

ChemComm

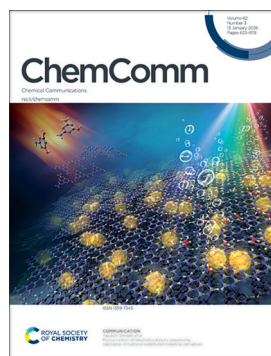
Chemical Communications

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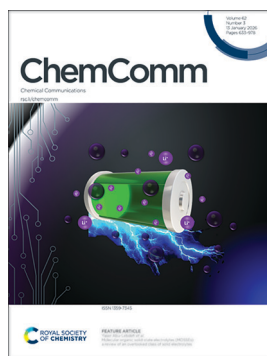
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Inside cover

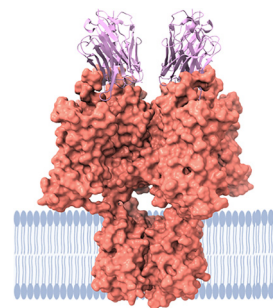
See Yaser Abu-Lebdeh *et al.*, pp. 705–723. Image reproduced by permission of Hilal Al-Salih from *Chem. Commun.*, 2026, 62, 705.

HIGHLIGHTS

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Nanobodies targeting ion channels: advancing therapeutics through precision and structural insights

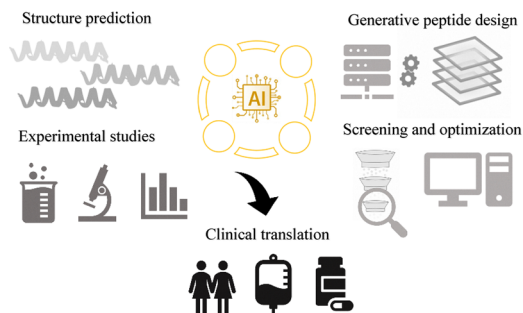
Mukund Sudharsan M G, Somanath Baral, Sushree Ankita Mohapatra, Ithayaraja Mahendran and Janesh Kumar*



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Peptide-based drug design using generative AI

Srinivasan Ekambaram and Nikolay V. Dokholyan*



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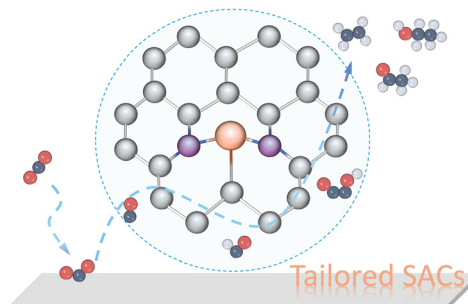


HIGHLIGHTS

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Single-atom catalysts for selective electrochemical CO₂ reduction to C₂ products

Qi Zhao, Qian Wu and Zhichuan J. Xu*

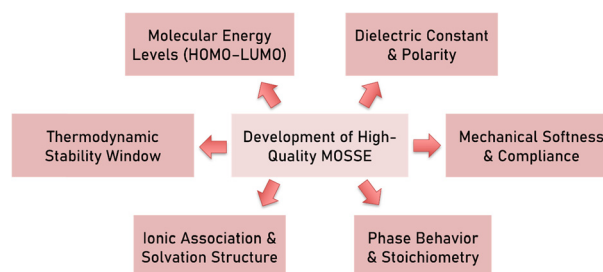


FEATURE ARTICLES

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Molecular organic solid-state electrolytes (MOSSEs): a review of an overlooked class of solid electrolytes

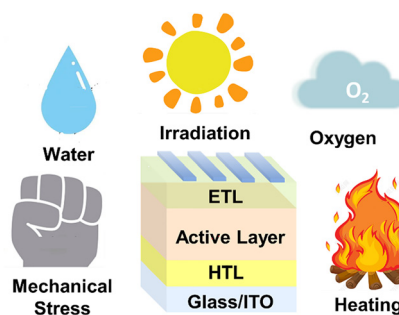
Hilal Al-Salih, Zouina Karkar and Yaser Abu-Lebdeh*



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Stability of non-fullerene organic solar cells: a device engineering perspective

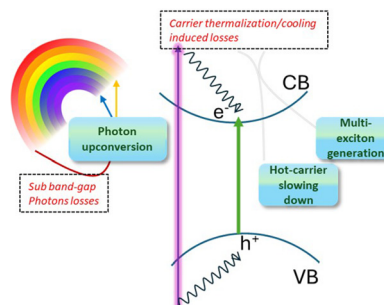
Jiarui Cai, Cenqi Yan,* Xintai Li, Junming Wang, Jiayu Wang and Pei Cheng*



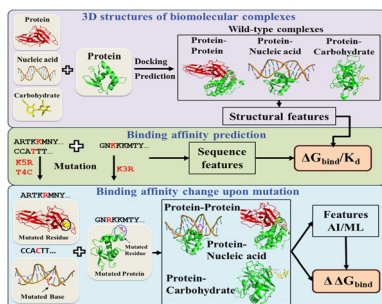
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Controlling the energy-loss pathways in perovskite nanocrystal based solar cells: an ultrafast spectroscopic viewpoint

Navendu Mondal* and Anunay Samanta*



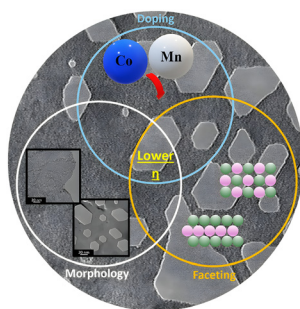
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Computational design of protein complexes: influence of binding affinity

Fathima Ridha, K. Harini, N. R. Siva Shanmugam, Rahul Nikam and M. Michael Gromiha*

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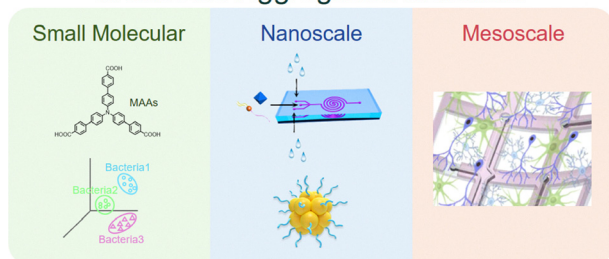


Faceted NiO(111) nanosheets: morphological and catalytic evolution for the oxygen evolution reaction

Elliot Brim, Konstantin Kimon Rücker, Dereje Hailu Taffa, Darius W. Hayes, Omeshwari Bisen, Shaun Alia, Marcel Risch, Jullian Lorenz, Corinna Harms, Michael Wark and Ryan M. Richards*

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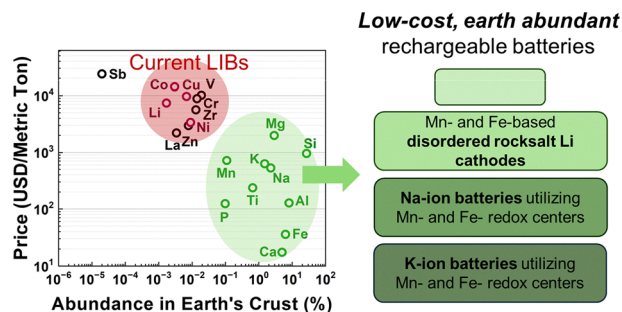
Multiscale Aggregation Materials



Multiscale aggregation materials for disease therapy and bioanalysis

Yihang Zhu, Hao Tang* and Xingyu Jiang*

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Developing low-cost rechargeable batteries: beyond traditional layered oxide cathodes for Li-ion and beyond Li-ion batteries

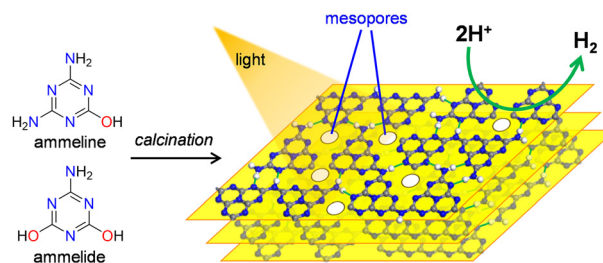
Harshita Lohani, Venkata Sai Avvaru, Seonghun Jeong and Haegyeom Kim*



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Porous carbon nitride photocatalysts prepared by calcination of hydroxyl-substituted melamine derivatives

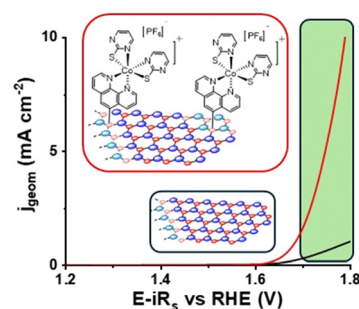
Kazuki Miyata, Yasuhiro Shiraishi,* Satoshi Ichikawa, Shunsuke Tanaka and Takayuki Hirai



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Electrocatalytic water oxidation with a tris-chelating bipyridine/bis-pyrimidinethiolate Co(III) complex covalently immobilized onto MoS₂ nanosheets

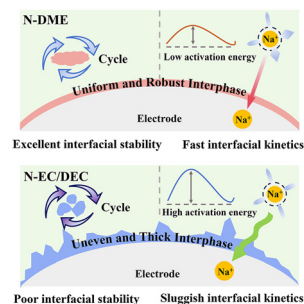
Michail P. Minadakis, Dimitra K. Gioftsidou, Panagiotis A. Angaridis, Verónica Pérez-Luna, Mildred Quintana, Ruben Canton-Vitoria and Nikos Tagmatarchis*



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Solvation-driven kinetics and interphase engineering for organic electrodes towards sodium storage

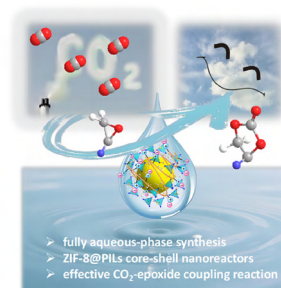
Yihan Qian, Zhiguang Zhang, Zhushun Zhang, Quan Yuan, Tianyi Wang,* Chengyin Wang, Jinliang Li,* Xiaojie Zhang* and Jiabao Li*



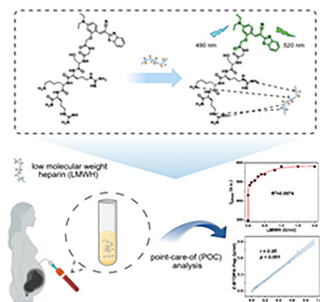
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Aqueous-phase synthesis of hollow ZIF-8@poly(ionic liquid) core-shell nanoreactors for enhanced CO₂-epoxide coupling reaction

Zhengli Huang and Tianxiang Zhao*



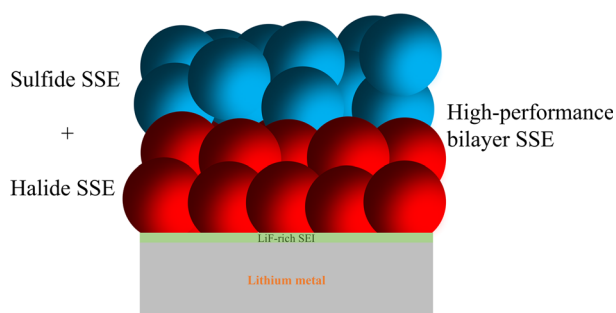
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Peptide-based aggregation-induced emission fluorescent probe for rapid and accurate detection of low molecular weight heparin

Yingying Zhu, Meiyu Lin, Jieman Lin, Keyun Zeng, Tianhua Li, Wenyu Liu, Jia Ju, Xiaofei Chen,* Fang Fan* and Hai Zhang*

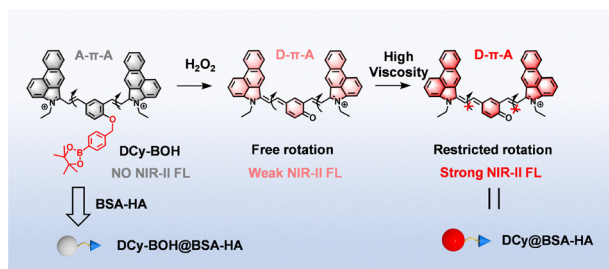
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Advanced halide/sulfide all-solid-state lithium metal batteries with fluorinated interface layer

Shuangwu Xu, Na Chen, You Huang, Dan Sun, Huanhuan Li, Huapeng Sun, Zhiguang Peng,* Yougen Tang, Hehe Zhang* and Haiyan Wang*

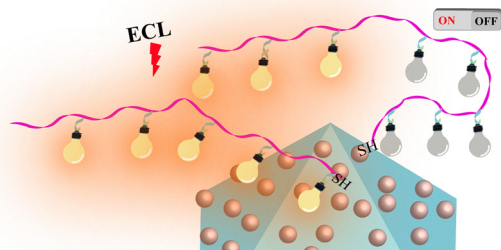
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An ROS/viscosity dual-activated nanoprobe with CD44-targeting ability for NIR-II imaging of early atherosclerotic plaques

Shuai Zhao, Ruixin Liu, Yanxiang Gao, Yike Li, Wenjing Wang, Jingang Zheng, Fang Sun,* Jun Nie and Yincheng Chang*

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A multiple signal-amplified electrochemiluminescence biosensor for ultrasensitive detection of bladder cancer-associated circRNA in urine

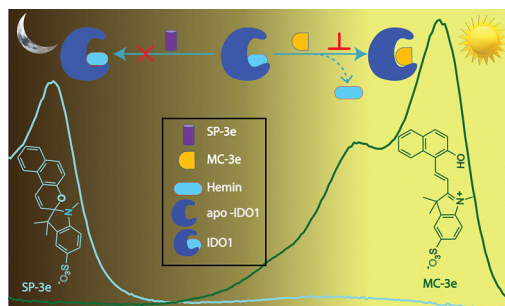
Jingjing Zhang, Xiaoman Ju, Ziqiang Wang, Lin Hao* and Jie Chao*



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Photoswitchable inhibitors: temporally regulated inhibition of the IDO1 enzyme using photoactive merocyanine derivatives

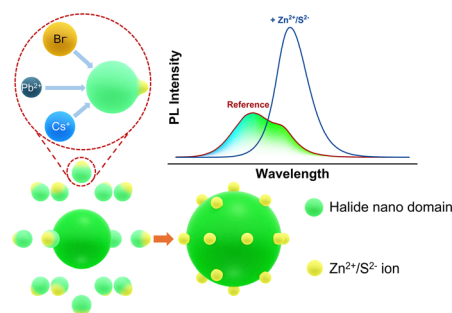
Niku Moni Das, Sayantani Biswas, Suravi Chauhan, Adyasa Sahoo, Debdas Dhabal and Debasis Manna*



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Influence of Zn^{2+} and S^{2-} on the formation of $CsPbBr_3$ nanocrystals in fluorophosphate glass

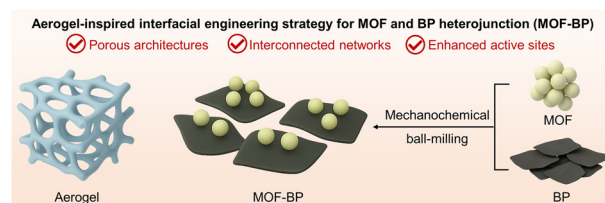
Kejie Huang, Ruilin Zheng,* Seiya Shimono, Kenji Shinozaki, Takayuki Nakanishi, Jian Xu* and Setsuhisa Tanabe



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Aerogel-inspired interfacial engineering of metal–organic framework and black phosphorus heterojunction for enhanced CO_2 photocatalytic reduction

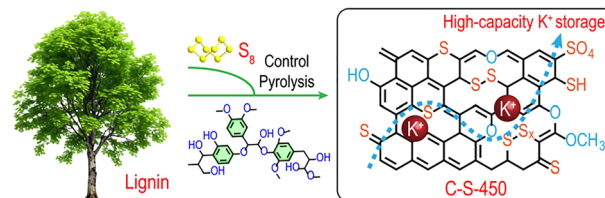
Zunbin Duan, Jenaidullah Batur, Huiming Zhang, Yanfang Li, Rui Li* and Guanglei Zhang*



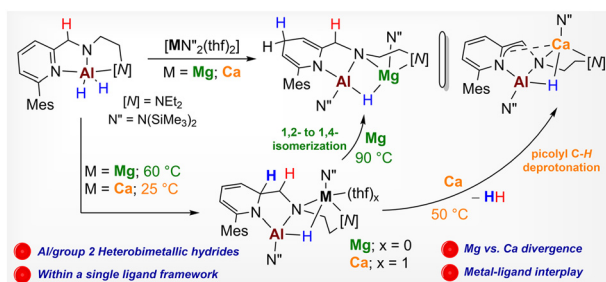
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Facile fabrication of a covalently-bonded carbon–sulfur composite from lignin for high-capacity potassium storage

Qing-Qing Yuan, Bai-Hua Huang, Yuen Yi Cao, Shi-Rui Zhao, Jia-Nan Ma, Zi-Tong Yang, Ji-Hao Wang, Lin Liu* and De-Shan Bin*



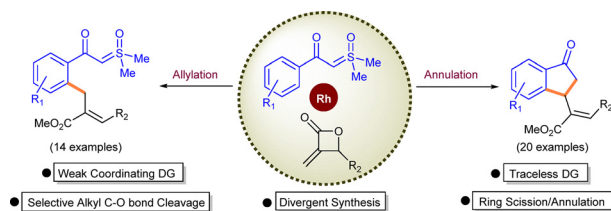
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Intriguing metal–ligand interplays leading to diverse Al–H–M (M = Mg, Ca) heterobimetallic hydrides based on a picolyl-based 3N ligand

Chhotan Mandal, Abhishek Kundu, Sourav Panda and Debabrata Mukherjee*

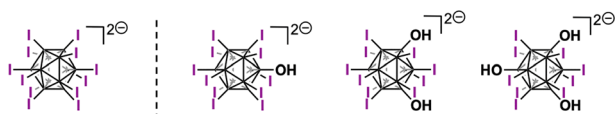
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Rh-catalyzed chemodivergent [4+1]-annulation/allylation of sulfoxonium ylides with α -methylene- β -lactones: access to α -indanonyl/ α -benzyl acrylates

Swati Samantaray, Sharajit Saha and Tharmalingam Punniyamurthy*

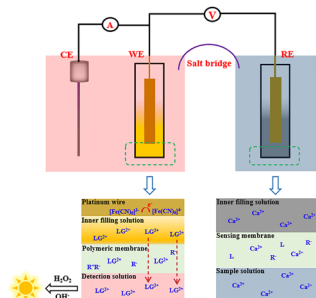
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Hydroxylated iodinated boron clusters: a tunable platform for enhanced membrane transport and biocompatibility

Satoshi Yamamoto, Rikuto Nakajima, Yuya Hirai, Yumiko K. Kawamura, Yoshimasa Makita, Taro Kitazawa,* Mutsumi Kimura* and Yu Kitazawa*

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A chemiluminescent flow-injection ion-sensing system based on the potential-modulated ion fluxes of lucigenin

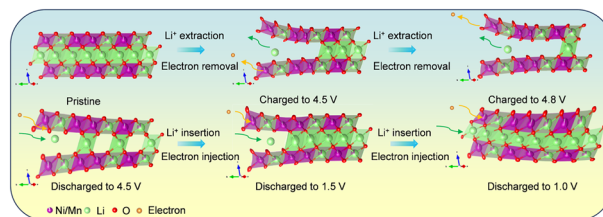
Xueqing Gao* and Xuming Zhuang*



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Probing the microstructural changes in Li-rich layered oxides induced by over-lithiation

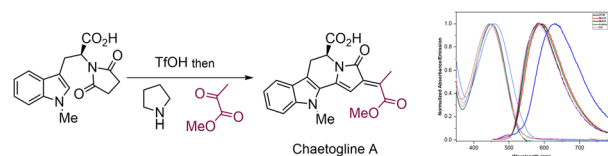
Yifan Wang, Xiaoxia Yang,* Xinyue Zhai, Qin Wang, Jianqiang Hu* and Weibo Hua*



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Asymmetric synthesis of chaetogline A: expedient preparation of the indolizino[8,7-*b*]indole template and optical properties in a push–pull configuration

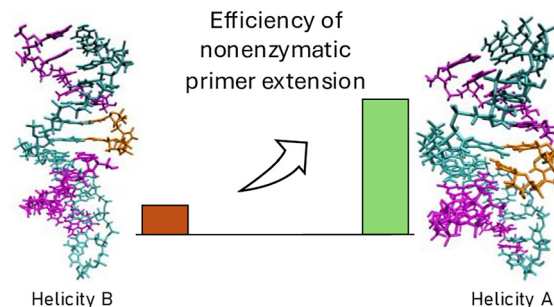
Antoine Marchi, Rayan Hachem, Thibault Gallavardin, Xavier Franck, Julien Legros and Michaël De Paolis*



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A-type helicity controls efficient nonenzymatic template copying of nucleic acids

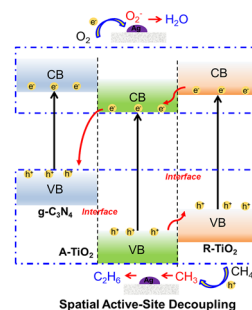
Barbara K. Lech,* Petr Jurečka, Marie Zgarbová and Rafat Szabla*



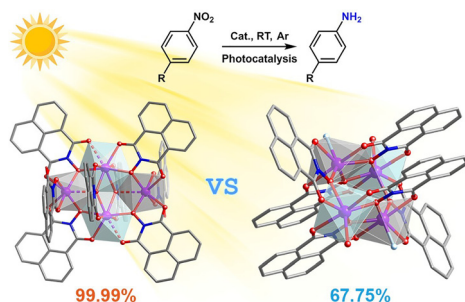
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Dual heterojunction engineering on TiO₂ for spatial active-site decoupling toward efficient photocatalytic methane coupling

Yurong Zhou, Yachao Wang, Yunrui Shi, Guofeng Zhao, Weixin Huang and Cong Fu*



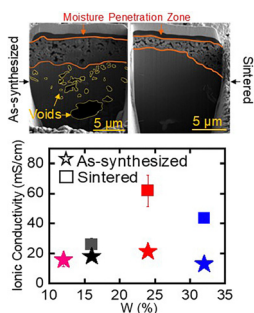
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Microenvironment regulation of active sites for efficient photocatalytic reduction of nitrobenzene

Sha-Sha Xu, Jia-Zheng Liang, Su-Juan Yao, Ning Li, Jing-Wen Shi,* Ya-Qian Lan and Jiang Liu*

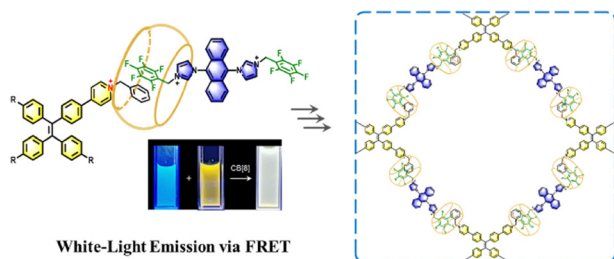
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Sintering of W-substituted Na₃SbS₄ electrolytes: effect of phase composition, voids, and interface contact

Fuwei Wen, Xiang You, Geng Xie, Arthur Mar and Lingzi Sang*

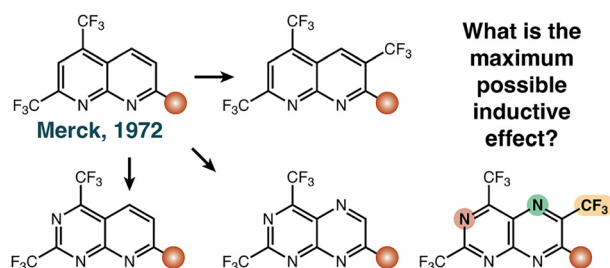
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Cavity-size-directed supramolecular assembly of AIEgen networks for aqueous white-light emission

Maolin Wang, Xiaoqing Wang, Dejing Xu, Chenjuan Yu and Yuping Wang*

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Exploring the limits of inductive electron withdrawal in fused bicyclic azaheterocycles

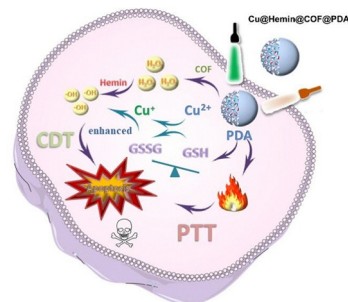
Sachin Suresh Bhojgude, David R. Turnbull, Sudhakar Pagidi, Amruth C., Eli Zysman-Colman, Gregory C. Welch and Jeffrey F. Van Humbeck*



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Tumor microenvironment-responsive COF-based core-shell cascade nanoreactor with photocatalytic H₂O₂ self-supply for improved treatment

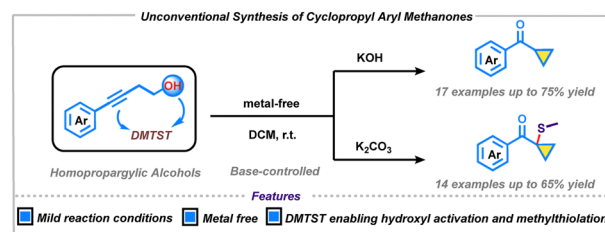
Wen-Xiu Ren, Yue-Lu Tian, You Li, Li-Li Tong, Qianqian Sun, Qing-Yun Huang, Jie Feng* and Yu-Bin Dong



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Base-controlled divergent synthesis of cyclopropyl aryl methanones from homopropargylic alcohols with DMTST

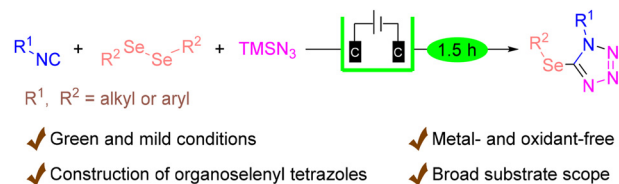
Guangwei Hu, Zhuangfei Wang, Bing Hu, Peihua Liu, Xueliang Ren, Guojun Yu, Hongliang Zhou and Rulong Yan*



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Electro-oxidative [3+2] cycloaddition for the synthesis of 5-selenytetrazoles

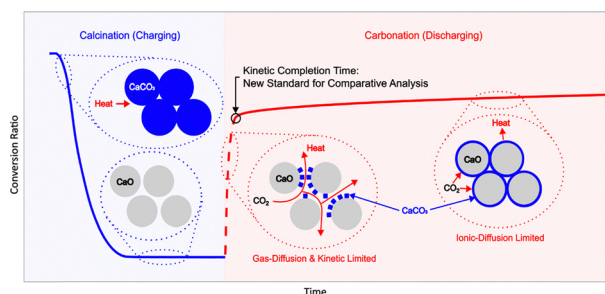
Peng-Fei Huang,* Zhi-Gang Quan, Ying Peng, Long-Jin Zhong and Yu Liu*



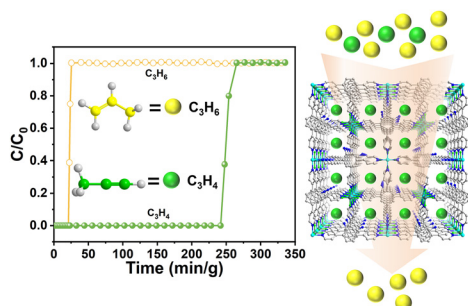
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Analysis of thermochemical energy storage in metal carbonates: characterizing cycling-induced degradation

Michael J. Adams, Tae Kyu Kim, Samuel Pennell, Judith Vidal and Akanksha K. Menon*



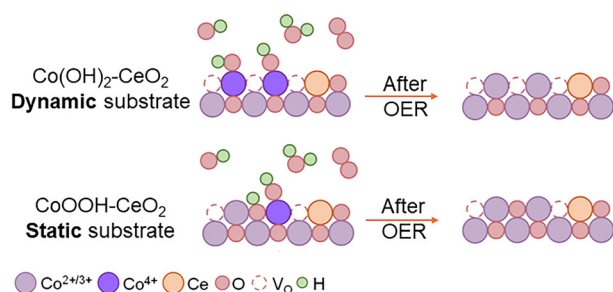
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A stable amino-functionalized fluorinated metal–organic framework for efficient separation of propyne/propylene

Yun-Tao Huang, Zi-Meng Song, Xin-Ye Zhao, Beibei Li, Zhengyi Di* and Cheng-Peng Li*

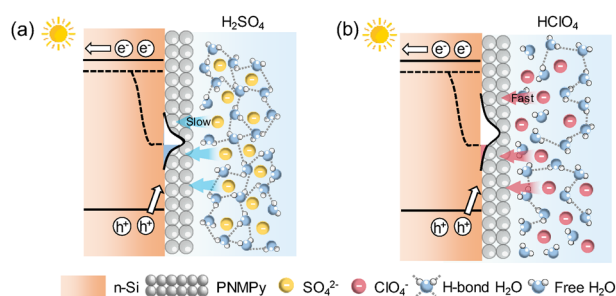
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CeO₂ promotes oxygen vacancy generation in Co(OH)₂ for enhanced water oxidation

Zidong He, Zhaori Mu, Peiqiong Li, Yana Liu, Yunxiang Zhang, Wei Shen, Pinxian Xi* and Chun-Hua Yan

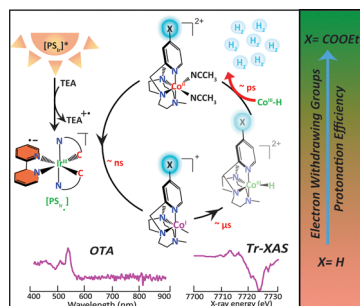
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Disruption of a hydrogen-bond network at an Si/PNMPy/electrolyte interface for accelerated ion transfer in solar rechargeable devices

Dongjian Jiang, Ye Fu, Yuzhan Zheng, Ziyi Wan, Renjie Ding, Bo Wang,* Bing Wang, Qian Wang, Chengzhang Wan, Zhigang Zou and Wenjun Luo*

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Ultrafast reaction mechanisms in multimolecular Ir–Co catalytic assemblies for hydrogen evolution

Lucia Velasco, Asterios Charisiadis, Xiaoyi Zhang and Dooshaye Moonshiram*

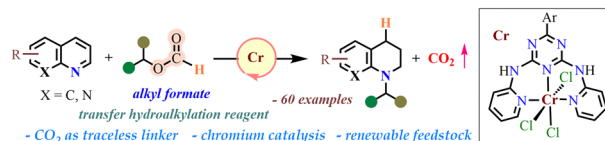


COMMUNICATIONS

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Chromium-catalyzed reductive alkylation of *N*-heteroarenes using alkyl formates as transfer hydroalkylation reagents

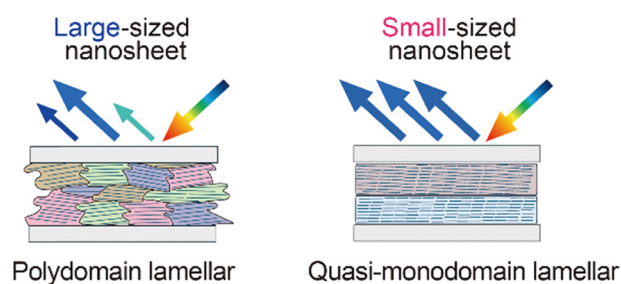
Anit Pal, Asish Borah and Animesh Das*



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Lateral size modulated structural color of aqueous dispersions of titanate nanosheets

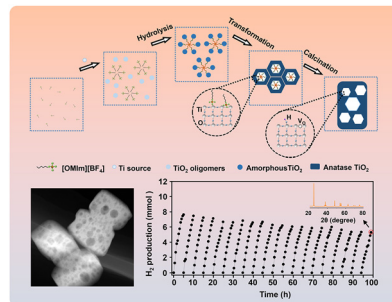
Takayuki Kikuchi, Yasuo Ebina, Nobuyuki Sakai, Yoshiyuki Sugahara, Takayoshi Sasaki* and Renzhi Ma*



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Mesostructured TiO_2 with abundant oxygen vacancies for excellent photocatalytic hydrogen production under mild conditions

Chen-Yu Wang, Yi Lu,* Jie Hu,* Xiao-Fang Zhao, Zhe Lu, Di Li, Li-Ying Wang, Sheng-Fei Hu, Ge Tian and Xiaoyu Yang*



CORRECTIONS

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Correction: Construction of balanced-transition AIE phototherapeutic agents based on a fluorination strategy for prolonged triplet excited state lifetime

Mengyan Tian, Xinyue Zhao, Shuai Zhao, Yaning Li, Ruofei Wang, Jun Guo and Pai Liu*



CORRECTIONS

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Correction: Amino acid-modified G-quartet hydrogel for glucose-responsive insulin release *in vivo*

Dharmesh Jinagal, Natasha, Debashish Paul, Ravindra Prajapati, Tatini Rakshit* and Suchetan Pal*

