

## IN THIS ISSUE

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**INORGANIC**  
CHEMISTRY  
FRONTIERS

Cover

See Xiangbo Meng,  
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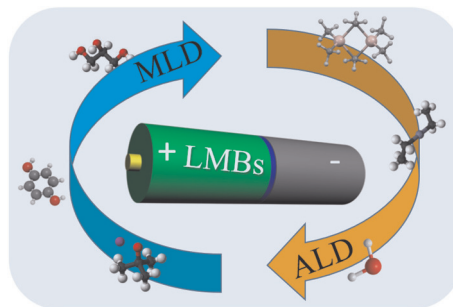
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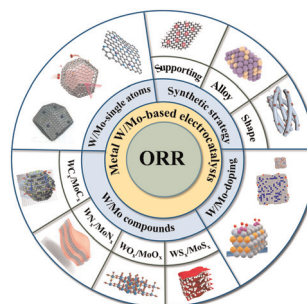
Xiangbo Meng



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# Highly efficient tungsten/molybdenum-based electrocatalysts for the oxygen reduction reaction: a review

Guiru Sun, Xiaobin Liu,\* Huimin Mao, Siqi Wu, Yanru Liu,  
Tianshi Wang, Jingqi Chi and Lei Wang\*





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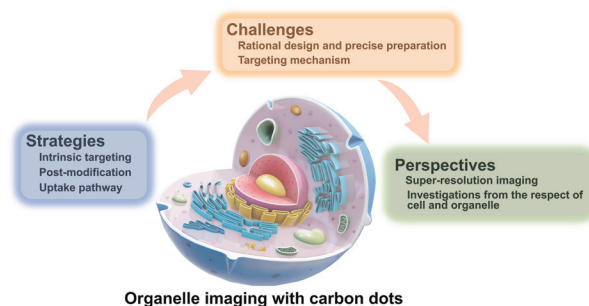


## REVIEWS

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**Organelle imaging with carbon dots: strategies, challenges, and perspectives**

Quanxing Mao, Yujie Meng, Yuhang Feng, Hui Li\* and Tianyi Ma\*

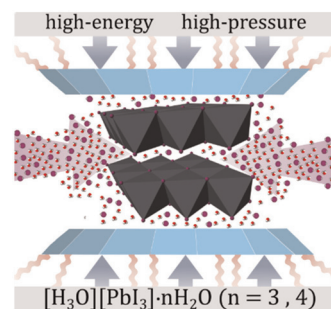


## RESEARCH ARTICLES

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**High-pressure observation of elusive iodoplumbic acid in different hydronium-hydrate solid forms**

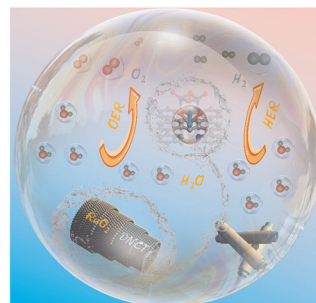
Szymon Sobczak, Athena M. Fidelli, Jean-Louis Do, George P. Demopoulos,\* Audrey Moores,\* Tomislav Friščić\* and Andrzej Katrusiak\*



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**A co-axial structure composed of RuO<sub>2</sub> on defective N-doped carbon nanotubes as a highly efficient electrocatalyst for overall water splitting**

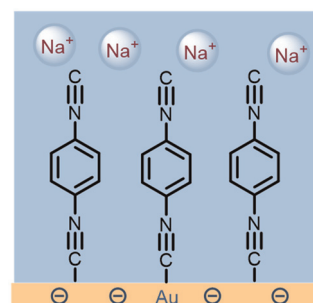
Wenqiang Li, Bowen Guo, Ka Zhang, Heng Zhang, Keqing Bu, Haipeng Chen and Xun Feng\*



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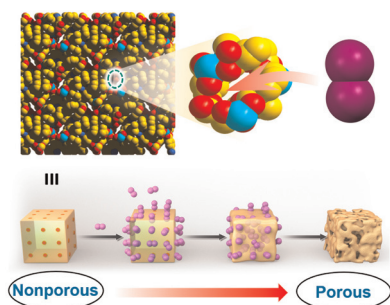
**Understanding the effect of specific adsorption on the vibrational Stark effect of adsorbates on an electrode surface *via* surface enhanced spectroscopy**

Kaiyue Zhao, Haocheng Xiong, Yuanhui Xiao, Haisheng Su, Deyin Wu, Xiaoxia Chang, Qi Lu\* and Bingjun Xu\*



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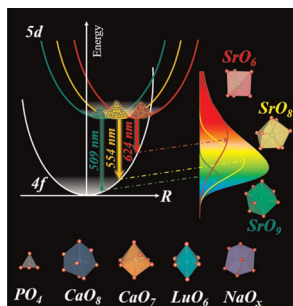
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### High-Capacity Iodine Adsorption, and Nonporous to Porous Structural Transformation in an Originally Nonporous Coordination Polymer

Chu-Hong Zhang, Bing-Xun Zhou, Xian Lin, Jia-Xuan Wu, Liang-Hua Wu, Songliang Cai, Jun Fan, Wei-Guang Zhang,\* Yong Yan\* and Sheng-Run Zheng\*

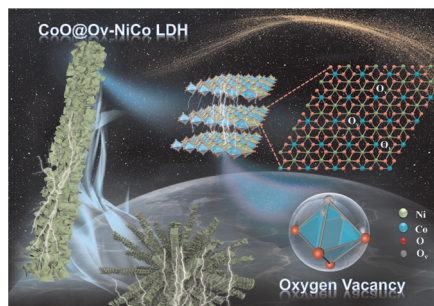
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### Tuning $\text{Eu}^{2+}$ luminescence in $\text{Sr}_8\text{CaLu}(\text{PO}_4)_7$ via $\text{Na}^+$ -induced local structure engineering for violet-chip-excitable full-spectrum lighting

Luan Yang, Fengluan You, Tao Pang, Xifeng Pan,\* Shaoxiong Wang, Shilin Jin, Yongzheng Fang\* and Daqin Chen\*

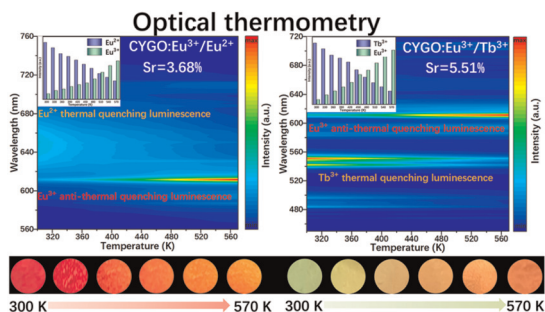
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### *In situ* construction of core–shell structured cobalt oxide@nickel–cobalt-layered double hydroxide nanorods with abundant oxygen vacancies towards boosting electrochemical energy storage

Xiao-Man Cao, Di Liu, Zhi-Jia Sun\* and Qingguo Zhang\*

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### Utilizing diametrically opposite thermal quenching luminescence to achieve highly sensitive temperature measurement and anti-counterfeiting

Haijie Guo, Yaqi Chen, Lei Wang,\* Qiufeng Shi, Cai'e Cui, Ping Huang and Jianwei Qiao\*



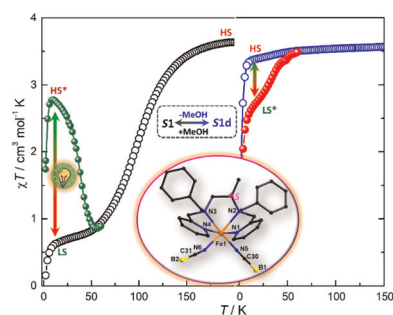


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### Solvated/desolvated homochiral Fe(II) complexes showing distinct bidirectional photo-switching due to a hidden state

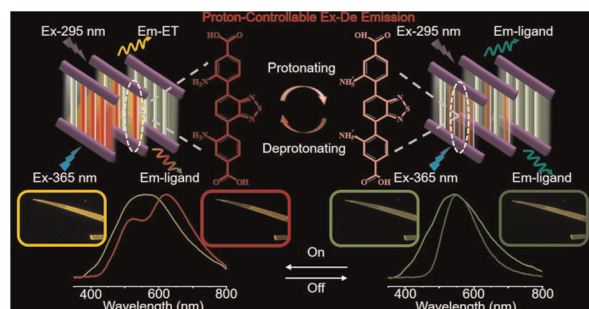
Xin-Hua Zhao, Yi-Fei Deng, Jia-Quan Huang, Min Liu and Yuan-Zhu Zhang\*



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### Proton-induced switching of excitation-wavelength-dependent emission based on mixed-ligand metal-organic frameworks

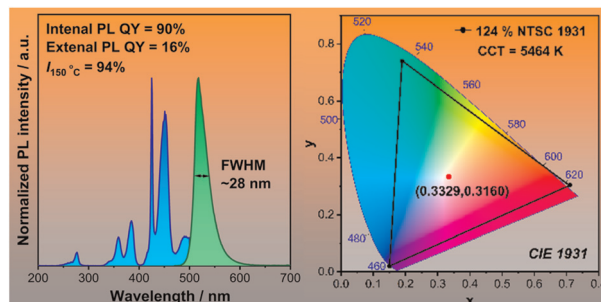
Yuanhao Lv,\* Xue Yang, Zhile Xiong, Yunbin Li, Jiashuai Liang, Shengchang Xiang and Zhangjing Zhang\*



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### A highly Mn<sup>2+</sup>-doped narrowband green phosphor toward wide color-gamut display applications

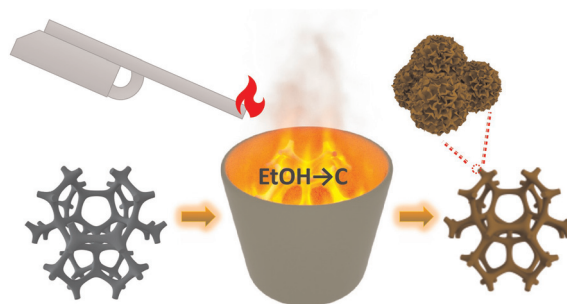
Chenyang Zhan, Haomiao Zhu,\* Sisi Liang, Yingping Huang, Zihao Wang and Maochun Hong\*



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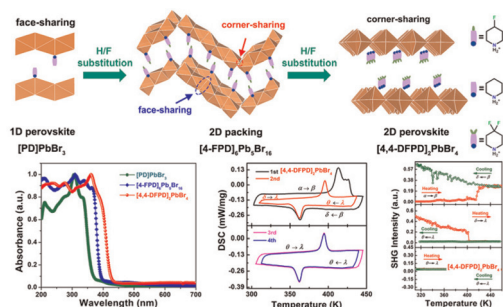
### Ethanol combustion-assisted fast synthesis of tri-metal oxides with reduced graphene oxide for superior overall water splitting performance

Zehua Zou, Zhenan Zheng, Yingyu Chen, Yong Shao, Xuan Zheng, Chuan Zhao\* and Qingxiang Wang\*



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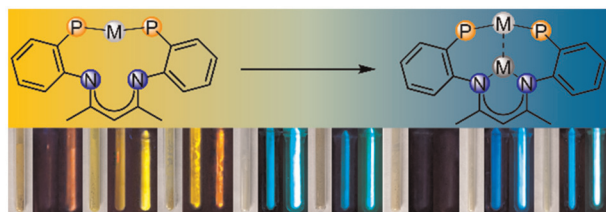
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### H/F substitution activating tunable dimensions and dielectric–optical properties in organic lead-bromide hybrids

Lipeng Long, Ziwen Huang, Zhe-Kun Xu, Tian Gan, Yan Qin, Zhengwang Chen and Zhong-Xia Wang\*

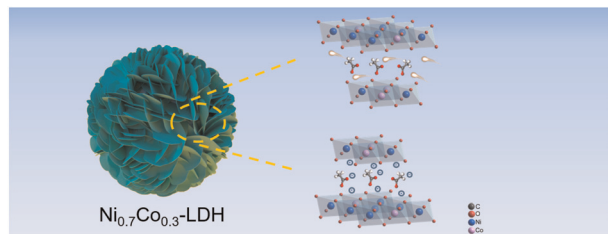
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### Cooperativity in luminescent heterobimetallic diphosphine-β-diketiminato complexes

Frederic Krätschmer, Xiaofei Sun, David Frick, Christina Zovko, Wim Klopper and Peter W. Roesky\*

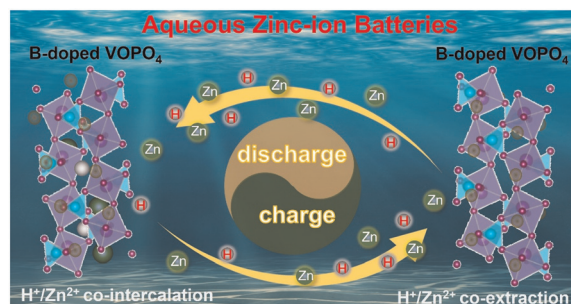
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### Acetate ion-intercalated NiCo-LDH with quasi-theoretical capacitance for high energy/power density aqueous supercapacitors

Guanwen Wang, Yu Meng, Chunlei Chi and Zheng Liu\*

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### A B-doped layered VOPO<sub>4</sub>·2H<sub>2</sub>O cathode for high-performance zinc-ion batteries with an H<sup>+</sup>/Zn<sup>2+</sup> co-insertion mechanism

Jingjing Yuan,\* Yifan Qiao, Yifan Li, Yuchen Lu, Junjie He, Yongqi Ge, Guangyu He and Haiqun Chen\*



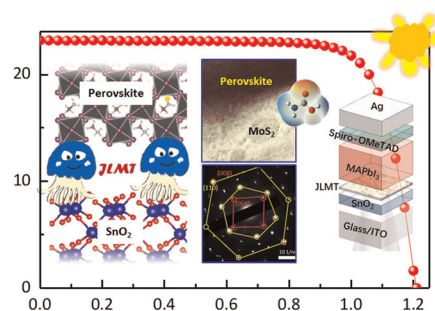


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### Manipulating the crystallization and interfacial charge behavior with a jellyfish-like molecular template for efficient perovskite solar cells

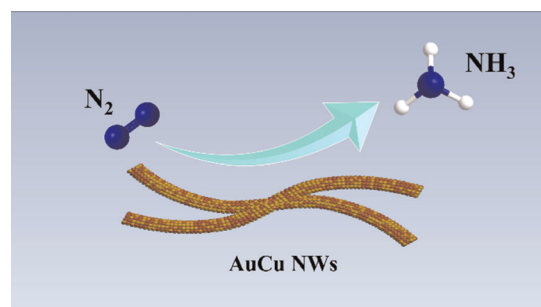
Haoyan Wang, Chenyu Zhao, Lin Fan, Maobin Wei, Huilian Liu, Xiaoyan Liu, Jinghai Yang,\* Fengyou Wang\* and Lili Yang\*



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### Ultrafine AuCu nanowires for electrocatalytic nitrogen fixation

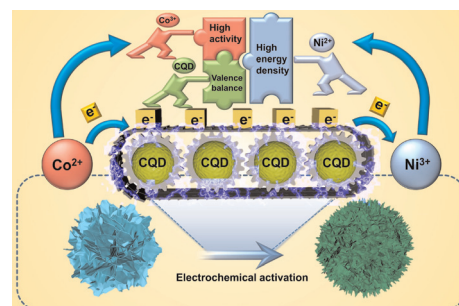
Hongjing Wang, Lin Cui, Songliang Liu, Hongjie Yu, Kai Deng, You Xu, Xiaonian Li, Ziqiang Wang\* and Liang Wang\*



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### Carbon quantum dot regulated electrochemical activation of Co<sub>0.03</sub>Ni<sub>0.97</sub>LDH for energy storage

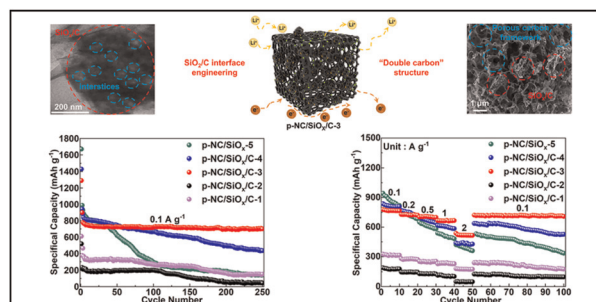
Wenchao Chen, Hongying Quan,\* Xiangyu Chen, Hua Wang and Dezhi Chen\*



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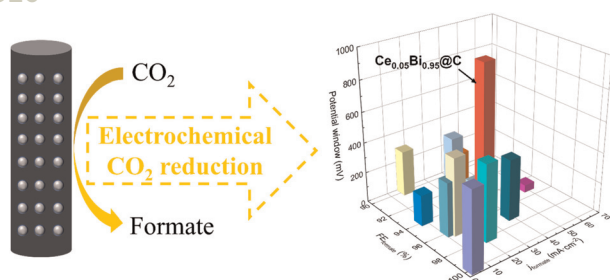
### Encapsulating biomass-derived SiO<sub>x</sub> with internal conductive channels in nitrogen-doped flexible carbon cages for high performance Li ion-battery anodes

Xiangzhong Kong,\* Ziyang Xi, Yingjie Jiang, Shi Li, Xi Chen, Jing Zhang, Zhongmin Wan\* and Anqiang Pan\*



## RESEARCH ARTICLES

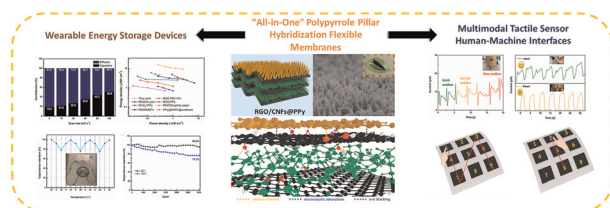
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### Optimizing Bi active sites by Ce doping for boosting formate production in a wide potential window

Yi-Cheng Wang, Peng-Fei Sui, Chenyu Xu, Meng-Nan Zhu, Renfei Feng, Hongtao Ma, Hongbo Zeng, Xiaolei Wang\* and Jing-Li Luo\*

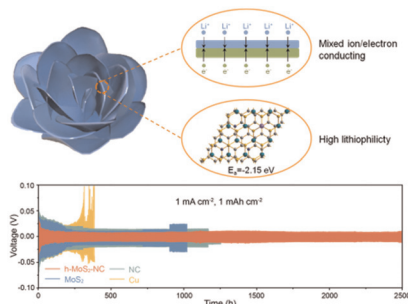
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### "All-in-one" polypyrrole pillar hybridization flexible membranes on multimodal tactile sensors for wearable energy-storage devices and human-machine interfaces

Jing Wei, Youchao Teng, Lian Han, Jiawei Ge, Zhilei Zhang, Yongzan Zhou, Changyan Xu,\* Dagang Li,\* Kam C. Tam\* and Yimin A. Wu\*

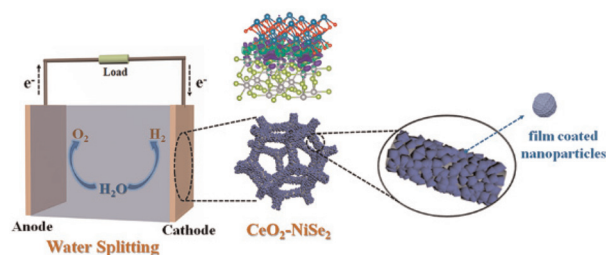
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### "Three in one" 3D mixed skeleton design enables dendrite-free Li metal batteries

Wan-Yue Diao, Dan Xie,\* Ying-Yu Wang, Fang-Yu Tao, Chang Liu, Xing-Long Wu, Wen-Liang Li\* and Jing-Ping Zhang\*

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### A bifunctional electrocatalyst based on interfacial engineering of CeO<sub>2</sub> and NiSe<sub>2</sub> for boosting electrocatalytic water splitting

Xueying Wang, Yunong Qin, Xin Peng, Ling Li,\* Qiancheng Zhu and Wenming Zhang\*

