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IN THIS ISSUE

ISSN 1359–7345 CODEN CHCOFS 60(9) 1051–1196 (2024)

Cover
See Jin Zhou, Yangang Wang, Hong Huang *et al.*, pp. 1100–1103.
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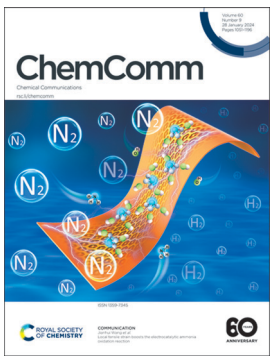

Inside cover
See Jianhui Wang *et al.*, pp. 1104–1107.
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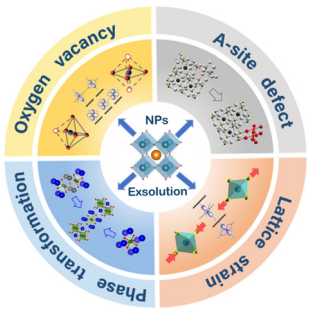
HIGHLIGHTS

1062

Metal exsolution from perovskite-based anodes in solid oxide fuel cells

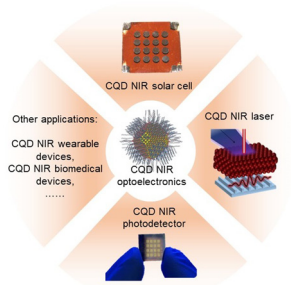
Shasha Zhu, Junde Fan, Zongbao Li, Jun Wu, Mengqin Xiao, Pengxuan Du, Xin Wang* and Lichao Jia



1072

Colloidal quantum dot materials for next-generation near-infrared optoelectronics

Lingju Meng, Qiwei Xu, Jiangwen Zhang and Xihua Wang*



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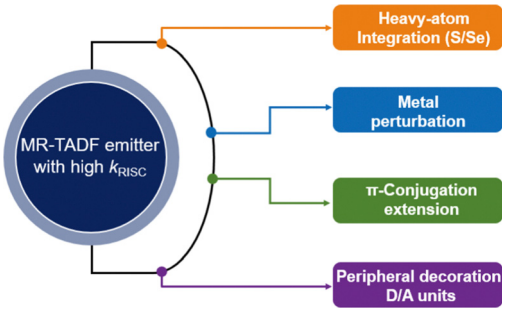
FEATURE ARTICLE

1089

Recent progress in multi-resonance thermally activated delayed fluorescence emitters with an efficient reverse intersystem crossing process

Xu-Feng Luo, Xunwen Xiao* and You-Xuan Zheng*

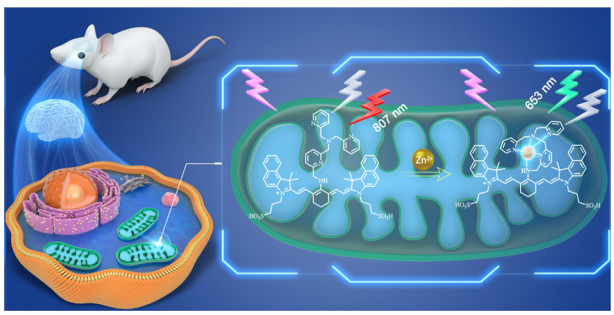


COMMUNICATIONS

1100

Revealing the elevation of Zn^{2+} in the brain of depressed mice by a ratiometric fluorescent probe with dual near-infrared emissions

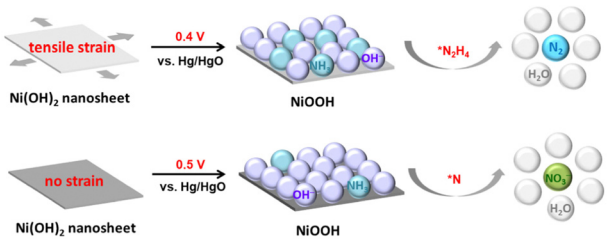
Haobin Jin, Can Ju, Chenxu Duan, Ningwen Zhang, Yongyong Cao, Qineng Xia, Jin Zhou,* Shumei Gao, Yangang Wang* and Hong Huang*



1104

Local tensile strain boosts the electrocatalytic ammonia oxidation reaction

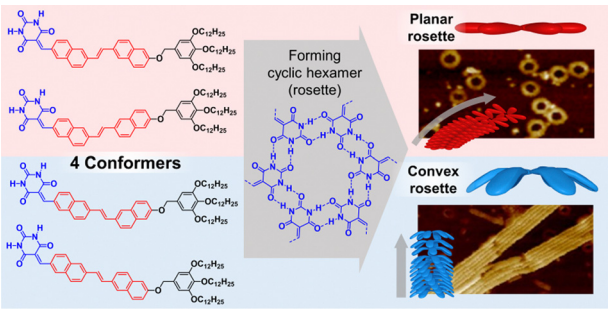
Yongzhen Jin, Yang Liu, Ruyan Wu and Jianhui Wang*



1108

Toroid-rod supramolecular polymorphism derived from conformational isomerism of a π-conjugated system

Chie Otsuka, Saki Imai, Takahiro Ohkubo and Shiki Yagai*



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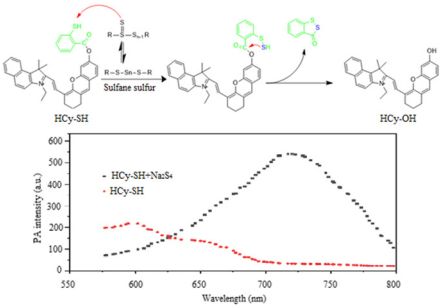
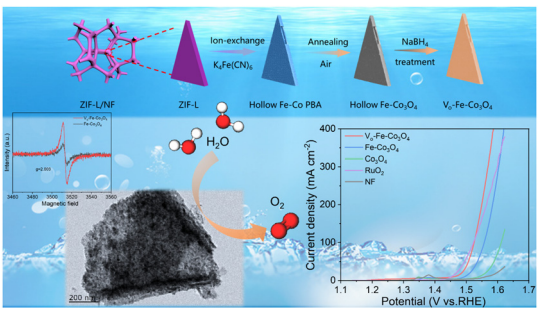
1112



Visualization diagnosis of acute cerebral ischemia *via* sulfane sulfur-activated photoacoustic imaging

Cheng Song, Lejuan Liao, Yidong Bin, Zongyi He, Jing Hua, Shulin Zhao* and Hong Liang*

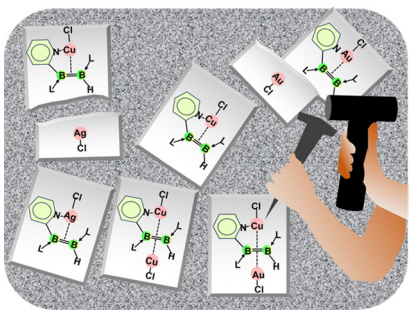
1116



Oxygen vacancy modulated Fe-doped Co_3O_4 hollow nanosheet arrays for efficient oxygen evolution reaction

Qianyun He, Lei Han and Kai Tao*

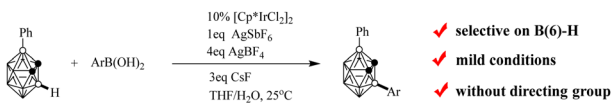
1120



Stepwise and selective synthesis of chelating, multimetallic and mixed-metal π-diborene complexes

Dario Duwe, Koushik Saha, Lukas Endres, Tobias Brückner, Rian D. Dewhurst, Maximilian Dietz, Krzysztof Radacki, Felipe Fantuzzi and Holger Braunschweig*

1124



Iridium-catalyzed selective arylation of B(6)–H of 3-aryl-*o*-carboranes with arylboronic acid *via* direct B–H activation

Han-Bo Yang, Yan Guo, Ke Cao,* Qi-Jia Jiang, Chao-Chao Teng, Dao-Yong Zhu and Shao-Hua Wang

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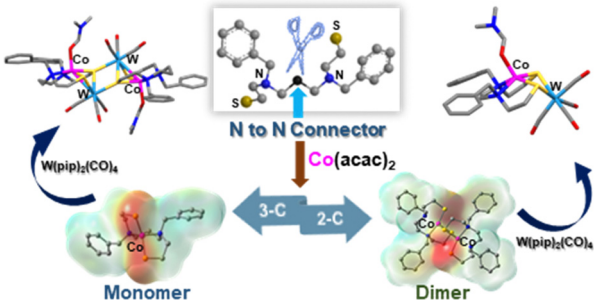
1128

A single carbon atom controls the geometry and reactivity of $Co^{II}(N_2S_2)$ complexes

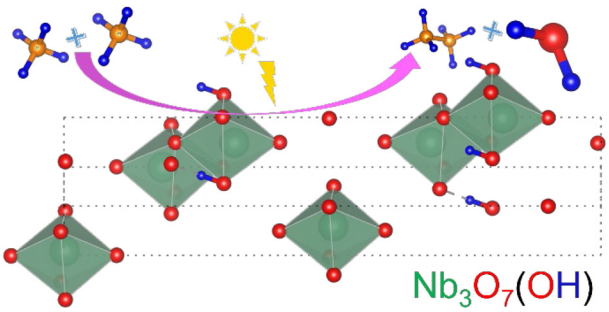
Manish Jana, Manuel Quiroz and Marcetta Y. Darensbourg*



1132

Engineering surface lattice hydroxyl groups toward highly efficient photocatalytic methane coupling

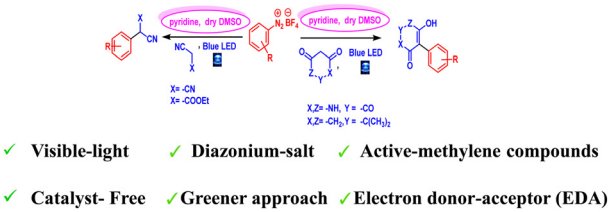
Zili Ma, Yihong Chen, Chao Gao* and Yujie Xiong*



1136

Photo-triggered *C*-arylation of active-methylene compounds with diazonium salts *via* an electron donor–acceptor (EDA) complex

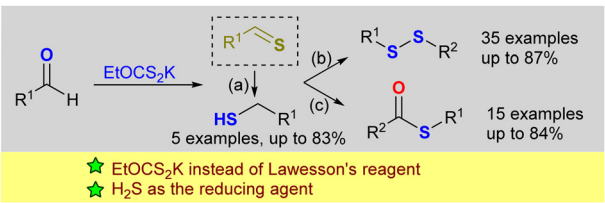
Shikha Pandey, Arsala Kamal, Ambuj Kumar Kushwaha, Himanshu Kumar Singh, Suresh Kumar Maury and Sundaram Singh*



1140

Potassium xanthate-promoted reductive sulfuration reaction: from aldehydes to thiol, disulfide, and thioester derivatives

Yingqi Feng, Jinli Nie, Sijie Xie, Ziqing He, Huanliang Hong, Jian Li, Yubing Huang, Lu Chen and Yibiao Li*



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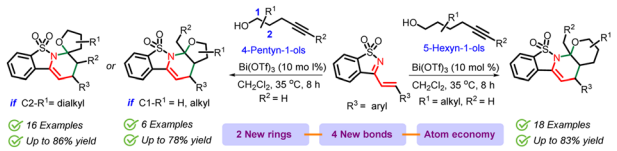
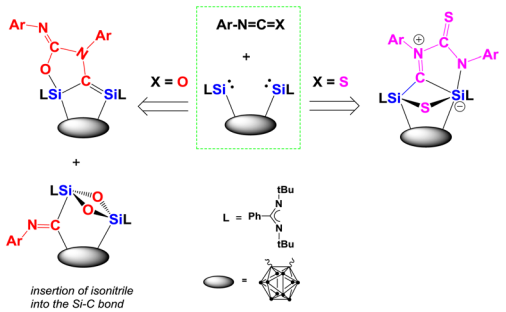
1144



Divergent access to polycyclic spiro- and fused-*N*,O-ketals through $Bi(OTf)_3$-catalyzed [4+2]-annulation of cyclic *N*-sulfonyl ketimines and alkynols

Ashwini K. Nakate, Priyanka Kataria, Pooja I. Sambherao, Gamidi Rama Krishna and Ravindar Kontham*

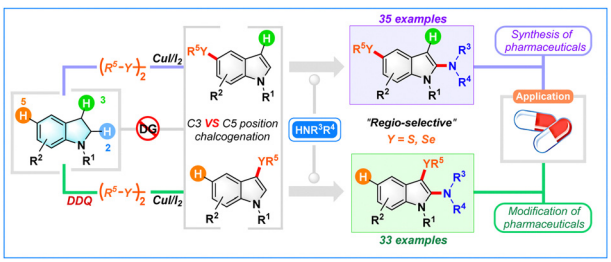
1148



Synthesis of SiN/SiS-heterocycles *via* the reactions of a bis-silylene with isocyanate/isothiocyanate molecules

Rui Liu, Kartik Chandra Mondal, Chenfeng Wang, Sonam Suthar, Zijie Fang, Darui Zuo and Yan Li*

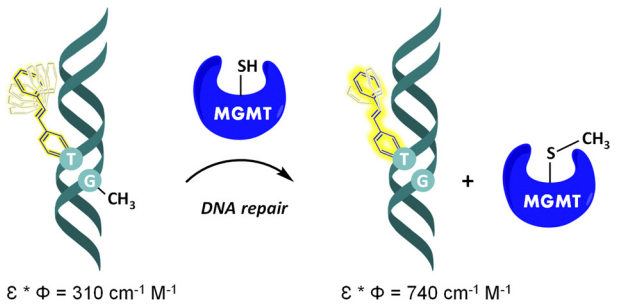
1152



Iodine-dependent oxidative regioselective aminochalcogenation of indolines

Xiaoxiang Zhang, Chenrui Liu, Wanxing Wei, Zhuan Zhang and Taoyuan Liang*

1156



Fluorescent molecular rotors detect O^6-methylguanine dynamics and repair in duplex DNA

William Copp, Ashkan Karimi, Tianxiao Yang, Alba Guarné and Nathan W. Luedtke*

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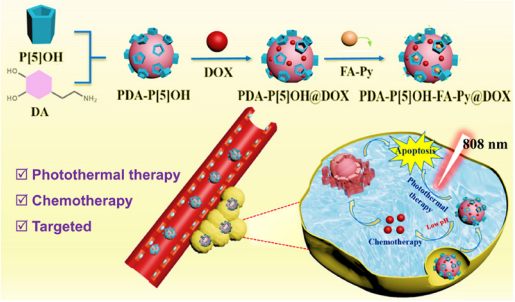
Polydopamine modified by pillar[5]arene *in situ* for targeted chemo-photothermal cancer therapy

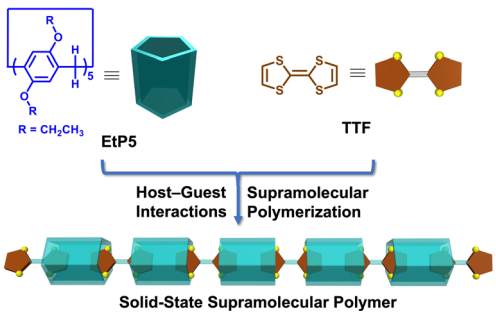
Ruowen Tang, Lei Zhou, Yu Dai, Yang Wang,* Yan Cai, Tingting Chen and Yong Yao*



1164

Constructing a solid-state supramolecular polymer based on host–guest recognition between perethylated pillar[5]arene and tetrathiafulvalene

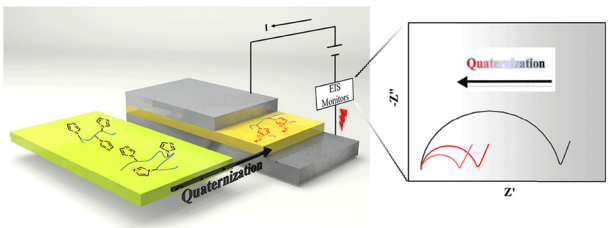
Xueru Zhao, Bin Hua and Li Shao*



1168

On-site portable detection of gaseous methyl iodide using an electrochemical method

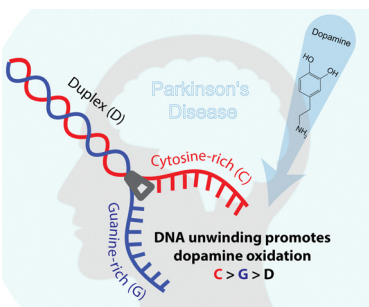
Xiao-Lan Yang, Qiu-Hong Zhu, Guo-Hao Zhang, Jie Fu, Shuang-Long Wang, Lijian Ma, Song Qin, Guo-Hong Tao* and Ling He*



1172

Dopamine oxidation promoted by human telomeric DNA models in the presence of a Cu(II) terpyridine chelate

Yu Bao, Wenqin Zhou, Wenhui Miao, Guoqing Jia* and Can Li*



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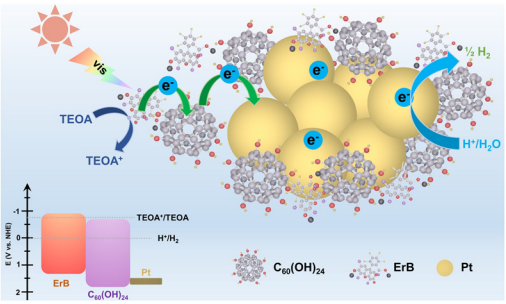
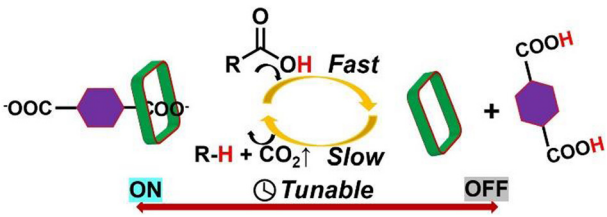


Water-soluble fullerenol-mediated electron transfer in molecular systems toward enhanced solar hydrogen production

Tongliang Liu, Fang Wang, Zhengguo Zhang and Shixiong Min*

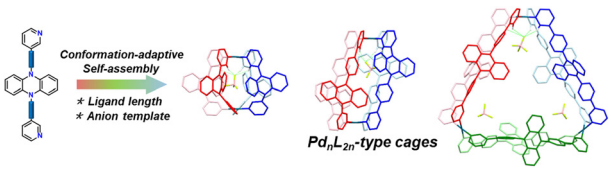
1180



Tunable cyclic operation of dissipative molecular switches based on anion recognition

Xin Zhang,* Lijun Mao, Rongjing He, Yanting Shi, Lingyi Li, Shuo Li, Chenghao Zhu, Yanjing Zhang and Da Ma*

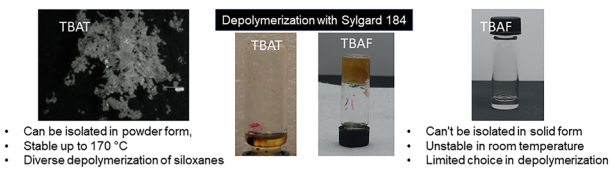
1184



Self-assembly of conformation-adaptive dihydrophenazine-based coordination cages

Meng-Xiang Wu, Qiong-Yan Hong, Minghui Li, Wei-Ling Jiang, Bin Huang, Shuai Lu, Heng Wang, Hai-Bo Yang, Xiao-Li Zhao* and Xueliang Shi*

1188



A robust depolymerization route for polysiloxanes

Matthew J. Warner, Jessica W. Kopatz, David P. Schafer, Jessica Kustas, Patricia S. Sawyer, Anne M. Grillet, Brad H. Jones* and Koushik Ghosh*

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CORRECTIONS

1192

Correction: The eutectic point in choline chloride and ethylene glycol mixtures

Hannah J. Hayler and Susan Perkin*

1193

Correction: Critical role of hydrogen bonding between microcrystalline cellulose and g-C_3N_4 enables highly efficient photocatalysis

Zhaoqiang Wang, Guixiang Ding, Juntao Zhang, Xianqing Lv, Peng Wang, Li Shuai, Chunxue Li,* Yonghao Ni* and Guangfu Liao*

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