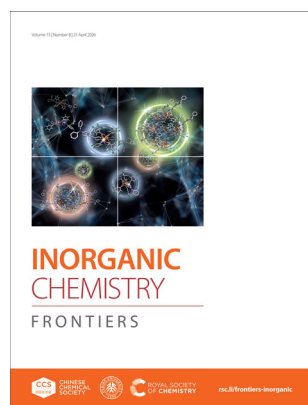


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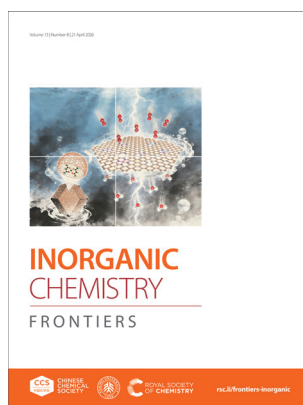
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Cover

See Akiko Hori *et al.*, pp. 3264–3272.

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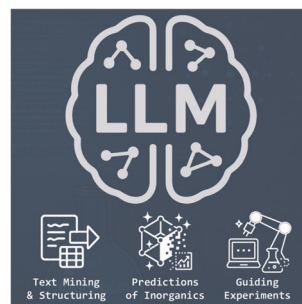
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HIGHLIGHT

3213

Digitalisation of inorganic chemistry with LLMs

Boshko Koloski, Senja Pollak, Sašo Džeroski* and Aleksandar Kondinski*

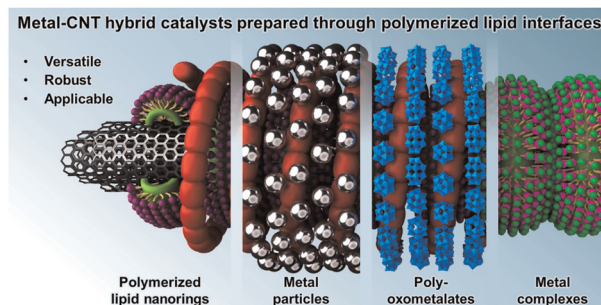


REVIEWS

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Immobilization of metals on carbon nanotubes through non-covalent approaches – focus on the use of polymerized lipidic interfaces to prepare catalytic hybrids

Edmond Gravel,* Mateus P. Nunes, Snehal Pednekar, Céline Demeese, Guilherme A. M. Jardim, Eufânio N. da Silva Júnior,* Irishi N. N. Namboothiri* and Eric Doris*



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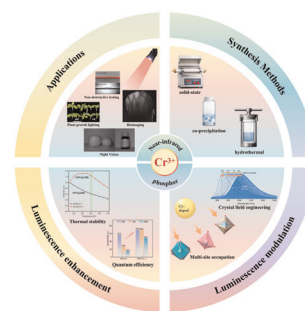
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REVIEWS

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Recent advances in Cr³⁺-doped near-infrared phosphors: preparation, luminescence, and LED applications

Qingmei Fan, Jing Wan, Zhengliang Wang, Lei Zhong, Chunyan Jiang, Qiang Zhou,* Lei Zhou* and Mingmei Wu*

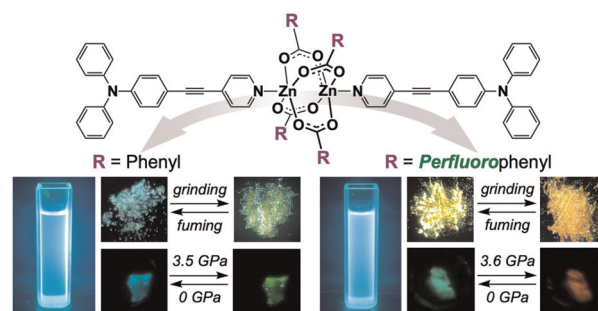


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Multicolor and reversible stimuli-responsive luminescence of dumbbell-shaped Zn(II) complexes with extended triphenylamine-attached ethynylpyridine terminals

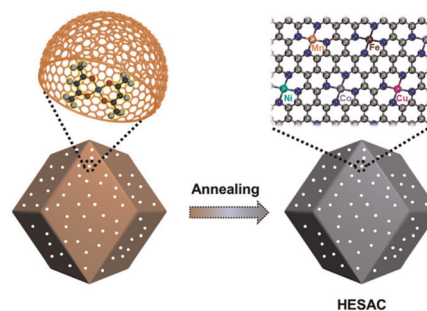
Yuta Takeuchi, Minoru Yamada, Itaru Tsuchiya, Yoshiki Ozawa, Masaaki Abe and Akiko Hori*



3273

High-entropy single-atom catalysts via spatial confinement synthesis for oxygen electrocatalysis and zinc–air batteries

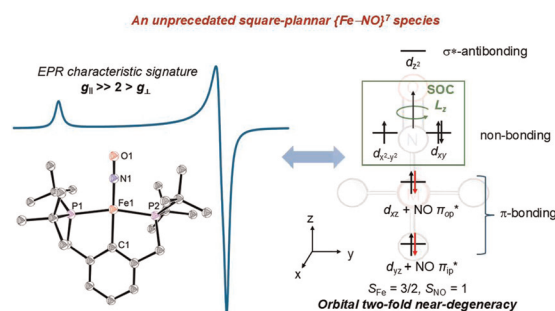
Xue Shen, Zijian Li, Haeseong Jang,* Min Gyu Kim, Liqiang Hou* and Xien Liu*



3282

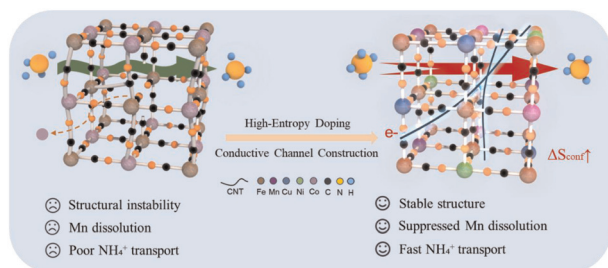
Unusual electronic structures of square-planar iron-nitrosyl complexes

Xinchao Zhang, Wang Chen,* Haihan Yan, Gao-Xiang Wang and Shengfa Ye*



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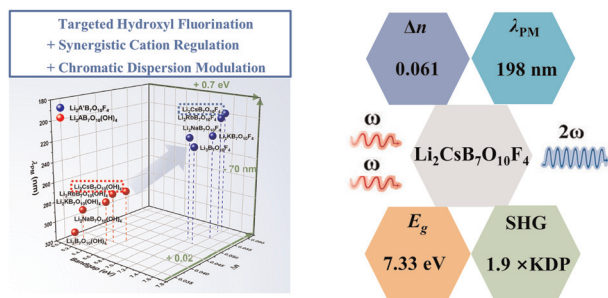
3291



High-entropy conductive manganese-based Prussian blue analogue cathode for high-performance ammonium ion storage

Zining Li and Liubing Dong

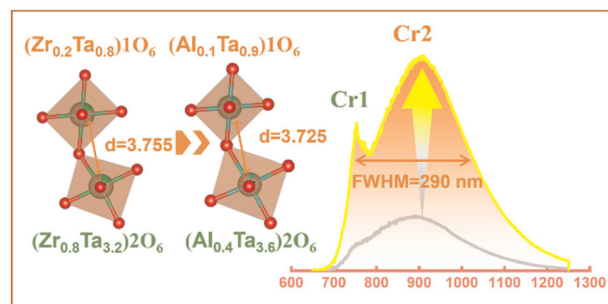
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Targeted hydroxyl fluorination for first-principles design of deep-ultraviolet nonlinear optical crystals: multi-property optimization & chromatic dispersion modulation in $\text{Li}_2\text{CsB}_7\text{O}_{10}\text{F}_4$

Chenxu Li, Haoran Wang, Min Zhang, Shilie Pan* and Zhihua Yang*

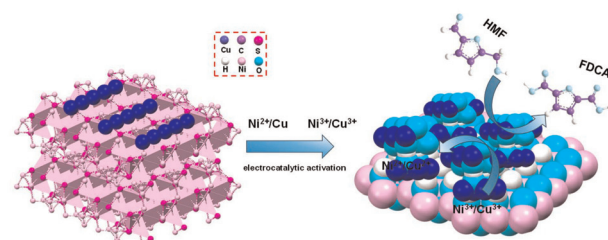
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Simultaneous broadening and enhancement of Cr^{3+} photoluminescence in $\text{Ba}_3\text{ZrTa}_4\text{O}_{15}$ by chemical unit co-substitution

Lipeng Jiang,* Yuxi Qiao, Jing Wang, Hongbo Yu, Weiwei Jiang, Zhongxiang Shi, Liangliang Zhang* and Yanjing Su

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$\text{Cu}^{3+}/\text{Ni}^{3+}$ dual active sites for high-voltage driven electrocatalytic production of 2,5-furandicarboxylic acid

Baoming Yan, Hongliang Dai, Mengyang Yin, Chen Hao, Yutang Shen, Hongye Bai,* Ying Liu,* Guohai Xu* and Weiqiang Fan*

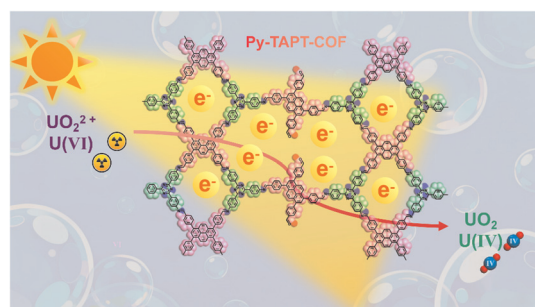


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Constructing donor–acceptor covalent organic frameworks with *bex* topology for efficient photocatalytic reduction of uranium

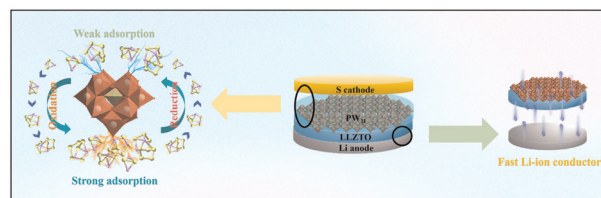
Li Wang,* Lingli Zhang and Feng Luo*



3345

Lacunary strategy facilitates catalytic conversion of polysulfides by polyoxometalates for high-performance quasi-solid-state Li–S batteries based on LLZTO electrolyte

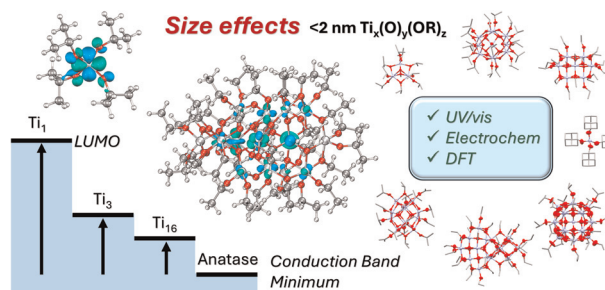
Jia-Xin Zuo, Yi Feng, Yun-Dong Cao, Lin-Lin Fan,* Cai-Li Lv, Hong Liu,* Yi-Hai Song and Guang-Gang Gao*



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Size-dependent electronic structure of titanium-oxo-alkoxides: exploring quantum confinement at the smallest sizes

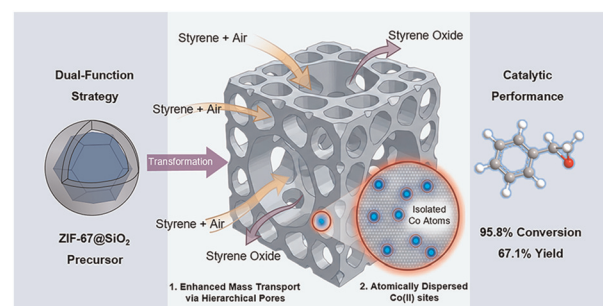
Thomas J. Barnes, Bin Wang, Eniola Sokalu, Frank De Proft* and Sebastian D. Pike*



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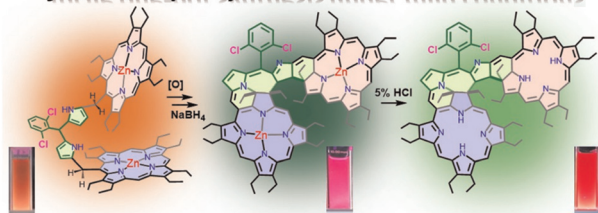
One-stone-two-birds: high-density single-site cobalt in hierarchical zeolite boosts aerobic styrene epoxidation

Chun-Mu Guo, Zhan Liu, An-Kang Jiang, Ming-Hui Sun,* Bo Ye, Jia-Min Lyu, Ke Min, Xiao-Yu Yang, Ke Lyu, Xiao-Yun Li, Yu Li, Li-Hua Chen* and Bao-Lian Su



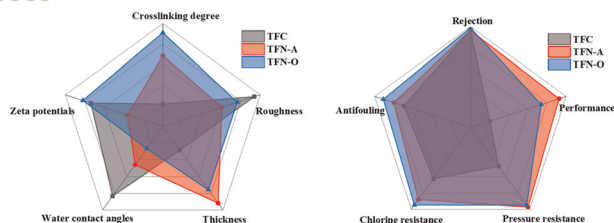
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facile one-pot synthesis under mild conditions**Facile one-pot synthesis of triply fused, fluorescent chlorin–porphyrin heterodimers with near-IR absorption: impact of π -conjugation on optical properties**

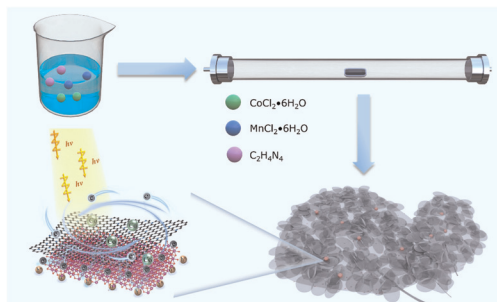
Syed Jehanger Shah, Aman Sharma, Basanta Khamrui, Arya Roychowdhury, Debabrata Goswami and Sankar Prasad Rath*

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**Embedding of FeOOH nanorods in the fabrication of a thin film nanocomposite (TFN) membrane for enhanced desalination**

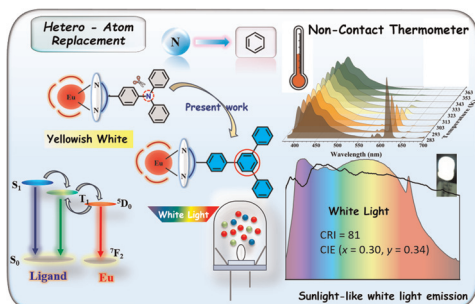
Pengfei Li, Liming Wang, Mingzheng Bao, Yu Yong, Jilong Han* and Q. Jason Niu*

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**Leaf-inspired graphene/MnO networks encapsulating Co nanoparticles through micro–nano-structural engineering for enhanced photo-stimulated rechargeable Zn–air batteries**

Peitao Liu,* Zihan Zhang, Chongyang Yang, Junming Zhang and Daqiang Gao*

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**Replacing a nitrogen heteroatom in a molecular Eu complex with a phenyl moiety facilitated sunlight-like emissions for sustainable white LEDs and non-contact thermometers**

Swetha Maredi, Rohit Kumar Basotra, Takashi Nakanishi and Sivakumar Vaidyanathan*

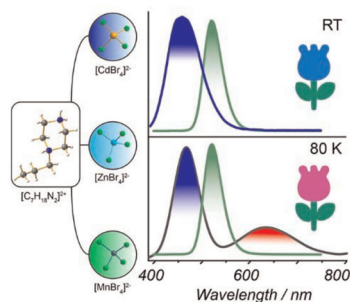


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Luminescence tuning in a zero-dimensional organic–inorganic hybrid metal halide family of $(C_7H_{18}N_2)MBr_4$ ($M = Cd, Zn, \text{ and } Mn$)

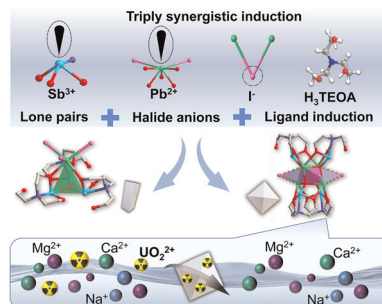
Zhongliang Gong, Xiaodong Yi, Xi-Gui Gao, Huwenyu Huang, Yu-Xin Ma, Zi-Xuan Liu, Jingmei Zhao, Lijuan Feng and Cheng-Yang Yue*



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Unprecedented lead–antimony oxohalide clusters with efficient capture of UO_2^{2+} ions

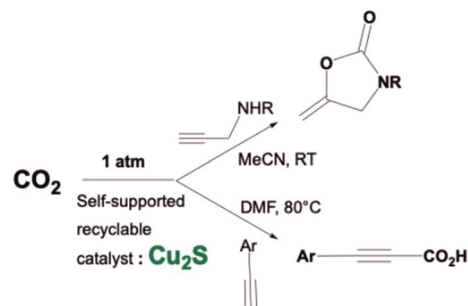
Jia-Hua Luo, Yu-Wei Ren, Lu Yang, Jing Wang, Hao-Dan Xiao, Feng-Hua Xian, Hai-Yan Sun, Mei-Ling Feng,* Bing Hu* and Xiao-Ying Huang



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CO_2 conversion efficiently catalyzed under ambient conditions by new self-supported and recyclable Cu_2S

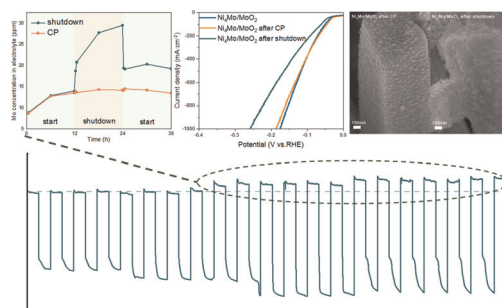
Huili Wang, Tiansheng Wang, Murielle Berlande, Ahmed Subrati, Sergio Moya, Lionel Salmon, Nathalie Daro, Nathalie Audebrand, Jean-René Hamon, Haizhu Yu,* Jean-Luc Pozzo* and Didier Astruc*



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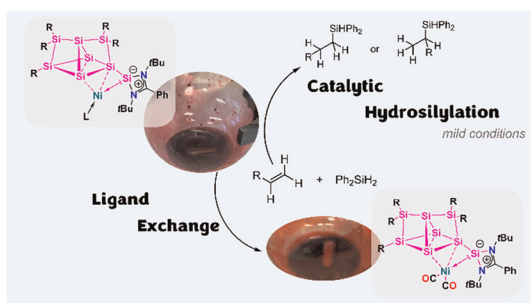
The degradation of Ni_4Mo/MoO_2 catalysts under fluctuating current conditions

Yuting Li, Xinlong Guo, Yixin Zhang, Zudong Shen, Yu Zhang, Yongqiang Yang, Xiaoxiao Li, Boying Li, Xinling Tian, Haodong He, Yun Kuang, Linlin Zhou, Bing Hu, Lijun Xu, Yaping Li,* Liang Luo,* Daojin Zhou* and Xiaoming Sun



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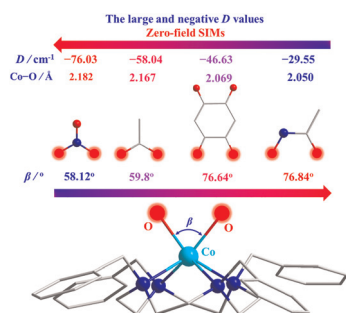
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Stable nickel complexes of a siliconoid/silylene hybrid ligand: competent hydrosilylation catalysts for terminal olefins

Luisa Giarrana, Dennis Welterlich, Michael Zimmer, Bernd Morgenstern and David Scheschkewitz*

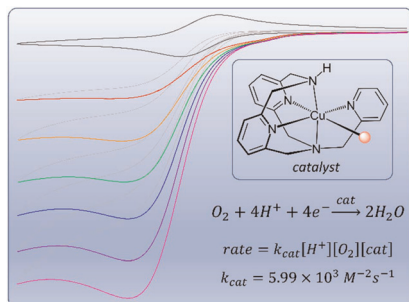
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Coligand-driven modulation of magnetic properties in trigonal prismatic cobalt(II) single-ion magnets

Aoyun Zhang, Chennan Zhang, Junnan Qiao, Yawen Wang, Ulli Englert, Lei Chen,* Shu-Chang Luo,* Zhao-Yang Li* and Li-Zhuang Chen*

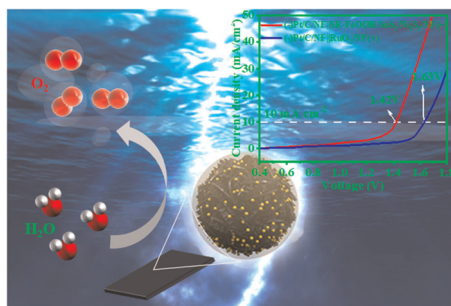
3485



Selective four-electron reduction of dioxygen by a mononuclear copper complex supported by a pentadentate polypyridylalkylamine ligand

Mengqing Liu, Yipei Zhao, Qianyu Chang, Hongping Zhou,* Marcello Gennari,* Carole Duboc* and Lianke Wang*

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An amorphous FeOOH-modified spongy steamed-twisted-roll SnS₂/Ni₃S₂ hierarchical electrocatalyst for efficient oxygen evolution reaction

Shi-Jing Wang, Xing Liu, Xiao-Yan Chen and Jian Zhou*

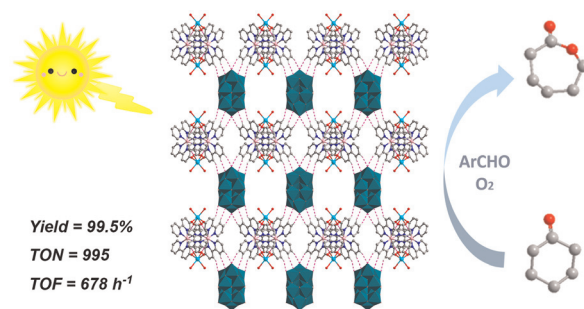


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Upgraded decatungstate: the visible-light-responsive, recyclable, and efficient photocatalyst achieved *via* self-assembly

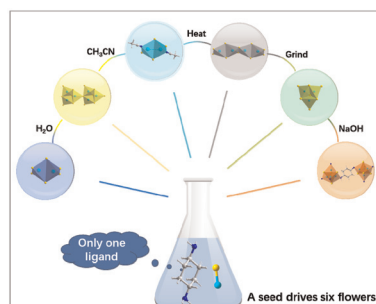
Yanan Liu, Luoning Li, Minzhen Cai, Jing Wang, Pengtao Ma, Jingping Wang* and Jingyang Niu*



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Solvent engineering for achieving six copper-based halides from a single organic cation: full-colour luminescence and multimode-stimulus response

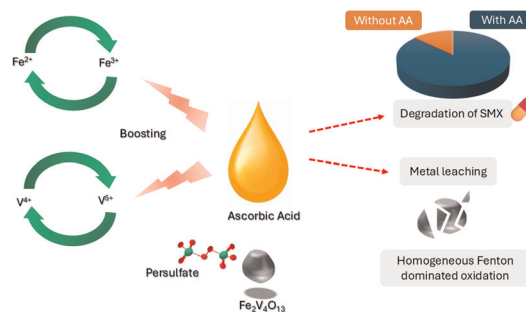
Junyan Wu, Wanxin Shi, Yuechuan Wu, Shilin Jin, Zhenzhu Liu, Daqin Chen and Zhenghuan Lin*



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The controversial role of ascorbic acid in boosting the performance of heterogeneous Fenton-like catalysts for wastewater treatment: the case study of Fe₂V₄O₁₃

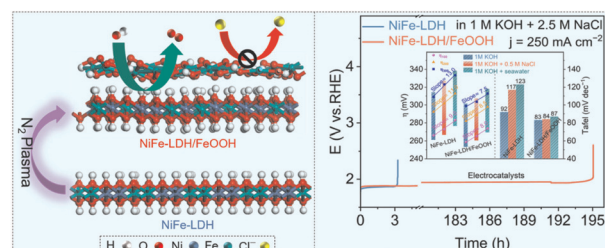
Arshitha Madhusudhan, Sridhar Gowri Sankaran, František Zažimal, Leonid Satrapinsky, Tomáš Roch, Tomáš Homola, Dana Dvoranova, Marcello Brigante and Olivier Monfort*



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Ultrafast *in situ*-formed FeOOH ultrathin overlayers on NiFe-LDH surfaces enable highly durable alkaline seawater oxidation

Zhipeng Chen, Lin Chen, Shiqi Yin, Yuning Zhang, Yao Ding, Kaicai Fan, Lingbo Zong, Lei Wang, Xiaofan Du,* Zhiqiang Hu* and Tianrong Zhan*

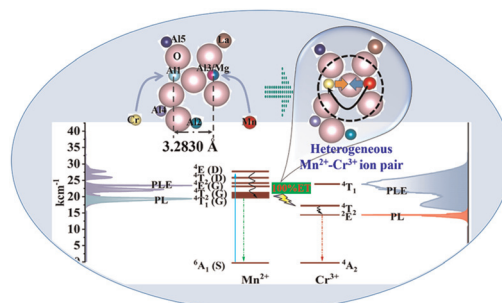


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Ultra-efficient energy transfer and near-infrared luminescence in hexagonal aluminate phosphors enabled by heterogeneous ion pair co-doping

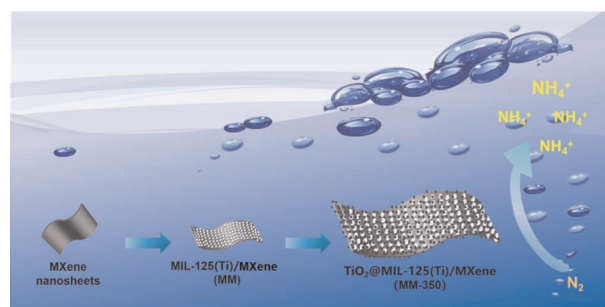
Xiaoyi Liu, Zhaojiang Liu, Yujuan Dong, Chuang Wang,*
Yichao Wang,* Ge Zhu* and Shuangyu Xin



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Construction of a TiO₂/Ti-MOF/MXene ternary heterojunction for enhanced photocatalytic nitrogen fixation

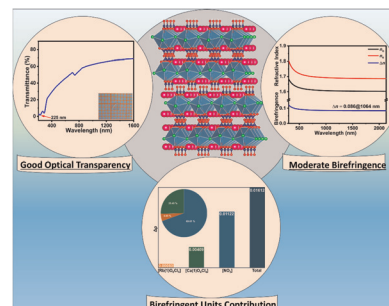
Tianyu Huang, Yangyang Sun,* Houqiang Ji,
Jiahui Huang, Wanchang Feng, Zheng Liu, Wenlin Xu
and Huan Pang*



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Layered perovskite-like nitrates A₂Ca(NO₃)₂Cl₂ (A = Rb, Cs) as ultraviolet birefringent optical materials

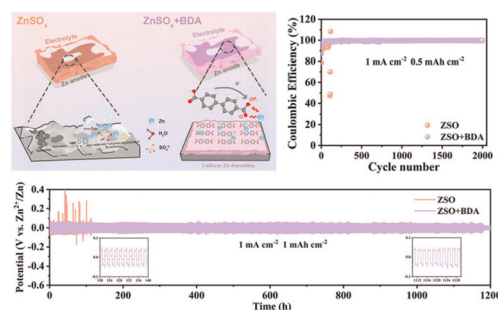
Hussin Elkik, Muhammad Mujahid Iqbal, Aqsa Munawar,
Zhihua Yang, Fangfang Zhang* and Shilie Pan*



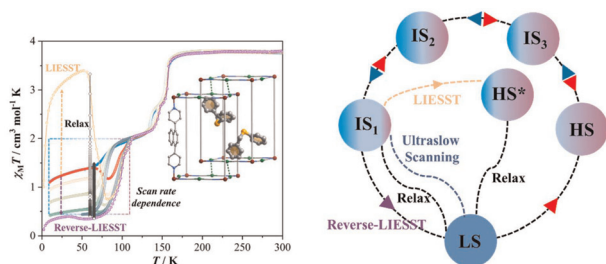
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Multifunctional additive biphenyl-4,4'-dicarboxylic acid enables high-performance aqueous zinc-ion batteries

Nan Sun, Pan Song, Mengxiang Li, Lipeng Zhang,
Zhiqiang Zhu* and Jingang Yang*



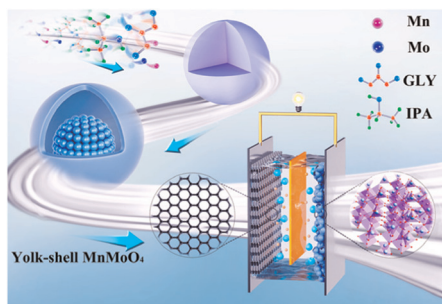
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Host–guest synergistic regulation of multi-step spin-crossover behavior in a Hofmann-type complex

Kai-Ping Xie,* Xiao-Yin Weng, Kai-Ye Lin, Jing-Yin Liu, Ming Lu, Zi-Yi Du, Zhong-Li Peng, Yi-Fei Deng,* Si-Guo Wu* and Guo-Cong Liu*

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Rational construction of 3D hierarchical yolk–shell MnMoO_4 micro/nanospheres for electrochemical energy storage

Yaxun Hu, Songtao Zhang,* Xingyu Huang, Jinfeng Wang, Chenlu Zhao, Weifeng Peng, Xiaotian Guo, Guangxun Zhang, Yecan Pi, Tian Tian, Yi Xu* and Huan Pang*

