

# ChemComm

Chemical Communications

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## IN THIS ISSUE

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### Cover

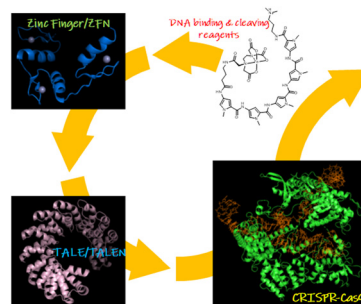
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*Chem. Commun.*,  
2023, 59, 7743.

## HIGHLIGHT

7676

### The history of genome editing: advances from the interface of chemistry & biology

Daisuke Matsumoto and Wataru Nomura\*

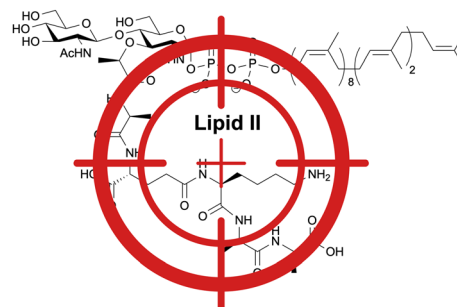


## FEATURE ARTICLES

7685

### Targeting membrane-bound bacterial cell wall precursors: a tried and true antibiotic strategy in nature and the clinic

Ned P. Buijs, Eilidh J. Matheson, Stephen A. Cochrane\*  
and Nathaniel I. Martin\*



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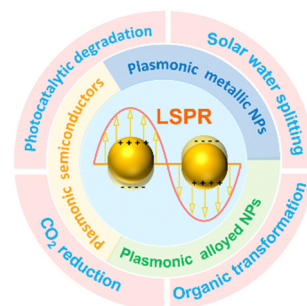


## FEATURE ARTICLES

7704

## Plasmonic nanomaterials for solar-driven photocatalysis

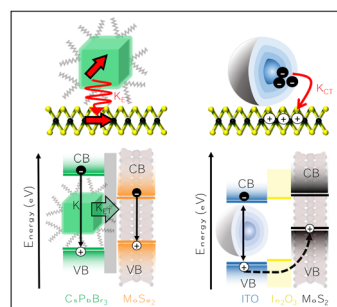
Qingzhe Zhang, Zhihong Zuo and Dongling Ma\*



7717

## Energy transfer and charge transfer between semiconducting nanocrystals and transition metal dichalcogenide monolayers

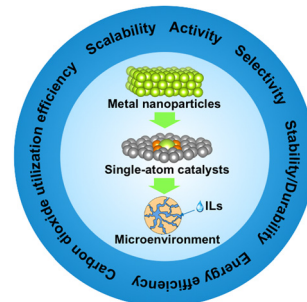
Aswin Asaithambi, Nastaran Kazemi Tofighi, Michele Ghini, Nicola Curreli,\* P. James Schuck and Ilka Kriegel\*



7731

From bulk metals to single-atoms: design of efficient catalysts for the electroreduction of CO<sub>2</sub>

Chen Jia, Qian Sun and Chuan Zhao\*

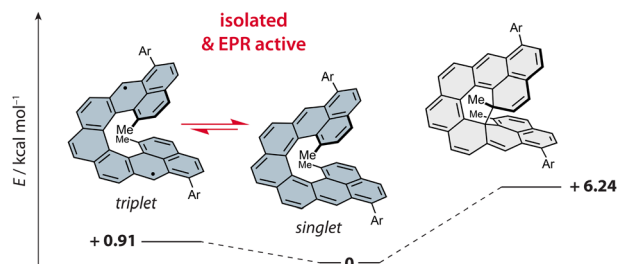


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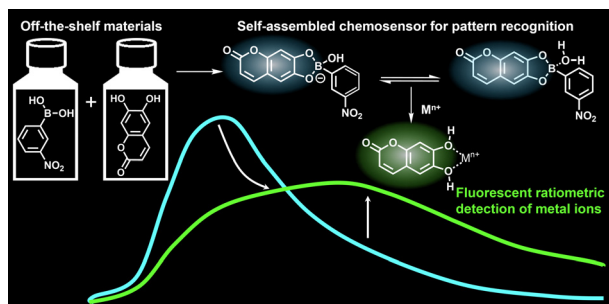
7743

## Dimethylnonacethrene – en route to a magnetic switch

Daniel Čavlović, Olivier Blacque, Ivo Krummenacher, Holger Braunschweig, Prince Ravat\* and Michal Juriček\*



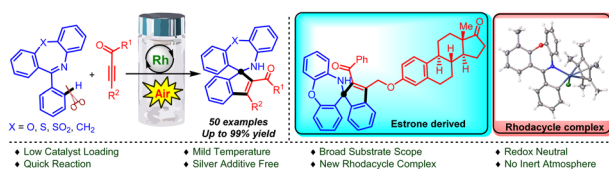
7747



### Spontaneous preparation of a fluorescent ratiometric chemosensor for metal ions using off-the-shelf materials

Yui Sasaki, Kohei Ohshiro, Qi Zhou, Xiaojun Lyu, Wei Tang, Kiyosumi Okabe, Shin-ya Takizawa and Tsuyoshi Minami\*

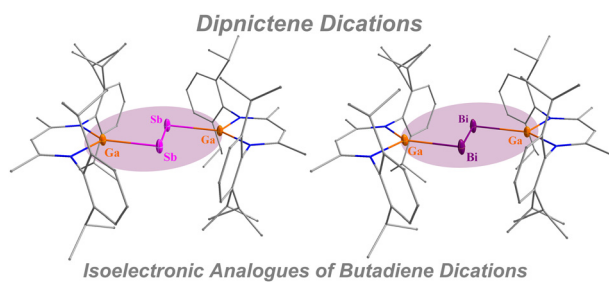
7751



### Synthesis of indene-fused spiro-dibenz(ox)azepines via Rh(III)-catalyzed cascade regioselective C–H activation/annulation

Koushik Naskar, Sudip Karmakar, Intiaj Mondal, Writhabrata Sarkar, Shantonu Roy, Anupam Roy and Indubhusan Deb\*

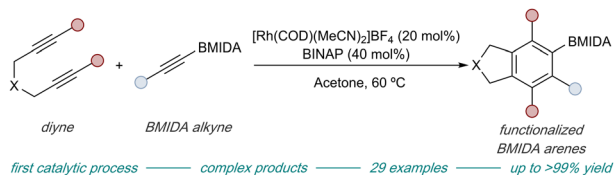
7755



### Metal-coordinated distibene and dibismuthene dications – isoelectronic analogues of butadiene dications

Hanns M. Weinert, Yannick Schulte, Alexander Gehlhaar, Christoph Wölper, Gebhard Haberhauer and Stephan Schulz\*

7759



### Synthesis of complex aryl MIDA boronates by Rh-catalyzed [2+2+2] cycloaddition

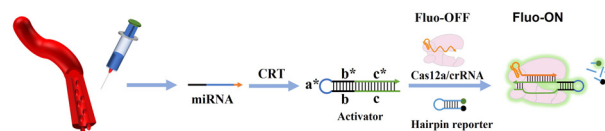
John M. Halford-McGuff, David B. Cordes and Allan J. B. Watson\*



7763

### CRISPR-Cas12a coupled with cyclic reverse transcription for amplified detection of miRNA

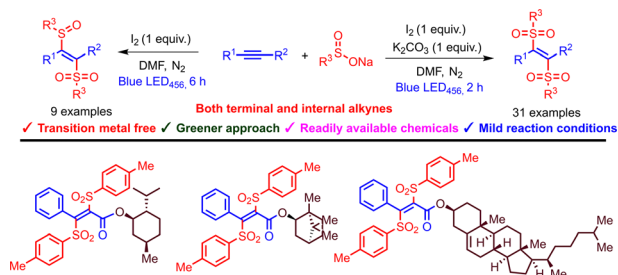
Xi Long, Jiacheng Li, Tong Luo, Hui Liu, Zhiwei Deng, Jiacheng Ding, Zan Gong, Yanjing Yang\* and Shian Zhong\*



7767

### Iodine-mediated photoinduced tuneable disulfonylation and sulfinylsulfonylation of alkynes with sodium arylsulfonates

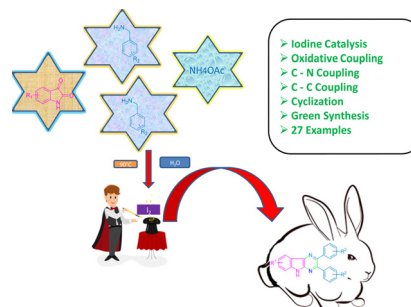
Mandapati Bhargava Reddy and Eoghan M. McGarrigle\*



7771

### Aqueous mediated iodine catalyzed C–N coupling followed by C–C coupling towards 5H-pyrazino[2,3-b]indoles

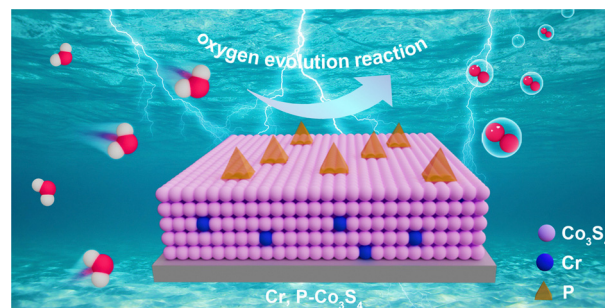
Debasish Bera, Rajib Sarkar, Pinaki Saha, Prasanta Ghosh and Chhanda Mukhopadhyay\*



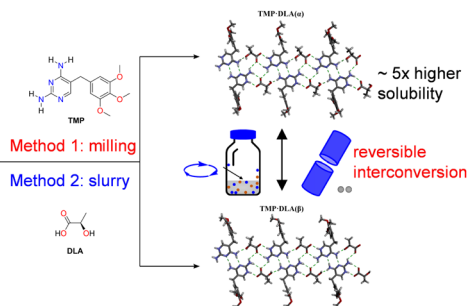
7775

### Modulation of bulk and surface electronic structures for oxygen evolution by Cr, P co-doped Co<sub>3</sub>S<sub>4</sub>

Yiting Chen, Xiaoyun Zhang, Xiaoshuang Ma and Yuqiao Wang\*



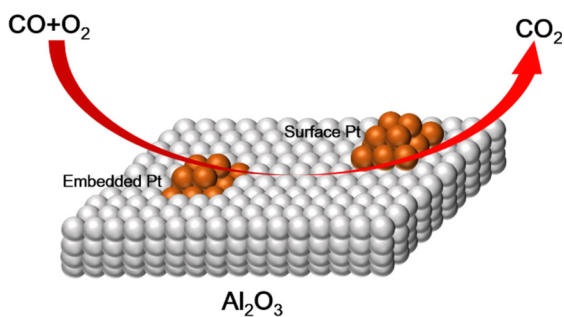
7779



### Reversible interconversion of pharmaceutical salt polymorphs facilitated by mechanical methods

Liulei Ma, Qixuan Zheng, Daniel K. Unruh and Kristin M. Hutchins\*

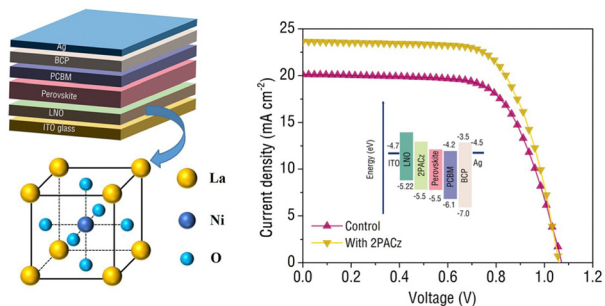
7783



### CO oxidation over embedded Pt nanoparticles on Al<sub>2</sub>O<sub>3</sub> with Al coordination flexibility

Xiang Wang, Shuangqin Zeng, Guodong Qi,\* Qiang Wang, Jun Xu\* and Feng Deng

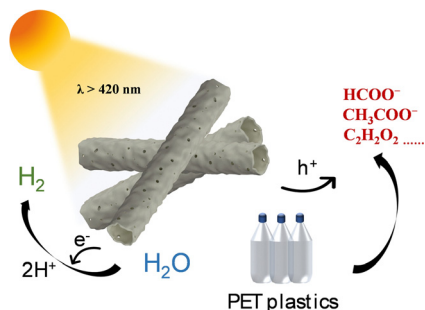
7787



### Low-temperature solution-processed LaNiO<sub>3</sub> hole-transport layer for UV-stable inverted perovskite solar cells

Xiaxia Cui, Junjun Jin, Zhenkun Zhu, Tonghui Guo, Qiang Tang, Yuan Zhou, Lin Li, Zhen Wang, Guanqi Tang\* and Qidong Tai\*

7791



### Visible-light-driven photoreforming of poly(ethylene terephthalate) plastics via carbon nitride porous microtubes

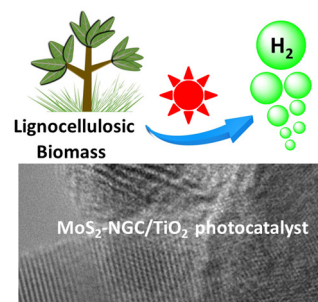
Shuhui Guo, Yuanyong Huang, Di Li, Zhongkai Xie, Yujing Jia, Xiaojie Wu, Dongbo Xu\* and Weidong Shi\*



7795

### MoS<sub>2</sub>@N-doped graphitic carbon/TiO<sub>2</sub> photocatalysts for photocatalytic H<sub>2</sub> production from lignocellulosic biomass

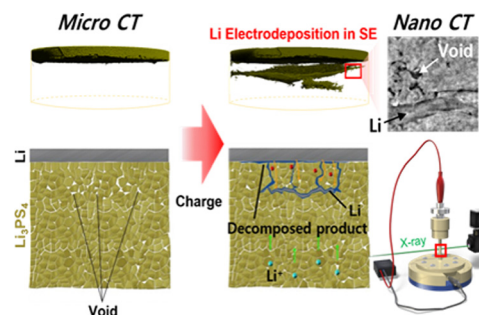
Chi Ma, Quan Cheng, Ze-Xin Huang, Fu-Guang Zhang, Qing-Yu Liu and Yong-Jun Yuan\*



7799

### Unique Li deposition behavior in Li<sub>3</sub>PS<sub>4</sub> solid electrolyte observed via *operando* X-ray computed tomography

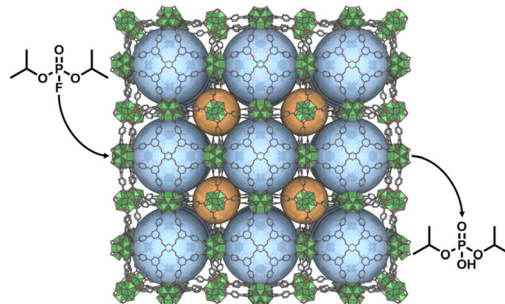
Jaehee Park, Toshiki Watanabe,\* Kentaro Yamamoto, Tomoki Uchiyama, Tsuyoshi Takami, Atsushi Sakuda, Akitoshi Hayashi, Masahiro Tatsumisago and Yoshiharu Uchimoto



7803

### A mesoporous Zr-based metal–organic framework driven by the assembly of an octatopic linker

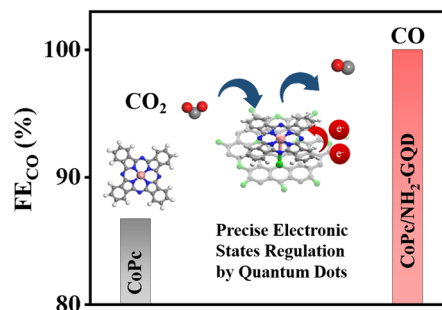
Borja Ortin-Rubio, Cristina Perona-Bermejo, José A. Suárez del Pino, Francisco J. Carmona, Felipe Gándara, Jorge A. R. Navarro, Judith Juanhuix, Inhar Imaz\* and Daniel Maspoch\*



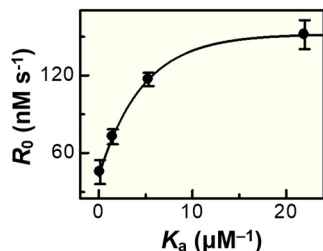
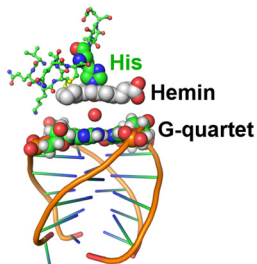
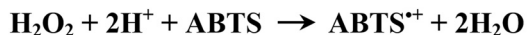
7807

### Enhanced electrochemical CO<sub>2</sub> reduction performance of cobalt phthalocyanine with precise regulation of electronic states

Tong Yao, Lu-Hua Zhang,\* Jiayu Zhan, Zhixiang Zhou, Yang You, Zisheng Zhang and Fengshou Yu\*



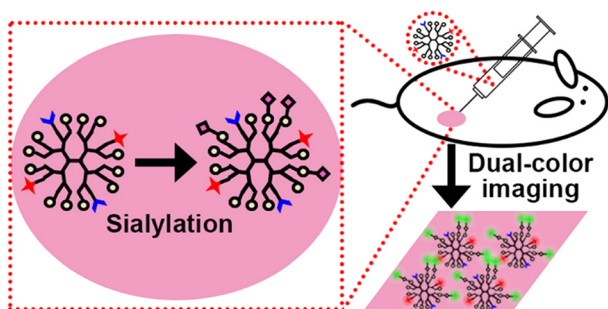
7811



### Construction of "peptide-hemin/DNA" hybrid-complexes and their peroxidase activities

Jing Liu, Taozhe Zhang, Jinyang Feng, Yue Cui, Li Zhang, Yunong Wang, Meiyu Cui, Donghao Li\* and Hulin Tai\*

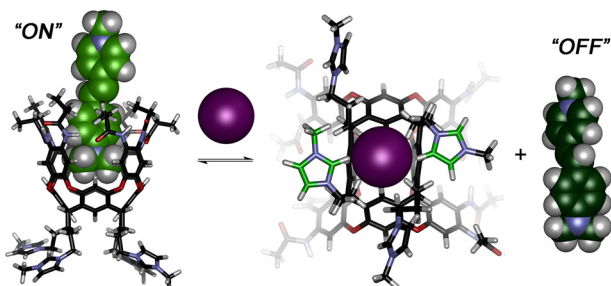
7815



### *In situ* evaluation of *in vivo* sialylation with a dual-color imaging strategy

Shiya Zhao, Yuanjiao Yang, Yuru Wang, Huipu Liu, Huangxian Ju\* and Yunlong Chen\*

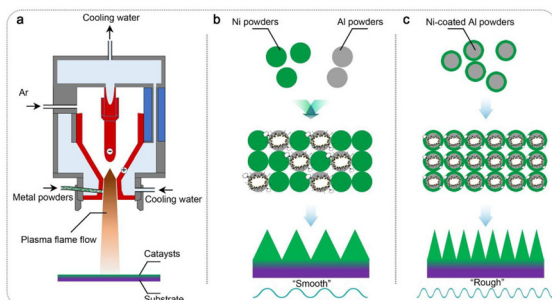
7819



### Selective anion sensing in high salt water *via* a remote indicator displacement assay

Briana L. Hickey, Alexie Andrea P. Raz, Junyi Chen, Jose L. Moreno Jr., Joshua D. Hartman, Wenwan Zhong and Richard J. Hooley\*

7823



### Plasma-spray-enabled microcosmic explosion to construct Ni mesh-based electrodes for water splitting

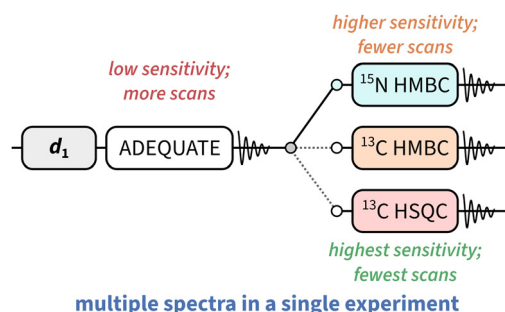
Min Xue, Yanling Guo, Changqing Ye, Zhongqin Pan, Xiao-Lei Huo\* and Qingwen Zhou\*



7827

### A general scheme for generating NMR supersequences combining high- and low-sensitivity experiments

Jonathan R. J. Yong, Ēriks Kupče and Tim D. W. Claridge\*



7831

### Enantioselective synthesis of 3a-azido-pyrroloindolines by copper-catalyzed asymmetric dearomative azidation of tryptamines

Cheng-Zhou Lin, Ling-Feng Jiang, Guang-Yi Zhang, Fang-Shuai Zhou, Shao-Hua Wu, Jing Cao\* and Qing-Hai Deng\*

