

IN THIS ISSUE

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Cover

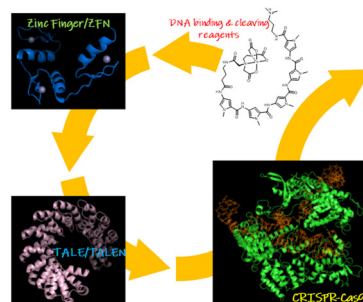
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HIGHLIGHT

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

Daisuke Matsumoto and Wataru Nomura*

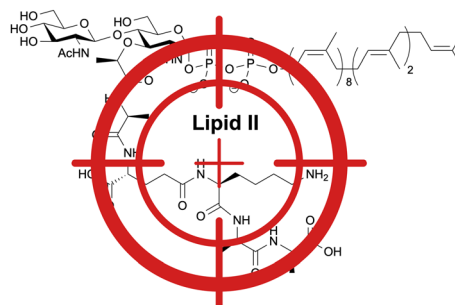


FEATURE ARTICLES

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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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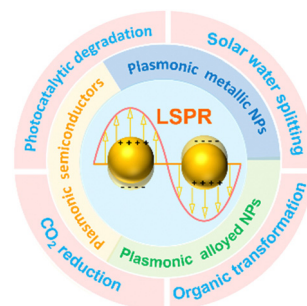


FEATURE ARTICLES

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Plasmonic nanomaterials for solar-driven photocatalysis

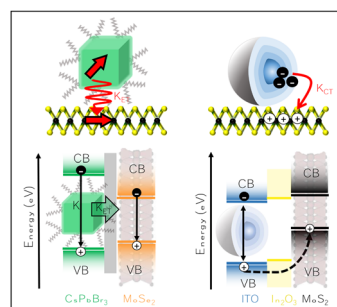
Qingzhe Zhang, Zhihong Zuo and Dongling Ma*



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

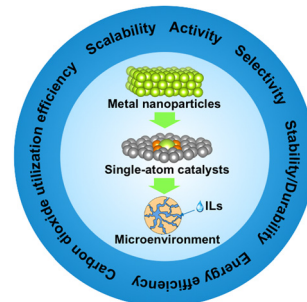
Aswin Asaithambi, Nastaran Kazemi Tofighi, Michele Ghini, Nicola Curreli,* P. James Schuck and Ilka Kriegel*



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From bulk metals to single-atoms: design of efficient catalysts for the electroreduction of CO₂

Chen Jia, Qian Sun and Chuan Zhao*

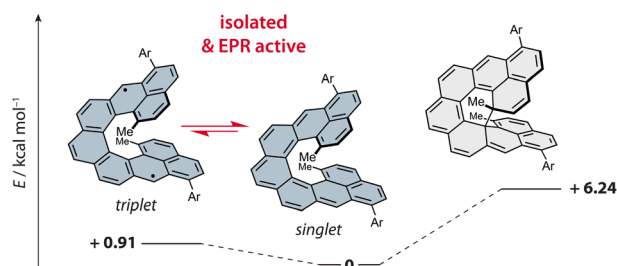


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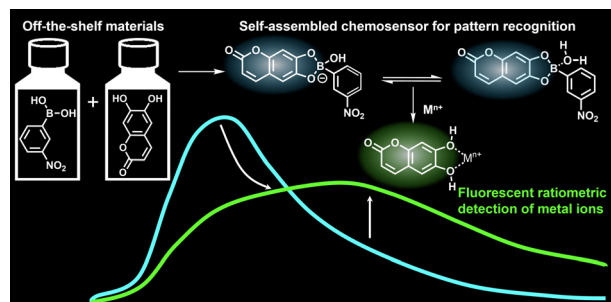
Dimethylnonacethrene – en route to a magnetic switch

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



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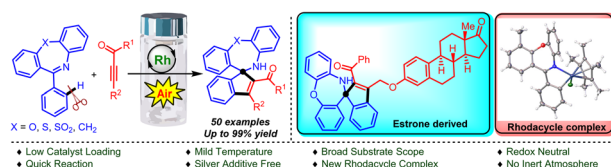
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Spontaneous preparation of a fluorescent ratiometric chemosensor for metal ions using off-the-shelf materials

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

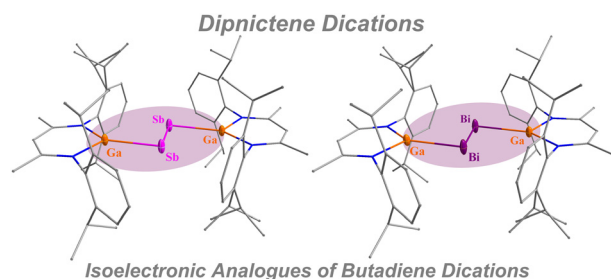
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Synthesis of indene-fused spiro-dibenz(ox)azepines via Rh(III)-catalyzed cascade regioselective C–H activation/annulation

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

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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*

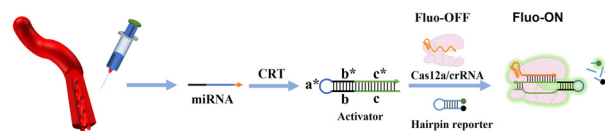


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CRISPR-Cas12a coupled with cyclic reverse transcription for amplified detection of miRNA

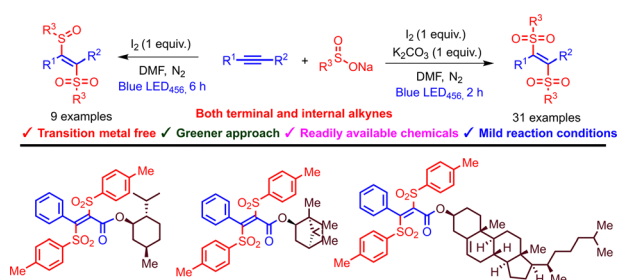
Xi Long, Jiacheng Li, Tong Luo, Hui Liu, Zhiwei Deng, Jiacheng Ding, Zan Gong, Yanjing Yang* and Shian Zhong*



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

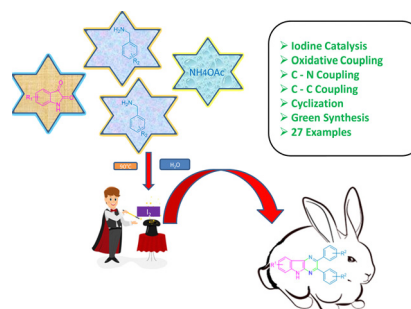
Mandapati Bhargava Reddy and Eoghan M. McGarrigle*



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

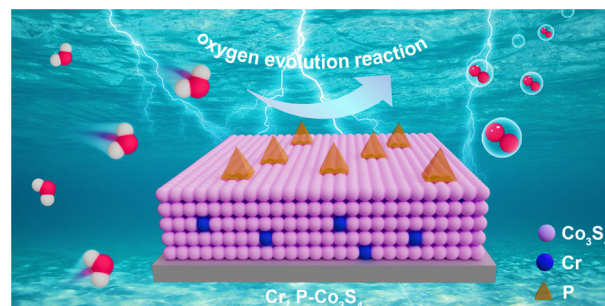
Debasish Bera, Rajib Sarkar, Pinaki Saha, Prasanta Ghosh and Chhanda Mukhopadhyay*



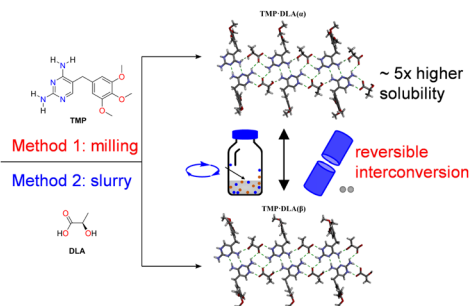
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Modulation of bulk and surface electronic structures for oxygen evolution by Cr, P co-doped Co₃S₄

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



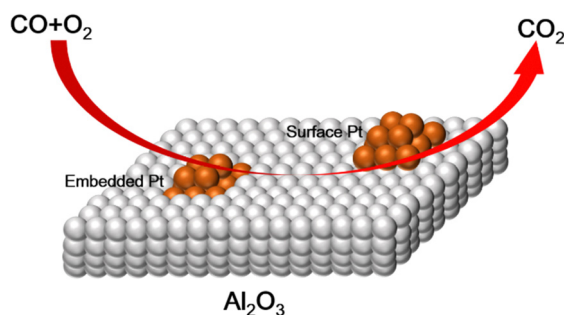
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Reversible interconversion of pharmaceutical salt polymorphs facilitated by mechanical methods

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

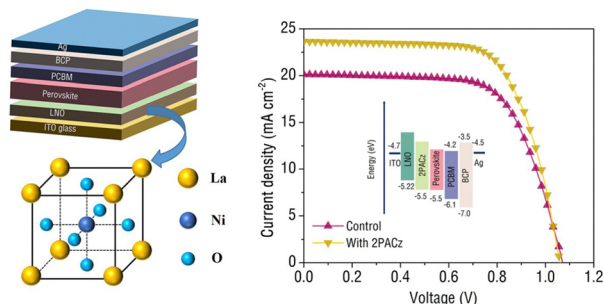
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CO oxidation over embedded Pt nanoparticles on Al₂O₃ with Al coordination flexibility

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

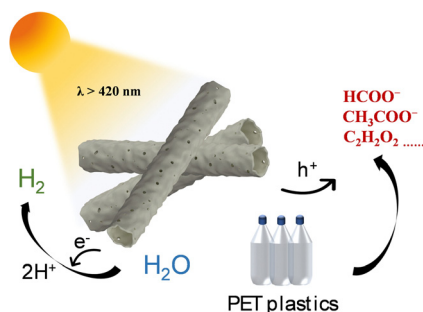
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Low-temperature solution-processed LaNiO₃ hole-transport layer for UV-stable inverted perovskite solar cells

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

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

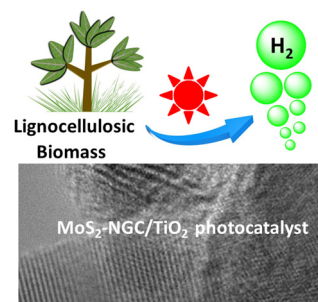
Shuhui Guo, Yuanyong Huang, Di Li, Zhongkai Xie, Yujing Jia, Xiaojie Wu, Dongbo Xu* and Weidong Shi*



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**MoS₂@N-doped graphitic carbon/TiO₂
photocatalysts for photocatalytic H₂ production
from lignocellulosic biomass**

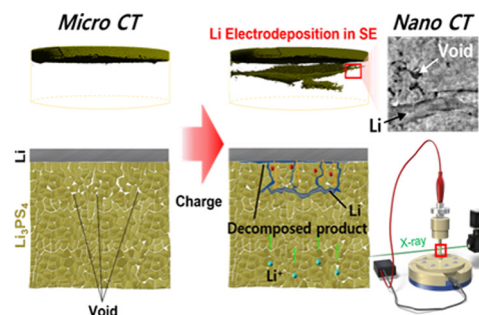
Chi Ma, Quan Cheng, Ze-Xin Huang, Fu-Guang Zhang,
Qing-Yu Liu and Yong-Jun Yuan*



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Unique Li deposition behavior in Li_3PS_4 solid electrolyte observed *via operando* X-ray computed tomography

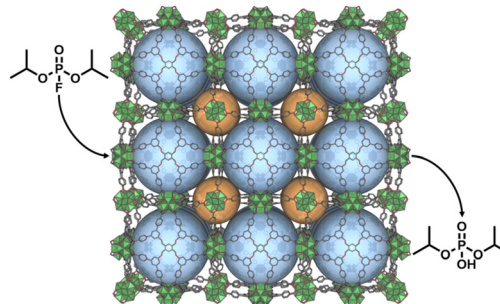
Jaehee Park, Toshiki Watanabe,* Kentaro Yamamoto,
Tomoki Uchiyama, Tsuyoshi Takami, Atsushi Sakuda,
Akitoshi Hayashi, Masahiro Tatsumisago and
Yoshiharu Uchimoto



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

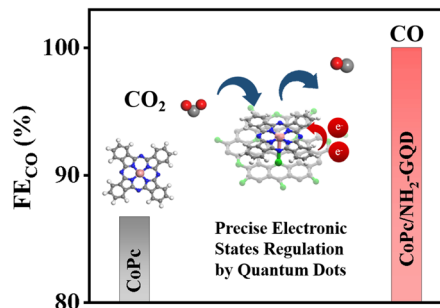
Borja Ortín-Rubio, Cristina Perona-Bermejo,
José A. Suárez del Pino, Francisco J. Carmona,
Felipe Gándara, Jorge A. R. Navarro, Judith Juanhuix,
Inhar Imaz* and Daniel Maspoch*



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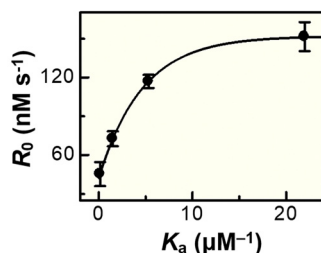
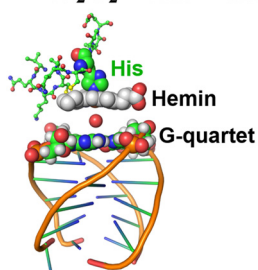
Enhanced electrochemical CO₂ reduction performance of cobalt phthalocyanine with precise regulation of electronic states

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



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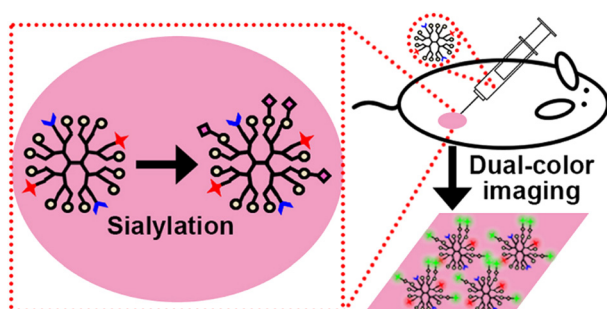
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Construction of "peptide-hemin/DNA" hybrid-complexes and their peroxidase activities

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

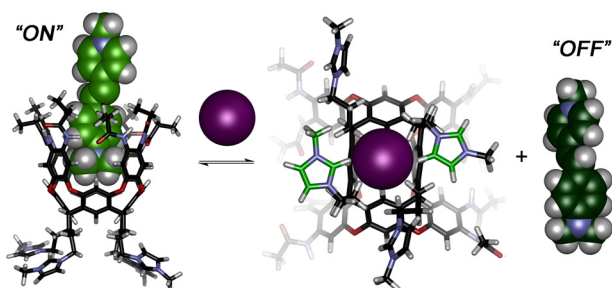
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In situ evaluation of *in vivo* sialylation with a dual-color imaging strategy

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

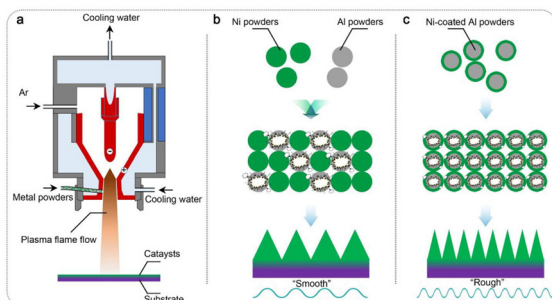
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Selective anion sensing in high salt water *via* a remote indicator displacement assay

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

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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*

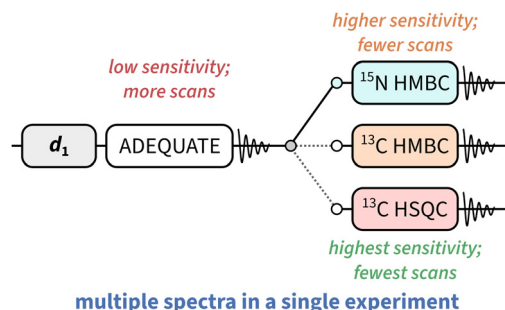


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A general scheme for generating NMR supersequences combining high- and low-sensitivity experiments

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



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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*

