# ChemComm

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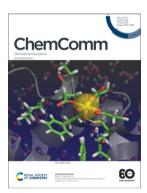
# IN THIS ISSUE

ISSN 1359-7345 CODEN CHCOFS 60(36) 4735-4862 (2024)



#### Cover

See Isao Kadota, Kenta Tanaka et al., pp. 4765–4768. Image reproduced by permission of Kenta Tanaka from Chem. Commun., 2024, 60, 4765.



#### Inside cover

See Satoru Tsushima et al., pp. 4769–4772. Image reproduced by permission of Satoru Tsushima from Chem. Commun., 2024, 60, 4769.

# FEATURE ARTICLE

### 4745

Recent advances in nucleic acid signal amplification-based aptasensors for sensing mycotoxins

Dandan Zhang, Ting Luo, Xiangyue Cai, Ning-ning Zhao\* and Chun-yang Zhang\*

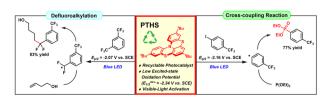


## **COMMUNICATIONS**

# 4765

Strongly reducing helical phenothiazines as recyclable organophotoredox catalysts

Haru Ando, Hiroyoshi Takamura, Isao Kadota\* and Kenta Tanaka\*





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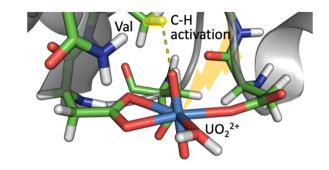
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#### 4769

# Towards tailoring hydrophobic interaction with uranyl(vi) oxygen for C-H activation

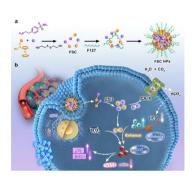
Satoru Tsushima.\* Jérôme Kretzschmar, Hideo Doi. Koji Okuwaki, Masashi Kaneko, Yuji Mochizuki and Koichiro Takao



### 4773

# A small-molecule Fenton reagent for self-augmented chemodynamic therapy by intelligently regulating intracellular acidosis

Kaiye Wang, Xiaohan Liu, Yuting Jia, Limeng Pan, Mingwan Shi, Wei Pan, Na Li\* and Bo Tang\*



# 4777

# A cubic DNA nanocage probe for in situ analysis of miRNA-10b in tumor-derived extracellular vesicles

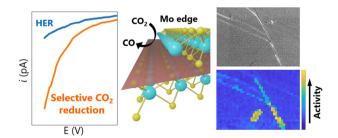
Xiaoyan Sun, Yafei Chen, Haiyan Li, Wei Xing, Mingli Chen,\* Jianhua Wang and Lei Ye\*



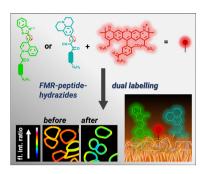
### 4781

# Structure-dependent CO<sub>2</sub> reduction on molybdenite (MoS<sub>2</sub>) electrocatalysts

Jake Limb, Lachlan F. Gaudin and Cameron L. Bentley\*



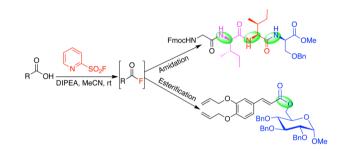
4785



Fluorogenic cell surface glycan labelling with fluorescence molecular rotor dyes and nucleic acid stains

Alen Koçak, Amal K. Homer, Antonia Feida, Florian Telschow, Jacob L. Gorenflos López, Cihan Baydaroğlu, Michael Gradzielski, Christian P. R. Hackenberger, Ulrike Alexiev and Oliver Seitz\*

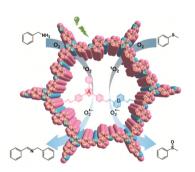
4789



Deoxyfluorinated amidation and esterification of carboxylic acid by pyridinesulfonyl fluoride

Anootha Neeliveettil, Soumyadip Dey, Vishnu Nomula, Swati Thakur, Debabrata Giri, Abhishek Santra and Abhijit Sau\*

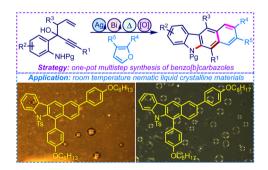
4793



Naphthalene-based donor-acceptor covalent organic frameworks as an electron distribution regulator for boosting photocatalysis

Zeming Wang, Qiang Song, Cheng He, Pengyu Feng, Liang Zhao\* and Chunying Duan

4797



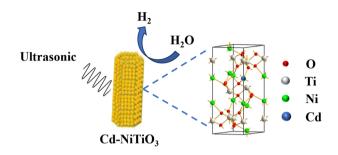
A one-pot telescopic synthesis of benzo[b]carbazoles and exploration of their liquid crystalline properties

Nirmal Malik, Ritobrata De, Santanu Kumar Pal\* and S. S. V. Ramasastry\*

#### 4801

# Enhancement of NiTiO<sub>3</sub> piezocatalytic hydrogen evolution by doping with large radius elements

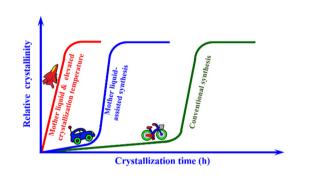
Kongming Li, Bonan Li, Xi Zhang, Junhao Wu, Mengxue Chen, Pengfei Feng, Xu Yang, Meiyu Zhang\* and Yong Ding\*



#### 4805

# A rapid and eco-friendly approach for the synthesis of low-silica SAPO-34 with excellent MTO catalytic performance

Xiaoxia Zou, Dong Fan, Xiaosi Zhang, Caiyi Lou, Miao Yang, Shutao Xu, Quanyi Wang,\* Peng Tian\* and Zhongmin Liu



#### 4810

# Adamantylglycine as a high-affinity peptide label for membrane transport monitoring and regulation

Malavika Pramod, Mohammad A. Alnaijar, Sandra N. Schöpper, Thomas Schwarzlose, Werner M. Nau\* and Andreas Hennig\*



#### 4814

# NaK alloy as a versatile reagent for template-free synthesis of porous metal- and metalloid-based nanostructures

Sergei S. Leonchuk, Aleksandra S. Falchevskaya, Polina A. Morozova, Nikolai V. Gromov and Vladimir V. Vinogradov\*



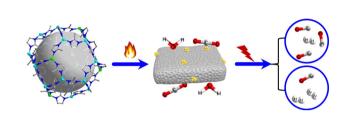
#### 4818

# 1,5-HAT ✓ without pre-activation ✓ one-step operation ✓ simple oxidation system ✓ excellent regio-/chemo-selectivity

# Regioselective synthesis of isoquinolinonediones through remote unactivated C(sp<sup>3</sup>)-H bonds

Lei Huang, Jun Sun, Boxuan Sun, Shengjie Song and Jianjun Li\*

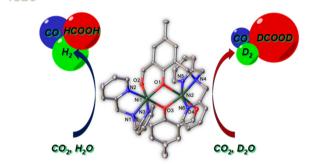
#### 4822



# Cu-nanocluster-loaded N-doped porous graphitic carbon for electrochemical CO2 reduction towards syngas generation

Xuefu Hu, Haiyue Lu, Gen Li, Baicheng Liao, Xiuli Zhang and Liyong Chen\*

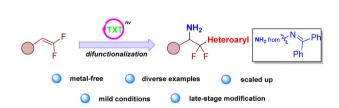
#### 4826



# Kinetic isotope effect offers selectivity in CO<sub>2</sub> reduction

Suman Patra, Sayan Atta, Soumili Ghosh, Amit Majumdar\* and Abhishek Dey\*

#### 4830



# Difunctionalization of gem-difluoroalkenes for amination and heteroarylation via metal-free photocatalysis

Yuanchen Zhong, Zhen Zhuang, Xiaofei Zhang, Bin Xu\* and Chunhao Yang\*

#### 4834

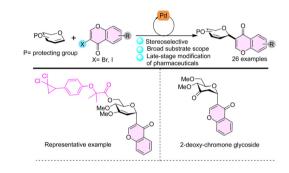
# Regioselective synthesis of N-containing polycyclic compounds via radical annulation cyclization of 1,7-dienes with aldehydes

Jia-Li Sui, Long-Jin Zhong,\* Bi-Quan Xiong, Ke-Wen Tang and Yu Liu\*

#### 4838

# Pd-catalyzed stereoselective synthesis of chromone C-glycosides

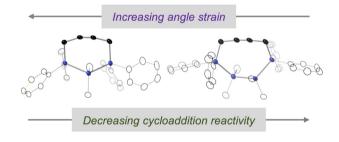
Manish Kumar Sharma, Bindu Tiwari and Nazar Hussain\*



### 4842

## Angle-strained sila-cycloalkynes

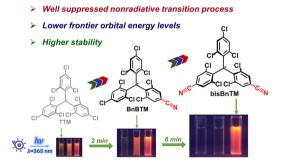
Herbert Wakefield IV, Sophia J. Melvin, Jennifer Jiang, Ilia Kevlishvili, Maxime A. Siegler, Stephen L. Craig, Heather J. Kulik and Rebekka S. Klausen\*



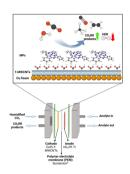
#### 4846

# Cyano modified triphenylmethyl radical skeletons: higher stability and efficiency

Kuo Lv, Minzhe Zhang, Xin Xia, Wenjing Liu, Keke Wan, Ming Zhang and Feng Li\*



4850



# Surface modified copper foam with cobalt phthalocyanine carbon nanotube hybrids for tuning CO2 reduction reaction products

Javier O. Rivera-Reyes, Keith J. Billings, Carmen L. Metzler, Richard M. Lagle, Mebougna Drabo, Ratnakar Palai, John-Paul Jones and Dalice M. Piñero Cruz\*

4854



# Synthesis of an azulene-containing graphene nanoribbon

Pierre Mathey, Quentin Sobczak, Ali Darvish and Jean-François Morin\*

### **CORRECTIONS**

4858

# Correction: Not antiaromaticity gain, but increased asynchronicity enhances the Diels-Alder reactivity of tropone

Eveline H. Tiekink, Pascal Vermeeren\* and Trevor A. Hamlin\*

4860

Correction: Controllable synthesis of star-shaped FeCoMnO<sub>x</sub> nanocrystals and their self-assembly into superlattices with low-packing densities

Zhe Xia, Yutong Gao, Qingfu Cai, Yajun Wang,\* Dong Yang,\* Tongtao Li\* and Angang Dong\*