

IN THIS ISSUE

ISSN 1359-7345 CODEN CHCOFS 61(44) 7897-8096 (2025)



Cover

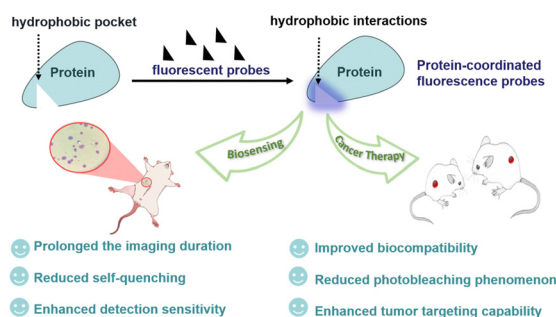
See Masafumi Ueda
et al., pp. 7995–7998.
Image reproduced
by permission of
Masafumi Ueda from
Chem. Commun.,
2025, 61, 7995.

HIGHLIGHT

7908

Small molecular fluorescent probes featuring protein-assisted functional amplification for improved biosensing and cancer therapeutics

Ye Chen, Hongwen Liu and Dailiang Zhang*

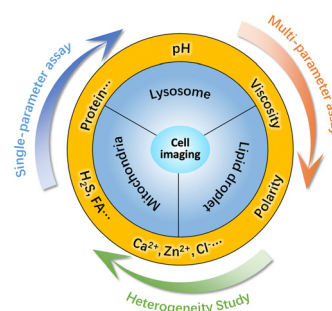


FEATURE ARTICLES

7929

Fluorescent probes for lysosomes, mitochondria, and lipid droplets: precision design, dynamic microenvironment monitoring, and heterogeneity exploration

Wen-Wen Xiao, Shuai Chen,* Meng-Xian Liu* and Yong-Liang Yu



Advance your career in science

with professional recognition that showcases
your **experience, expertise and dedication**

Stand out from the crowd

Prove your commitment
to attaining excellence in
your field

Gain the recognition you deserve

Achieve a professional
qualification that inspires
confidence and trust

Unlock your career potential

Apply for our professional
registers (RSci, RSciTech)
or chartered status
(CChem, CSci, CEnv)

Apply now

rsc.li/professional-development

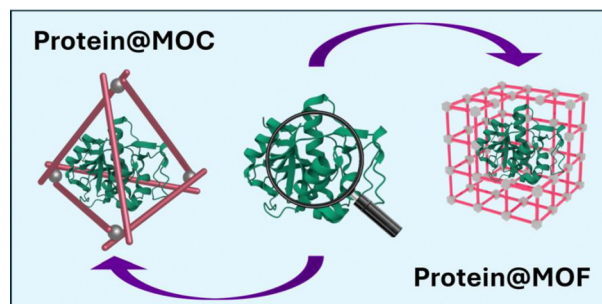


FEATURE ARTICLES

7945

Protein and peptide confinement within metal–organic materials

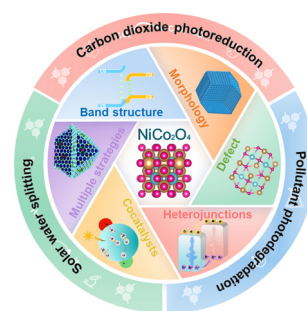
Jack D. Wright, Tongtong Zhang, Xiangyu Wang and Imogen A. Riddell*



7960

A perspective on NiCo_2O_4 -based photocatalysts: from fundamentals, modification strategies to applications

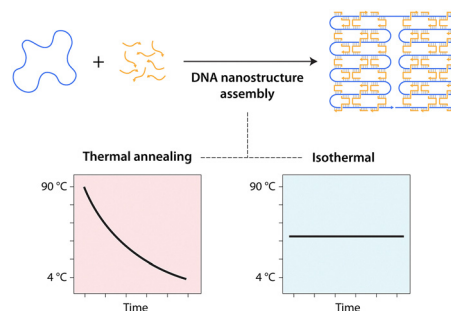
Linfeng Jin, Zhilu Qiu, Chao Cheng, Changfa Guo,* Yijun Zhong and Yong Hu*



7983

Isothermal assembly of DNA nanostructures

Arun Richard Chandrasekaran*

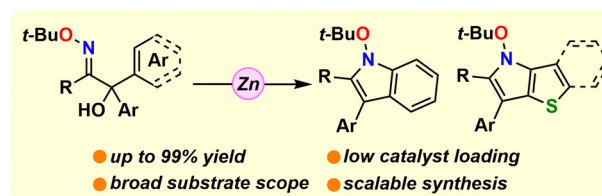


COMMUNICATIONS

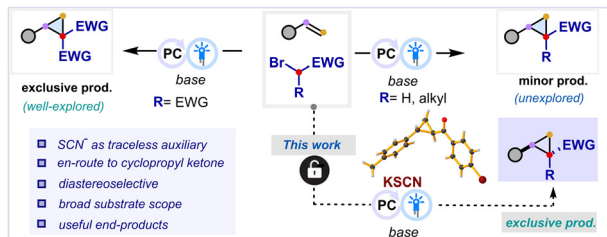
7995

Zinc(II)-catalysed cyclocondensation of oxime ethers triggered by polarity inversion: construction of fused pyrroles

Norihiro Takeda, Sora Fujita, Kaho Murakami, Chihiro Honda, Hina Tomoda, Motohiro Yasui, Takahiro Yamada and Masafumi Ueda*



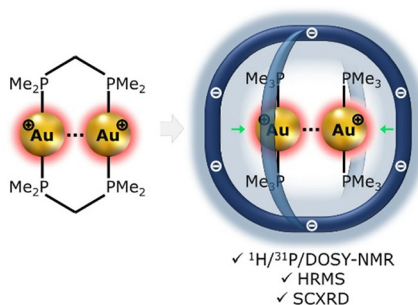
7999



Thiocyanate: a visible-light-driven traceless auxiliary for stereoselective cyclopropyl ketone construction

Subhashis Mondal, Shyamal Pramanik and Soumitra Maity*

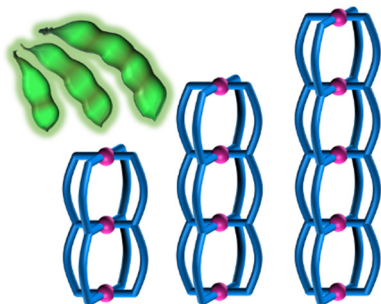
8003



Confinement-supported aurophilic interaction

Youssoupha Diack, Sonia Mallet-Ladeira, Denis Lesage, João V. S. Guerra, Didier Bourissou* and György Szalóki*

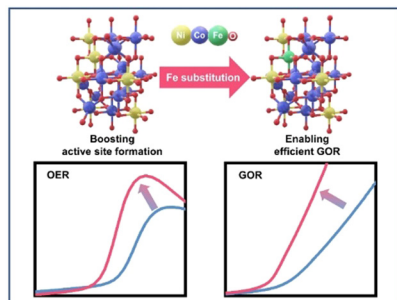
8007



Multi-cavity discrete coordination cages encapsulating up to four units of pyrazine-*N,N'*-dioxide: molecular soybeans

Trilochan Dakua, Srabani Srotoswini Mishra, Ashish Kumar, Shobhana Krishnaswamy and Dillip Kumar Chand*

8011



Foreign cation-promoted active species formation enables efficient electrochemical glycerol valorization

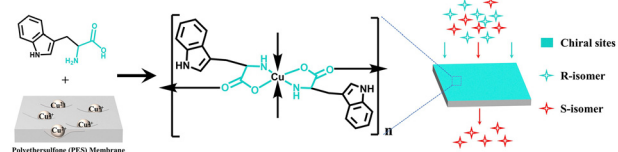
Hojeong Lee, Jihoo Cha, Sun Gwan Cha, Tae-Hoon Kong, Namgyoo Park, Seontaek Kwon, Hyung Ju Kim and Youngkook Kwon*



8015

A chiral MOF membrane for enantioselective amino acid separation

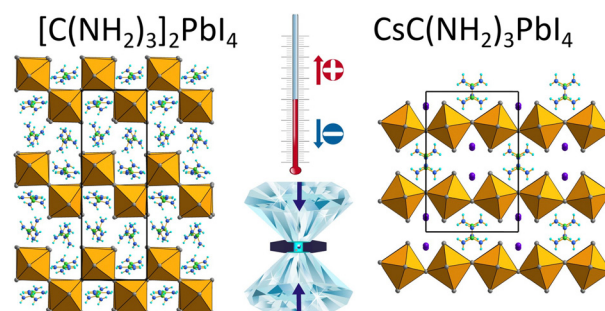
Jinhua Xu, Jinyu Zhang, Wenmin Zhang, Shiye Xie and Lan Zhang*



8019

Effect of pressure and temperature on the structure and optical properties of two-dimensional lead iodide perovskites

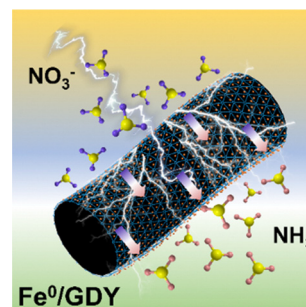
Viktoriia Drushliak and Marek Szafranski*



8023

Single-atom Fe anchored graphdiyne for high-efficiency nitrate-to-ammonia conversion under ambient conditions

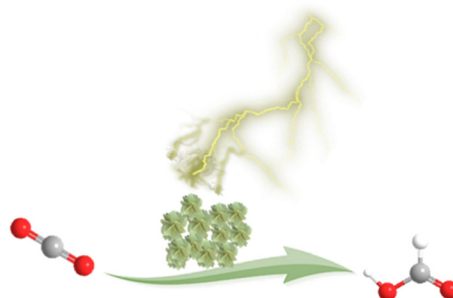
Jiayu Yan, Lu Qi, Zhiqiang Zheng,* Zhaoyang Chen, Qi Wang and Yurui Xue*



8027

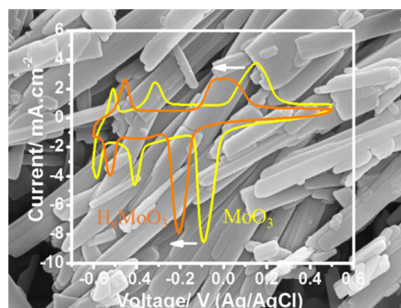
In situ reconstruction of thermally treated Bi₂S₃ nanorods in H₂ followed by O₂ enhances CO₂ electroreduction

Chaofan Zhang, Wenguang Cui and Zhongkui Zhao*



COMMUNICATIONS

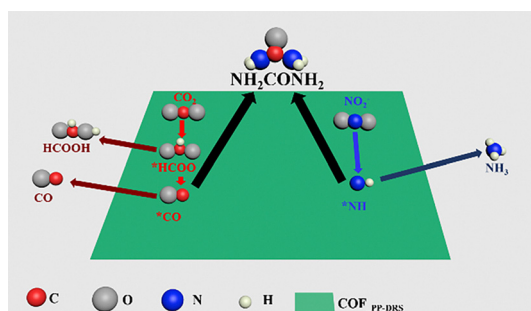
8031



High-rate performance of H_xMoO_3 for aqueous aluminium-ion batteries

Ritupurna Baishya, Konica Roy and Shyamal K. Das*

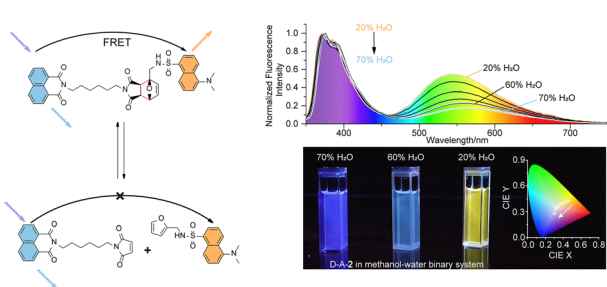
8035



A hydrophilic porphyrin-based COF to reduce CO_2 and nitrite *in situ* for photoelectrochemical catalysis for the synthesis of urea

Zijian Zeng, Shaojun Shan,* Ruizhi Peng, Zhihong Yan* and Yi Liu*

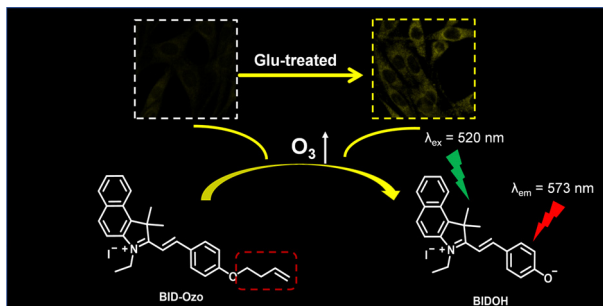
8039



Reversible single-molecule white light based on controllable fluorescence resonance energy transfer

Yao Yu, Yongsheng Zhang, Zhenhui Wei, Muqian Li and Junbo Gong*

8043



Visualizing ozone fluctuations employing a fluorescent probe in stimulated-epilepsy cell models

Jian Zhang, Yu Duan, Chang Liu, Mingyue Zhang, Heng Liu,* Xingchen Ming, Yong Li, Xiaoyun Jiao, Xu Wang* and Bo Tang*

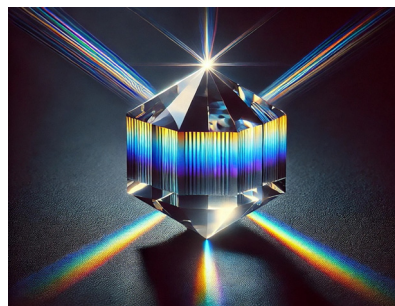


COMMUNICATIONS

8047

Co-ligand tuning of MOF structural anisotropy for giant optical birefringence

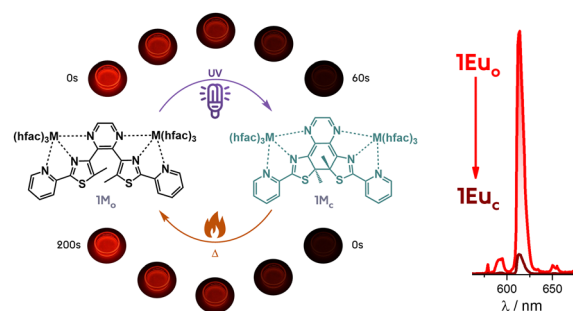
Svyatoslav A. Povarov,* Ekaterina D. Iukhnevich, Pavel V. Alekseevskiy, Dmitry I. Pavlov, Andrei S. Potapov, Irina D. Yushina, Valentin A. Milichko and Alena N. Kulakova*



8051

Photomodulation of dinuclear europium(III) complex luminescence using thermally reversible photochromism of diarylethene

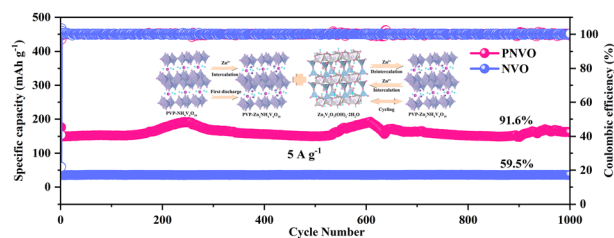
Yoann Fréroux, Salauat Kiraev, Olivier Galangau, Tuan-Anh Phan, Thierry Roisnel, Olivier Maury, Stéphane Rigaut* and Lucie Norel*



8055

Enhanced electrochemical performance of $\text{NH}_4\text{V}_4\text{O}_{10}$ in aqueous zinc-ion batteries via PVP intercalation and oxygen vacancy engineering

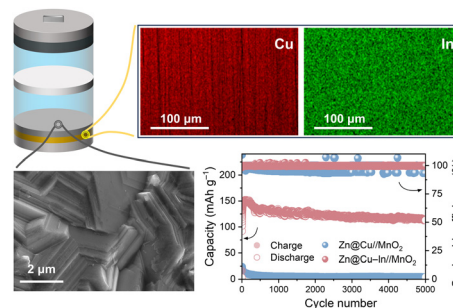
Luyao Pan, Yangang Sun,* Song Yao, Yu Zhang and Zhaoxia Wen



8059

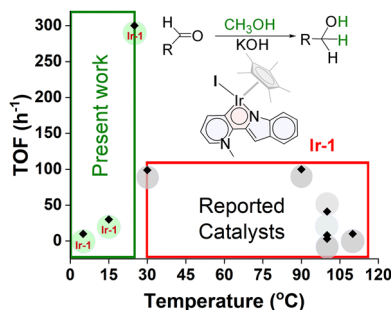
A solid solution alloy current collector to stabilize zinc metal anodes

Wei Liang, Yuwei Zhao, Kangning Shi, Ying Fu* and Haiming Lv (Lyu)*



COMMUNICATIONS

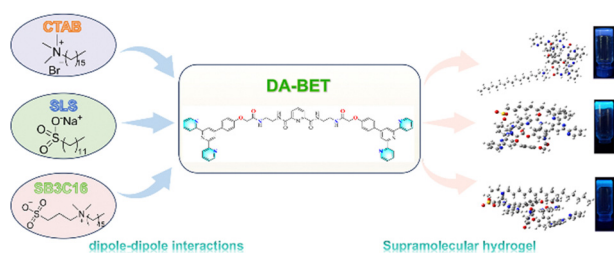
8063



Room temperature transfer hydrogenation of aldehydes using methanol catalyzed by the iridium(III) pyridylidene-indole complex

Sandip Babu Khatal, Manohar Shivaji Padmor, Megha Mariet and Sanjay Pratihar*

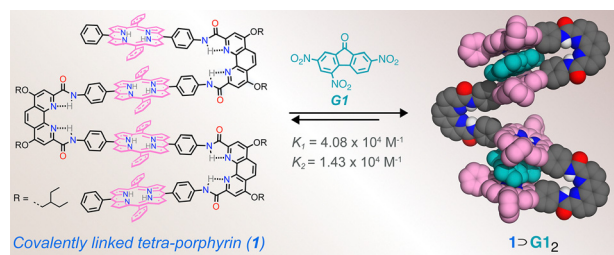
8067



A range of surfactant-accelerated hydrogels based on terpyridine-based assembly *via* strong dipole-dipole interactions

Yi Wei, Jie Jia, Xudong Yu,* Suhong Huo* and Zhice Xu

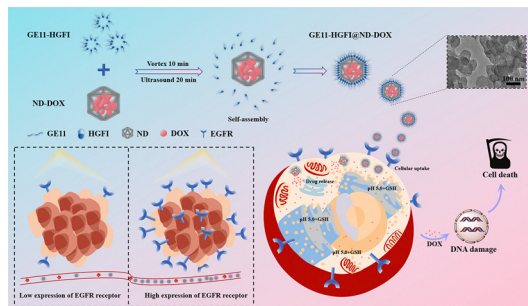
8071



A multi-stack porphyrin oligomer with three cleft-like cavities for efficient guest encapsulations

Rabban Rabban, Dhanyashree Das, Dhruvajyoti Talukdar and Bappaditya Gole*

8075



A self-assembled fusion hydrophobin-coated nanodiamond system for synergistic targeted therapy of colorectal cancer

Haotian Li, Yupeng Wang, Hui Qiao, Fengming Liu, Zhuoyu Li, Zhiqiang Han, Zhihua Guo, Yingqi Li* and Mingqiang Qiao*

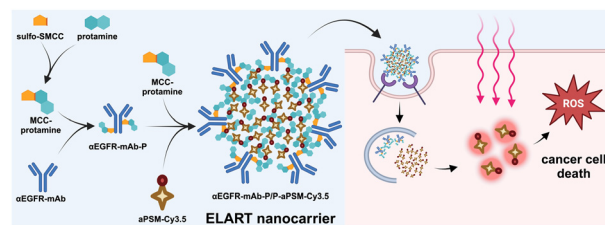


COMMUNICATIONS

8079

Photodynamic ROS inducers delivered via electrostatic antibody targeted (ELART) nanocarriers incorporate into tumour cells and inhibit colony growth

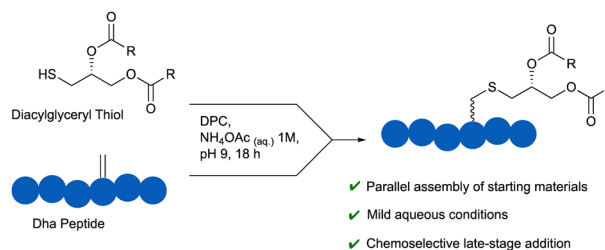
Andreas Faust, Andrew F. Berdel, Evelyn Bruns, Nicole Bäumer, Timo Krassuski, Lisa Wittmann, Linnea Franke, Iván Maisuls, Stephan Niland, Johannes A. Eble, Cristian A. Strassert, Georg Lenz, Wolfgang E. Berdel and Sebastian Bäumer



8083

Late-stage lipidation of peptides via aqueous thiol-michael addition to dehydroalanine (Dha)

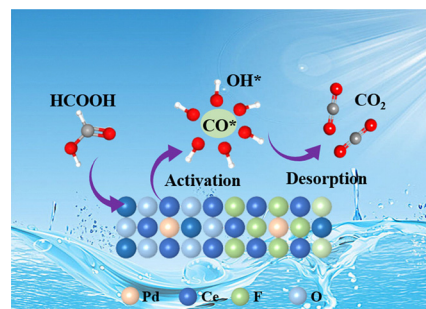
Glenna Swinand, Matthew Rowe, Katherine Bowen, Samir Olatunji, Martin Caffrey and Eoin M. Scanlan*



8087

Cerium partial fluoridation efficiently promotes Pd nanoparticle catalysis of formic acid oxidation

Yajing Xie, Dongze Li, Yun Yang,* Shuli Wang and Ligang Feng*



8091

Four-colour response to self-sorting of mixed monolayer-protected metal nanoparticles

Sabrina Knospe, Marcus Koch, Birgit Nothdurft and Stefan Kubik*

