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See M. Amparo F. Faustino *et al.*, pp. 20266–20271.

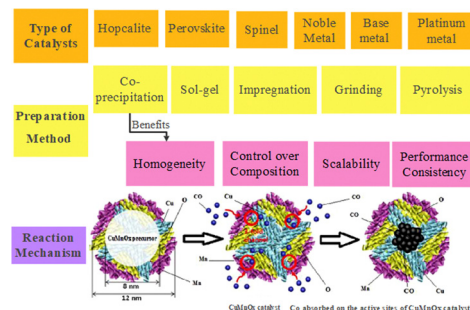
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### A review of catalytic oxidation of carbon monoxide over different catalysts with an emphasis on hopcalite catalysts

Jellinette Pulcira Ngorot Kembo, Junyi Wang, Ning Luo, Fengyu Gao,\* Honghong Yi, Shunzheng Zhao, Yuansong Zhou and Xiaolong Tang\*

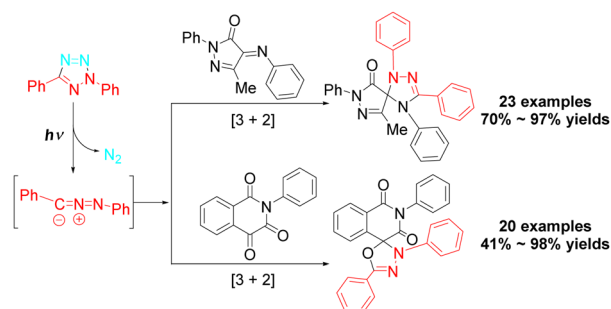


## COMMUNICATIONS

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### Synthesis of spirotriazolines and spirooxadiazolines via light-induced 1,3-dipolar [3+2] cycloadditions

Pengfei Jia, Zhiqian Lin, Cankun Luo, Jiao Liang, Ruizhi Lai, Li Guo, Yuan Yao\* and Yong Wu\*



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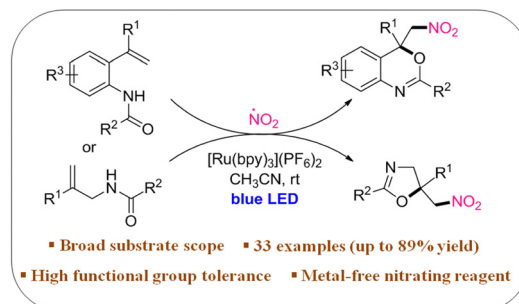


## COMMUNICATIONS

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### Visible-light-promoted tandem radical difunctionalization of olefinic amides: a direct access to NO<sub>2</sub>-containing benzoxazines and oxazolines

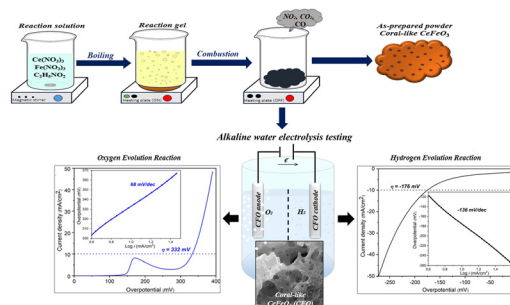
Renu Chaudhary



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### Novel electrode material based on coral-like cerium orthoferrite (CeFeO<sub>3</sub>) for efficient alkaline water splitting

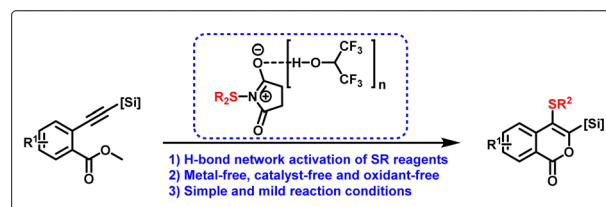
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 Vladimir N. Nevedomskii, Vitaly V. Panchyk,  
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### Access to derivatives of 4-(aryltio)isocoumarins via hydrogen bonding network assisted electrophilic cyclization

Wenna Xie\* and Shiwen Liu

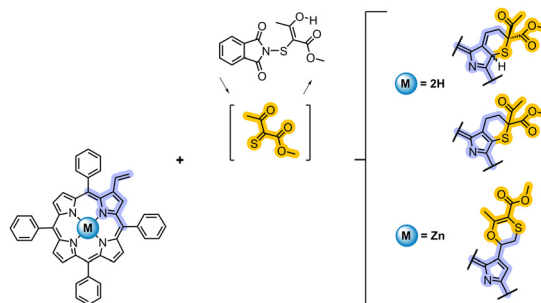


## PAPERS

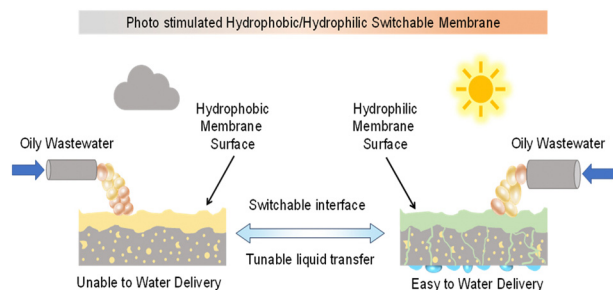
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### The dual behaviour of $\beta$ -vinylporphyrins in the presence of $\alpha,\alpha'$ -dioxothiones

Cristina J. Dias, Francesco Papi, Maxime Denis,  
 Cristina Nativi, M. Graça P. M. S. Neves and  
 M. Amparo F. Faustino\*



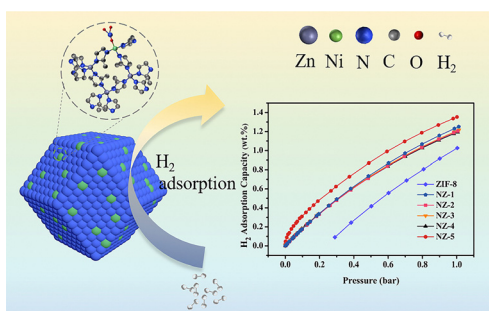
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### A photo-responsive micro/nanomembrane for smart separation and self-cleaning

Zhengtao Li, Wee Tio, Jia-Cheng E. Yang and Darren D. Sun\*

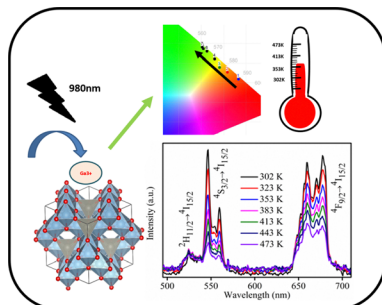
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### Efficient H<sub>2</sub> adsorption using a bimetallic Ni–Zn zeolite imidazole skeleton

Xiaoqian Peng, Jing Zhang,\* Xu Zhang, Xiaochan Liu, Zhiqiang Huang, Haibo Li and Xibin Yi

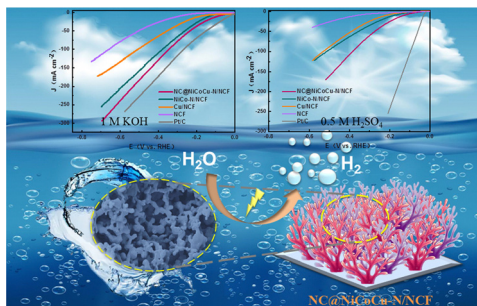
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### Tunable upconversion in ZnAl<sub>2-x</sub>Ga<sub>x</sub>O<sub>4</sub>:Er,Yb phosphors by modulating the Al/Ga ratio and application in optical thermometry

Reshmi Thekke Parayil, Santosh K. Gupta,\* Madan Murari Upadhyay, Kathi Sudarshan and Manoj Mohapatra

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### *In situ*-engineered coral-like multiphase NC@NiCoCu–N/NCF nanoarrays for enhanced hydrogen evolution reaction

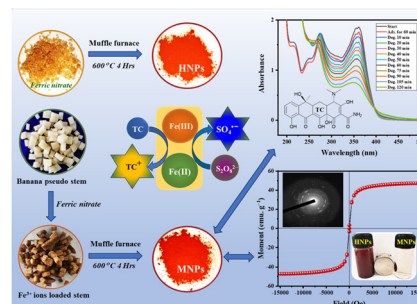
Yaoxia Yang,\* Lan Zhang, Fengyao Guo, Dangxia Wang, Xingwei Guo, Wei Zeng and Dongfei Sun



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### Green synthesis of superparamagnetic maghemite nanoparticles using banana pseudo-stem: a reusable heterogeneous catalyst for Fenton-like degradation of tetracycline antibiotics

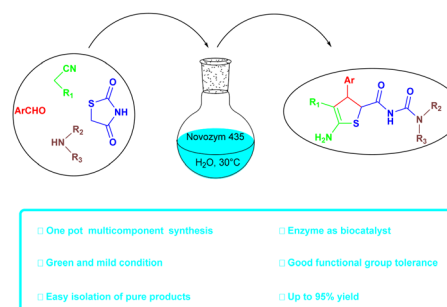
A. Tony Elizabeth,\* E. James, L. Infant Jesan,  
A. Sebastin Thangadurai and Antonisamy Edwin Vasu\*



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### Lipase-catalyzed one-pot four-component reaction in water: green construction of substituted 2,3-dihydrothiophenes

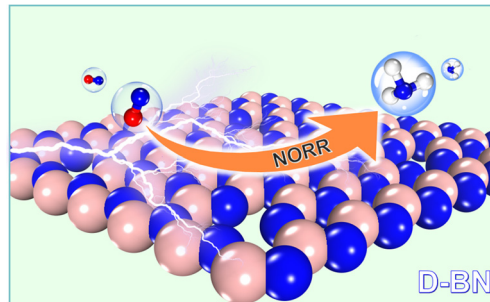
Yong Tang, Kaifu Zhang, Yuelin Xu, Jinglin Ma,  
Hanqing Xie, Hongquan Zhang, Yanmin Jiang,  
Rui Zhao\* and Lei Wang\*



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### Defective boron nitride nanosheets: an efficient non-metal catalyst for electrochemical reduction of NO to NH<sub>3</sub>

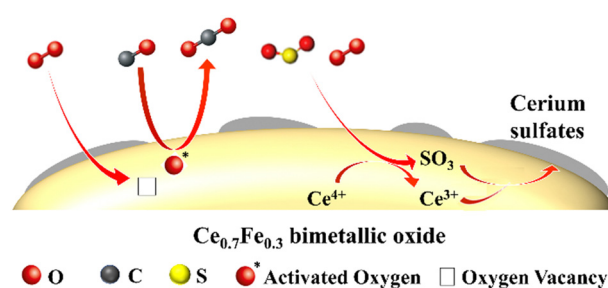
Ping Zhu\* and Zhe Xu



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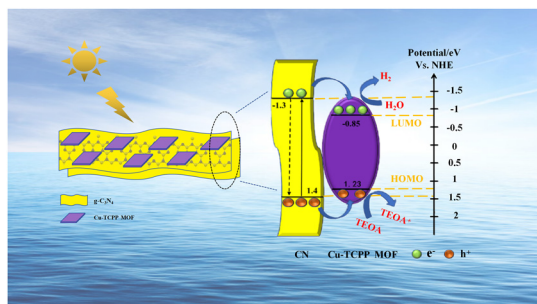
### Ce–Fe bimetallic oxide catalysts for CO catalytic oxidation at a high concentration of SO<sub>2</sub>

Qi Gao, Changqing Dong,\* Xiaoying Hu, Junjiao Zhang,  
Yanjun Zhu, Haiyang Lv, Ying Zhao, Junjie Xue and  
Xiaoqiang Wang





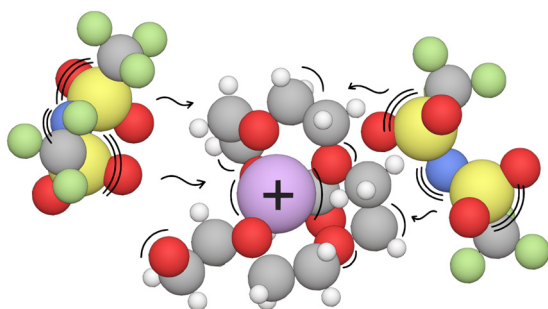
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### The synthesis of Cu-TCPP MOF/g-C<sub>3</sub>N<sub>4</sub> heterojunctions as efficient photocatalysts for hydrogen generation

Meihui Lu, Aichen Dong, Xinyang Li, Xuanqi Liu, Ziqing Zhang, Tao Tian\* and Liqiang Jing

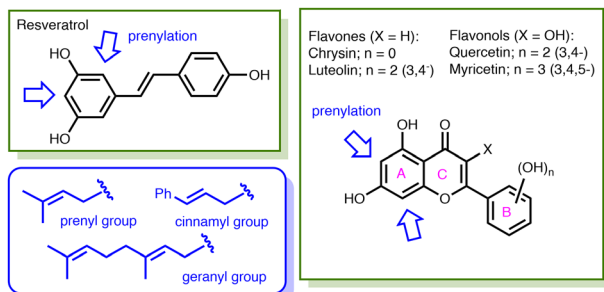
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### Coupled ion transport in concentrated PEO–LiTFSI polymer electrolytes

Øystein Gullbrekken and Sondre Kvalvåg Schnell\*

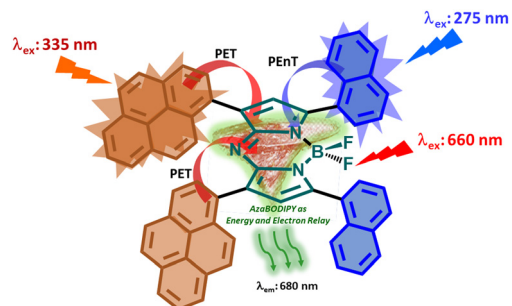
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### Catalytic prenylation of natural polyphenols

Yi Du, Iman Korchi, Aleksandr E. Rubtsov and Andrei V. Malkov\*

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### Excitation wavelength-reliant light-induced energy and electron processes in pyrene and naphthalene functionalized dual-dye integrated polyaromatic azaborondipyrromethenes

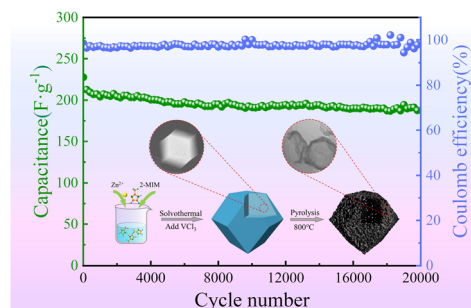
Anjaiah Boligorla, Manne Naga Rajesh, Lingamallu Giribabu\* and Raghu Chitta\*



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### Hollow nanocages of vanadium nitride-based electrode material designed for superior charging/discharging stability supercapacitors

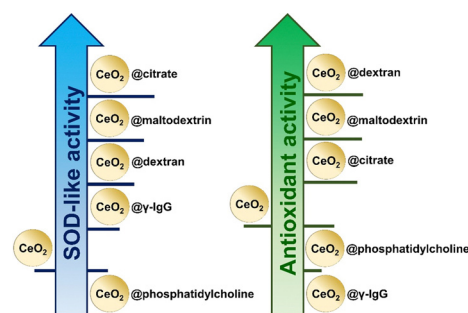
Hao Dang, Lu Wang, Yuanyou Peng, Tianqi He and Fen Ran\*



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### Biocompatible ligands modulate nanozyme activity of CeO<sub>2</sub> nanoparticles

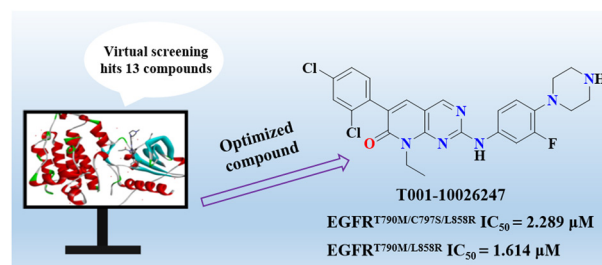
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### *In silico* screening applied in drug discovery: T001-10026247 as a novel fourth-generation EGFR inhibitor

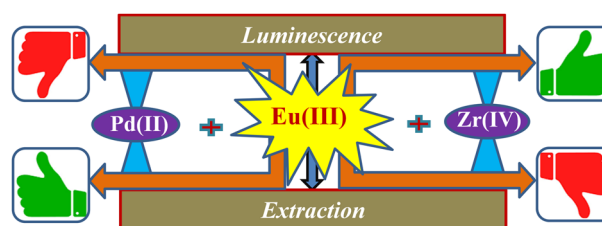
Shidi Xu, Xiaoling Huang, Yufeng An, Xinya Lv, Shan Xu, Linxiao Wang\* and Wufu Zhu\*



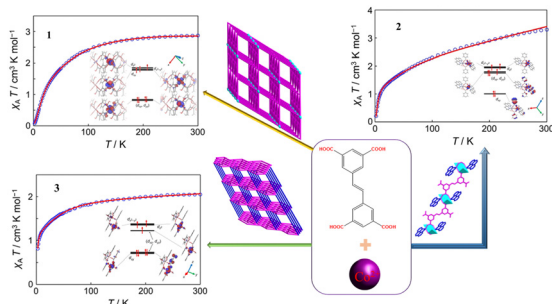
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### Understanding the correlation between extraction and luminescence behavior of Eu(III) in a biphasic system in the presence of Co-extracting metal ions

Alok Rout,\* Satendra Kumar and N. Ramanathan



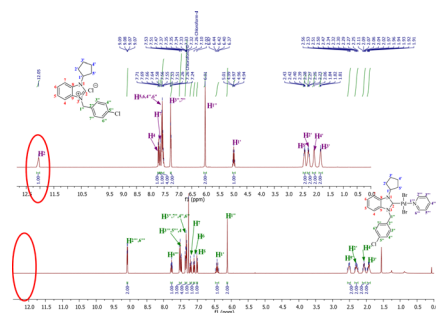
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### Impact of N-donor auxiliary ligands on three new Co(II)-based coordination polymers with symmetrical tetracarboxylate ligands: a magnetism study

Xiaoyu Zhang, Tianrui Qin, Ruifang Xiang, Xiuyan Dong,\* Hiroshi Sakiyama,\* Mohd. Muddassir and Ying Pan\*

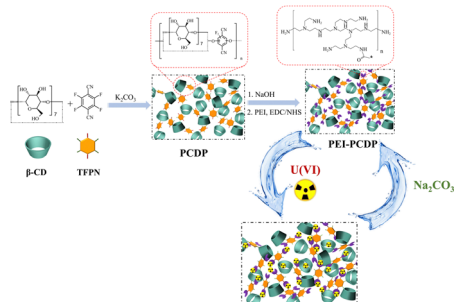
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### Palladium(II)/N-heterocyclic carbene (NHC) catalyzed direct C–H arylation of heteroarenes with different aryl bromides and chlorides

Donia Bensalah, Lamjed Mansour, Mathieu Sauthier, Nevin Gürbüz, Ismail Özdemir, Waleed S. Koko, Rafik Gatri and Naceur Hamdi\*

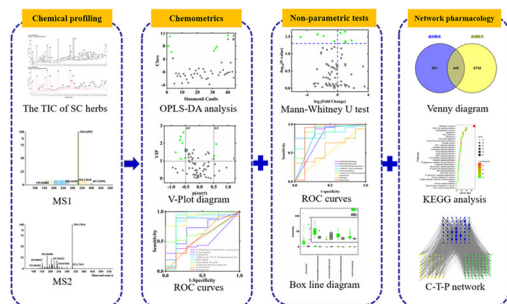
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### Polyethyleneimine-functionalized $\beta$ -cyclodextrin porous polymers for enhanced elimination of U(VI) from wastewater

Xing Zhong,\* Nan Lv, Shunhai Yang, Qiaozhulin Yuan, Yongchuan Wu, Kai Guo, Caixia Hu and Ying Dai\*

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### A comprehensive strategy for quality marker discovery using chemical profiling combined with chemometrics, machine learning and network pharmacology analysis: taking *Sinomenii Caulis* as an example

Zhiyong Zhang, Mingjun Ren, Mulan He, Yongbo Zhu, Yuming Huang, Ping Qiu, Yunfei Hu\* and Wenlong Li\*

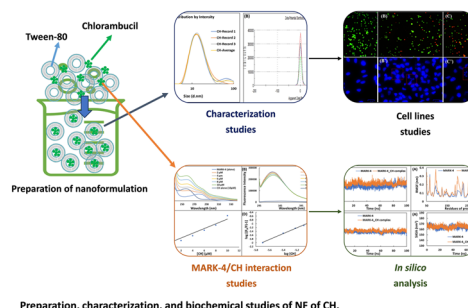




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### Preparation, characterization and biochemical studies of nanoformulations of chlorambucil to enhance anticancer efficacy

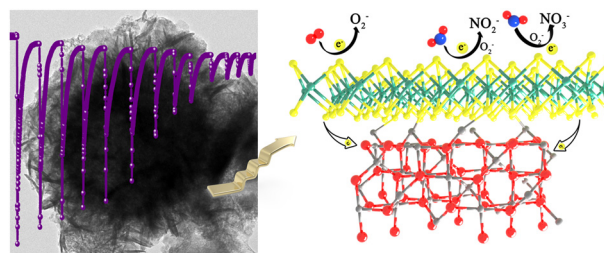
Shahbaz Ahmed, Masood Nadeem, Irfan Hussain, Sana Fatima, M. Moshahid A. Rizvi and Mohammad Tabish\*



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### A highly efficient room-temperature NO<sub>2</sub> gas sensor based on three-dimensional core-shell structured CoS<sub>2</sub> bridged Co<sub>3</sub>O<sub>4</sub>@MoS<sub>2</sub>

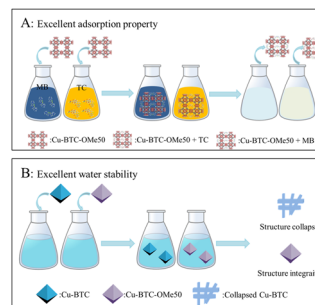
Haiyang Chang, Jiahui Fan, Kejian Yang,\* Cheng Wang,\* Boxuan Zhang, Wanying Zhang and Xudong Chen\*



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### Adsorptive removal of tetracycline and methylene blue from aqueous solution with a water resistance copper-based metal-organic framework

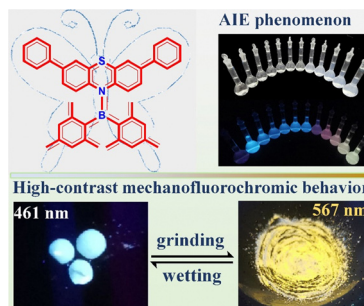
Yingzhi Zhu, Yan Li, Na Ma and Wei Dai\*



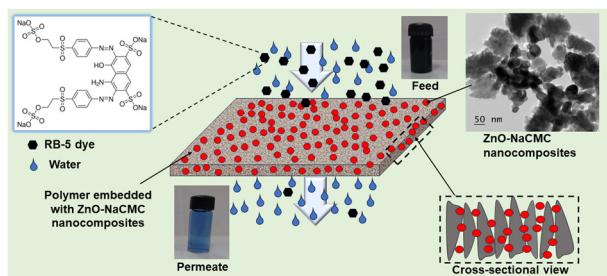
20510

### Aggregation-induced emission and reversible mechanoresponsive behavior of boryl substituted phenothiazine

Weidong Zhang,\* Juanfang Zhou, Chao Zhang and Xinliang Liu\*



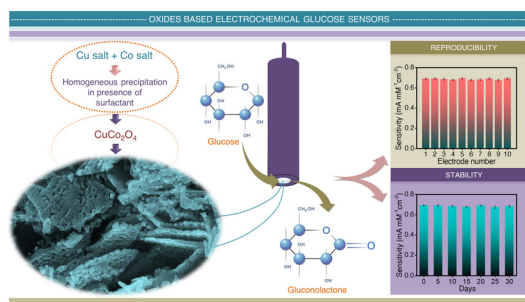
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### NaCMC-decorated ZnO nanocomposite polymer membranes for the separation of reactive dyes from textile water

R. Robin, Vinoth Kumar Raja, R. Sathish Kumar, G. Arthanareeswaran\* and Wirach Taweepreda\*

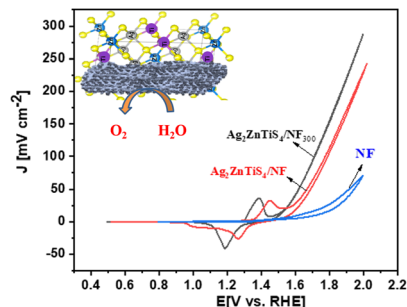
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### Hierarchical and ultra-porous copper cobaltite flakes with honeycomb-like physiognomies for highly efficient non-enzymatic glucose sensing

Ruchika Sharma, Siddhant Srivastav and Sumanta Kumar Meher\*

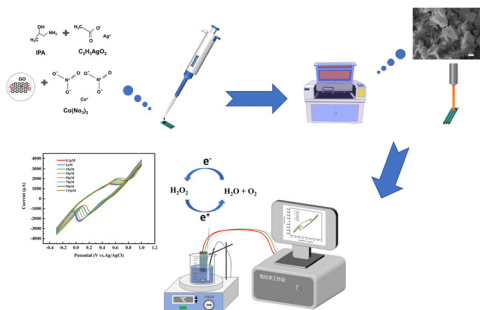
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### Synthesis and characterization of Ag<sub>2</sub>ZnTiS<sub>4</sub> nanostructures prepared by a hot-injection method towards low-cost electrocatalytic oxygen evolution

Sidra Aslam, Muhammad Awais, Nadia Servat and Muhammad Safdar\*

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### Rapid preparation of Ag/CoO/rGO composites for electrochemical detection of hydrogen peroxide

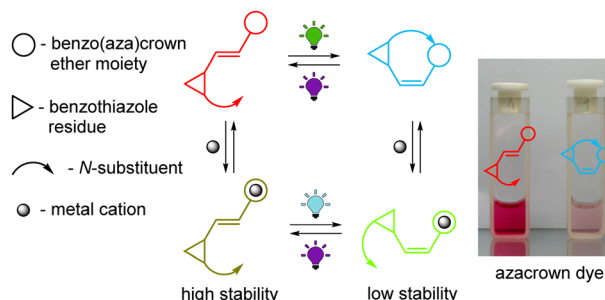
He Song, Jie He, Peng Pan,\* Jun Liu,\* Zhengchun Yang, Haodong Shen and Peifeng Zeng



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### Photoinduced hydrogen-bonded self-assembly of cation-capped complexes and novel photoswitchable supramolecular devices based on (aza)-18-crown-6-containing styryl dyes bearing a long *N*-ammonioalkyl substituent

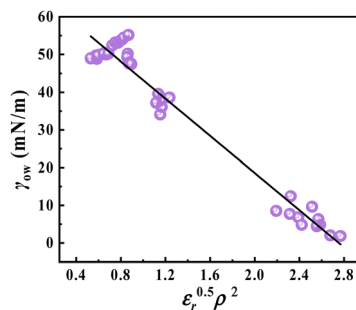
Sergey P. Gromov,\* Timofey P. Martyanov, Artem I. Vedernikov, Svetlana N. Dmitrieva, Dmitry V. Kondratuk, Artem P. Vorozhtsov and Evgeny N. Ushakov\*



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### Correlation of interfacial tension with density and dielectric constant for binary systems containing water and an organic component

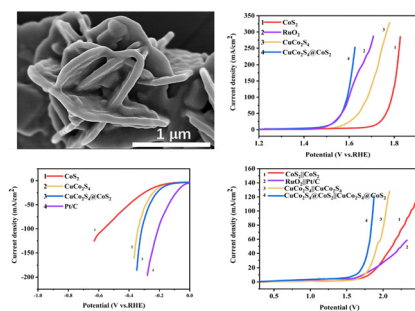
Hongfei Wang\* and Chengjin Xu



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### ZIF-67-derived CuCo<sub>2</sub>S<sub>4</sub>@CoS<sub>2</sub> as an efficient bifunctional electrocatalyst for overall water splitting

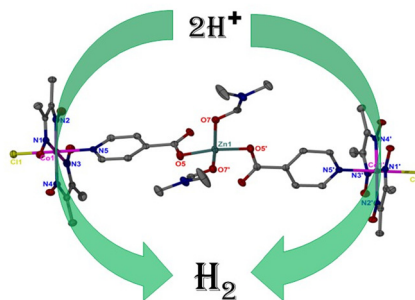
Li-hu Qian, Wei-wei Dong,\* Yan-Bo Cao, Rui Ma, Yi Ding and Xi Wang\*



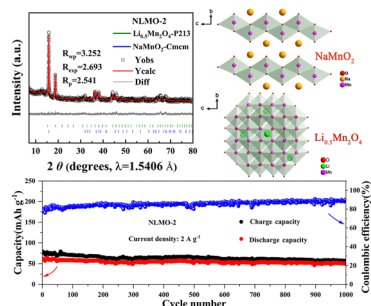
20583

### Isonicotinate-Zn(II)/Cd(II) bridged dicobaloximes: synthesis, characterization and electrocatalytic proton reduction studies

Jitendra Kumar Yadav, Anjali Mishra, Gaurav Kumar Mishra, Sarvesh Kumar Pal, Kedar Umakant Narvekar, Ahibur Rahman, Nanhai Singh, Prem Lama\* and Kamlesh Kumar\*



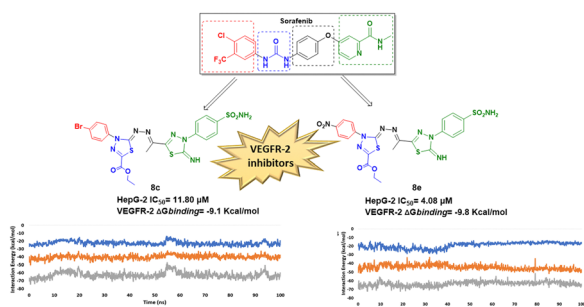
20594



### A layered-spinel heterostructure $0.5\text{NaMnO}_2-0.5\text{Li}_{0.5}\text{Mn}_{0.5}\text{O}_4$ cathode for advanced lithium ion batteries

Tianfeng Gao, Yanjun Cai,\* Qingrong Kong, Hualing Tian, Xiang Yao and Zhi Su\*

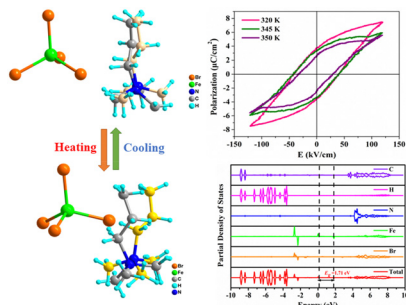
20602



### Computational insights into novel benzenesulfonamide-1,3,4-thiadiazole hybrids as a possible VEGFR-2 inhibitor: design, synthesis and anticancer evaluation with molecular dynamics studies

Samir Bondock,\* Tallah Albarqi, Moaz M. Abdou and Nada M. Mohamed

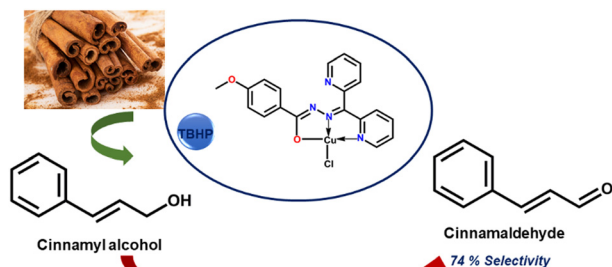
20619



### High-Tc Fe-based ferroelectric compound with large spontaneous polarization and narrow bandgap

Yu-Xin Tan, Ting-Ting Ying,\* Xiao-Wei Fan, Yan-Le Huang, Ming-Yang Wan, Fang-Xin Wang, Qiao-Lin Li and Meng-Na Wang

20626



### Synthesis, spectral characterization, and catalytic efficiency of arolylhydrazone-based Cu(II) complexes

Lahinakillathu Nishana, Ayyamperumal Sakthivel,\* M. R. Prathapachandra Kurup,\* Krishna K. Damodaran, Antonsamy Kulandaisamy and Sithambaresan Maheswaran

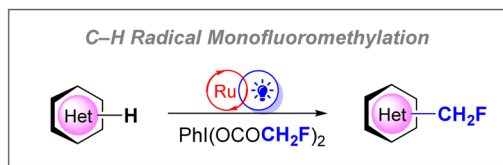


## PAPERS

20642

**Photoredox-catalyzed direct C–H monofluoromethylation of heteroarenes**

Nagarajan Ramkumar, Ketrina Plantus, Melita Ozola, Anatoly Mishnev, Vizma Nikolajeva, Maris Senkovs, Maksim Ošek\* and Janis Veliks\*

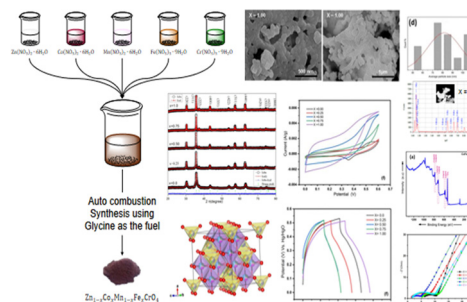


- Mild conditions    - Broad substrate scope    - Bioactivity profile  
- Late-stage diversification of bioactive molecules

20653

**Zn<sub>1-x</sub>Co<sub>x</sub>Mn<sub>1-x</sub>Fe<sub>x</sub>CrO<sub>4</sub> ferrichromate: an efficient material for high performance supercapacitor applications**

Vaibhav Salve, Pramod Agale, Avinash Rokade, Mahesh Kamble, Sunil Patange and Paresh More\*



## EXPRESSION OF CONCERNS

20668

**Expression of concern: Electrospun nanofibrous membranes of cellulose acetate containing hydroxyapatite co-doped with Ag/Fe: morphological features, antibacterial activity and degradation of methylene blue in aqueous solution**

Ahmed Esmail Shalan,\* Mohamed Afifi,\* M. M. El-Desoky and M. K. Ahmed\*

20669

**Expression of concern: Ultrasound-assisted diversion of nitrobenzene derivatives to their aniline equivalents through a heterogeneous magnetic Ag/Fe<sub>3</sub>O<sub>4</sub>-IT nanocomposite catalyst**

Reza Taheri-Ledari, Jamal Rahimi, Ali Maleki\* and Ahmed Esmail Shalan\*

