chemistry of iminophosphonamides

Bhupendra Goswami* and Peter W. Roesky*

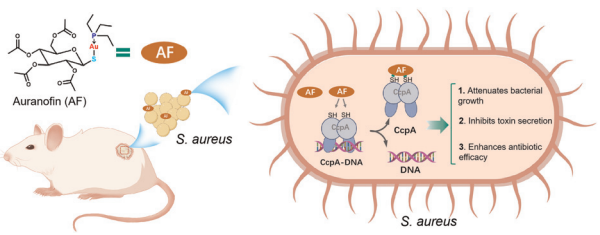


RESEARCH ARTICLES

3582

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

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



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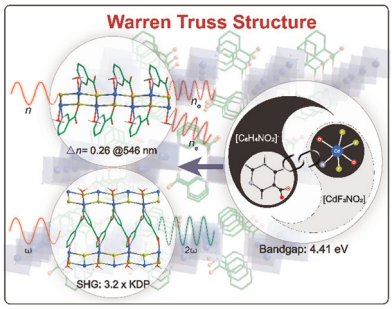
3595

$CdF(C_6H_4NO_2)(H_2O)$: a UV nonlinear optical material with unprecedented SHG and birefringence *via* π-conjugated rings and a unique "Warren truss structure"

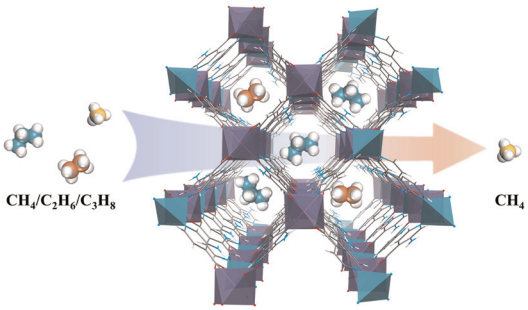
Jie Gou, Yaolong Zhu, Xin Su, Can Yang, YunJie Wang, Qingwen Zhu, Yi Xiong and Qi Wu*



3602

Pore-structure control in bimetallic coordination networks for natural gas purification with record C_2H_6/CH_4 selectivity

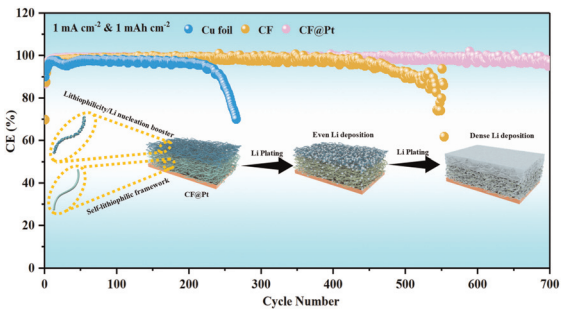
Li-Ping Zhang, Yi-Tao Li, Yu Jiang, Run-Yuan Jiang, Shuang Ni and Qing-Yuan Yang*



3611

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

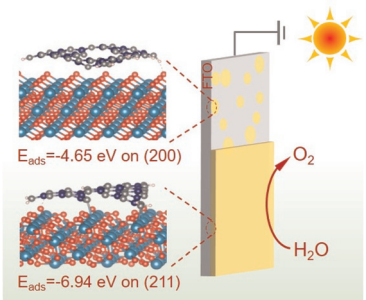
Zhicui Song, Jing Xue, Chaohui Wei, Donghuang Wang, Yingchun Ding, Aijun Zhou and Jingze Li*



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*



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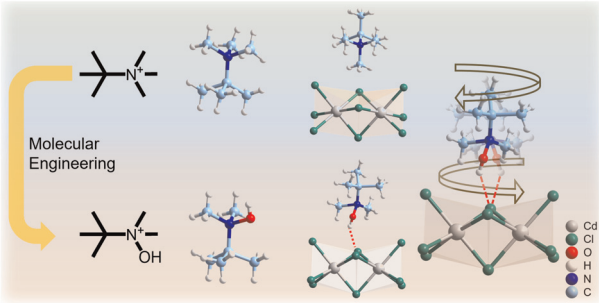
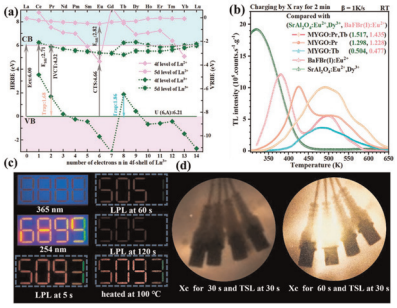


Ferroelectricity in perovskites realized by a switchable skewed conformation

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

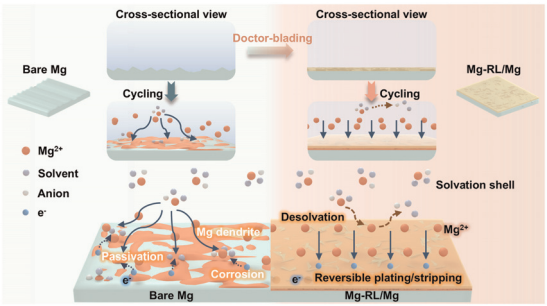
3637



VRBE and HRBE schemes of lanthanides: design of dual-luminescence-center long persistent luminescence phosphors with Pr^{3+} or/and Tb^{3+} doping in $Mg_3Y_2Ge_3O_{12}$ garnet with high storage capacity for anti-counterfeiting, information storage, and X-ray imaging

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

3653



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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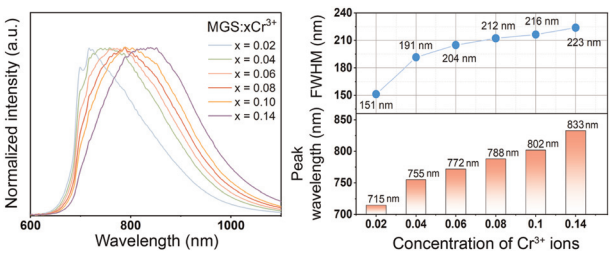

Achieving tunable ultra-broadband NIR emission originating from the two-site occupation of Cr^{3+} ions in $Mg_3Ga_2SnO_8:Cr^{3+}$

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

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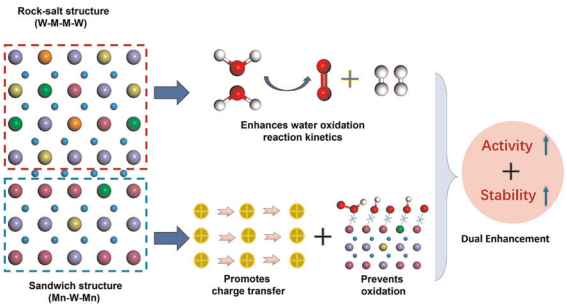
Two-dimensional high-entropy MWN_2 nanosheets for boosted water oxidation in alkaline media

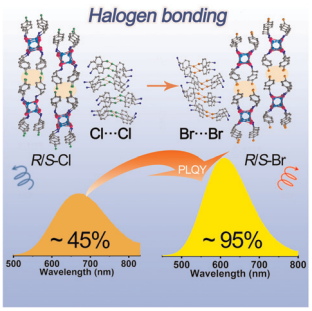
Jiajing Wu, Shida Bao, Shan Jiang, Qiting Shao, Xuexia Lan, Tao Zhang, Xiao Yan, Zhi Yang, Chengliang Chai, Zhijun Dong, Zheng-Jie Chen* and Jing Peng*



3680

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

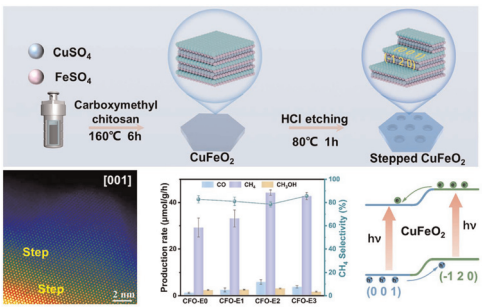
Yanjing Qin, Jianwu Wei, Jing Li, Xianli Li, Binbin Luo,* Peican Chen, Liya Zhou, Jin Zhong Zhang and Qi Pang*



3689

High density facet junctions in nano-stepped $CuFeO_2$ enable efficient charge separation for selective photocatalytic CO_2 reduction to CH_4

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



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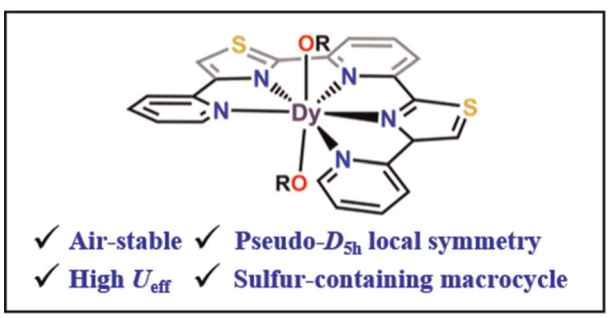
Air-stable pentagonal-bipyramidal dysprosium(III) single-molecule magnets with a sulfur-containing macrocyclic equatorial ligand

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



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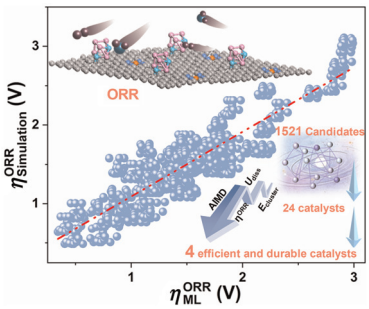

Unraveling active ensembles consisting of clusters and single atoms for oxygen reduction: a synergy of machine learning and DFT calculations

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

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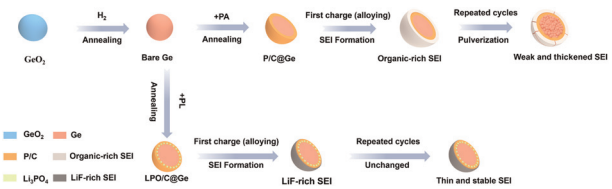

Regulation of solid–electrolyte interphase formation *via* a Li_3PO_4 artificial layer for ultra-stable germanium anodes

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

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