## ChemComm

### Chemical Communications

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### IN THIS ISSUE

ISSN 1359-7345 CODEN CHCOFS 59(99) 14601-14728 (2023)



### Cover

See Katarzyna Rybicka-Jasińska, Dorota Gryko et al., pp. 14649-14652. Image reproduced by permission of Klaudia Łuczak from Chem. Commun., 2023, 59, 14649.



### Inside cover

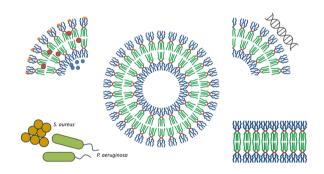
See Kun-Mu Lee, Hsiao-Chi Hsieh, Shih-I Lu. Yan-Duo Lin et al... pp. 14653-14656. Image reproduced by permission of Yan-Duo Lin from Chem. Commun., 2023. 59. 14653.

### **HIGHLIGHT**

### 14611

### **Dendrimersomes: Biomedical applications**

Barbara Klajnert-Maculewicz,\* Anna Janaszewska and Agata Majecka

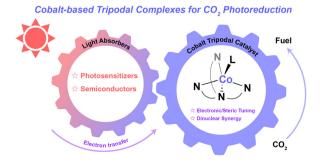


### **FEATURE ARTICLES**

### 14626

### Cobalt-based tripodal complexes as molecular catalysts for photocatalytic CO<sub>2</sub> reduction

Dong-Cheng Liu,\* Zhi-Mei Luo, Bruno M. Aramburu-Trošelj, Fan Ma and Jia-Wei Wang\*



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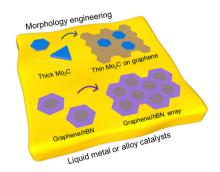


### FEATURE ARTICLES

#### 14636

Liquid metal catalyzed chemical vapor deposition towards morphology engineering of 2D epitaxial heterostructures

Lin Li, Qing Zhang,\* Hang Li and Dechao Geng\*

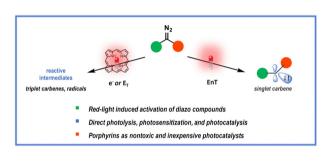


### COMMUNICATIONS

### 14649

Unlocking the reactivity of diazo compounds in red light with the use of photochemical tools

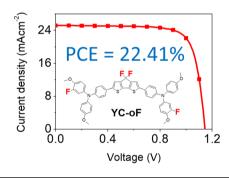
Katarzyna Orłowska, Klaudia Łuczak, Piotr Krajewski, João V. Santiago, Katarzyna Rybicka-Jasińska\* and Dorota Gryko\*



### 14653

Fluorination on cyclopentadithiophene-based hole-transport materials for high-performance perovskite solar cells

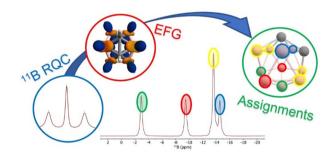
Gizachew Belay Adugna, Kun-Mu Lee,\* Hsiao-Chi Hsieh,\* Shih-I Lu,\* Yu-Chien Hsieh, June Hung Yang, Wei-Hao Chiu, Kang-Ling Liau, Yu-Tai Tao and Yan-Duo Lin\*



### 14657

Resonance and structural assignment in (car)borane clusters using <sup>11</sup>B residual quadrupolar couplings

Franziska Rüttger, Dietmar Stalke and Michael John\*



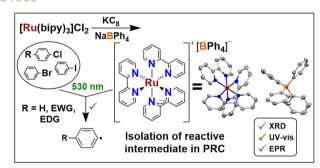
### 14661

# Solvent effect **Substituent effect** J<sub>FH</sub> (X = H) = 12.2 Hz FH (X = CN) = 30.7 Hz

### The pitfalls of using $J_{HF}$ spin-spin coupling constants to infer hydrogen bond formation in organofluorine compounds

Guilherme Cariello, Lucas A. Zeoly, Bruno A. Piscelli, Thomas Lectka\* and Rodrigo A. Cormanich\*

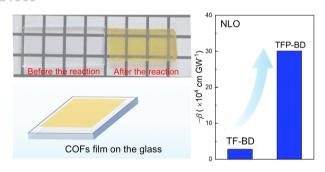
#### 14665



### Isolation of the elusive [Ru(bipy)<sub>3</sub>]<sup>+</sup>: a key intermediate in photoredox catalysis

Samuel J. Horsewill, Chengyang Cao, Noah Dabney, Eric S. Yang, Stephen Faulkner and Daniel J. Scott\*

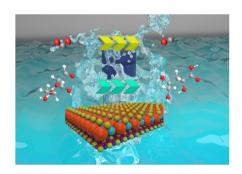
### 14669



### Towards high-performance nonlinear optical materials through embedding a D-A system into β-ketoenamine-linked COFs

Mingyan Li, Jiahui Chu, Debo Ding, Tingting Li, Endian Su, Yinglin Song, Yun-Fang Yang, Yuanbin She\* and Jianhong Jia\*

#### 14673



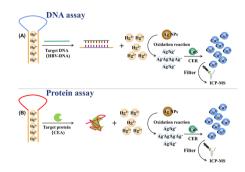
### Entropy engineering of La-based perovskite for simultaneous photocatalytic CO2 reduction and biomass oxidation

Mengchen Wang, Liming Li, Yong Li, Xuxia Shi, Hangxing Ren, Yuetao Sun, Kangning Liu, Wei Song, Huamin Li, Haibin Wang, Mei Han, Xi Wang, Christopher Dorma Momo Jr, Songhua Chen,\* Lihua Liu\* and Hongyan Liang\*

### 14677

Cascade signal amplification using Hg<sup>2+</sup>-induced oxidation of silver nanoparticles and cation exchange reaction for ICP-MS bioassay

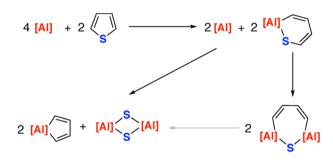
Yujing He, Jing Hu, Yunfei Tian\* and Xiandeng Hou\*



### 14681

Ring-expansion and desulfurisation of thiophenes with an aluminium(ı) reagent

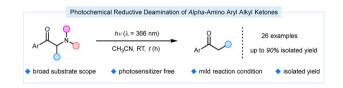
Jacob S. McMullen, Andrew J. P. White and Mark R. Crimmin\*



### 14685

Photochemical reductive deamination of alpha-amino aryl alkyl ketones

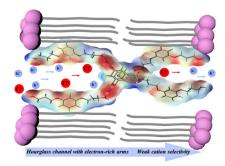
Ji-Yuan Liang, Yi-Wen Su and You-Quan Zou\*



### 14689

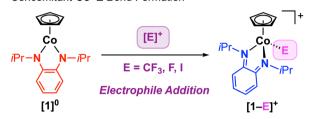
Reversing the ion transport selectivity through arm modification of an artificial molecular hourglass

Wen-Long Huang, Xu-Dong Wang, Yu-Fei Ao, Qi-Qiang Wang and De-Xian Wang\*



### 14693

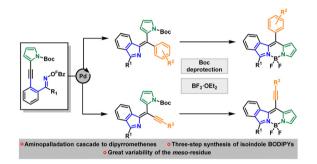
- Ligand-to-Substrate 2e<sup>-</sup> Transfer
- · Concomitant Co-E Bond Formation



### Redox-active ligand promoted electrophile addition at cobalt

Minzhu Zou and Kate M. Waldie\*

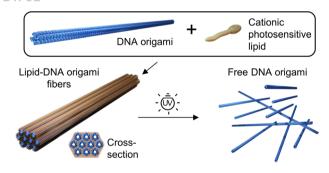
#### 14697



### Access to isoindole-derived BODIPYs by an aminopalladation cascade

Heinrich F. von Köller, Finn J. Geffers, Pedram Kalvani, Adrian Foraita, Patrick-Eric J. Loß, Burkhard Butschke, Peter G. Jones and Daniel B. Werz\*

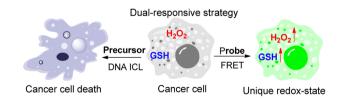
### 14701



### Assembly and optically triggered disassembly of lipid-DNA origami fibers

Sofia Julin, Nadine Best, Eduardo Anaya-Plaza, Eeva Enlund, Veikko Linko and Mauri A. Kostiainen\*

#### 14705



### Dual-responsive probe and DNA interstrand crosslink precursor target the unique redox status of cancer cells

Dehao Yu, Luo Wang, Jingao Li, Xuanwei Zeng, Yuanyuan Jia, Junyu Tian, Anahit Campbell, Huabing Sun\* and Heli Fan\*

### 14709

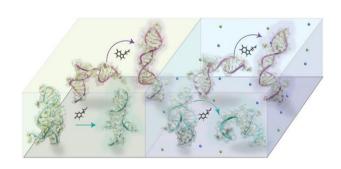
Homogenous nickel-catalyzed chemoselective transfer hydrogenation of functionalized nitroarenes with ammonia-borane

Chitrarekha Dewangan, Sandeep Kumawat, Tarun Bhatt and Kishore Natte\*

### 14713

Theoretical analysis of divalent cation effects on aptamer recognition of neurotransmitter targets

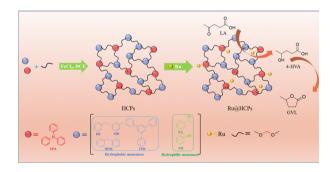
Ali Douaki, Annina Stuber, Julian Hengsteler, Dmitry Momotenko, David M. Rogers, Walter Rocchia, Jonathan D. Hirst, Nako Nakatsuka\* and Denis Garoli\*



### 14717

Hydrogenation of levulinic acid to  $\gamma$ -valerolactone over hydrophobic Ru@HCP catalysts

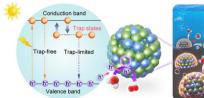
Xinbin Gong, Xiao Feng, Jieqi Cao, Yinwei Wang, Xiaoxia Zheng, Weiqiang Yu, Xinhong Wang\* and Song Shi\*

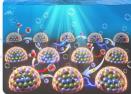


### 14721

Suppressed charge recombination *via* defect engineering of confined semiconducting quantum dots for photoelectrocatalysis

Ce Hu, Daojian Ye, Jie Ren, Congcong Wu, Chenya Zhao, Weiyang Xu, Hang Zhou, Ting Yu, Xingfang Luo\* and Cailei Yuan\*





### CORRECTION

### 14725

## Correction: Interface-mediated protein aggregation

Fei Tao, Qian Han and Peng Yang\*