

IN THIS ISSUE

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Cover

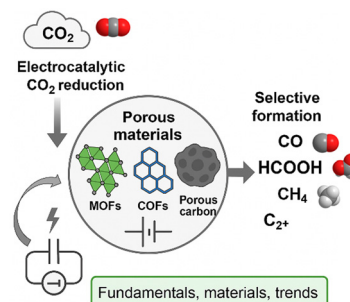
See Tetsuya Sengoku
et al., pp. 9610–9613.
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Chem. Commun.,
2025, 61, 9610.

HIGHLIGHTS

9531

Recent progress of the electrocatalytic CO₂ reduction reaction using porous materials

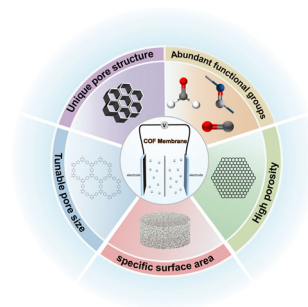
Omkar Udaysing Patil and Sungjin Park*



9543

Covalent organic framework membranes for rechargeable electrochemical energy storage devices: chemistry, fabrication, and future opportunities

Li-Chuan Jia, Xiquan Xiao, Yilin Zhang, Xuan Li,
Zhixiang Dai, Jiawei Wu, Gan-Ji Zhong, Hongli Yang,*
Shengyang Zhou* and Zhong-Ming Li



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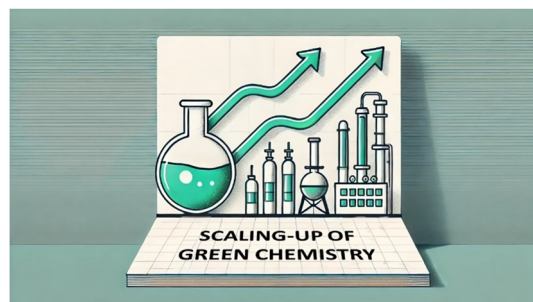


FEATURE ARTICLES

9558

Scaling-up green chemistry: bridging innovation and industrial applications

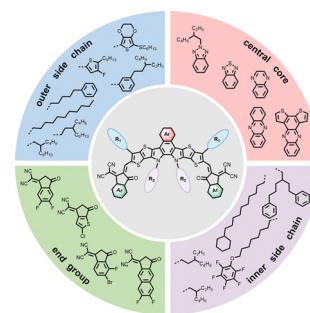
Gregory Chatel



9569

Recent progress in Y-series small molecule acceptors in polymer solar cells

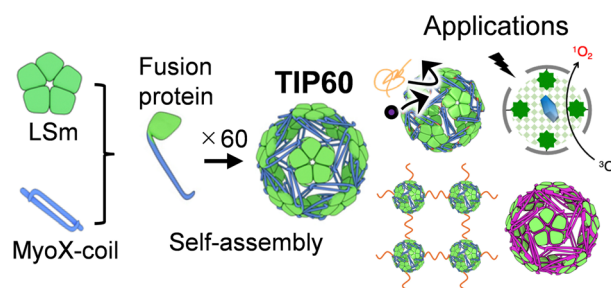
Min Deng, Lei Tan, Hao Tang and Qiang Peng*



9584

Design, structures, and applications of an icosahedral artificial protein nanocage, TIP60

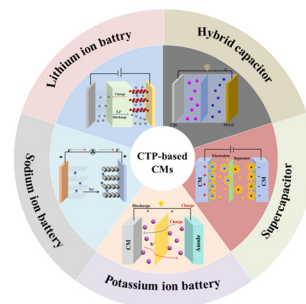
Norifumi Kawakami,* Kenji Miyamoto and Ryoichi Arai*



9596

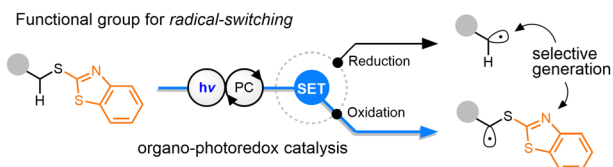
Preparation methods and challenges of carbon materials from coal tar pitch for energy storage

Yaohui Lv, Haoran Liu, Bin Li, Wei Zhang,* Jun Qiao,* Lianbo Ma and Feng Wei*



COMMUNICATIONS

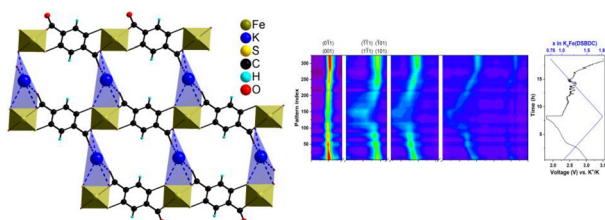
9610



Visible-light-induced radical switching using benzothiazolyl sulfides for geminal carbon–carbon bond formation

Naoya Hasegawa, Kahono Shibata, Haruto Hijikata and Tetsuya Sengoku*

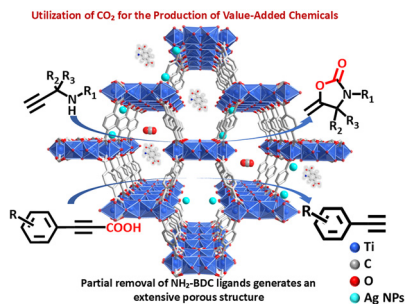
9614



A Fe-thiolate layered metal organic framework as a high-performance electrode material for potassium-ion batteries

Long H. B. Nguyen, Pablo Salcedo-Abaira, Dat Le Thanh, Nusik Gedikoglu, Nathalie Guillou, Robin Coatleven, Philippe Poizot, Fabrice Salles, Nicolas Louvain, Lorenzo Stievano* and Thomas Devic*

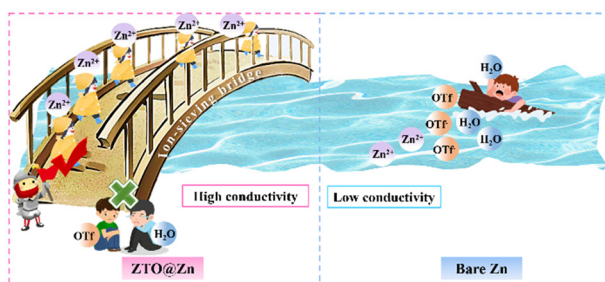
9618



Highly dispersed Ag nanoparticles in Ti-MOFs with partial ligand removal for catalytic conversion of CO₂

Qian Zhang, Jinfeng Wang, Liu Gao, Xu Jing* and Chunying Duan

9622



An intelligent ion-sieving bridge enabled by a zinc-rich artificial SEI layer with high Zn²⁺-conductivity for reversible zinc metal anodes

Huaisheng Ao,* Rouya Wang, Tao Ma, Ruisi Zhang, Xuekun Zhu, Yixin Fang, Xiaofeng Bao, Yuzhe Zhang,* Jian Rong and Zhongyu Li*

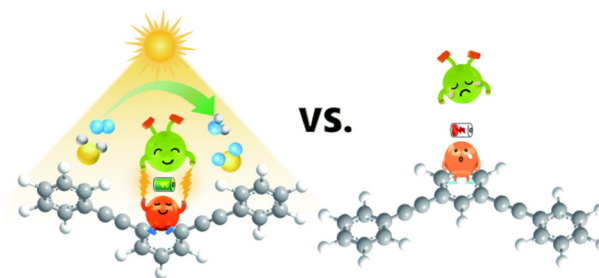


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Insight into the structure-dependent effects of metal residues in conjugated polymers

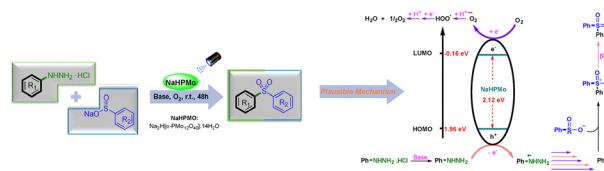
Fanghua Zeng, Yudi Feng, Jiali Wang, Yanfeng Lin, Rui Xiong,* Dapeng Wu and Can Yang*



9630

Visible-light-driven oxidative coupling of arylhydrazines with sulfinates catalyzed by polyoxometalates for aryl sulfone synthesis

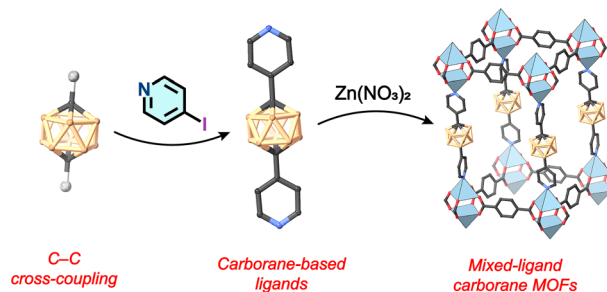
Ahmed Th. Abdulghaffar, Chengze Zhang, Jianghao Yu, Guan Wang,* Yanrong Ren, Zhongyan Cao, Yuanqing Xu,* Wei Chen,* Hao Xu* and Jingyang Niu



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A new carborane scaffold for assembling metal–organic frameworks

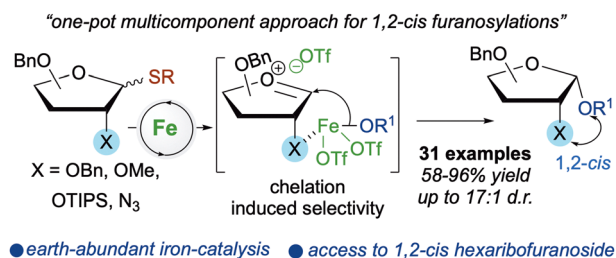
Hunter J. Windsor,* Thomas J. C. Carraro, Robert J. Walwyn, Louis M. Rendina and Cameron J. Kepert*



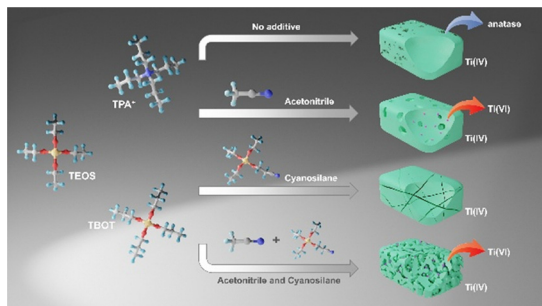
9638

Iron-catalyzed iodonium ion promoted activation of conventional thioglycosides for stereoselective 1,2-*cis* furanosylations

Surya Pratap Singh, Umesh Chaudhary, Adrienne Daróczy and Indrajeet Sharma*

● earth-abundant iron-catalysis ● access to 1,2-*cis* hexaribofuranoside

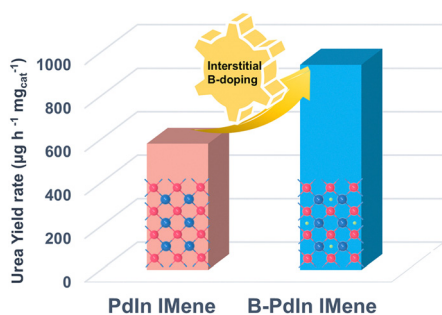
9642



Dual-additive engineering of Ti sites and mesoporosity in TS-1 zeolite for enhanced oxidative desulfurization

Siqi Chen, Jiaze Wang, Jingxuan Wang, Xiaoyu Liu, Li Li, Yongcun Zou and Risheng Bai*

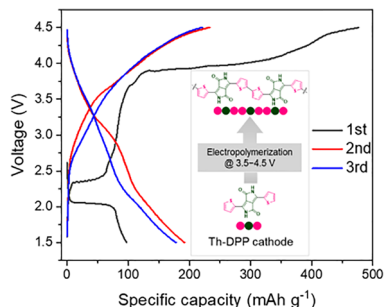
9646



Interstitial boron-triggered electron-deficient isolated Pd–In active-sites in ordered intermetallic metallene for enhanced electrosynthesis of urea

You Xu, Shiming Wang, Yufeng Yuan, Jiwei Zhang, Hongjie Yu, Kai Deng, Ziqiang Wang, Liang Wang* and Hongjing Wang*

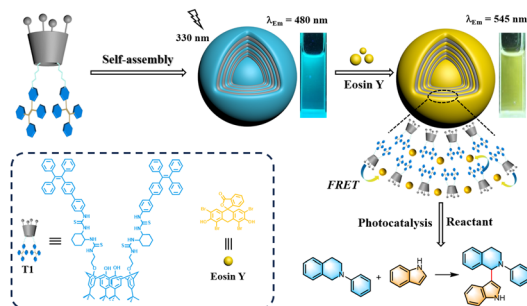
9650



An *in situ* electropolymerizable thiophene-diketopyrrolopyrrole-based organic cathode for efficient lithium–organic batteries

Xi Liu,* Yichao Yang, Jiayu Wei, Xinyuan Wu, Rixin Xu, Xiaopeng Shen, Fengqiuyu Zhao, Jingwen Ye, Changsheng Guo, Changming Li,* Shushun Fu and Da Wang*

9654



Efficient supramolecular artificial light-harvesting systems based on an AIE-active calix[4]arene derivative for cross-dehydrogenative coupling reaction

Jun-Cheng Yang, Shi-Long Dong, Yu-Chen Ding, Chunxuan Qi and Hai-Tao Feng*

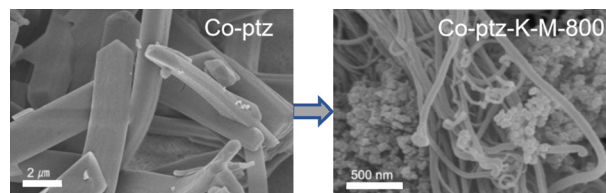


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Hierarchically porous Co–N–C catalysts derived from metal–tetrazole frameworks for efficient oxygen reduction

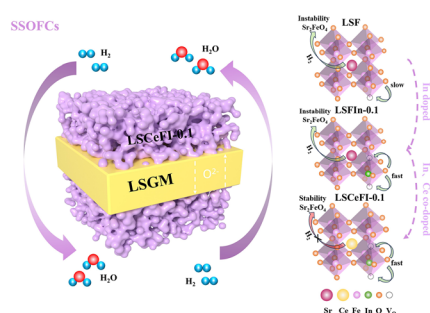
Xinde Duan,* Yuqiang He and Hegen Zheng*



9662

Synergistic Ce/In dual-doping in $\text{La}_{0.3}\text{Sr}_{0.7}\text{FeO}_{3-\delta}$: breaking the activity–stability trade-off in SSOFC electrodes

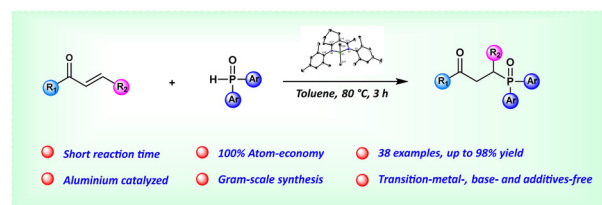
Jianhua Liu,* Yufeng Wang, Qian Yang, Yumei Ma, Li Li, Lina Su* and Fengyang Yu*



9666

Alkylaluminium-catalyzed regioselective hydrophosphinylation of α,β -unsaturated ketones into γ -ketophosphine oxides

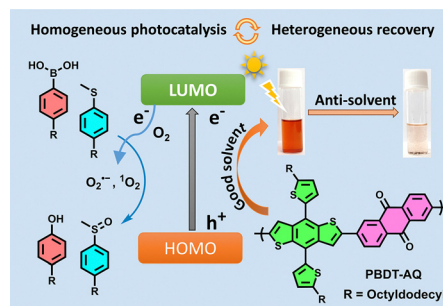
Yiwen Chen, Ziyuan Pang, Gege Li, Xiaobo Yang, Wenliang Yan, Qifeng Li, Xuan Dong, Xiaoli Ma* and Zhi Yang*



9670

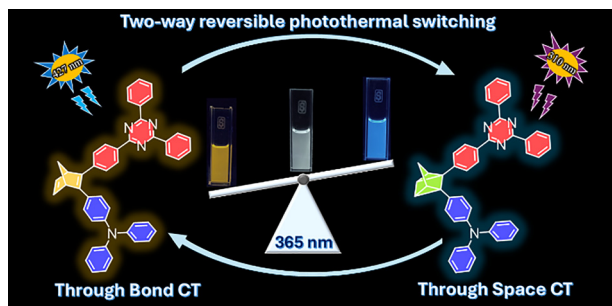
Donor–acceptor semiconducting polymers as superior photocatalysts in the homogeneous phase and recycled via an antisolvent precipitation strategy

Sibu Manna, Krishnendu Maity, Flora Banerjee, Soumitra Sau and Suman Kalyan Samanta*



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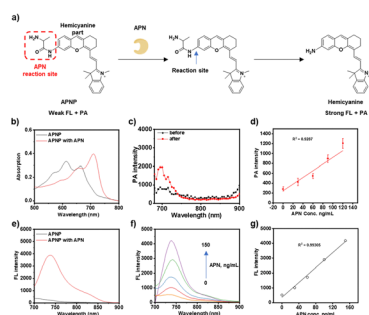
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Charge transfer alteration and white light emission in photochromic triphenylamine-norbornadiene-triazine switch

Manoj Upadhyay, Raktim Deka and Debdas Ray*

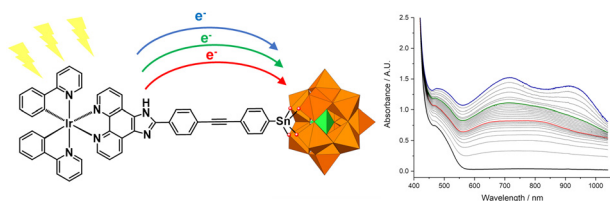
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An activatable molecular probe for early detection of obesity-associated aminopeptidase N activity *in vivo* and in serum

Kouzhu Zhu, Jingjing Qiao, Haoxiang Jiang,* Zhigang Hu* and Kai Wang*

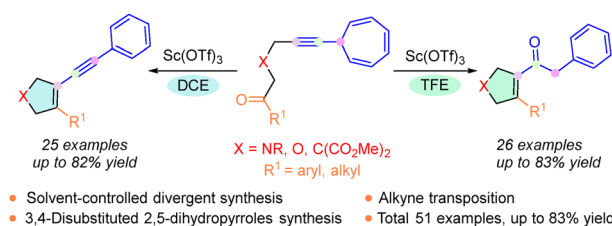
9682



Covalent POM-Ir hybrid assemblies: tuning redox properties for light-driven multiple charge accumulation

Nicolas Queyriaux, Maria Wächter, Christian Cariño, Sandra Alves, Benjamin Dietzek-Ivanšić, Vincent Artero, Anna Proust, Murielle Chavarot-Kerlidou* and Guillaume Izzet*

9686



Lewis acid-catalyzed intramolecular cyclization of 7-alkynylcycloheptatrienes with carbonyls: access to 3,4-disubstituted 2,5-dihydropyrroles

Xiang Huang and Jin-Ming Yang*

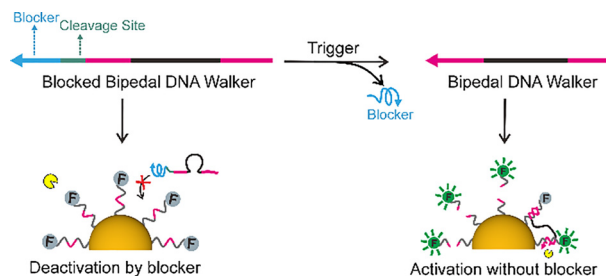


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A signal amplifier engineered with a cleavable stochastic bipedal DNA walker

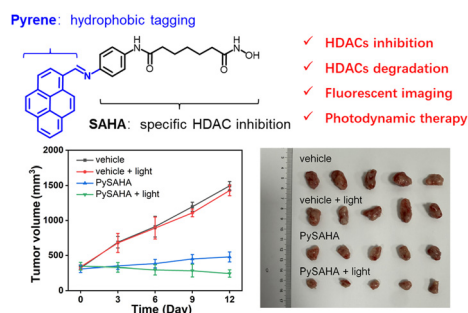
Chuipeng Kong, Qianfan Yang* and Feng Li*



9693

A pyrene-based HDAC inhibitor for dual-action therapy of breast cancer

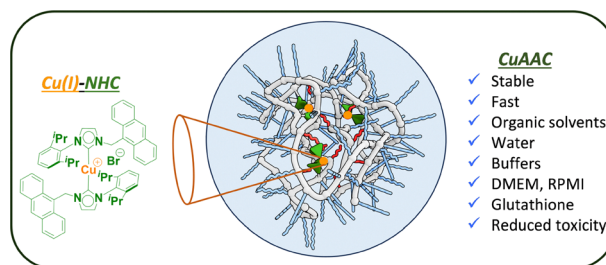
Qizhang Li, Xing Lu, Yuanli Yang, Tianyu Li, Xuehua Chen, Rongmiao Yuan, Xin Ding*, Silong Zhang* and Huan He*



9697

Enhancing the CuAAC efficiency of a Cu(I)-NHC complex in biological media by encapsulation

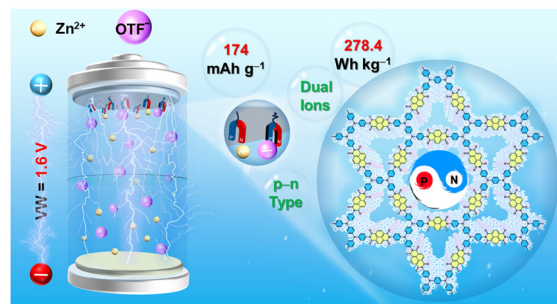
A. P. Prakasham*, Harshit Singh and Anja R. A. Palmans*



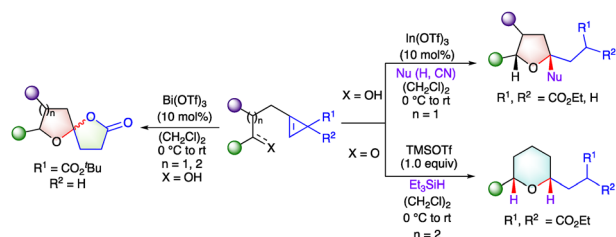
9701

Regulating p-type conjugation in bipolar polyimide covalent organic frameworks for high-performance zinc dual-ion batteries

Suyu Qiu, Decheng Zhao, Tao Ye, Hui Xu, Lei Fang, Mingxian Liu and Liangchun Li*



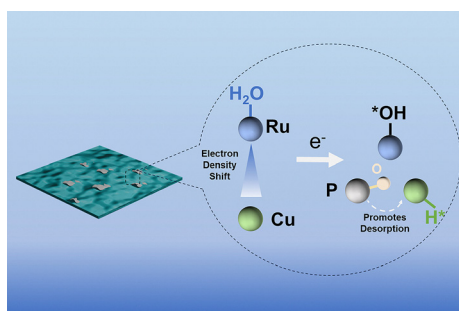
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Lewis acid-promoted cascade reactions of cyclopropenes: a unified approach to stereoselective synthesis of cyclic ethers and oxaspirolactones

Santosh J. Gharpure,* Krishna S. Gupta and Rakhi Yadav

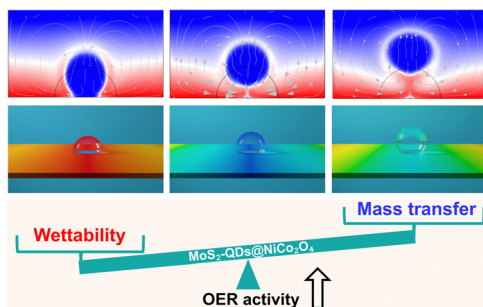
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Rational design of $\text{RuCu}(\text{P}_x\text{O}_y)$ nanosheets for synergistically enhanced hydrogen evolution reaction in alkaline medium

Haiyan Pang, Zheng Tang, Ruohan Huang, Panpan Wang, Xiao Liu,* Hongling Liu* and Yuechang Wei*

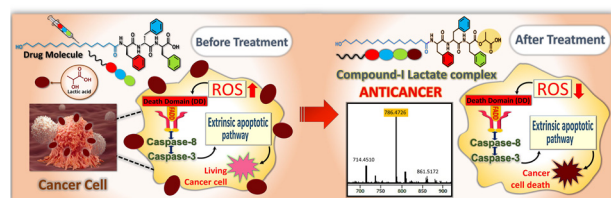
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Surface wettability engineering of MoS_2 quantum dot-decorated NiCo_2O_4 nanospheres for enhanced oxygen evolution reaction

Xu Yue, Hongyan Wu, Yong Zhang, Bin Xue* and Yuqiao Wang*

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A novel 16-hydroxy-palmitic acid tethered D-configured homo-chiral triphenylalanine based nanofibrillar scaffold with innate anticancer potential

Vaibhav Shivhare, Arindam Gupta, Rishabh Ahuja, Dipesh Barde, Surendra Kumar Ahirwar, Anindya Basu and Anita Dutt Konar*

