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## IN THIS ISSUE

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### Cover

See Samanvaya Srivastava *et al.*, pp. 14952–14955. Image reproduced by permission of Fahed Albreiki from *Chem. Commun.*, 2024, 60, 14952.



### Inside cover

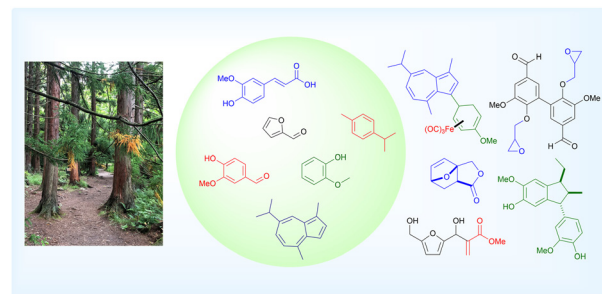
See JunWoo Kim, Myung Hwan Park, Min Kim *et al.*, pp. 14956–14959. Image reproduced by permission of Prof. Min Kim from *Chem. Commun.*, 2024, 60, 14956.

## HIGHLIGHTS

14885

### Carbon–carbon bond formation using aromatics from biomass

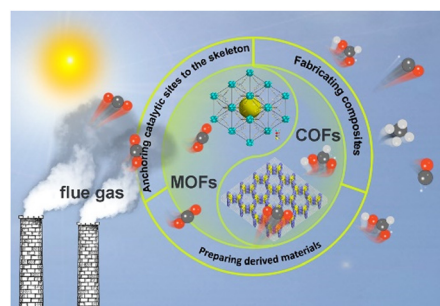
Petter Dunås, Andrew J. Paterson, Simon E. Lewis\* and Nina Kann\*



14896

### Application of porous crystalline framework materials towards direct flue gas conversion

Jingting He, Man Dong, Jianxia Gu, Chunyi Sun,\* Dongxu Cui, Xiaohui Yao, Fanfei Meng, Chunjing Tao, Xinlong Wang\* and Zhongmin Su\*



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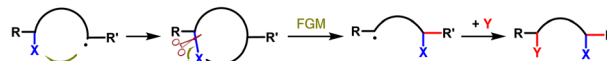
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## FEATURE ARTICLES

14912

## Intramolecularly remote functional group migration reactions involving free radicals

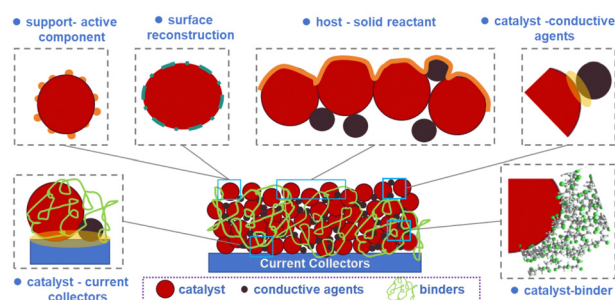
Fushan Chen, Zhu Cao and Chen Zhu\*



14924

## A review on solid–solid heterogeneous interfacial interactions in electrocatalytic conversion of inorganic molecules

Wen-Xuan Liang, Huimin Han, Chun-Hua Zhen, Yingjie Hua, Jun-Tao Li and Yao Zhou\*



14935

## Bioinspired metal–organic frameworks for aqueous environment decontamination: from laboratory scale to real-world technologies

Cristina Negro, Walter D. Guerra, Donatella Armentano, Jesús Ferrando-Soria, Thais Grancha\* and Emilio Pardo\*

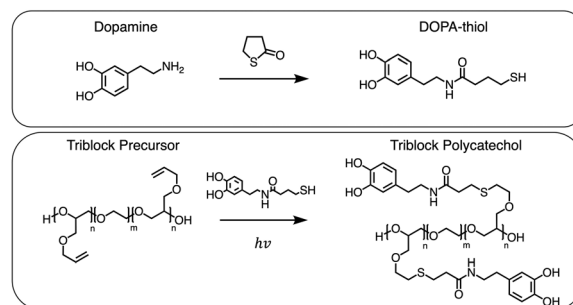


## COMMUNICATIONS

14952

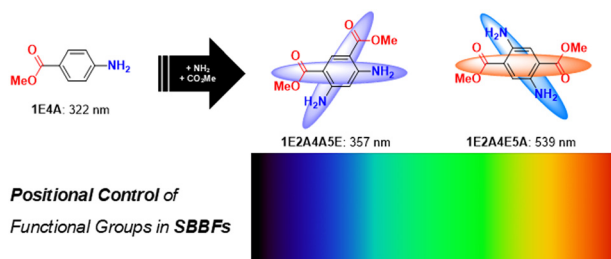
## Modular synthesis and facile network formation of catechol functionalized triblock copolymers

Fahed Albreiki, Tobias Göckler and Samanvaya Srivastava\*



## COMMUNICATIONS

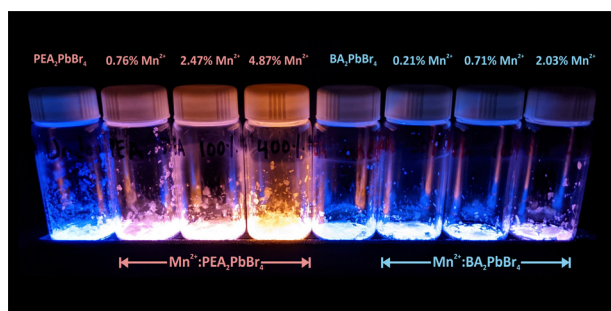
14956



### Positional effects of electron-donating and withdrawing groups on the photophysical properties of single benzene fluorophores

Dopil Kim, Jun Yeong Kim, Haein Kim, Eunjin Jeong, Minhyuk Lee, Dongwook Kim, JunWoo Kim,\* Myung Hwan Park\* and Min Kim\*

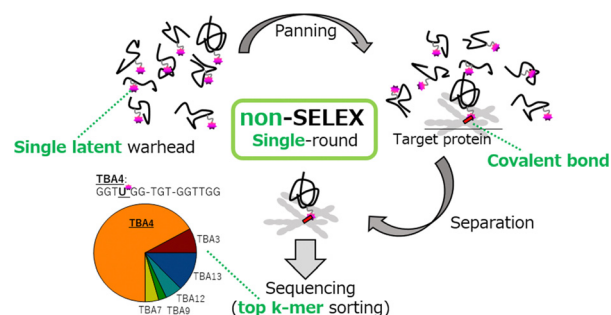
14960



### Interstitial and substitutional doping of Mn<sup>2+</sup> in 2D PEA<sub>2</sub>PbBr<sub>4</sub> and BA<sub>2</sub>PbBr<sub>4</sub> perovskites

Udara M. Kuruppu, Alvaro J. Magdaleno, Anuraj S. Kshirsagar, Bruno Donnadieu, Ferry Prins\* and Mahesh K. Gangishetty\*

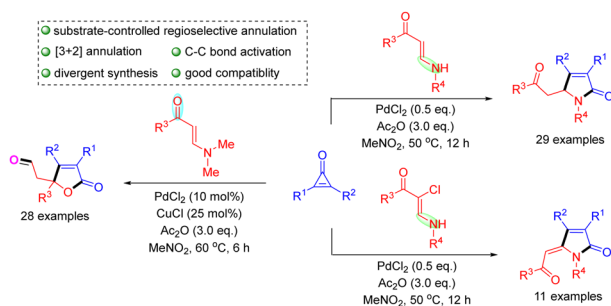
14964



### ARCaDia: single-round screening of a DNA-type targeted covalent binder possessing a latent warhead

Masumi Taki,\* Masayasu Kuwahara, Chaohui Li, Naoko Tomoda, Naoyuki Miyashita, Tetsuo Kan and Jay Yang\*

14968



### Pd(II)-catalyzed regioselective ring opening/[3+2] annulation reaction of enaminones with cyclopropanones: divergent synthesis of $\gamma$ -butenolides and $\gamma$ -lactams

Zhilai Zhang, Yu Xu, Menglin Peng, Siyu Song, Yuanzheng Wei, Huimin Hu, Xiuju Wang\* and Fuchao Yu\*

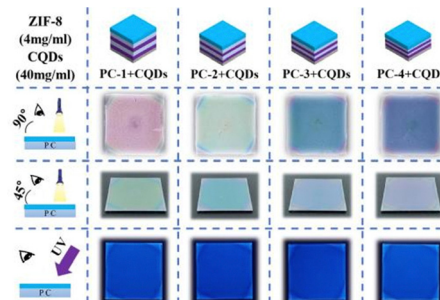


## COMMUNICATIONS

14972

## Surface-mounted carbon quantum dots onto photonic crystals generating dual structural-fluorescent color rendering

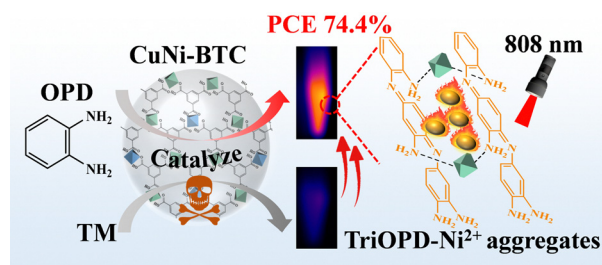
Wenyang Bian, Sijia Wang, Ruitao Zhou, Zhimin Ye, Wenjun Yuan, Hengyang Xiang, Aming Xie, Juan Liu,\* Haibo Zeng\* and Weijin Li\*



14976

Ni<sup>2+</sup> mediated oxidation and aggregation of o-phenylenediamine: an enhanced photothermal effect for direct, specific and background-free detection of thiophanate-methyl

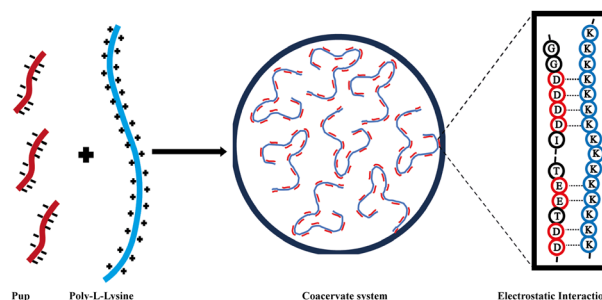
Jinju Xu, Ziyi Qin, Chunhui Liao, Tian Lan and Shuyun Shi\*



14980

## Electrostatic interactions drive phase separation in Pup protein

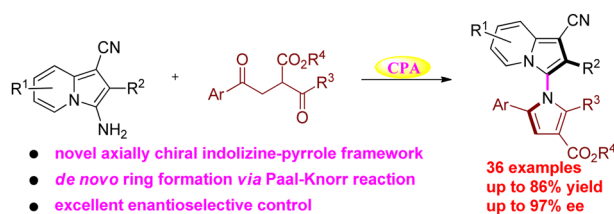
Narendran Sekar, Pushpkant Sahu, Swathi Sudhakar\* and Hema Chandra Kotamarthi\*



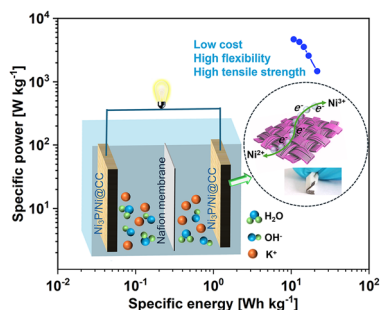
14984

## Atroposelective synthesis of axially chiral indolizinyrpyrroles by catalytic asymmetric Paal–Knorr reaction

Wenyan Zhan, Jiameng Hu, Xiaoyun Chen, Gen Luo\* and Xiaoxiao Song\*



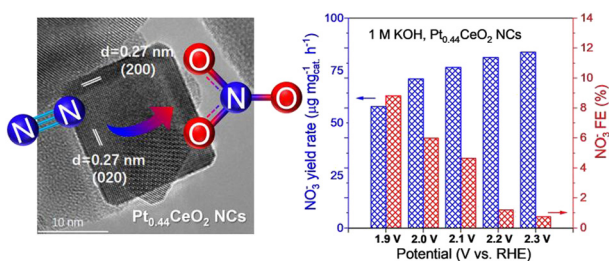
14988



### Large scalable nickel phosphide/nickel@carbon cloth-based flexible composite electrodes for symmetric supercapacitors

Tao Wei, Meiling Cen, Jing Xu,\* Guangmin Zhou\* and Jiao-Jing Shao\*

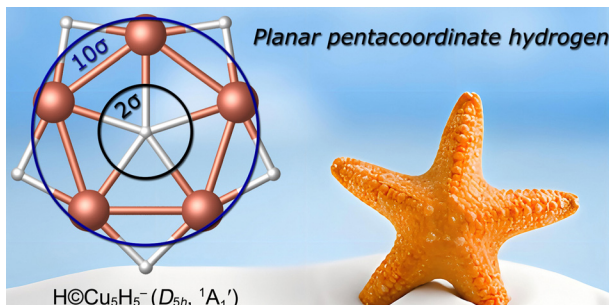
14992



### Direct electrochemical N<sub>2</sub> oxidation to nitrate on supportive Pt/CeO<sub>2</sub>

Ying Zhang, Yabing Shang, Ming Cheng, Qi Guo, Xiaoyu Liu, Baoyi Zeng, Danni Wang, Guoxin Zhang,\* Zifeng Yan and Jinsheng Zhao\*

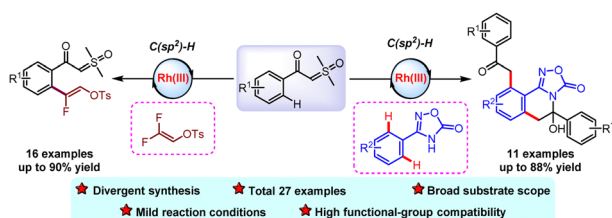
14996



### $D_{5h} \text{H@Cu}_5\text{H}_5^-$ : a covalently bonded planar pentacoordinate hydrogen star

Li-Xia Bai, Yan-Xia Jin, Mesias Orozco-Ic, Gabriel Merino\* and Jin-Chang Guo\*

15000



### Rhodium-catalyzed C–H $\alpha$ -fluoroalkenylation/annulation of $\beta$ -ketosulfoxonium ylides with 2,2-difluorovinyl tosylate/oxadiazolones

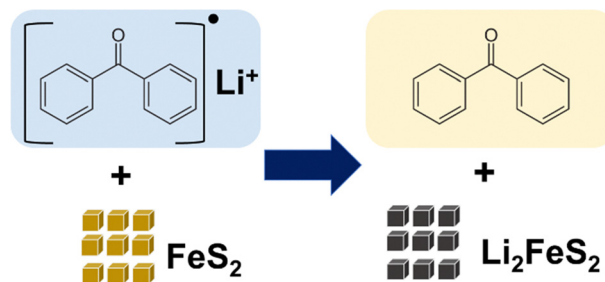
Jia-Lin Song, Zi-Feng Yang, Sheng Fang, Wang-Liang Chen, Lian-Bao Ye,\* Xiang Liu\* and Bing Shu\*



15004

### An alternate synthetic pathway to nanoscopic $\text{Li}_2\text{FeS}_2$ for energy storage

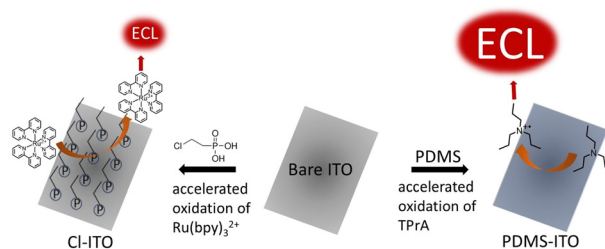
Ryan H. DeBlock, Hunter O. Ford, Meghanne E. Tighe, Debra R. Rolison and Jeffrey W. Long\*



15007

### Regulating the work function and surface hydrophobicity of an indium tin oxide electrode for enhanced electrochemiluminescence analysis

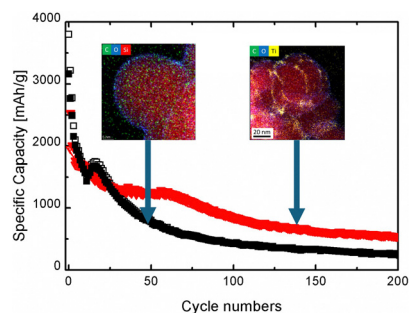
Tengyu Li, Jialian Ding, Yafeng Wang and Bin Su\*



15011

### Directing SEI formation on Si-based electrodes using atomic layer deposition

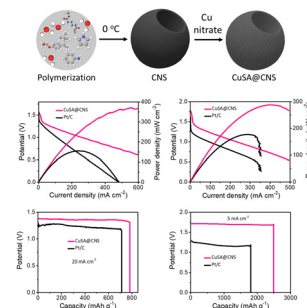
Supti Das, Anders Brennhagen, Carmen Cavallo, Veronica Anne-Line Kathrine Killi, Ingvild Julie Thue Jensen, Annett Thøgersen, Jan Petter Mæhlen, Samson Yuxiu Lai, Ola Nilsen and Alexey Y. Kozosov\*



15015

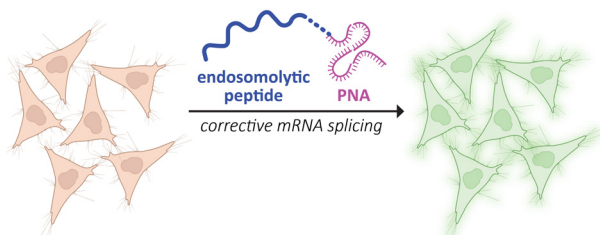
### Atomically modulated Cu single-atom catalysts for oxygen reduction reactions towards high-power density Zn- and Al-air batteries

Nayantara K. Wagh, Sambhaji S. Shinde\* and Jung-Ho Lee\*



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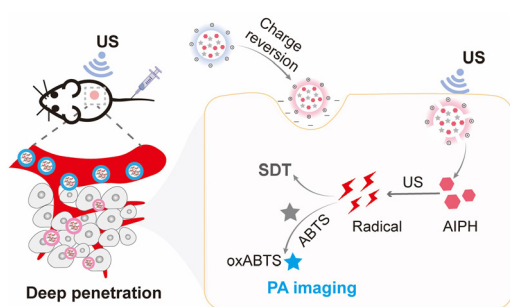
15019



### Endosomal peptides enable the cellular delivery of peptide nucleic acids

JoLynn B. Giancola and Ronald T. Raines\*

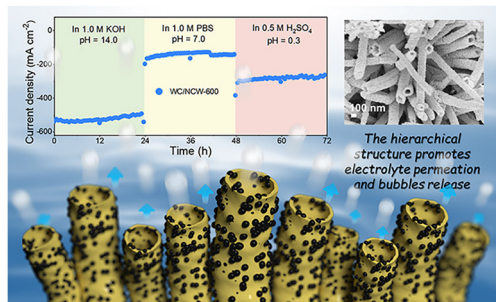
15023



### Acid-responsive liposomal nanodrug with promoted tumor penetration for photoacoustic imaging-guided sonodynamic therapy

Xiangli Li, Wen-Jing Tang, Wei Wang, Shuzhen Yue,\* Huiqin Yao\* and Jun-Jie Zhu\*

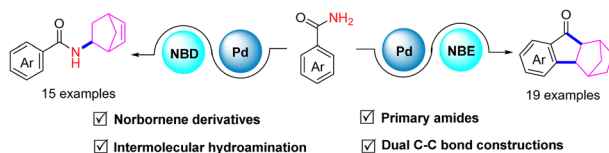
15027



### A hierarchical WC/NiCoW hollow nanotube array as a highly efficient electrocatalyst for hydrogen evolution

Xuesong Liu, Kuan Deng, Peng Liu, Xingbin Lv, Wen Tian\* and Junyi Ji\*

15031



### Palladium-catalyzed annulation and intermolecular hydroamination involving norbornene derivatives: synthesis of indanones and N-alkylamines

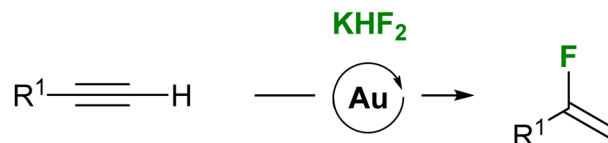
Wenguang Li,\* Xinfeng Cheng, Man Cao, Heyun Sheng, Wenchao Gao, Ming Chen, Xu Zhang, Wentao Li, Yongqi Yu\* and Ting Li\*



15035

### Gold-catalyzed hydrofluorination of terminal alkynes using potassium bifluoride (KHF<sub>2</sub>)

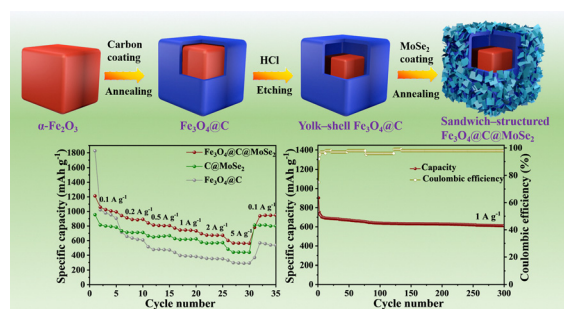
Raphaël Pronovost, Mathis Rion, Nikolaos V. Tzouras, Steven P. Nolan and Jean-François Paquin\*



15039

### Sandwich-structured Fe<sub>3</sub>O<sub>4</sub>@C@MoSe<sub>2</sub> architecture for efficient lithium-ion storage

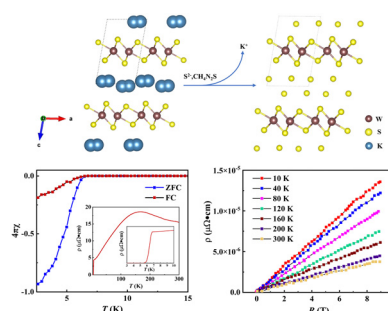
Linan Yang, Chengjie Zhang, Liuyang Cao, Rong Xu, Hongbo Li, Zhanjun Yang\* and Juan Li\*



15043

### Topochemical synthesis of anion-intercalated transition metal dichalcogenide superconductor $\text{S}_{0.66(2)}\text{WS}_2$

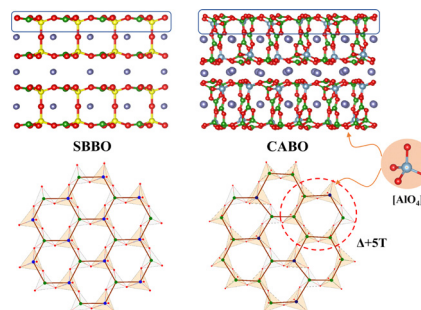
Ruijin Sun,\* Haodong Li, Duo Zhang, Zhaolong Liu, Yuxin Ma, Dezhong Meng and Changchun Zhao\*



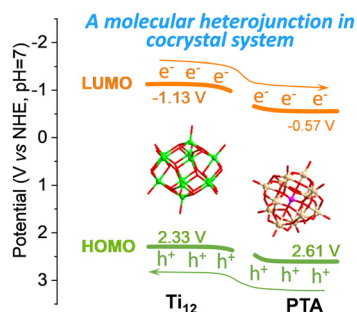
15047

### Ca<sub>3</sub>Al<sub>2</sub>B<sub>8</sub>O<sub>18</sub>: borate with a graphene-like layer featuring two types of topological six-membered rings induced by [AlO<sub>4</sub>] units

Ziting Yan, Dongdong Chu, Zihua Yang, Shilie Pan\* and Min Zhang\*



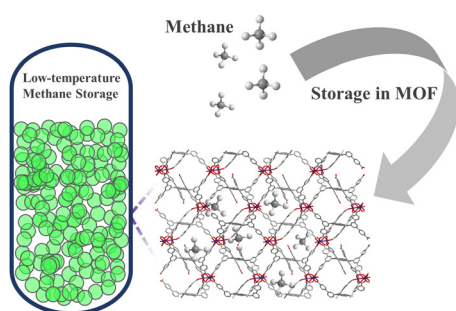
15051



### Assembling molecular semiconductor composites for enhanced photocatalytic cyclohexene oxidation

Haiyan Yu, Xueting Wang, Tingting Kong, Mei-Yan Gao\* and Xiaofeng Cui\*

15055



### Porous MOFs with geometric mismatch between trimers and octatopic pyrene-based ligands for low-temperature methane storage

Kun Wang, Honghao Cao, Yuanlong Zhong, Zhenning Yang, Hancheng Shi, Zhangyi Xiong, Yuqiao Mu and Zhijie Chen\*

