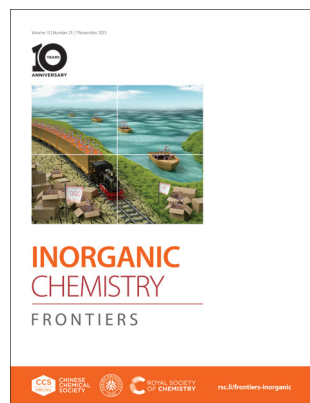


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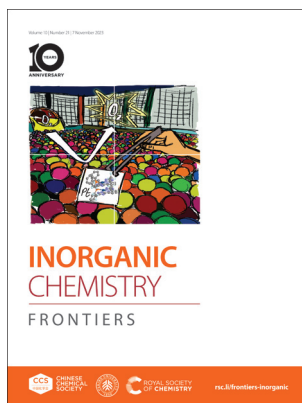
ISSN 252-1553 CODEN ICFNAW 10(21) 6119–6416 (2023)



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See Huiyong Chen *et al.*, pp. 6193–6203.

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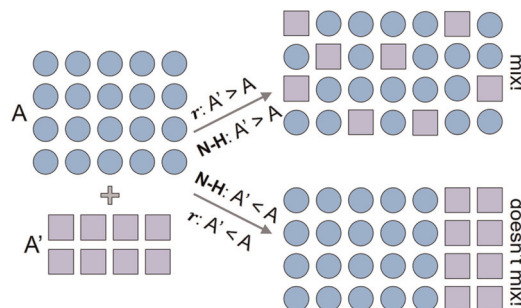
The authors would like to thank Dr. Andrea Pinto for the cover design.

### HIGHLIGHT

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#### Does it mix? Insights and attempts to predict the formability of single phase mixed A-cation lead iodide perovskites

Fernando Brondani Minussi,\* Rogério Marcos da Silva, Jr. and Eudes Borges Araújo

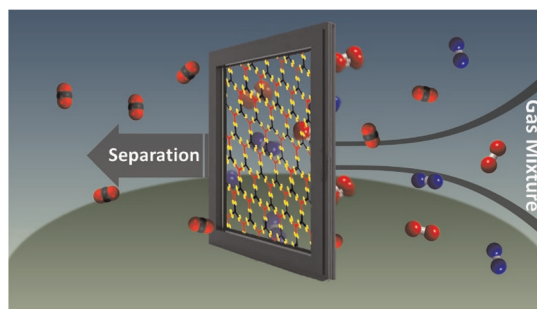


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#### Recent progress in gas separation platforms based on hydrogen-bonded organic frameworks (HOFs)

Paria Soleimani Abhari, Shahin Gholizadeh, Farzaneh Rouhani,\* Yu-Lin Li, Ali Morsali\* and Tian-Fu Liu\*



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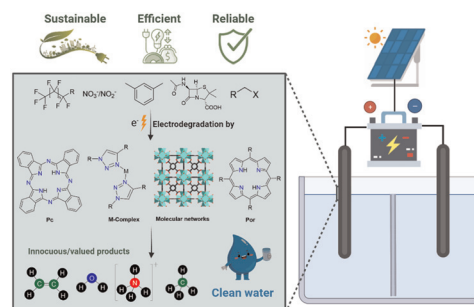


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**Molecular inspired electrocatalyst materials for environmental remediation**

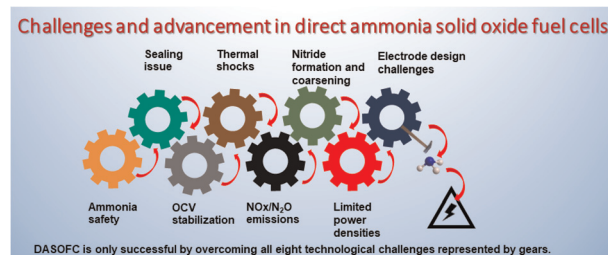
Jonathan J. Calvillo Solis, Alexandria Castillo, Sheng Yin, Christian Sandoval-Pauker, Neidy Ocuane, Diego Puerto-Díaz, Nasim Jafari and Dino Villagrán\*



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**Challenges and advancement in direct ammonia solid oxide fuel cells: A review**

Dattatray S. Dhawale,\* Saheli Biswas, Gurpreet Kaur and Sarbjit Giddey

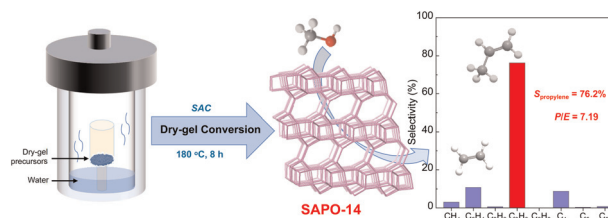


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**Dry-gel conversion synthesis of SAPO-14 zeolites for the selective conversion of methanol to propylene**

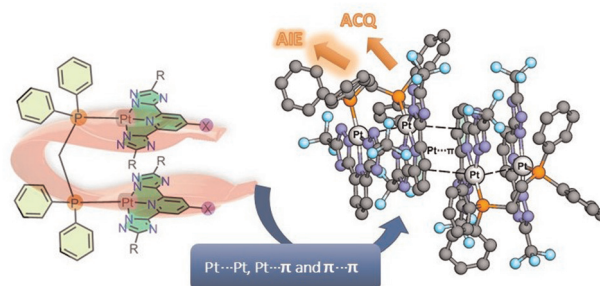
Daizong Han, Dongyuan Yang, Chenyao Bi, Guoqing Zhang, Fei Yang, Qingqing Hao, Jianbo Zhang, Huiyong Chen\* and Xiaoxun Ma



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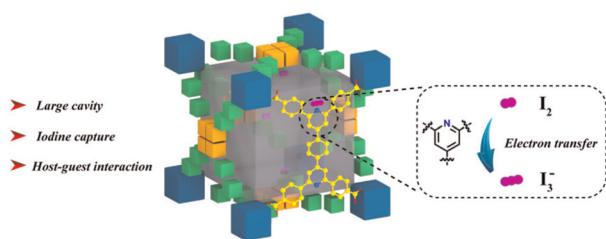
**Supramolecular luminescent Pt(II) tweezers: aggregation studies and  $^1\text{O}_2$  production**

Guillermo Romo-Islas, Rosa M. Gomila, Antonio Frontera\* and Laura Rodríguez\*

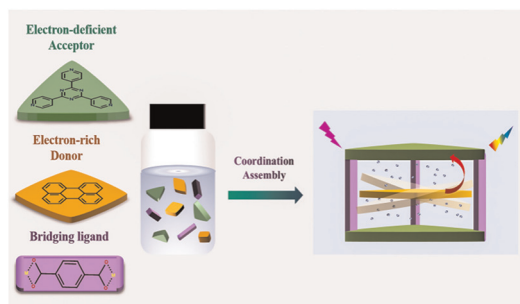


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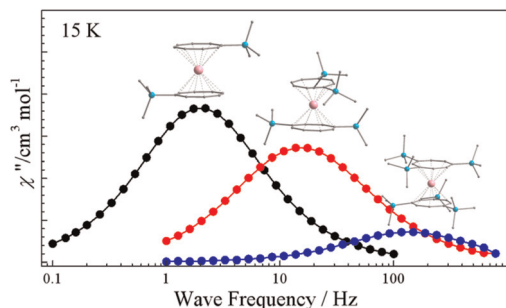
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**Efficient iodine capture by metal–organic cubes based on hexanuclear vanadium clusters**Yang Yang, Yaomei Fu, Yiran Tian, Liang Zhao,\*  
Chao Qin, Xinlong Wang\* and Zhongmin Su

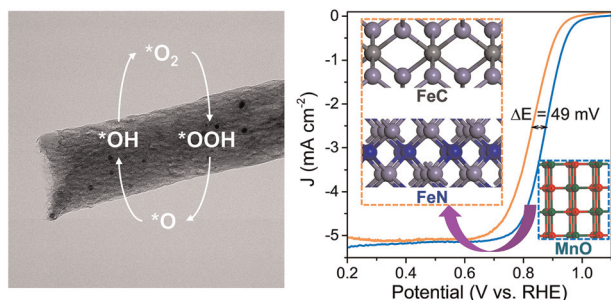
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**Subtle structural engineering of a coordination polymer host for the fluorescence modulation of host–guest donor–acceptor systems**Hong-Xiang Nie, Bo Zhang, Yi-Ming Liu, Mei-Hui Yu  
and Ze Chang\*

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Xiao-Fei Zhu\* and Zhiping Zheng\*

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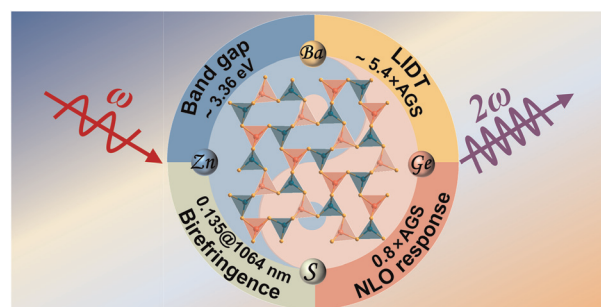
**MnO synergizes with FeC–FeN in carbon nanofibers to boost oxygen reduction for zinc–air batteries**Shuhua Liu, Zhiran Sun, Yajie Guo, Fuxian Zheng,  
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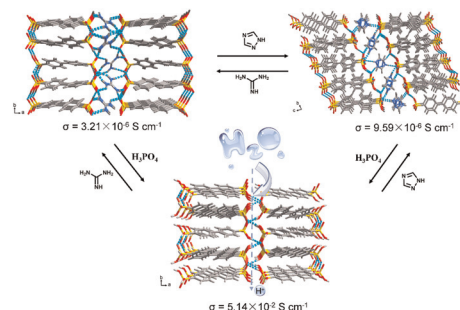
Hongshan Wang, Xueting Pan, Wang Zhao, Yu Chu\* and Junjie Li\*



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### Guest-induced proton conductivity of two-dimensional layered hydrogen-bonded organic frameworks

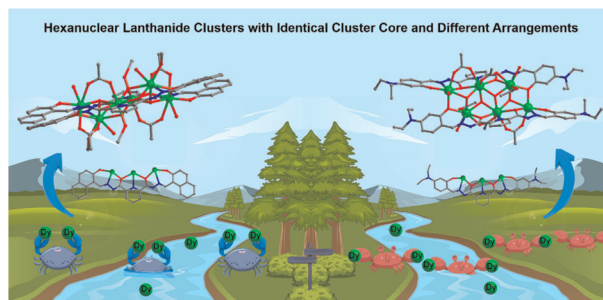
Jianjian Yang, Jianbo Yin, Qinglei Guo, Changsong Xie, Qianqian Yang, Zhihui Kong, Zixi Kang, Rongming Wang\* and Daofeng Sun



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### Highly stable and differentially arranged hexanuclear lanthanide clusters: structure, assembly mechanism, and magnetic resonance imaging

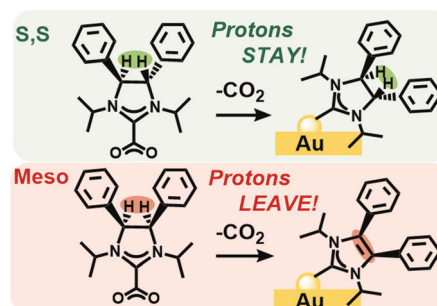
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### Reactivity variance between stereoisomers of saturated N-heterocyclic carbenes on gold surfaces

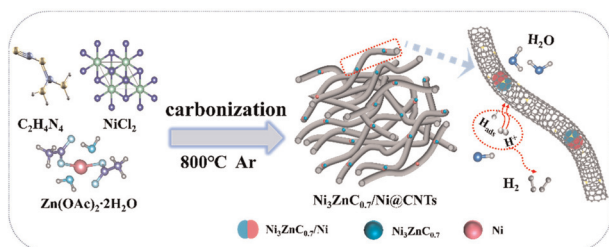
Gurkiran Kaur, Nathaniel L. Dominique, Gaohe Hu, Phattananawee Nalaoh, Rebekah L. Thimes, Shelby L. Strausser, Lasse Jensen,\* Jon P. Camden\* and David M. Jenkins\*





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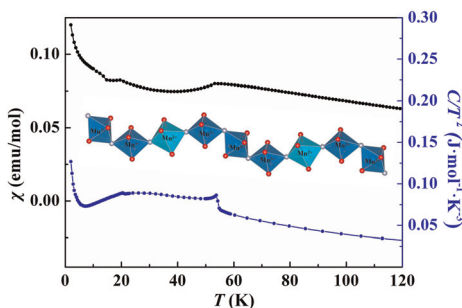
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### Interfacial electronic engineering of a $\text{Ni}_3\text{ZnC}_{0.7}/\text{Ni}$ heterostructure embedded in N-doped carbon nanotubes for efficient alkaline electrocatalytic hydrogen evolution

Liangliang Feng,\* Hongyan Yin, Lina Dai, Yonghui Zhang, Changle Fu, Liyun Cao, Yuhang Li, Dan Zhao, Yajie Xie and Jianfeng Huang\*

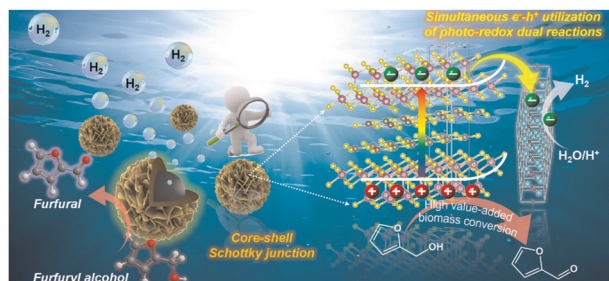
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### A new compound $\text{Na}_5\text{Mn}_4(\text{PO}_4)_4\text{F}_4 \cdot 2\text{H}_2\text{O}$ with a rarely mixed valence spin chain showing multiple magnetic transitions

Qi Luo, Ningxia Li, Zhiying Zhao, Meiyan Cui and Zhangzhen He\*

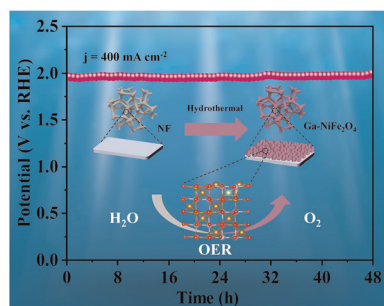
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### A bifunctional hierarchical core-shell $\text{Mo}_2\text{C}@\text{ZnIn}_2\text{S}_4$ Schottky junction for efficient photocatalytic $\text{H}_2$ -evolution integrated with valuable furfural production

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Sijie Chen, Haijun Liao, Xiaocheng Xu, Rui Wang, Zhipeng Sun\* and Le Huang\*

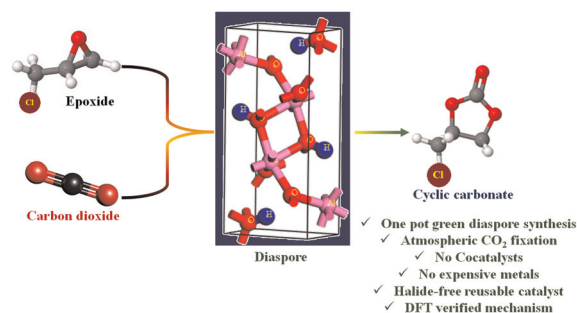


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**Diaspore as an efficient halide-free catalyst for the conversion of CO<sub>2</sub> into cyclic carbonates**

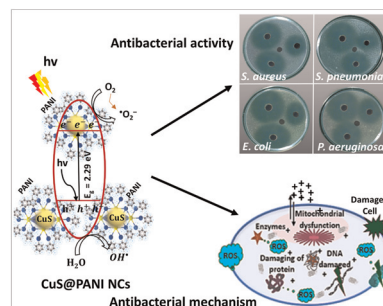
Antarip Mitra, Khushboo S. Paliwal, Sourav Ghosh, Saikat Bag, Avishek Roy, Aditi Chandrasekar\* and Venkataramanan Mahalingam\*



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**Photoresponsive CuS@polyaniline nanocomposites: An excellent synthetic bactericide against several multidrug-resistant pathogenic strains**

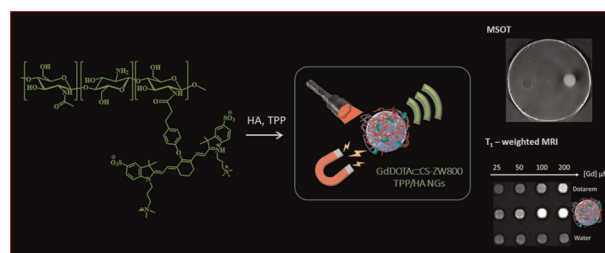
Basit Ali Shah,\* Asma Sardar, Weiliang Peng, Syed Taj Ud Din, Syed Hamayoun, Shaobo Li and Bin Yuan\*



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**Multimodal nanogels combining ZW800-1 as an optical absorber and gadolinium chelates for multispectral optoacoustic tomography (MSOT) and magnetic resonance imaging (MRI)**

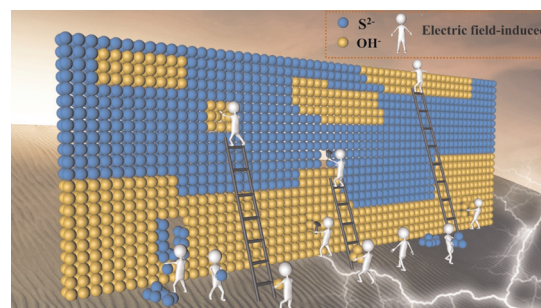
Camille Gosée, Juliette Moreau, Cyril Cadiou, Maité Callewaert, Céline Henoumont, Lionel Larbanoix, Michael Molinari, Sorina N. Voicu, Christophe Portefaix, Sophie Laurent\* and Françoise Chuburu\*



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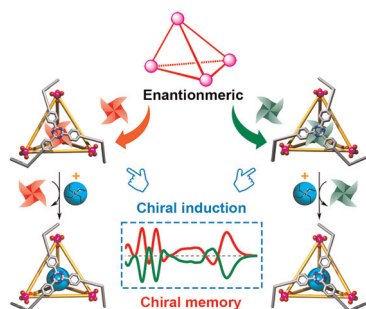
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Faxue Lu, Yajun Ji,\* Dong Shi, Junnan Yao, Pengcheng Zhang and Shixiong Zhang



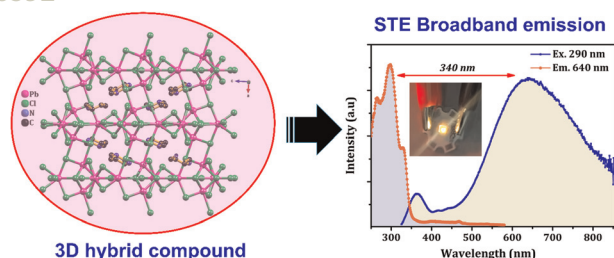
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**Controllable chiral memory in an anion tetrahedral cage**

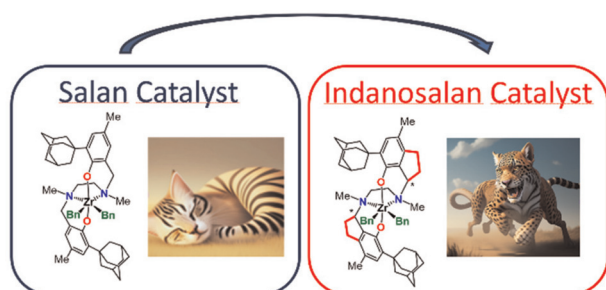
Wenyao Zhang, Jie Zhao, Dong Yang,\* Boyang Li, Yang Feng, Yue Wang, Xiaoyan Zheng, Xiao-Juan Yang and Biao Wu\*

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**A 3D lead chloride hybrid exhibits self-trapped emission and exceptional stability**

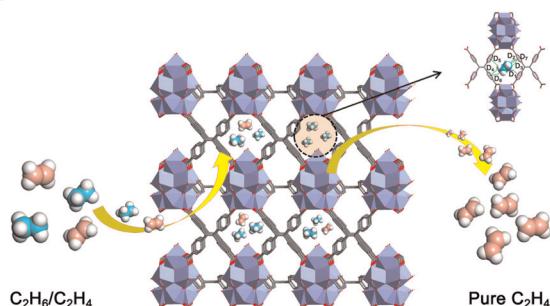
Mohamed Saber Lassoued, Qian-Cheng Luo and Yan-Zhen Zheng\*

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**Manipulating pre-equilibria in olefin polymerization catalysis: backbone-stiffening converts a living into a highly active salan-type catalyst**

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**A highly connected metal–organic framework with a specific nonpolar nanotrap for inverse ethane/ethylene separation**

Jing-Jing Pang, Zhi-Han Ma, Qiang-Qiang Yang, Kuo Zhang, Xin Lian, Hongliang Huang,\* Zhao-Quan Yao,\* Baiyan Li, Jian Xu\* and Xian-He Bu

