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Chemical Communications

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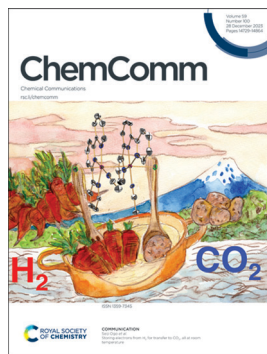
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ISSN 1359-7345 CODEN CHCOFS 59(100) 14729-14864 (2023)



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### Inside cover

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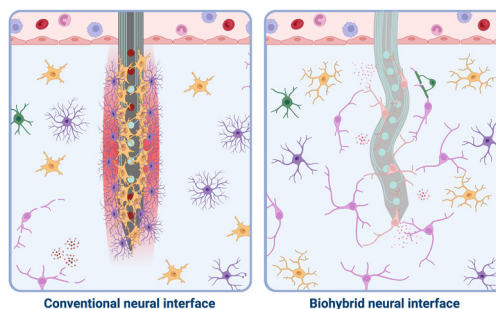


## FEATURE ARTICLES

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### Biohybrid neural interfaces: improving the biological integration of neural implants

Marjolaine Boulingre, Roberto Portillo-Lara and Rylie A. Green\*



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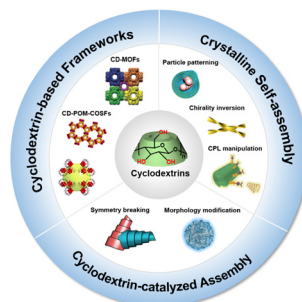


## FEATURE ARTICLES

14759

### New opportunities for cyclodextrins in supramolecular assembly: metal organic frameworks, crystalline self-assembly, and catalyzed assembly

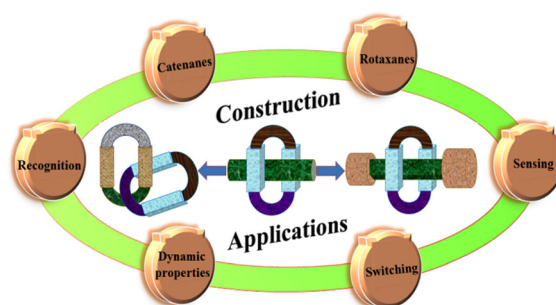
Ting Gu, Jianbin Huang\* and Yun Yan\*



14776

### From construction to application of a new generation of interlocked molecules composed of heteroditopic wheels

Mandira Nandi, Somnath Bej, Tarun Jana and Pradyut Ghosh\*

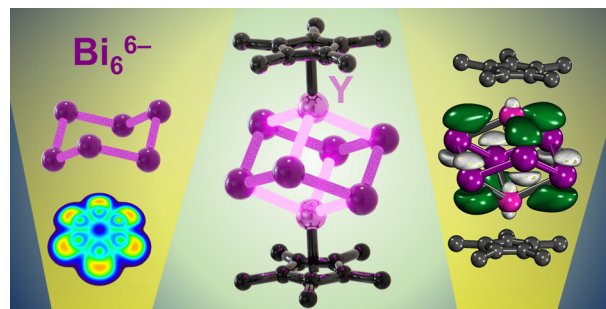


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14791

### Isolation of an organometallic yttrium bismuth cluster and elucidation of its electronic structure

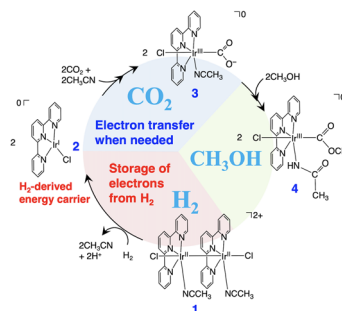
Elizabeth R. Pugliese, Florian Benner and Selvan Demir\*



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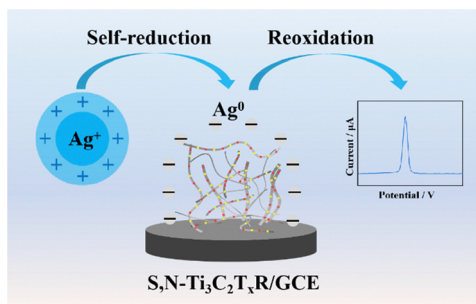
### Storing electrons from H<sub>2</sub> for transfer to CO<sub>2</sub>, all at room temperature

Daiki Shimauchi, Takeshi Yatabe, Yuka Ikesue, Yuu Kajiwara, Taro Koide, Tatsuya Ando, Ki-Seok Yoon, Hidetaka Nakai and Seiji Ogo\*



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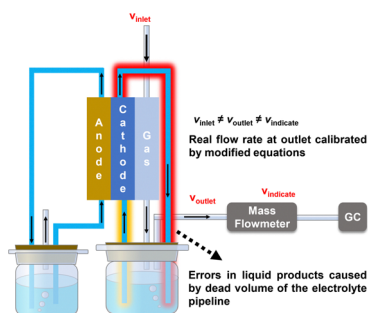
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### A proof-of-concept electroreduction-free anodic stripping voltammetry analysis of Ag(I) based on S,N-Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene nanoribbons

Yifan Zhou, Yinhui Yi, Yong He and Gangbing Zhu\*

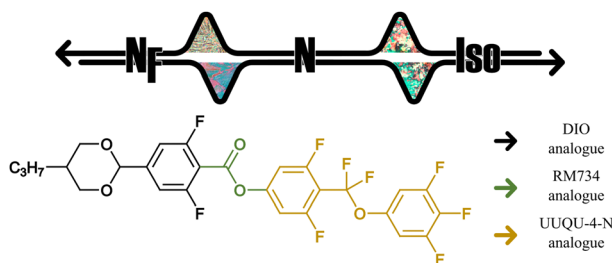
14803



### Accurate assessment of electrocatalytic carbon dioxide reduction products at industrial-level current density

Xin Zi, Qiuwen Liu, Li Zhu, Qin Chen, Xiangqiong Liao, Ziwen Mei, Xiaojian Wang, Xiqing Wang, Kang Liu, Junwei Fu\* and Min Liu\*

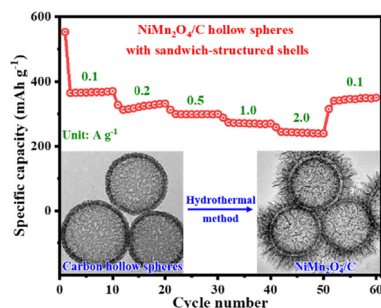
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### Enantiotropic ferroelectric nematic phase in a single compound

Jakub Karcz,\* Natan Rychłowicz, Matgorzata Czarnecka, Antoni Kocot, Jakub Herman and Przemysław Kula

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### Fabrication of NiMn<sub>2</sub>O<sub>4</sub>/C hollow spheres with a trilaminar shell structure as an anode material for sodium-ion batteries

Tao Liu, Xuejie Wang, Yang Han, Yingqi Wu, Liuyang Zhang\* and Jiaguo Yu\*

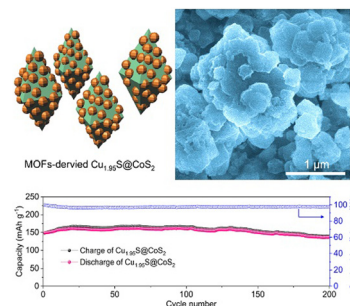


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### A metal organic framework-derived octahedral $\text{Cu}_{1.95}\text{S}@\text{CoS}_2$ for secondary batteries displaying long cycle life and stable temperature tolerance

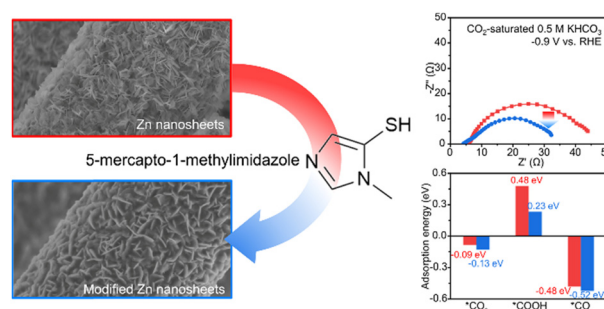
Tianli Han,\* Haiyuan Bai, Jing Xu, Yajun Zhu, Xirong Lin and Jinyun Liu\*



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### Organic molecule-assisted intermediate adsorption for conversion of $\text{CO}_2$ to $\text{CO}$ by electrocatalysis

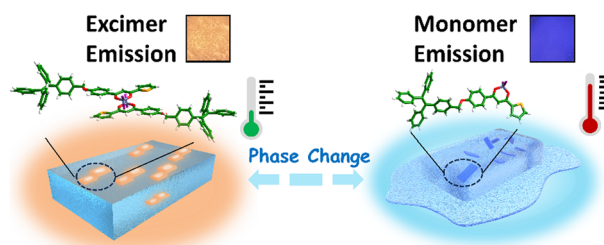
Kai Zhang, Wenyuan Wang, Ying Wang, Wenhui Wang, Nanyang Wang, Jun Pu, Qiulong Li and Yagang Yao\*



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### An ultra-sensitive ratiometric fluorescent thermometer based on monomer and excimer dual emission

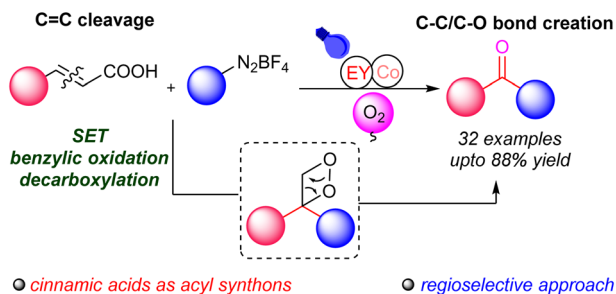
Weixu Feng,\* Yanhui Wu, Dong Chen, Sumin Lu, Yan Zhao and Hongxia Yan\*



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### Synthesis of unsymmetrical ketones via dual catalysed cross-coupling of $\alpha,\beta$ -unsaturated carboxylic acids with aryldiazonium salts

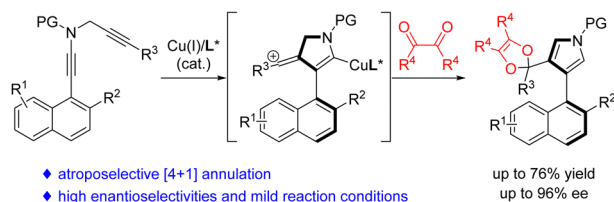
Shiv Chand, Anup Kumar Sharma, Anand Kumar Pandey and Krishna Nand Singh\*





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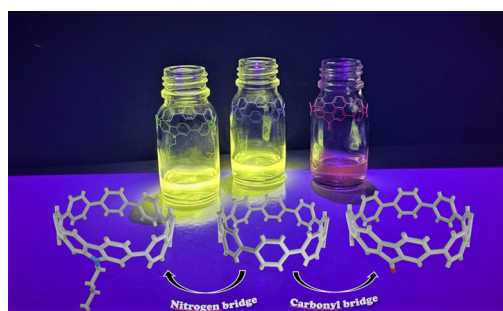
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## Copper-catalyzed atroposelective formal [4+1] annulation of 1,2-diketones with vinyl cations

Ze-Shu Wang, Hao-Jin Xu, Yang-Bo Chen, Long-Wu Ye,\* Bo Zhou\* and Peng-Cheng Qian\*

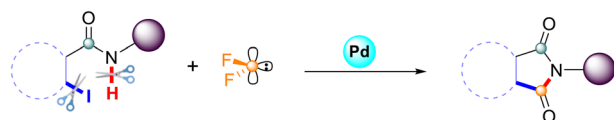
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## Modulation of [8]CPP properties by bridging two phenylene units

Denis Ari, Elodie Dureau, Olivier Jeannin, Joëlle Rault-Berthelot, Cyril Poriol and Cassandre Quinton\*

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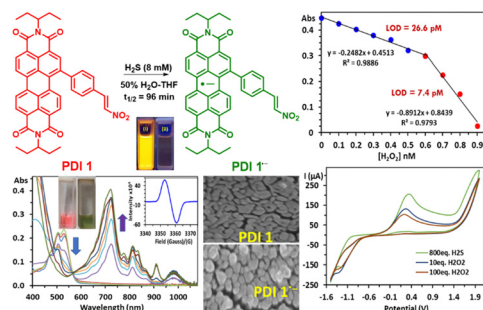


- Good group tolerances
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- Transition-metal catalyzed difluorocarbene transfer carbonylation
- Wide scope of substrates
- Gram scale synthesis

Synthesis of *N*-substituted phthalimides via Pd-catalyzed [4+1] cycloaddition reaction

Chengxian Hu, Lu Wang, Yuanyuan Wu, Yonglong Zheng, Ying Fu\* and Zhengyin Du\*

14843

Perylene diimide-based radical anions for the rapid detection of picomolar H<sub>2</sub>O<sub>2</sub> in an aqueous medium

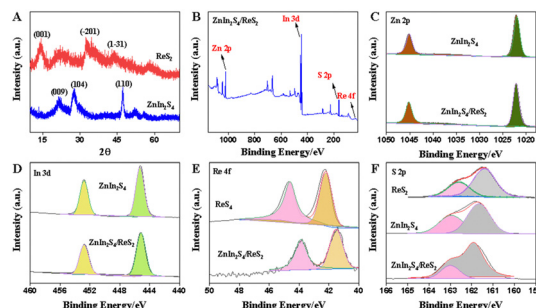
Navdeep Kaur, Sagar Sardana, Aman Mahajan, Subodh Kumar and Prabhpreet Singh\*



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### A $\text{ZnIn}_2\text{S}_4/\text{ReS}_2/\text{AgInS}_2$ -based photoelectrochemical aptasensor for the ultrasensitive detection of kanamycin

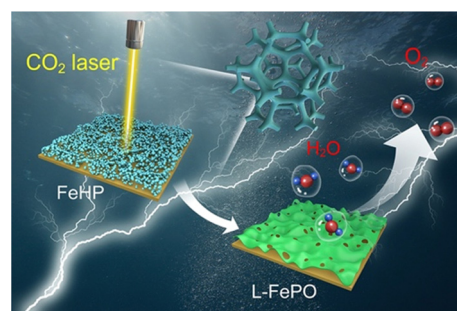
Xing-Pei Liu, Yuan-Yuan Tang, Jing-Shuai Chen, Chang-Jie Mao\* and Bao-Kang Jin



14851

### Laser-induced immobilization of an amorphous iron-phosphate/ $\text{Fe}_3\text{O}_4$ composite on nickel foam for efficient water oxidation

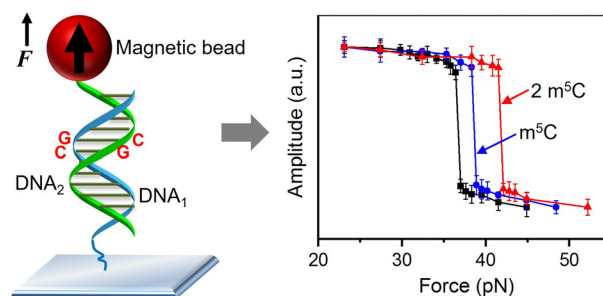
Yan Zou, Man Jin, Dongdong Zhu and Yu-Jia Tang\*



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### DNA methylation induces subtle mechanical alteration but significant chiral selectivity

Yi Zeng, Yujia Mao, Yanjun Chen, Yuhong Wang\* and Shoujun Xu\*



14859

### Photocatalytic $\text{C}(\text{sp}^3)\text{-H}$ thiolation by a double $\text{S}_{\text{H}}2$ strategy using thiosulfonates

Nobukazu Taniguchi,\* Mamoru Hyodo,\* Lin-Wei Pan and Ilhyong Ryu\*

