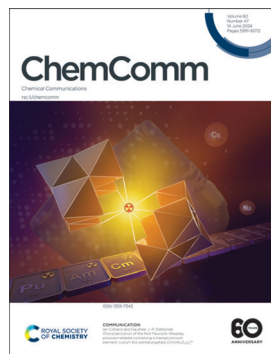


## IN THIS ISSUE

ISSN 1359-7345 CODEN CHCOFS 60(47) 5991-6072 (2024)



### Cover

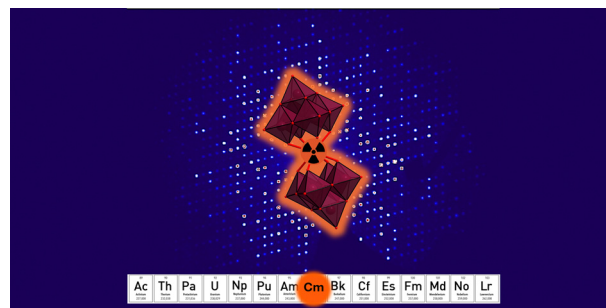
See Ian Colliard and Gauthier J.-P. Deblonde, pp. 5999-6002. Image reproduced by permission of Eric Brian Smith from *Chem. Commun.*, 2024, 60, 5999.

## COMMUNICATIONS

5999

### Characterization of the first Peacock-Weakley polyoxometalate containing a transplutonium element: curium bis-pentatungstate $[\text{Cm}(\text{W}_5\text{O}_{18})_2]^{9-}$

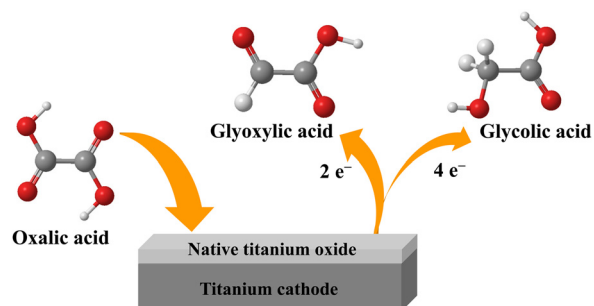
Ian Colliard\* and Gauthier J.-P. Deblonde\*



6003

### Evaluating the native oxide of titanium as an electrocatalyst for oxalic acid reduction

Halilu Sale, Zeliha Ertekin, Paula L. Laguna, Malcolm Kadodwala and Mark D. Symes\*



# EES Catalysis

GOLD  
OPEN  
ACCESS

## Exceptional research on energy and environmental catalysis

### Open to everyone. Impactful for all

[rsc.li/EESCatalysis](https://rsc.li/EESCatalysis)

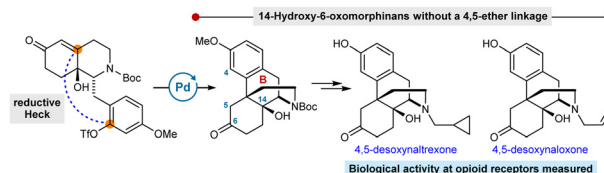
Fundamental questions  
Elemental answers



6007

### Enantioselective *de novo* synthesis of 14-hydroxy-6-oxomorphinans

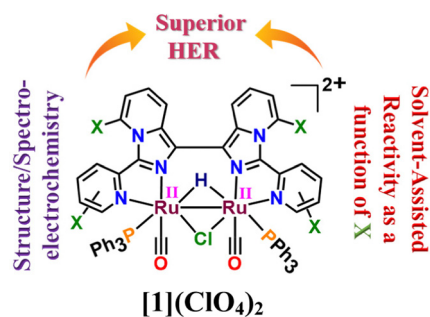
Jonathan C. Moore, Louis Modell, Jacqueline R. Glenn, Kieran D. Jones, Stephen P. Argent, J. Robert Lane, Meritxell Canals and Hon Wai Lam\*



6011

### Superior electrocatalytic hydrogen evolution activity of a triply bridged diruthenium(II) complex on a carbon cloth support

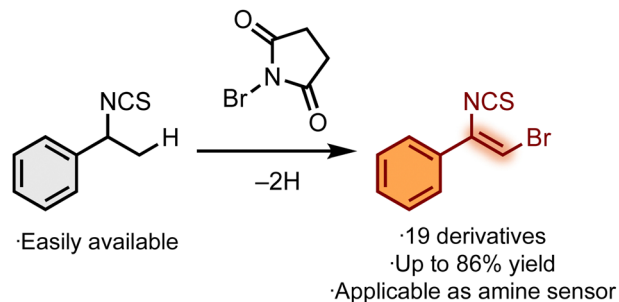
Yogita Arya, Toufik Ansari, Sudip Kumar Bera, Sanjib Panda, Arindam Indra\* and Goutam Kumar Lahiri\*



6015

### Synthesis of *N*-β-brominated alkenyl isothiocyanates via dehydrogenation of alkyl isothiocyanates

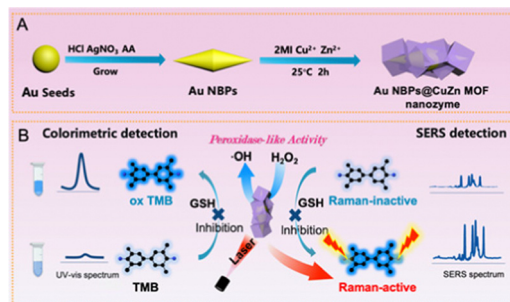
Bumpei Maeda, Ryohei Akiyoshi, Daisuke Tanaka, Kohei Sato and Kei Murakami\*



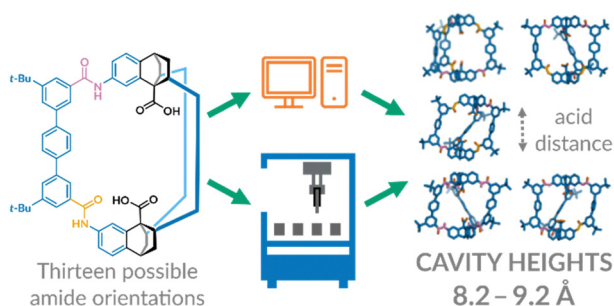
6019

### An Au bipyramids@CuZn MOF core-shell nanozyme enables universal SERS and a colorimetric dual-model bioassay

Mengdi Wang, Feng Shi, Jiayin Li, Lingfeng Min,\* Zhanjun Yang\* and Juan Li\*



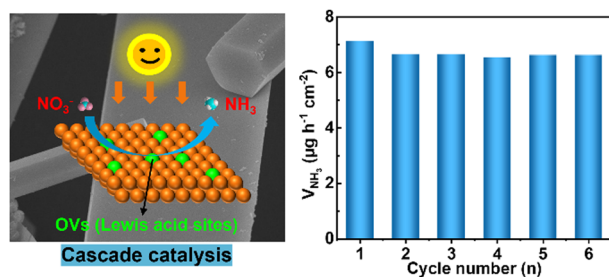
6023



### Exploration of the polymorphic solid-state landscape of an amide-linked organic cage using computation and automation

C. E. Shields, T. Fellowes, A. G. Slater, A. I. Cooper, K. G. Andrews\* and F. T. Szczypiński\*

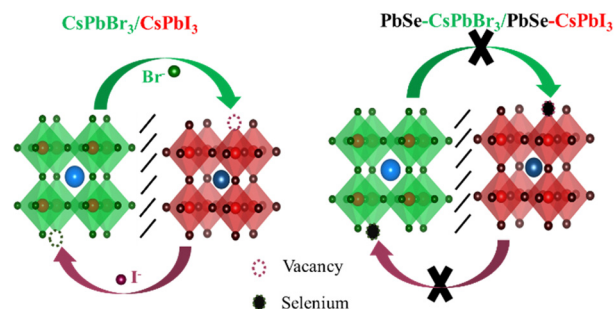
6027



### Understanding the cascade heterojunction of CuPc/Bi-MOF for photoelectrochemical nitrate reduction

Yajie Bai, Zhenyuan Fang, Meiqi Zhai, Xianlei Jiang, Jianming Li,\* Hongye Bai\* and Weiqiang Fan\*

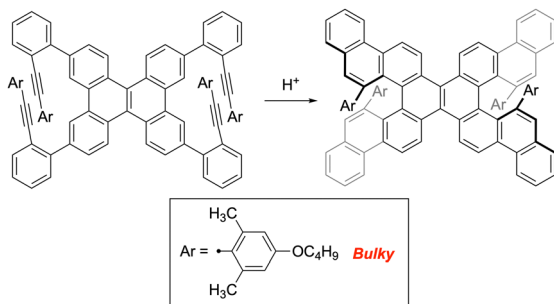
6031



### Prevention of ion migration in lead halide perovskites upon plugging the anion vacancies with PbSe islands

Swati Khurana, Priyesh Yadav, Priyadharsini Natesan, Md Samim Hassan, Deepak Kumar Pradhan and Sameer Sapra\*

6035



### Synthesis of sterically congested double helicene by alkyne cycloisomerization

Junichiro Hirano, Sayaka Miyoshi, Eiji Yashima, Tomoyuki Ikai, Hiroshi Shinokubo and Norihito Fukui\*

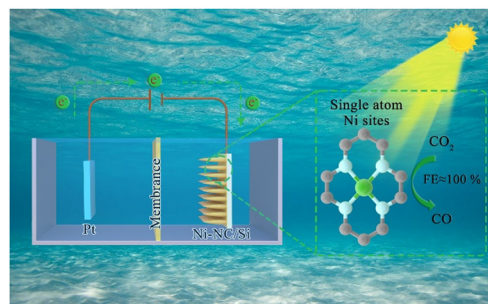




6039

### Single-atom nickel sites boosting Si nanowires for photoelectrocatalytic CO<sub>2</sub> conversion with nearly 100% selectivity

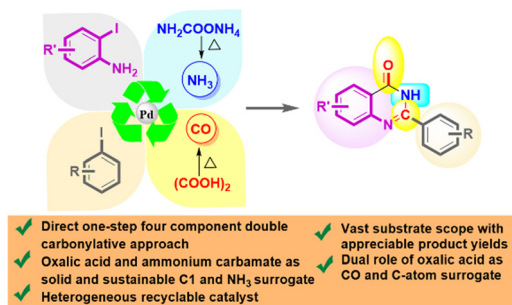
Jihu Kang, Wenhao He, Keke Wang, Yuanyuan Chen, Yang Liu, Ya Li\* and Wenzhang Li\*



6043

### Oxalic acid as a dual C1 surrogate for heterogeneous palladium-catalyzed tandem four-component quinazolinone synthesis

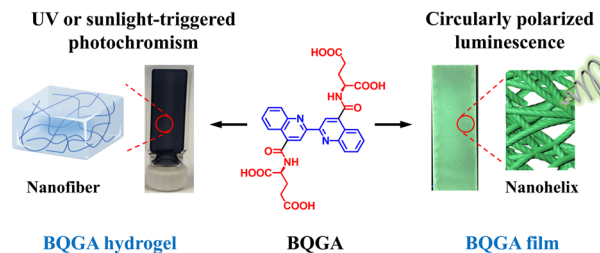
Sheetal, Poonam Sharma, Ashish Kumar, Navneet Sharma, Kousik Giri and Pralay Das\*



6047

### Aggregate-state-dependent photochromism and circularly polarized luminescence of a chiral biquinoline amphiphile

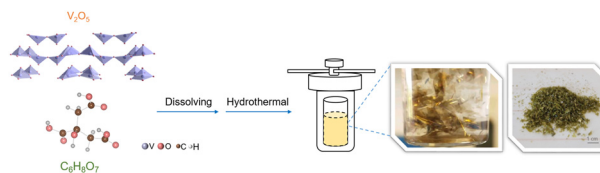
Chenyang Zhao, Zujian Li, Lukang Ji, Hanxiao Wang, Guanghui Ouyang\* and Minghua Liu



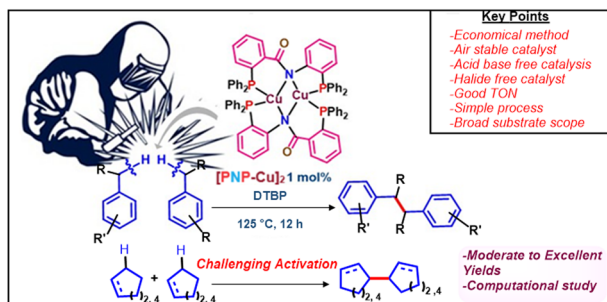
6051

### Large scale and oxygen vacancy VO<sub>2</sub> porous thin sheets to enable high-performance zinc ion storage

Qingqing He, Yanxin Liao, Mengda Xue, Huayu Wang, Jie Bai and Lingyun Chen\*



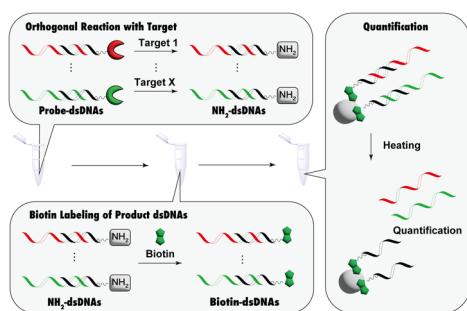
6055



### Cu<sup>I</sup>-amidobis(phosphine) catalyzed C(sp<sup>3</sup>)-C(sp<sup>3</sup>) direct homo- and hetero-coupling of unactivated alkanes via C(sp<sup>3</sup>)-H activation

Sachin C. Sonawane, Rani Gourkhede, Prateek Saini, Srinivasan Ramakrishnan\* and Maravanji S. Balakrishna\*

6059

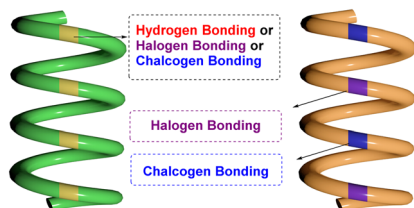


### A detection system using sensing motif-tethered oligodeoxynucleotides for multiplex biomolecular analysis

Tatsuya Nishihara,\* Yuto Motohashi, Reoto Mio, Masato Sugawara and Kazuhito Tanabe\*

6063

#### Non-covalent Directed Supramolecular Helices



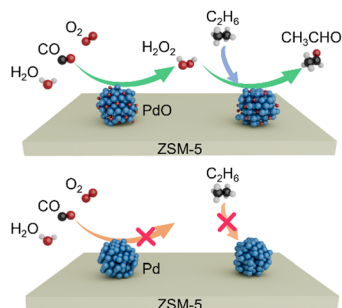
Former works:  
Single Non-covalent Interaction

This work:  
Alternate XB and ChB  
(H-Bonded Arylamide Backbone)

### Multiple non-covalent-interaction-directed supramolecular double helices: the orthogonality of hydrogen, halogen and chalcogen bonding

Chuan-Zhi Liu,\* Chi Zhang, Zhong-Yi Li, Jiale Chen, Tonglu Wang, Xiang-Kun Zhang, Meng Yan and Bin Zhai\*

6067



### Enabling direct oxidation of ethane to acetaldehyde with oxygen using supported PdO nanoparticles

Jiajie Ye, Shoujie Zhang, Yanglong Guo, Wangcheng Zhan, Li Wang, Sheng Dai, Xuan Tang\* and Yun Guo\*

