

# ChemComm

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## IN THIS ISSUE

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### Cover

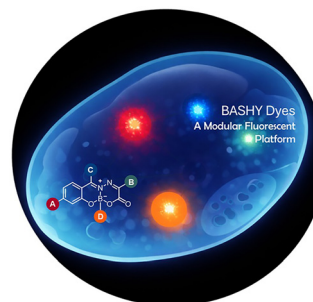
See Bappaditya Gole  
*et al.*, pp. 10853–10857.  
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*Chem. Commun.*,  
2026, 62, 10853.

## FEATURE ARTICLE

10783

### BASHY dyes as modular chromophores for multifaceted biorelevant applications: from imaging to photodynamic therapy

Fábio M. F. Santos,\* Francisco G. Blandón-Cumbreras,  
Uwe Pischel\* and Pedro M. P. Gois\*

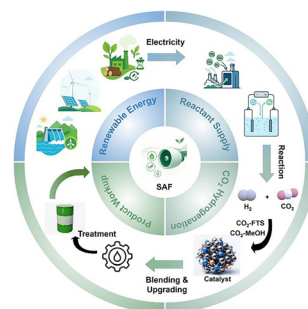


## REVIEWS

10797

### Sustainable aviation fuels: entering a new era of research and development

Ruonan Zhang, Shunan Zhang,\* Hangqing Lin, Hui Zhan,  
Zhixin Wang, Xinlong Li and Hui Wang\*



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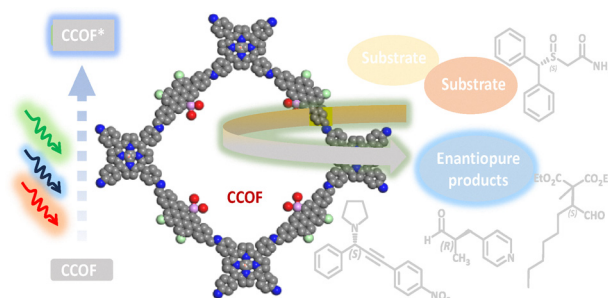


## REVIEWS

10815

### Chiral covalent organic frameworks: emerging standalone photocatalysts for asymmetric organic transformations

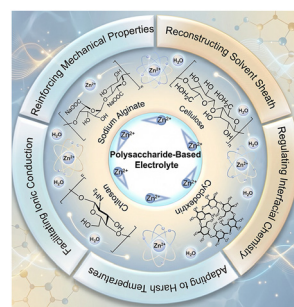
A. Hameed Ibrahim, Vijay Kumar S and Anjan Das\*



10825

### Polysaccharide-based hydrogels and additives in electrolyte engineering for Zn-ion batteries: anode stabilization mechanisms, performance enhancement, and perspectives

Yi Kong, Jicheng Li, Bin-Bin Xie,\* Jiele Chen, Hangyi Shen, Hongfei Wang\* and Yong Hu\*

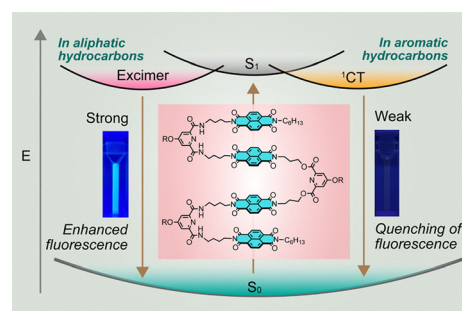


## COMMUNICATIONS

10853

### Discrimination of aliphatic and aromatic hydrocarbons via modulated folding and fluorescence of an NDI-tetramer

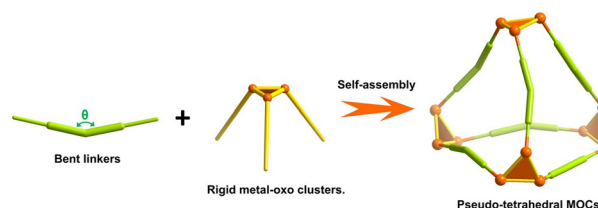
Dhanyashree Das, Dhruvajyoti Talukdar and Bappaditya Gole\*



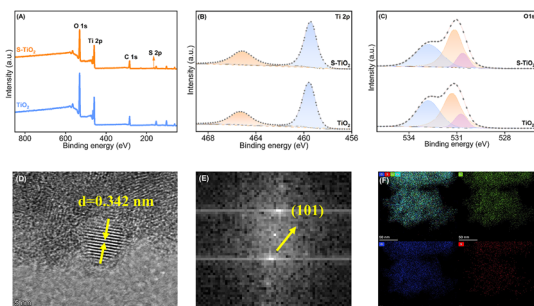
10858

### Bent ligand-directed assembly and adsorption property modulation of pseudo-tetrahedral polyoxometalate-organic cages

Meng-Yu Li, Ke-Wei Tong, Li Zhang, Ming-Hua Lu, Abudula, Bai-Qiao Song, Zun-Qi Liu,\* Peng Yang\* and Yan-Hu Wang\*



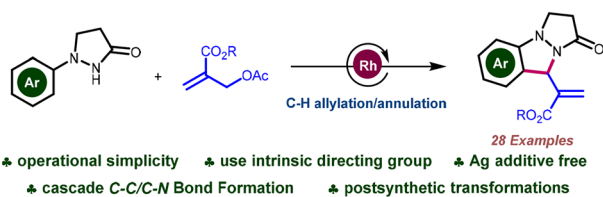
10863



### Sulfate-mediated reactive oxygen species for efficient photocatalytic nitrogen fixation over TiO<sub>2</sub>

Xin Zhang, Linlin Zhang,\* Yaming Hu, Xue Li, Xuesheng Yang, Ping Wang, Hengxin Yu, Shiyong Song, Botao Zhang\* and Xin Ding\*

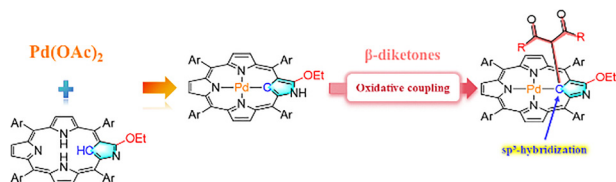
10868



### Rh-catalyzed C–H allylation and annulation of *N*-arylpyrazolidinones with MBH adducts

Kshitiz Verma, Sharajit Saha, Hemanga Bhattacharyya, Sajal Roy and Tharmalingam Punniyamurthy\*

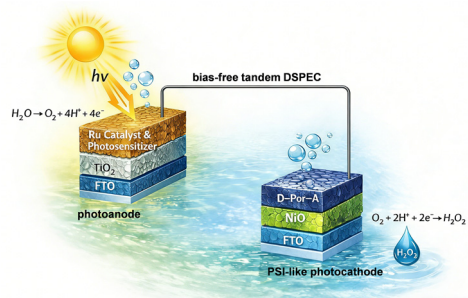
10872



### Oxidative coupling of 3-ethoxy Pd<sup>II</sup> N-confused porphyrins with $\beta$ -diketones using PIFA as the oxidant

Jieqing Huang, Wenrui Yang, Sijie Wen, Zenan Zheng, Xiaolin Chen, Xiaofan Gan, Ling Xu and Hua-Wei Jiang\*

10876



### Tandem dye sensitized photoelectrochemical cells mimicking photosynthesis for efficient H<sub>2</sub>O<sub>2</sub> production without bias

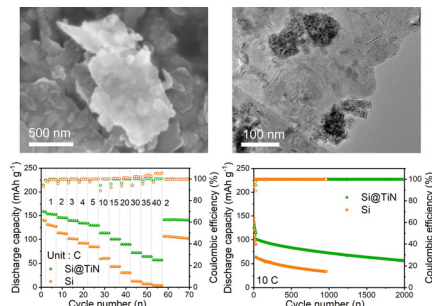
Xin Zhang, Xinghua Guo and Degao Wang\*



10881

### Boosting electronic and Li<sup>+</sup> transport in silicon via titanium nitride incorporation for high-performance all-solid-state lithium-ion batteries

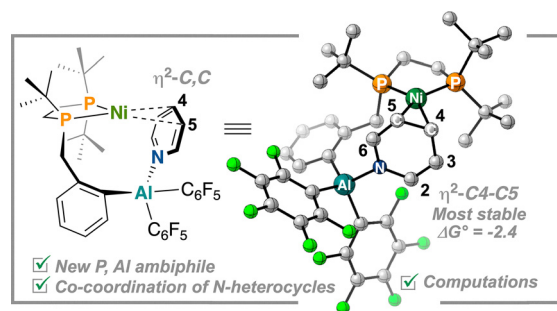
Xiaobo Jiang, Chaolin Mi, Ao Gong, Yuanchang Shi\* and Rutao Wang\*



10885

### A dual-metal strategy for N-heterocycle coordination using nickel and aluminum

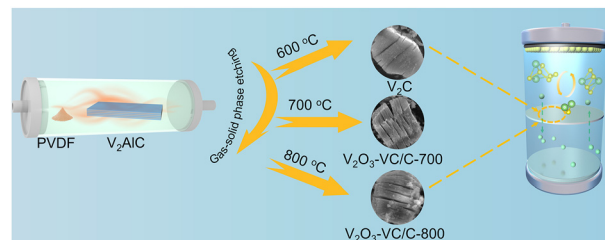
Gabriel J. Jobin and Marcus W. Drover\*



10890

### Over-etching construction of V<sub>2</sub>O<sub>3</sub>-VC/C directly from the MAX phase for lithium-sulfur batteries

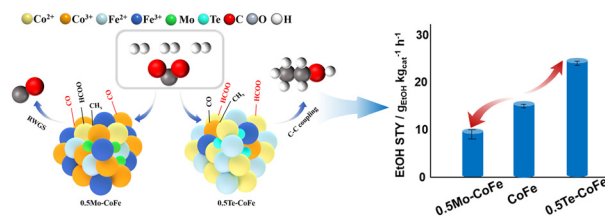
Mengjie Zhang, Maoqiang Shen, Yang Liu,\* Hong Xiao,\* Rui Wan, Linrui Hou and Changzhou Yuan\*



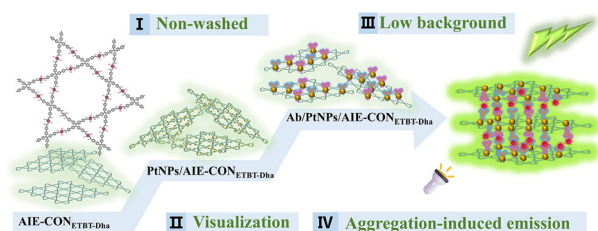
10895

### Distinct roles of Te and Mo in modulating the activity and selectivity of CO<sub>2</sub> hydrogenation to ethanol over CoFe catalysts

Zihan Zhao, Yan Shao, Zongliang Kou\* and Huanhao Chen\*



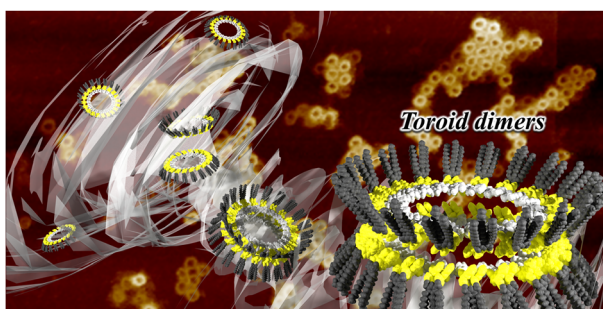
10900



### No-wash immunosensors based on superhydrophilic covalent organic framework nanosheets with aggregation-induced emission for detecting carbohydrate antigen 19-9

Yue Du, Meiling Ye, Wentao Xu, Yonghai Song\* and Li Wang\*

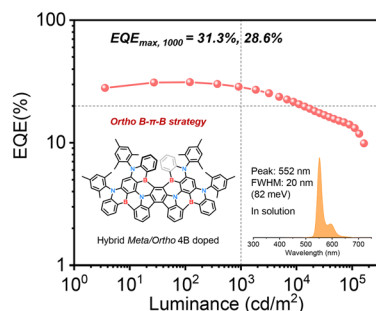
10905



### Arrested mesoscopic growth of toroidal nanoobjects by molecular control of interaction surfaces

Ryuichi Kawai, Yuhei Yamada, Sougata Datta, Hiroki Hanayama and Shiki Yagai\*

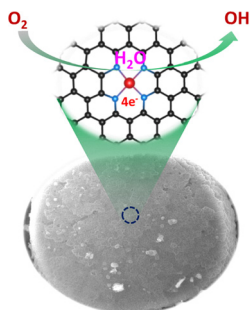
10909



### An *ortho*-B- $\pi$ -B-regulated multiple-resonance emitter enables high efficiency narrowband yellow OLEDs

Tao Hua, Yongxu Hu, Ting Jiang, Xiaoyu Guo, Chi Zhang, Zhanxiang Chen, Jingsheng Miao, Chuluo Yang and Zhongyan Huang\*

10914



### A layered ultra-stable metal-organic framework for high loading of zinc single-atom oxygen electrocatalyst

Sanjit Kumar Parida\* and Arindam Das

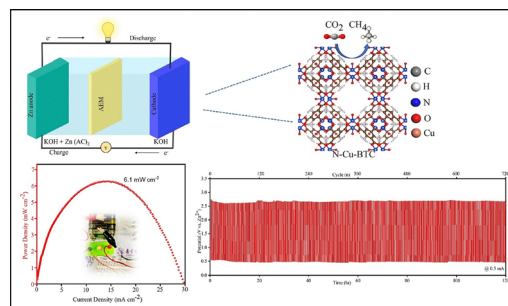


## COMMUNICATIONS

10918

### Nitrogen doping boosted aqueous Zn–CO<sub>2</sub> batteries producing methane and electricity simultaneously

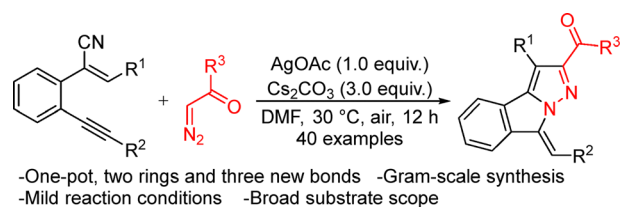
Rani Misbah, Di Li, Hameed Sidra,  
Muhammad Ehtasham Ul Haq, Tengda Lu,  
Sheng Chen, Qiang Li and Jingjing Duan\*



10922

### Synthesis of pyrazolo[5,1-a]isoindoles via silver-mediated cascade cyclization of 1,5-enynes with diazo compounds

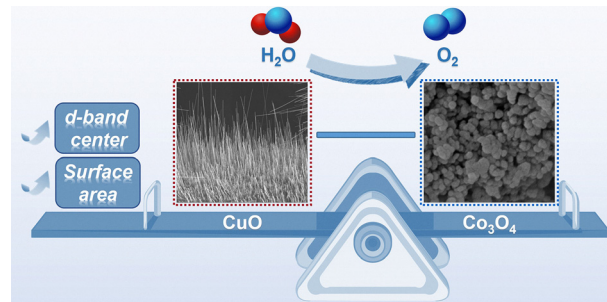
Jiarong Li, He Wang,\* Chunbo Li, Jing Sun, Xin Wang,  
Ran Sun and Lei Li\*



10927

### Guiding the activity of the electrochemical oxygen evolution reaction on copper oxide

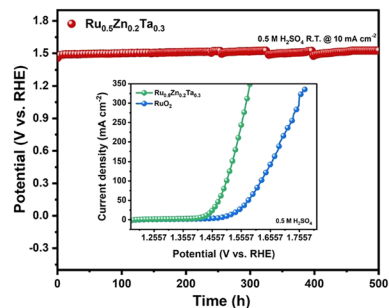
Jiansen Wang, Jibiao Wang, Mengyuan Li, Houyu Zhu  
and Yuanxing Wang\*



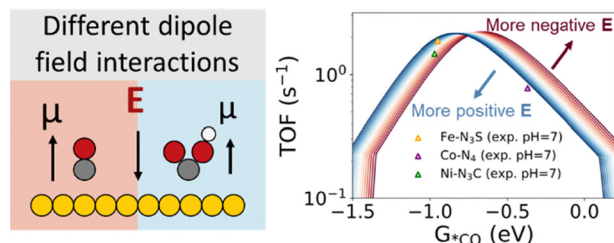
10931

### Synergistic zinc and tantalum doping of RuO<sub>2</sub> boosts acidic water oxidation activity and stability

Lichan Wei, Xiaolu Feng and Jing Du\*



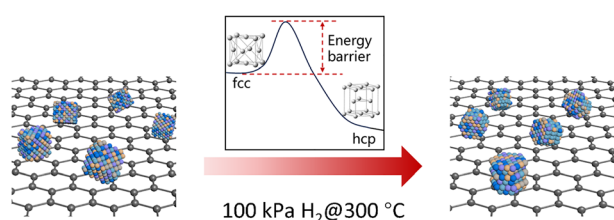
10936



### Dipole-field interaction: a missing link to bridge the gap between theoretical and experimental catalysis in single-atom electrocatalysts for CO<sub>2</sub> reduction

Ruirui Ren, Yuhang Wang,\* Bo Li\* and Jun Fan\*

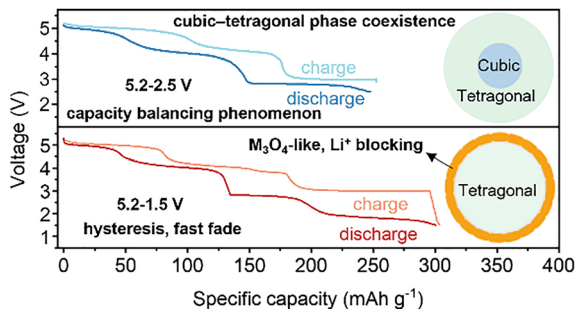
10940



### Crystal structure control of RuCuRhIrPt high-entropy alloy nanoparticles with a face-centered cubic or hexagonal close-packed phase

Weiyang Yang, Maiyong Zhu\* and Quan Zhang\*

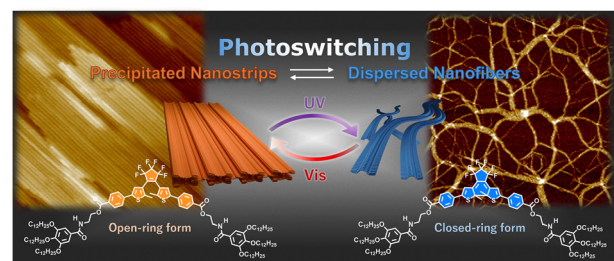
10945



### Cutoff-voltage-dependent low-voltage structural evolution and apparent capacity balancing in spinel LiFe<sub>0.5</sub>Mn<sub>1.5</sub>O<sub>4</sub>

Zuojun Yang, Shun Zheng, Guokang Chen, Qinfeng Zheng, Xuheng Jiang, Chenji Hu, Pengtao Xu, Yixiao Zhang,\* Xi Liu\* and Liwei Chen\*

10950



### Diarylethene-powered photo-switching between precipitated nanostrips and dispersed supramolecular polymers

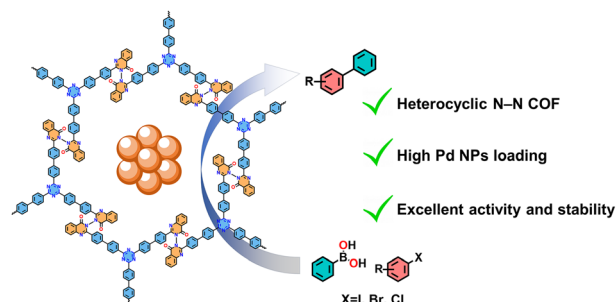
Katsuyuki Murai, Honami Matsui, Tatsuya Seki, Takayuki Umakoshi, Christian Ganser, Takashi Kajitani, Sougata Datta, Hiroki Hanayama and Shiki Yagai\*



10955

### A quinazolinone-linked covalent organic framework with an intrinsic N–N bond for efficient palladium nanocatalysis

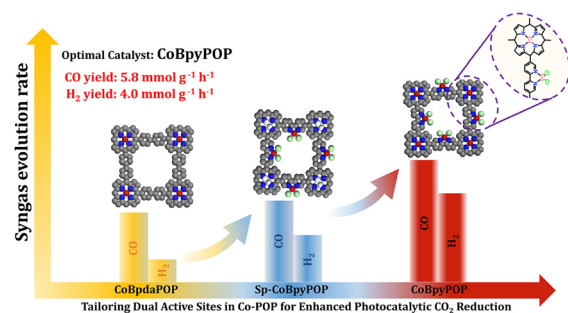
Xu-Hao Zhang, Xiu-Hao Zhang, Fu-Hao Liu, Fei Li, Yan Geng\* and Bing-Jian Yao\*



10959

### Synergistic dual sites in a cobalt-porphyrin polymer enable tunable syngas production from CO<sub>2</sub> photoreduction

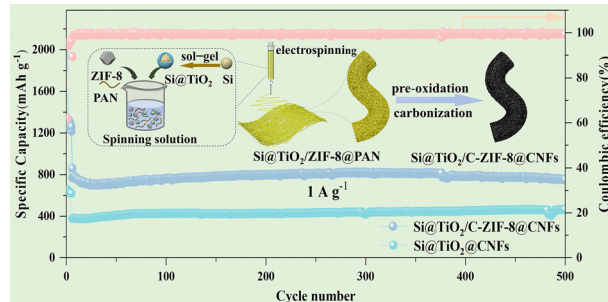
Guangfu Zhou, Bin Chen\* and Ting-Ting Li\*



10963

### A multiple synergistic strategy to fabricate Si@TiO<sub>2</sub>/C-ZIF-8@CNFs with a hierarchical porous structure for enhancing Li storage kinetics

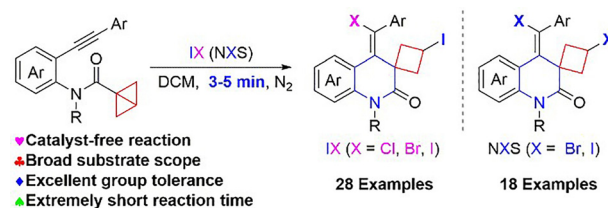
Chentong Guo, Zhiyuan Gao, Songchen Zheng, Junhao Zhang,\* Qianqian Fan, Xingmei Guo, Yuanjun Liu, Xiangjun Zheng, Zhongyao Duan and Shenglin Xiong\*



10967

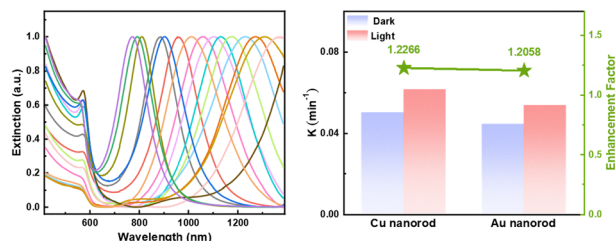
### Dihalogenation/cyclization reactions of bicyclo[1.1.0]butane-1-carboxamide: rapid access to dihalogenated spiro[cyclobutane-1,3'-quinolin]-2'-one derivatives

Jiyao Liu, Junyi Zhu, Qiru Yao, Jing Yang, Xingyue Chen, Xiaoqin Liu\* and Liangce Rong\*



## COMMUNICATIONS

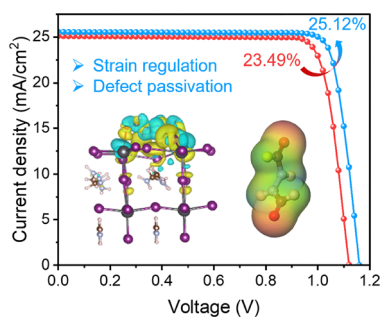
10972



### Au-catalyzed monodisperse colloidal Cu nanorods with widely tunable surface plasmon resonance

Ying Li, Chengzhou Zhang, Xin Wu, Xinyu Wang, Juan Xu\* and Caixia Kan\*

10977



### Synergistic residual strain regulation and defect passivation in high-efficiency inverted perovskite solar cells

Yufei Guo, Shiqiong Wang, Jiankai Zhang,\* Wenyi Wu, Yuning Zhang,\* Chengwen Huang and Hai Zhou\*

## CORRECTION

10982

### Correction: Visualizing glutathione levels in adipose tissue: a CBD aryl ether thiolysis-activated ES IPT probe for obesity research

Liya Jing, Lijuan Shan, Ziming Shen, Mengyuan Liu, Junjie Shi, Chunlin Qian, Zihan Jiang, Minxuan Xiong, Xixian Miao, Zhicheng Xie, Jing Xu, Haowen Jiang, Jia Li, Chang Peng,\* Jinlong Li\* and Wei Liu\*

