

## IN THIS ISSUE

ISSN 1144-0546 CODEN NJCHES 47(32) 14989–15392 (2023)



### Cover

See Xinrui Miao, Xiaohong Cheng *et al.*, pp. 15014–15020. Image reproduced by permission of Xinrui Miao from *New J. Chem.*, 2023, 47, 15014.

## EDITORIAL

### 15003

#### 50th anniversary of ICCST: celebrating ICCST at its 15th edition

Jamal Rafique\*, Eder J Lenardão\* and Antonio L. Braga\*

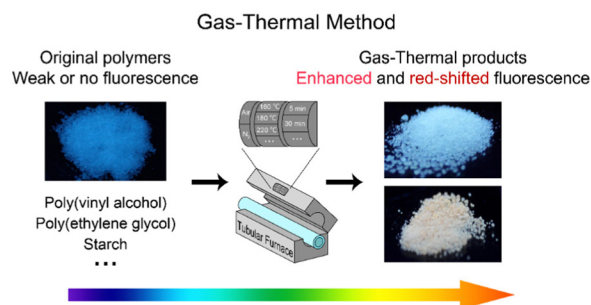


## COMMUNICATIONS

### 15005

#### A gas-thermal method as a universal and convenient strategy for preparing non-traditional luminescent polymers with enhanced and red-shifted fluorescence

Yaxin Zhao, Wendi Xie, Junwen Deng, Deyu Liu, Haiqi Liu, Tianqi Li and Huiliang Wang\*



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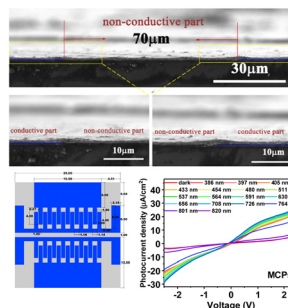


## COMMUNICATIONS

15010

### An efficient low-cost and facile ITO interdigital micro-photodetector based on mixed cationic perovskites for screening new optoelectronic materials

Mengqing Li, Wenhuan Cao, Xiangfei Min, Wenhui Li, Xueze Wang, Huidan Gao, Huawei Zhou,\* Jie Yin and Xianxi Zhang\*

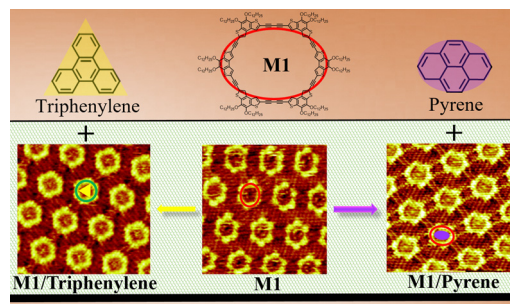


## PAPERS

15014

### Shape-responsive adsorption of an oval macrocycle co-deposited with guest molecules

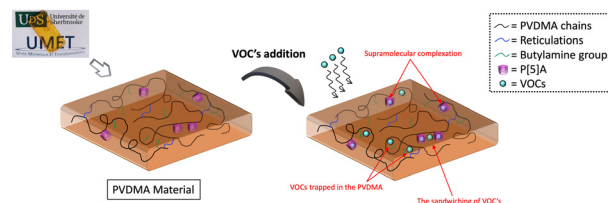
Yi Wang, Qingqing Han, Songyao Zhang, Deling Zhang, Xinrui Miao,\* Xiaohong Cheng\* and Wenli Deng



15021

### Pillar[5]arenes-based high- $T_g$ thermosets for the capture of volatile organic compounds

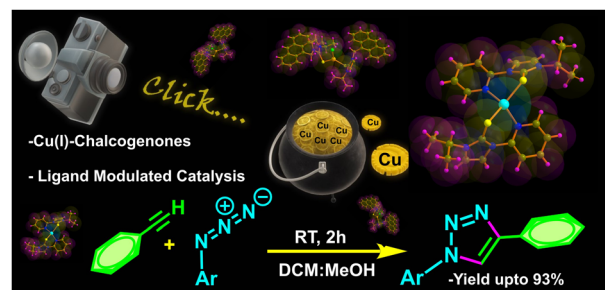
Solenne Ritaine, Valentin Ternel, Patrice Woisel, Jerome P. Claverie\* and Jonathan Potier\*



15027

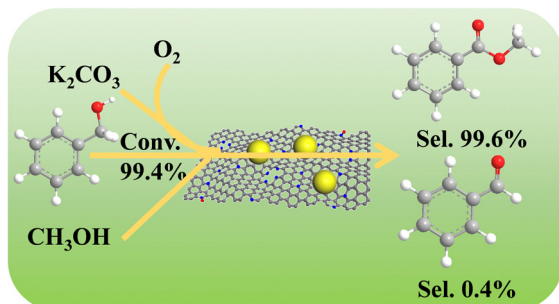
### Highly active higher coordinated copper(I)-N-heterocyclic chalcogenone catalysed click chemistry

Suman Mandal, Dinesh Harijan, Gopendra Muduli, Kalaivanan Subramaniam, Aravind Kumar Rengan\* and Ganesan Prabusankar\*



## PAPERS

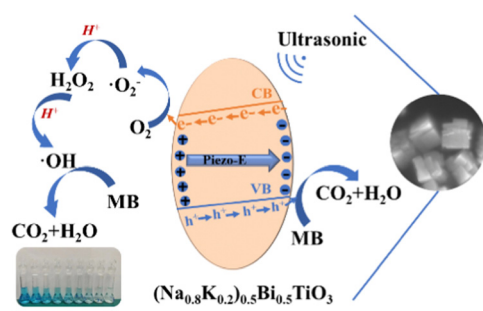
15036



### Atomically dispersed cobalt–nitrogen–carbon catalysts for efficient oxidative esterification of aromatic alcohols

Fengwei Zhang,\* Peihao Liu, Jingjing Li, Hefang Guo, Han Zhang, Zehui Zhang\* and Zhengping Dong\*

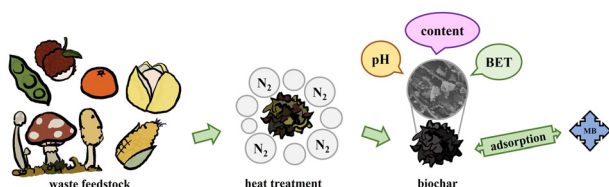
15047



### Solvothermal synthesis of $(\text{Na}_{0.8}\text{K}_{0.2})_{0.5}\text{Bi}_{0.5}\text{TiO}_3$ piezoelectric catalyst with morphotropic-phase-boundary structure for efficient dye degradation

Ning Xie, Li Jiang, Yuanwen Hou, Hongquan Fu,\* Juan Zhang, Hejun Gao\* and Yunwen Liao\*

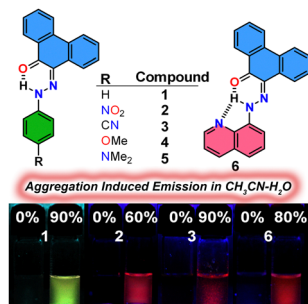
15057



### Type-effects of multiple waste-sourced biochar feedstocks on methylene blue adsorption

Zhaolian Han, Qiushi Jiang, Yifeng Pei, Chunli Zhao, Jinying Li, Hao Dong and Zhiqiang Cheng\*

15066



### The effect of substituents on the aggregation-induced emission of 9,10-phenanthraquinone-hydrazone

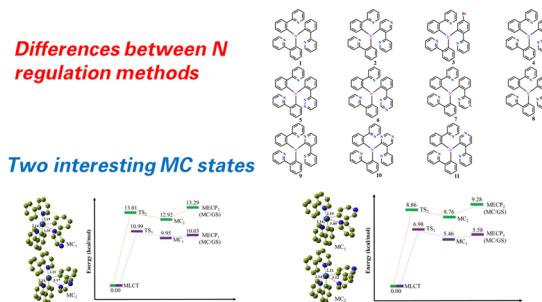
Naveen Kumar M, Deikrisha Lyngdoh Lyngkhai, Sudhakar Gaikwad, Debabrata Samanta, Snehadrinarayan Khatua\* and Susnata Pramanik\*



15076

## Regulation of internal reorganization energy to change the non-radiative channel in the Ir(III) complex: the role of N atoms

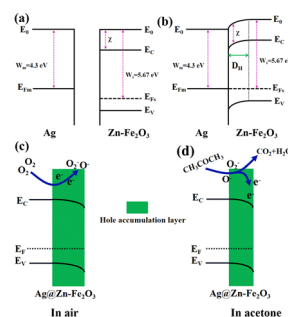
Lingkai Tang, Jiaxing Gao, Yafei Luo, Yan Cheng, Ling Liu, Dan Zheng, Li Liang, Jianping Hu and Ting Luo\*



15089

## The co-enhanced effect of Zn-doping and Ag-loading on the selectivity of a p-type Fe<sub>2</sub>O<sub>3</sub> toward acetone

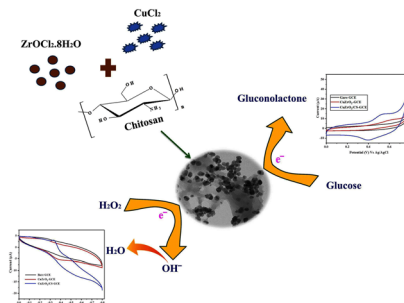
Qixuan Qin, Na Liu, Yan Zhang, Weiyei Bu, Zhijie Zhou, Changhua Hu and Xiaohong Chuai\*



15099

## A facile synthesis of CuZrO<sub>2</sub> nanoparticle functionalized chitosan for capable and stable non-enzymatic electrochemical detection of glucose and H<sub>2</sub>O<sub>2</sub>

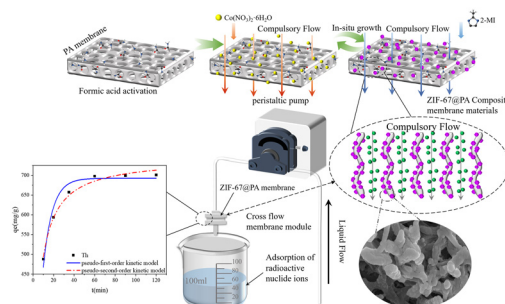
Ramesh Madhaiyan, Sankar Chinnusamy,\* Umamatheswari Seeman\* and Jayavel Ramasamy



15111

## ZIF-67@PA membranes based on deep permeation for rapid removal of a radionuclide: Th(IV)

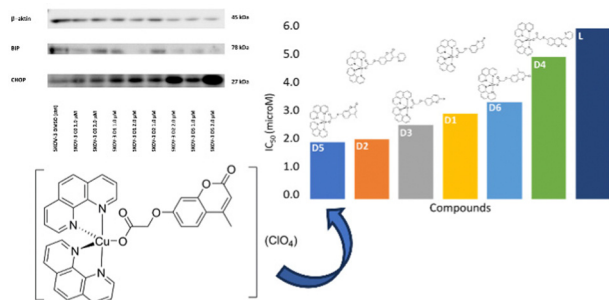
Yaling Tang, Chunyan Chen,\* Jian Zhou,\* Qian Liu, Guoqing Xiao, Chunlin Chen, Yuheng Liu, Wanxin Chen and Shuyi Shang





## PAPERS

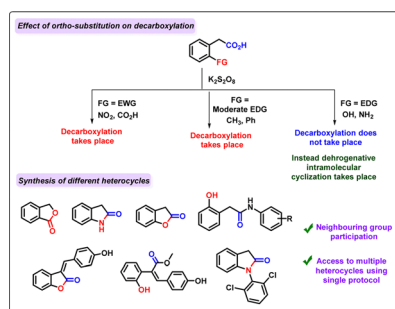
15125



### Ternary copper(II) complexes of 1,10-phenanthroline and coumarin-based oxylacetates as pro-apoptotic UPR CHOP inducers

Sebastiano Masuri, Maria Grazia Cabiddu, Lukáš Moráň, Tereza Vesselá, Martin Bartosik, Josef Havel, Francesca Meloni, Enzo Cadoni, Petr Vaňhara and Tiziana Pivetta\*

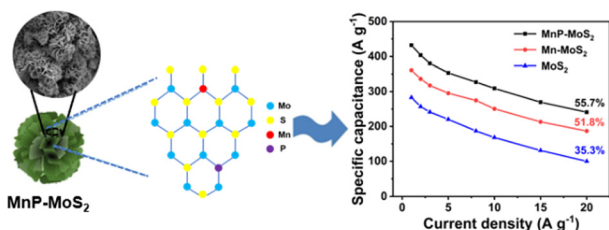
15137



### Effect of *ortho*-substitution on persulfate-mediated decarboxylation and functionalization of arylacetic acids

Joydev K. Laha,\* Upma Gulati and Saima

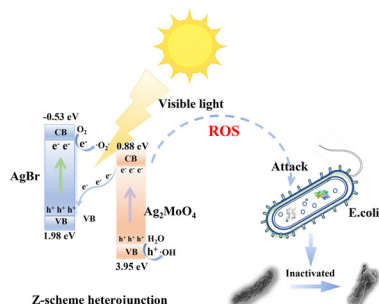
15143



### Flower-like manganese and phosphorus co-doped MoS<sub>2</sub> with high 1T phase content as a supercapacitor electrode material

Yunan Li,\* Xiaotian Wang, Jiayin Meng, Meng Song, Mingli Jiao, Qi Qin\* and Liwei Mi\*

15151



### Construction of a AgBr-Ag<sub>2</sub>MoO<sub>4</sub> heterojunction and its photocatalytic sterilization activity

Qin Rao, Xiao Xian, Huaxiang Lin,\* Rusheng Yuan, Zizhong Zhang, Jinlin Long and Qun Lin\*

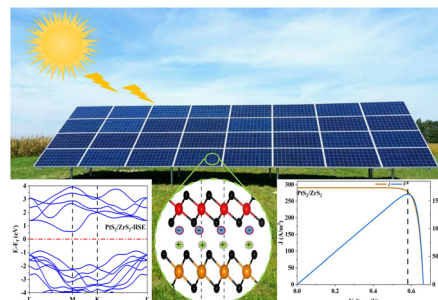


## PAPERS

15162

### Solar energy harvesting by a PtS<sub>2</sub>/ZrS<sub>2</sub> van der Waals heterostructure

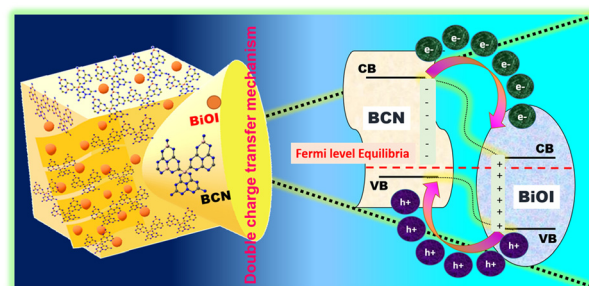
P. R. Parmar, S. J. Khengar, Disha Mehta, Yogesh Sonvane and P. B. Thakor\*



15175

### Double charge transfer mechanistic insights into the tailoring of BiOI nanoplates and boron-doped graphitic carbon nitride: a 2D/2D anchored p–n heterojunction nanocatalyst for improved photodegradation

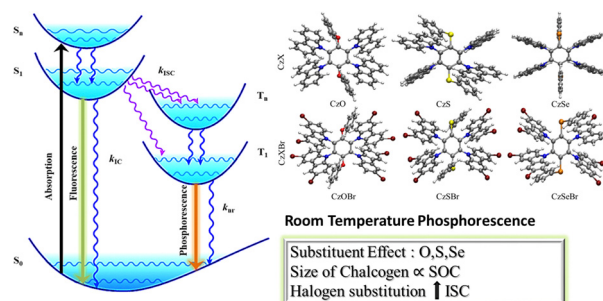
Pragnyashree Aparajita, Shubhalaxmi Choudhury, Ugrabadi Sahoo, Samarjit Pattnayak, Sandip Padhiari, Manamohan Tripathy and Garudadhvaj Hota\*



15193

### Theoretical insights into the room temperature phosphorescence properties in star-shaped carbazole-based molecules

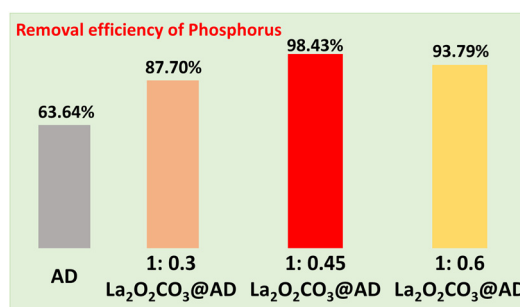
Naga Pranava Sree Kothoori, Pandiyan Sivasakthi and Pralok K. Samanta\*



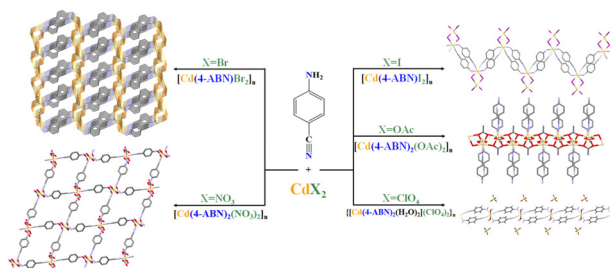
15201

### Efficient removal of phosphate through adsorption by acidified diatomite loaded with La<sub>2</sub>O<sub>2</sub>CO<sub>3</sub>

Rui Tian, Shu Yang, Ziyin Han, Ye Sun, Yexi Wang, Chen Wu, Qi Zhang, Jinyan Liu, Xulin Lu\* and Zhiwei Zhang\*



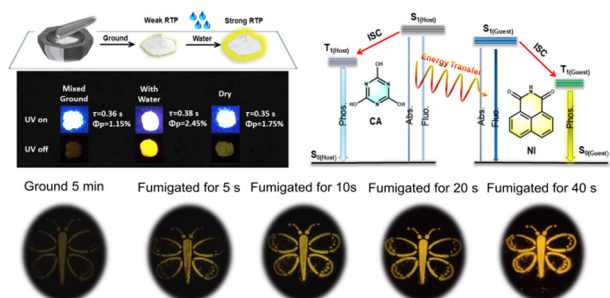
15209



### Anion-induced structural diversity in cadmium coordination polymers of 4-aminobenzonitrile: a structural and DFT study

Behrouz Notash,\* Ommolbanin Barzegar Tilenoie and S. Shahab Naghavi

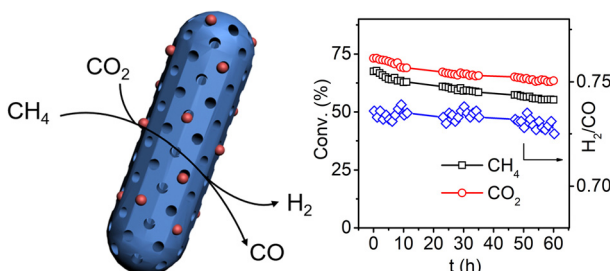
15219



### Organic room temperature phosphorescence enhancement by grinding and adding water for humidity detection and anti-counterfeiting printing

Changli Zhang, Lingyun Lou, Yuzhan Li, Chengxiang Li, Dong Wang, Hui Cao, Wanli He and Zhou Yang\*

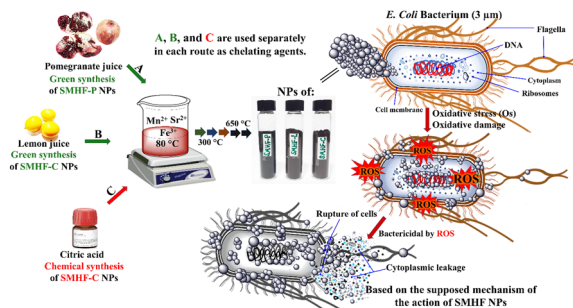
15226



### Highly dispersed Ni nanoparticles supported by porous Al<sub>2</sub>O<sub>3</sub> rods for catalytic dry reforming of methane

KeFa Sheng\* and Kai Cui

15236



### Green synthesis of M-type manganese-substituted strontium hexaferrite SrMn<sub>x</sub>Fe<sub>12-x</sub>O<sub>19</sub> nanoparticles with intrinsic antibacterial activity against human pathogenic bacteria

Rebaz F. Hamarawf, Dyari I. Tofiq\* and Khalid M. Omer\*



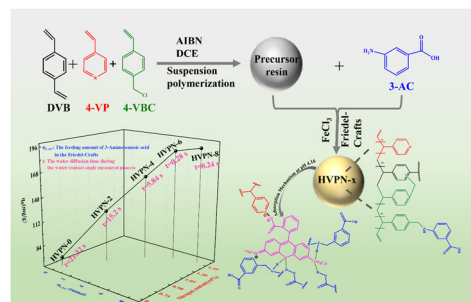


## PAPERS

15250

## Adsorption of Rhodamine B from aqueous solutions using polarity-tunable hyper-cross-linked resins

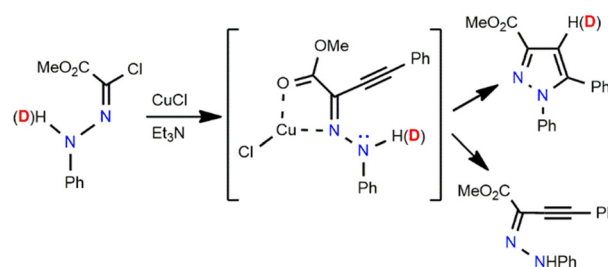
Xiaofeng You, Lin Han and Qing Liu\*



15261

## Mechanistic insights of the copper(I)-catalysed reaction between chlorohydrazone and terminal alkynes

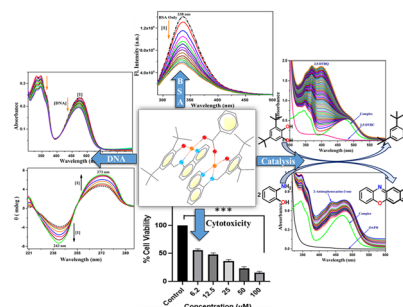
Alessandro Ponti, Alessandra Silvani and Giorgio Molteni\*



15267

## Synthesis of a new benzoate bridged NNO tethered copper(II) complex: exploration of its bio, catalytic and anticancer activities

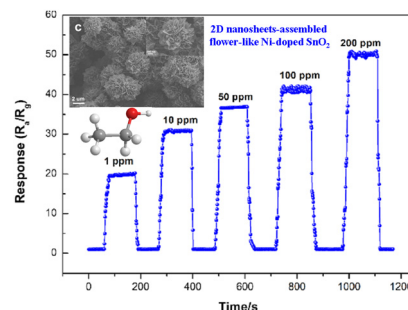
Subrata Mandal, Rahul Naskar, Rimi Mukherjee, Apurba Sau Mondal, Akash Das, Nabendu Murmu and Tapan K. Mondal\*



15283

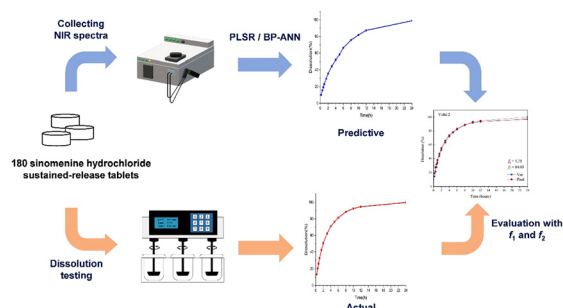
## Construction of flower-like hierarchical Ni-doped SnO<sub>2</sub> nanosheets and their gas sensing properties for ethanol

Wei Xiao, Zhao Jin, Wei Yang and Shantang Liu\*



## PAPERS

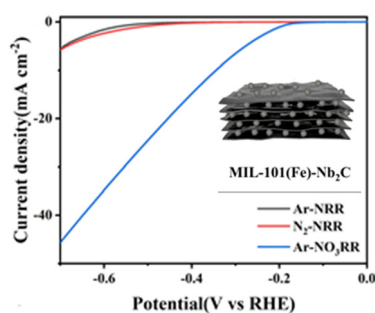
15291



### Prediction of dissolution profiles of sinomenine hydrochloride sustained-release tablets part I: using near-infrared spectra as predictors

Wenlong Li, Long Wang, Xi Wang, Guangpu Fang, Qiang Zhang, Ping Qiu and Pengfei Tu\*

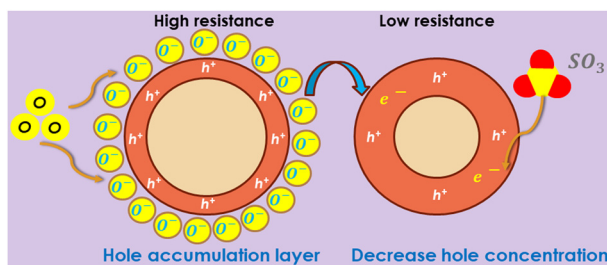
15302



### MIL-101(Fe)@Nb<sub>2</sub>C MXene for efficient electrocatalytic ammonia production: an experimental and theoretical study

Haiding Zhu, Sensen Xue, Fang Zhao, Qianqian Hua, Zhuangzhuang Liang, Xuefeng Ren, Liguang Gao, Tingli Ma and Anmin Liu\*

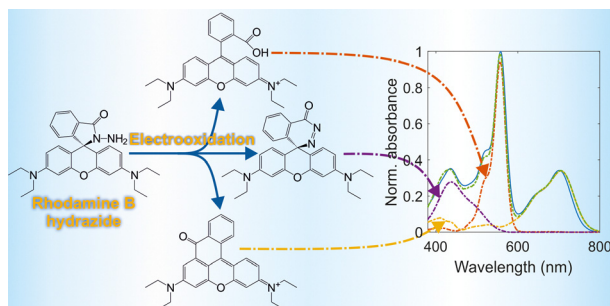
15309



### Ni-doped Al<sub>2</sub>O<sub>3</sub> sensor for effective SO<sub>3</sub> gas adsorption and sensing

V. Manikandan,\* G. Ayyannan, Iulian Petrila, Rajaram S. Mane, Kamil Sobczak, J. Chandrasekaran, Robert D. Crapnell and Craig E. Banks

15318



### Electrooxidation of rhodamine B hydrazide

Nikita Belko,\* Hanna Maltanova, Anatol Lugovski, Sviatlana Fatykhava, Polina Shabunya, Anastasiya Tabolich, Michael Samtsov and Sergey Poznyak

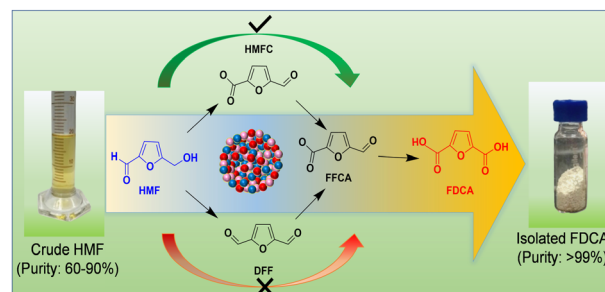


## PAPERS

15325

### Industry-oriented method for the aqueous phase oxidation of crude 5-hydroxymethyl furfural (HMF) to 2,5-furandicarboxylic acid (FDCA)

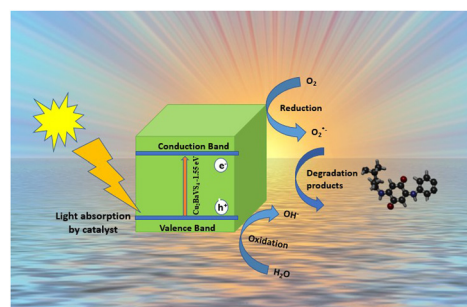
Priya Lokhande, Kalyani Sonone and Paresh L. Dhepe\*



15336

### Construction of chalcogenide $\text{Cu}_2\text{BaVS}_4$ nanograins from nanocubes via solvothermal synthesis for photoelectrochemical hydrogen/oxygen evolution in alkaline media and dye degradation applications

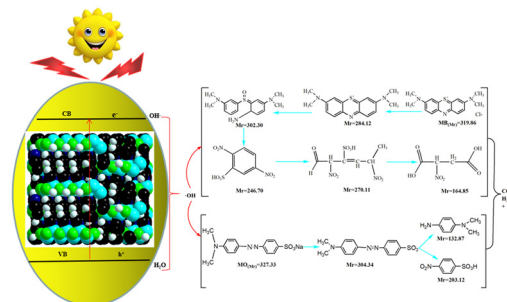
Sidra Aslam, Muhammad Awais, Nimra Usman and Muhammad Safdar\*



15348

### Efficient photocatalytic performance and the mechanism of copper(I) metal-organic framework nanosheets

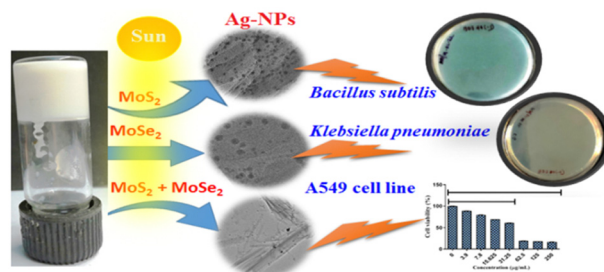
Shaolong Yang, Yuhuan Chen, Shixiong Li\* and Huijun Chen\*



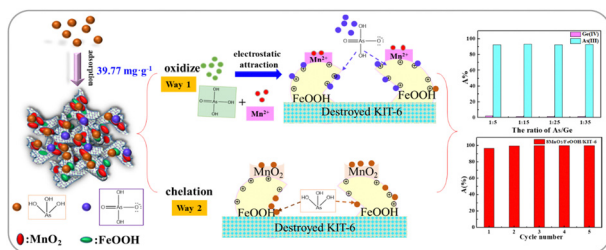
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### $\text{MoS}_2$ and $\text{MoSe}_2$ 2D nanosheets-based supramolecular nanostructure scaffold-capped Ag-NPs: exploring their morphological, anti-bacterial, and anticancer properties

Gerald Lepcha, Rajib Sahu, Santanu Majumdar, Saikat Banerjee, Arpita Bhowmick, Samya Sen, Bholanath Panda, Debasis Dhak, Keka Sarkar and Biswajit Dey\*



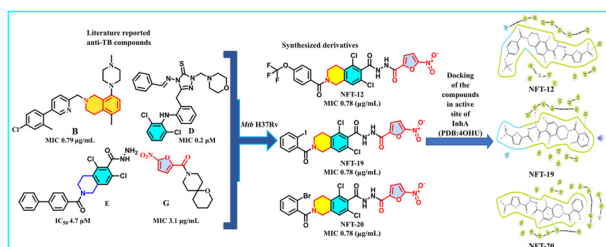
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### Adsorbent nanoarchitectonics of $m\text{MnO}_2/n\text{FeOOH}/\text{KIT-6}$ for $\text{As(III)}$ adsorption from wastewater

Ying Xiong, Haolin Cong, Xingkun Qi, Yumei Zhao, Dandan Wang, Junshuo Cui, Weijun Shan and Haibiao Yu\*

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### Tetrahydroisoquinoline based 5-nitro-2-furoic acid derivatives: a promising new approach for anti-tubercular agents

Adinarayana Nandikolla, Yogesh Mahadu Khetmalis, Guruvelli Padma Vijaya Sangeetha, Ala Chandu, Swati, Muthyala Murali Krishna Kumar, Vivek Sharma, Sankaranarayanan Murugesan and Kondapalli Venkata Gowri Chandra Sekhar\*

