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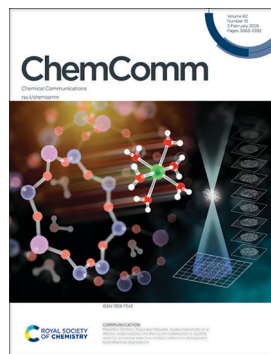
Chemical Communications

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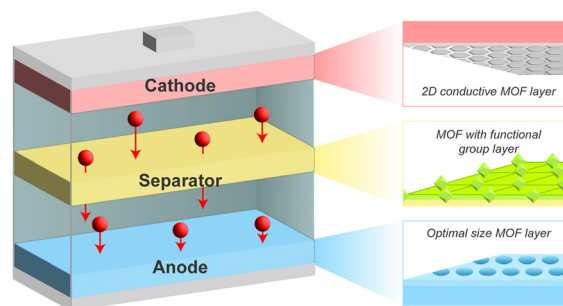
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Interfacial design strategies using metal–organic frameworks: a comprehensive review for rechargeable batteries

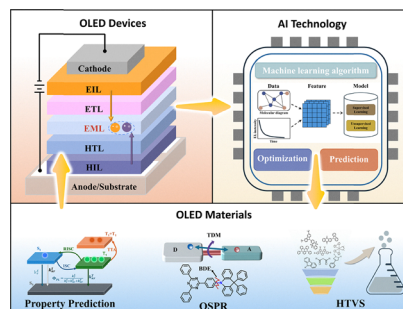
Jinyoung Lee, Yoonjin Oh, Yunsu Ahn and Kwan Woo Nam*



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Accelerating OLED development with machine learning: advances and prospects

Xumian Qiao, Changgang Huang, Fan Ni* and Longzhen Qiu*



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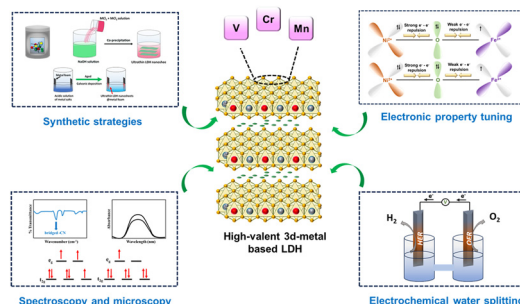
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HIGHLIGHTS

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Recent advances in high-valent 3d-metal-incorporated layered double hydroxides for electrochemical water splitting

Baghendra Singh,* Shalini Verma, Ayusie Goyal, Anamika Yadav, Labham Singh, Vaishnavi Varshney, Rohit Singh, Amrendra Singh and Apparao Draksharapu*

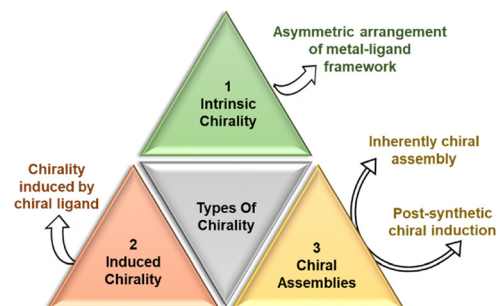


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From intrinsic structures to supramolecular organization: exploring the diversity and origins of chirality in metal clusters

Camelia Dutta and Jatish Kumar*

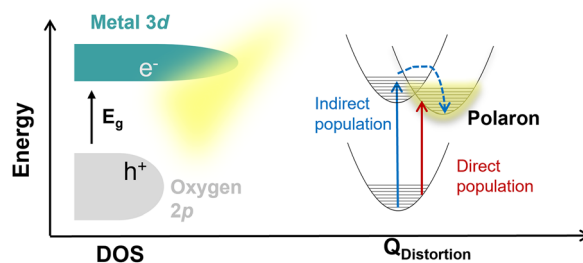


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Signatures of photogenerated small polarons in transition metal oxides

Erica P. Craddock and Kathryn E. Knowles*

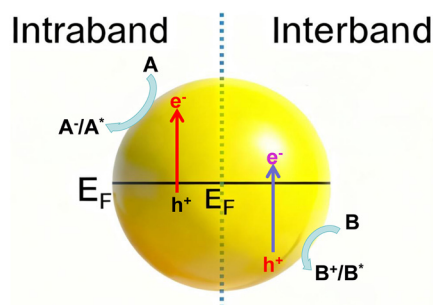
Photogenerated polarons in transition metal oxides



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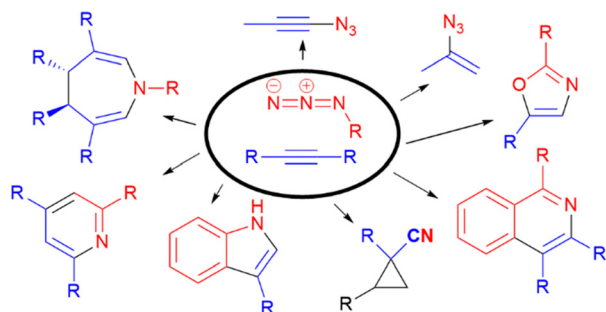
Bridging photocatalysis and plasmonics: the dual role of interband and intraband transitions

Xiaoqi Fu,* Jiang Yang, Shuang Wang and Pengwei Huo*



FEATURE ARTICLES

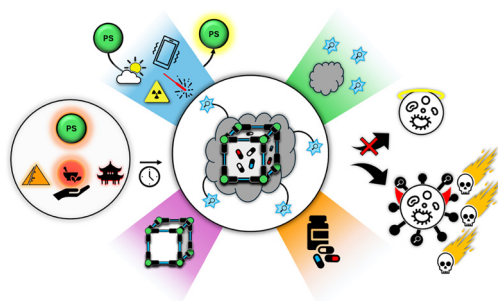
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Alkynes and azides: beyond click chemistry

Christina N. Wiswell and Mitchell P. Croatt*

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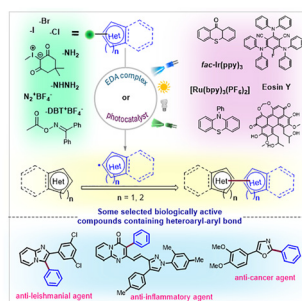


Photodynamic therapy and its evolving innovation

Joshua Phipps, Wenlu Fan, Mansi Kapoor, Diana Huynh and Shengqian Ma*

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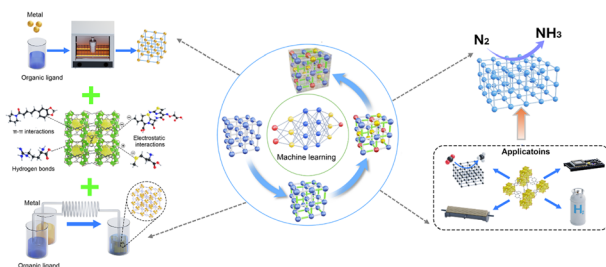
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Paramita Pattanayak, Samiran Saha, Yogesh K. Girase, Tanmay Chatterjee* and Brindaban C. Ranu*

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Machine-learning-guided design of MOF-based electrocatalysts for sustainable ammonia production

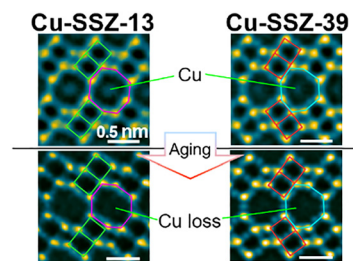
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Masahiko Shimizu,* Katsuaki Nakazawa, Hisashi Shima, Hajime Matsumoto, Takahiko Takewaki, Kazutaka Mitsuishi* and Ayako Hashimoto*

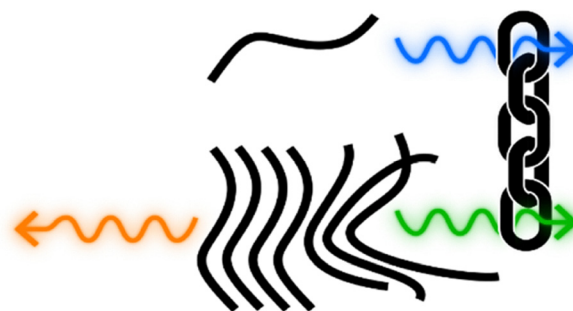


Atomic scale visualization of the early-stage hydrothermal degradation

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Tunable emission from disordered to ordered aggregates in substituted 9,10-dihydroanthracene polymers

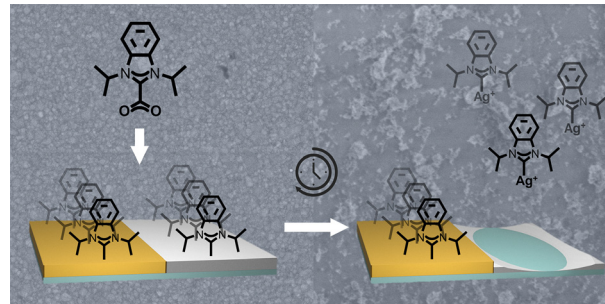
Erik F. Woering, Andrea Taddeucci, Andrea Pucci,* Richard Hildner* and Marco Carlotti*



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When gold and silver differ: interactions of N-heterocyclic carbenes with noble metal surfaces

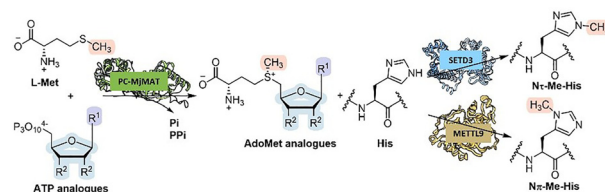
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Histidine methylation via an enzymatic cascade with *in situ* generation of nucleoside-modified AdoMet analogues

Zhimei Yu, Arne Hoffmann, Antonia L. Irion, Marija Ram, Jakub Drozak, Andrea Rentmeister* and Jasmin Mecinović*



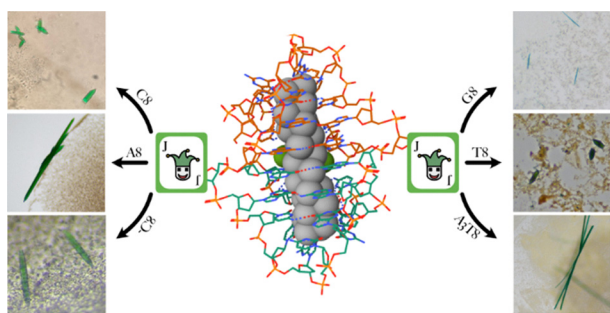
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Lewis acid-switched regiodivergent N^1/N^2 -alkylation of ben-zotriazoles with α -hydroxyl diazo compounds

Jingjing Jiang, Jinghan Zhang, Nan Huang, Haocheng Xu, Xintao Liu, Jiayin Li, Xinlong Zhou, Jingjing Zhao* and Pan Li*

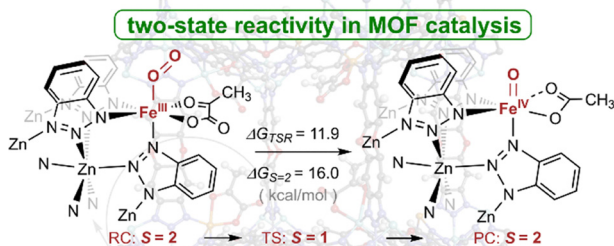
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Insights into the crystal packing interactions of a 960-nm-emissive DNA-stabilized silver nanocluster

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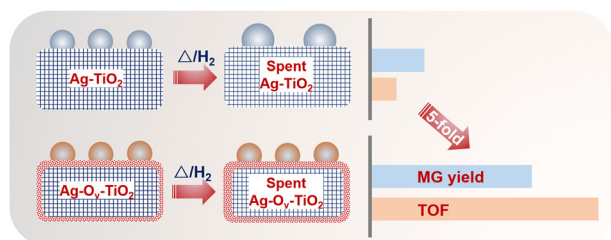
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Theoretical investigation of dioxygen activation and hydrocarbon oxidation catalysed by bioinspired metal–organic frameworks

Zi-Xian Zhan, Bowen Shi, Shoujun Wang, Yufen Zhao, Dongru Sun* and Yong Wang*

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Defective TiO_x spontaneously triggers the hydrogenation activity of silver

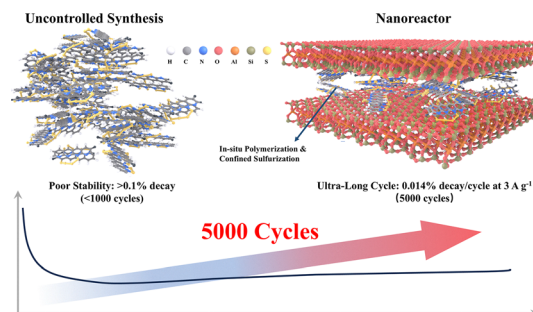
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Montmorillonite nanoreactors for synergistic confinement synthesis and ion-conduction in stable sulfurized polyacrylonitrile cathodes

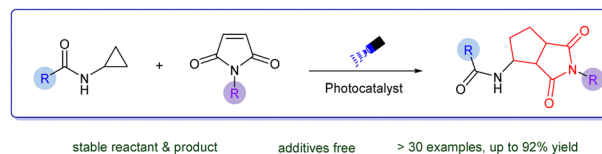
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Visible light-mediated cyclopropylamide [3+2] cycloaddition with maleimides to synthesize cyclopentylamide derivatives

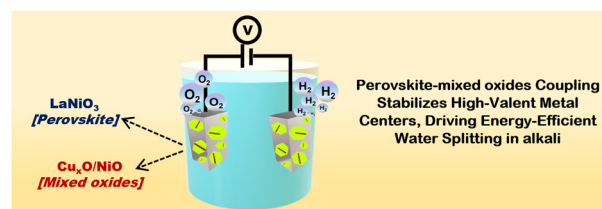
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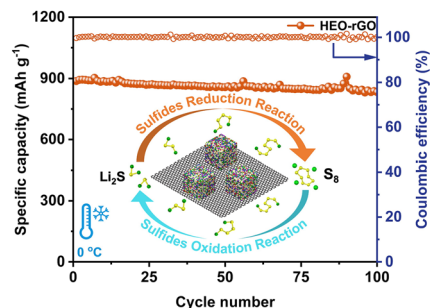
Nasrin Banu G, Rama Prakash M and Bernardshaw Neppolian*



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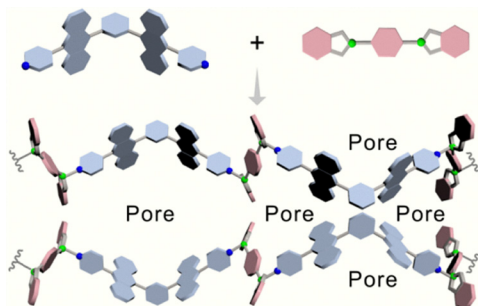
High-entropy oxides as efficient bidirectional sulfur catalysts for low-temperature lithium–sulfur batteries

Huimin Wang, Yongzheng Zhang,* Cheng Ma, Duan Bin, Hongbin Lu, Wenming Qiao, Jitong Wang* and Licheng Ling*



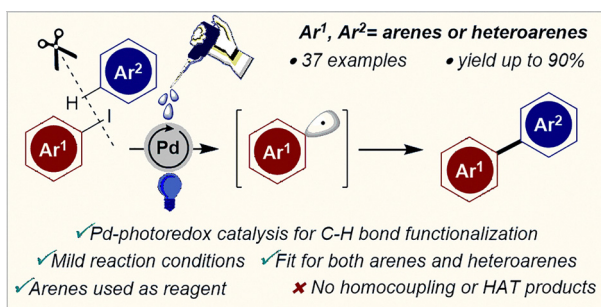
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**Rigid arc-shaped ligands for the fabrication of dative B–N-bonded crystalline porous polymers**

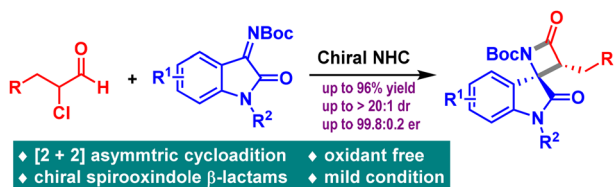
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**Palladium photocatalysis: a strategic approach for visible-light-mediated C(sp²)-H arylation**

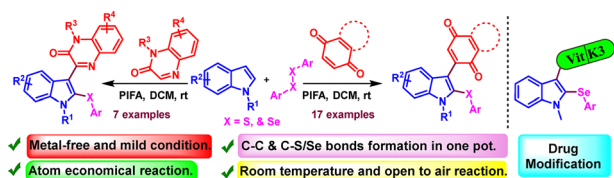
Parag Mistry, Biprajit Paul, Vikas Ranga and Indranil Chatterjee*

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**Carbene-catalyzed [2+2] cycloaddition of chloroaldehydes and isatin-derived ketimines for enantioselective synthesis of spirocyclic β-lactams**

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**PhI(OAc)₂-mediated metal-free 2,3-difunctionalization of indoles: direct access to carbocyclic scaffolds**

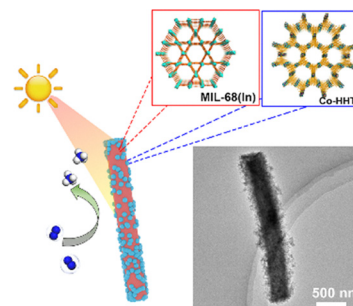
Satyajit Pal, Subhankar Sarkar, Tanmay Pramanik, Sougata Santra and Adinath Majee*



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Lattice-matched MOF-on-MOF heterostructure for robust photocatalytic nitrogen fixation

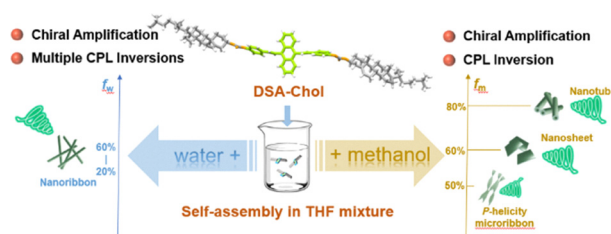
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Solvent-dependent self-assemblies with multi-inverted circularly polarized luminescence based on 9,10-distyrylanthracene

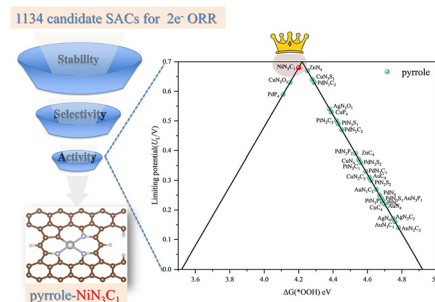
Meng Wang, Yuxuan Song, Zhixuan Wang, Bin Xu* and Wenjing Tian*



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Exploration of heteroatom doping in modulating the two-electron selectivity of M–N–C catalysts for the oxygen reduction reaction

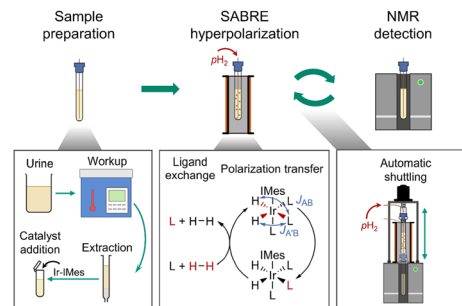
Zhou Huang, Qisheng Yan and Qing Tang*



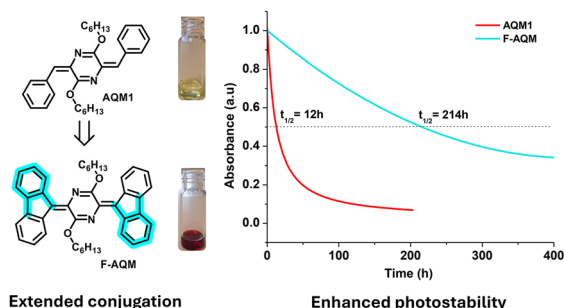
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Benchtop NMR signal enhancement of metabolites in urine extract using SABRE

Simon Fleischer,* Jing Yang, Kerti Ausmees, Indrek Reile, Neil MacKinnon, Jan Gerrit Korvink and Sören Lehmkuhl*



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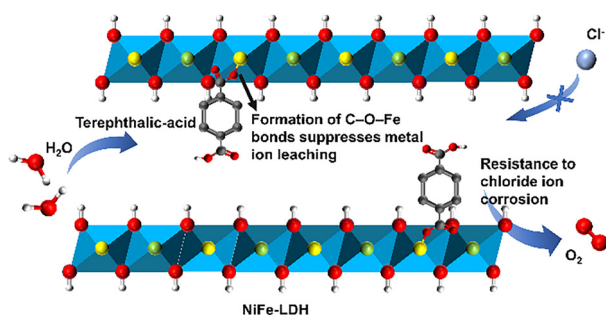
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From benzyl to fluorenyl: enhancing photostability and modulating optoelectronic properties of *para*-azaquinodimethanes

Walaa Zwaihed, François Maurel, Magali Allain, Guido F. Pauli, Clément Cabanetos, Marwan Kobeissi and Bruno Schmaltz*

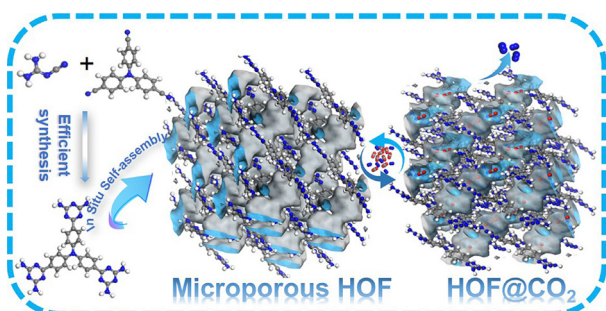
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Terephthalic acid intercalation strengthens NiFe-layered double hydroxide for durable and efficient seawater electrolysis

Xinghong Li, Yuxin Zhu, Yi Huang, Yaohai Cai, Kai Liu, Lei Wang, Zhenbo Wang, Deliang Zhu* and Dong Liu*

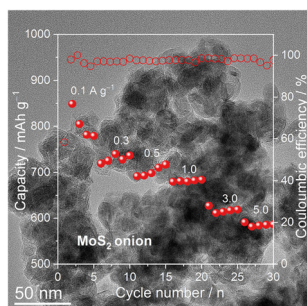
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A microporous hydrogen-bonded organic framework for sustainable adsorption and separation of CO₂

Xin-Yu Yan, Wen-Qing An, Ming-Xuan Ren, Ming-Zhi Zhuo, Zhaojun Chen* and Ming-Xue Wu*

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Synthesis of thinly N-doped carbon-coated MoS₂ for high-rate Na-ion storage

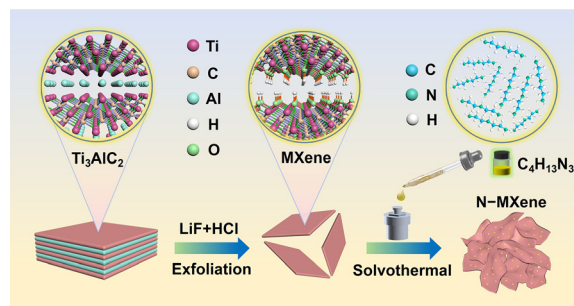
Sha Song,* Luman He, Qian Zilong, Danni Wang, Yaqun Wang, Gang Dou and Mei Guo*



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Crumpled and porous N-doped MXene microspheres for promoting sulfur redox kinetics in Li–S batteries

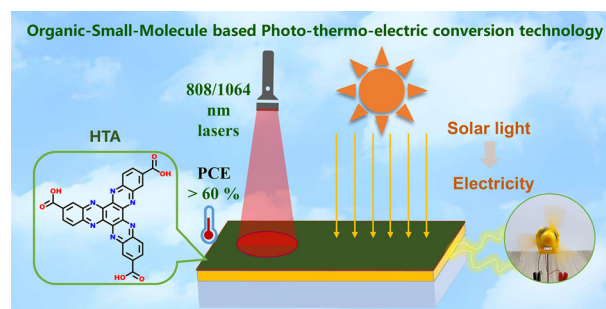
Xiaolu Yu, Jie Cheng, Bin Li, Chen Feng, Peng Wang, Maofeng Zhang, Baojuan Xi, Shenglin Xiong and Chuanliang Wei*



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A hexaazatrinaphthylene-based near-infrared photothermal organic small molecule for efficient photo-thermo-electric conversion

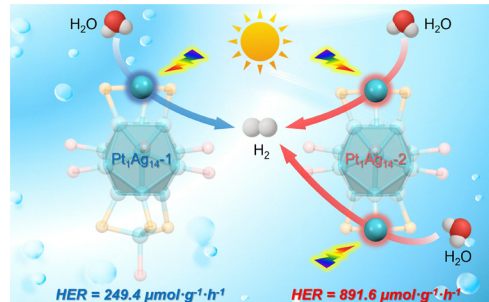
Ning-Ning Zhang,* Wei-Li Zheng, Lin-Xu Liu, Rong Ma, Zhenyu Li, Yongfang Han, Wen-Wen Zi and Yong Yan*



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Modulation of the surface active site number in Pt₁Ag₁₄ nanoclusters by ligand engineering to boost photocatalytic H₂ production

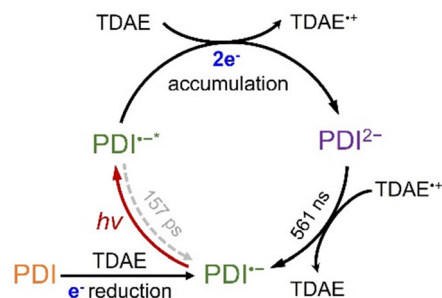
Linlin Yu, Yonggang Ren, Yue Han, Along Ma, Shuo Zhang, Linwen Zhang* and Shuxin Wang*



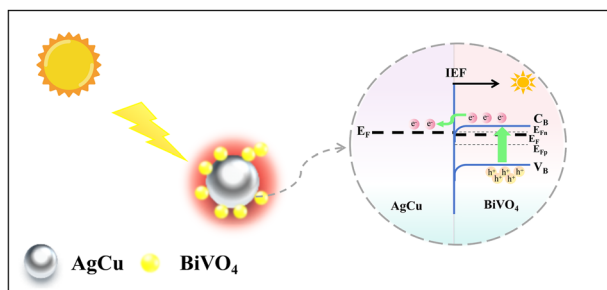
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Steering photoinduced multi-electron accumulation via high-concentration sacrificial electron donors

Rui Jing, Yuhang Yang, Junji Zhao, Yang Li, Di Song,* Hongwei Song,* Yan Wan, Andong Xia and Zhuoran Kuang*



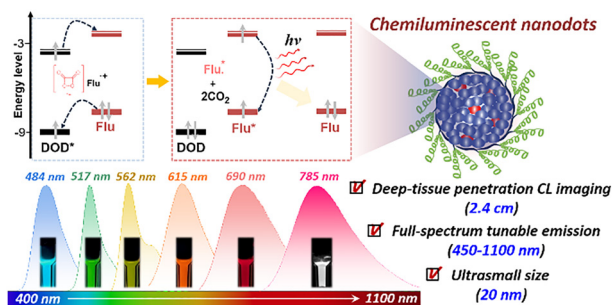
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Boosting the photocatalytic performance of BiVO₄ via plasmonic AgCu alloy engineering

Mingze Xu,* Chang Su, Hongyuan Xie, Tingsong Zhang, Yongze Gao and Wenzhe Si*

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Construction of bright color-tunable chemiluminescent nanodots and their applications for *in vivo* bioimaging

Shijie Li, Linyi Shi, Xiaobo Zhou,* Ke Zhang, Lingfeng Zhao, Zhonghao Chen, Guo Li, Yuling Qin* and Li Wu*

