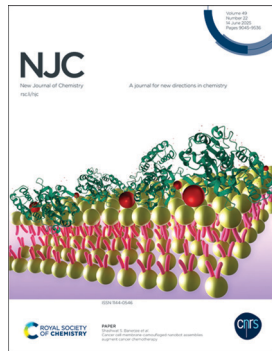


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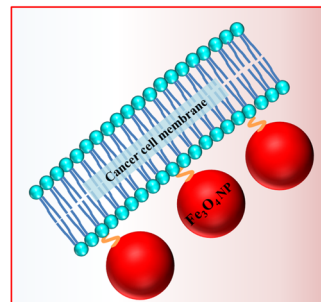
See Shashwat S. Banerjee
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New J. Chem.,
2025, 49, 9060.

PAPERS

9060

Cancer cell membrane-camouflaged nanobot assemblies augment cancer chemotherapy

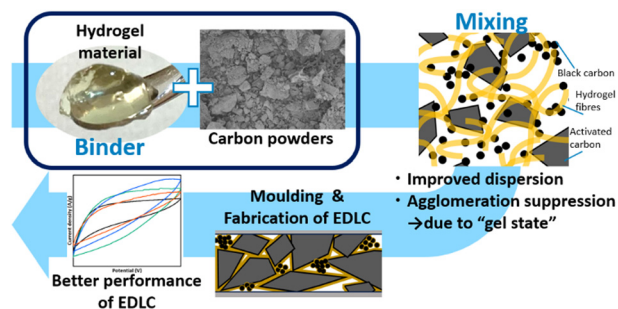
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Mansi G. Gaware, Ravindra. D. Wavhale, Sanjay Goswami,
Yuvraj N. Patil, Manoj B. Gawande and
Shashwat S. Banerjee*



9071

Evaluation of electric double-layer capacitors with electrode materials using a gel derived from a polymer hydrogelator in the device fabrication process

Mai Hirukawa and Yutaka Ohsedo*



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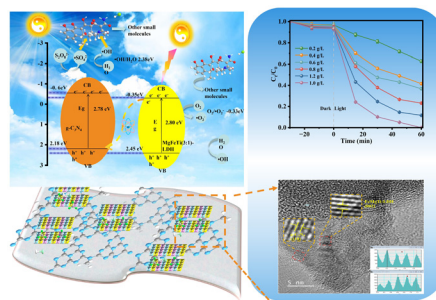
Fundamental questions
Elemental answers

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MgFeTi-LDH/g-C₃N₄ composites promote sodium persulfate activation through Fe³⁺/Fe²⁺ cycles for efficient tetracycline degradation under visible light irradiation

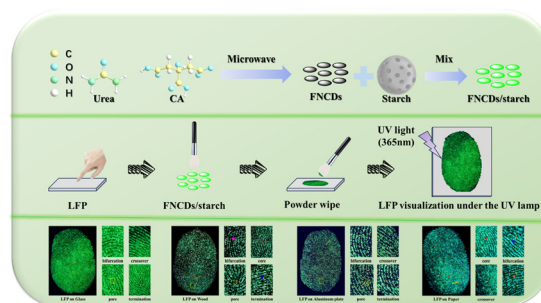
Zihan Wei, Xiaoqian Ren, Tianhong Mei, Rongcheng Xiang, Wugan Wei, Xiaorui Yang, Yan Fang, Wenlong Xu, Jianliang Zhu and Jinhua Liang*



9096

Synthesis of starch-based F/N-doped carbon dots for enhanced detection of latent fingerprint tertiary structures

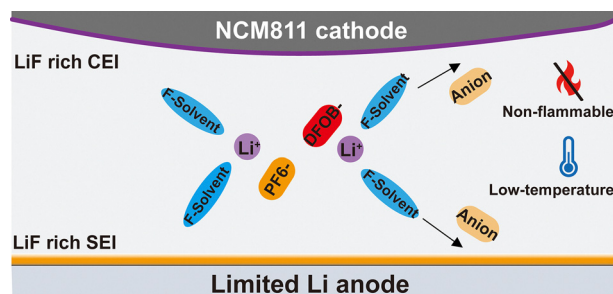
Ruohan Li, Yujia Yang, Congcong Li, Jinzhi Liao, Senqiang Zhu,* Rui Liu* and Hongjun Zhu*



9102

The synergistic effect of fluorinated solvents and LiFOB on stable cycling of Li metal batteries with limited Li

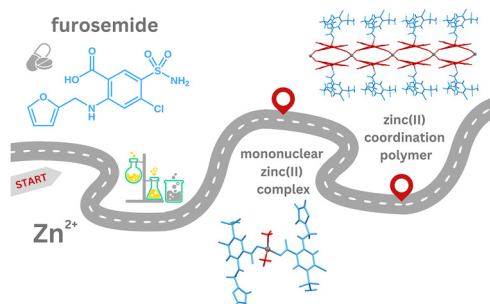
Kaiyuan Tan, Shu Zhang,* Cheng Chen,* Hongcheng Yang, Haiping Zeng, Lian Yang, Haiping Zhou and Mengqiang Wu*



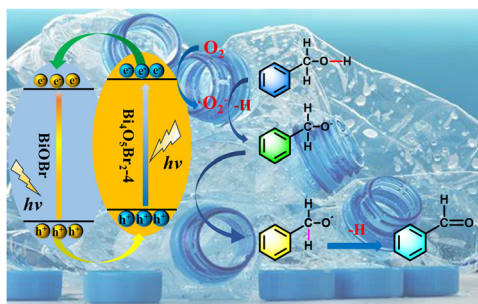
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On zinc(II) coordination chemistry with furosemide: a journey from a mononuclear complex to a coordination polymer

Nina Podjed, Zarja Uranjek, Romana Cerc Korošec, Martina Hrast Rambaher, Majda Golob and Barbara Modec*



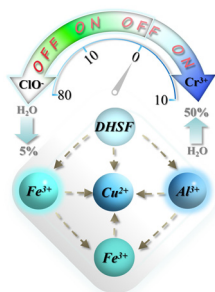
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Reengineering waste PET bottles into BiOBr/Bi₄O₅Br₂ heterojunction materials for highly selective photocatalytic oxidation of benzyl alcohol

Xuehai Ren, Yubin Wang,* Jiang Li, Kefu Wang, Yanan Niu, Jide Wang* and Changyan Guo*

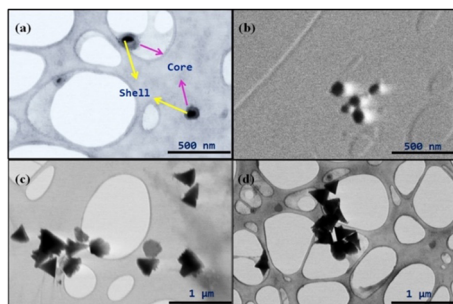
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Multisite-complexation-regulating solvent-dependent monomolecular chemosensor for the quantification of Fe³⁺/ClO⁻ and rapid detection of Al³⁺/Cr³⁺/Cu²⁺

Jiaojiao Wang, Yanyan Gao, Yuexing Zhang, Dongmei Xu, Zongxin Li, Yifei Su, Fang Wang, Ning Zhang, Daopeng Zhang,* Kang Wang* and Yuting Chen*

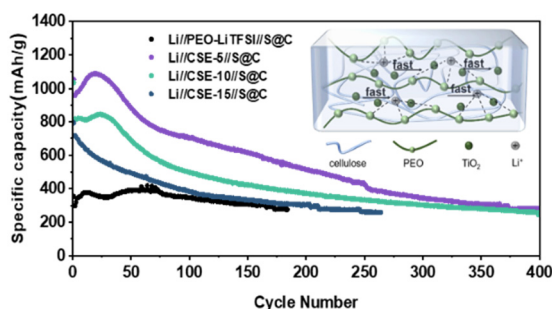
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Synthesis and sustainable applicability of triangular lignin nanoparticles in sunscreen formulations and UV shielding

Asmaa Dghoughi, Maryam Raji and Abou el kacem Qaiss*

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Sandwich-structured PEO-based composite solid-state electrolytes for lithium-sulfur batteries

Jingyi Wu, Ruiqing Liu,* Hui Cheng, Chenxu Tian, Yu Zhang, Xiaoyu Wang, Ying Liu, Wenxiu Liu, Xiujing Lin, Cuie Zhao,* Li Shi, Xiaomiao Feng* and Yanwen Ma*

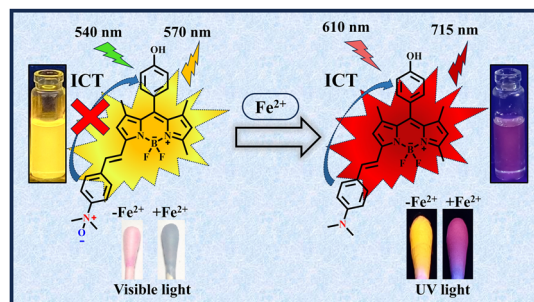


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An N-oxide-BODIPY-based ratiometric NIR fluorescent probe for the selective and sensitive detection of ferrous ions in real samples

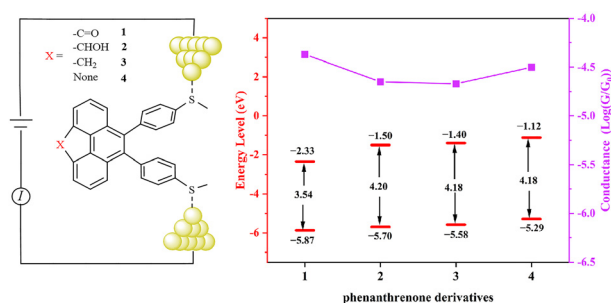
Arindam Mondal, Sudip Mondal, Adinath Majee and Subrata Dutta*



9177

Synthesis, structure and electronic transport properties of phenanthrene derivatives

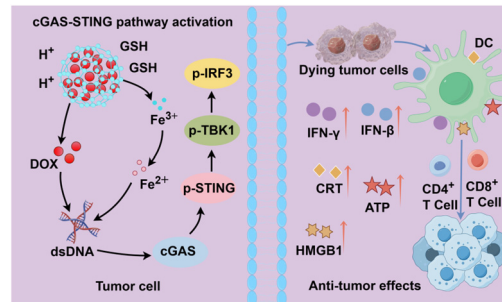
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9185

Nanodrug combining chemotherapy and ferroptosis mediated cGAS-STING activation for potent antitumor immunity

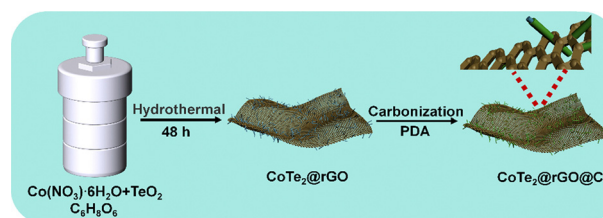
Sheng-Tao Li, Chen-Chen Li, Xing-Hu Wu, Wen-Xue Hua, Xiao-Yi Dong, Xiao-Lei Zhang,* Xu-Ying Liu* and Yan-Fei Kang*



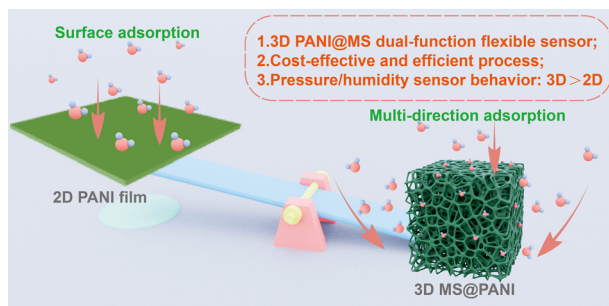
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Interface-coupled 1D/2D/2D CoTe₂/graphene/carbon heterostructures as high-performance anode materials for potassium ion batteries

Jiajia Ye,* Zizhong Chen, Zifan Wang, Juan An, Zhen Kong, Wensi Li, Yukun Zhang, Guang Xia* and Jibin Song*



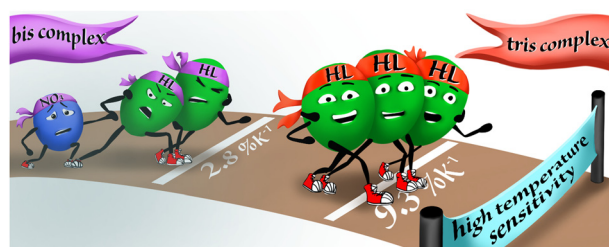
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A dual-function flexible pressure/humidity sensitive sensor based on a polyaniline-coated melamine sponge

Jinqiang Sun, Hongxing Li, Xiaolin Ma, Yuanyuan Li, Lizhong Liu, Lulu Song, Xueke Wang, Xiaoxiao Deng, Chun Yu* and Yi Zhao*

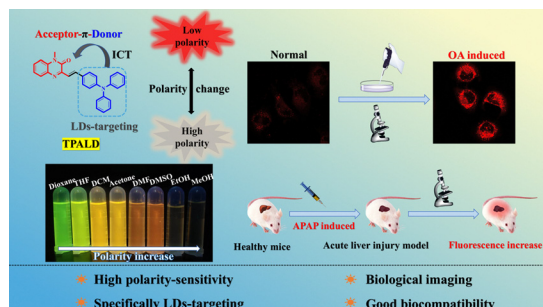
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Real world luminescence thermometry through a novel mixed-metal Eu/Tb complex with furan-containing 1,3-diketone

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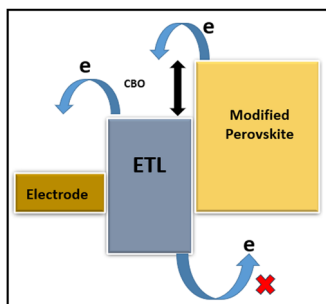
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A lipid droplet-specific fluorescent probe for acute liver injury and tumor diagnosis via aberrant polarity changes

Changlong Li, Jingting Zhan and Weiying Lin*

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Improving the performance of mixed halide perovskite solar cells through crystal engineering and the alignment of energy band edges

Ali Mujtaba, M. I. Khan,* Muzammal Aslam, Badriah S. Almutairi and Safa Ezzine

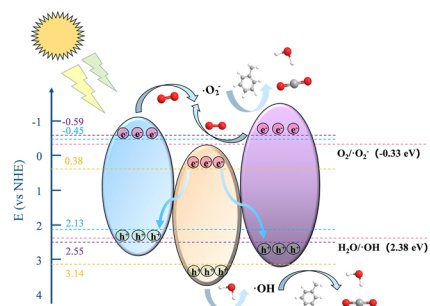


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A novel dual Z-scheme heterojunction: tungsten trioxide nanorods modified with potassium ions loaded with titanium dioxide and bismuth oxybromide for enhanced photocatalytic toluene degradation

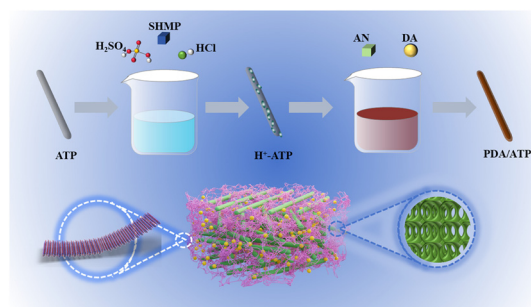
Sujing Zou, Xu Lu, Xiqiang Mao, Lei Wu, Jun Li, Shaoyi Li, Jian Yang* and Ximei Fan*



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Green synthesis of polydopamine-modified attapulgite: a sustainable solution for mitigating carbon steel corrosion in amino-sulfonic acid-laden environments

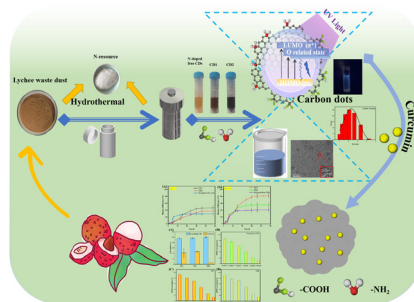
Kai Yang, Huixia Feng,* Nali Chen,* Jiarui Hou, Mohammed Mustafa Yousif Modwi, Juanjuan Zhao, Jin Wang and Jianhui Qiu



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Nitrogen doping on fluorescent carbon dot nanoparticles synthesized from lychee exocarps for applications in UV tube down-conversion and pH-responsive curcumin delivery

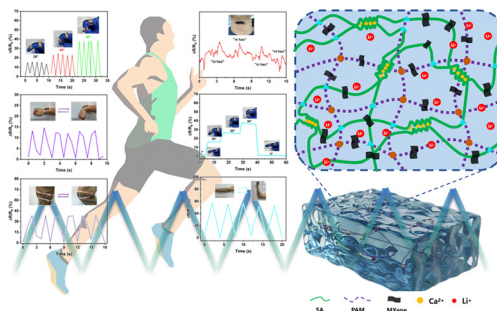
Jingwei Gong, Anyu Li, Yern Chee Ching,* Shuangwu Huang,* Ching Kuan Yong, Thennakoon M. Sampath Udeni Gunathilake, Nguyen Dai Hai and Chuah Cheng Hock



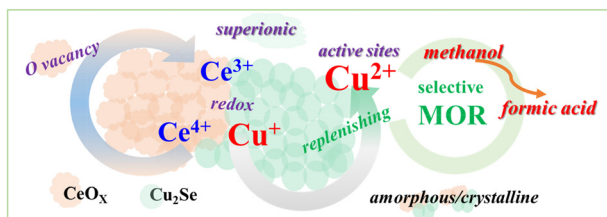
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A mechanically strong and highly conductive MXene/polyacrylamide–alginate composite hydrogel with a double-network structure for a flexible wearable sensor

Chengcheng Yang, Jiacheng Zhang, Jinchen Fan,* Shige Wang, Mingsong Wang, Xiansong Wang, Jian Chen* and Guisheng Li



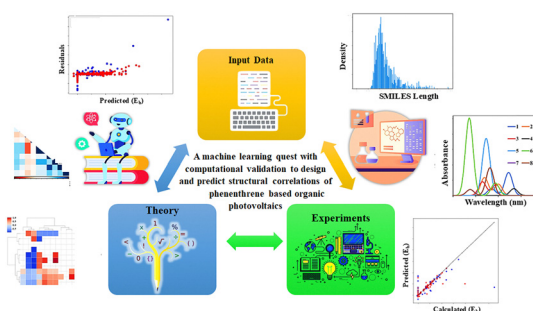
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Rational design and insights into the synergistic activity of CeO_x and Zn on Cu_2Se for highly selective electrocatalytic methanol oxidation to formic acid

Juan Gao,* Peng Wu, Xin Yu, Yimu Zhang, Xingzhuo Han, Tingting Fang and Yurong Ma*

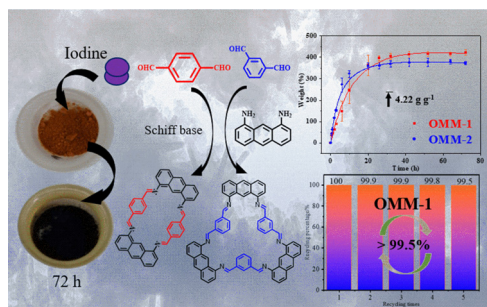
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Smart design of phenanthrene-based organic photovoltaics using machine learning

Hussein A. K. Kyhoiesh,* Azal S. Waheeb, Ashraf Y. Elnaggar, Mustafa Al-Khafaji, Islam H. El Azab, Mohamed H. H. Mahmoud, Mohammed F. Odhaib and Zainab A. Abass

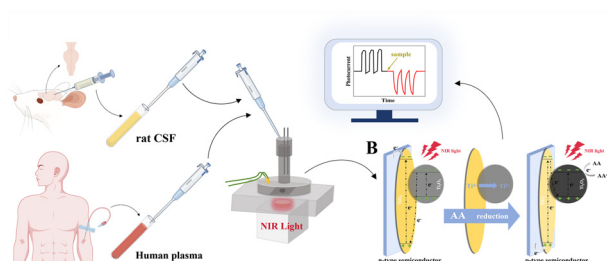
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Porous materials based on organic macrocyclic molecules synthesized through Schiff base chemistry for iodine adsorption

Jiali Wen, Yi Lu, Fang Yang, Panli Sun,* Shaoqing Luo and Zongxia Guo*

9323



A near-infrared driven Ti_2O_3 – TiO_2 -based photoelectrochemical sensor for detecting ascorbic acid based on the principle of photocurrent polarity reversal

Wenxin Yang, Ziqian He, Zhishan Liang, Zhonghui Sun* and Dongxue Han*

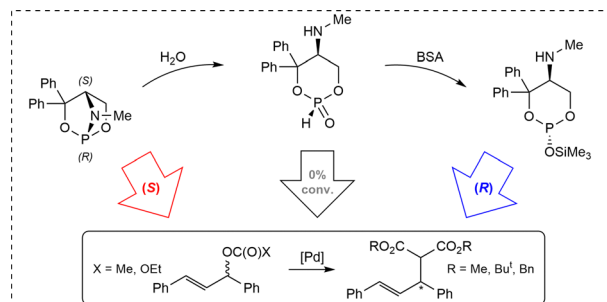


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(2*S*,5*S*)-5-(Methylamino)-4,4-diphenyl-1,3,2-dioxaphosphorinane-2-oxide as a preligand in palladium-catalyzed asymmetric allylic alkylation

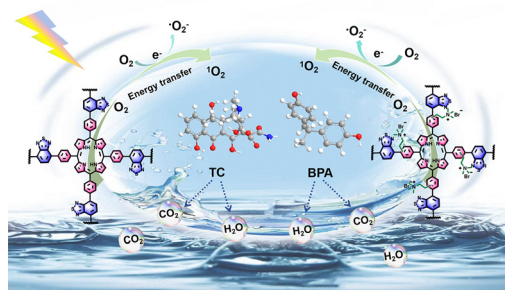
I. V. Chuchelkin,* A. I. Lukankov, V. K. Gavrilov,
I. D. Firsin, E. S. Rud, N. E. Borisova, A. S. Novikov,
A. N. Rodionov and K. N. Gavrilov*



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Construction of porphyrin-based conjugated microporous polymer through quaternization for efficient photodegradation of tetracycline and bisphenol A

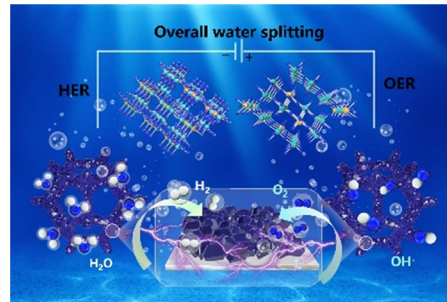
Jianan Fan, Qingxia Zhu, Haoxi Wang, Po Sun,*
Lingyun Xu,* Hua Sun,* Shiyuan Zhou and Peiyang Gu*



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Cobalt-doped hexagonal molybdenum trioxide derived from polyoxometalate: a promising catalyst for overall water splitting

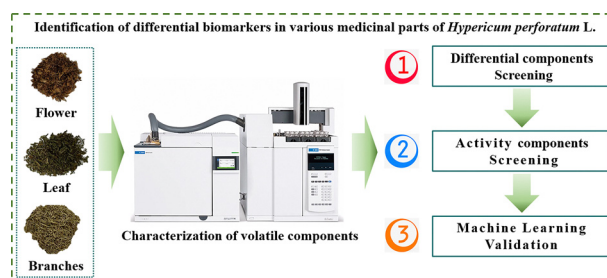
Yun Wang, Wenhui Shang, Xiu-tian-feng E.,*
Luping Zeng, Xiaoyu Jia, Nan Wang* and Zhiyu Jia*



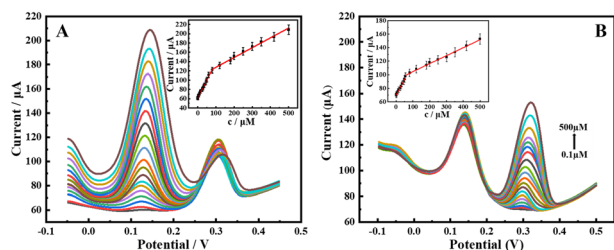
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HS-SPME-GC-MS combined with machine learning methods for screening volatile quality indicators in *Hypericum perforatum* L.

Zhiyong Zhang, Jiahe Qian, Zehua Ying, Zhenhao Tang,
Zheng Li and Wenlong Li*



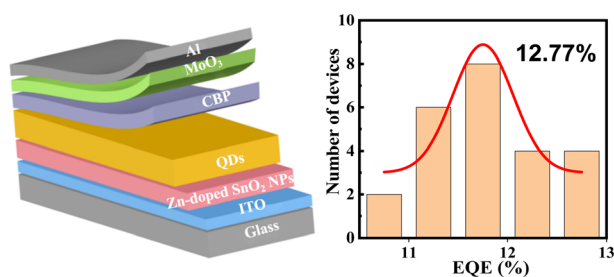
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Electrochemical response of a COF/MWCNT sensor based on a bifunctional COF towards dopamine and uric acid

Ya-Xin Li, Dong-Mei Ma,* Ming-Xia Wang, Cheng Wang, Fu-Fa Wu, Rong-Da Zhao, Jun Xiang and Xing-Ming Zhao*

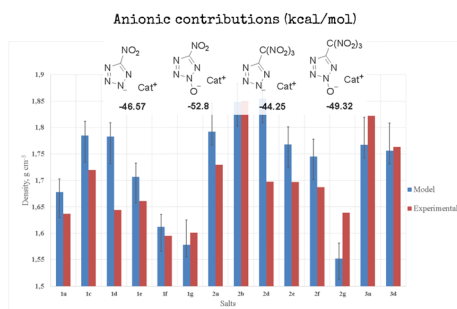
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Direct synthesis of ethanolamine-capped alcohol-soluble Zn-doped SnO₂ nanocrystals and their application in quantum dot light-emitting diodes

Ying Xu, Mengxin Liu, Xinan Shi* and Daocheng Pan*

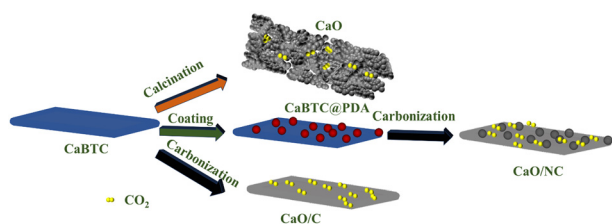
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Energetic tetrazoles and their rare 2N-oxides: investigation of thermochemical properties

Dmitry V. Khakimov,* Igor V. Svitanko and Leonid L. Fershtat*

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Rapid synthesis of MOF CaBTC using an ultrasonic irradiation method and its derivative materials for CO₂ capture

Xiaoqi Jin,* Zongqun Li, Jinlong Ge, Linlin Zhu, Caiyan Liu, Qiu Li, Jing Liu, Chenlin Yin and Gaoyu Su

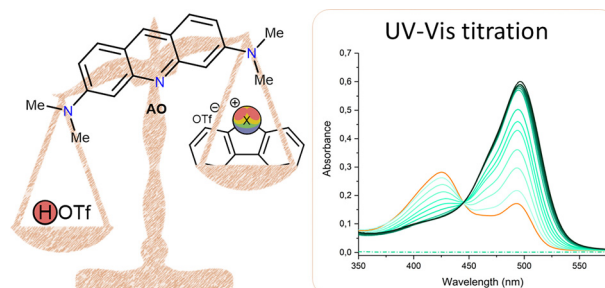


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Acridine orange as a highly sensitive probe to study the stability of onium salts

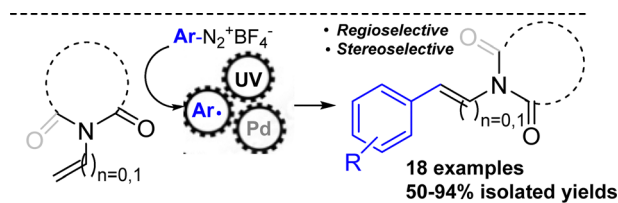
Ivan O. Putnin, Alexandra A. Sysoeva,*
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Photocatalytic Heck–Matsuda reaction: selective arylation of *N*-vinyl- and *N*-allyl-lactams using $\text{Pd}_2(\text{dba})_3$

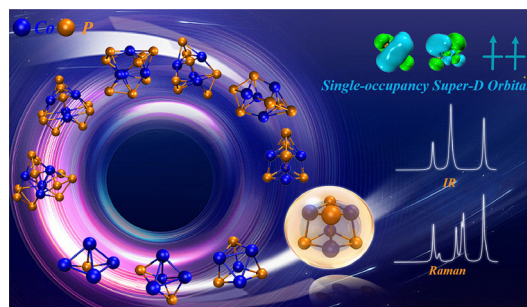
Tomás Chávez-Vega, Antonio Galdámez, Susan Lühr and
 Marcelo Vilches-Herrera*



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On the structural evolution, magnetic modulation, and spectroscopic characteristics of cobalt phosphide clusters: a DFT investigation

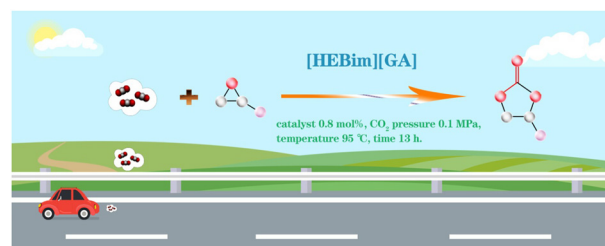
Jia Liu, Yao Zhang, Ao-Hua Wang, Long-Yu Cao,
 Yan-Zi Yu, Lei Zhang, Jing Chen and Shi-Bo Cheng*



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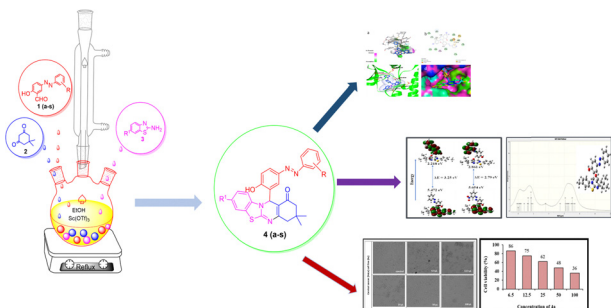
Hydroxy acid-functionalized ionic liquids as green alternatives for carbonate synthesis from carbon dioxide and epoxide: catalytic and kinetic investigation

Shuang Yue,* Xuejuan Wang, Yuee Wu and Sining Zhang



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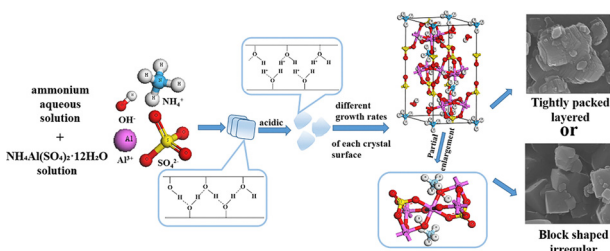
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Scandium triflate-catalyzed synthesis of novel azo-fused benzo[4,5]thiazolo[2,3-b]quinazolin-1-ones: bridging molecular docking, DFT insights, and anticancer applications

Udhayakumar Peroli, Ponmalai Kavina, Thamodharan Viswanathan and Appaswami Lalitha*

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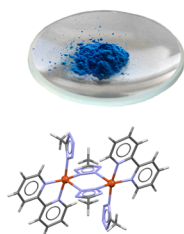


Atmospheric pressure preparation of ammonioalunite for highly efficient fluoride removal

Weifan Dai, Laishi Li, Feng Liu, Yuzheng Wang and Yusheng Wu*

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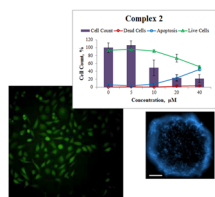
Synthesis



Characterization

- ✓ CHN analysis
- ✓ IR spectroscopy
- ✓ Powder XRD
- ✓ Single-crystal XRD
- ✓ Electron paramagnetic resonance
- ✓ UV-vis spectroscopy
- ✓ Conductivity

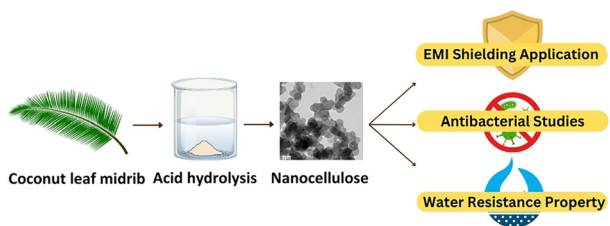
Cytotoxicity and ROS



Copper(II) complexes based on 5-methyl-1H-tetrazole and 2,2'-bipyridine, 1,10-phenanthroline derivatives: synthesis, crystal structures and extended cytotoxicity study

Yu. A. Golubeva, K. S. Smirnova, L. S. Klyushova, A. S. Berezin and E. V. Lider*

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Nanocellulose from coconut midrib used for antibacterial and electromagnetic interference shielding applications

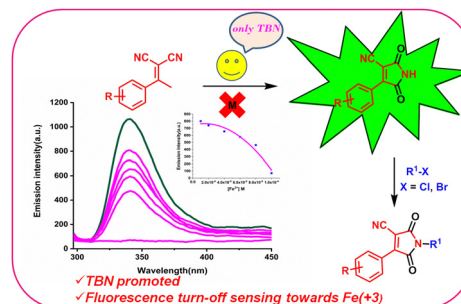
Joshua Jose and Vinod T. P.*



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tert-Butylnitrite promoted one-component based direct synthesis of 2-cyano substituted maleimide probes and their fluorescence turn-off sensing towards Fe^{3+}

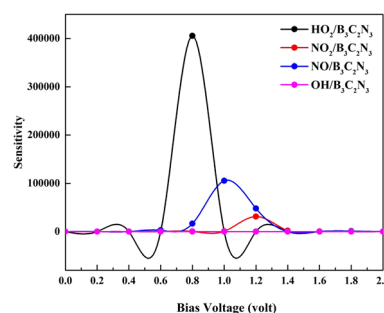
Prabhat Sarkar, Shuba Paul, Supratim Das, Tania Chowdhury, Subham Mandal, Sanchita Goswami, Asim Bhaumik and Chhanda Mukhopadhyay*



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Exploring the performance of pristine and vacancy-defected $\text{B}_3\text{C}_2\text{N}_3$ nanosheets for the detection and removal of environmentally harmful radicals: a DFT study

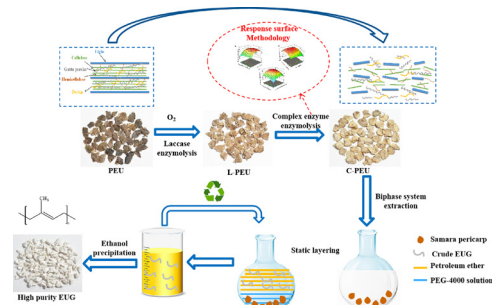
Rezvan Rahimi* and Mohammad Solimannejad*



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Novel eco-friendly extraction of high purity *Eucommia ulmoides* gum via composite enzyme hydrolysis pretreatment combined with a PEG-4000 aqueous solvent biphasic system

Yichun Yang, Chao Chen, Zhimin Wang, Zemin Ou, Tianxiao Yang, Jingjing Zhu* and Xiaoqian Liu*



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Construction and evaluation of a DOX@MOF-199-PDA-HA nanoparticle drug delivery system

Zhaoxiang Zeng, Lihua Huang, Caiyan Xu, Yin Chen, Siqi Rao, Wenjin Xu* and Hao Hong*

