

# ChemComm

Chemical Communications

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## IN THIS ISSUE

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### Cover

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### Inside cover

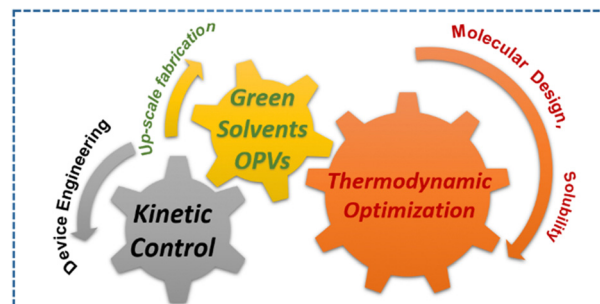
See Dominik Munz *et al.*, pp. 12104–12107. Image reproduced by permission of Dominik Munz from *Chem. Commun.*, 2023, 59, 12104.

## HIGHLIGHTS

12051

### Progress in organic photovoltaics based on green solvents: from solubility enhancement to morphology optimization

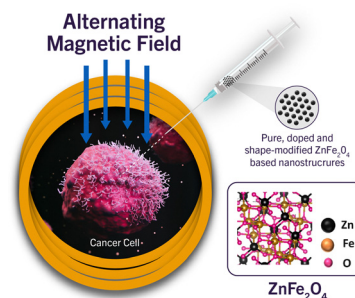
Xiangyue Kong, Tian He, Huayu Qiu, Lingling Zhan\* and Shouchun Yin\*



12065

### Recent advances in zinc ferrite ( $\text{ZnFe}_2\text{O}_4$ ) based nanostructures for magnetic hyperthermia applications

Priyambada Sahoo, Piyush Choudhary, Suvra S. Laha, Ambesh Dixit\* and O. Thompson Mefford\*



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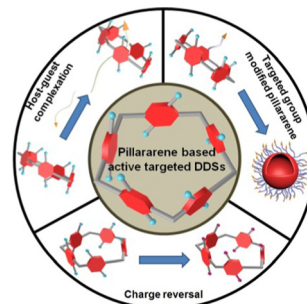


## FEATURE ARTICLE

12091

## The design strategy for pillararene based active targeted drug delivery systems

Bing Lu,\* Jiachen Xia, Yuying Huang and Yong Yao\*

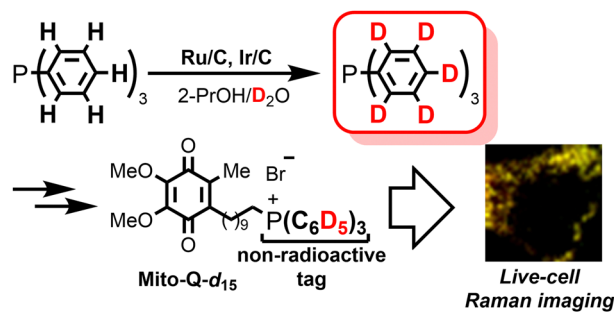


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12100

## Multiple deuteration of triphenylphosphine and live-cell Raman imaging of deuterium-incorporated Mito-Q

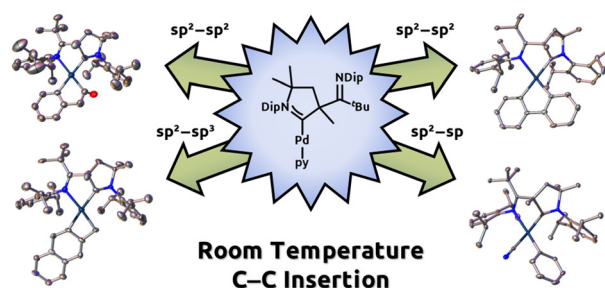
Shogo Moriyama, Miyu Mae, Daiki Shibata, Hiroyuki Yamakoshi, Shinji Kajimoto, Takakazu Nakabayashi, Takayoshi Ishimoto, Kaiki Mogi, Hironao Sajiki, Shuji Akai and Yoshinari Sawama\*



12104

## Swift C–C bond insertion by a 12-electron palladium(0) surrogate

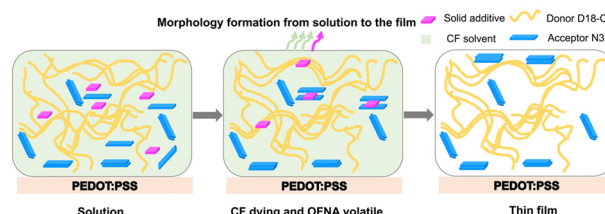
Kevin Breitwieser, Fabian Dankert, Annette Grünwald, Paula R. Mayer, Frank W. Heinemann and Dominik Munz\*



12108

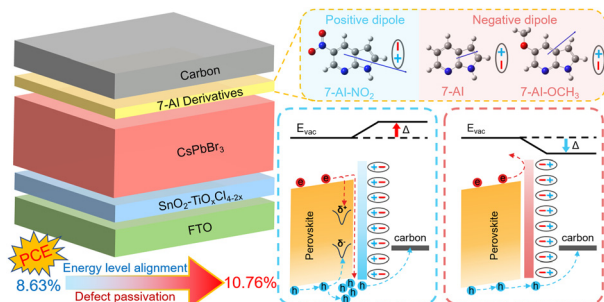
## Octafluoronaphthalene as a thermal-annealing-free volatile solid additive enables high-performance organic solar cells

Lian Zhong, Seonghun Jeong, Seunglok Lee, Thi Le Huyen Mai, Jaeyeong Park, Jeewon Park, Wonjun Kim and Changduk Yang\*



## COMMUNICATIONS

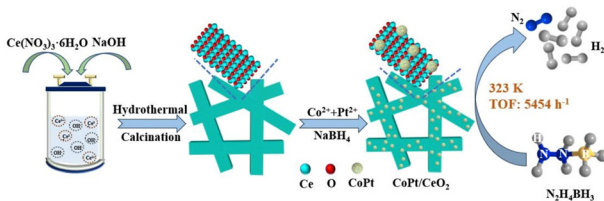
12112



### Interfacial dipole engineering in all-inorganic perovskite solar cells

Kuidong Gao, Lei Gao, Qiurui Wang, Yijie Chang, Qiang Zhang, Yuanyuan Zhao\* and Qunwei Tang\*

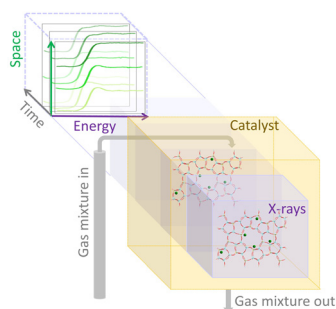
12116



### Efficient and complete dehydrogenation of hydrazine borane over a CoPt catalyst

Haochong Wu, Qilu Yao,\* Chenxi Hu, Jianjun Long, Yuanlan Zhou and Zhang-Hui Lu\*

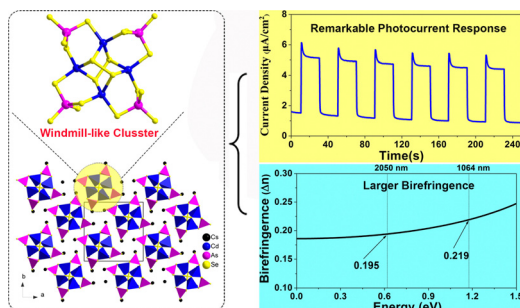
12120



### Time-, space- and energy-resolved *in situ* characterization of catalysts by X-ray absorption spectroscopy

Stefan Peters, Benny Kunkel, Cafer Tufan Cakir, Anke Kabelitz, Steffen Witte, Thomas Bernstein, Stephan Bartling, Martin Radtke, Franziska Emmerling, Ali Mohamed Abdel-Mageed, Sebastian Wohlrab\* and Ana Guilherme Buzanich\*

12124



### A novel bifunctional thioarsenate based on unprecedented molecular $[\text{Cd}_4\text{As}_8\text{Se}_{16}(\text{Se}_2)_2]^{8-}$ cluster anions

Xin Chen, Sheng-Hua Zhou, Chao Zhang, Hua Lin\* and Yi Liu\*

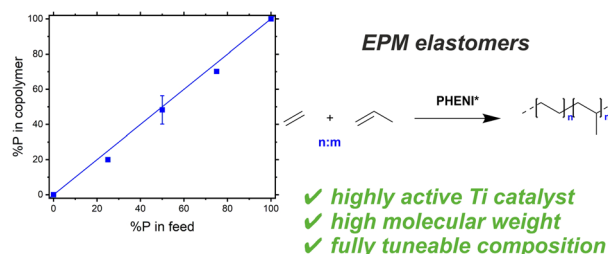


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## Fully tuneable ethylene–propylene elastomers using a supported permethylindenyl-phenoxy (PHENI\*) catalyst

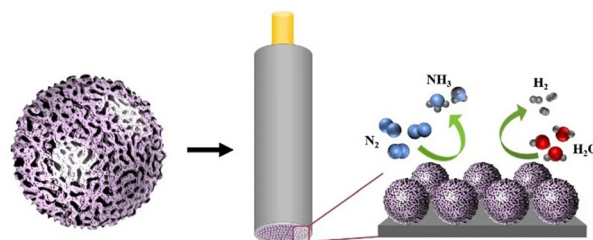
Clement G. Collins Rice, Louis J. Morris, Jean-Charles Buffet, Zoë R. Turner and Dermot O'Hare\*



12132

## Promoting electrochemical nitrogen fixation by nanoporous AuCu alloys

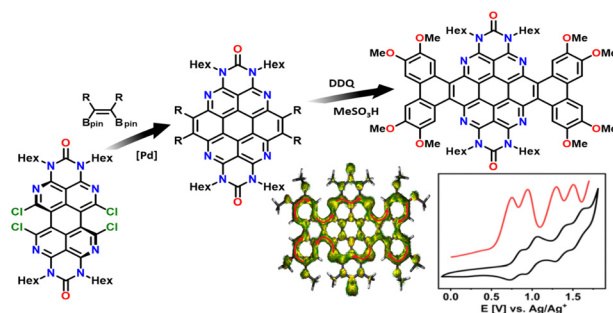
Yijie Yang,\* Shulin Zhao, Yue Pang, Guorui Tang, Yu Song, Muyang Jiang and Cheng-Peng Li\*



12136

## Zipping up tetraazaperylene: synthesis of tetraazacoronenes via double coupling in the bay positions

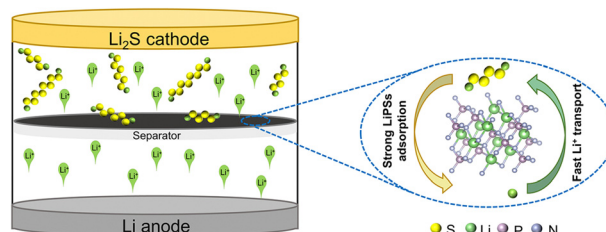
Robert Eichelmann, Daniel Rippel, Joachim Ballmann and Lutz H. Gade\*



12140

Li<sup>+</sup> mobility powered by a crystal compound for fast Li–S chemistry

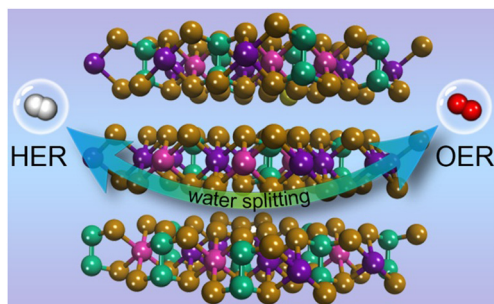
Ben Chen, Boxin Li, Jingxuan Bi, Hongfang Du,\* Siying Wang, Lei Liu, Linghai Xie, Jinmeng Sun,\* Zhuzhu Du and Wei Ai\*





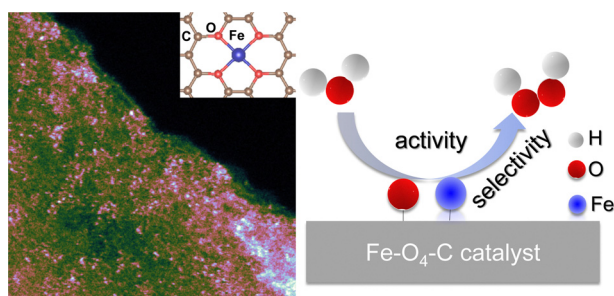
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12144

Co doping promotes the alkaline overall seawater electrolysis performance over MnPSe<sub>3</sub> nanosheets

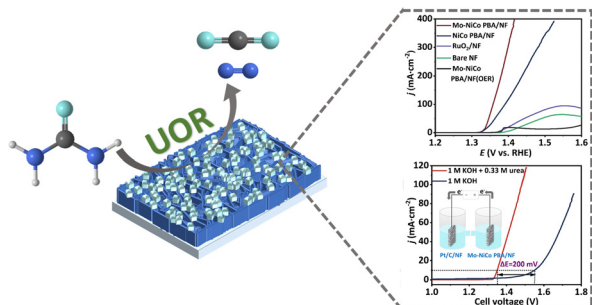
Hao Zhang, Ge Meng,\* Tianran Wei, Junyang Ding,\* Qian Liu, Jun Luo and Xijun Liu\*

12148

Atomically dispersed Fe–O<sub>4</sub>–C sites as efficient electrocatalysts for electrosynthesis of hydrogen peroxide

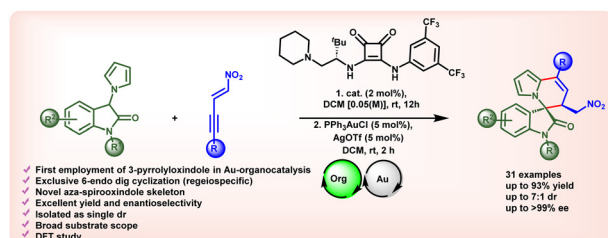
Liuyue Cao, Hongrui Wang, Ningyan Cheng,\* Lei Zhang, Meiqing Shi\* and Bin-Wei Zhang\*

12152

*In situ* grown high-valence Mo-doped NiCo Prussian blue analogue for enhanced urea electrooxidation

Xiaoxing Zhou, Jun Hu, Sara Ajmal, Dong Xiang, Zhenjie Sun, Wenxing Chen, Manzhou Zhu, Ping Chen and Peng Li\*

12156



## Sequential organo and metal catalyzed reaction between 3-pyrrolyloxindoles and linear nitroenynes: access to cyclic aza-spirooxindoles

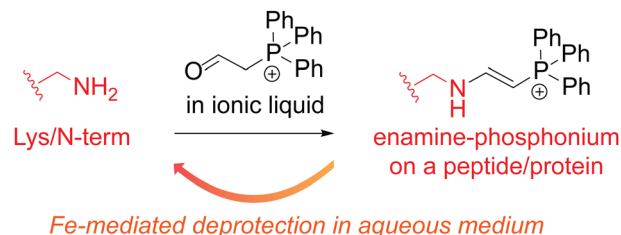
Subhankar Biswas, Siddhartha K. Purkayastha, Ankur K. Guha and Subhas Chandra Pan\*



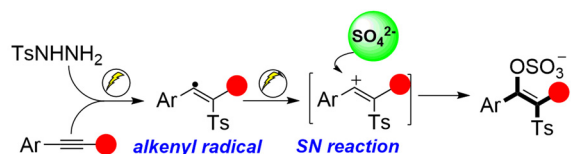
## COMMUNICATIONS

12160

## Iron-sensitive protein conjugates formed with a Wittig reaction precursor in ionic liquid

Zeinab M. Nizam, Ashton M. Stowe,  
Jada K. McKinney and Jun Ohata\*

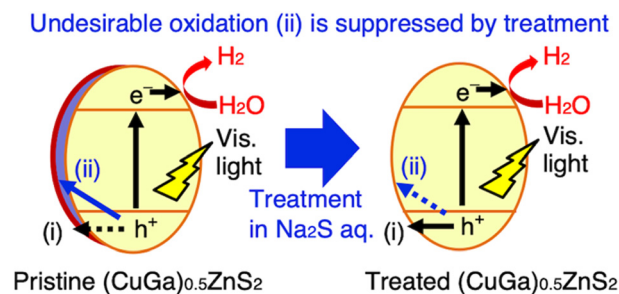
12164

 $\text{SO}_4^{2-}$  ions as a nucleophilic reagent: straightforward electrochemical access to organosulfatesChen Li, Zhuo Chen, Xue-Yang Guo, Li-Rong Wen,  
Ming Li\* and Lin-Bao Zhang\*the first example:  $\text{SO}_4^{2-}$  ions as a nucleophilic reagent

12168

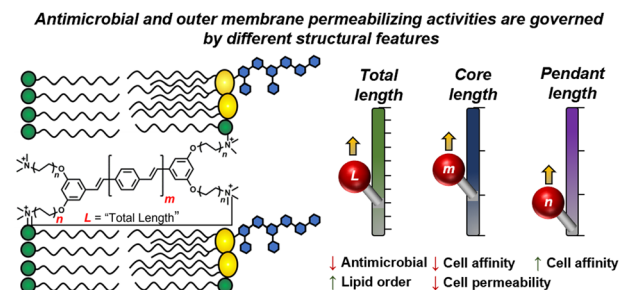
Enhanced Z-schematic water splitting using a  $(\text{CuGa})_{0.5}\text{ZnS}_2$   $\text{H}_2$ -evolving photocatalyst with treatment in aqueous solutions

Akihide Iwase\* and Koki Yagishita



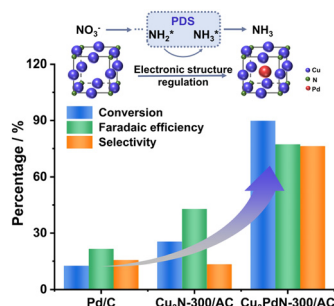
12172

## Structural modulation of membrane-intercalating conjugated oligoelectrolytes decouples outer membrane permeabilizing and antimicrobial activities

Alex S. Moreland, Jakkarin Limwongyut,  
Samuel J. Holton and Guillermo C. Bazan\*

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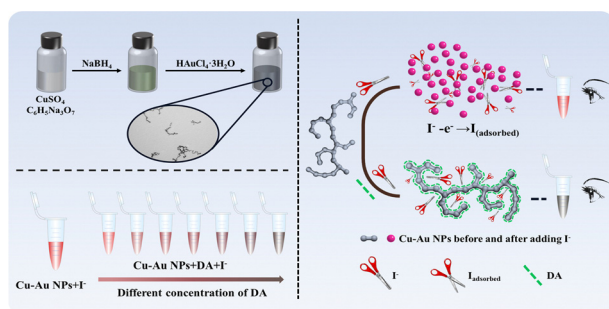
12176



### Regulating charge distribution of Cu<sub>3</sub>PdN nanocrystals for nitrate electroreduction to ammonia

Kai Yao, Zhaobin Fang, Jieyue Wang, Wenhai Wang, Mingyue Wang, Weijie Yan, Mingfu Ye, Binbin Jiang,\* Konglin Wu\* and Xianwen Wei\*

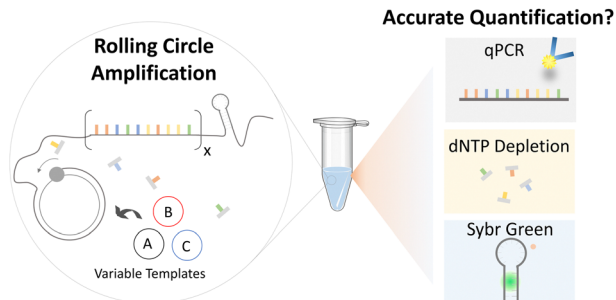
12180



### Multicolor colorimetric detection of dopamine based on iodide-responsive copper–gold nanoparticles

Yufeng Sun, Minjie Peng, Aiguo Wu and Yujie Zhang\*

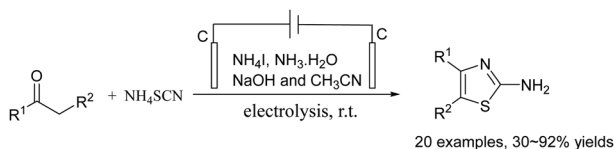
12184



### Accurate quantification of DNA content in DNA hydrogels prepared by rolling circle amplification

Leonie Schneider, Madleen Richter, Claude Oelschlaeger, Kersten S. Rabe, Carmen M. Domínguez and Christof M. Niemeyer\*

12188



### NH<sub>4</sub>I-promoted electrosynthesis of 2-aminothiazole derivatives from ketone compounds and NH<sub>4</sub>SCN

Chaowei Zhang and Gaoqing Yuan\*

