

## IN THIS ISSUE

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## Cover

See Sichi Li, Simon H. Pang et al., pp. 10737–10740.  
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Inside cover

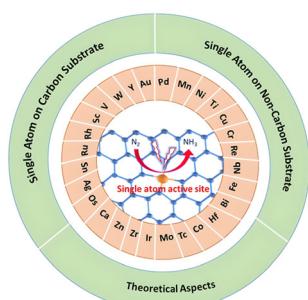
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See Mio Kondo,  
Shigeyuki Masaoka  
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*Chem. Commun.*,  
2023, 59, 10741

## HIGHLIGHT

10689

## Electrochemical nitrogen fixation on single metal atom catalysts

Ashida P. Hamsa, Muraliraj Arulprakasam and Sreekuttan M. Unni\*

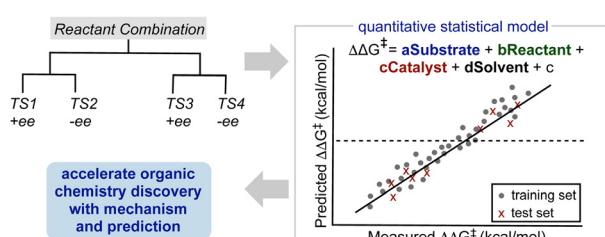


## FEATURE ARTICLES

10711

## Mechanism to model: a physical organic chemistry approach to reaction prediction

Jolene P. Reid \* Isaiah Q. Betingol and Yutao Kuang



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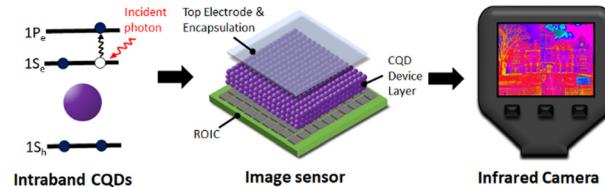


## FEATURE ARTICLES

10722

Colloidal Ag<sub>2</sub>Se intraband quantum dots

Mohammad Mostafa Al Mahfuz, Junsung Park, Rakina Islam and Dong-Kyun Ko\*

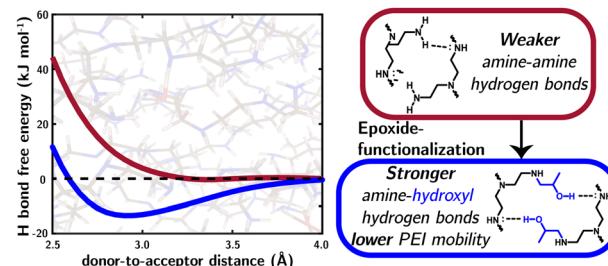


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10737

Enhanced hydrogen bonding via epoxide-functionalization restricts mobility in poly(ethylenimine) for CO<sub>2</sub> capture

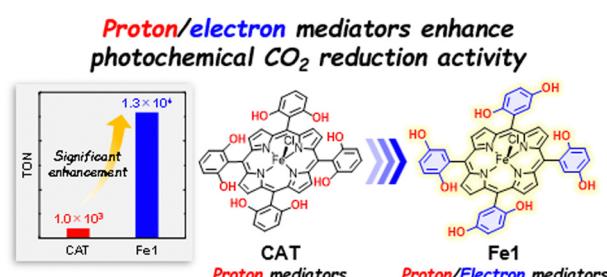
Sichi Li,\* Marcos F. Calegari Andrade, Anthony J. Varni, Glory A. Russell-Parks, Wade A. Braunecker, Elwin Hunter-Sellars, Maxwell A. T. Marple and Simon H. Pang\*



10741

Introducing proton/electron mediators enhances the catalytic ability of an iron porphyrin complex for photochemical CO<sub>2</sub> reduction

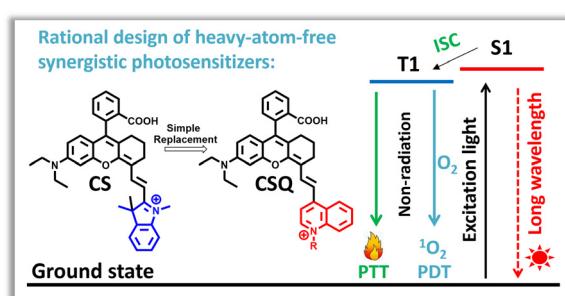
Maho Imai, Kento Kosugi, Yutaka Saga, Mio Kondo\* and Shigeyuki Masaoka\*



10745

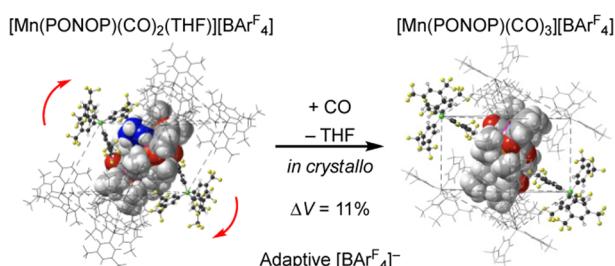
## Synergistic phototherapy of NIR wavelength xanthene-quinoline salt-based heavy-atom-free photosensitizers for tumor therapy

Long He, Lin-Hui He, Huan-Hua Lai, Shuai Xu,\* Jiao-Liang Wang, Jun-Chao Xu, Ling Shi\* and Lin Yuan



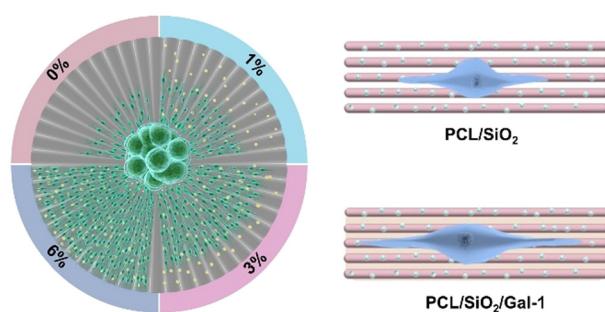
## COMMUNICATIONS

10749

*In crystallo* lattice adaptivity triggered by solid-gas reactions of cationic group 7 pincer complexes

Joe C. Goodall, M. Arif Sajjad, Emily A. Thompson, Samuel J. Page, Adam M. Kerrigan, Huw T. Jenkins,\* Jason M. Lynam,\* Stuart A. Macgregor\* and Andrew S. Weller\*

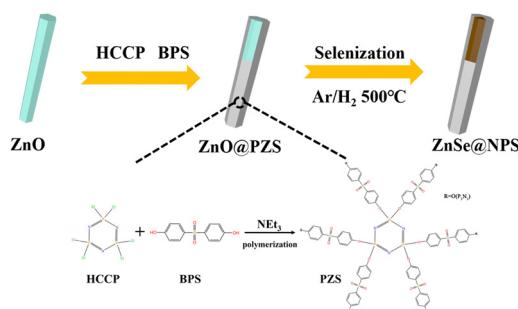
10753



## Promoting neurite outgrowth and neural stem cell migration using aligned nanofibers decorated with protrusions and galectin-1 coating

Yingnan Liu, Xiaopei Zhang, Yawen Wang, Mingxia Guo, Junyue Sheng, Yuanfei Wang and Tong Wu\*

10757



## ZnSe@NPSC core–shell nanorods for super sodium ion storage induced from an organic polymer derived N, P, S tri-doped carbon framework

Haibin Wang, Lantao Chen, Feng Xu, Yufei Zhang\* and Haosen Fan\*

10761



## Effects of intermetal distance on the electrochemistry-induced surface coverage of M–N–C dual-atom catalysts

Weijie Yang,\* Zhenhe Jia, Liugang Chen, Binghui Zhou, Di Zhang, Yulan Han, Zhengyang Gao and Hao Li\*

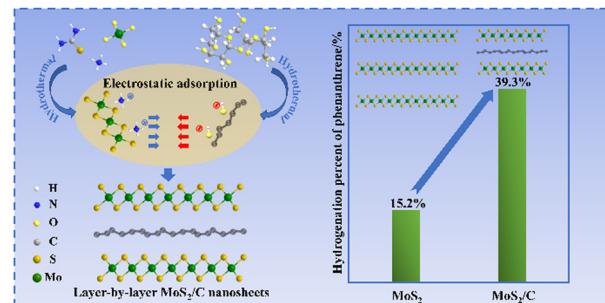


## COMMUNICATIONS

10765

**Constructing layer-by-layer self-assembly  $\text{MoS}_2/\text{C}$  nanomaterials by a one-step hydrothermal method for catalytic hydrogenation of phenanthrene**

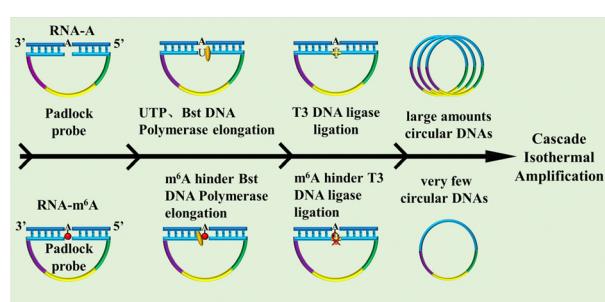
Rong Huang, Chenggong Yang, Na Ta, Huaijun Ma, Wei Qu, Congxin Wang, Zhendong Pan, Donge Wang\* and Zhijian Tian



10769

**Double blocking gap-filling-ligation coupled with cascade isothermal amplification for ultrasensitive quantification of  $N^6$ -methyladenosine**

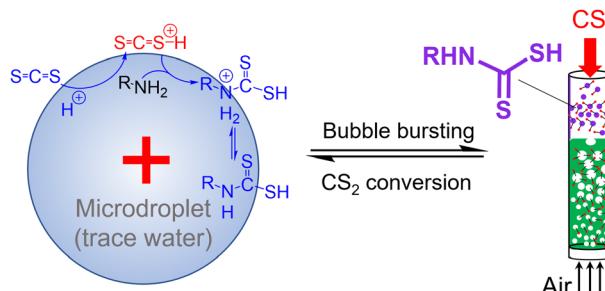
Weiliang Liu, Fengxia Su,\* Kejian Gao, Desheng Chen and Zhengping Li\*



10773

**Microdroplet accelerated reaction for high-efficiency carbon disulfide conversion**

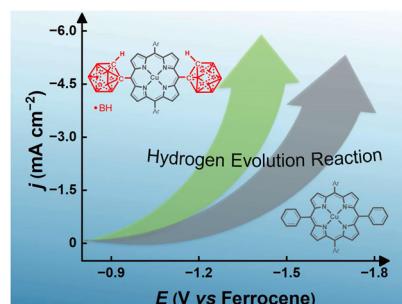
Yuanji Gao\* and Bing Xia\*



10777

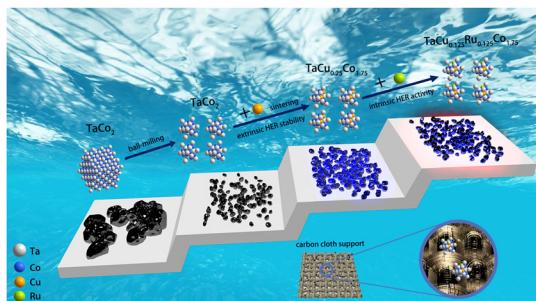
**Electrocatalytic hydrogen evolution with a copper porphyrin bearing meso-(*o*-carborane) substituents**

Xinyang Peng, Jinxiu Han, Xialiang Li, Guijun Liu, Yuhua Xu, Yuxin Peng, Shuai Nie, Wenzi Li, Xinrui Li, Zhuo Chen, Haonan Peng,\* Rui Cao\* and Yu Fang



## COMMUNICATIONS

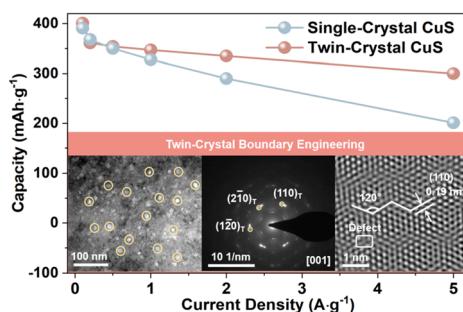
10781



**A step-by-step strategy to design active and stable quaternary intermetallic compounds for the hydrogen evolution reaction**

Tong-Tong Hao, Yu-Qing Yang, Yuan-Yuan Sun\* and Nian-Tzu Suen\*

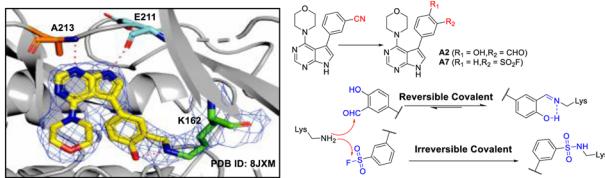
10785



**Structural tuning of copper sulfide material for sodium-ion batteries**

Minyu He, Weizao Liu\* and Zuguang Yang\*

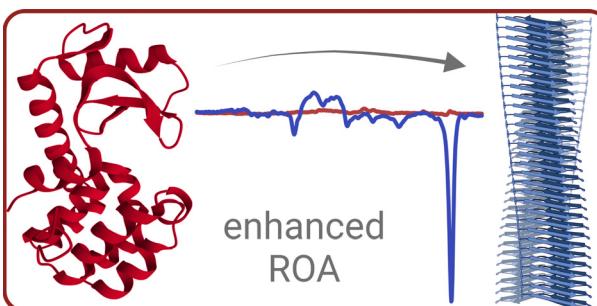
10789



**Multitarget inhibitors/probes that target LRRK2 and AURORA A kinases noncovalently and covalently**

Wei Wang, Xuan Wang, Guanghui Tang,\* Chengjun Zhu, Menghua Xiang, Qicai Xiao, Zhi-Min Zhang,\* Liqian Gao\* and Shao Q. Yao\*

10793



**Exceptionally enhanced Raman optical activity (ROA) of amyloid fibrils and their prefibrillar states**

Aleksandra Kolodziejczyk, Laurence A. Nafie, Aleksandra Wajda\* and Agnieszka Kaczor\*

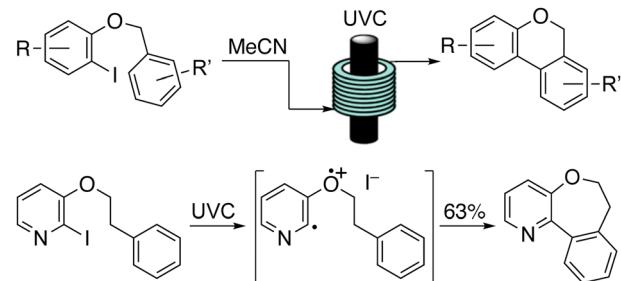


## COMMUNICATIONS

10797

**Aryl–aryl cross-coupling reactions without reagents or catalysts: photocyclization of *ortho*-iodoaryl ethers and related compounds *via* triplet aryl cation intermediates**

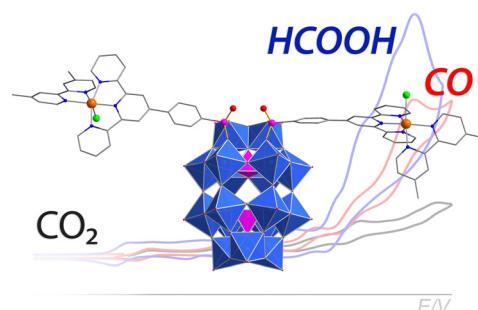
Wei Sun, Luke Wilding-Steele, Richard C. D. Brown and David C. Harrowven\*



10801

**Selective electrochemical  $\text{CO}_2$  conversion with a hybrid polyoxometalate**

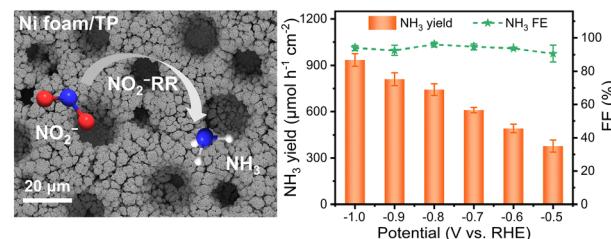
Satoshi Kuramochi, Jamie M. Cameron, Tomoya Fukui, Kieran D. Jones, Stephen P. Argent, Shinpei Kusaka, Ryo Shiraishi, Yusuke Tamaki, Taiki Yatsu, Takuya Shiga, Osamu Ishitani, Hiroki Oshio\* and Graham N. Newton\*



10805

**3D cauliflower-like Ni foam: a high-efficiency electrocatalyst for ammonia production *via* nitrite reduction**

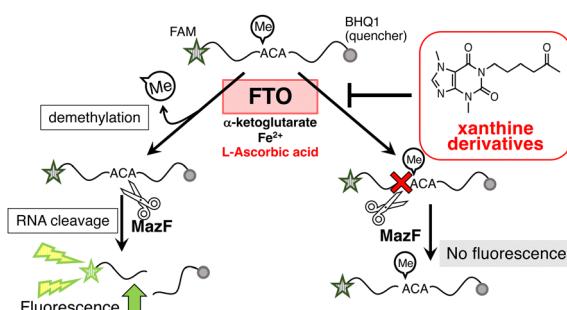
Ye Li, Xun He, Jie Chen, Xiaoya Fan, Yongchao Yao, Ling Ouyang, Yonglan Luo, Qian Liu, Shengjun Sun, Zhengwei Cai, Sulaiman Alfaifi, Juan Du,\* Baozhan Zheng\* and Xuping Sun\*



10809

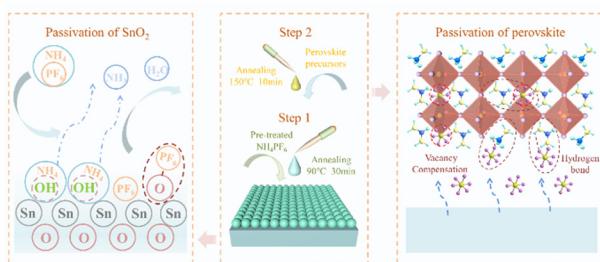
**Xanthine derivatives inhibit FTO in an L-ascorbic acid-dependent manner**

Kamui Tanaka, Akiyo Suda, Motonari Uesugi, Shiroh Futaki and Miki Imanishi\*

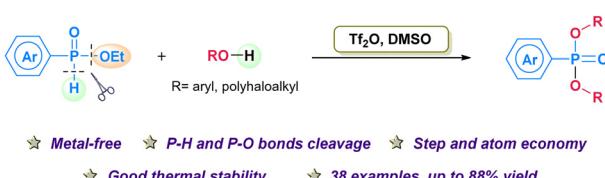


## COMMUNICATIONS

10813



10817



### Regulating buried interface properties and alleviating micro-strain of crystals for efficient perovskite solar cells

Shendong Xu, Guozhen Liu,\* Haiying Zheng, Yuli Tao, Hui Zhang, Liying Zhang, Liangzheng Zhu, Jiajiu Ye, Jinfeng Li\* and Xu Pan

## CORRECTION

10821

### Correction: Multiple correlations between spin crossover and fluorescence in a dinuclear compound

Chun-Feng Wang, Ming-Jun Sun, Qi-Jie Guo, Ze-Xing Cao,\* Lan-Sun Zheng and Jun Tao\*