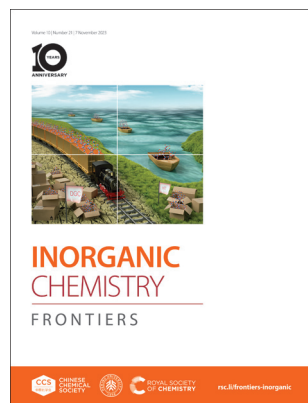


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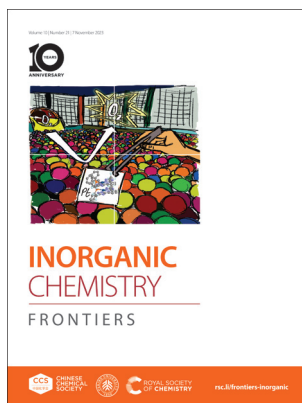
ISSN 252-1553 CODEN ICFNAW 10(21) 6119–6416 (2023)



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

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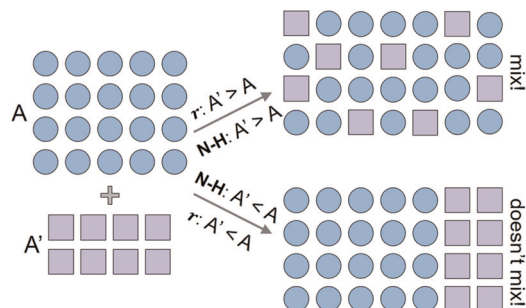
The authors would like to thank Dr. Andrea Pinto for the cover design.

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

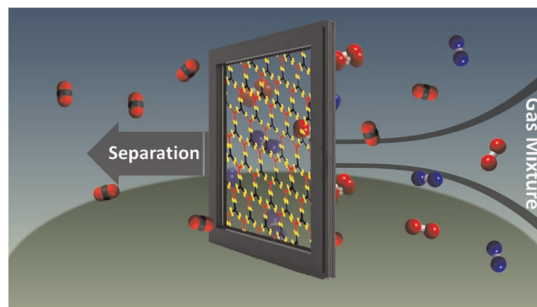


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Recent progress in gas separation platforms based on hydrogen-bonded organic frameworks (HOFs)

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



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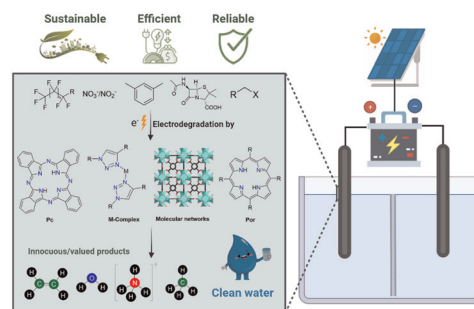


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Molecular inspired electrocatalyst materials for environmental remediation

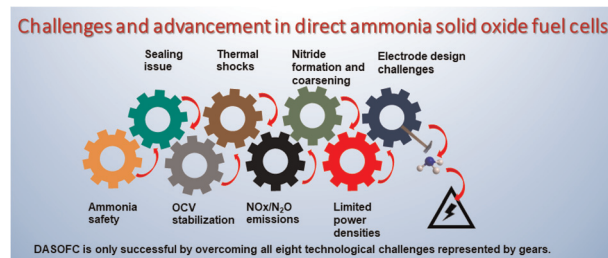
Jonathan J. Calvillo Solis, Alexandria Castillo, Sheng Yin, Christian Sandoval-Pauker, Neidy Ocuane, Diego Puerto-Díaz, Nasim Jafari and Dino Villagrán*



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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

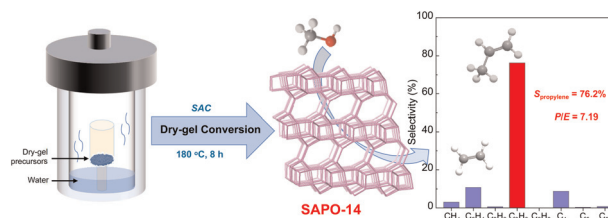


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Dry-gel conversion synthesis of SAPO-14 zeolites for the selective conversion of methanol to propylene

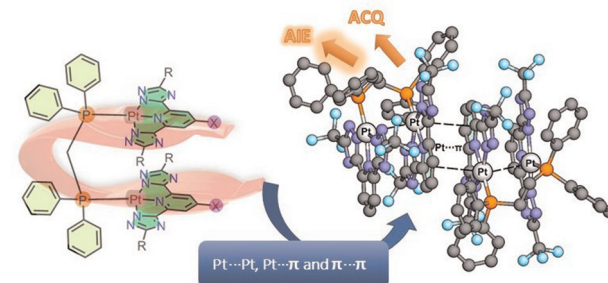
Daizong Han, Dongyuan Yang, Chenyao Bi, Guoqing Zhang, Fei Yang, Qingqing Hao, Jianbo Zhang, Huiyong Chen* and Xiaoxun Ma



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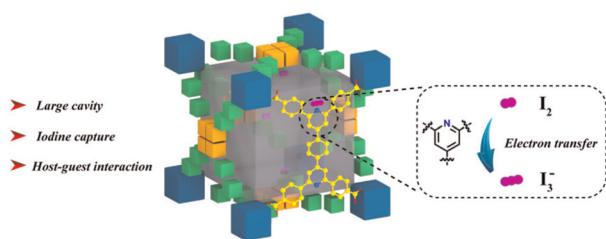
Supramolecular luminescent Pt(II) tweezers: aggregation studies and ¹O₂ production

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



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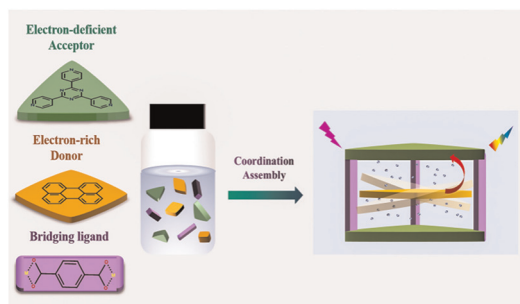
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Efficient iodine capture by metal–organic cubes based on hexanuclear vanadium clusters

Yang Yang, Yaomei Fu, Yiran Tian, Liang Zhao,*
Chao Qin, Xinlong Wang* and Zhongmin Su

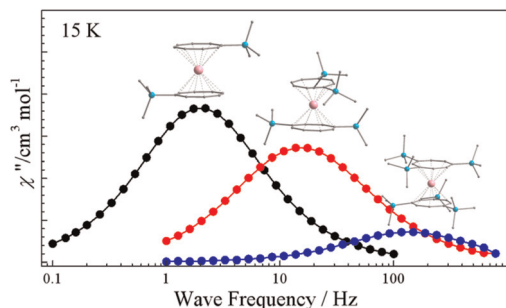
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Subtle structural engineering of a coordination polymer host for the fluorescence modulation of host–guest donor–acceptor systems

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

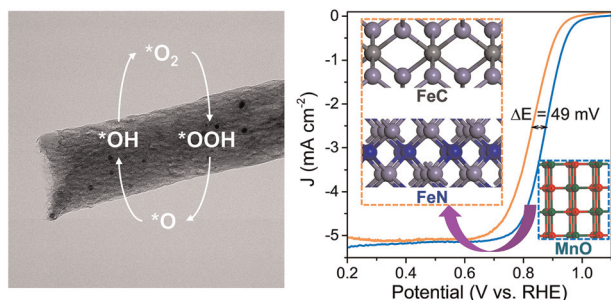
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A hundredfold enhancement of relaxation times among Er(III) single-molecule magnets with comparable energy barriers

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*

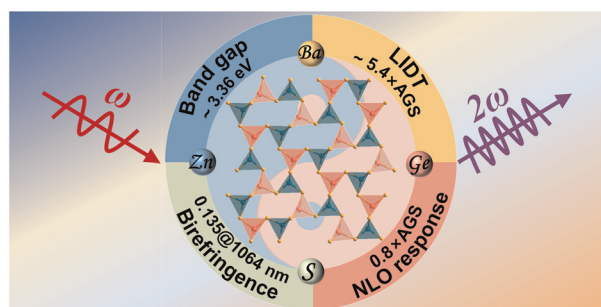


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A new infrared nonlinear optical material BaZnGeS₄ with a wide band gap and large nonlinear optical response

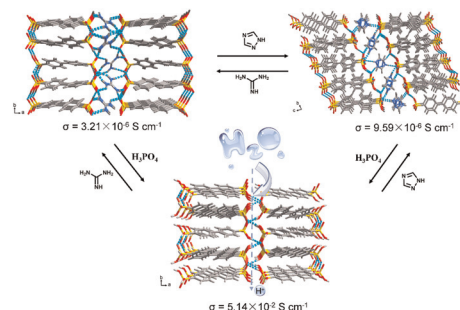
Hongshan Wang, Xueting Pan, Wang Zhao, Yu Chu* and Junjie Li*



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

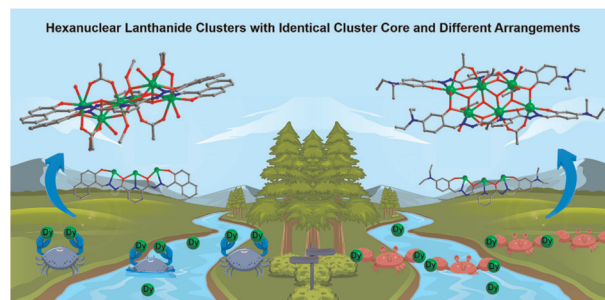
Jianjian Yang, Jianbo Yin, Qinglei Guo, Changsong Xie, Qianqian Yang, Zhihui Kong, Zixi Kang, Rongming Wang* and Daofeng Sun



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

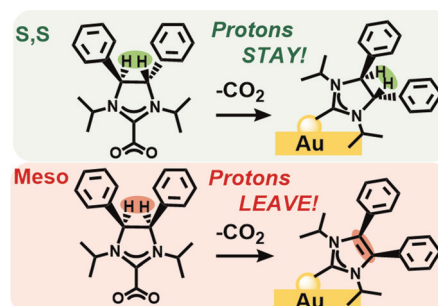
Wen-Wen Qin, Yun-Lan Li, Zhong-Hong Zhu,* Fu-Pei Liang, Qiong Hu* and Hua-Hong Zou*



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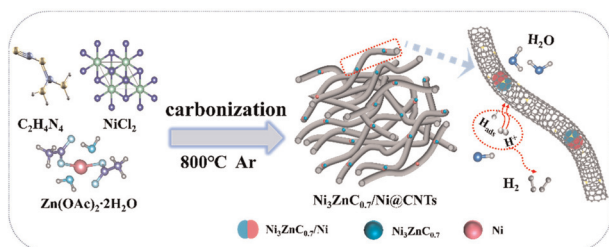
Reactivity variance between stereoisomers of saturated N-heterocyclic carbenes on gold surfaces

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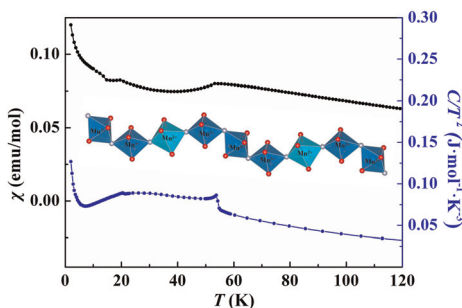
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Interfacial electronic engineering of a $\text{Ni}_3\text{ZnC}_{0.7}/\text{Ni}$ heterostructure embedded in N-doped carbon nanotubes for efficient alkaline electrocatalytic hydrogen evolution

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

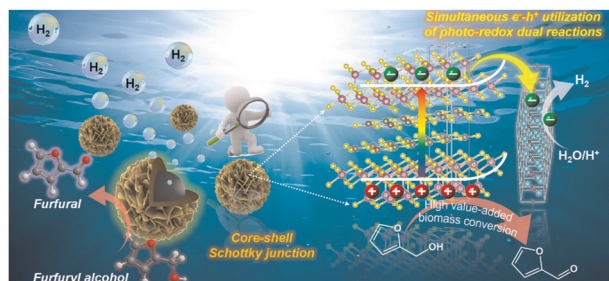
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A new compound $\text{Na}_5\text{Mn}_4(\text{PO}_4)_4\text{F}_4 \cdot 2\text{H}_2\text{O}$ with a rarely mixed valence spin chain showing multiple magnetic transitions

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

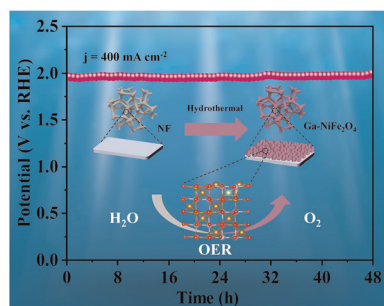
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A bifunctional hierarchical core-shell $\text{Mo}_2\text{C}@\text{ZnIn}_2\text{S}_4$ Schottky junction for efficient photocatalytic H_2 -evolution integrated with valuable furfural production

Jian Yang, Xiaorui Zhang, Zikang Zeng, Chuang Han and Yujun Liang*

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Ga-induced electronic structure engineering of NiFe_2O_4 nanosheet arrays for stable and efficient oxygen evolution

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

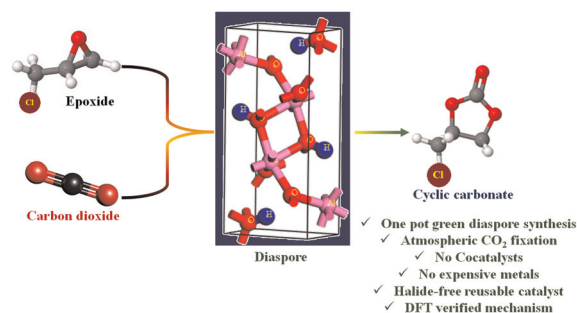


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Diaspore as an efficient halide-free catalyst for the conversion of CO₂ into cyclic carbonates

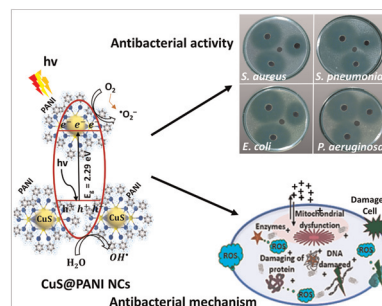
Antarip Mitra, Khushboo S. Paliwal, Sourav Ghosh, Saikat Bag, Avishek Roy, Aditi Chandrasekar* and Venkataramanan Mahalingam*



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

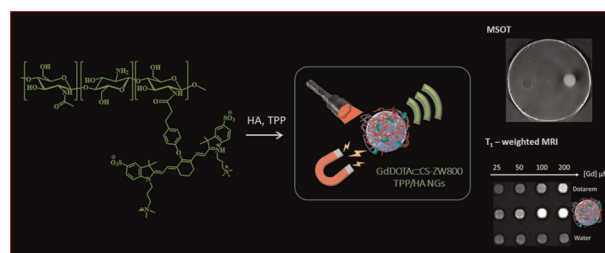
Basit Ali Shah,* Asma Sardar, Weiliang Peng, Syed Taj Ud Din, Syed Hamayoun, Shaobo Li and Bin Yuan*



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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)

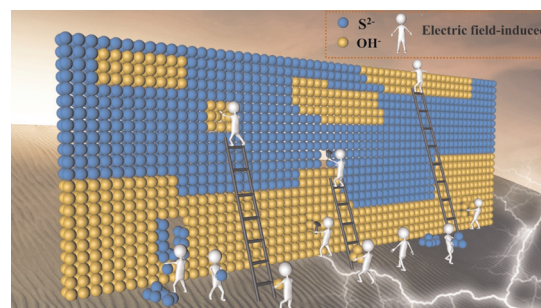
Camille Gosée, Juliette Moreau, Cyril Cadiou, Maité Callewaert, Céline Henoumont, Lionel Larbanoix, Michael Molinari, Sorina N. Voicu, Christophe Portefaix, Sophie Laurent* and Françoise Chuburu*



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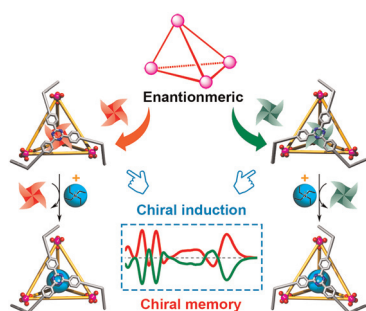
Electric field-induced ball-cactus-like CuCo₂S_x(OH)_y nano-heterostructure towards high-performance supercapacitors

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



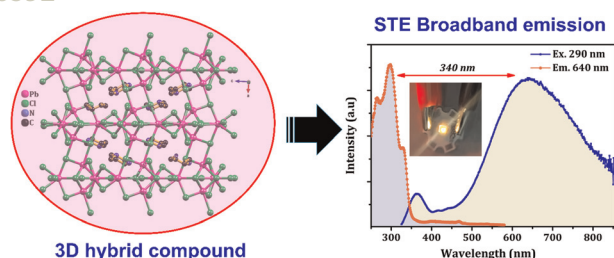
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**Controllable chiral memory in an anion tetrahedral cage**

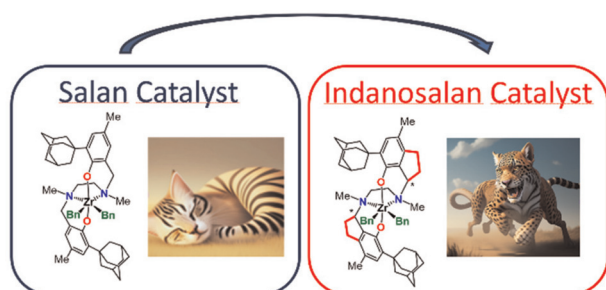
Wenyao Zhang, Jie Zhao, Dong Yang,* Boyang Li, Yang Feng, Yue Wang, Xiaoyan Zheng, Xiao-Juan Yang and Biao Wu*

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

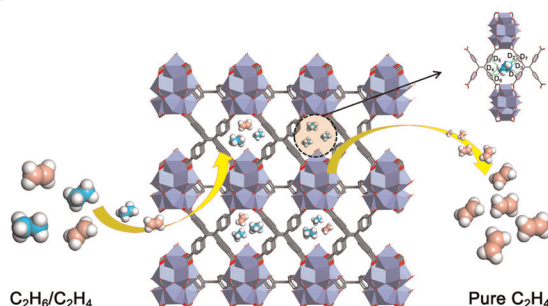
Mohamed Saber Lassoued, Qian-Cheng Luo and Yan-Zhen Zheng*

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

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. Voskoboynikov and Roberta Cipullo*

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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

