

# ChemComm

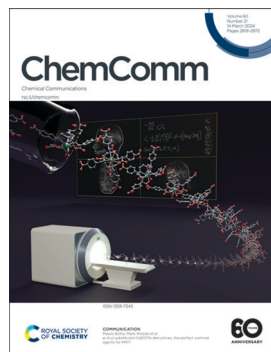
Chemical Communications

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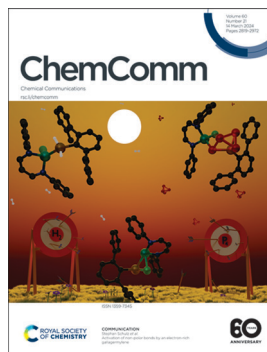
## IN THIS ISSUE

ISSN 1359-7345 CODEN CHCOFS 60(21) 2819-2972 (2024)



### Cover

See Mauro Botta, Mark Woods *et al.*, pp. 2898–2901. Image reproduced by permission of Mark Woods from *Chem. Commun.*, 2024, 60, 2898.



### Inside cover

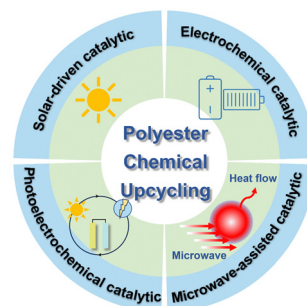
See Stephan Schulz *et al.*, pp. 2902–2905. Image reproduced by permission of Georg Bendt from *Chem. Commun.*, 2024, 60, 2902.

## HIGHLIGHTS

2828

### Advances in solar-driven, electro/photoelectrochemical, and microwave-assisted upcycling of waste polyesters

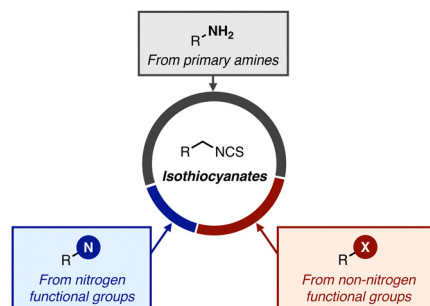
Xiangxi Lou, Fangyue Liu, Qingye Li, Mingyu Chu, Guiling Wang,\* Jinxing Chen and Muhan Cao\*



2839

### Recent advancement in the synthesis of isothiocyanates

Bumpei Maeda and Kei Murakami\*



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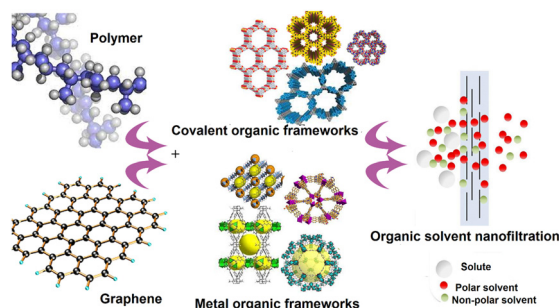
Fundamental questions  
Elemental answers

## FEATURE ARTICLES

2865

## Recent advances in the fabrication of organic solvent nanofiltration membranes using covalent/metal organic frameworks

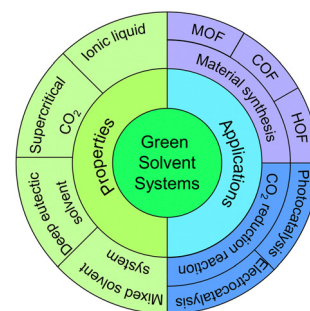
Elham Azadi, Nem Singh, Mohammad Dinari\* and Jong Seung Kim\*



2887

## Green solvent systems for material syntheses and chemical reactions

Jingyang Hu, Jianling Zhang,\* Yingzhe Zhao and Yisen Yang

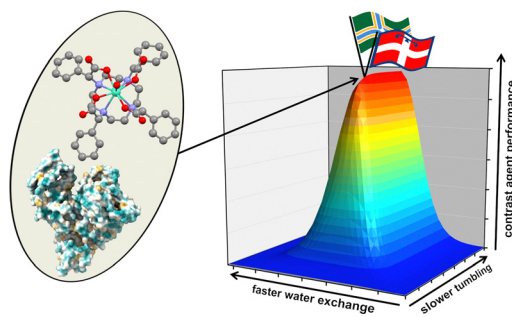


## COMMUNICATIONS

2898

 $\alpha$ -Aryl substituted GdDOTA derivatives, the perfect contrast agents for MRI?

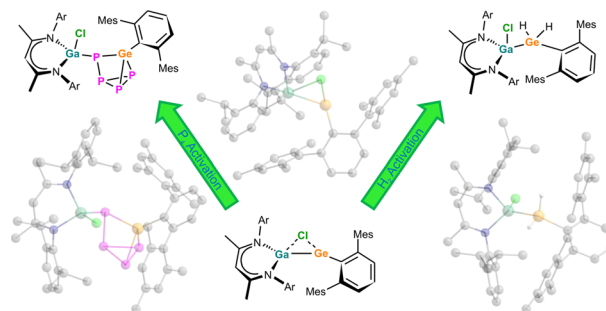
Karley B. Maier, Lauren N. Rust, Fabio Carniato, Mauro Botta\* and Mark Woods\*



2902

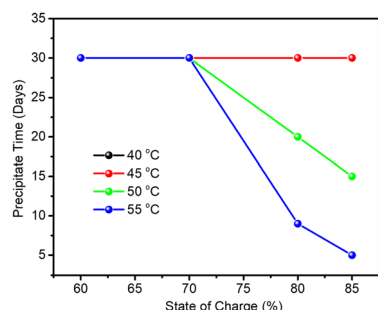
## Activation of non-polar bonds by an electron-rich gallagermylene

Anna Bückler, Alexander Gehlhaar, Christoph Wölper and Stephan Schulz\*





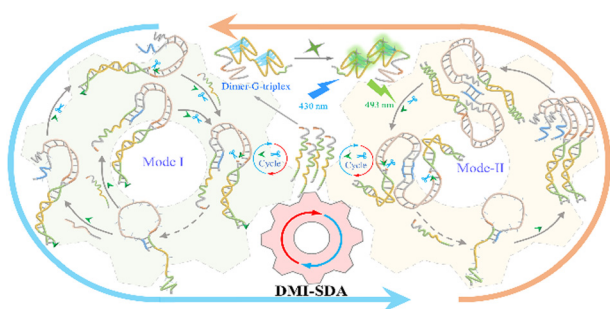
2906



### Effect of phosphoric acid additive on the electrolyte of all-vanadium flow batteries

Xuwen Wu, Jingjing Liao,\* Xingrong Yin, Jun Liu, Saixiang Wu, Xiongwei Wu,\* Zhiyong Xie\* and Wei Ling\*

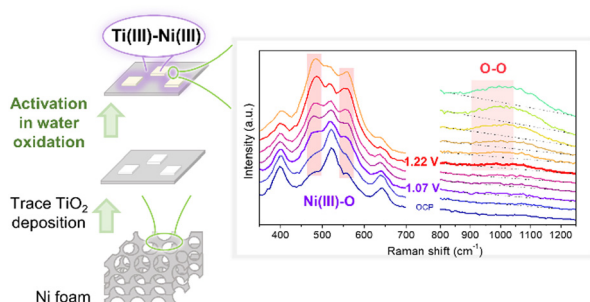
2910



### An allosteric palindromic hairpin probe based dual-mode interactive strand displacement amplification enables robust miRNA biosensing

Qi Wang, Tong Zhou, Danni Xue, Haidong Yang, Zhuqi Sui, Xinyue Yuan and Jianguo Xu\*

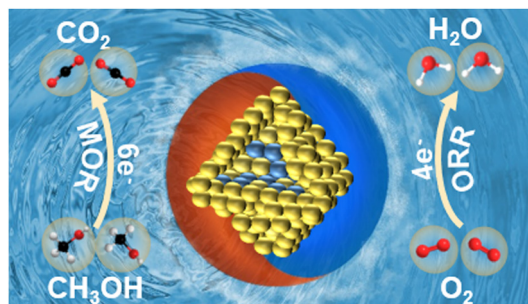
2914



### Activating nickel foam with trace titanium oxide for enhanced water oxidation

Jia-Fang Xie,\* Ding Li, Hui-Wen Huo, Yi-Yin Huang, Peng Wu, Quan-Bao Zhao and Yu-Ming Zheng

2918



### PtCu/Pt core/atomic-layer shell hollow octahedra for oxygen reduction and methanol oxidation electrocatalysis

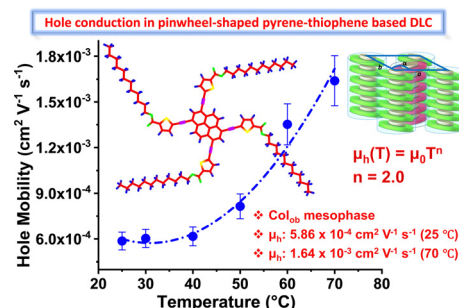
Yi Zhou and Qiang Yuan\*



2922

### Temperature-dependent hole mobility in pyrene–thiophene-based room-temperature discotic liquid crystals

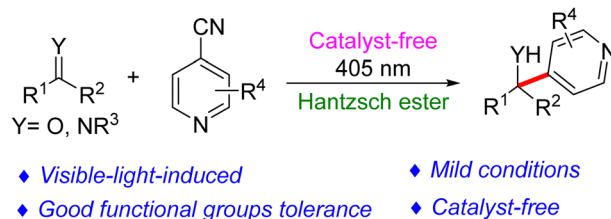
Shallu Dhingra, Santosh Prasad Gupta, Asmita Shah, Dharmendra Pratap Singh and Santanu Kumar Pal\*



2926

### Visible-light-induced catalyst-free reductive coupling of aldehydes, ketones and imines with cyanopyridines

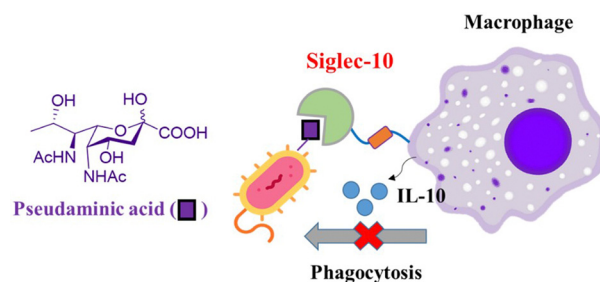
Xiaoting Zou, Yatao Lang, Xinlong Han, Ming-Wei Zheng, Jiayuan Wang, Chao-Jun Li\* and Huiying Zeng\*



2930

### Bacterial pseudaminic acid binding to Siglec-10 induces a macrophage interleukin-10 response and suppresses phagocytosis

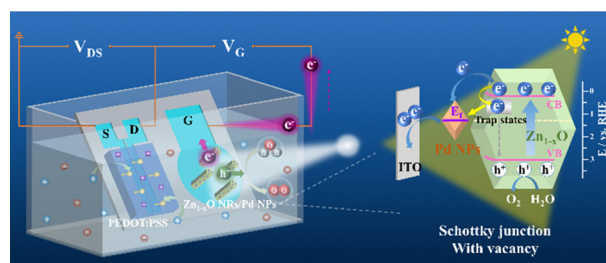
I-Ming Lee, Hsing-Yu Wu, Takashi Angata\* and Shih-Hsiung Wu\*



2934

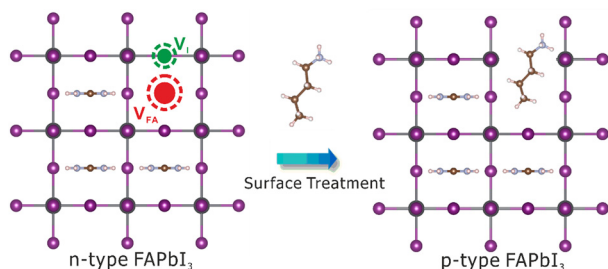
### Synergistic effect of surface metal vacancies and Schottky junction on high-transconductance organic photoelectrochemical transistor aptasensing

Jingjie Lai, Cunhao Fan, Fuheng You, Yuanhao Liu, Xilong Zhou, Yuhang Lin, Lijun Ding\* and Kun Wang\*



## COMMUNICATIONS

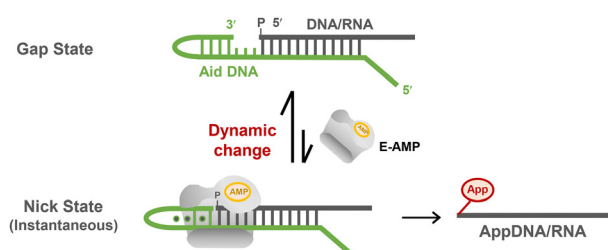
2938



### Interfacial engineering eliminates energy loss at perovskite/HTL junction

Yingke Ren, Hongyang Fu, Yun Li, Zhaoqian Li,\* Cong Li and Xingtao An\*

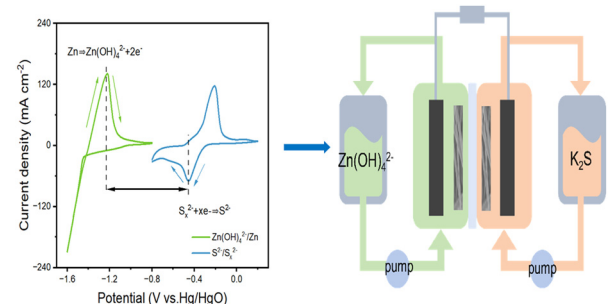
2942



### Formation of an instantaneous nick for highly efficient adenylation of oligonucleotides by ligase without subsequent jointing

Kunling Hu, Wenhua Sun, Hui Chen, Jian Luo, Ziting Song, Ran An,\* Makoto Komiyama and Xingguo Liang\*

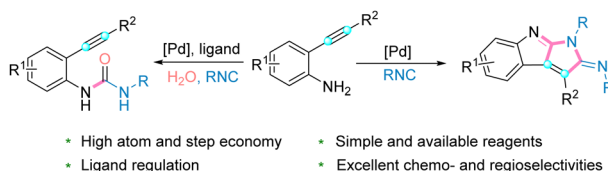
2946



### An aqueous alkaline zinc–sulfur flow battery

Rui Nie, Yizhe Nie, Jiajun Wu, Lihong Yu,\* Le Liu and Jingyu Xi\*

2950



### Palladium-catalyzed ligand-regulated divergent synthesis of pyrrole[2,3-*b*]indoles and ureas from 2-ethynylanilines and isocyanides

Min Zhang, Yongpeng Zheng, Yangbin Jin, Huanfeng Jiang and Wanqing Wu\*

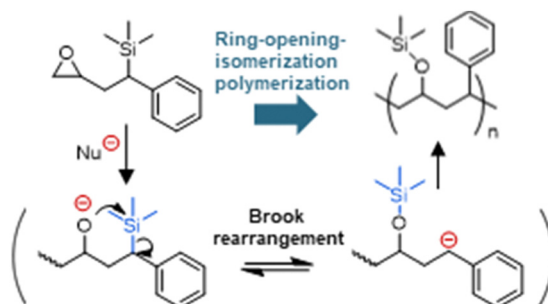


## COMMUNICATIONS

2954

## Ring-opening-isomerization anionic polymerization via Brook rearrangement

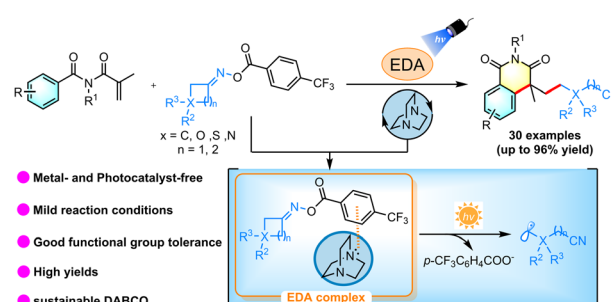
Asuka Hamaguchi, Masaya Terasaki and Kaoru Adachi\*



2958

## Visible-light-driven EDA complex-promoted cascade cyclization to construct 4-cyanoalkyl isoquinoline-1,3-diones

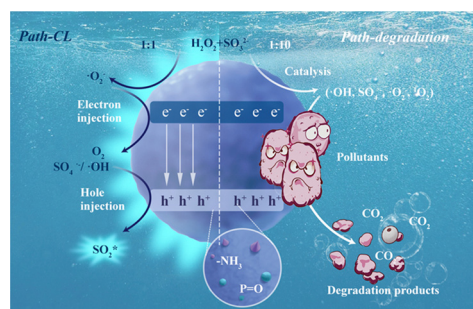
Dong-Liang Zhang, Zhang-Gao Le,\* Qing Li, Zong-Bo Xie, Wen-Wen Yang and Zhi-Qiang Zhu\*



2962

## Phosphorous nitride dots induced efficient advanced oxidation with intrinsic chemiluminescence for organic pollutant degradation

Jing Gou, Tong Sun, Yuxian Zhou and Houjing Liu\*



2966

## Temperature induced single-crystal to single-crystal transformation of uranium azide complexes

Kai Li, Thayalan Rajeshkumar, Yue Zhao, Tianwei Wang, Laurent Maron\* and Congqing Zhu\*

