

# ChemComm

Chemical Communications

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## IN THIS ISSUE

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12368

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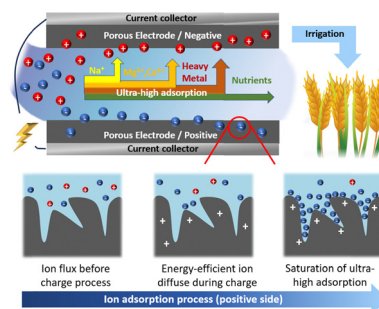


## HIGHLIGHT

12376

### Capacitive deionization system with ultra-high salt adsorption performance: from lab design to agricultural applications

Rui He, Yongchang Yu, Lingchen Kong, Xitong Liu\* and Pei Dong\*



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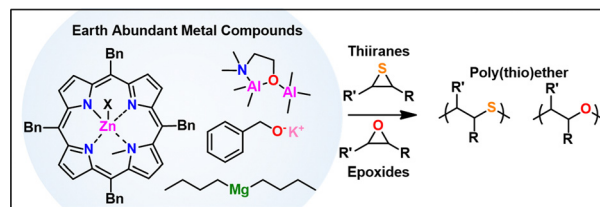


## FEATURE ARTICLES

12390

## A guide to modern methods for poly(thio)ether synthesis using Earth-abundant metals

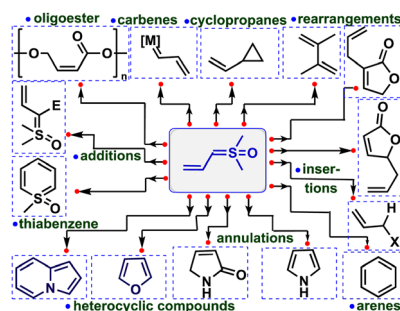
Robert C. Ferrier Jr.,\* Gouree Kumbhar, Shaylynn Crum-Dacon and Nathaniel A. Lynd



12411

## Insights into the multifaceted applications of vinyl sulfoxonium ylides

Raju Sen, Srashti Bhardwaj, Krishnendu Bar, Shalu Deshwal and Janakiram Vaitla\*

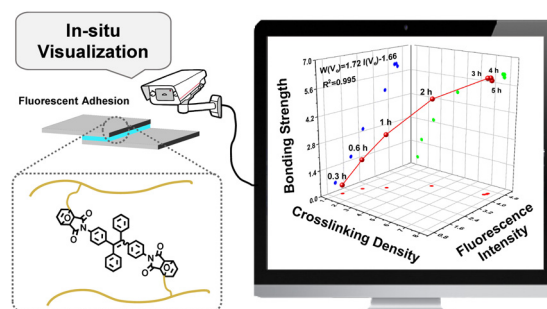


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12423

Reversible fluorescent adhesives based on covalent adaptable networks with dynamic AIE crosslinking: *in situ* visualization of adhesion capability

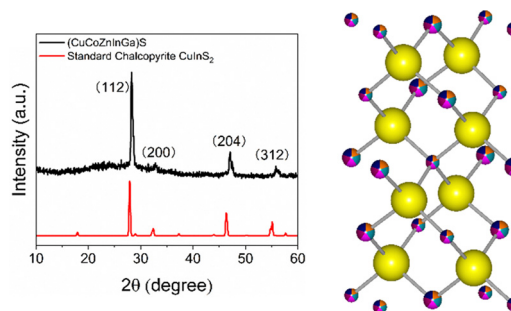
Yu Jiang,\* Ziyu Ran, Yangfei Wu, Meng Zhang, Ying Ma and Daohong Zhang\*



12427

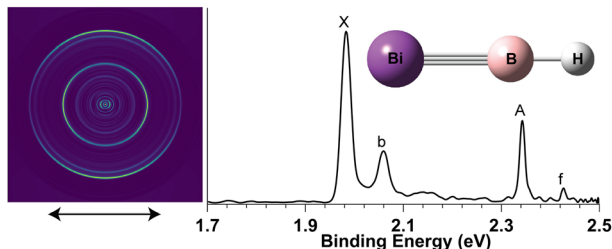
## Deposition of a high entropy thin film by aerosol-assisted chemical vapor deposition

Weichen Xiao, Mark A. Buckingham, Yi Li, Kerry Hazeldine, Bing Han, Sarah H. Cartmell, Alexander S. Eggeman, Alex S. Walton and David J. Lewis\*



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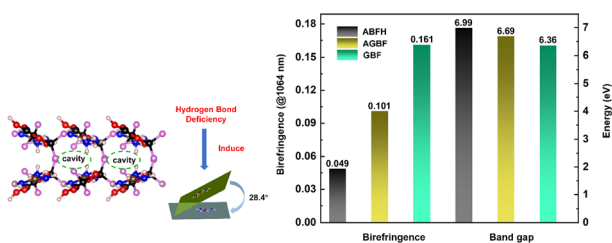
12431



### Observation of an electron-precise metal boryne complex: $[\text{Bi} \equiv \text{BH}]^-$

Han-Wen Gao, Jie Hui and Lai-Sheng Wang\*

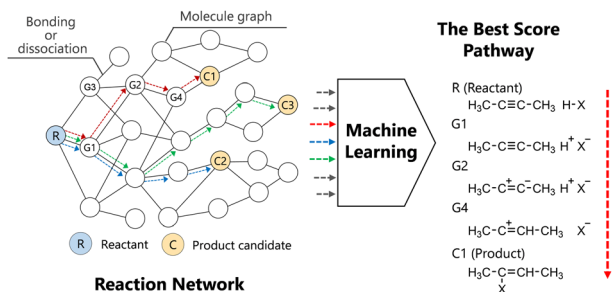
12435



### Hydroxyfluorooxoborate $(\text{NH}_4)[\text{C}(\text{NH}_2)_3][\text{B}_3\text{O}_3\text{F}_4(\text{OH})]$ for exploring the effects of cation substitution on structure and optical properties

Ziqi Chen, Fuming Li, Zhihua Yang, Shilie Pan\* and Miriding Mutailipu\*

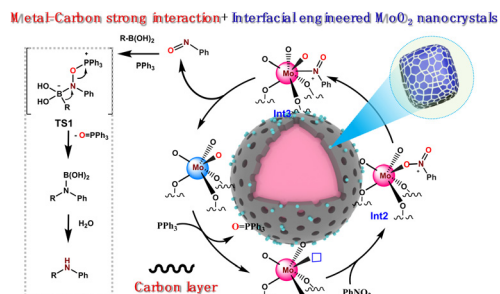
12439



### Predicting and analyzing organic reaction pathways by combining machine learning and reaction network approaches

Tomonori Ida,\* Honoka Kojima and Yuta Hori

12443



### Enhancing reductive C–N coupling of nitrocompounds through interfacial engineering of $\text{MoO}_2$ in thin carbon layers

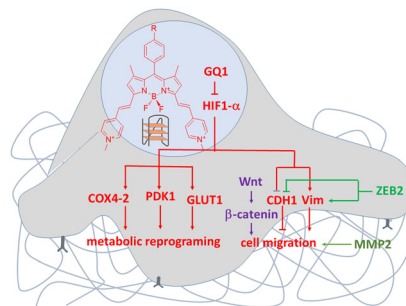
Mengting Liu, Xuexue Dong, Xiu Zhong, Zhenxiao Wang, Juanjuan Gong, Heng Song, Chao Yu, Aihua Yuan, Fu Yang\* and Edison Huixiang Ang\*



12447

## Reprogramming cancer cells by a BODIPY G-quadruplex stabiliser

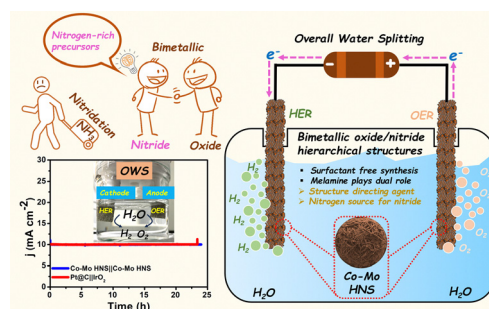
Aminesena Baser, Beyza Basar, Hanim Beyza Dogan, Gulnur Sener, Nezahat Gokce Ozsamur, Fatma Secer Celik, Safaa Altves and Sundus Erbas-Cakmak\*



12451

## Nitridation-free preparation of bimetallic oxide-nitride bifunctional electrocatalysts for overall water splitting

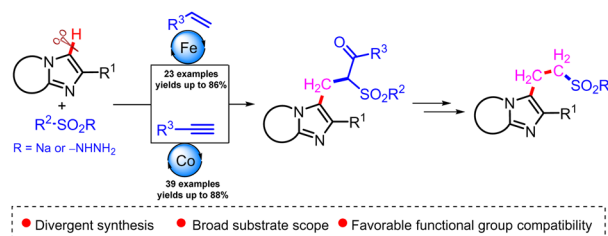
Sulakshana Shenoy, Chitiphon Chuaicham, Keiko Sasaki,\* Sungkyun Park, Muthuchamy Nallal,\* Kang Hyun Park\* and Karthikeyan Sekar\*



12455

## Ketosulfonylmethylenation and sulfonylethylenation of imidazoheterocycles with dimethylformamide as a methylene source

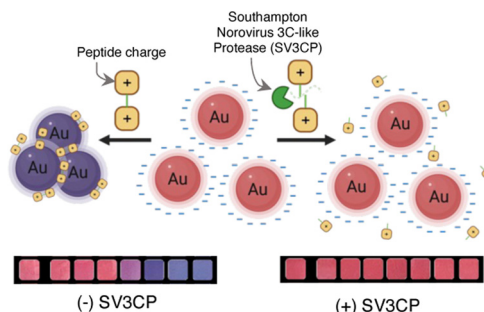
Tao Guo, Penghua Hu, Yu Liu, Panke Zhang,\* Yunhui Zhao\* and Congjun Zhu\*



12459

## Valence-driven colorimetric detection of norovirus protease via peptide-AuNP interactions

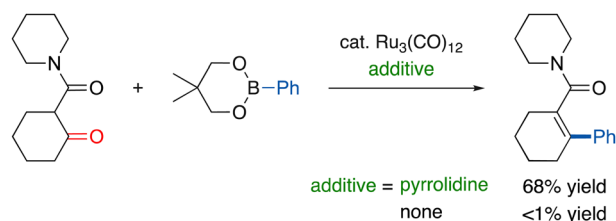
Chuxuan Ling, Zhicheng Jin, Justin Yeung, Elany Barbosa da Silva, Yu-Ci Chang, Tengyu He, Wonjun Yim, Anthony J. O'Donoghue and Jesse V. Jokerst\*





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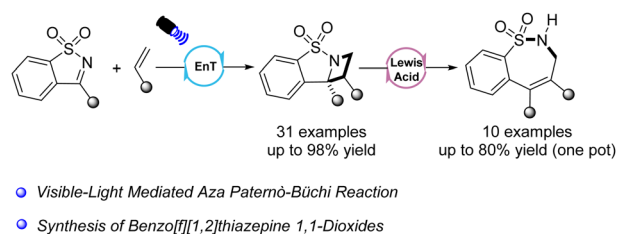
12463



### Ruthenium-catalysed cross-coupling reaction of ketones with transformable directing groups as alkenyl electrophiles

Yuya Kogure, Kohei Hatakeyama, Kai Tsuchiya, Yuta Kunii and Satoshi Ueno\*

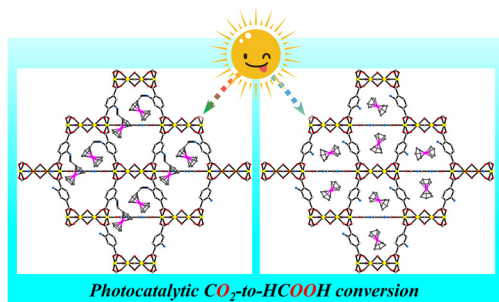
12467



### Synthesis of benzo[f][1,2]thiazepine 1,1-dioxides based on the visible-light-mediated aza Paternò–Büchi reaction of benzo[d]isothiazole 1,1-dioxides with alkenes

Yi-Lin Wang, Peng-Xiang Liu, Huan-Huan Zhang, Peng-Fei Xu and Yong-Chun Luo\*

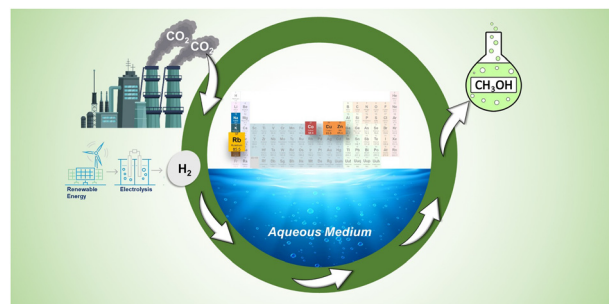
12471



### A ferrocene-modified stable metal–organic framework for efficient $\text{CO}_2$ photoreduction reaction

Gui-Qi Lai, Ning Li, Jun He\* and Ya-Qian Lan\*

12475



### Boosting the methanol selectivity in $\text{CO}_2$ hydrogenation over a MOF-derived $\text{CuZn@CN}$ catalyst via Rb incorporation

Jyoti Gahtori, Jyotishman Kaishyop, Gaje Singh, Tuhin S. Khan, Flavio C. Vicentin, Tulio C.R. Rocha and Ankur Bordoloi\*

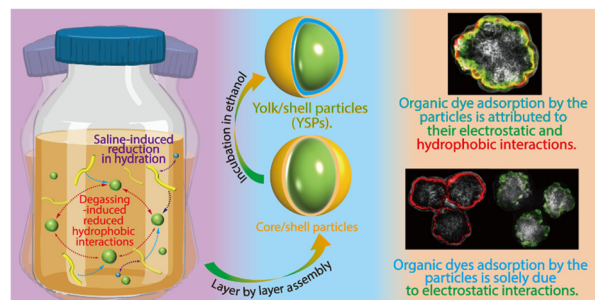


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12479

### Layer-by-layer assembly of polyelectrolytes on hydrophobic particles in aqueous milieu for efficient dye removal

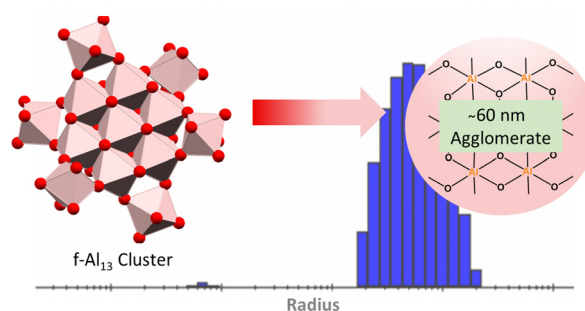
Bo Wang, Tengyue Fu, Chongling Cheng\* and Dayang Wang\*



12483

### Observation of alumina nanoparticles generated from aqueous solutions of a "flat" aluminum-13 cluster

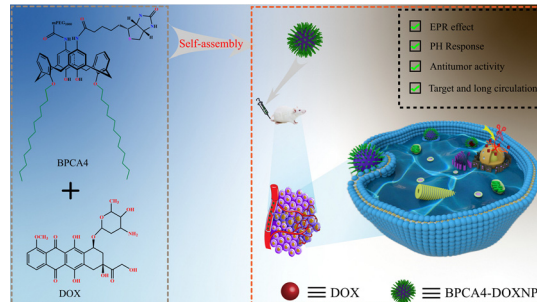
Alex Q. Rosen, Victor Salpino and Darren W. Johnson\*



12487

### Novel biotin-linked amphiphilic calix[4]arene-based supramolecular micelles as doxorubicin carriers for boosted anticancer activity

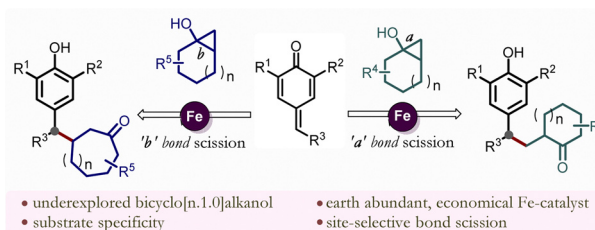
Dan Du, Yu-dun Liu, Jun-bing Lan, Xue-li Hou, Jia-dong Liu, Qing-hua Shi, Qing-wen Huang, Yun-sheng Xue, Chao-Guo Yan\* and Lin An\*



12491

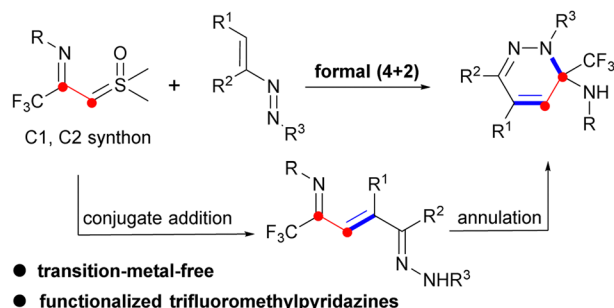
### Site-selective ring opening of bicyclo[n.1.0]alkanols: an Fe(II)-catalyzed 1,6-conjugate addition to p-quinone methides

Neha Jha, Subhadip Mondal and Manmohan Kapur\*

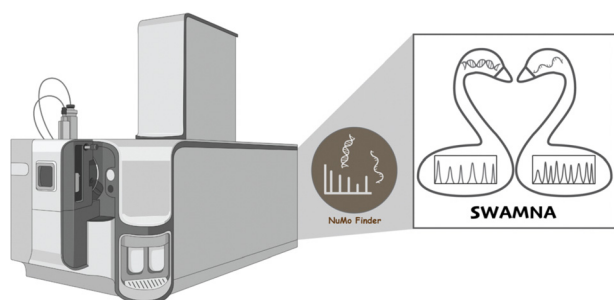


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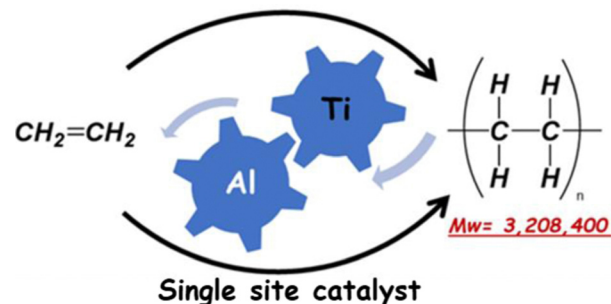
12495



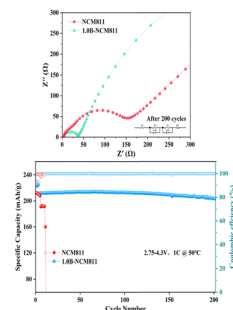
12499



12503



12507





## COMMUNICATIONS

12511

**Significant cell uptake of Gd(III)-diphenylphosphoryl-diphenylphosphonium complexes: evidence for a new conformationally-dependent tumour cell targeting vector**

Andrew J. Hall, Amy G. Robertson, Robert W. Baker, Leila R. Hill and Louis M. Rendina\*

