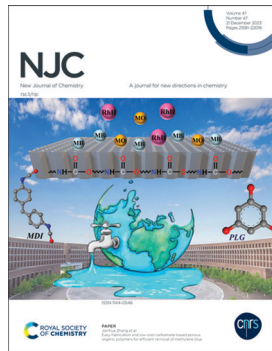


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ISSN 1144-0546 CODEN NJCHES 47(47) 21581-22018 (2023)



### Cover

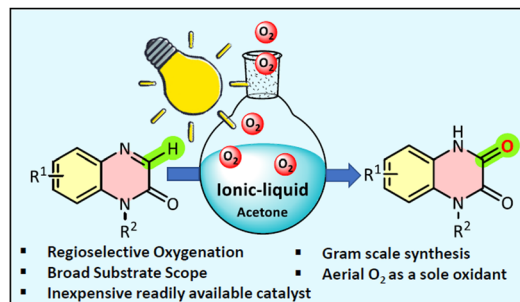
See Jianhua Zhang *et al.*,  
pp. 21612–21619.  
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2023, 47, 21612.

## COMMUNICATIONS

21596

### Ionic liquid-catalysed regioselective oxygenation of quinoxalin-2(1*H*)-ones under visible-light conditions

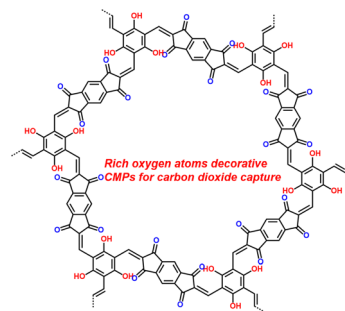
Gaurav Badhani, Valvi Mangesh Biramya and Subbarayappa Adimurthy\*



21600

### Rich oxygen atom-decorated conjugated microporous polymers for carbon dioxide capture

Guiqing Cheng and Yuxi Han\*



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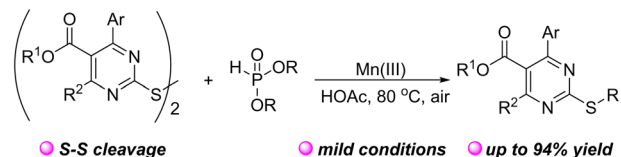


## COMMUNICATIONS

21604

**Mn(OAc)<sub>3</sub> promoted cross-coupling reaction of disulfides with dialkyl phosphites**

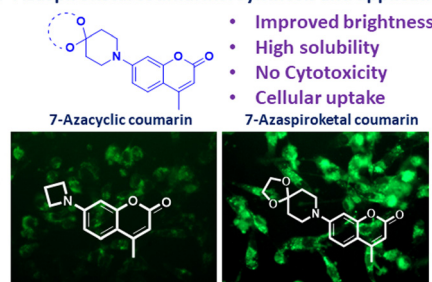
Wen-Juan Wang,\* Jia Sun, Jian-Xin Wan\* and Xi-Cun Wang\*



21608

**7-Azaspiroketal as a unique and effective auxochrome moiety: demonstration in a fluorescent coumarin dye and application in cell imaging**

Harish K. Indurthi, Pooja Goswami, Samarпита Das, Pallavi Saha, Biplob Koch and Deepak K. Sharma\*

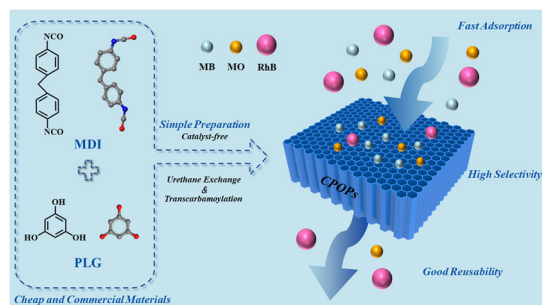
**7-Azaspiroketal coumarins: synthesis and application**

## PAPERS

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**Easy-fabrication and low-cost carbamate-based porous organic polymers for efficient removal of methylene blue**

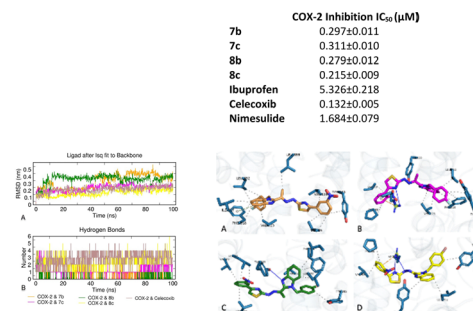
Yunze Chen, Haodong Dai, Anjie Dong and Jianhua Zhang\*



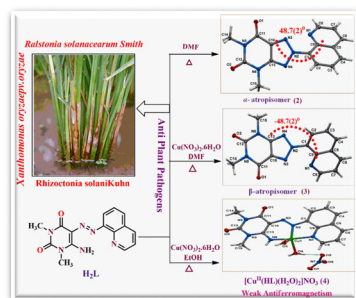
21620

**Design, synthesis, molecular docking and molecular dynamic studies of novel benzimidazole-thiazole derivatives as potent and selective COX-2 inhibitors**

Nurdan Ebru Irmak, Begum Nurpelin Sağlık, İsmail Celik, Hasan Tahsin Sen, Yusuf Ozkay and Gülgün Ayhan-Kılıçgil\*



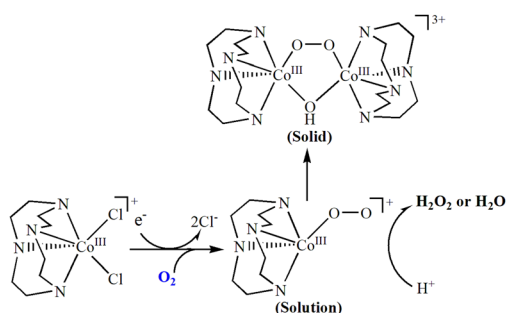
21633



### Atropisomers and a copper(II) complex derived from 1,3-dimethyl-5-(8'-quinolinylazo)-6-aminouracil: structures, magnetism and biological properties

Nishithendu Bikash Nandi, Nishan Das, Susanta Ghanta, Krishti Rekha Puzari, Pranab Dutta, Julia Ktak,\*  
Lestaw Sieroń, Waldemar Maniukiewicz\* and Tarun Kumar Misra\*

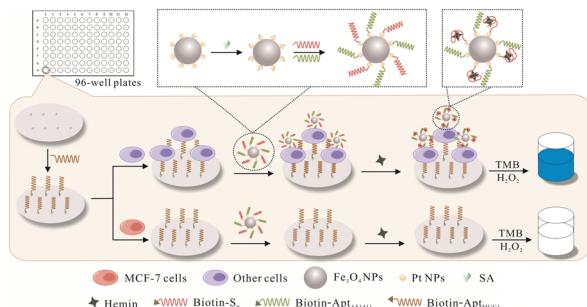
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### Finding a mononuclear cobalt(III)-peroxo complex with 1,4,7,10-tetraazacyclododecane, an intermediate for dioxygen reduction

Yan Zhang, Xiao-Fang Qi, Can-Hao Li and Shu-Zhong Zhan\*

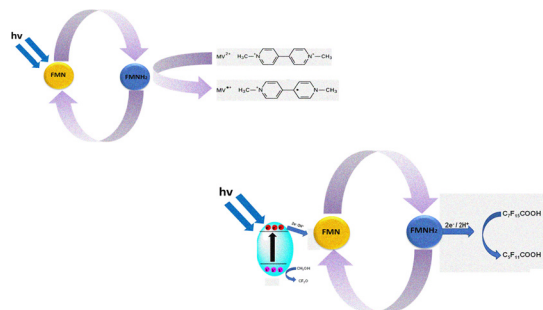
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### Dual-aptamer-based colorimetric assay for the accurate identification of circulating tumor cells via $\text{Fe}_3\text{O}_4$ @Pt NP nanozymes and G-quadruplex/hemin for signal amplification

Ye He,\* Panlin Wang, Zhuzheng Wu, Yating Chen, Xiaohao Gan, Fangjie Li and Wenxiang Wang\*

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### Two-electron transfer photoreduction of methyl viologen and perfluorooctanoic acid mediated by flavin mononucleotide at colloidal titanium dioxide interfaces

Tahseen S. Saeed,\* Sarah S. Albalawi, Abubkr Abuhagr, Saja Abdulrahman Althobaiti, Hawazen M. Hassanain, Donald M. Reeves, Mohammed R. Abdullah and Ekkehard Sinn

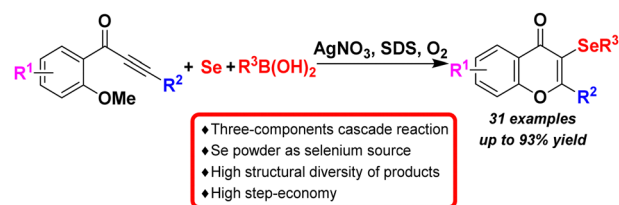


## PAPERS

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### Ag(I)-catalyzed three-component radical cascade synthesis of 3-organoselenenyl chromones from 2-methoxyaryl alkynones, Se powder and organic boronic acids

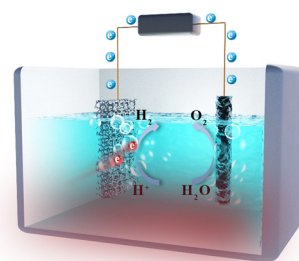
Nan Sun,\* Zengguo Qiao, Xiaolong Liu, Zhi Qiao, Liqun Jin and Xinquan Hu\*



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### Composite structure of a-MoS<sub>x</sub>@Ni<sub>9</sub>S<sub>8</sub>/NF nanoflower rods for efficient HER under a thermal field

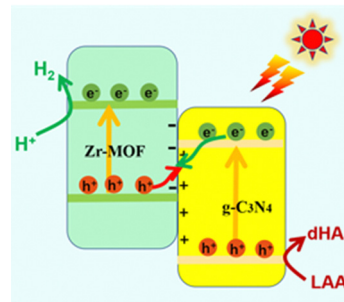
Xiaohao Jiang, Rongtao Xiao, Honggui Wang\* and Ya Zhang\*



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### Constructing Z-scheme heterojunctions of Zr-MOF/g-C<sub>3</sub>N<sub>4</sub> for highly efficient photocatalytic H<sub>2</sub> production under visible light

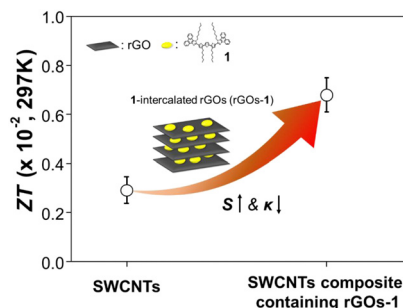
Hongmei Xing, Jun Shi,\* Weiting Yang,\* Yulong Li, Ruoyu Wu and Jiani Wu



21692

### Enhancing thermoelectric performance of single-walled carbon nanotube/reduced graphene oxide composites with small organic molecules as a novel additive

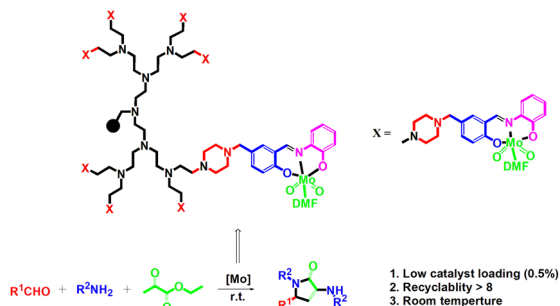
Jae Gyu Jang, Tae-hoon Kim, Sung Hyun Kim\* and Jong-In Hong\*





## PAPERS

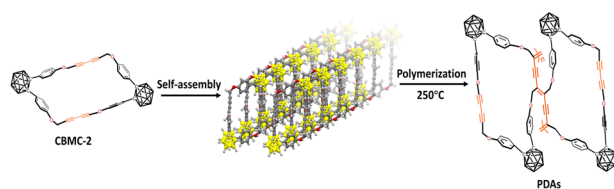
21700



### Schiff base Mo(VI) complexes grafted on Merrifield resin as recyclable and efficient catalysts for the synthesis of pyrrole-2-ones

Qingmin Yan, Kanglong Wang, Wenhui Zhang, Mingwu Yu, Donglei Wei, Weili Wang,\* Gang Liu\* and Xiuwei Gao

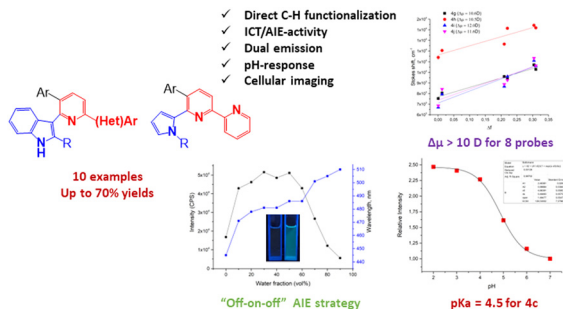
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### The synthesis and topochemical polymerization of o-carborane-based diacetylene macrocycles

Meigui Fu, Shuai Yuan, Qi Qu, Yaofeng Yuan,\* Caixia Lin\* and Yanhou Geng\*

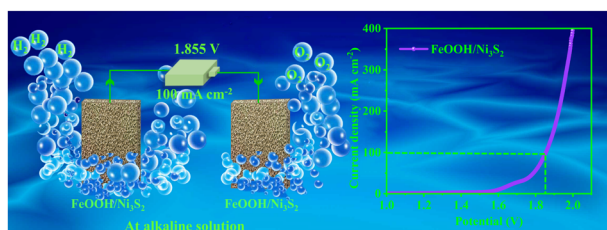
21720



### 2-(Indol-3-yl)- and 6-(pyrrol-2-yl)-substituted (bi)pyridine-based AIE-probes/fluorophores: synthesis and photophysical studies

Ekaterina S. Starnovskaya, Maria I. Valieva, Dmitry S. Kopchuk, Olga S. Taniya, Albert F. Khasanov, Alexander S. Novikov, Nataliya V. Slovesnova, Artem S. Minin, Sougata Santra\* and Grigory V. Zyryanov\*

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### A corrosion-engineered transition metal multi-anionic interface for efficient electrocatalysis toward overall water splitting

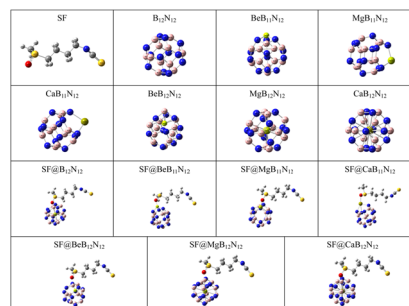
Qiaolin Guo, Xiang Liu, Changwang Ke, Weiping Xiao\* and Xiaofei Yang\*



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### Theoretical study on the adsorption of sulforaphane on $B_{12}N_{12}$ -related nanocages based on density functional theory

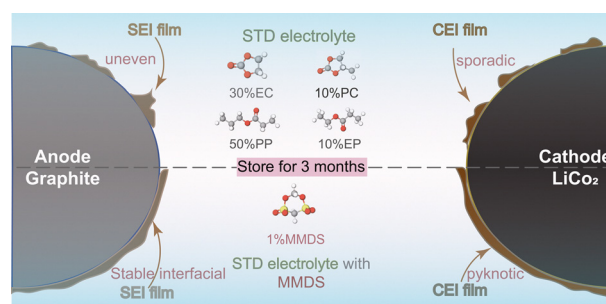
ShiQuan Wu, Li Li, QiQi Liang, HuaXu Gao, TianYu Tang and YanLin Tang\*



21753

### Enhancing high-temperature storage performance for the commercial lithium-ion battery *via* an effective additive strategy

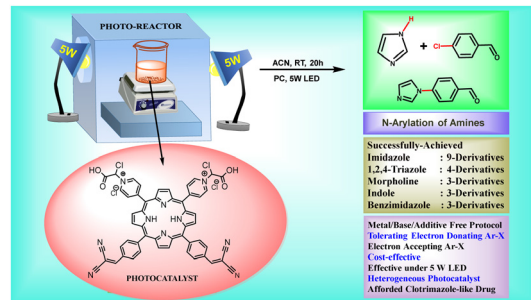
Weigang Liu, Shuai Gao, Jingqiang Zheng, Zhi Zhang,\* Jiahao Gu, Zhiyong Chen, Hao Jiang, Bo Hong, Jie Li and Xinming Fan\*



21764

### Construction of porphyrin-based photocatalyst comprising pyridinium ionic liquid moiety for the metal-free visible light-assisted *N*-arylation of amines: facile approach to afford drug intermediates

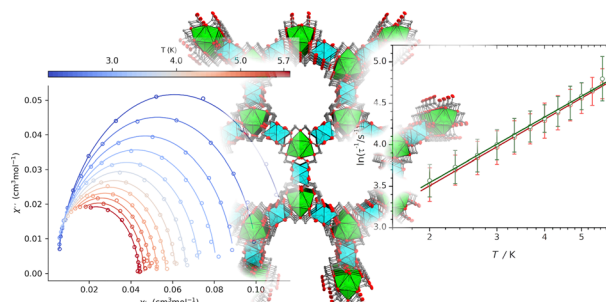
Bhairav Chandroday Mataghare and Pundlik Rambhau Bhagat\*



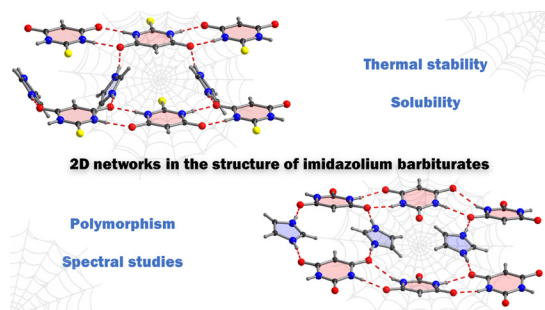
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### Field-induced magnetic relaxation in heteropolynuclear $Ln^{III}/Zn^{II}$ metal organic frameworks: cerium and dysprosium cases

Agustín López, Carlos Cruz, Verónica Paredes-García, Nicolás Veiga, Francesc Lloret, Julia Torres and Raúl Chiozzone\*



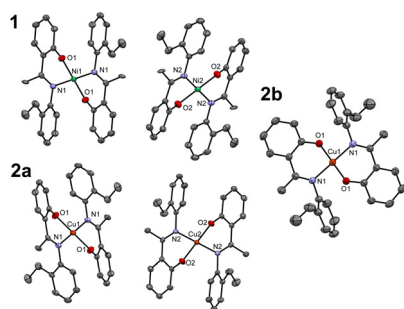
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### Salts of barbituric and 2-thiobarbituric acids with imidazole: polymorphism, supramolecular structure, thermal stability and water solubility

Alexander P. Lakeev,\* Taisiya S. Sukhikh,\* Irina A. Kurzina, Natalia M. Korotchenko and Dmitriy S. Nikitin

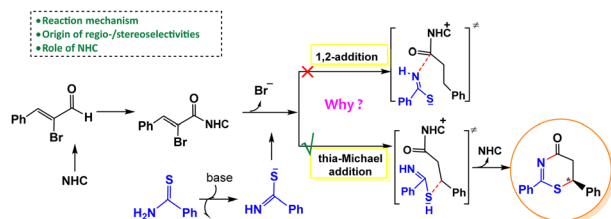
21804



### Polymorphism, mesomorphism and anti-oxidant character of homoleptic bis(*E*)-2-(1-((*o*-ethylphenyl)imino)ethyl)-phenolato- $\kappa^2$ -*N,O*]Ni/Cu(II) complexes

Mohammed Enamullah,\* Afsana Mim, Imdadul Haque, Baldeep K. Sidhu, Amelia Kacperkiewicz and David E. Herbert\*

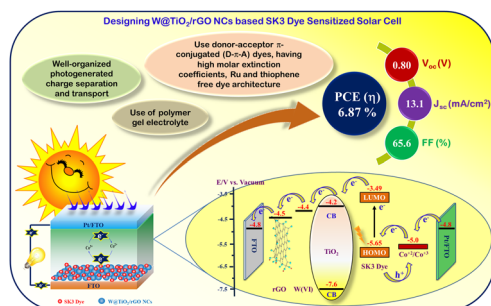
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### A DFT study of NHC-catalyzed reactions of [3+3] annulations of 2-bromo-enals and thioamides: mechanisms and regio- and stereoselectivities

Yan Li,\* Lina Geng, Zhiyi Song and Zhiqiang Zhang\*

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### Design and photovoltaic studies of W@TiO<sub>2</sub>/rGO nanocomposites with polymer gel electrolyte

Prakash S. Pawar, Pramod A. Koyale, Vijay S. Ghodake, Swapnajt V. Mulik, Yash G. Kapdi, Saurabh S. Soni, Navaj B. Mullani and Sagar D. Delekar\*



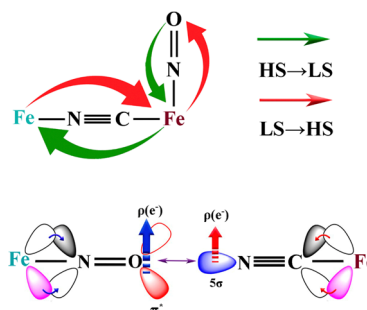


## PAPERS

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**Thermally-induced spin-crossover (SCO) in  $\text{Fe}(\text{4-ethynylpyridine})_2[\text{Fe}(\text{CN})_5\text{NO}]$ . Why is the SCO observed in 2D ferrous nitroprussides despite the NO–NC repulsive interaction in the interlayer region?**

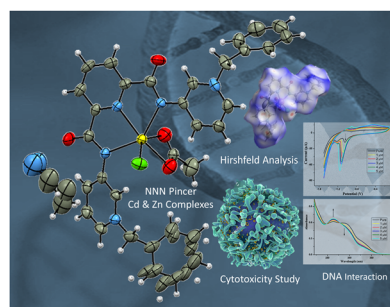
K. Scanda, Y. Avila, L. Sánchez, R. Mojica, M. González, B. D. Moreno,\* Manuel Avila\* and E. Reguera\*



21845

**Zn(II) and Cd(II) pincer complexes bearing meta alkylated pyridinium amidates; synthesis & preliminary anticancer studies**

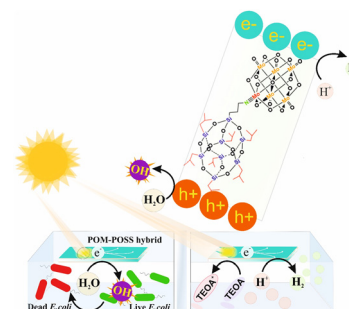
Sara Masood, Usman Munir Babar, Gul-e-Saba Chaudhry, Muhammad Ashfaq, Muhammad Nawaz Tahir and M. Naveed Zafar\*



21854

**Covalent lindqvist polyoxometalate-cubic polyhedral oligomeric silsesquioxane hybrid material: enhancing photocatalytic antibacterial activity and hydrogen production as a heterogeneous catalyst**

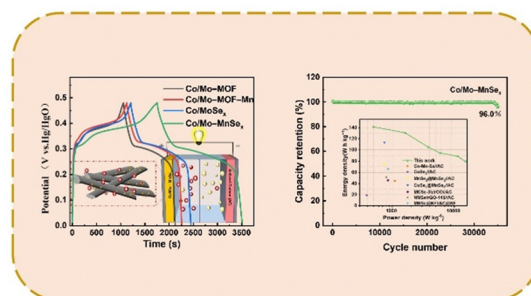
Prabu Rajendran, Dhandapani Perumal and Swaminathan Shanmugan\*



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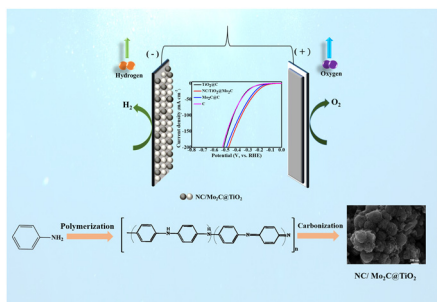
**Fabrication of amorphous Co/Mo–MnSe<sub>x</sub> electrode materials for high-performance hybrid supercapacitors**

Qian Zhang, Guoxiang Wang,\* Taipu Chen, Hao Wu, Rui Yuan, Boyan Ai, Pengchao Liang, Dahui Fang and Qingwang Min\*



## PAPERS

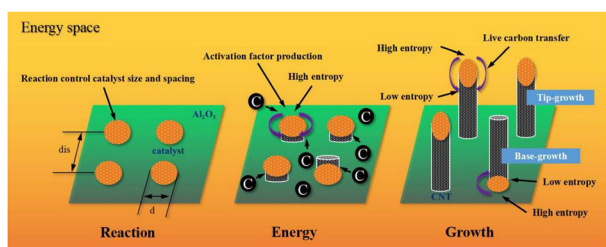
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**Controlling incorporation of TiO<sub>2</sub> nanoparticles in the carbonization process: a new strategy to develop a nitrogen-doped carbon-based Mo<sub>2</sub>C@TiO<sub>2</sub> electrocatalyst for electrochemical hydrogen evolution reaction**

Bairu Shi, Tao Fu, Pengli Ma, Yinxia Xu, Debabrata Chanda, Qinghai Yang\* and Shanhu Liu\*

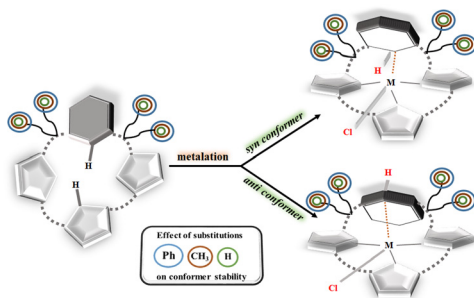
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**Machine learning for the regulation strategy and mechanism of the integrated growth of carbon nanotube arrays**

Dianming Chu, Zongchao Ji, Xijun Zhang, Xinyue Zhao, Yan He and Wenjuan Bai\*

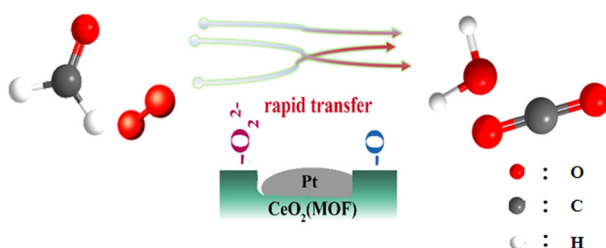
21897



**Electronic structural studies of newly synthesized sterically hindered analogues of meta-benziporphodimethene and its metal complexes**

Sachin Kumar, Deepali Ahluwalia, Ritika Kubba, Arijit Bag, Sudhir Gopalrao Warkar and Anil Kumar\*

21905



**Highly active low-temperature HCHO oxidation of mesoporous Pt/CeO<sub>2</sub> derived from Pt/CeBDC**

Kangzhong Shi, Shenjie Lv, Zelin Hua, Chenxuanzhi Ruan, Xingpei Liu, Nanhua Wu, Changjie Mao\* and Licheng Li\*

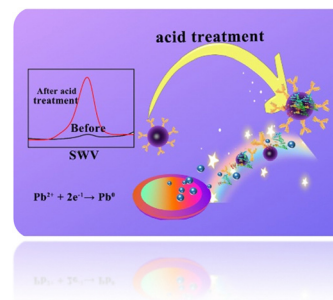


## PAPERS

21916

### A pH-responsive hollow mesoporous SiO<sub>2</sub> nanocarrier designed for the ultrasensitive detection of alpha-fetoprotein

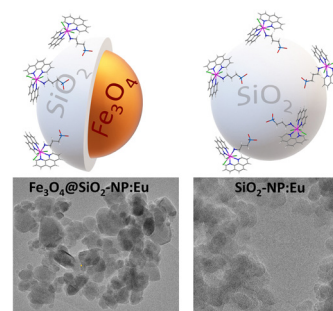
Bing Cong, Pengli Li, Hongling Li,\* Chenglin Hong\* and Xiuwen Qiao



21924

### Biocompatible fluorescent europium(III) magnetic nanoparticles

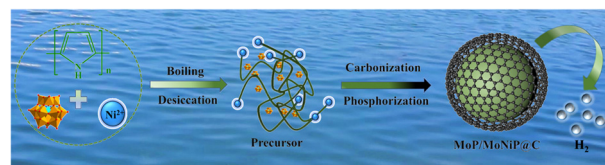
Inês J. Marques, Pedro D. Vaz, Ana V. Girão, Mariela M. Nolasco and Carla D. Nunes\*



21937

### Polyoxometalates combined polypyrrole induced bimetallic phosphides for electrocatalytic hydrogen evolution

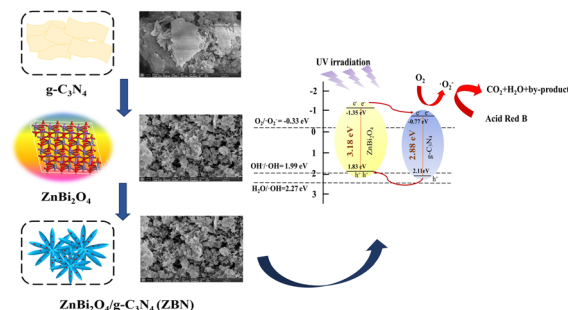
Tiancong Shi, Linglan Men, Xiaohan Zhen, Xiao Li,\* Jiao Li, Dongmei Wang\* and Zhongmin Su\*



21944

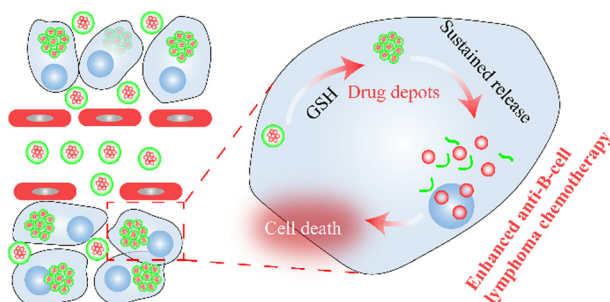
### Construction of type II ZnBi<sub>2</sub>O<sub>4</sub>/g-C<sub>3</sub>N<sub>4</sub> heterojunction photocatalysts for efficient degradation of acid red B

Xuanlan Luo, Jinhai Yuan,\* Junhong Liu, Haikun Hu, Ziyi Yang, Xiaopeng Hou, Qi Sun and Di Xu



## PAPERS

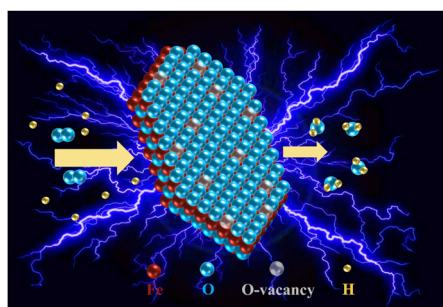
21960



### An intracellular *in situ* assembly of ultrasmall nanoparticles as drug depots for enhanced chemotherapy

Liandong Feng, Zhiyou Chen, Wei Dong, Aming Xie, Xiaowei Zang and Juan Li\*

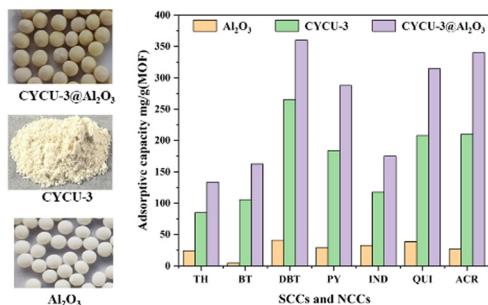
21969



### Enhancement of the electrochemical oxygen reduction performance by surface oxygen vacancies on hematite nanosheets

Gongxu Lan, Huilin Fan, Yuan Wang, Hamidreza Arandiyan,\* Suresh K. Bhargava, Zongping Shao, Hongyu Sun\* and Yanguo Liu\*

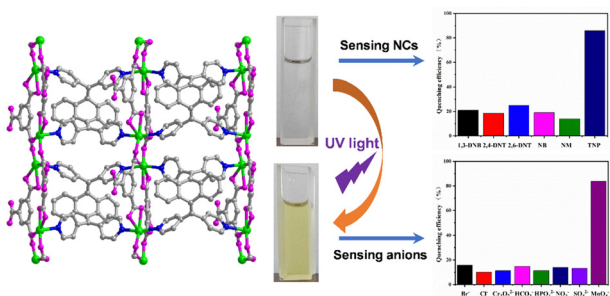
21978



### Denitrogenation and desulfurization of model oil through adsorption process using one-pot-synthesized reusable CYCU-3@Al<sub>2</sub>O<sub>3</sub> composites

Hongchen Fu, Zareen Zuhra, Shafqat Ali, Yunshan Zhou,\* Lijuan Zhang,\* Xiaoya Duan and Zipeng Zhao

21986



### A photochromic Cd(II)-organic framework showing highly efficient dual-response sensing properties

Jinfang Zhang,\* Zhuo Lin, Yinlong Yue, Qinghan Chen, Dejing Yin and Chi Zhang\*

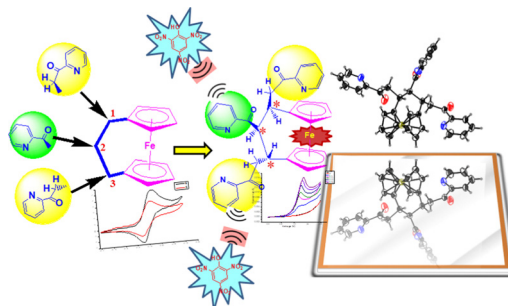


## PAPERS

21994

**A new entry towards diastereomeric  $C^1, C^2, C^3$ -functionalized [3]ferrocenophanes using a solid state mediated double 1,4-Michael addition type ring closing approach**

Biplob Halder, Tulasi Barik and Saurav Chatterjee\*



22007

**Synthesis and adsorption characteristics of pudding-like Fe/C magnetic composites for methylene blue removal**

Yuxuan Zheng, Junping Zhao, Meifang Yan, Yuhua Gao, Haihua Li and Zhenfa Liu\*

