

IN THIS ISSUE

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Cover

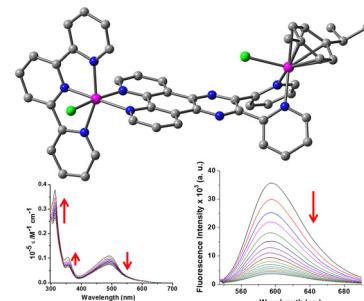
See Anwesha Mohanty and Srikanta Patra, pp. 15999–16007.
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PAPERS

15999

Synthesis, characterization, computational and DNA interaction studies of mono- and dinuclear Ru(II) complexes containing terpyridine and *p*-cymene ligands

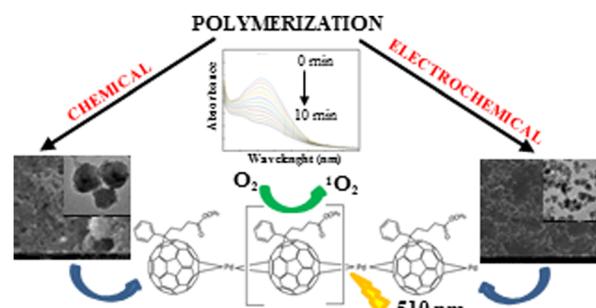
Anwesha Mohanty and Srikanta Patra*



16008

Photoinduced formation of singlet oxygen with PCBM–Pd polymer in solution and at the surface

Monika Wysocka-Żołopa,* Agata Blacha-Grzechnik,* Joanna Breczko, Diana M. Bobrowska, Adam Mizera and Krzysztof Winkler



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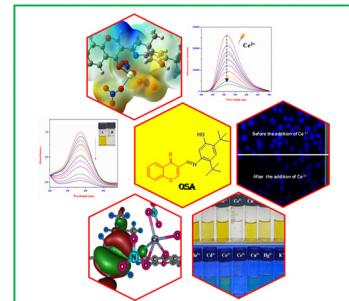
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PAPERS

16019

A smartphone-assisted highly sensitive chromone-derived fluorescent receptor for rare-earth cerium metal ion detection: environmental monitoring and cancer cell imaging

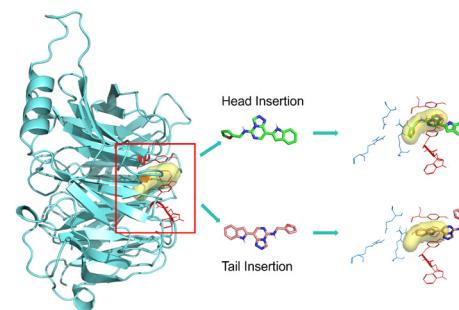
Saravana Kumar Prathiba, Karuppaiyan Kaviya, Ramar Rajamanikandan* and Kailasam Saravana Mani*



16029

Subpocket complementarity and polar interactions dictate dual binding modes of EED inhibitors: insights from molecular dynamics, steered MD, and free energy calculations

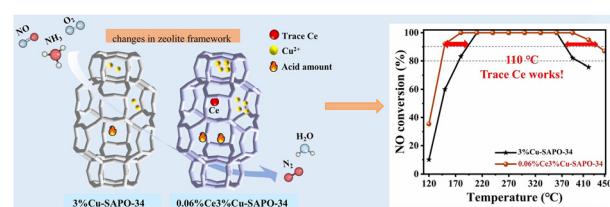
Lvzhou Zhu, Hao Zhang, Lipeng Xu, Pengyin Zhang, Jianan Ju, Shuai Yao, Yaming Shan* and Song Wang*



16044

Trace Ce-modified $x\%$ Ce3%Cu-SAPO-34 zeolites prepared by a one-pot method and applied for enhanced NH₃-SCR denitration activity

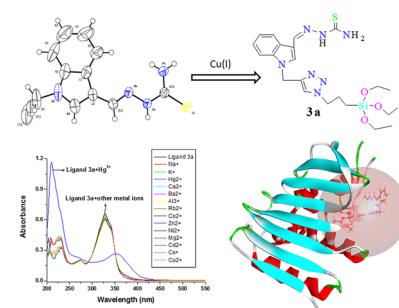
Min Qiang, Boyuan Chen, Yanhong Shao and Zhibin Li*



16056

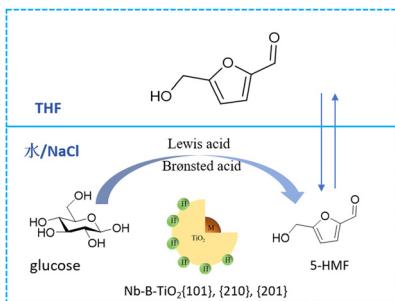
'Click' generated indole appended thiosemicarbazone-triazole cojoined organosilane: a sensor for the recognition of Hg²⁺ ions, *in silico* docking and *in vitro* cytotoxic evaluation

Gurjaspreet Singh,* Sushma,* Harshbir Kaur, Anurag Dalal, Subash Chandra Sahoo, Jandeep Singh, Nancy George, Maria Angeles Esteban* and Cristóbal Espinosa-Ruiz



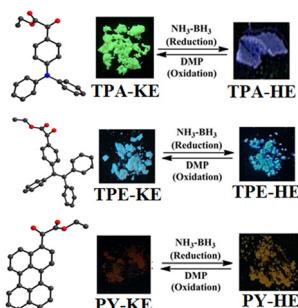
PAPERS

16070

**Synergistic effect of metal-doped TiO₂ for glucose dehydration**

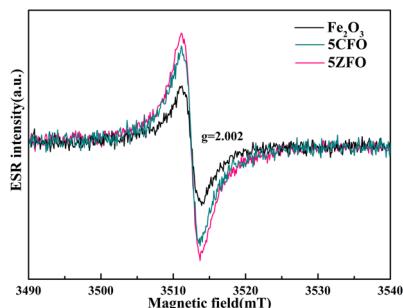
Xiang Liu, Ao Luo, Yiran Li, Yuqi Cao, Tingting Ma, Su Wang and Wei He*

16075

**Reversible fluorescence redox switching in activated carbonyl-functionalized fluorophores through the conversion of α -keto esters and α -hydroxy esters**

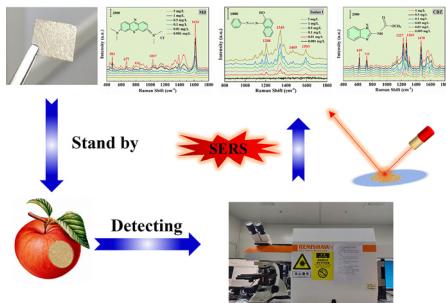
Deepanjaly K. Sivadas, Sasikala Ravi, Ramanathan Padmanaban, Dohyun Moon,* Savarimuthu Philip Anthony* and Vedichi Madhu*

16086

**Conversion of Fe₂O₃ from n to p type via transition metal (Cu, Zn) doping for the preparation of high-performance acetone sensors**

Qixuan Qin,* Yizhuo Fan and Wei Wang

16097

**Long-chain thiol-regulated hierarchical flower-like silver nanoparticles self-assembled on filter paper as highly sensitive flexible SERS substrates for pesticide residue detection**

Yunpeng Shao,* Wenlong Deng, Yue Niu, Zicheng Zhang, Jiwei Song, Yuan Yao and Linyu Mei

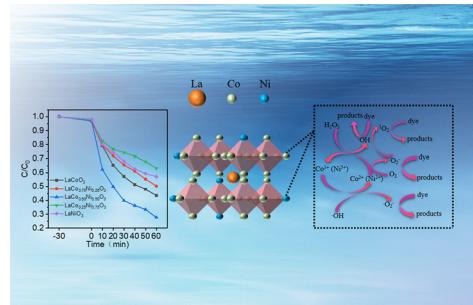


PAPERS

16105

Enhancement of Fenton-like degradation performance of organic dyes by constructing Ni substitution at the B-site for $\text{LaCo}_x\text{Ni}_{1-x}\text{O}_3$ perovskite catalysts

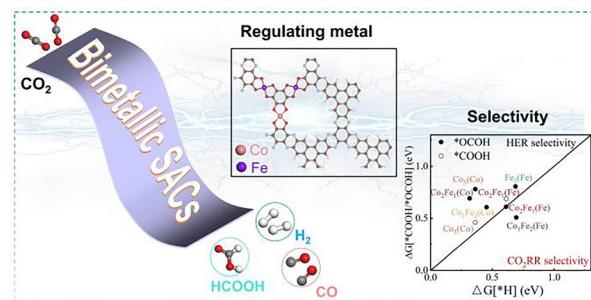
Han Zhang, Quanyu Suo, Ruiduo Zhao, Xia Zhang and Shushu Huang*



16113

Design of bimetallic single-atom catalysts and theoretical study of CO_2 reduction reaction

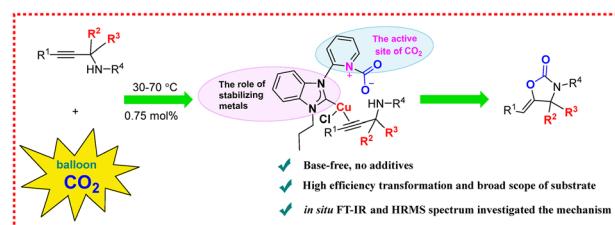
Yang Liu, Zhao-Di Yang* and Guiling Zhang



16122

Base-free catalytic systems achieved via the design of copper complexes: synthesis of 2-oxazolidinones from propargylic amines and CO_2

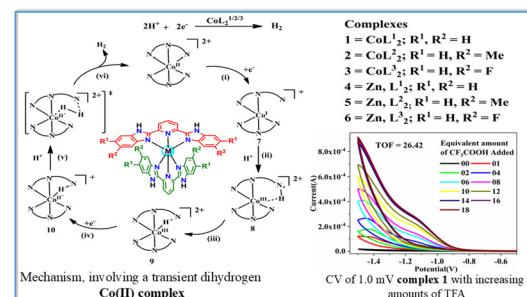
Sheng Tao, Zhi-Hong Du, Chun-Bo Bo, Min Li, Fei Chen* and Ning Liu*



16134

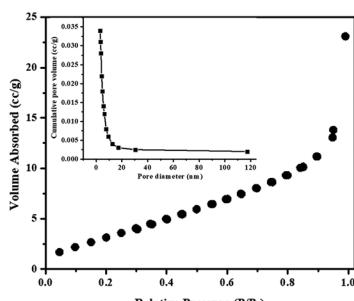
Electrocatalytic proton reduction by mononuclear cobalt complexes of bis(benzimidazolyl)pyridine ligands: experimental and theoretical study

Sahanwaj Khan, Swaraj Sengupta, Md. Adnan Khan, Narayan Ch. Jana, Bidraha Bagh and Subhendu Naskar*



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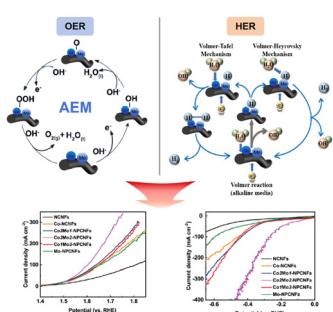
16145



Biogenic synthesis of zinc oxide nanoparticles using cell-free extract of *Spirogyra crassa* (Kütz.) Kütz for sustainable biomedical and environmental applications

Vinay Kumar, Sandeep Kaushal* and Yadvinder Singh*

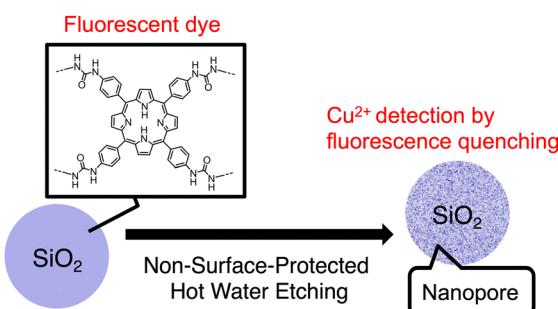
16160



Harnessing Co/Mo dual-atom synergy on N,P-carbon nanofibers for superior bifunctional water splitting

Ruidan Duan, Jiawei Fan, Jianhang Ding, Linzhou Zhuang* and Zhi Xu*

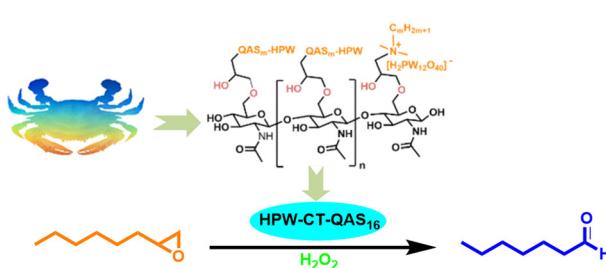
16172



Synthesis of nanoporous silica nanoparticles encapsulating porphyrin derivatives by non-surface-protected hot water etching for their fluorescent sensing of metal ions in water

Yoshio Nakahara,* Ami Kawashima, Natsuki Terashima, Mitsuru Watanabe, Toshiyuki Tamai and Setsuko Yajima

16180



Selective oxidative cleavage of epoxides to aldehydes by chitin quaternary ammonium phosphotungstate as a recycle catalyst

Tengfei Niu,* Xile Xia, Ziyi Wei, Xiao Yu and Zhongjian Tian*

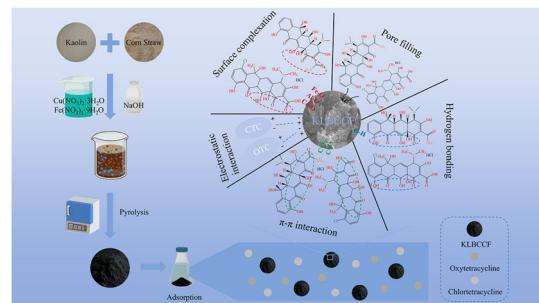


PAPERS

16187

Study on the adsorption performance of modified kaolin/corn straw biochar for oxytetracycline and chlortetracycline

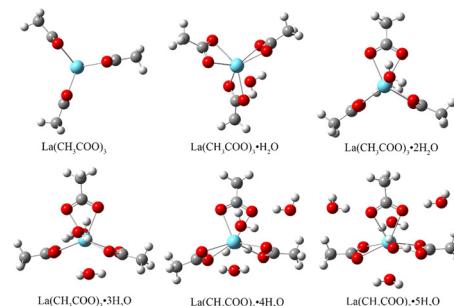
Yafei Liang, Lihong Zhao* and Liangbin Chen



16199

The investigation of ion association characteristics in lanthanum acetate solution using density functional theory and molecular dynamics simulations

Caocheng Li, Wen Fang, Si Yang, Yuefei Zhang,* Lian Zou, Fang Zhou* and Ruan Chi



16213

Silver anchored Cu–Na and Co–Na atrane MOFs as photocatalysts for the visible-light-driven degradation and decolorization of a hydroxyanthraquinone dye

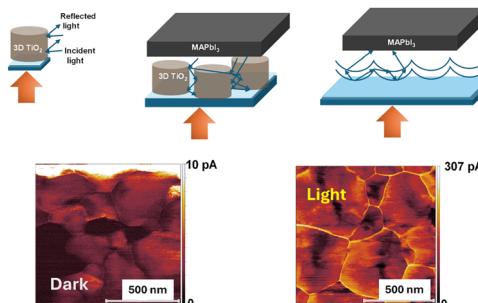
Sahil Sharma, Jyoti Rohilla, Sahil Thakur, Raghbir Singh* and Varinder Kaur*



16226

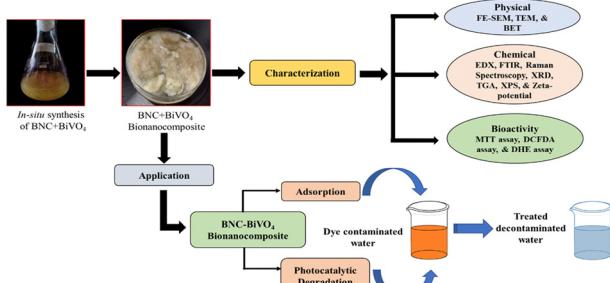
Unveiling the nanoscale photocurrent behavior in perovskite films on photonic-structured TiO₂

Jenny Boane, Shrabani Panigrahi,* Tomás Calmeiro, Edgar Coimbra, Ivan M. Santos, Elvira Fortunato, Rodrigo Martins, Manuel J. Mendes* and Hugo Águas



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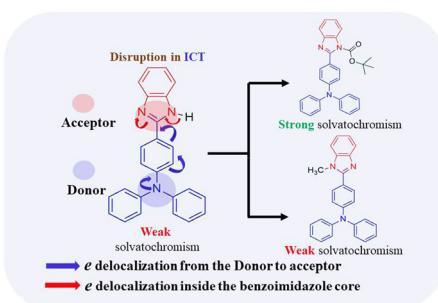
16235



Biofabrication of a bismuth vanadate/bacterial nanocellulose adsorbent: a photocatalytic mesoporous composite for efficient removal of a fluorochrome pollutant

Bendangtula Walling, Pranjali Bharali*, D. Ramachandran, Kanagasabai Viswanathan, Nipu Dutta, Naorem Shanta Singh, Swapnali Hazarika, Rajiv K. Srivastava, Balamurali Mahalakshmi, Jeganathan Manivannan and Viphreゾie Sorbie

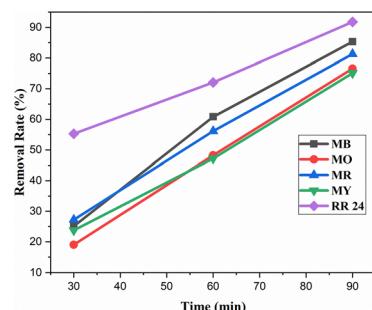
16256



Substituent effect on the solvatochromic behaviour of benzimidazole based donor–acceptor type fluorescent molecules

Souvik Santra and Nikhil Guchhait*

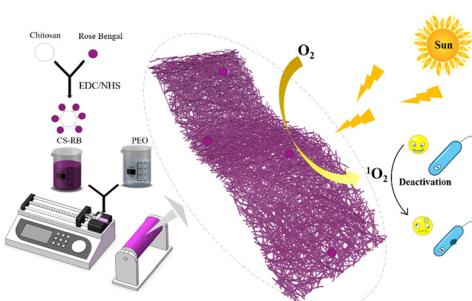
16271



Synergistic effects of the pyrite and graphitic carbon nitride-based bio-polymer composite for enhancing the photocatalytic degradation of reactive red-24 dye

Sadia Aroob, Muhammad Babar Taj,* Antoniadou Maria, Ismat Bibi, Muhammad Imran Khan* and Abeer M. Beagan*

16288



Preparation and characterization of rose bengal modified chitosan/polyethylene oxide nanocomposite membranes with photodynamic antimicrobial properties

Ming Huang, Yingfeng Wang,* Yuhan Zhu, Maoli Yin, Zhipeng Ma and XiaoJuan Li*

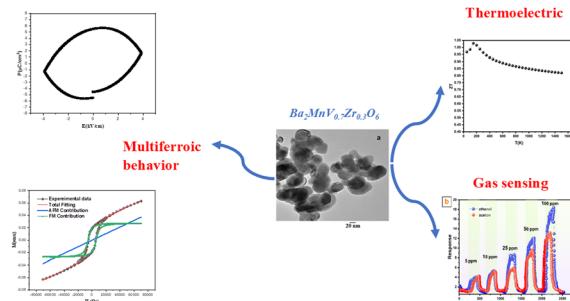


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16295

Multifunctional properties of a novel $\text{Ba}_2\text{MnV}_{0.7}\text{Zr}_{0.3}\text{O}_6$ multiferroic double perovskite

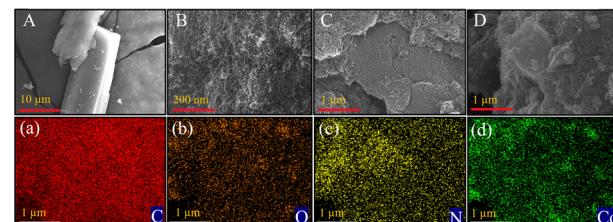
A. Mabrouki,* Olfa Messaoudi, Afrah Bardaoui, Amajd S. Aljaloud, Latifah Alfhaid and E. Dhahri



16307

A novel electrochemical biosensor based on a heterojunction-structured COF/Co₃O₄/MWCNT: enabling the detection of dopamine and uric acid in complex matrices

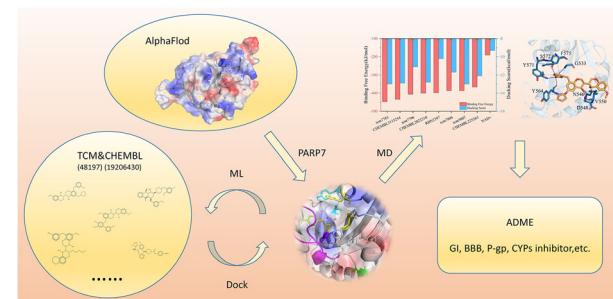
Ya-Xin Li, Dong-Mei Ma,* Xing-Ming Zhao,* Jun Xiang, Fu-Fa Wu and Rong-Da Zhao



16320

Large-scale identification of PARP7 inhibitors via computational modeling and simulation

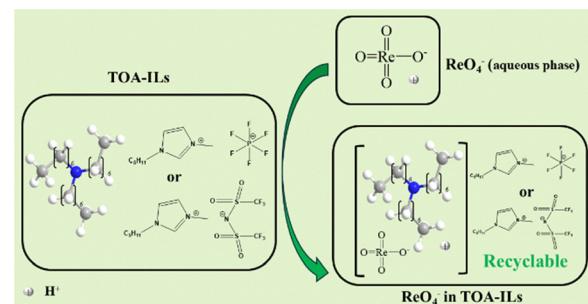
Xiaochen Yang, Baolin Liu and Daixi Li*



16333

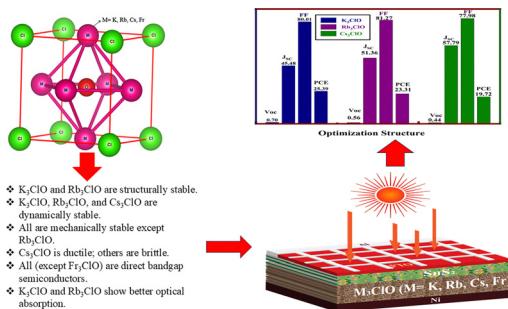
Solvent extraction of rhenium(vii) from aqueous solution using an ionic liquid system

Dawei Fang, Jia Li, Jie Yang, Donglu Fu,* Jie Wei* and Zongren Song*



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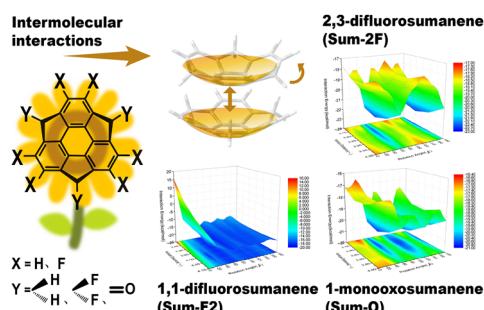
16340



First-principles design and photovoltaic evaluation of alkali-based M_3ClO anti-perovskites for high-efficiency lead-free solar cells

Md. Sakib Hasan Saikot, Rifat Rafiu, Md. Azizur Rahman,* Imtiaz Ahamed Apon, Ali El-Rayyes, Mohd Taukeer Khan, Zubair Ahmad and Mohd Shkir

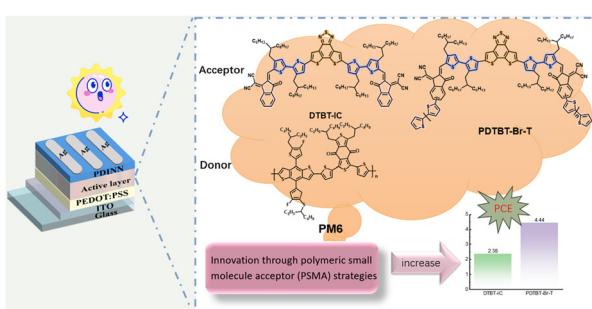
16370



Unraveling the substituent impact of fluorinated & oxidized sumanene derivatives on stacking interactions and charge transport

Xi Chen, Shuo Xu, Xinpeng Liu, Huan Wang, Simeng Gao and Fu-Quan Bai*

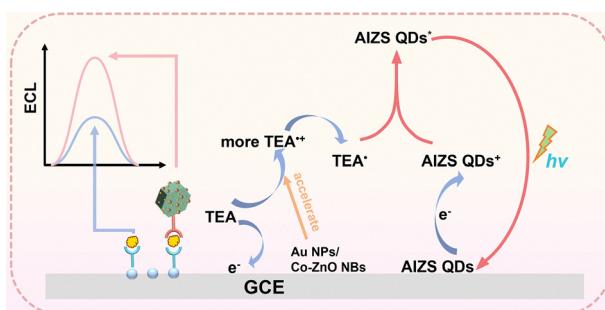
16382



Synthesis of dithieno[3,2-b:2',3'-d]benzo[1,2-c][1,2,5]thiadiazole-cored polymerized small-molecule acceptors with ordered backbone stacking and their application in all-polymer solar cells

Tiantian Wang, Jianhong Wei, Furong Shi,* Hejie Wang, Jinye He, Xudong Lv, Yuan Zhou, Pengzhi Guo,* Chenglong Wang and Yangjun Xia

16390



A signal-amplified electrochemiluminescence immunoassay based on AgInZnS QDs with Au NPs/Co-ZnO NBs as a co-reaction accelerator for the detection of CA242

Jie Zhang, Baokun Han, Xiaofei Sun, Shuangna Wang, Xinyue Wang, Yushu Lin, Yuying Liu, Feng Tang,* Qing Liu* and Shujun Wang*

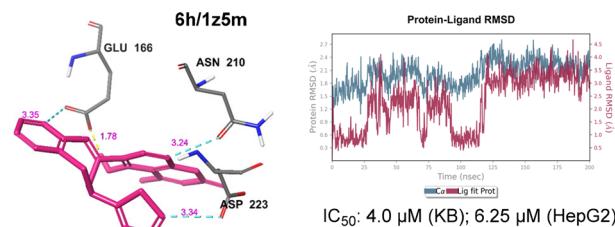


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16397

Synthesis, antiproliferative activity, ADMET, molecular docking, molecular dynamics simulation, and DFT study for coumarin-based 1,5-benzothiazepines

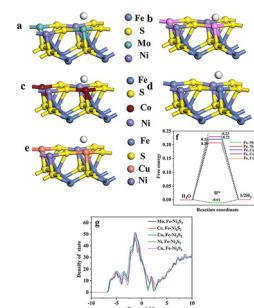
Duong Ngoc Toan,* Dinh Thuy Van and Nguyen Dinh Thanh*



16415

Controllable synthesis of M and Fe co-doped Ni_3S_2 ($\text{M} = \text{Mo, Cr, Co, Ni, Cu}$) catalysts for efficient urea oxidation and hydrogen production in urea electrolyte

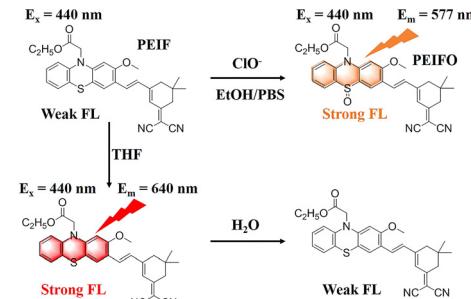
Fengchao Li, Xiaoqiang Du* and Xiaoshuang Zhang



16423

A novel dual-responsive fluorescent probe for moisture detection and hypochlorite sensing

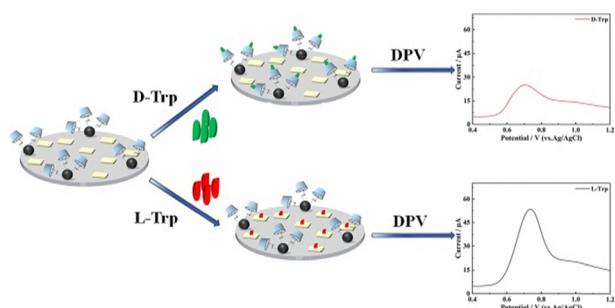
Yuehua Yuan, Siyi Shen, Chaoyi Yue, Mengqing Du, Yongjun Zhu, Yuzhen Wang, Feng Feng* and Maozhong Tian*



16433

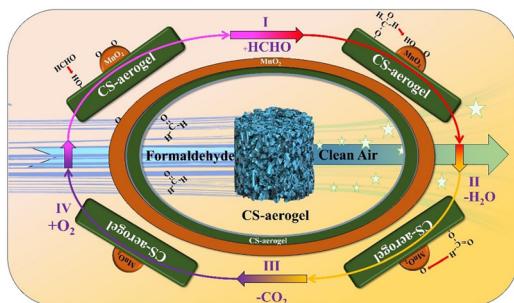
A sensitive electrochemical probe for the chiral identification of tryptophan isomers with carbon dot/chitosan composites

Mingfang Zhang, Fengxia Wang, Liang Ma, Xuewen Li, Yan Tang and Guang Yang*



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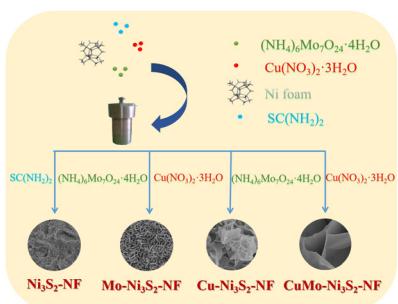
16444



Cross-linker-free fabrication of chitosan–MnO₂ composite aerogels with synergistic adsorption-catalysis for high-efficiency room-temperature formaldehyde elimination

Yulong Fan, Wuyu Wang and Xuelai Zhao*

16455



A CuMo dual-doped Ni₃S₂ porous ultrathin nanosheet as an efficient bifunctional electrocatalyst for urea–water electrolysis

Jiefei Li,* Mingyang Song, Xianrong Meng and Xingyue Qi