

## IN THIS ISSUE

ISSN 1144–0546 CODEN NJCHES 47(35) 16249–16768 (2023)



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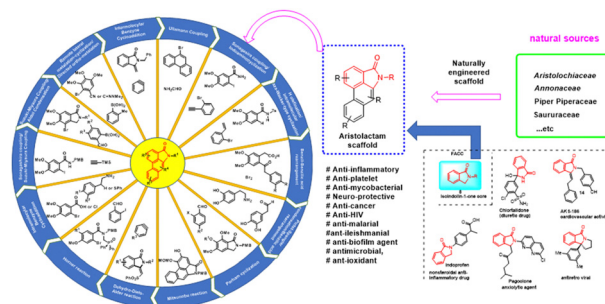
See Shanshan Tang,  
Aiqin Luo *et al.*,  
pp. 16337–16344.  
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2023, 47, 16337.

## PERSPECTIVE

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### The isolation-biological activities (2014–2022), bio, semi, total synthesis (1978–2022) and SAR studies of a potential naturally engineered scaffold aristolactam

Mallu Chenna Reddy,\* Ashutosh Dey,  
Masilamani Jegannathan\* and Kishor Padala\*

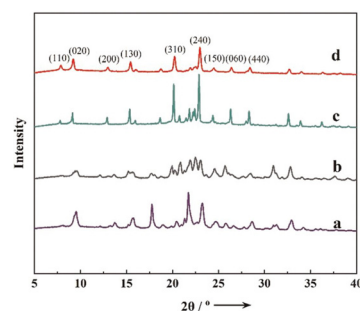


## COMMUNICATIONS

16308

### Amine-assisted ionothermal synthesis of in-plane oriented AEL molecular sieve corrosion-resistant coatings

Wenche Wu, Yinuo Han, Xiaoming Yu, Nan Li,  
Yuanxin Cao, Qiang Chen\* and Tongwen Yu\*



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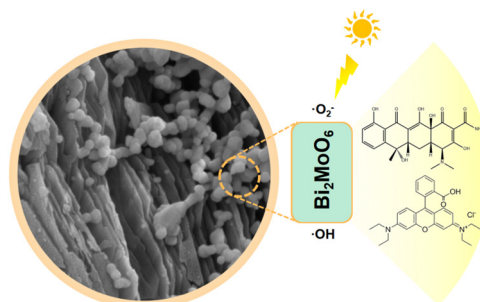


## COMMUNICATIONS

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### New construction method of $\text{Bi}_2\text{MoO}_6$ /kaolinite with efficient visible photocatalytic activity

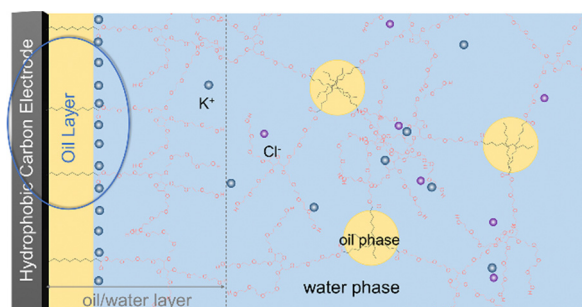
Guangxin Zhang,\* Shilin Li and Yifei Li



16317

### An aqueous electrolyte with up to 2.9 V operating voltage

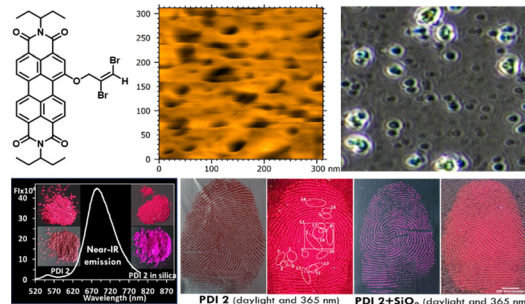
Danian Liu\* and Wenhai Peng\*



16322

### Perylene diimide with solid-state NIR luminescence for imaging of latent fingerprints (sweat pores)

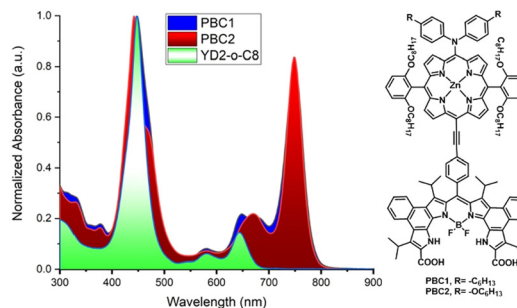
Navdeep Kaur and Prabhpreet Singh\*



16327

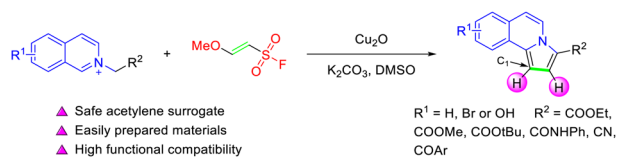
### Intense NIR absorbing porphyrin based dyes with BODIPY as the acceptor

Jyotsna Bania, Sipra S. Sahoo, M. V. Nanda Kishore and Pradeepta K. Panda\*



## COMMUNICATIONS

16332

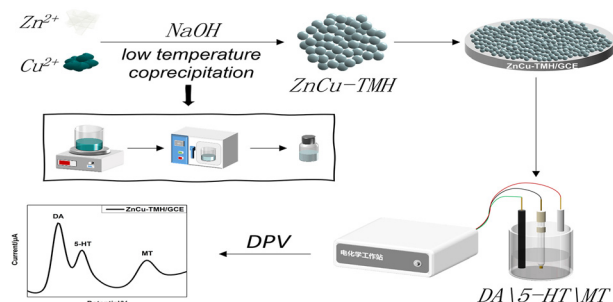


**(E)-2-Methoxyethene-1-sulfonyl fluoride as a precursor of acetylene for synthesis of  $\text{C}_1/\text{C}_2$  non-functionalized pyrrolo[2,1-a]isoquinoline derivatives**

Jiahong Ma, Weikang Lin and Hua-Li Qin\*

## PAPERS

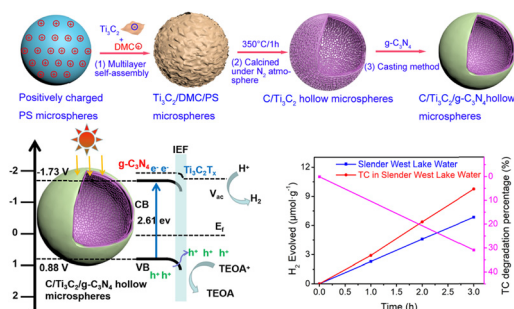
16337



**An amorphous zinc/copper double transition metal hydroxides for electrochemical simultaneous detection of dopamine, serotonin, and melatonin**

Shanshan Tang, Miao Liu, Wei Wang, Axin Liang, Fulai Zhang and Aiqin Luo\*

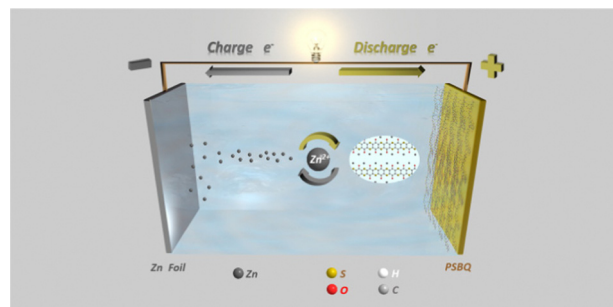
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**Hydrogen production and degradation of organic pollutants catalyzed by  $\text{C}/\text{Ti}_3\text{C}_2/\text{g-C}_3\text{N}_4$  hollow microsphere Schottky junctions with a built-in electric field in organic wastewater**

Xiang Qin, Lijun Ji\* and Aiping Zhu\*

16353



**Poly(2,3-disulfide-1,4-benzoquinone) as a high-performance cathode for rechargeable aqueous zinc-ion batteries**

Chuanzheng Zhu, Jin Chen, Bingjie Zhao, Xin Jiao, Zhiqiang Luo\* and Kaixiang Lei\*



## PAPERS

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## Chemo-selective CuPcS catalyzed reduction and esterification of carboxylic acid analogs

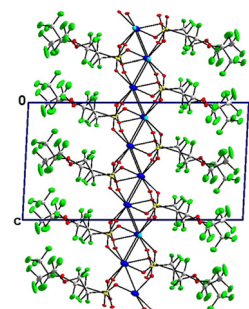
Siddharth S. Patel, Dhaval B. Patel, Akhil K. Poddar, Jitesh B. Patel, Dharmarajsinh N. Rana, Kirti P. Patel and Hitesh D. Patel\*



16368

## Europium(II) bis[tetrafluoro-2-(pentafluoroethoxy)ethanesulfonate] – structure and spectroscopic properties of a new near-UV emitter

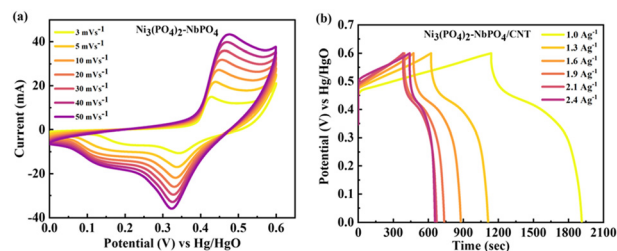
Przemysław Starynowicz



16374

A tri-material trifecta: designing a high-performance electrode for asymmetric supercapacitors and an electrocatalyst for HER applications with  $\text{Ni}_3(\text{PO}_4)_2\text{-NbPO}_4/\text{CNT}$  nanocomposites

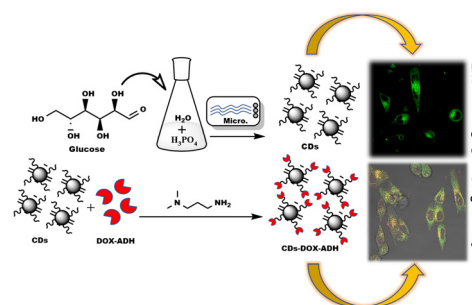
Haseebul Hassan, Muhammad Waqas Iqbal,\* Sarah Alharthi, Mohammed A. Amin, Amir Muhammad Afzal and Mohd Zahid Ansari\*



16390

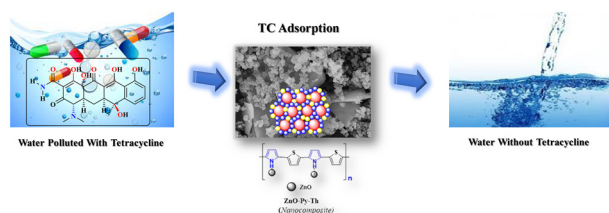
## Glucose-derived carbon dots for targeted delivery of doxorubicin in cancer therapy

Naveneet Dubey, Suman Ramteke,\* N. K. Jain, Tanoy Dutta and Apurba Lal Koner\*





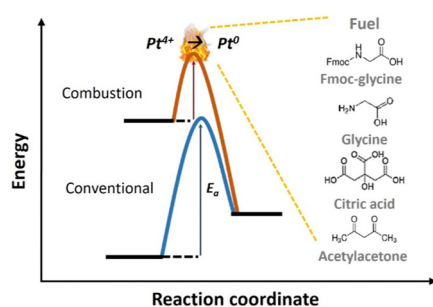
16399



### Synthesis, characterization, and application of a zinc oxide-pyrrole-thiophene nanocomposite as an efficient adsorbent for the removal of tetracycline

Jahangir Ahmad War and Hamida-Tun-Nisa Chisti\*

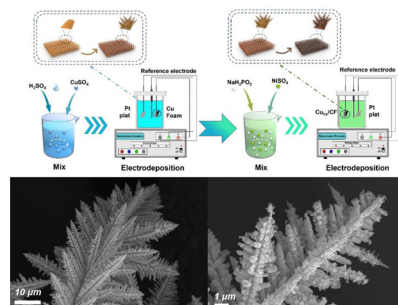
16415



### Fuel-assisted polyol reduction for highly transparent and efficient Pt counter electrodes in bifacial dye-sensitized solar cells

Kantapa Yolthida, Dang Xuan Long, Ghifari M. Alvien and Jongin Hong\*

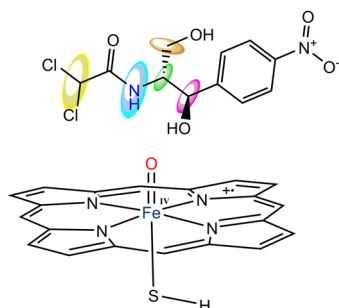
16422



### Preparation of a phosphorus-doped copper-nickel electrode and its application in electro-hydrogenation of 5-HMF

Yu Liu, Yi-Yi Peng, Yan Zhong, Ru-Quan Ren and Yong-Ming Fan\*

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### Mechanistic insights into chloramphenicol-mediated inactivation of cytochrome P450 enzymes and their active site mutants

Emadeldin M. Kamel,\* Ahmed M. Tawfeek, Ashraf A. El-Bassuony and Al Mokhtar Lamsabhi

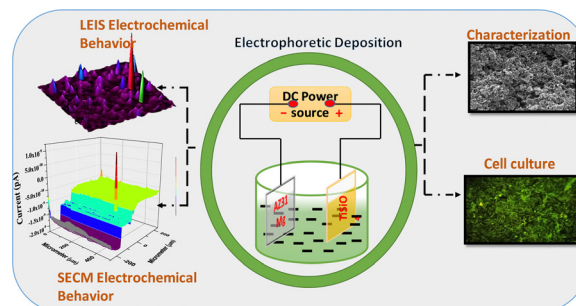


## PAPERS

16444

# Electrochemical evaluation of AZ31 Mg alloy in corrosion protection of titanium silicon oxide from Earle's solution

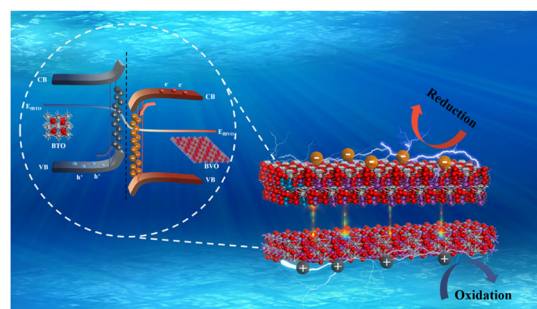
M. Kalaiyarasan\* and N. Rajendran\*



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# Insights into the superior singlet oxygen production for BiVO<sub>4</sub>/Bi<sub>4</sub>Ti<sub>3</sub>O<sub>12</sub> S-scheme heterojunction catalysts

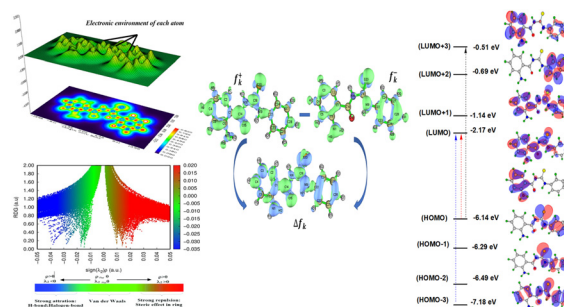
Xuebing Hao, Yue Chen and Xintong Liu\*



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# Revealing the contributions of DFT to the spectral interpretation for an amino benzoyl thiourea derivative: Insights into experimental studies from theoretical perspectives, and biological evaluation

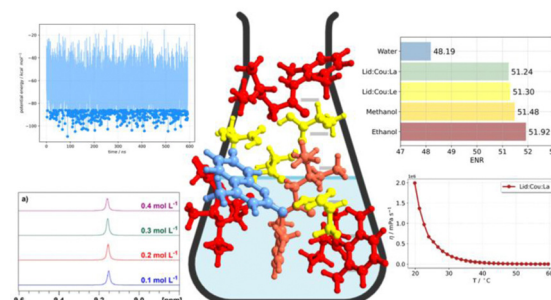
Ahmed M. Hegazy, Nesreen S. Haiba, Mohamed K. Awad,\* Mohamed Teleb and Faten M. Atlam



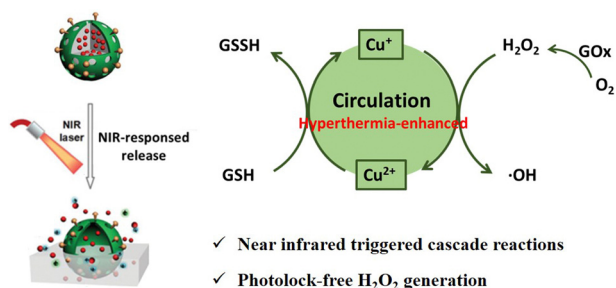
16484

# Design, preparation and characterization of 7-hydroxy-4-methylcoumarin-based deep eutectic solvents

Martina Jakovljević Kovač, Maja Molnar,\* Tomislav Jednačak, Tomislav Balić and Jurica Novak



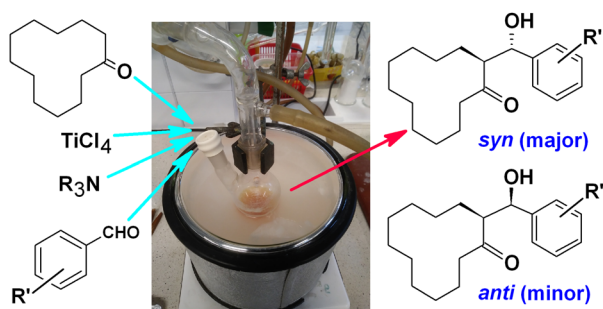
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### Near infrared triggered cascade reactions for photothermal/chemodynamic synergistic therapy

Peijing An,\* Songjinma Yin, Yule Qiang, Fuyi Shui, Qiao Zhang, Congbiao Zhao, Haipin Zhou and Fenyu Yu

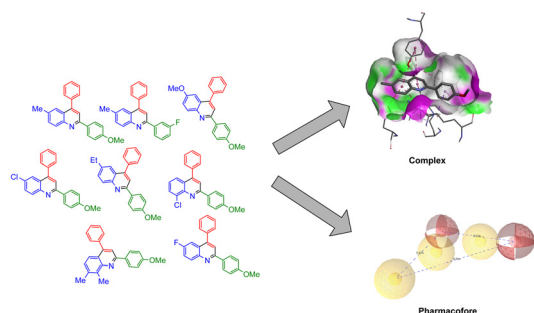
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### Titanium(IV) enolates of cyclic ketones – stereoselective addition of cyclododecanone to aromatic aldehydes

Dariusz Cież,\* Aleksandra Pałasz, Krzysztof Koziet, Antonii Lutsan and Justyna Kalinowska-Tłuścik

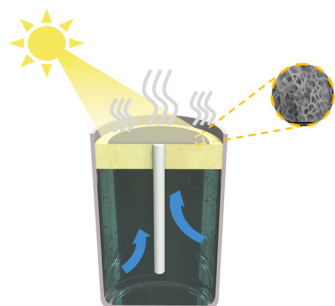
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### Synthesis and *in silico* study of 2,4-diphenylquinolines as potential KDM4B protein inhibitors

Dayana Orosco, Gustavo A. Barraza, Carlos E. Puerto Galvis, Vladimir V. Kouznetsov and Carlos M. Meléndez\*

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### Micro-flower like 1T-2H-MoS<sub>2</sub>@ZIF8@C composites for efficient interfacial solar vapor generation

Yulong Zheng, Hui Zhang, Pei Han, Zhaoshun Zhang, Xueqin Zuo,\* Qun Yang,\* Huaibao Tang, Shaowei Jin and Guang Li\*



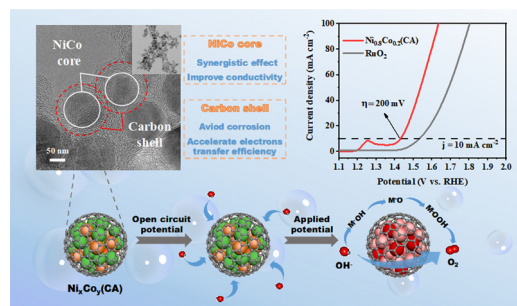


## PAPERS

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# Defect-rich carbon-coated nickel–cobalt alloy nanoparticles enhanced the OER catalytic activity through surface reconstruction

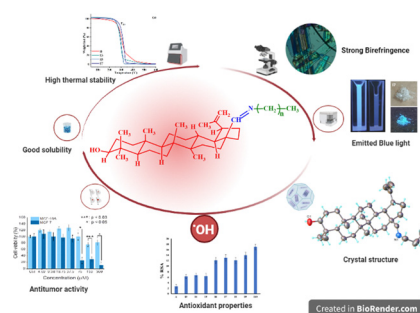
Jiajia Liu, Xiao Wang, Yulin Min, Qiaoxia Li\* and Qunjie Xu\*



16551

# New betulin imine derivatives with antioxidant and selective antitumor activity

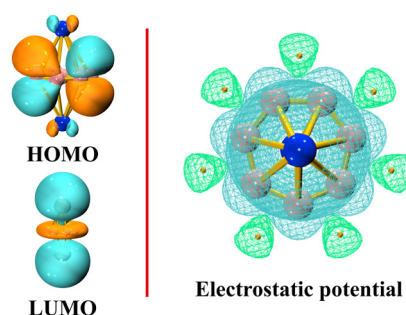
Manuela-Maria Iftime,\* Gabriela Liliana Ailiesei, Sergiu Shova, Camelia Miron, Hiromasa Tanaka, Masaru Hori and Luminita Marin



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# Structural evolution, charge transfer and bonding properties of medium-sized atomic rubidium-doped boron clusters

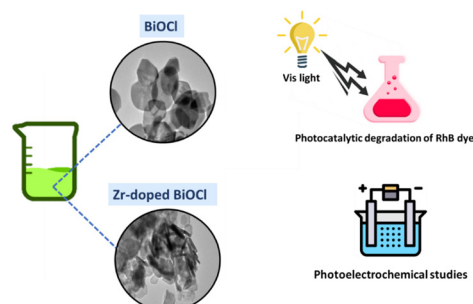
Jia Hui Gao, Yan Fei Hu,\* Qing Yang Li, Qian Wang, Ying Ying Wang, Ting Liu and Teng Xing Huang



16577

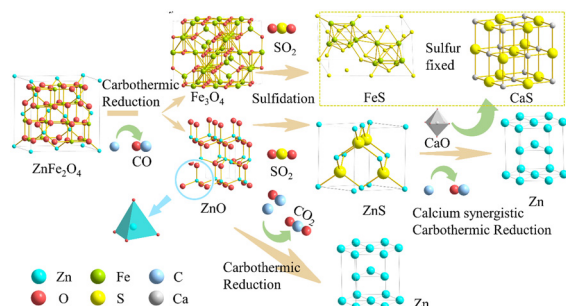
# Zirconium-doped BiOCl for enhanced visible light-induced photocatalytic degradation of RhB dye and photoelectrochemical studies

Asyiqin Zulkiflee, Mohammad Mansoob Khan,\* Mohd Yusuf Khan, Abuzar Khan, Aniz Chennampilly Ummer and Mohammad Hilni Harunsani



## PAPERS

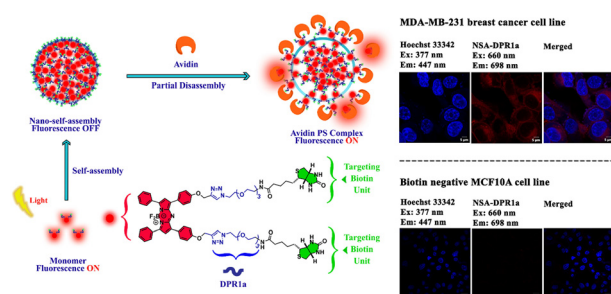
16586



### Phase transformation analysis and process optimisation of low-grade lead-zinc oxysulphide ore carbothermic reduction

Keren Hou, Bingguo Liu,\* Zhonghua Zhou, Siyu Gong, Jianping Liu, Chao Yuwen, Yunfei An, Wang Chen, Bangjian Wu and Zihu Liu

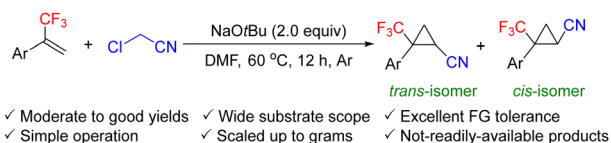
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### Avidin triggered turn-on NIR-fluorescent aza-BODIPY-biotin self-assemblies for cancer cell imaging

Dhiraj Dutta, Rajshree R. Nair, Nasib Kayastha, S. Asha Nair and Pranjal Gogoi\*

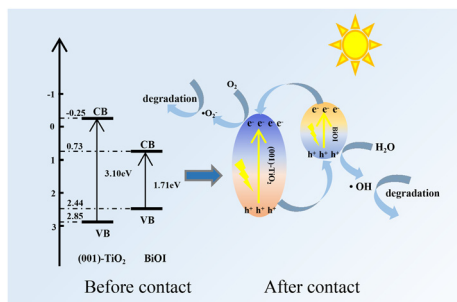
16604



### Efficient synthesis of functionalized trifluoromethyl cyclopropanes via cyclopropanation of $\alpha$ -trifluoromethyl styrenes with chloroacetonitrile and ethyl chloroacetate

Yupian Deng, Ying Liu, Jingjing He, Pai Zheng, Zhudi Sun and Song Cao\*

16611



### (001)-TiO<sub>2</sub> nanosheets loaded on BiOI improve carrier separation and enhance the photocatalytic activity

Xin Mai, Ran Gao, Yeheng Zhang, Junnan Chen, Wensong Lin\* and Chengli Mai

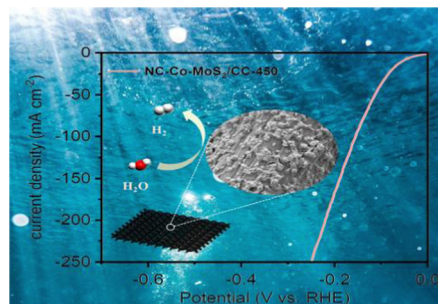


## PAPERS

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# A synergistic heterogeneous interface of a NC-Co-MoS<sub>2</sub>/CC-450 electrocatalyst for efficient alkaline hydrogen evolution

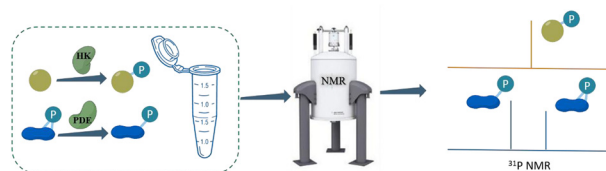
Kaiqi Zhang, Hequn Wu, Guanghui Xiong and Weifeng Yao\*



16631

# Monitoring of phosphatase and kinase activity using <sup>31</sup>P NMR spectroscopy

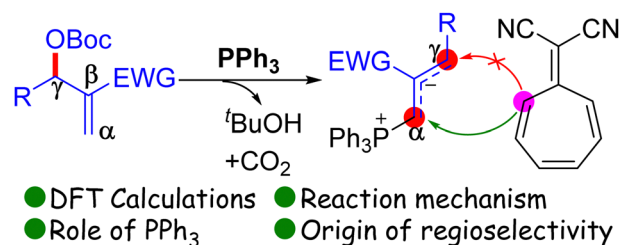
Xiaofan Guo, Bowen Han, Wenhan Qiu, Peiran Deng, Songsen Fu,\* Jianxi Ying\* and Yufen Zhao



16636

# Elucidating the mechanism and regioselectivity of phosphine-catalyzed transformation of MBH carbonate

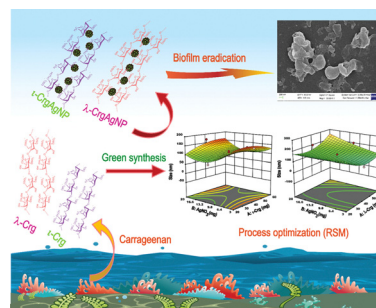
Juan Ye, Yilu Luo, Gailing Huang\* and Yang Wang\*



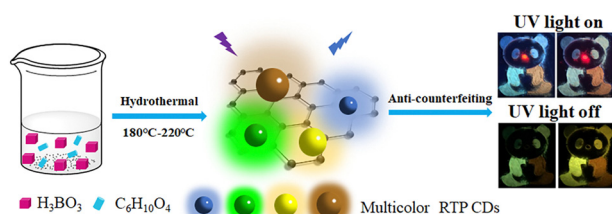
16643

# Comparative analysis of the physicochemical and anti-biofilm properties of iota and lambda carrageenan-capped silver nanocomposites synthesized using response surface methodology

Khushboo Rani Singh, Aakanksha Pathak and Krishna Mohan Poluri\*



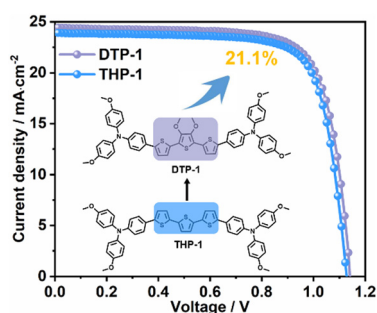
16659



### Modulating multi-color room temperature phosphorescence emission for carbon dot composites with ultralong lifetime

Yanni Jie,\* Yang Gao, Dong Wang, Fuchun Li, Runfeng Chen, Yongqiang Feng, Wenqi Li and Jiawen Fang\*

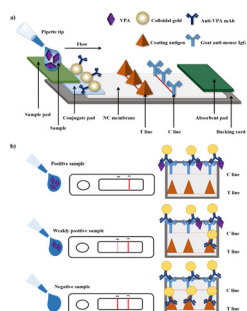
16666



### Molecular engineering of methoxy-substituted terthienyl core unit based hole transport materials for perovskite solar cells

Xingdong Ding, Xiaowen Zhou, Haoxin Wang,\* Mengde Zhai, Ziyang Xia, Licheng Liu, Yi Tian, Cheng Chen\* and Ming Cheng

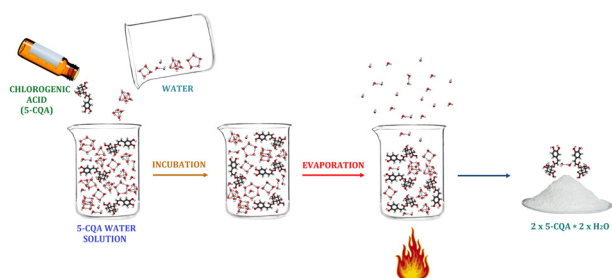
16675



### A paper sensor for unbound valproic acid detection in human serum

Xiaoqian Jiang, Aihua Qu,\* Xinxin Xu, Hua Kuang, Liqiang Liu, Liguang Xu and Chuanlai Xu\*

16686



### Kinetics and possible mechanism of chlorogenic acid–water complex formation

Piotr Hołowiński, Andrzej L. Dawidowicz\* and Rafał Typek

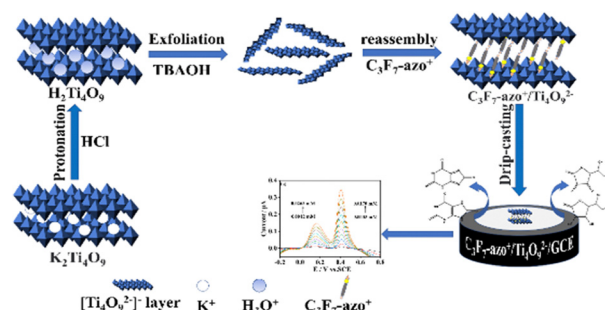


## PAPERS

16695

### A novel nanocomposite material $C_3F_7\text{-azo}^+/\text{Ti}_4\text{O}_9^{2-}$ was prepared as a sensor for the detection of ascorbic acid and uric acid

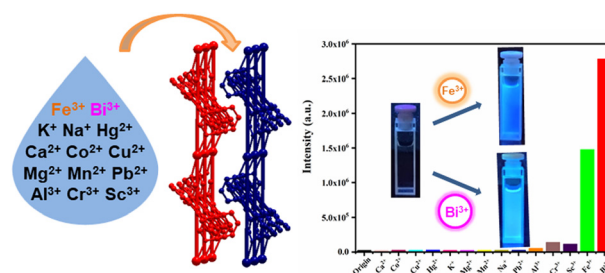
Yicheng Zhou, Li Dong, Tongtong Cao, Jiazheng Zhang, Rongrong Qiao, Lin Liu, Chao Liu, Xiaobo Zhang\* and Zhiwei Tong\*



16706

### A new-AIE-ligand-based metal–organic framework “turn-on” sensor with extremely high sensitivity

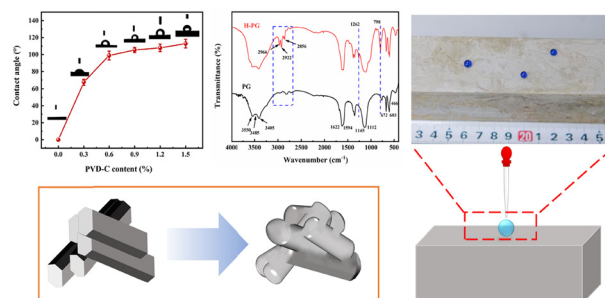
Jinfang Zhang,\* Wenjing Li, Simeng Ren, Shunchang Zhao, Xingyu Tao, Qinghan Chen, Dejing Yin and Chi Zhang\*



16713

### Synthesis of reticular long-carbon-chain polysiloxane and its hydrophobic modification of phosphogypsum-based materials

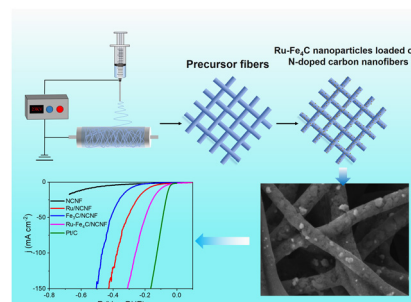
Guang Yang, Songtao He, Yuanxia Li, Yi Li, Zegang Li, Weixiang Song, Zhonghua Chen\* and Qibin Liu\*



16727

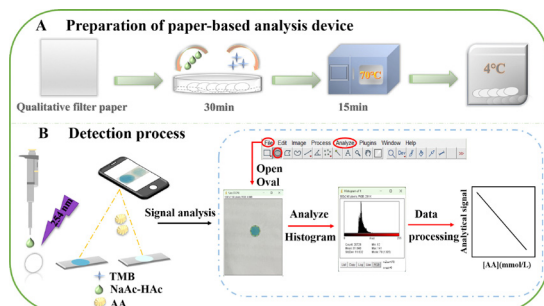
### Ru–Fe<sub>4</sub>C nanoparticles loaded on N-doped carbon nanofibers as self-supporting high-efficiency hydrogen evolution electrocatalysts

Qun Zou, Yingjing Zhu, Rui Zhang, Jibiao Guan, Lina Wang, Baochun Guo and Ming Zhang\*





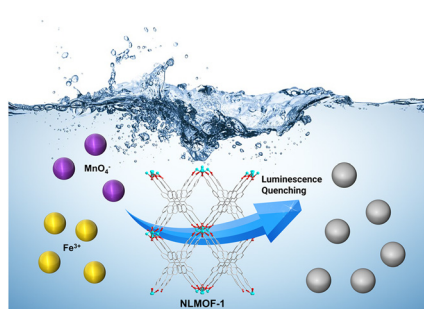
16735



### Equipment-free determination of ascorbic acid based on the UV-induced oxidation of 3,3',5,5'-tetramethylbenzidine in a paper-based analysis device

Xiaoxia Liu,\* Wenya Hou, Jinzhong Zhao, Lili Zhang, Anping Li\* and Ruiyan Ma\*

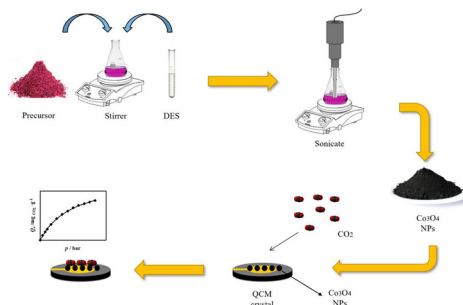
16741



### Fluorescent cadmium(II) metal–organic frameworks exhibit excellent stability and detection ability to Fe<sup>3+</sup> and MnO<sub>4</sub><sup>-</sup> ions

Peipei Cen,\* Tongtong Ma, Fujunrui Jiang, Fengyuan Zhang, Yanping He, Runmei Ding and Danian Tian\*

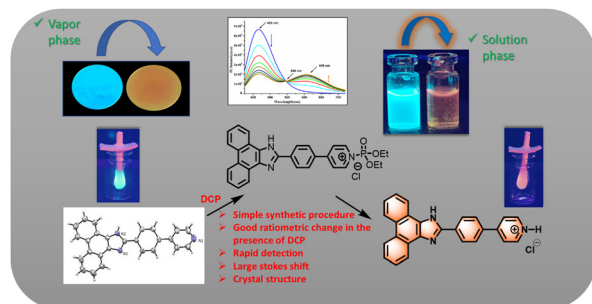
16748



### Improved the CO<sub>2</sub> adsorption performance in cobalt oxide nanoparticles in the presence of DES

Narmin Noorani,\* Amin Moghaddasfar, Abbas Mehrdad and Masih Darbandi

16756



### Visual and ratiometric fluorescent probe via an intramolecular charge transfer for detection of a nerve agent simulant in solutions and in the gas phase

Anirban Karak, Shilpita Banerjee, Satyajit Halder, Mousmi Mandal, Dipanjan Banik, Anwesha Maiti, Kuladip Jana and Ajit Kumar Mahapatra\*



## CORRECTION

16764

**Correction: Efficient binder-free electrode with a derivative synthesis of a four-leaf clover cobalt oxide from a metal organic framework on nickel foam as an energy storage device**

Yu-Hsuan Chiu, Subbiramaniyan Kubendhiran, Hsiao-Wen Huang, Chutima Kongvarhodom, Hung-Ming Chen, Sibidou Yougbaré, Muhammad Saukani and Lu-Yin Lin\*

## RETRACTION

16765

**Retraction: Synthesis of atomic form nickel co-catalysts on TiO<sub>2</sub> for improved photocatalysis *via* the RAFT technique**

Bo Zhang,\* Guohua Wu and Baohua Zhang

