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See Mingoo Jin, Hajime Ito *et al.*, pp. 4485–4494. Image reproduced by permission of Alexander S. Mikherdov, Mingoo Jin and Hajime Ito from *Chem. Sci.*, 2023, **14**, 4485.

EDITORIAL

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How can you trust what you read?

May C. Copsey and Andrew I. Cooper

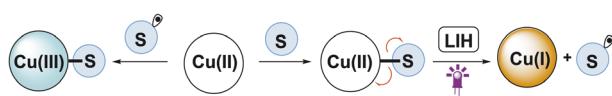


PERSPECTIVES

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Light-induced homolysis of copper(II)-complexes – a perspective for photocatalysis

Alexander Reichle and Oliver Reiser*



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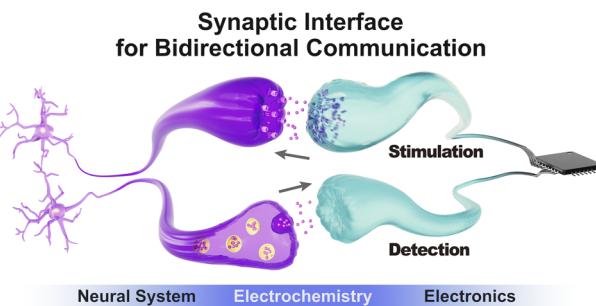
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Streamlining the interface between electronics and neural systems for bidirectional electrochemical communication

Wonkyung Cho, Sun-heui Yoon and Taek Dong Chung*

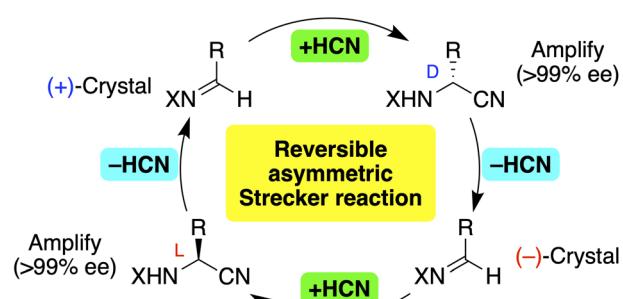


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Chirally and chemically reversible Strecker reaction

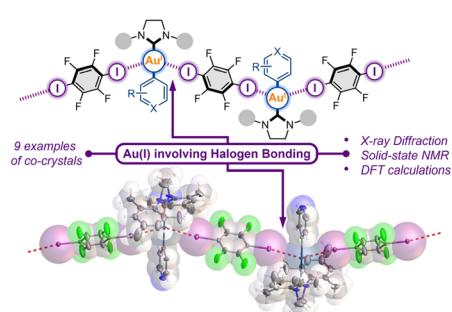
Yutaro Machida, Yudai Tanaka, Yuya Masuda, Aya Kimura and Tsuneomi Kawasaki*



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Exploring Au(I) involving halogen bonding with N-heterocyclic carbene Au(I) aryl complexes in crystalline media

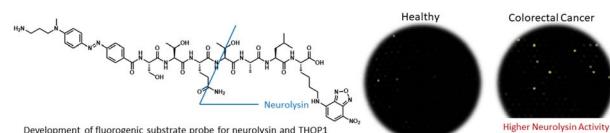
Alexander S. Mikhherdov, Mingoo Jin* and Hajime Ito*



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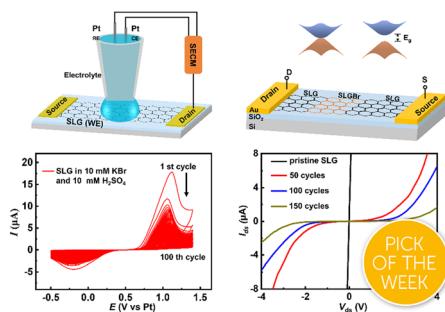
Development of fluorogenic substrates for colorectal tumor-related neuropeptidases for activity-based diagnosis

Norimichi Nagano, Yuki Ichihashi, Toru Komatsu,* Hiroyuki Matsuzaki, Keisuke Hata, Toshiaki Watanabe, Yoshihiro Misawa, Misa Suzuki, Shingo Sakamoto, Yu Kagami, Ayumi Kashiro, Keiko Takeuchi, Yukihide Kanemitsu, Hiroki Ochiai, Rikiya Watanabe, Kazufumi Honda and Yasuteru Urano*



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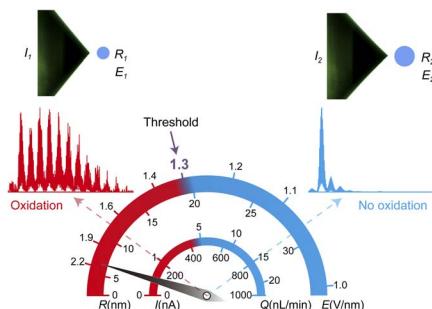
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Electrochemical regulation of the band gap of single layer graphene: from semimetal to semiconductor

Lanping Zeng, Weiying Song, Xiangfeng Jin, Quanfeng He, Lianhuan Han,* Yuan-fei Wu, Corinne Lagrost, Yann Leroux, Philippe Hapiot, Yang Cao,* Jun Cheng and Dongping Zhan*

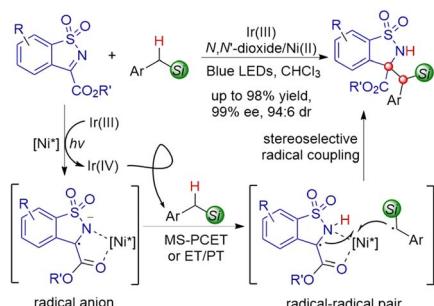
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Tuning oxidative modification by a strong electric field using nanoESI of highly conductive solutions near the minimum flow rate

Zhongbao Han, Nozomu Omata, Takeshi Matsuda, Shoki Hishida, Shuuhei Takiguchi, Ryoki Komori, Riku Suzuki and Lee Chuin Chen*

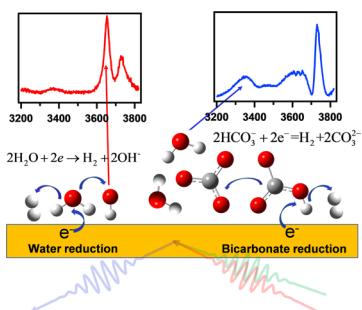
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Visible-light-induced chemo-, diastereo- and enantioselective α -C(sp³)-H functionalization of alkyl silanes

Lili Feng, Xiaofan Chen, Ning Guo, Yuqiao Zhou, Lili Lin, Weidi Cao* and Xiaoming Feng*

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Direct observation of bicarbonate and water reduction on gold: understanding the potential dependent proton source during hydrogen evolution

Gang-Hua Deng, Quansong Zhu, Jaclyn Rebstock, Tomaz Neves-Garcia and L. Robert Baker*

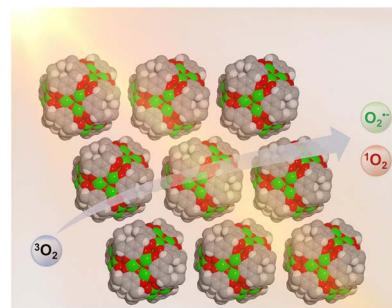


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A copper-seamed coordination nanocapsule as a semiconductor photocatalyst for molecular oxygen activation

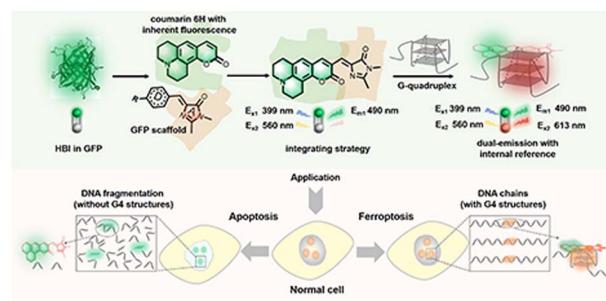
Xiangquan Hu, Meirong Han, Leicheng Wang, Li Shao, Yadav Peeyush, Jialei Du,* Steven P. Kelley, Scott J. Dalgarno, David A. Atwood, Sisi Feng* and Jerry L. Atwood*



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Engineering fluorescent protein chromophores with an internal reference for high-fidelity ratiometric G4 imaging in living cells

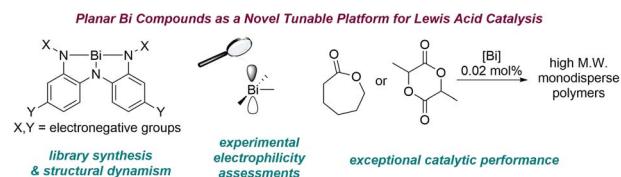
Jiao-Na Han, Caijun Zhong, Mingmin Ge, Shi Kuang* and Zhou Nie*



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Planar bismuth triamides: a tunable platform for main group Lewis acidity and polymerization catalysis

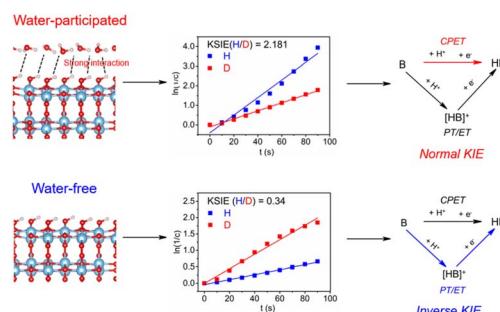
Tyler J. Hannah, W. Michael McCarvell, Tamina Kirsch, Joseph Bedard, Toren Hynes, Jacqueline Mayho, Karlee L. Bamford, Cyler W. Vos, Christopher M. Kozak, Tanner George, Jason D. Masuda and S. S. Chitnis*



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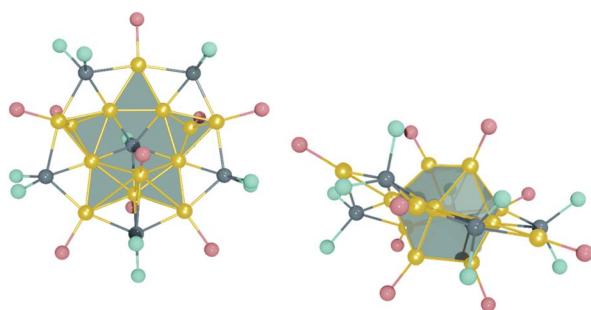
Water molecule switching heterogeneous proton-coupled electron transfer pathway

Zhonghuan Liu, Wei Peng, Yuhuan Lin, Xinyu Lin, Shikang Yin, Shuhan Jia, Dongge Ma, Yan Yan,* Peng Zhou,* Wanrong Ma* and Jincai Zhao



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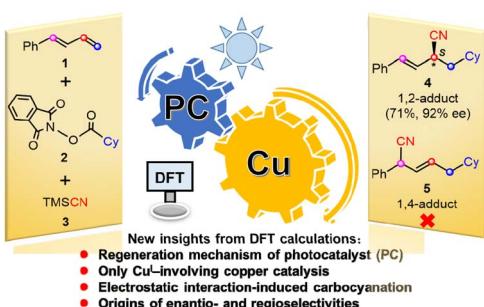
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Synthesis and characterisation of four bimetallic gold–gallium clusters with Au–Ga rings as a new structural motif in gold cluster chemistry

Markus Strienz, Florian Fetzer and Andreas Schnepf*

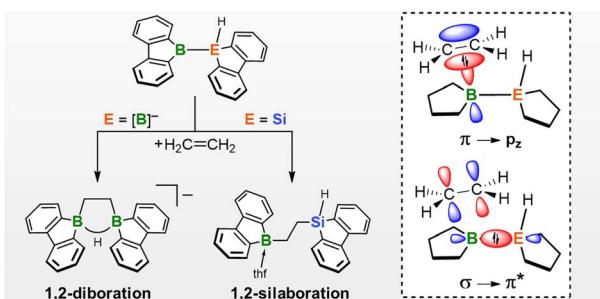
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New insights into the mechanism of synergistic photoredox/copper(I)-catalyzed carbocyanation of 1,3-dienes: a DFT study

Yanhong Liu, Aili Feng, Rongxiu Zhu and Dongju Zhang*

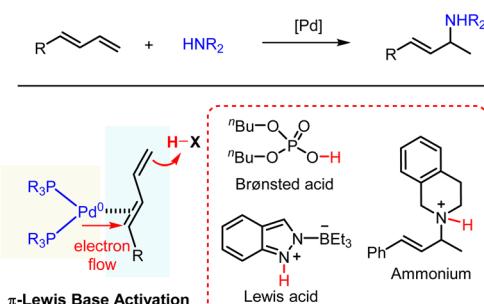
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Catalyst-free diboration and silaboration of alkenes and alkynes using bis(9-heterofluorenyl)s

Jannik Gilmer, Timo Trageser, Luis Čaić, Alexander Virovets, Michael Bolte, Hans-Wolfram Lerner, Felipe Fantuzzi* and Matthias Wagner*

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A metal π -Lewis base activation model for Pd-catalyzed hydroamination of amines and 1,3-dienes

Xiao Yan, Xiu-Ming Yang, Peng Yan, Bo Zhao, Rong Zeng, Bin Pan, Ying-Chun Chen, Lei Zhu* and Qin Ouyang*

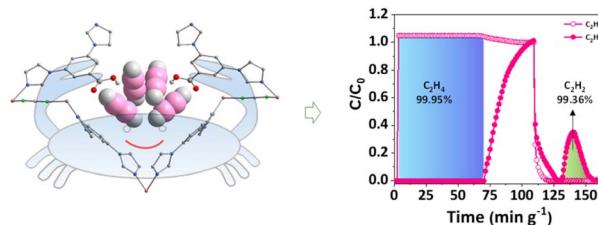


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Formation and fine-tuning of metal–organic frameworks with carboxylic pincers for the recognition of a C_2H_2 tetramer and highly selective separation of C_2H_2/C_2H_4

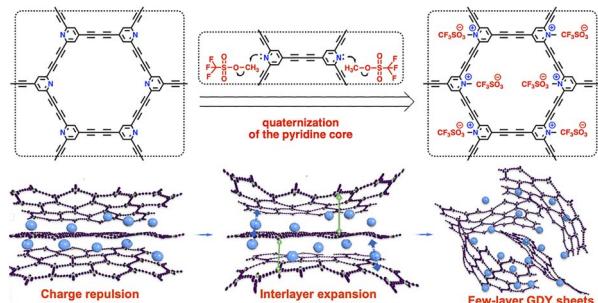
Yuefeng Duan, Yuhang Huang, Chongqing Wang, Qian Wang, Kai Ge, Zhiyong Lu, Huijie Wang, Jingui Duan,* Junfeng Bai* and Wanqin Jin



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Scalable synthesis of soluble crystalline ionic-graphdiyne by controlled ion expansion

Lingling Wang, Lu Qi, Qinglei Zhang, Binghui Xue, Zhiqiang Zheng, Panchao Yin, Yurui Xue, Wenlong Yang* and Yuliang Li*



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Single-atom copper catalyst for the *S*-arylation reaction to produce diaryl disulfides

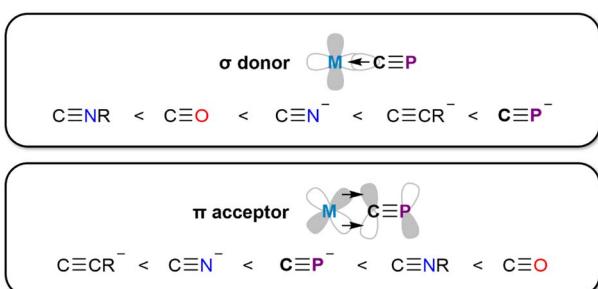
Yiming Zhao, Yan Zhou, Shanshan Lv, Han Li, Qikang Wu, Shaohuan Liu, Wanying Li, Taiyu Chen and Zheng Chen*



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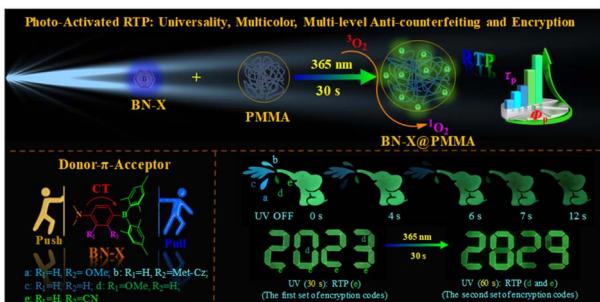
Putting cyaphide in its place: determining the donor/acceptor properties of the κC -cyaphido ligand

Eric S. Yang, Emma Combey and Jose M. Goicoechea*



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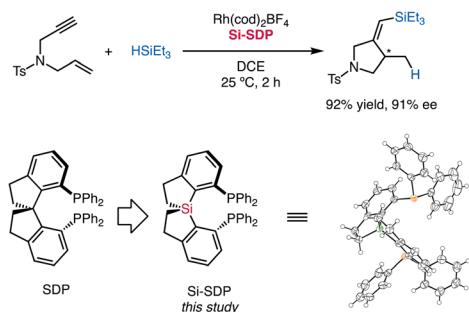
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Time-dependent photo-activated aminoborane room-temperature phosphorescence materials with unprecedented properties: simple, versatile, multicolor-tunable, water resistance, optical information writing/erasing, and multilevel data encryption

Huangting Ding, Yitong Sun, Meng Tang, Jingyi Wen, Shiwen Yue, Ye Peng, Fei Li, Liyan Zheng, Suning Wang, Yonggang Shi* and Qiu Cao*

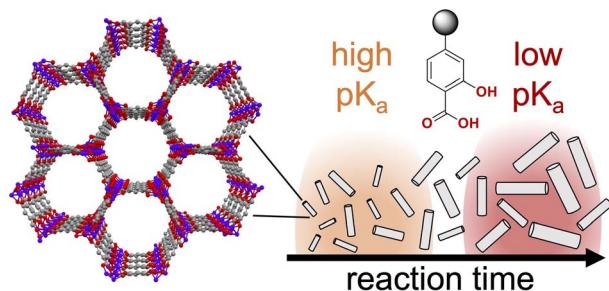
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Chiral spirosiladiphosphines: ligand development and applications in Rh-catalyzed asymmetric hydrosilylation/cyclization of 1,6-enynes with enhanced reactivity

Fei Hou, Minjie Liu, Tong Ru, Zequn Tan, Yingtang Ning* and Fen-Er Chen*

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Effect of modulator ligands on the growth of $\text{Co}_2(\text{dobdc})$ nanorods

Nina S. Pappas and Jarad A. Mason*

