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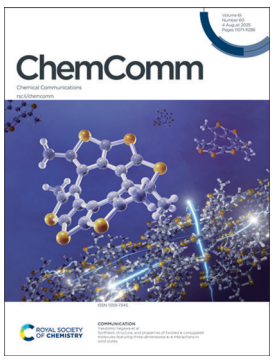
IN THIS ISSUE

ISSN 1359–7345 CODEN CHCOFS 61(60) 11071–11286 (2025)



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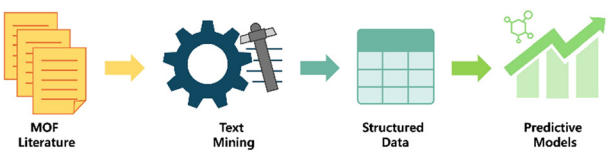
HIGHLIGHTS

11083

Text mining in MOF research: from manual curation to large language model-based automation

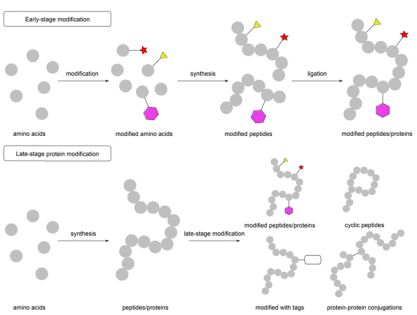
Suyeon Bae, Mingyu Jeon* and Hoi Ri Moon*



11095

Recent developments in late-stage protein modification

Geng-Hui Feng, Tian-Yang Wang and Yan-Mei Li*



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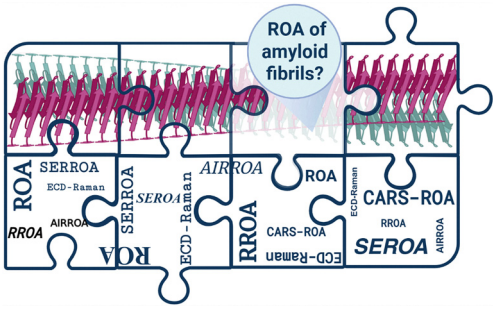
FEATURE ARTICLES

11118

Raman optical activity of amyloid fibrils: a distinctive chiroptical phenomenon beyond resonance

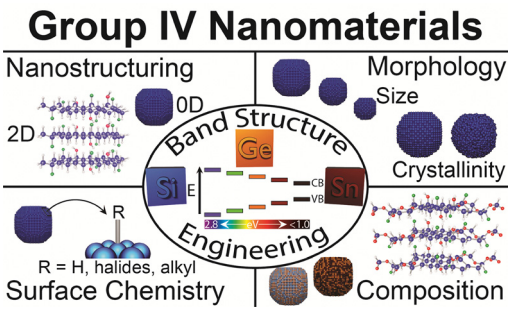
Aleksandra Kołodziejczyk, Aleksandra Wajda* and Agnieszka Kaczor*



11131

Structure–property relationships of Group IV (Si–Ge–Sn) semiconductor nanocrystals and nanosheets – current understanding and status

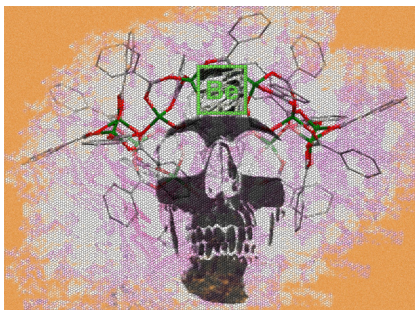
Jeremy B. Essner, Maharram Jabrayilov, Andrew D. Tan, Abhishek S. Chaudhari, Abhijit Bera, Brodrick J. Sevart and Matthew G. Panthani*



11146

Advances in the understanding of molecular beryllium element bonding

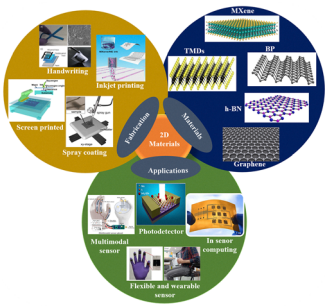
Magnus R. Buchner



11158

Current trends and emerging opportunities for 2D materials in flexible and wearable sensors

Nongthombam Joychandra Singh, Isha Basumatary, Chandra Sekhar Reddy Kolli and Parikshit Sahatiya*



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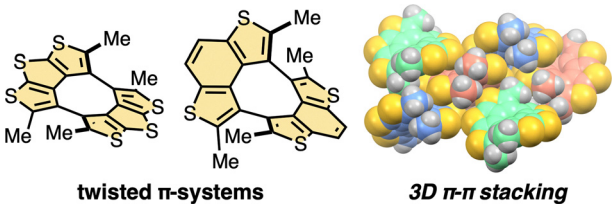
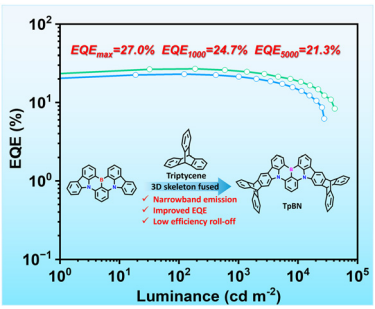
11187



Synthesis, structure, and properties of twisted π-conjugated molecules featuring three-dimensional π–π interactions in solid states

Mai Nagase, Ryu Yoshida, Sachiko Nakano, Takashi Hirose and Yasutomo Segawa*

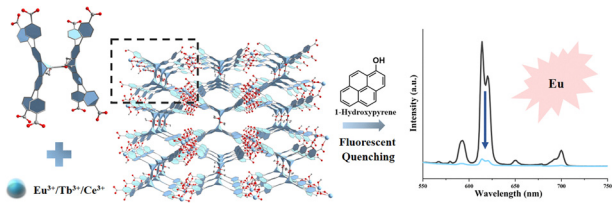
11191



Triptycene-fused multi-resonance TADF material endows high-efficiency electroluminescence and low efficiency roll-off

Ke-Ke Tan, Meng Li* and Chuan-Feng Chen*

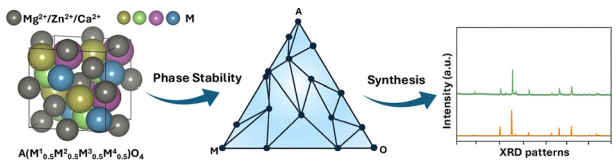
11195



Rare-earth-pentacene-octacarboxylate frameworks for highly efficient urinary 1-HP fluorescence sensing

Jinli Zhang, Xiao-Juan Xi, Lin Xu, Feifan Lang, Yan Yang* and Jiandong Pang*

11199



High throughput screening of high entropy spinel electrolytes for multivalent batteries

Mahesh J. Dheerasinghe, Yi Gan, Lin Wang, Yufang He, Zhengda He, Gui-Liang Xu, Yang Zhao* and Bin Ouyang*

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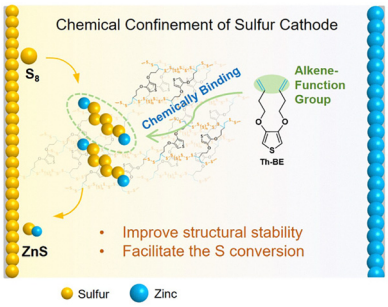
11203

Sulfur confinement *via* C–S bonding for stable sulfur conversion in aqueous Zn–S batteries

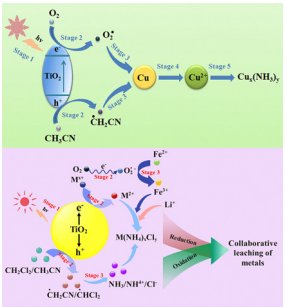
Jiaoyi Ning,* Yunyan Chen, Yunxiang Wen, Mingjun Wang, Tie Shu, Xiao Li, Liang Li, Yuxing Zhang and Ke Xin Yao*



11207

Acid-free photocatalytic recovery of valuable metals from spent ternary lithium battery cathode materials using acetonitrile and dichloromethane

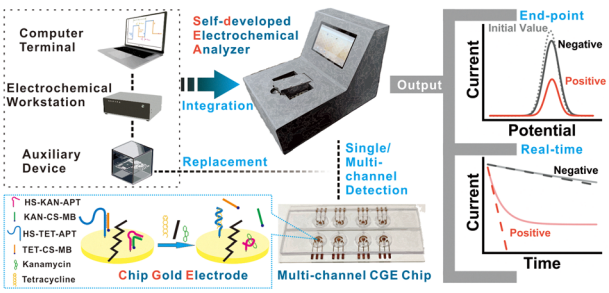
Shiqin Zheng, Jiangyi Chen, Shiwei Yang, Bowen Qi, Wen Deng, Li Wan,* Alexey Charevan, Quanbing Zou, Dominik Eder and Shimin Wang



11211

Rapid detection of antibiotics using self-developed electrochemical analyzer and sensor chip

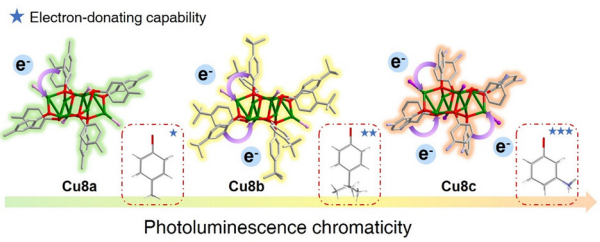
Yin Bao, Yulin Li, Kaiwei Cai, Yichen Liu* and Bingling Li*



11215

Controlling the photoluminescence chromaticity of emissive copper nanoclusters *via* ligand engineering

Mengfan Chang, Ying Xu, Ying Lv, Haizhu Yu, Hao Li,* Xi Kang* and Manzhou Zhu



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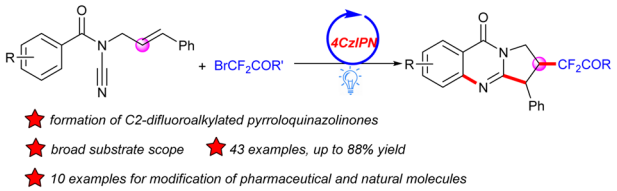
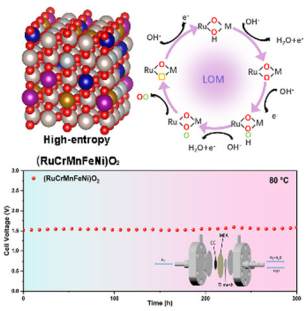


Photocatalytic difluoroalkylation/cyclization of *N*-cinnamyl-*N*-cyanobenzamides with difluoroalkyl bromides toward C2-difluoroalkylated pyrroloquinazolinones

Yanmei Gong, Chengli Xiang, Changduo Pan* and Jin-Tao Yu*

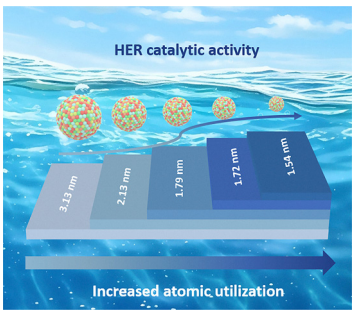
11223



Iridium-free high-entropy ruthenium-based oxides with activated lattice oxygen towards high efficient and durable acidic water oxidation

Suoqing Yu, Lei Li, Chong Ma, Xin Zhang, Maolin Li, Aobing Wang,* Limin Liang and Hui Liu*

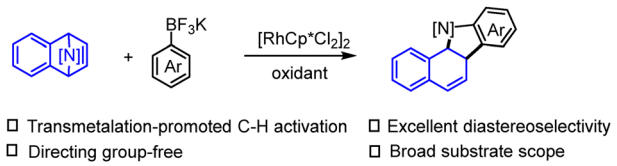
11227



Carbon dot-mediated sub-2 nm high-entropy alloys for enhancing hydrogen evolution reaction performance

Huan Zhuo, Qijun Song, Chan Wang* and Han Zhu*

11231



Rhodium(III)-catalyzed oxidative [3+2] annulation of arylboron reagents and 7-azabenzonorbornadienes *via* transmetalation-initiated C–H activation

Xuejing Yao, Shunle Hu, Lijuan Jv, Ruijie Mi* and Xingwei Li*

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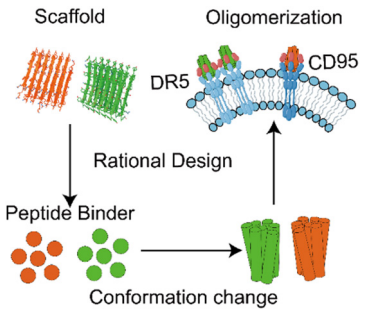
11235

Design of TNFR peptide agonists for inducing receptor oligomerization and cell apoptosis

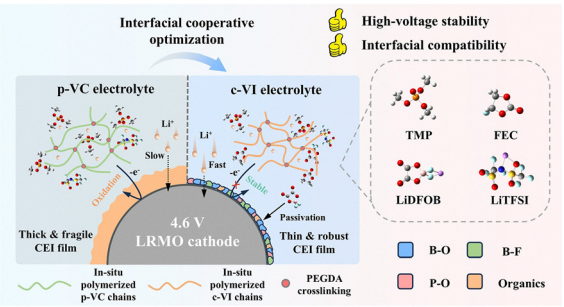
Yi-xuan Liu and Hao Wang*



11239

Dual-component modulation strategy for enhancing interfacial compatibility in 4.6 V LRMO-based solid-state lithium metal batteries

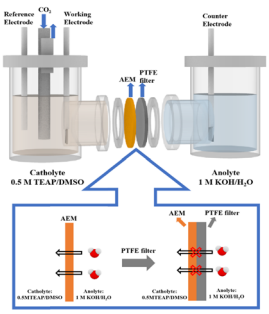
Mengya Wang, Linghong Xu, Jilin Tang, Hangjun Ying,* Gaorong Han and Yong Shi*



11243

Engineering hydrophobicity on anion exchange membranes for stable CO_2 electrochemical reduction in nonaqueous electrolytes

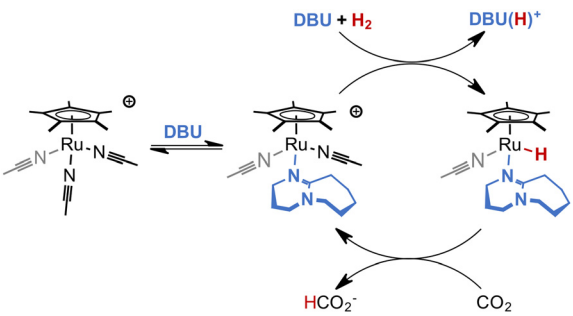
Junjie Zhou, Moxing Cheng, Liang Chen and Yichao Lin*



11247

DBU as base and ligand in phosphine-free ruthenium complexes for hydrogenation of CO_2

Andrew Z. Preston, Alexander S. Phearman, Manuel Quiroz, Sarah E. Flowers, Nilakshi Devi, Christopher M. Zall, Eric S. Wiedner,* Aaron M. Appel and John C. Linehan*



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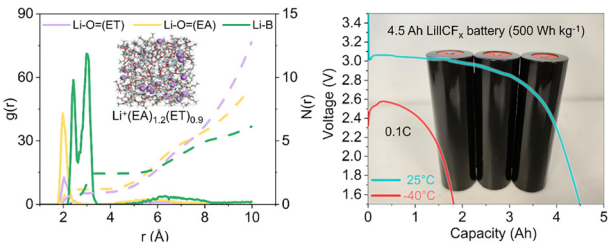
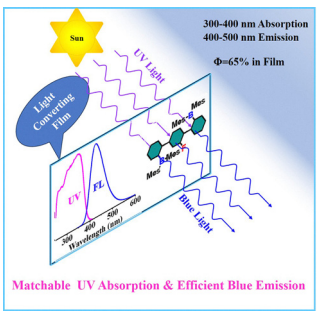


Electrolyte engineering enables high-energy Li‖CF_x battery operation at ultralow temperatures

Weijing Yang, Xuyang Chen, Baoyu Sun,* Bin Zhang, Shangde Ma, Yang Dai,* Quansheng Zhang, Junliang Zhang* and Jingying Xie*

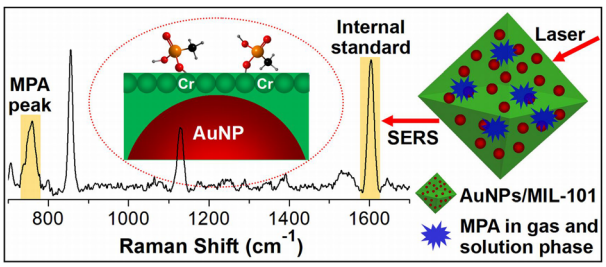
11255



Efficient UV-matchable light-converting agent based on a space-conjugated di-triarylboron structure

Zhen Wang, Yuxuan Yang, Luohan Fang, Yangbin Xie, Wenming Ma, Yahui Zhang, Chun-Lin Sun,* Baoxin Zhang,* Xiaoxiang Zhang* and Xiaobo Pan*

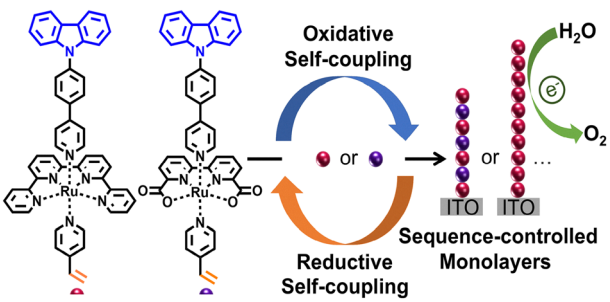
11259



A coordination-driven SERS platform for trace detection of a nerve agent hydrolysis product using a plasmonic metal–organic framework

Renyong Liu,* Peng Sun, Ziyan Zheng, Wang Song, Xinle Zhang, Yehan Yan, Tao Xie, Kui Zhang* and Lijuan Chen*

11263



Enhancing the performance of interfacial electrocatalysts by engineering the monomer composition and sequence of metallo-oligomer monolayers

Jing Li, Chang Wei, Lingyun Shen, Yongfang Li, Xuan Pang and Mao Li*

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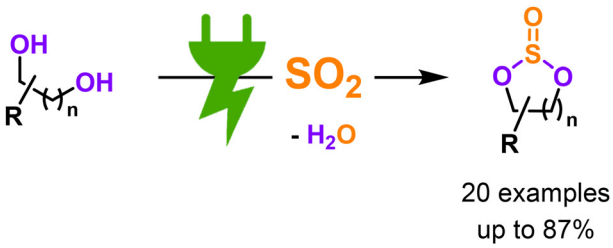
11267

Electrochemical synthesis of cyclic sulfites using diols and sulfur dioxide

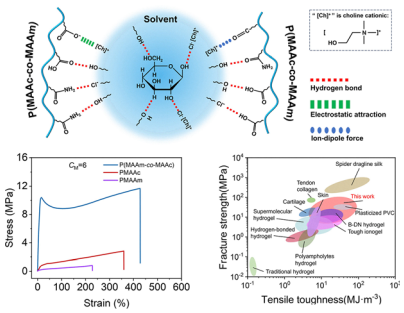
Christian Krumbiegel, Florian A. Breitschaft and Siegfried R. Waldvogel*



11271

An ultra-stiff and tough glassy eutectogel

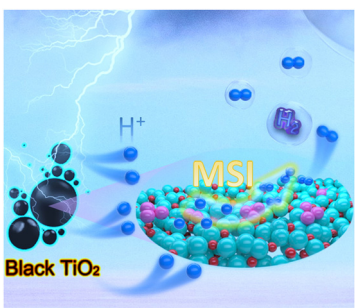
Han Shen, Yufan Wang, Biaolong Ma, Shan Zhou, Jiqiang Wang and Zhenchuan Yu*



11275

Vacancy engineering of TiO_2 with low Pt content for efficient hydrogen generation

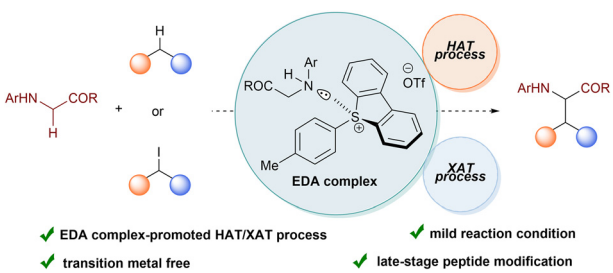
Jianyang Gao, Yuanzong Shen, Jinxiao Gao, Liantao Xin, Weiping Xiao, Guangrui Xu, Dehong Chen, Lei Wang, Fusheng Liu* and Zexing Wu*



11279

Electron donor–acceptor complex of aryl sulfonium salt enabling hydrogen/halogen atom transfer: C(sp^3)–H alkylation of glycine derivatives and late-stage modification of peptides

Xiaobo Dang, Chenyang Zhang, Jinlong Shang, Xinyu Song, Chunlin Wang, Rupeng Qi, Zhaoqing Xu,* Qiao Chen, Mengran Wang and Chao Wang*



CORRECTION

11283

Correction: Spiral Eu(III) coordination polymers with circularly polarized luminescence

Yasuchika Hasegawa,* Yui Miura, Yuichi Kitagawa, Satoshi Wada, Takayuki Nakanishi, Koji Fushimi, Tomohiro Seki, Hajime Ito, Takeshi Iwasa, Tetsuya Taketsugu, Masayuki Gon, Kazuo Tanaka, Yoshiki Chujo, Shingo Hattori, Masanobu Karasawa and Kazuyuki Ishii

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