

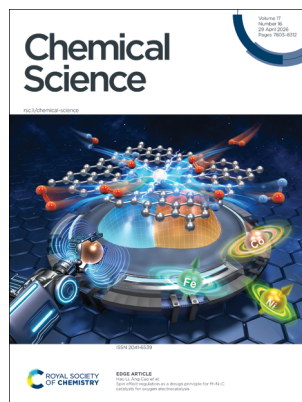
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IN THIS ISSUE

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Cover
See Tibor Szilvási, Terrance J. Hadlington *et al.*, pp. 7938–7946. Image reproduced by permission of Terrance J. Hadlington from *Chem. Sci.*, 2026, 17, 7938.



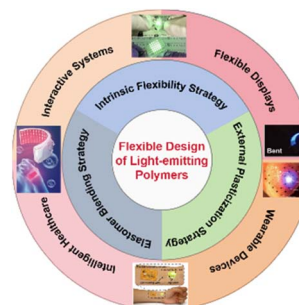
Inside cover
See Hao Li, Ang Cao *et al.*, pp. 7947–7957. Image reproduced by permission of Hao Li from *Chem. Sci.*, 2026, 17, 7947.

PERSPECTIVE

7817

Light-emitting polymer semiconductors in flexible electronics: strategies, challenges and future perspective

Xiang An,* Wenyu Chen, Zhiyang Sun, Hong Ren, Xiao Luan, Shigang He, Man Xu, Jinyi Lin* and Wei Huang*

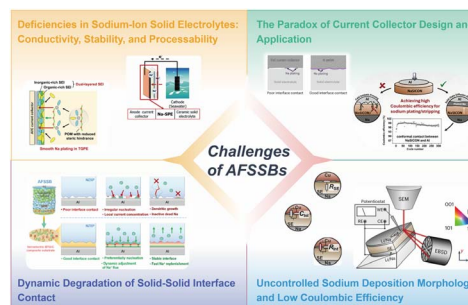


REVIEWS

7827

Anode-free solid-state sodium batteries: navigating the challenges toward high energy density

Yi-An Zhao, Ge Sun, Heng Jiang,* Zhixuan Wei* and Fei Du*



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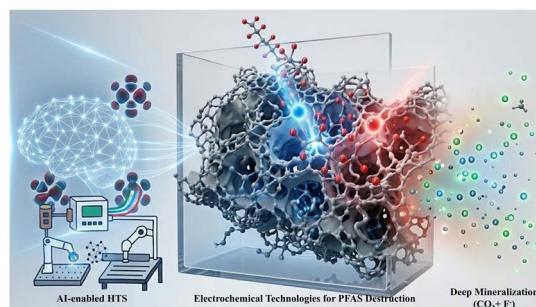
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REVIEWS

7843

Advances in electrochemical technologies for PFAS destruction

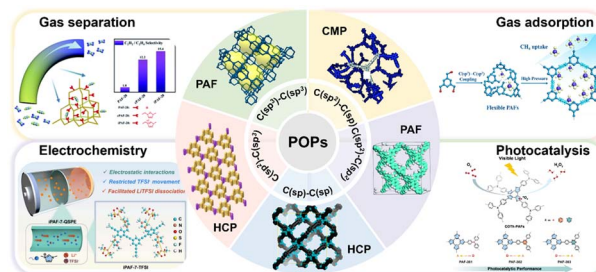
Yuqing Dong, Shuaiyu Gao, Yuelin Zhao, Genban Sun* and Jihong Yu*



7875

Porous organic polymers based on carbon-carbon coupling reaction: synthesis and applications

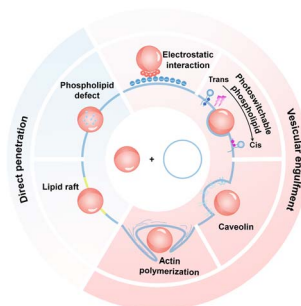
Yifan Li, Jingyuan Zhao, Dongtao Liu* and Guangshan Zhu*



7925

Decoding the tactics for coacervate pedestrian crossing the phospholipid membrane

Huimin Yang, Minghao Wei and Yan Qiao*

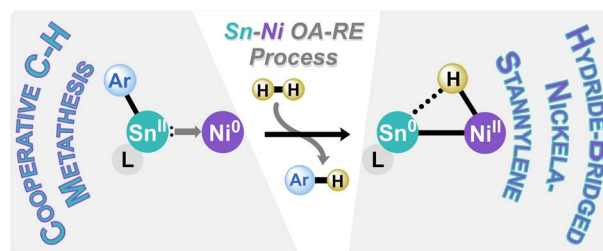


EDGE ARTICLES

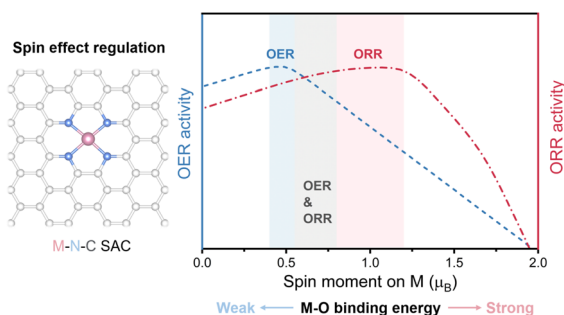
7938

Cooperative metathesis of H-H/Sn-C^{Ar} bonds in stannylene-Ni⁰ systems

Jonas M. Gilch, Philip M. Keil, Mustapha Iddrisu, Tibor Szilvási* and Terrance J. Hadlington*



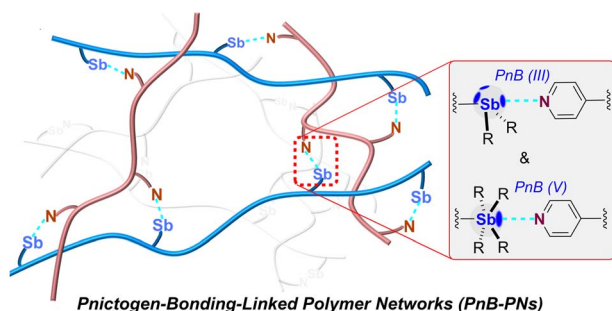
7947



Spin effect regulation as a design principle for M–N–C catalysts for oxygen electrocatalysis

Haiyan Li, Zhanzhao Fu, Yuan Yuan, Di Zhang, Yubo Chen, Hao Li* and Ang Cao*

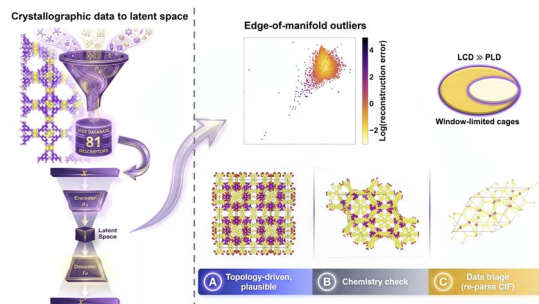
7958



Pnictogen-bonding-crosslinked polymer networks: constructing self-healing materials

Qingli Song, Yi Liu, Yao Wang* and Wei Wang*

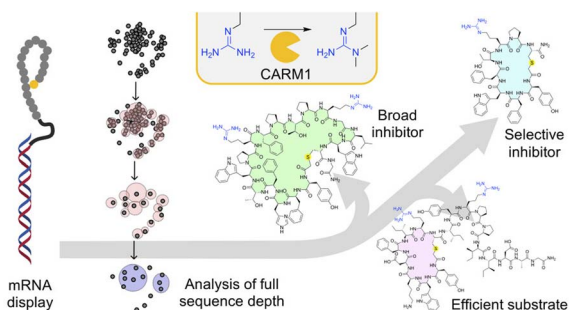
7967



Decoding the unseen: unsupervised anomaly detection in metal–organic frameworks for discovery beyond the norm

Hosein Alimardani, Shayan Abaei and Mehرداد Asgari*

7986



A suite of macrocyclic peptide inhibitors and substrate probes for arginine methyltransferases

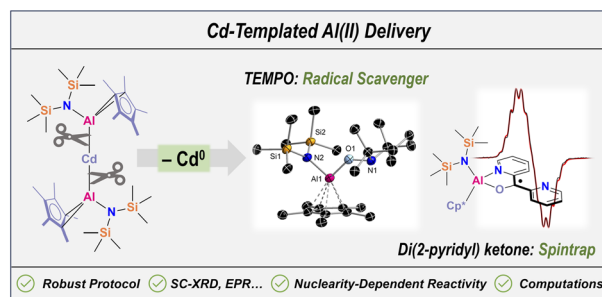
R. Yoshisada, Y. Zhang, E. Janssen, C. Bouchard, D. A. Poole, III, T. Wan, L. R. Soares, I. M. Houtkamp, S. Abeln, H. Mouhib, M. J. van Haren, N. Marechal, N. Troffer-Charlier, V. Cura, J. Cavarelli, H. van Ingen, U. M. Bauer, N. I. Martin and S. A. K. Jongkees*



7997

Al(III) transfer harnessing a well-defined cadmium precursor

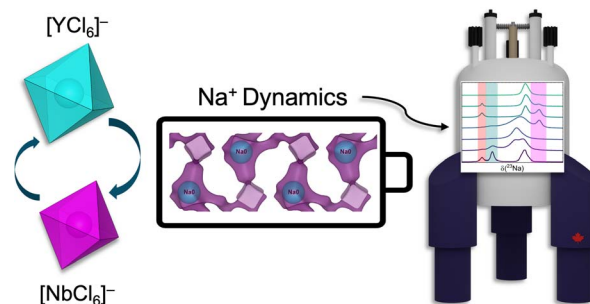
Dominic Herle, Frerik Wurm, Crispin Lichtenberg and Fabian Dankert*



8007

Influence of aliovalent substitution on structure and dynamics in sodium halide $\text{Na}_{3-2x}\text{Y}_{1-x}\text{Nb}_x\text{Cl}_6$ solid electrolytes

Brian B. Phan, Tso Shuen, Dmitry Vrublevskiy, Qingyu Yan and Vladimir K. Michaelis*



8021

Three wrongs make a right: a computational investigation of $[4n]-[4n]-[4n]$ fused π -systems

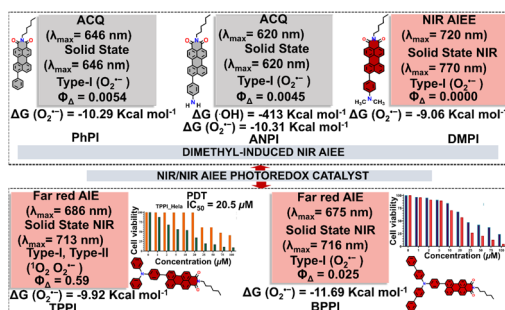
Muhammad Usama Gul Khan, Katarzyna Młodzikowska-Pieńko, Renana Gershoni-Poranne* and Judy I. Wu*



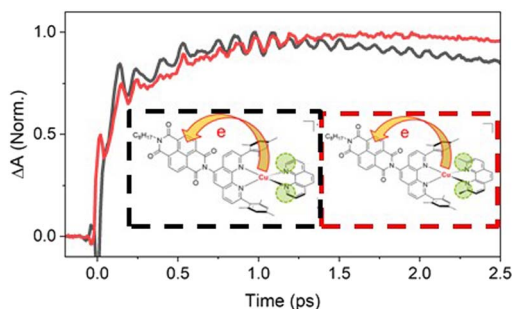
8028

Heavy-metal free near infrared photoredox catalysts in cancer phototherapy

Mst Nasima Khatun, Satyendu Nandy, Chakali Srinivas, Mrinalini Singh, Ramkrishna Das Adhikari, Sachin Kumar* and Parameswar Krishnan Iyer*



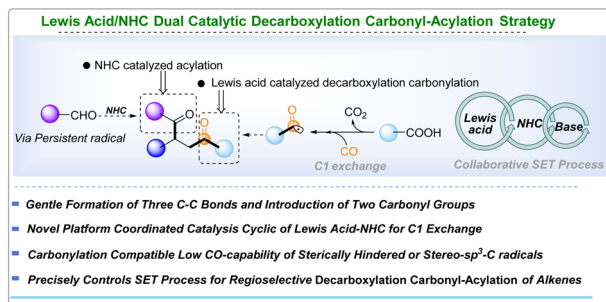
8043



Jahn–Teller distortion controls electron transfer in photoexcited Cu(I) donor–acceptor systems

Pyosang Kim,^{*} Xinzhen Yang, Brian T. Phelan, Lars Kohler, Karen L. Mulfort,^{*} Xiaosong Li^{*} and Lin X. Chen^{*}

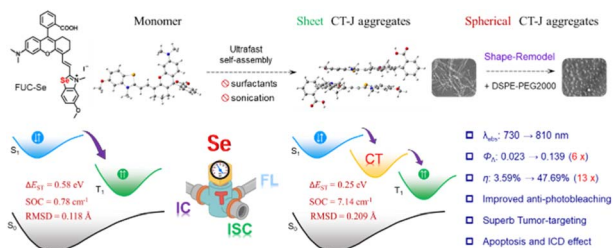
8054



Lewis acid/NHC dual catalysis for regioselective vicinal decarboxylative carbonylation–acylation of alkenes

Mao-Lin Yang and Xiao-Feng Wu^{*}

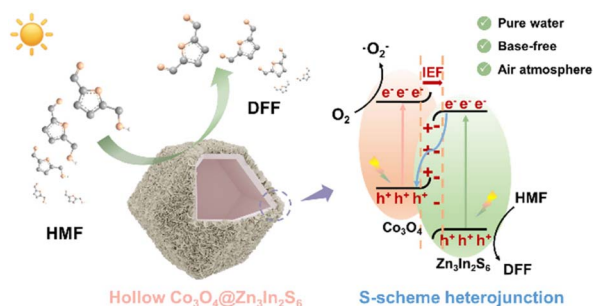
8061



Zero-trigger ultrafast charge-transfer J-aggregates via Se/ π -directed assembly enable synchronous ROS/heat amplification for NIR-II photoimmunotherapy

Dandan Ma, Hui Bian, Fei Pan, Danhong Zhou, Zhi Chen, Haoying Ge, Yuanlang Guo, Yingnan Wu, Xin He, Panwang Zhou, Lei Wang, Xiaoqiang Chen^{*} and Xiaojun Peng^{*}

8076



Visible-light-driven valorization of 5-hydroxymethylfurfural over a hollow Co₃O₄@Zn₃In₂S₆ nanocage in base-free water under an air atmosphere

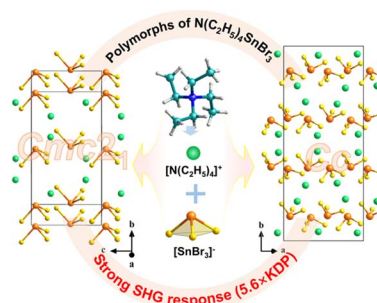
Rong Dang, Kexin Fan, Yan-Ning Wang, Guangsheng Zhu, Liu Liu, Zifu Hu, Taolian Guo,^{*} Wu Chen^{*} and Fengxiang Chen^{*}



8084

Halogen-ion-driven polymorphs for high-performance nonlinear optical crystalline materials

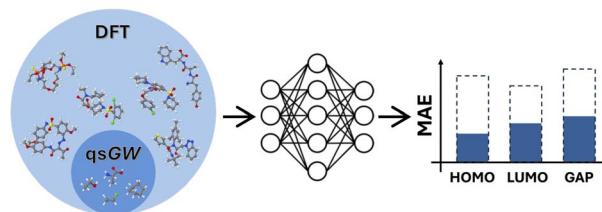
Yuwei Kang, Can Yang, Yunjie Wang and Qi Wu*



8090

Transfer learning of GW Bethe–Salpeter equation excitation energies

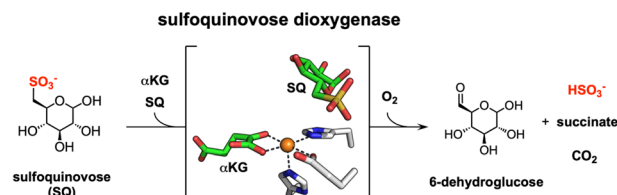
Dario Baum, Arno Förster and Lucas Visscher*



8100

Structural and mechanistic basis of sulfolytic C–S bond cleavage by an Fe(III)/ α -ketoglutarate-dependent sulfoquinovose dioxygenase

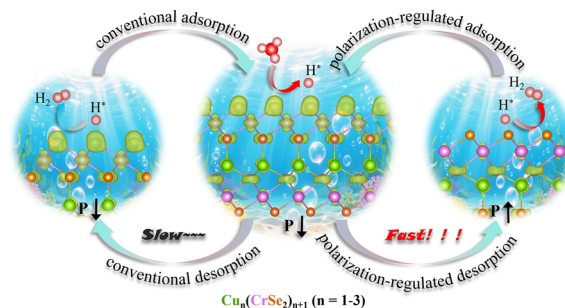
Mihwa Lee,* Ho N. N. Ho, Megan J. Maher, Guy N. L. Jameson* and Spencer J. Williams*



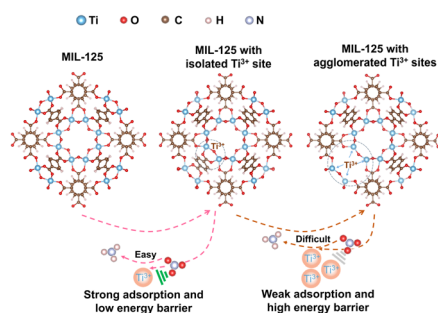
8108

Reversible polarization-enabled hydrogen evolution reaction on two-dimensional ferroelectric $\text{Cu}_n(\text{CrSe}_2)_{n+1}$ monolayers

Wenyuan Zhang, Jingguo Wang, Qi Wang, Yanling Si* and Guochun Yang*



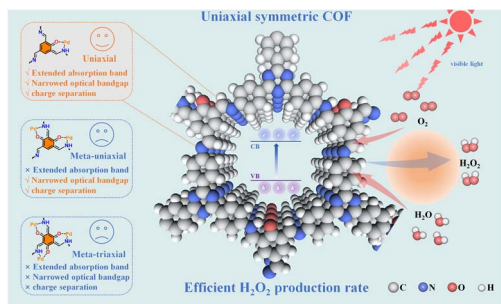
8117



The critical role of isolated Ti^{3+} sites in MIL-125 for photocatalytic nitrate reduction: performance enhancement and deactivation mechanism

Lijun Liao,* Guangquan Zhao, Ruiwen Shu,*
Xuepeng Wang, Jinxin Zhang and Ruting Yuan*

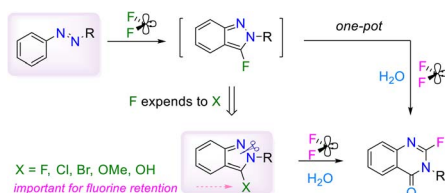
8126



Tunable axial symmetry β -ketoamine covalent organic frameworks for efficient photocatalytic H_2O_2 synthesis in seawater

Jinyang Chen, Jie Zhou, Na Li, Yeshun Liu, Xubing Deng,
Faliang Gou, Zhen Yang, Minfeng Zeng,*
Mingchao Shao* and Yunlong Guo*

8136

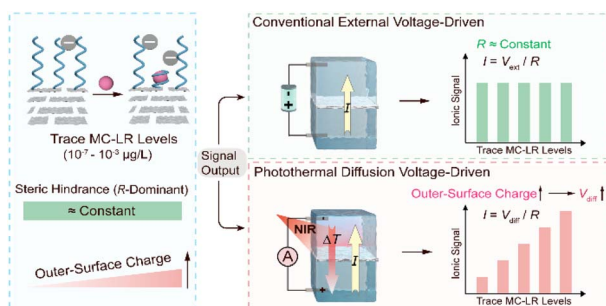


A difluorocarbene-triggered annulation/ring expansion cascade *via* sequential single-atom-insertions: direct assembly of 2-fluoroquinazolinones from azo compounds

Yingxian Tian, Yiyang Xiong, Jingyu Wei, Gongming Zhu,
Junbiao Chang and Bingxian Liu*

difluorocarbene-triggered annulation/ring expansion cascade
leaving group controlled fluorine retention
insertion of difluorocarbene into N-N and N=N bonds

8148



Outer-surface charge modulation of photothermal diffusion voltage enables ultrasensitive sensing in nanofluidic membranes

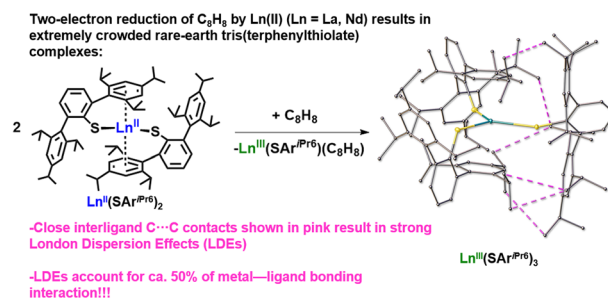
Yihan Ma, Xinyi Yang, Bingquan Qi, Xiaoping Yang,
Zhengxu He, Ning Feng, Li Dai, Aiqing Zhang,
Yu Huang* and Fan Xia



8160

Unexpected dispersion-stabilized tris(terphenylthiolate) complexes, $\text{Ln}(\text{SAr}^{\text{iPr6}})_3$, arising from two-electron reduction by $\text{Ln}(\text{SAr}^{\text{iPr6}})_2$ [$\text{Ar}^{\text{iPr6}} = \text{C}_6\text{H}_3\text{-2,6-(C}_6\text{H}_2\text{-2,6,4-}^i\text{Pr}_3)_2$]

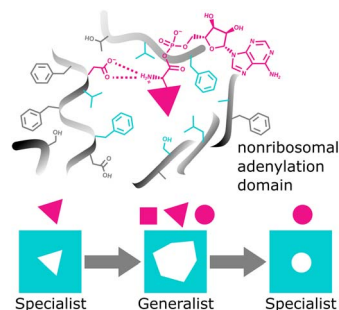
Makayla R. Luevano, Cary R. Stennett, Eric Ma, Joseph W. Ziller, Philipp Furche* and William J. Evans*



8168

Mapping the nonribosomal specificity code through promiscuity-guided A-domain engineering

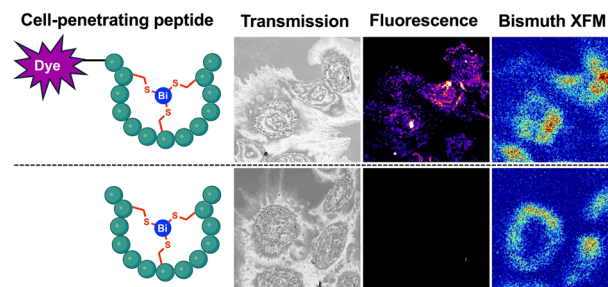
Aleksa Stanišić, Carl-Magnus Svensson, Maximilian Müll, Freddy A. Bernal, Hannah Zeihe, Ulrich Ettelt and Hajo Kries*



8182

Triple threat bismuth peptide imaging in cells

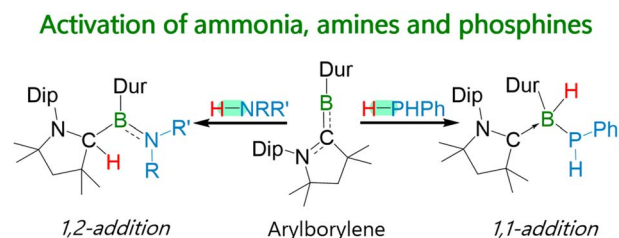
Saan Voss, Clinton J. Kidman, Liam D. Adair, Samuel O. Nitschke, Pramsak Patawanich, Terry Koh, Ani T. Baker, Daryl L. Howard, Elizabeth J. New, Hugh H. Harris* and Christoph Nitsche*



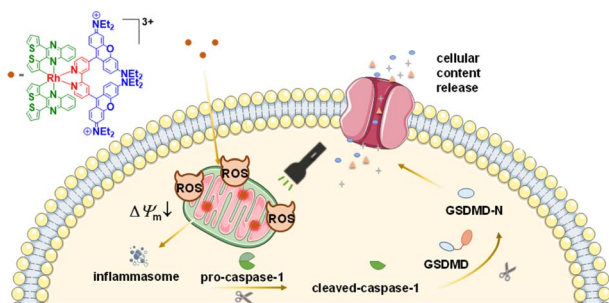
8189

N–H/P–H bond activation of ammonia, amines and phosphines at a transient borylene

Marco Weber, Sourav Kar, Pia Joos, Rian D. Dewhurst and Holger Braunschweig*



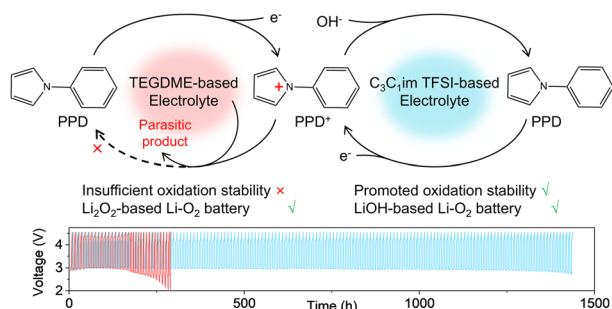
8197



Mitochondria-targeting cyclometallated rhodium(III) complexes appended with two rhodamine units as Type I photosensitisers for bioimaging and photocytotoxicity applications by inducing pyroptosis

Katherine Gui-Min Jiang, Guang-Xi Xu, Lawrence Cho-Cheung Lee, Fangfang Wei, Siye Wu, Keith Man-Chung Wong* and Kenneth Kam-Wing Lo*

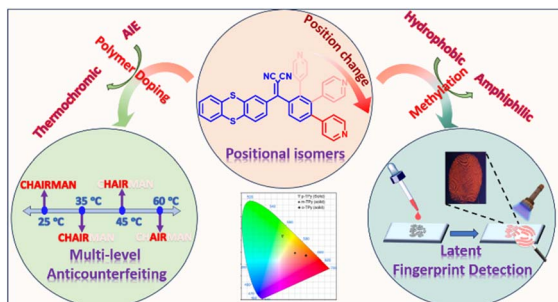
8208



Tailoring electrolyte activity for a highly stable LiOH redox process in lithium–oxygen batteries

Jiacheng Yang, Jiasen Guo, Zihong Wang, Bing-Qing Xiong, Jun Ma, Dazhuang Wang and Xiaodi Ren*

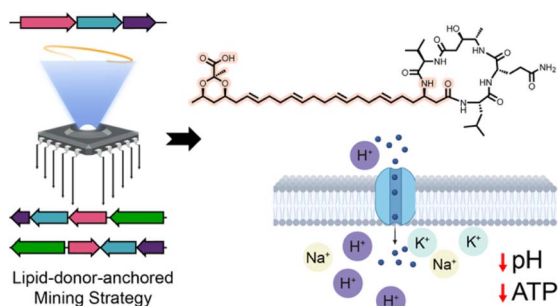
8218



Stepwise functionalization-induced molecular tweak unveiling multi-level thermochromic data encryption and fingerprint monitoring system

Debika Barman, Retwik Parui and Parameswar Krishnan Iyer*

8229



Lipid-donor-anchored genome mining uncovers dioxanopeptides, antibacterial lipopeptides with a 1,3-dioxane functionalized polyunsaturated lipid tail

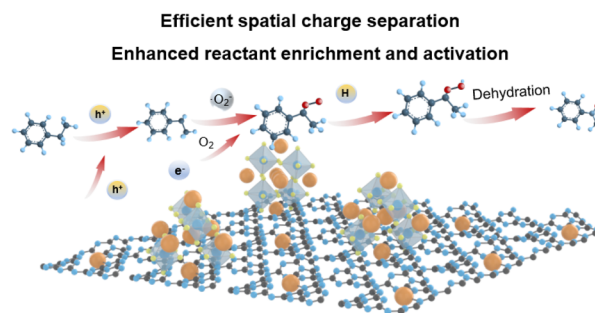
Ying Chen, Yunsheng Chen, Hao Xiang, Changqi Luo, Jiaqi Duan, Kun Hu, Xiaohong Zheng, Jing Liu, Yongbo Xue* and Yi-Ming Shi*



8242

Targeted reactant activation and spatial charge separation for efficient photocatalytic C(sp³)-H bond oxidation

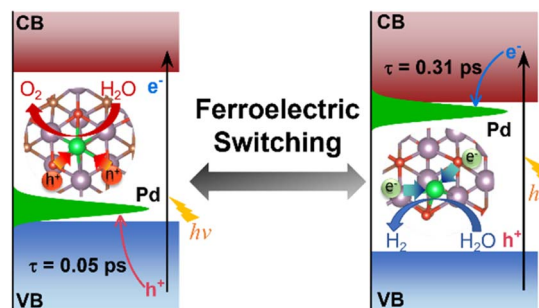
Taoran Chen, Yu Han, Ying Tao, Guojin Huang, Zhengwu Liao, Yulin Wang, Yue Zheng, Yu Wang, Shiqi Li, Wei Zhao, Hongli Sun* and Chenliang Su



8251

Polarization-induced reversible electron-hole migration and redox reaction switching in ferroelectric single-atom photocatalysts

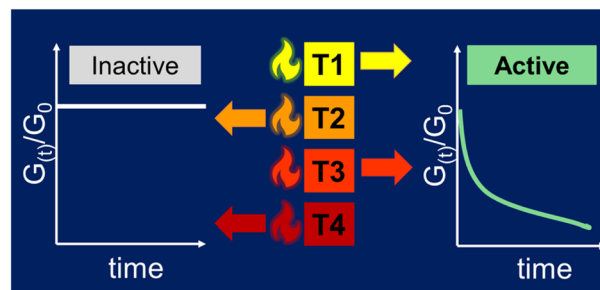
Yuan Tang, Cen-Feng Fu,* Xingxing Li* and Jinlong Yang



8260

Temperature orthogonal dynamic polymer networks

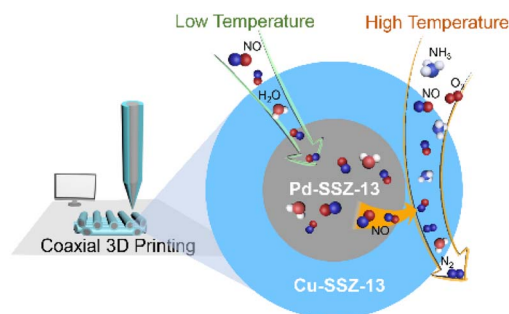
Matthias Udo Mayer-Kriehuber, Evelyn Sattler, David Reisinger, Daniel Bautista-Anguis, Szymon Gaca, Pia Maria Egger, Fleana A. Sabatino, Sebastian Maar and Sandra Schlögl*



8272

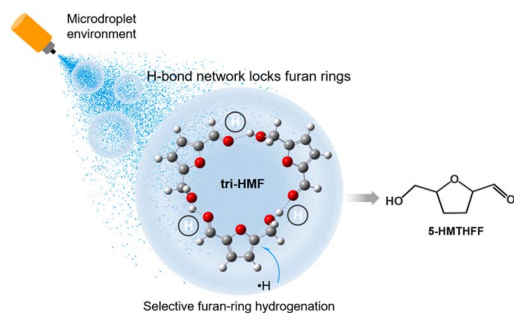
Coaxial 3D printing of zeolite core-shell structured catalysts for integrated NO_x adsorption and selective catalytic reduction in cold start application

Yingzhen Wei, Jingyi Feng, Dan Li, Youji Qi, Mengyang Chen, Shuang Wang, Jinfeng Han and Jihong Yu*



EDGE ARTICLES

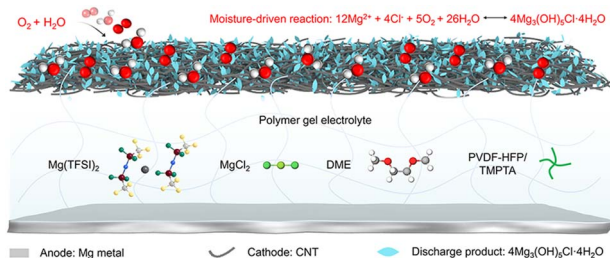
8281



Non-covalent assembly-enabled selectivity in aqueous microdroplets

Zhiheng Ma, Pengju Wu, Xianlong Zhou,* Lingchao Cai, Thomas Heine* and Yu Jing*

8291



Moisture-driven discharge chemistry enables the fabrication of highly reversible magnesium–oxygen polymer batteries

Ju Lin, Long Jiang, Shifan Zheng, Jing Zhou, Yulong Wan and Lie Wang*

CORRECTIONS

8300

Correction: Polyterrylenes: synthesis and regioregularity effect on p-type charge transport and deep-red light photodetection in OFETs

Chittrak Ghosh, Minji Chung, Hayeong Park, Aniket Jitendra Talreja, Ullrich Scherf, Joon Hak Oh* and Suman Kalyan Samanta*

8305

Correction: A theoretical framework to understand high electron mobilities in cable bacteria

Andrew J. Smith and David N. Beratan*

