

# ChemComm

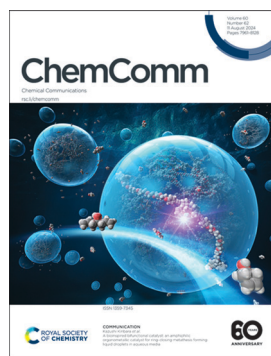
Chemical Communications

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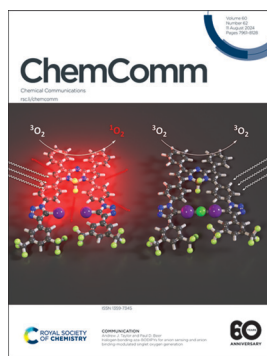
## IN THIS ISSUE

ISSN 1359-7345 CODEN CHCOFS 60(62) 7961-8128 (2024)



### Cover

See Kazushi Kinbara *et al.*, pp. 7979–7982.  
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### Inside cover

See Andrew J. Taylor and Paul D. Beer, pp. 7983–7986.  
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## PROFILE

7972

### Contributors to the Pioneering Investigators Collection 2024: Part 1

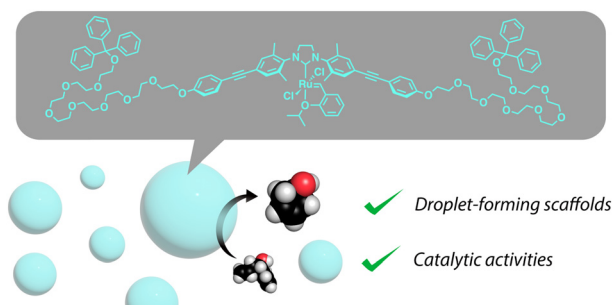


## COMMUNICATIONS

7979

### A bioinspired bifunctional catalyst: an amphiphilic organometallic catalyst for ring-closing metathesis forming liquid droplets in aqueous media

Miki Mori, Hiroka Sugai, Kohei Sato, Asuki Okada, Takashi Matsuo and Kazushi Kinbara\*



# RSC Applied Interfaces

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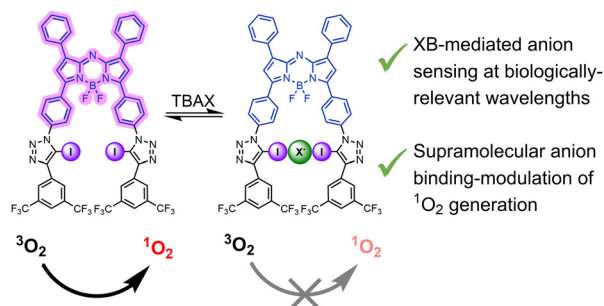
Fundamental questions  
Elemental answers

## COMMUNICATIONS

7983

## Halogen bonding aza-BODIPYs for anion sensing and anion binding-modulated singlet oxygen generation

Andrew J. Taylor and Paul D. Beer\*

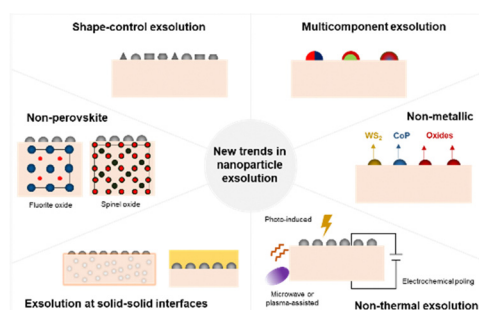


## FEATURE ARTICLES

7987

## New trends in nanoparticle exsolution

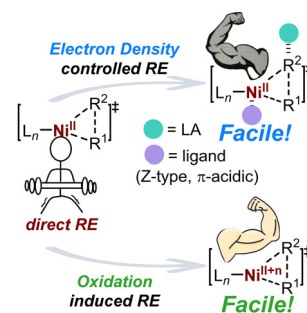
Alfonso J. Carrillo,\* Andrés López-García, Blanca Delgado-Galicia and Jose M. Serra\*



8008

## Mechanistic insights into facilitating reductive elimination from Ni(II) species

Bolin Qiao, Fa-You Lin, Dongmin Fu, Shi-Jun Li, Tao Zhang\* and Yu Lan\*

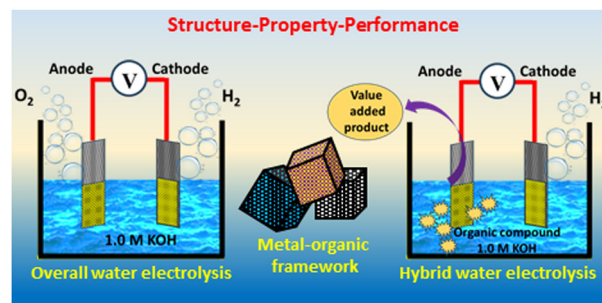


## HIGHLIGHT

8020

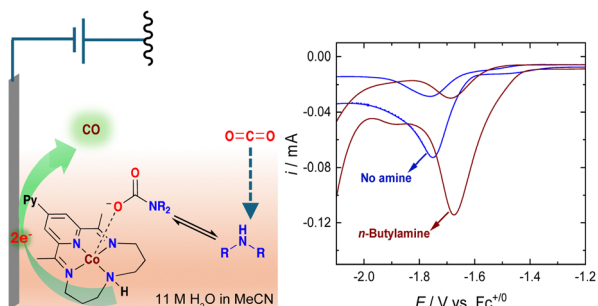
## Metal-organic frameworks (MOFs) for hybrid water electrolysis: structure-property-performance correlation

Baghendra Singh\* and Harshit Gupta





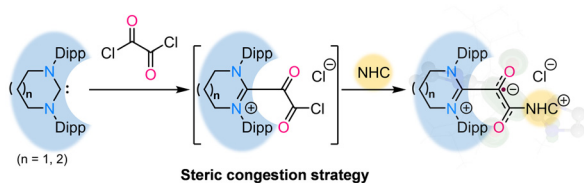
8039



### The influence of exogenous amines on the electrochemical CO<sub>2</sub> reduction activity of a cobalt–pyridyl-diimine catalyst

Piyush Kumar Verma and Charles C. L. McCrory\*

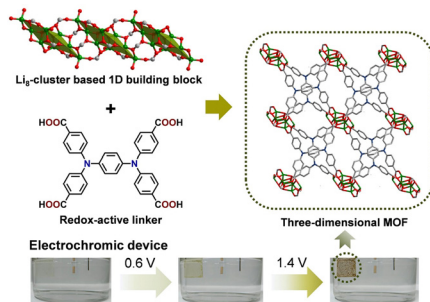
8043



### Synthesis of sterically congested unsymmetrical 1,2-dicarbonyl radicals through a stepwise approach

Yuna Song, Hayoung Song, Yunseop Choi, Jongcheol Seo\* and Eunsung Lee\*

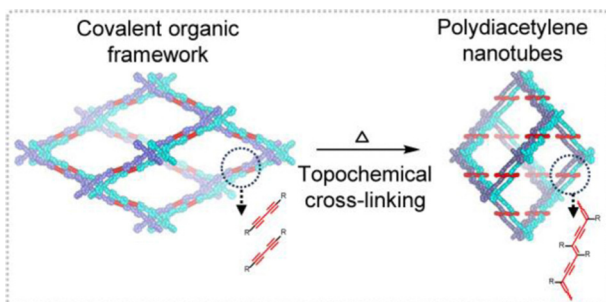
8047



### Construction of a redox-active metal–organic framework with an octanuclear lithium one-dimensional building block

Shu-Fan Li, Ya-Ru Meng, Min-Jie Xu, Gen Zhang\* and Jian Su\*

8051



### Topochemical cross-linking of diacetylene in a highly interpenetrated three-dimensional covalent organic framework

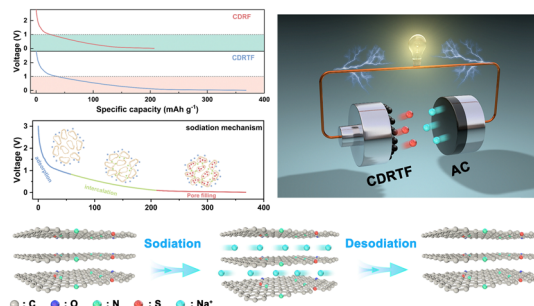
Shangqing Liu, Mengyao Chen, Yu Zhao,\* Guolong Xing, Weidong Zhu and Teng Ben\*



8055

### Heteroatom doping-induced formation of closed pores for high-performance sodium storage hard carbon anodes

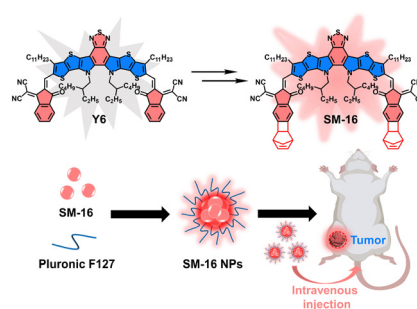
Wenbo Hou, Lili Ma, Anbai Li, Hui Peng, Zhiyuan Liu, Xin Wang, Kanjun Sun, Guofu Ma\* and Yuxi Xu\*



8059

### Design of a high-performance NIR-II nanoprobe by steric regulation for *in vivo* vasculature and tumor imaging

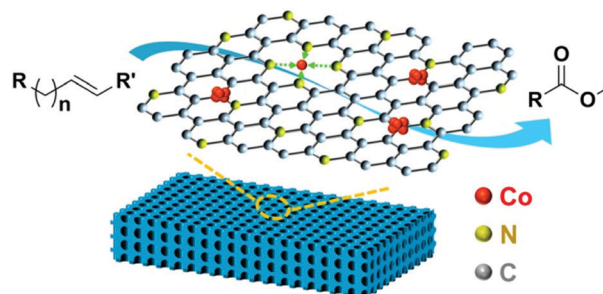
Yu Wang, Yuxin Duan, Chenxing Gong, Yuhang Li, Meilin Xu, Miao Liu, Wenxu Liu,\* Xiaole Zhou\* and Leyu Wang\*



8063

### Synergistic catalysis: cobalt-catalyzed cascade reaction for the oxidative cleavage of olefins to access esters

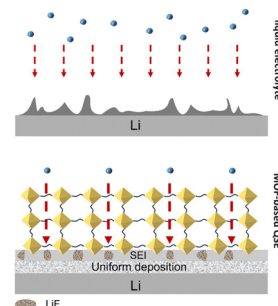
Xiangzhu Yu, Zhengjia Zhao, Shangzhi Tan, Lina Zhu, Weiru Fu, Yue An\* and Lianyue Wang\*



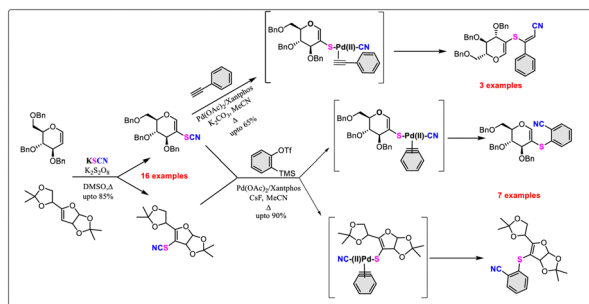
8067

### A fluorinated metal–organic framework-based quasi-solid electrolyte for stabilizing Li metal anodes

Xiang Wang, Mengxi Bai, Qiufen Li, Jiashuai Li, Dongze Li, Xiaoyan Lin, Siyuan Shao and Ziqi Wang\*



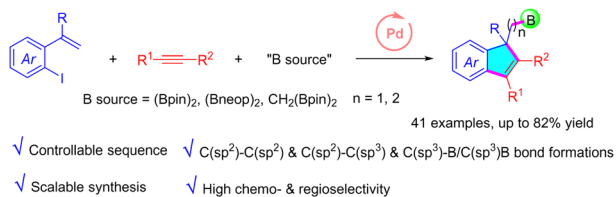
8071



### Peroxodisulfate-assisted synthesis of 2-thiocyanato glycols and their transformation to C-2-thio acrylo/aryl nitrile-substituted glycols

Bisma Rasool, Irshad Ahmad Zargar, Sanchari kundu and Debaraj Mukherjee\*

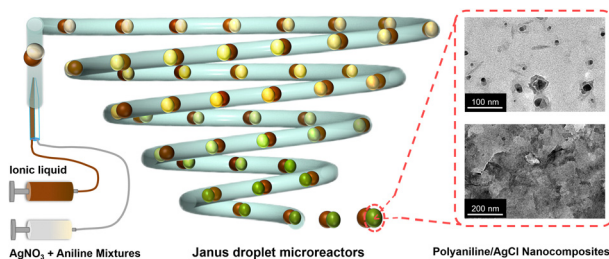
8075



### Three-component cascade carbopalladation/Heck cyclization/borylation: facile access to boryl-functionalized indenones

Fei Sun, Yiyi Zheng, Mingxia Wu, Hongsen Ji, Zhongyao Jiang, Chenglin Liu and Xin-Xing Wu\*

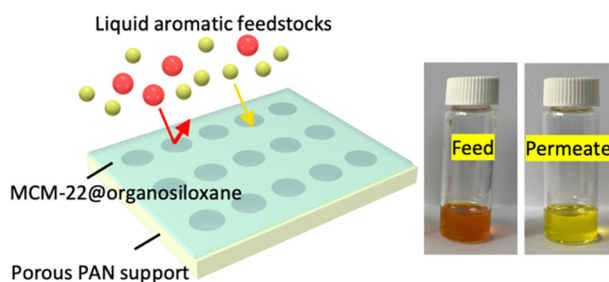
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### Janus droplet microreactors for preparing polyaniline/AgCl nanocomposites

Hao Wang, Shiteng Wang, Yao Mu and Yi Cheng\*

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### Organosiloxane membranes for heavy aromatic oil fractionation

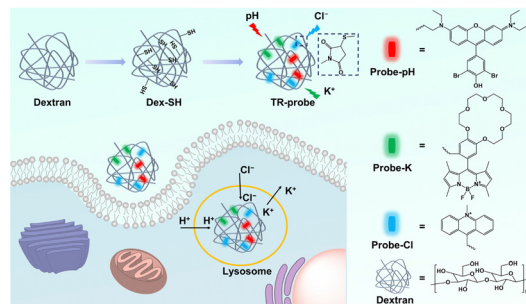
Liang Ma,\* Min Hou, Yuemei Wang, Weiyi Tong and Junlin Zheng



8087

### Ternary recognition fluorescent probe for lysosome acidification counter-ion studies *via* Cl<sup>-</sup>, K<sup>+</sup>, and pH

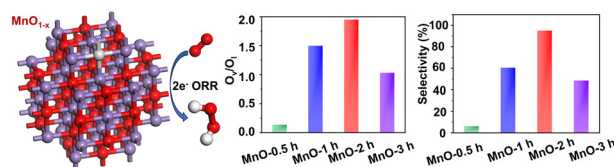
Guang-Yue Zou, Fan Bi, Shuai Chen, Meng-Xian Liu\* and Yong-Liang Yu\*



8091

### Adjusted MnO oxygen vacancy for highly selective ORR production of H<sub>2</sub>O<sub>2</sub>

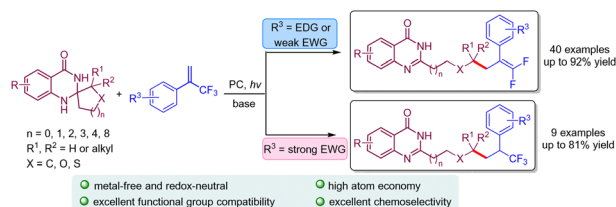
Liangjie Fu, Zixiong Li, Yimin Wu, Aidong Tang\* and Huaming Yang\*



8095

### Metal-free, photoredox-catalyzed aromatization-driven deconstructive functionalization of spiro-dihydroquinazolinones with $\alpha$ -CF<sub>3</sub> alkenes

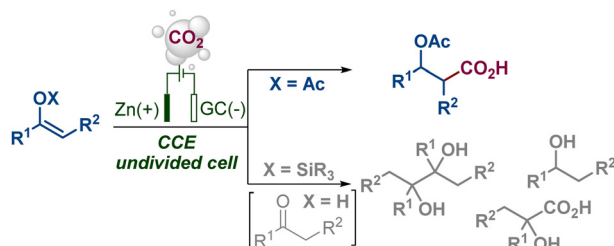
Jin-Hua Zhang, Hong-Jie Miao, Jia-Yi Li, Wenke Li, Pengchen Ma,\* Xin-Hua Duan and Li-Na Guo\*



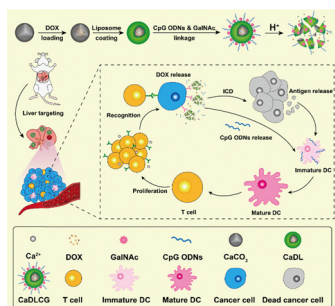
8099

### Electrochemical hydrocarboxylation of enol derivatives with CO<sub>2</sub>: access to $\beta$ -acetoxycarboxylic acids

Alexander O. Ustyuzhanin, Oleg V. Bitjukov, Pavel V. Sokolovskiy, Valentina M. Merkulova, Alexey I. Ilvovskiy, Liang-Nian He, Vera A. Vil'\*, and Alexander O. Terent'ev\*



8103



### A GalNAc-modified CaCO<sub>3</sub> nano-immunomodulator for targeted and responsive immunotherapy against orthotopic liver cancer

Yanhua Li, Jiaqi Yin, Jiarui Zhong, Wei Pan, Na Li\* and Bo Tang\*

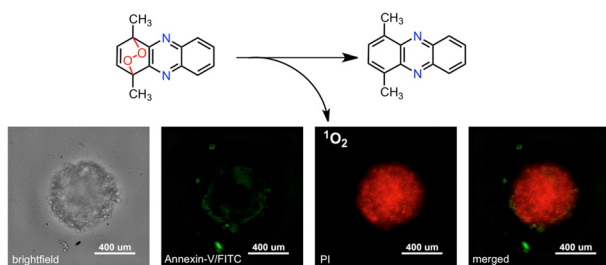
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### Photochemical radical decarboxylative disulfuration of $\alpha$ -keto acids and oxamic acids

Huangbin Sun, Xueting Bin, Qianfang Zhang, Xiaowen Chen,\* Jie Tang\* and Guofang Jiang\*

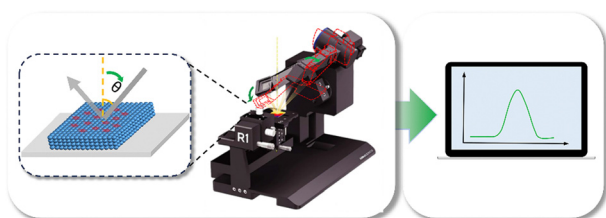
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### Self-reporting intracellular delivery agent for singlet oxygen

Yiran Li, Lei Wang,\* Shengli Zhang, Ziang Liu, Rensong Sun, Yuan Qiao and Engin U. Akkaya\*

8115



### Development of an angle-adjustable photonic crystal fluorescence platform for sensitive detection of oxytetracycline

Yunhuan Huang, Jiaheng Zhang, Bo Sui, Guobi Chai, Ajuan Yu, Sheng Chen, Miaomiao Zhang, Shusheng Zhang, Yanhao Zhang\* and Wuduo Zhao\*

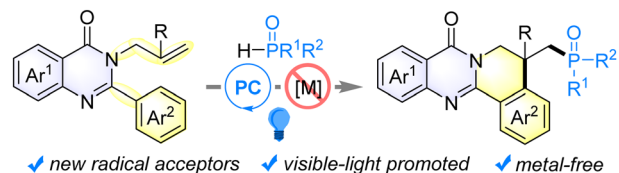




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### Visible-light promoted radical cascade cyclization of 3-allyl-2-arylquinazolinones for the synthesis of phosphorylated dihydroisoquinolino[1,2-*b*]quinazolinones

Jun Huang, Caijin Ban, Jiangping Qin, Jiali Xu, Yunqiong Gu, Liang Wei,\* Jing-Mei Yuan\* and Guobao Huang\*



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### A high-performance magnesium/lithium hybrid-ion battery using a hollow multi-layered NiS/Co<sub>3</sub>S<sub>4</sub>/carbon cathode and an all-phenyl-complex-based electrolyte

Jiamin Liu, Ting Zhou, Yun Shen, Lixing Li, Yajun Zhu and Jinyun Liu\*

