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ISSN 1144-0546 CODEN NJCHES 47(18) 8463-8980 (2023)



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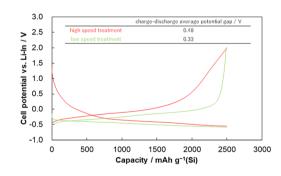
See Zhifu Luo, Guoxin Tian et al., pp. 8499-8506. Image reproduced by permission of Guoxin Tian from New J. Chem., 2023, 47, 8499.

#### COMMUNICATIONS

#### 8479

Influence of compositing conditions for Si-composite negative electrodes in sulfide-type all-solid-state lithium-ion batteries

Hiroshi Nagata,\* Junji Akimoto and Kunimitsu Kataoka

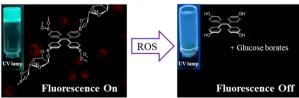


#### 8484

Macroscopic and fluorescence detection of reactive oxygen species by using a glucose-linked tetraphenylethylene polymer gel

MiaoMiao Yu, Ningge Xu, Xu-Min Cai, Heng Liu, Shuaiyuan Han,\* Fabiao Yu\* and Weiwei Fang\*

## ROS Detection via Gel Collapsing with Fluorescence Off



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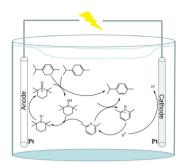


#### **COMMUNICATIONS**

#### 8489

Synthesis of p-cymene by the electrocatalytic oxidation of  $\alpha$ -terpinene and  $\gamma$ -terpinene

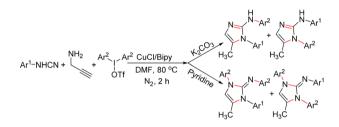
Chenyun Luo, Chuanyong Niu, Jun Zhou\* and Xiangzhou Li



#### 8494

Base-controlled copper-catalyzed multi-component cascade reactions of cyanamides, diaryliodonium triflates and propargylamine for rapid assembly of polysubstituted 2-aminoimidazoles and 2-iminoimidazoles

Run Yang, Yiming Zhao, Shihan Wang, Canming Wu, Jihui Li\* and Shuying Xu

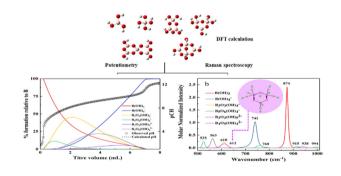


#### **PAPERS**

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Speciation of borate in aqueous solutions studied experimentally by potentiometry and Raman spectroscopy and computationally by DFT calculations

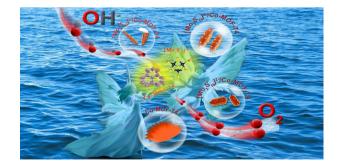
Huanhuan Liu, Qian Liu, Youshi Lan, Di Wang, Lifeng Zhang, Xian Tang, Suliang Yang, Zhifu Luo\* and Guoxin Tian\*



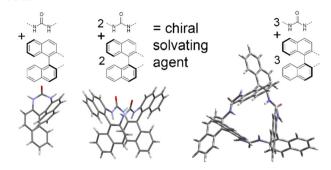
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Morphology control in the synthesis of  $[Mo_3S_{13}]^{2-}$ Co-MOF-74 composite catalysts and their application in the oxygen evolution reaction

Jianxia Gu,\* Jingting He, Haiyan Zheng and Chunyi Sun\*



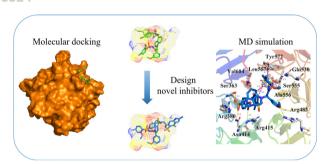
#### 8515



#### Binaphthalene-based cyclic homochiral ureas and their structure-related properties

Roman Holakovský, David Just, Václav Eigner, Martin Jakubec and Petra Cuřínová\*

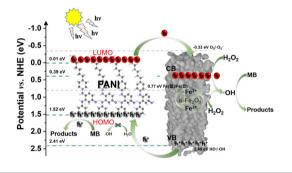
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#### Structural investigation of Keap1-Nrf2 protein-protein interaction (PPI) inhibitors for treating myocarditis through molecular simulations

Yan Tuo, Yuelu Tang, Yongxin Yu, Haoran Liang, Bin Huang, Shan Geng\* and Yuangiang Wang\*

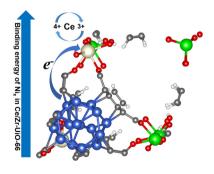
#### 8538



## Synthesis of rod-like PANI/ $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> composite catalysts with excellent photo-Fenton catalytic performance

Shiwei Liu, Xuezhuang Wang, Su Yan, Jing Zeng, Jinshuo Bai, Jianxin Li and Xiaoping Liang\*

#### 8549



## A density functional theory study of $Ni_x$ (x = 4-16) cluster impregnation effects in multi-metal (Ce, Ti) UiO-66 metal-organic frameworks

Phanikumar Pentyala, Prakash Biswas and Prateek K. Jha\*

#### 8558

An electrochemical sensor based on metal-organic framework-chiral ionic liquid composites for the enantiorecognition of tryptophan enantiomers

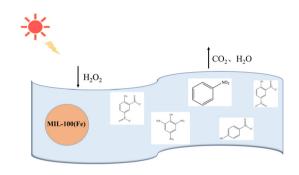
Huipeng Hou, Shanshan Tang, Miao Liu, Fulai Zhang, Axin Liang, Liquan Sun, Lina Geng, Bingteng Xie, Yue Yi and Aigin Luo\*



#### 8566

Preparation of the photo-Fenton agent MIL-100 (Fe) with high performance in the degradation of nitro explosives

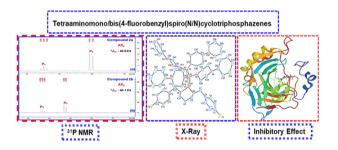
Tingting Tang, Bo Jin\* and Ping Zhao



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Phosphorus-nitrogen compounds: part 70. Syntheses of tetraaminomono/bis(4-fluorobenzyl)spiro(N/N)cyclotriphosphazenes: structural characterization, Hirshfeld surface analysis and comparative evaluation of esterase activities of hCA I and hCA II isoenzymes

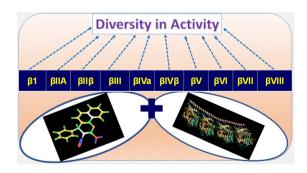
Aytuğ Okumuş,\* Gamze Elmas,\* Arzu Binici, Ekrem Tunca, Tuncer Hökelek and Zeynel Kılıç



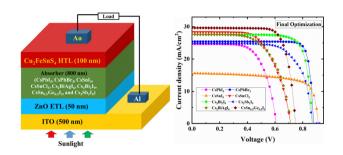
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Anticancer SAR establishment and  $\alpha/\beta$ -tubulin isoform specific targeting: a detailed insight of the anticancer potential of 4H-chromene derivatives

Mayank,\* Ashutosh Singh, Kumar Udit Saumya, Mayank Joshi, Navneet Kaur,\* Neha Garg\* and Narinder Singh\*



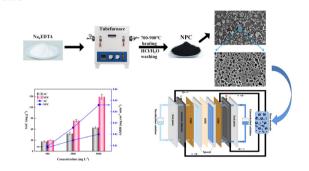
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A comprehensive study of the optimization and comparison of cesium halide perovskite solar cells using ZnO and Cu<sub>2</sub>FeSnS<sub>4</sub> as charge transport layers

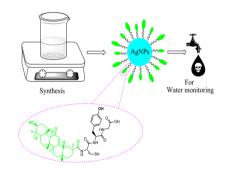
M. Khalid Hossain,\* G. F. Ishraque Toki, Jaya Madan, Rahul Pandey,\* H. Bencherif, Mustafa K. A. Mohammed, Md. Rasidul Islam, M. H. K. Rubel, Md. Ferdous Rahman, Sagar Bhattarai and D. P. Samajdar

#### 8625



#### Enhanced desalination performance in flow electrode capacitive deionization with nitrogen doped porous carbon

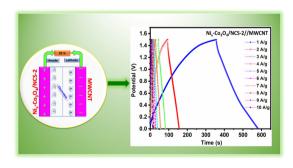
Bo Xie, Qilin Liu, Chungiong Hu, Hongmei Li, Guanggun Tan\* and Dan Xiao\*



Synthesis of conjugated silver nanoparticles of 18ß-glycyrrhetinic acid peptide conjugate (GAP) as a colorimetric probe for barium ions

Sadig Noor Khan, Imdad Ali, Farid Ahmed, Muhammad Raza Shah\* and Farzana Shaheen\*

#### 8649



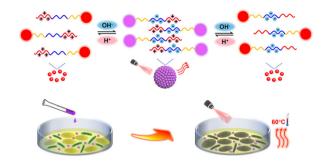
Nickel-doped Co<sub>3</sub>O<sub>4</sub> spinel nanospheres embedded in nitrogen-doped carbon composites derived from bimetallic NiCo metal-organic framework as a high-performance asymmetric supercapacitor

S. Silambarasan, Mani Sivakumar, K. Ram Kumar, Zhongqing Jiang and T. Maiyalagan\*

#### 8661

pH-Induced reversible self-assembly of gold nanoparticles functionalized with self-complementary zwitterionic peptides for near-infrared photothermal antibacterial treatment

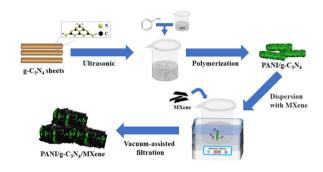
Huimin Qin, Zhuo-Ran Yang, Niannian Lv, Teng Ma, Kehan Du, Jingyi Xiong, Hao Jiang\* and Jintao Zhu



#### 8670

#### Facile fabrication of PANI/g-C<sub>3</sub>N<sub>4</sub>/MXene composites as electrode materials for supercapacitors

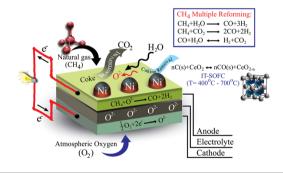
Hangming Xie, Zhibiao Guo, Mingkun Wang, Shiyu Ma, Zhe Kong and Zhiwei He\*



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#### The electrochemical study of $Ni_xCe_{1-x}O_{2-\delta}$ electrodes using natural gas as a fuel

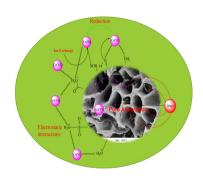
Munazza Mohsin,\* Shumail Farhan, Naveed Ahmad, Asif Hassan Raza, Zohra Nazir Kayani, Syed Hassan Mujtaba Jafri and Rizwan Raza



#### 8693

Remediation of hexavalent chromium and pharmaceuticals from aquatic environments by employing an oxygen-doped porous carbon adsorbent and its antifungal activity

Sajad Ur Rehman Beig,\* Umar Ali Dar, Sajad Ahmad Sheergugri and Shakeel A. Shah



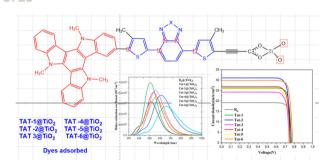
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# 1) NaIO<sub>4</sub>, pH 4, rt

#### Oligonucleotide synthesis under mild deprotection conditions

Komal Chillar, Adikari M. D. N. Eriyagama, Yipeng Yin, Shahien Shahsavari, Bhaskar Halami, Alexander Apostle and Shiyue Fang\*

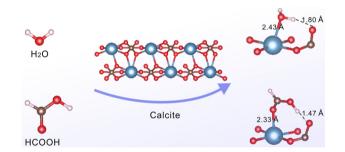
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High photovoltaic performance (23.75) of triazatruxene-based dye-sensitized solar cells containing different  $\pi$  bridges: computational investigation

Alioui Abdelaaziz, Si Mohamed Bouzzine,\* Mohamed Hamidi and Reda M. El-Shishtawy

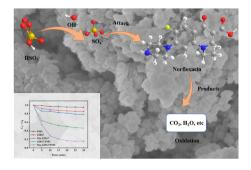
#### 8737



## Adsorption of water and formic acid molecules on the (104) surface of calcite: a theoretical study by DFT-D3

Mengli Zhao, Simei Li, Mengli Wang, Xuemao Guan\* and Ruiqi Zhao\*

#### 8744



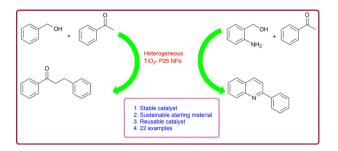
Activation of peroxymonosulfate for degradation of norfloxacin by Mn-doped zeolitic imidazolate framework-67 nanocrystals

Jiahao He, Junyou Wu, Yujie Zhang, Qin Yang and Yingchun Yang\*

#### 8751

#### TiO<sub>2</sub> (P25) nanoparticle catalyzed C-alkylation and quinoline synthesis via the borrowing hydrogen method

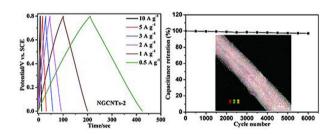
Krishnan Kala, Sanjeev Gupta, Venugopal T. Bhat, Manickam Sasidharan, Parasuraman Selvam and Thanikachallam Pushpa Malini\*



#### 8759

High rate-performance supercapacitors based on nitrogen-doped graphitized carbon nanotube networks in situ grown on 316L stainless steel as binder-free electrodes

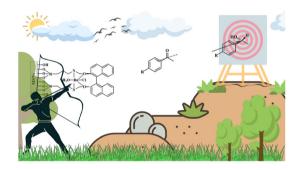
Rui Lei, Xuetao Hu, Xingxing Li,\* Renzhe Lu, Zhengyu Liu, Xianyao Wei, Shengjiang Shi, Yaozha Lv,\* Hua Zhang,\* Yu Zhang\* and Honghong Yang



#### 8767

Asymmetric hydrogenation using a covalently immobilized Ru-BINOL-AP@MSNs catalyst

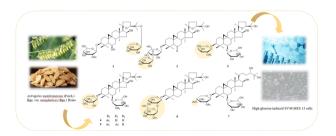
Pratikkumar Lakhani and Chetan K. Modi\*



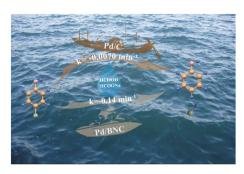
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Seven new triterpenoid saponins from Astragalus membranaceus var. mongholicus and the inhibition of high-glucose induced SV40 MES 13 cells

Hai-dan Zou, Yan Liu, Zhen-Peng Zhang, Jia-Tong Wu, Jing Wang, Juan Pan, Wei Guan, Hai-xue Kuang\* and Bing-you Yang\*



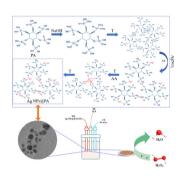
#### 8785



#### Tuning the metal valence state of Pd nanoparticles via codoping of B-N for chlorophenol hydrodechlorination

Jiaxin Zhang, Xianlang Chen, Jinhua Yu, Zheng Fang, Lele Yan, Zijian Wang, Zhengyu Pan, Rongrong Li\* and Li Zhang\*

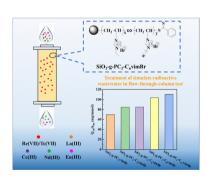
#### 8797



Green synthesis and characterization of Ag nanoparticles in a phytic acid/ascorbic acid/sodium hydroxide system and their application in the electrochemical detection of H<sub>2</sub>O<sub>2</sub>

Baolong Niu,\* Hong Wang, Yanwei Zhang, Bin Nie, Huifang Wang, Xiaojie Lian and Wenfeng Li\*

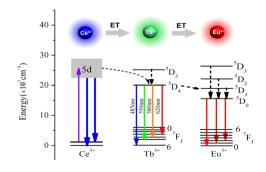
#### 8809



Radiation synthesis of binary poly(ionic liquid) functionalized silica-based materials for selective adsorption of ReO<sub>4</sub><sup>-</sup> as analogue of TcO<sub>4</sub><sup>-</sup> from simulated radioactive wastewater

Zhen Dong, Na Zhang, Manman Zhang, Miao Yang, Qiburi Bao and Long Zhao\*

#### 8820



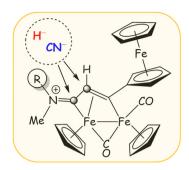
To achieve tunable-color emission in a novel tri-doped phosphate sulfate phosphor: Tb<sup>3+</sup> as the energy transfer bridge

Xiaojiao Kang, Wei Lü,\* Baichao An, Zhennan Zhu, Qiwen Pan and Fei Zhou

#### 8828

#### Iminium substituent directs cyanide and hydride additions to triiron vinyliminium complexes

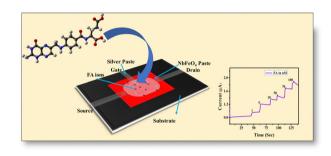
Silvia Schoch, Giulio Bresciani, Chiara Saviozzi, Tiziana Funaioli, Marco Bortoluzzi,\* Guido Pampaloni and Fabio Marchetti\*



#### 8845

Facile one-step synthesis of a niobium iron oxide based electrochemical transistor for rapid, label-free detection of folic acid in human blood serum samples

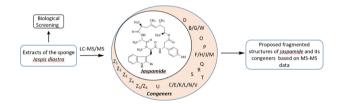
Anjali Sreekumar, Lignesh Durai and Sushmee Badhulika\*



#### 8854

#### LC-MS/MS identification and cytotoxic assessment of jaspamide and its congeners from the sponge Jaspis diastra

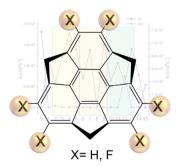
Avin Ramanjooloo, Mahmoud Kamel, Samson A. Adeyemi, Philemon Ubanako, Bertrand Baudot, Asho D. Thakoor, Yahya E. Choonara and Archana Bhaw-Luximon\*

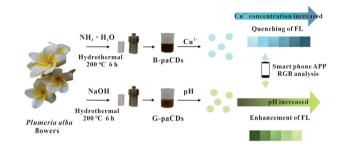


#### 8867

Theoretical study on the relationship between the molecular structures and optoelectronic properties of aromatic-fluorinated sumanene derivatives

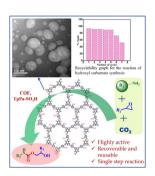
Xi Chen, Xinpeng Liu, Xin Pu, Simeng Gao,\* Wei Wei and Fu-Quan Bai\*





#### One-step green synthesis of carbon dots derived from Plumeria alba flowers for sensing and bioimaging

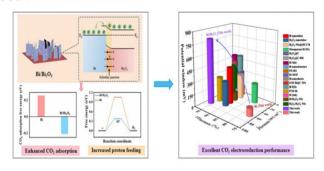
Ye He,\* Xiaojing Chen, Panlin Wang, Xiao Li, Bingbing Wang, Xiaomeng Wang, Zhuzheng Wu and Wenxiang Wang\*



#### A SO<sub>3</sub>H-group anchored covalent organic framework for the synthesis of hydroxy carbamates in a single step utilizing CO2

Titu Mondal, Jhumur Seth, Somnath Sarkar and Sk Manirul Islam\*

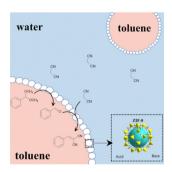
8894



#### Simultaneous facilitation of CO<sub>2</sub> adsorption and proton feeding in Bi/Bi<sub>2</sub>O<sub>3</sub> heterostructure nanosheets for enhanced electroreduction of CO<sub>2</sub> to formate in a wide potential window

Wenwen Wang, Guangyu Ruan, Xin Wang, Chao Wu and Qinian Wang\*

8906



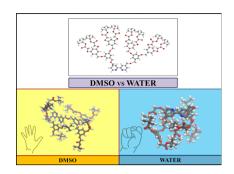
#### Metal-organic frameworks as an efficient Pickering interfacial catalyst for the deacetalization-Knoevenagel tandem reaction

Yan-Sai Bao, Wei Liu, Zhen-Lin Dong, Zhi-Qiang Xing, Ming Yang, Yong-He Cui, Ling-Xu Meng, Liang-Cheng Li, Xiao-Meng Xu, Zheng-Bo Han and Yu-Yang Zhang\*

#### 8913

Peripherally "tertiary butyl ester" functionalized bipyridine cored dendrons: from synthesis and characterization to molecular dynamic simulation study

Liju Raju, Sousa Javan Nikkhah,\* Matthias Vandichel and Eswaran Rajkumar\*



#### 8925

#### Sequential logic circuit built on $\lambda$ exonuclease for cross inhibition

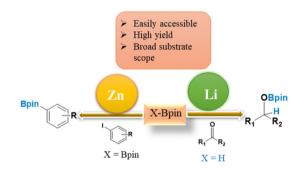
Zhi Guo, Xun Zhang and Shihua Zhou\*



#### 8933

Syntheses, characterizations and catalytic properties of three zinc complexes and one lithium compound chelated by β-diketiminate ligands

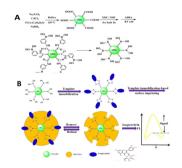
Yanhua Lu, Yafei Li, Yeye She, Chaohong Jia and Yahong Li\*



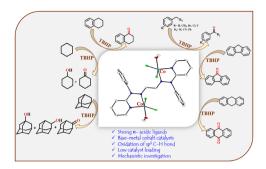
#### 8942

Fluorescent nanosensors for selective and sensitive determination of isoquercitrin based on boronate affinity-based imprinted quantum dots

Guanfeng Li, Yipei Wang, Yihan Ding, Zixin Zhang, Na Tang, Xiping Tian and Daojin Li\*

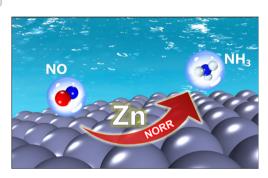


#### 8951



Design and synthesis of dinuclear cobalt(II) complexes derived from strong  $\pi$ -acidic ligands: crystal structure and studies on the oxidation of sp<sup>3</sup> C-H bonds

Anshu Singh, Bishal Boro, Ankur Maji, Ovender Singh, Sain Singh, Udai P. Singh and Kaushik Ghosh\*



#### Electrochemical reduction of NO to NH<sub>3</sub> on Zn nanosheets

Wenhuan Qu,\* Xing Wang, Yunpeng Sun, Lingyan Dang, Xiaomiao Wang and Ke Chu\*

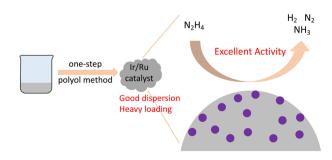
#### 8965



## Carbon dots/silica nanoaggregates for highly efficient adsorption of alizarin red S and malachite green dyes

Xiao-Yu Li, Wei-Rong Wang, Rong-Chao Xue, Pei-Yao Chen, Yong Wang and Li-Ping Yu\*

#### 8974



#### A one-step polyol method for well-dispersed and heavily-loaded Ir and Ru catalysts in hydrazine decomposition

Yuhan Liu, Shuqiang Liang, Zhe Tan,\* Jun Cheng and Bo Huang\*