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ISSN 1359-7345 CODEN CHCOFS 61(32) 5831-6016 (2025)



Cover

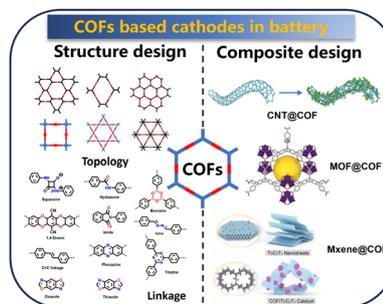
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HIGHLIGHTS

5842

Precision design of covalent organic frameworks for cathode applications

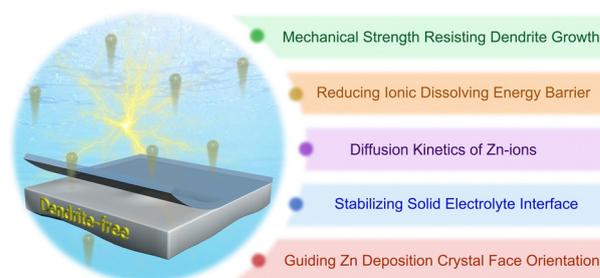
Zhiwei Zhao, Di Liu and Yang Wang*



5857

Advanced electrolyte strategies for dendrite-free aqueous Zn–metal batteries

Jiasen Yin, Yun Tan and Jun Pu*



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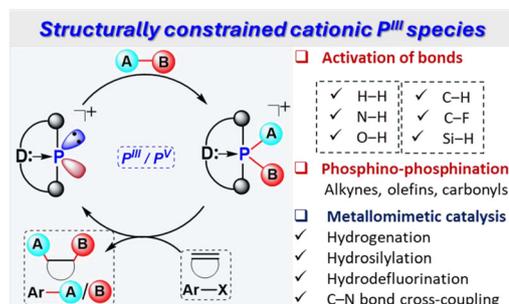
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FEATURE ARTICLES

5871

Advancing metallomimetic catalysis through structural constraints of cationic P^{III} species

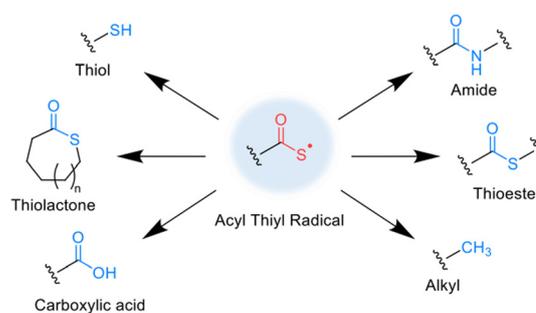
Deependra Bawari,* Donia Toami and Roman Dobrovetsky*



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Harnessing radical mediated reactions of thioacids for organic synthesis

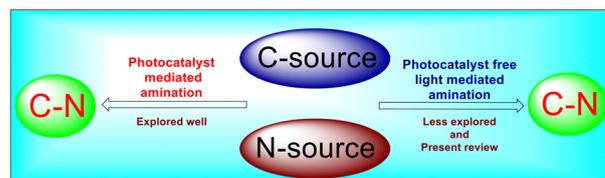
Alby Benny, Mark D. Nolan and Eoin M. Scanlan*



5899

Harnessing light without photocatalysts: advances in photocatalyst-free C-N bond formation

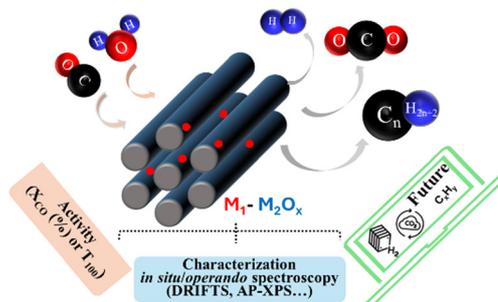
V. Murugesu and Surya Prakash Singh*



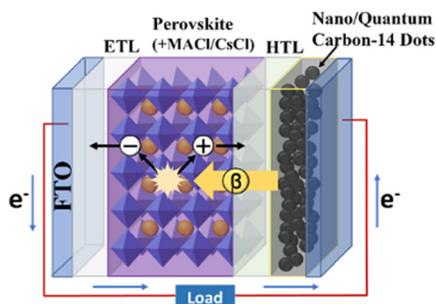
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Interactions of CO and/or H₂O with mesoporous oxide-supported metal catalysts: the role of MSI effects

Lingyi Qian Luo,* Ling Fei, Rafael A. Hernandez and Hui Yan*



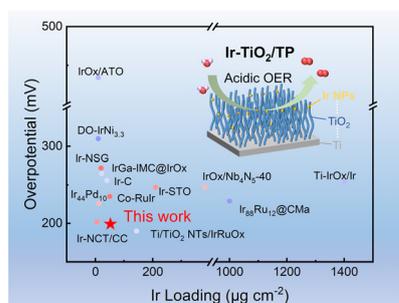
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Novel perovskite-based betavoltaic cell: dual additive strategy for enhanced FAPbI₃ α -phase stability and performance

Chol Hyun Kim, Muhammad Bilal Naseem, Junho Lee, Hong Soo Kim, Sanghun Lee and Su-Il In*

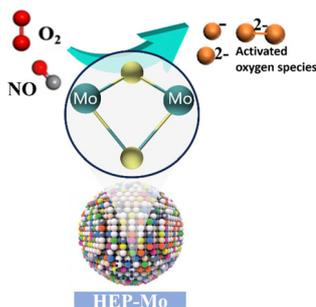
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An integral composite electrode with low Ir loading for efficient acidic oxygen evolution

Peng Zhao, Kaihang Yue, Yao Dai, Yingjie Wan, Xuli Chen* and Ya Yan*

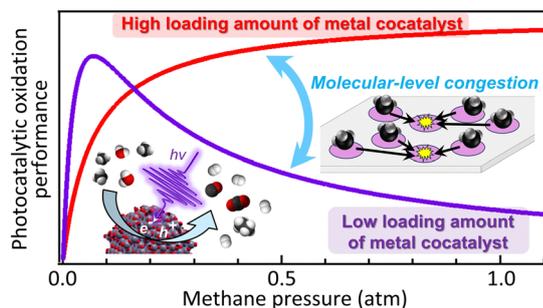
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High-entropy strategies afford transition metal perovskite oxides with enhanced low-temperature NO_x removal efficiency

Xuan Zhang, Dequan Jiang, Shenghui Han, Wanli Yi, Jianwen Su, Song Gao,* Yonggang Wang* and Ruqiang Zou

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Critical impacts of metal cocatalysts on oxidation kinetics and optimal reaction conditions of photocatalytic methane reforming

Hiromasa Sato, Hikaru Saito, Taisuke Higashi and Toshiki Sugimoto*

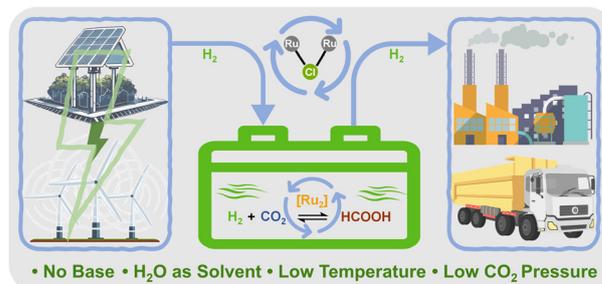


COMMUNICATIONS

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CO₂-mediated hydrogen storage and release cycles realized by a bimetallic ruthenium complex in pure water

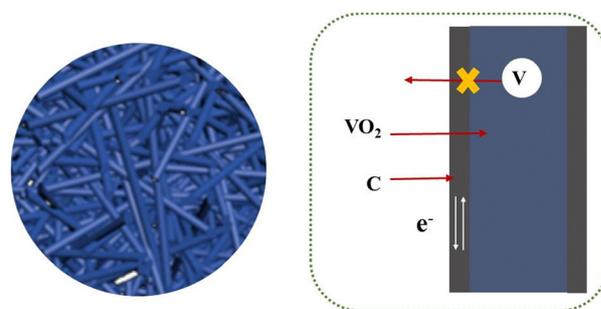
Tianhua Cui, Huihua Gong, Li Ji, Yuxuan Kong, Siheng Yang, Weichao Xue, Xueli Zheng, Haiyan Fu, Chong Cheng, Shuang Li, Hua Chen, Ruixiang Li* and Jiaqi Xu*



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Carbon-wrapped vanadium dioxide for aqueous zinc batteries based on *in situ* carbon-impregnation engineering

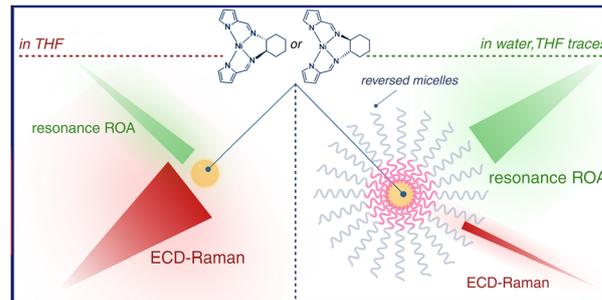
Xianyu Liu,* Lei Tao, Yande Zhao, Hongmei Cao,* Zhe Wang and Zhigang Fan*



5954

A simple strategy for measuring the genuine resonance Raman optical activity (RROA) of nonpolar molecules

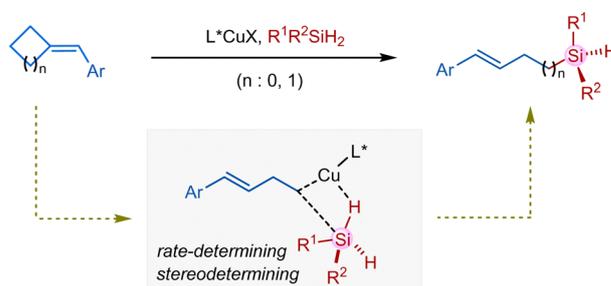
Joanna Mazurkiewicz, Aleksandra Orlef, Tomasz Misiaszek, Tomasz K. Olszewski and Agnieszka Kaczor*



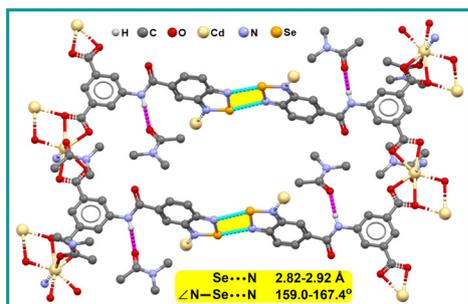
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Si-stereogenic remote alkenyl monohydrosilanes enabled by CuH-catalyzed enantioselective hydrosilylation of strained methylenecyclopropanes

Wanying Xie, Dong Zhai,* Xiao-Xi Li, Weiqiao Deng and Songjie Yu*



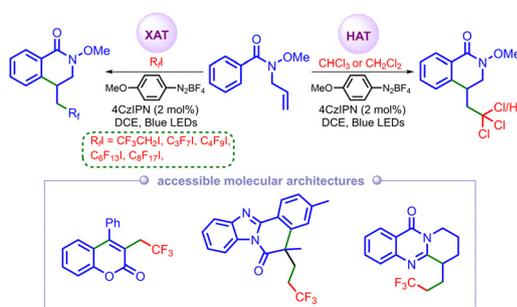
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Chalcogen bonded metal–organic frameworks: insights from X-ray analysis and theoretical calculations

Vusala A. Aliyeva, Vânia André, Luísa M. D. R. S. Martins, Atash V. Gurbanov, Rosa M. Gomila, Antonio Frontera,* Tiago F. C. Cruz and Kamran T. Mahmudov*

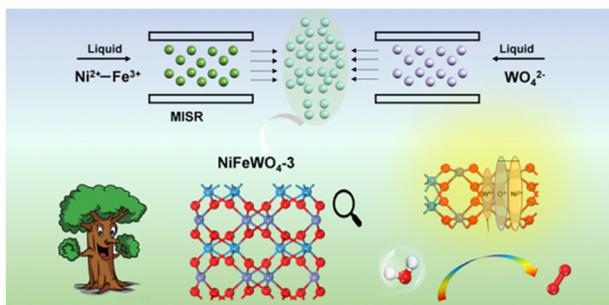
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Haloalkane-driven dichotomous reactivity of aryl radicals as halogen and hydrogen atom transfer agents: photocatalytic olefin and alkyne functionalization cascades

Shivani Arora, Anshika Sinha, Tavinder Singh and Anand Singh*

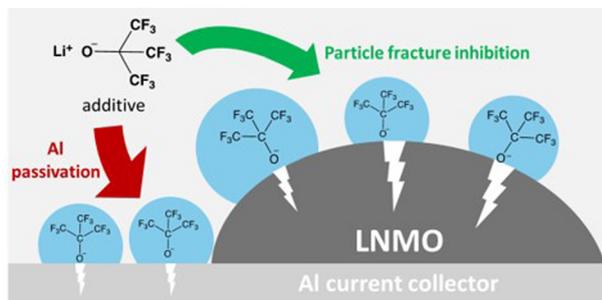
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Scale-up synthesis of amorphous Ni–Fe tungstate for highly-efficient oxygen evolution reaction

Heng Chen, Xinyue Yang, Yueli Wang, Gaoyan Zhang, Nairui Luan, Qingcheng Zhang,* Fan He, Siting Lv, Xi Yu, Xijun Liu, Wei Zhang,* Ge Meng,* Yong Lei* and Shun Wang*

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Understanding the electrolyte additive properties of lithium nonafluoro-tert-butoxide for its application in high-voltage LiNi_{0.5}Mn_{1.5}O₄-graphite batteries

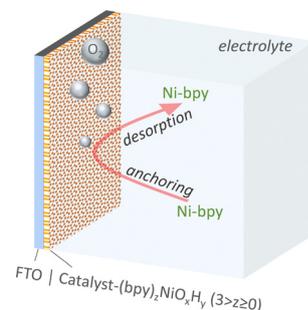
Binayak Roy,* Urbi Pal, Jason John, Cuong Nguyen, Patrick C. Howlett, Mega Kar and Douglas R. MacFarlane*



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A nearly transparent Ni-based oxygen-evolving catalyst for photoelectrocatalysis

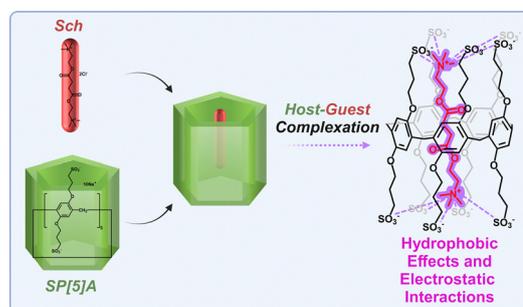
Qiu Zhang, Peikun Zhang* and Chunhua Cui*



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A sulfonated supramolecular host based on pillar[5]arene for succinylcholine-induced neuromuscular blockade reversal

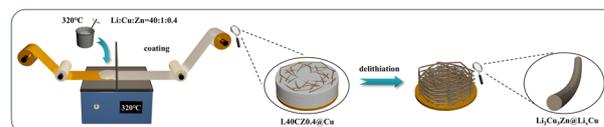
Mengyao Li, Yujie Cheng, Rui Fei, Danyu Xia,* Zibin Zhang,* Shaolong Qi* and Jianshi Du*



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In situ formed 3D hybrid framework of lithiophilic Li₂Cu₃Zn modified Li_xCu alloy nanowires towards a dendrite-free Li metal anode

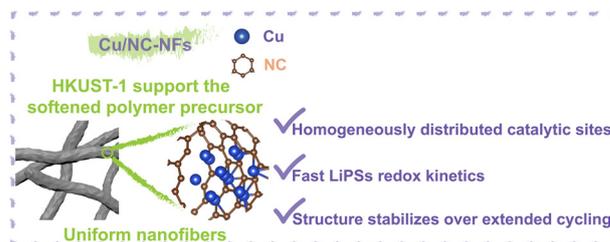
Hang Liu, Chaohui Wei, Zhicui Song, Yujie Wu, Donghuang Wang, Aijun Zhou and Jingze Li*



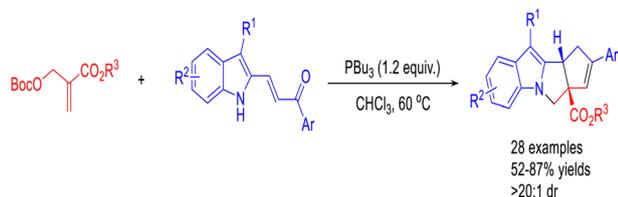
5990

Built-in skeleton Cu/NC-NFs as a sulfur carrier for lithium sulfur batteries

Die Su, Yuhong Zeng, Meiqi Geng, Tao Wang,* Minhua Shao, Cunpu Li* and Zidong Wei



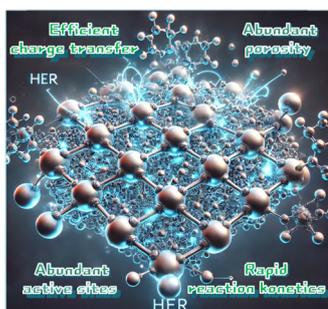
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Phosphine-mediated [2+3]/[2+3] domino annulation reaction: access to cyclopentane[3,4]pyrrolo[1,2-a]-indoles

Yannan Zhu, Nan He, Yumeng Li, Yuxuan Zhu and Gang Qi*

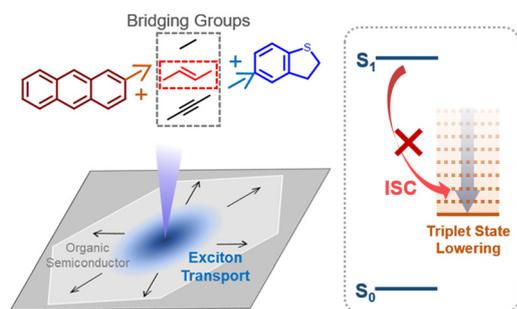
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Innovative bipyridine-bridged metal porphyrin polymer for Robust and superior electrocatalytic hydrogen evolution

Xiaoyu Zhai, Kainan Wang, Cheng Yuan, Pengfei Chen, Wei Zhao,* Aijian Wang,* Long Zhao and Weihua Zhu

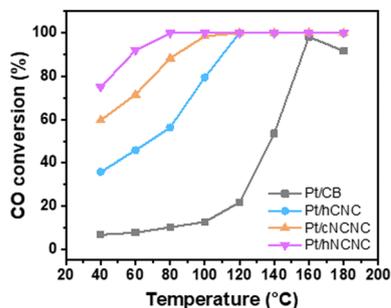
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Promoted exciton transport in organic semiconductors by triplet-state manipulation

Lingchen Meng, Chunyi Zhao, Feng Li, Jie Liu, Xianchang Yan, Yaxiong Wei, Tao Yang, Xianyi Zhang, Lang Jiang,* Zhou Lu,* Qi Sun,* Wenming Tian* and Shengye Jin

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High-efficiency Pt catalyst immobilized on hierarchical N-doped carbon nanocages for preferential oxidation of CO in H₂

Lijie Yan, Xinyi Wang, Changkai Zhou, Haojie Yu, Lijun Yang, Qiang Wu,* Xizhang Wang,* Yining Fan and Zheng Hu



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Scalable fabrication of nano-to-micro carbon disk ultramicroelectrodes for single small extracellular vesicle detection

Hong-Yuan Liu, An-Rong Sun, Li-Yuan Wu and Zhi-Ling Zhang*

