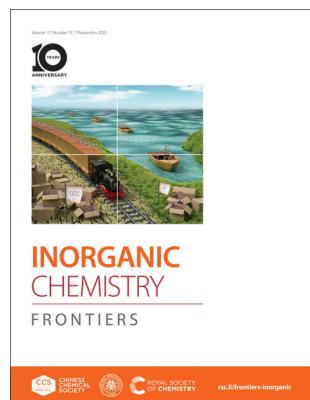


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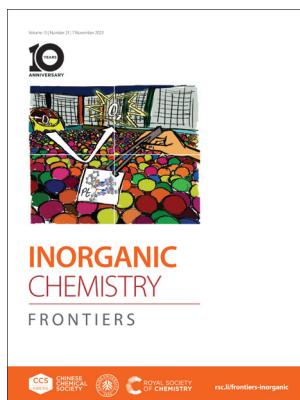
ISSN 2052-1553 CODEN ICFNAW 10(21) 6119–6416 (2023)



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

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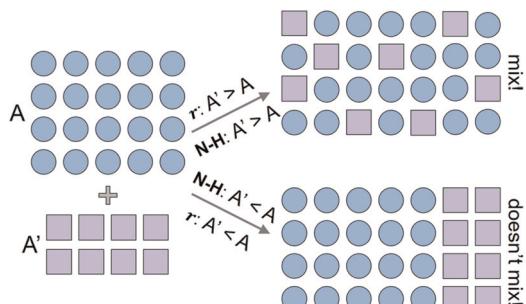
The authors would like to thank Dr. Andrea Pinto for the cover design.

### 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

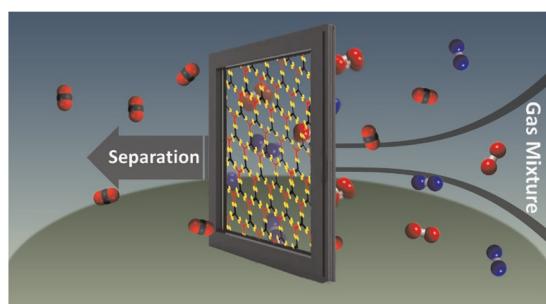


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#### Recent progress in gas separation platforms based on hydrogen-bonded organic frameworks (HOFs)

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



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## REVIEWS

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**Molecular inspired electrocatalyst materials for environmental remediation**

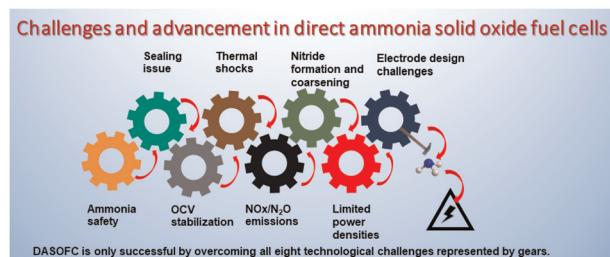
Jonathan J. Calvillo Solis, Alexandria Castillo, Sheng Yin, Christian Sandoval-Pauker, Neidy Ocuane, Diego Puerto-Díaz, Nasim Jafari and Dino Villagrán\*



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

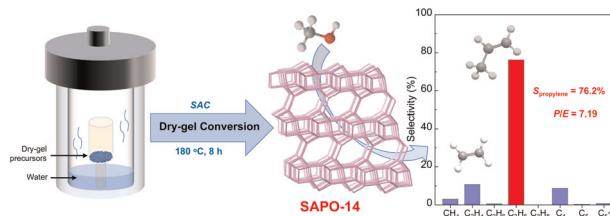


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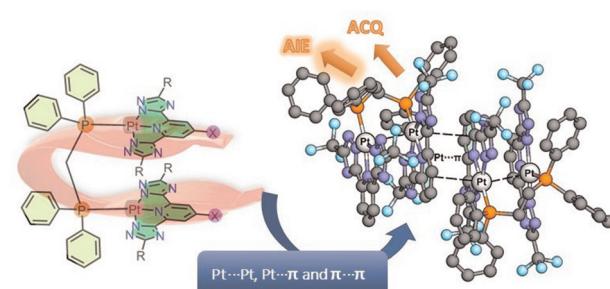
Daizong Han, Dongyuan Yang, Chenyao Bi, Guoqing Zhang, Fei Yang, Qingqing Hao, Jianbo Zhang, Huiyong Chen\* and Xiaoxun Ma



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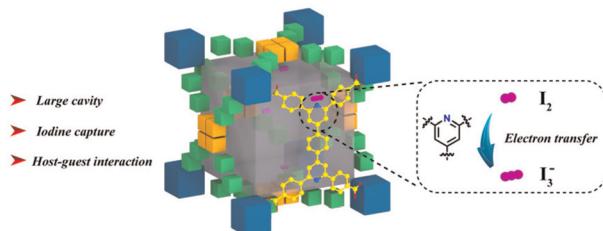
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Guillermo Romo-Islas, Rosa M. Gomila, Antonio Frontera\* and Laura Rodriguez\*



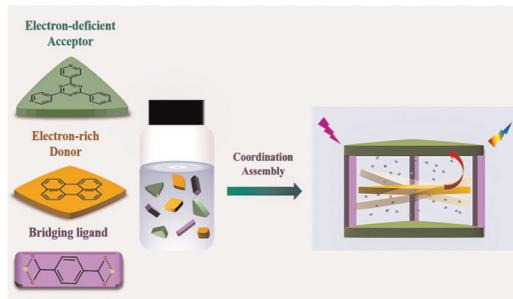
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**Efficient iodine capture by metal–organic cubes based on hexanuclear vanadium clusters**

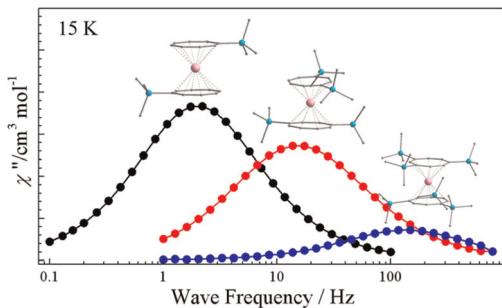
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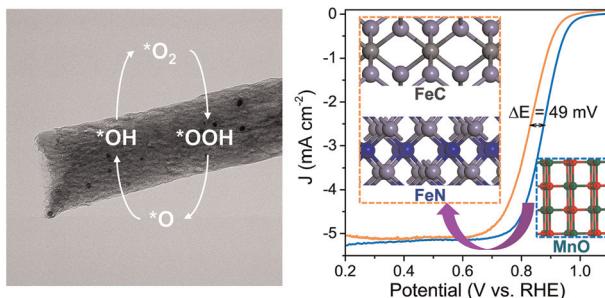
Hong-Xiang Nie, Bo Zhang, Yi-Ming Liu, Mei-Hui Yu and Ze Chang\*

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**A hundredfold enhancement of relaxation times among Er(III) single-molecule magnets with comparable energy barriers**

Qi-Wei Chen, You-Song Ding,\* Tianjiao Xue, 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, Bing Nan, Wenjun Kang, Konggang Qu, Lei Wang, Rui Li, Zongge Li,\* Shenglin Xiong\* and Haibo Li\*

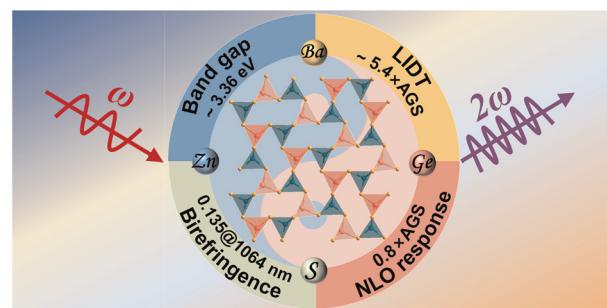


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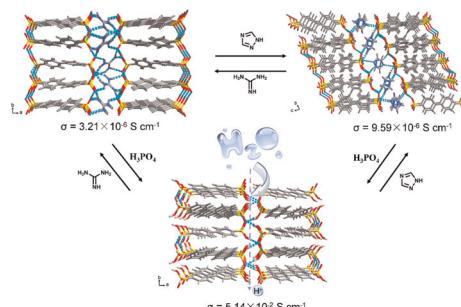
Hongshan Wang, Xueling Pan, Wang Zhao, Yu Chu\* and Junjie Li\*



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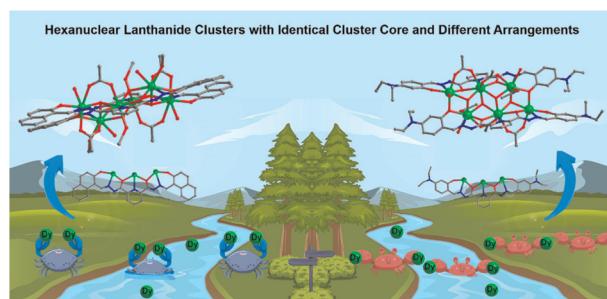
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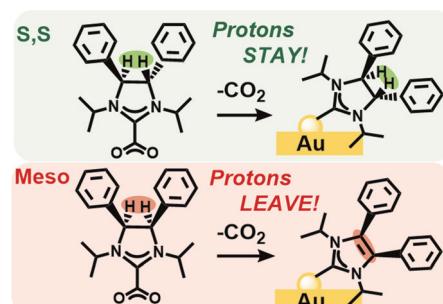
Wen-Wen Qin, Yun-Lan Li, Zhong-Hong Zhu\*, Fu-Pei Liang, Qiong Hu\* and Hua-Hong Zou\*



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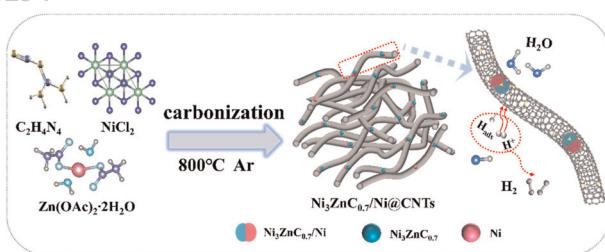
**Reactivity variance between stereoisomers of saturated N-heterocyclic carbenes on gold surfaces**

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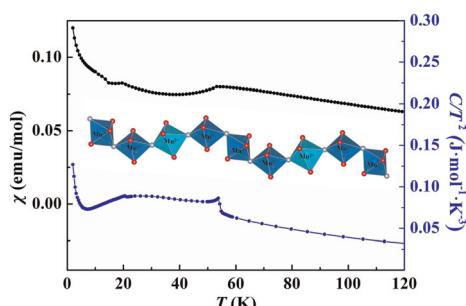
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**Interfacial electronic engineering of a  $\text{Ni}_3\text{ZnC}_{0.7}/\text{Ni}$  heterostructure embedded in N-doped carbon nanotubes for efficient alkaline electrocatalytic hydrogen evolution**

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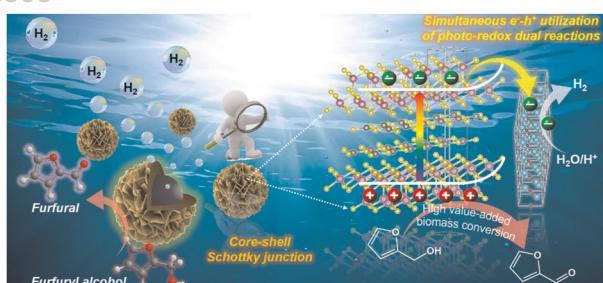
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**A new compound  $\text{Na}_5\text{Mn}_4(\text{PO}_4)_4\text{F}_4\cdot 2\text{H}_2\text{O}$  with a rarely mixed valence spin chain showing multiple magnetic transitions**

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

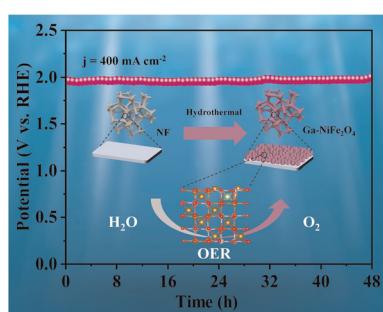
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**A bifunctional hierarchical core–shell  $\text{Mo}_2\text{C}@\text{ZnIn}_2\text{S}_4$  Schottky junction for efficient photocatalytic  $\text{H}_2$ -evolution integrated with valuable furfural production**

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

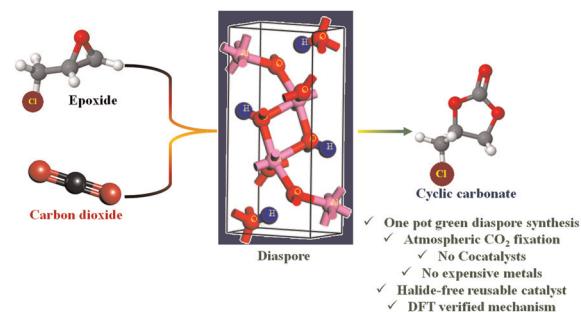


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**Diaspore as an efficient halide-free catalyst for the conversion of  $\text{CO}_2$  into cyclic carbonates**

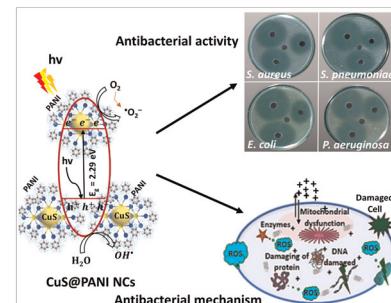
Antarip Mitra, Khushboo S. Paliwal, Sourav Ghosh, Saikat Bag, Avishek Roy, Aditi Chandrasekar\* and Venkataramanan Mahalingam\*



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

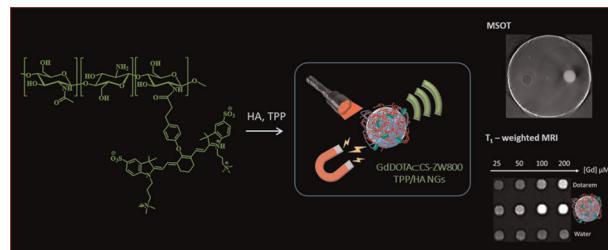
Basit Ali Shah,\* Asma Sardar, Weiliang Peng, Syed Taj Ud Din, Syed Hamayoun, Shaobo Li and Bin Yuan\*



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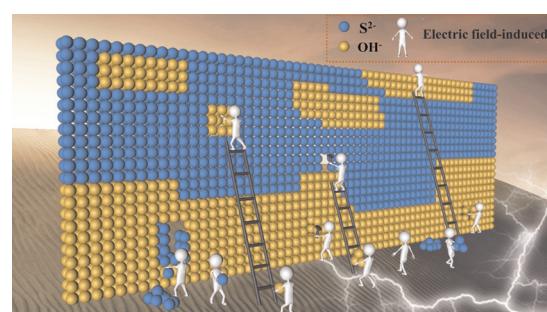
Camille Gosée, Juliette Moreau, Cyril Cadiou, Maité Callewaert, Céline Henoumont, Lionel Larbanoix, Michael Molinari, Sorina N. Voicu, Christophe Portefaix, Sophie Laurent\* and Françoise Chuburu\*



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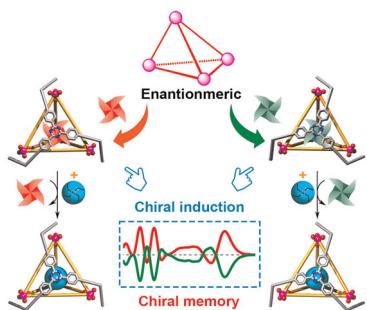
**Electric field-induced ball-cactus-like  $\text{CuCo}_2\text{S}_x(\text{OH})_y$  nano-heterostructure towards high-performance supercapacitors**

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



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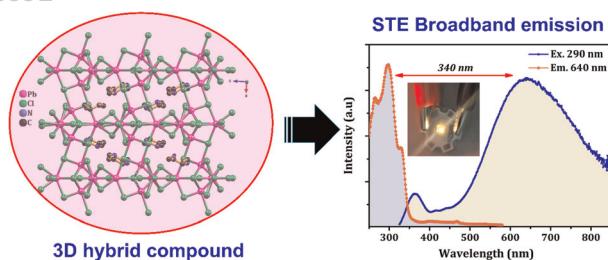
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## Controllable chiral memory in an anion tetrahedral cage

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

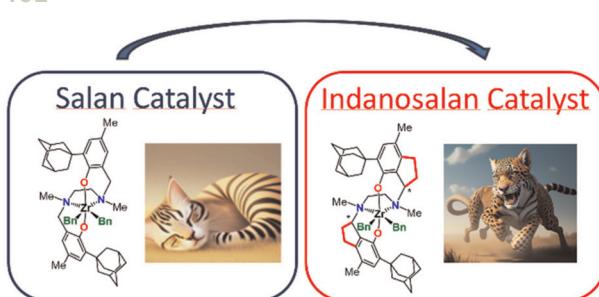
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## A 3D lead chloride hybrid exhibits self-trapped emission and exceptional stability

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

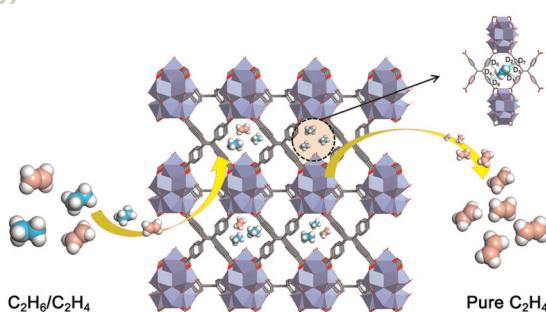
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Dmitry V. Uborsky,\* Mikhail I. Sharikov, Georgy P. Goryunov, Kristina M. Li, Anna Dall'Anese, Cristiano Zuccaccia,\* Antonio Vittoria, Teresa Iovine, Gianluigi Galasso, Christian Ehm, Alceo Macchioni, Vincenzo Busico, Alexander Z. Voskoboinikov and Roberta Cipullo\*

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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

