

IN THIS ISSUE

ISSN 1144-0546 CODEN NJCHES 49(11) 4271-4720 (2025)



Cover

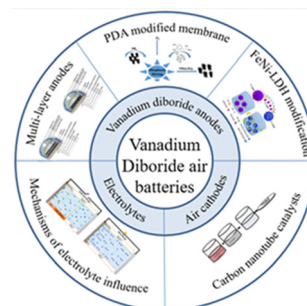
See Loreta Tamasauskaite-Tamasiunaite *et al.*, pp. 4308-4319. Image reproduced by permission of Loreta Tamasauskaite-Tamasiunaite from *New J. Chem.*, 2025, 49, 4308. Image created by Lelde Dobe.

PERSPECTIVE

4286

11-Electron transfer vanadium diboride employed as an anode of air batteries: status, progress, and challenges

Mingxue Yao, Nana Li, Meng Wang, Di Gu, Dandan Yuan and Baohui Wang*

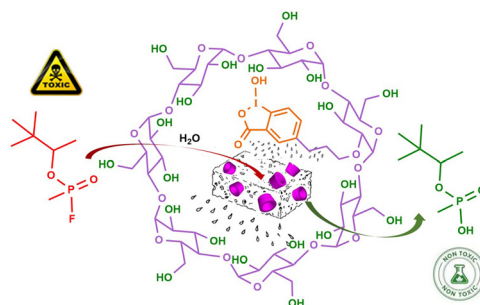


COMMUNICATIONS

4298

A functionalized fabric as a self-decontaminating textile for trapping and degrading organophosphorus nerve agents

B. Cornelio, N. Letort, K. Chakrour, I. Ferreira, L. Hespel, L. Lebrun and F. Estour*



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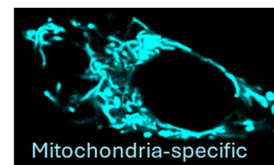
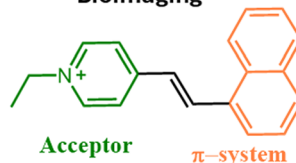
COMMUNICATIONS

4303

A large-Stokes shift styryl pyridinium derivative with a stable green-light emission for imaging mitochondria in live cells

Chathura S. Abeywickrama,* Kavinda M. Arachchige, Kaveesha J. Wijesinghe, Robert V. Stahelin and Yi Pang

Large Stokes' shift Probe for Bioimaging



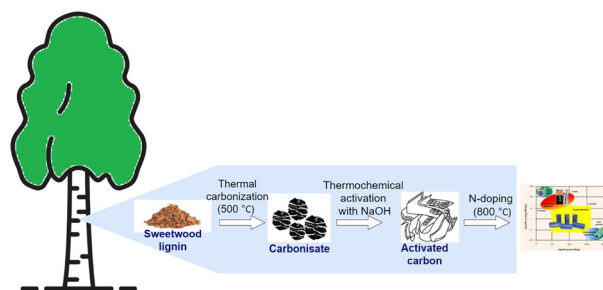
$\lambda_{\text{ex}} \approx 400 \text{ nm}$; $\lambda_{\text{em}} \approx 520 \text{ nm}$
 $\Delta\lambda > 100$

PAPERS

4308

Synthesis of high-performance multifunctional electrode material using sweetwood lignin as a precursor

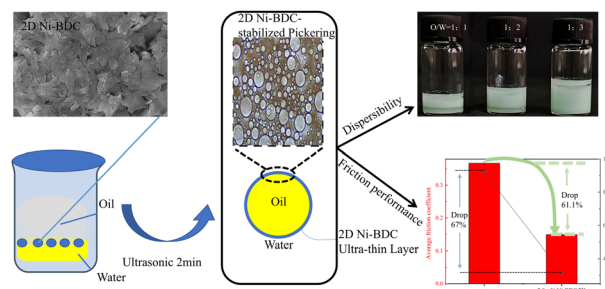
Loreta Tamasauskaite-Tamasiunaite,* Daina Upskuvienė, Aldona Balciunaite, Dijana Simkunaitė, Vitalija Jasulaitienė, Gediminas Niaura, Jolita Jablonskienė, Ramūnas Levinas, Ance Plavniecė, Aleksandrs Volperts, Galina Dobeļe, Aivars Zhurīnsh, Ivar Kruusenberg, Kätlin Kaare, Luis César Colmenares-Rausseo and Eugenijus Norkus



4320

2D Ni-BDC-stabilized Pickering emulsion for enabling friction-reducing application

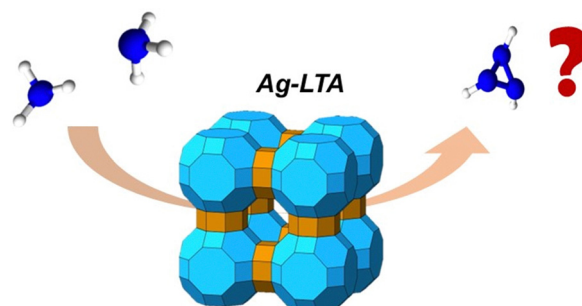
Yi-yan Xu, Chao Song, Lei Fan* and Zhi-lin Cheng*



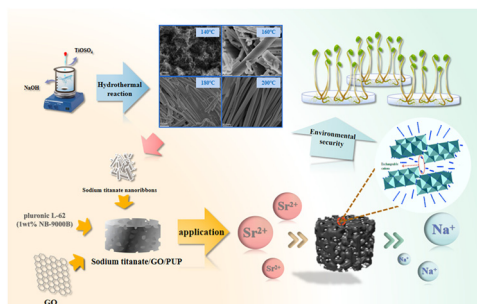
4333

The formation of cyclotriazane (N_3H_3) from ammonia in contact with a silver-exchanged LTA zeolite: a reliable synthesis pathway?

Rémi Beucher, Pavel Afanasiev, Emmanuel Lacôte and David Farrusseng*



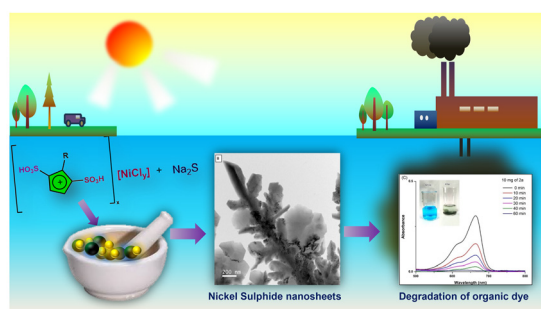
4339



Recyclable sodium titanate/graphite oxide/polyurethane polymer for efficient removal of radioactive strontium(II) from contaminated water

Yan Zhao, Yijun Wang, Xinyan Zhang,* Xinlu Wang and Chuanyu Qin*

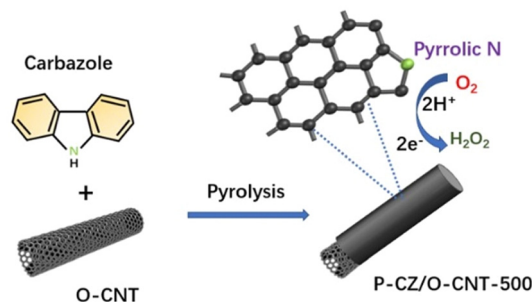
4353



Synthesis of nickel sulphide nanosheets using imidazolium-based chloronickellate ionic liquids as precursors/templates for sunlight-assisted degradation of organic dyes

Sukanya Das, Debanga Bhushan Bora, Sangeeta Kalita, Niharika Kashyap and Ruli Borah*

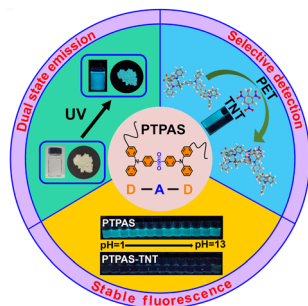
4371



Pyrrolic N-doped carbon materials for the electrosynthesis of H₂O₂ through the oxygen reduction reaction

Wenhui Yu, Chuanqi Fei, Jingyi Wang, Ruifen Tian* and Yinling Wang*

4376



A dual-state emission triphenylamine-based polymer with donor–acceptor–donor structural arrangement: facile synthesis and efficient selective detection of TNT based on fluorescence “turn-off”

Chi Zhong, Ziqi Wu, Yangqing Mao, Bing Zhao, Yi Sun,* Min Zheng, Mingru Zhou, GuanJun Chang* and Yewei Xu*

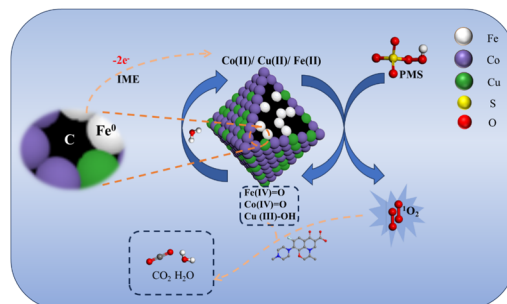


PAPERS

4387

Synergy between microelectrolysis and trimetallic MOFs activates perovskite monosulfate for ofloxacin degradation

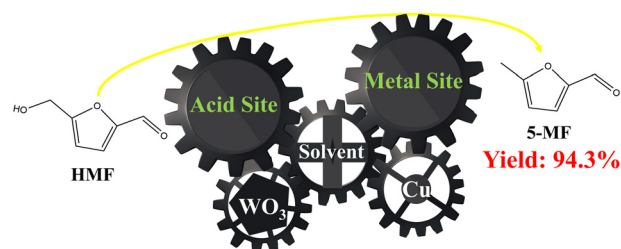
Fangke Yu,* Huiqi Hao, Jie Gou and Haoqing Li



4400

Non-precious Cu/WO₃ catalyst for hydrogenolysis of HMF to 5-MF with ultra-high selectivity in a continuous flow reactor

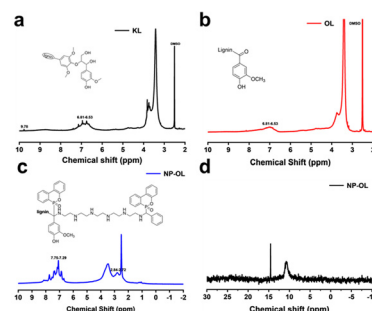
Wenfei Huang, Qian Xu, Han Lu, Xin Yao, Yuewen Ye, Rulong Zhou, Dongdong Li and Tongqi Ye*



4410

Preparation of a nitrogen and phosphorus containing lignin-based flame retardant using oxidized kraft lignin and its application in phenolic foam

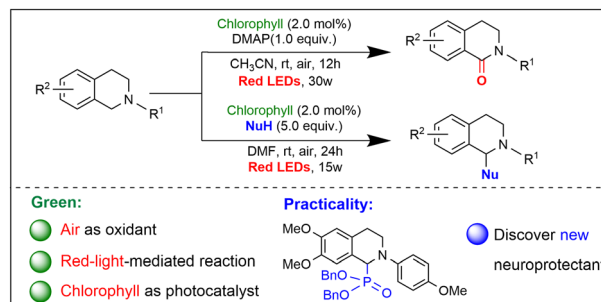
Fei Ge, Lei Zhong, Xiaohui Yang* and Minghao Zhou*



4421

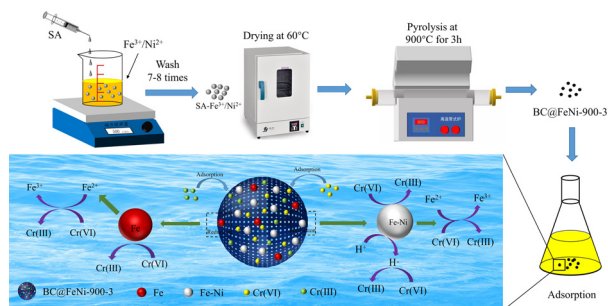
Red-light-induced high-efficiency oxidation and functionalization of tetrahydroisoquinoline derivatives using chlorophyll as a photocatalyst

Rong Zeng, Peng Yan, Bo Xu, Zhi-Liang Jing, He Liu, Wen-Jing Lai, Hao-Tian Xie, Sheng-Li Niu,* Shi-Ming Yang* and Qin Ouyang*



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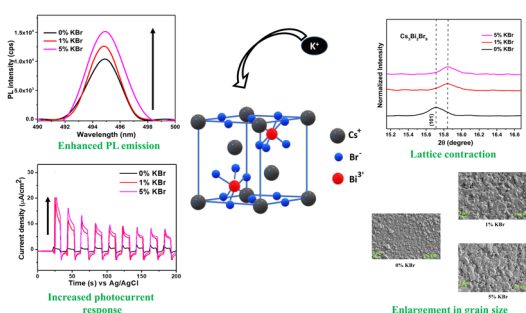
4427



Highly reactive iron/nickel bimetallic biochar composites for highly efficient remediation of Cr(vi)

Runhong Zhu, Yunlong Shi, Yi Zhou, Yi Xia, Qin Qi, Xiaojie Liang, Meijuan Kuang,* Zhenya Jia, Mengyue Wang and Changjiang Yu*

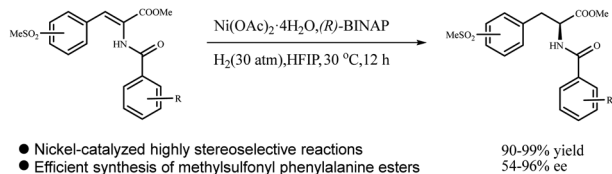
4438



Impact of potassium doping on the optoelectronic properties over inorganic and hybrid bismuth bromide perovskite thin films ($\text{A}_3\text{Bi}_2\text{Br}_9$, A = Cs^+ , MA)

Deepak Aloysius and Satyajit Gupta*

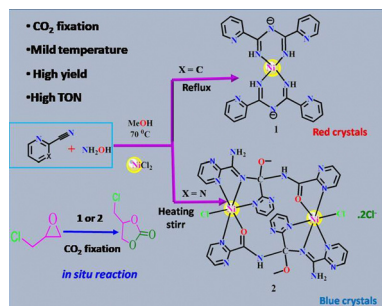
4446



Nickel-catalyzed asymmetric hydrogenation of substituted cinnamic acid esters to synthesize methylsulfonyl-derived phenylalanine

Chunzhi Ju, Peng Wang, Lingkai Kong, Jisheng Cai, Guangliang Zhang* and Suoqin Zhang*

4451



Nickel(II)-mediated *in situ* complex formation with unexpected ligand transformations: crystal structures, DFT calculations, and catalytic activity in CO_2 fixation reactions

Malay Dolai,* Urmila Saha, Juli Nanda Goswami, Biswajit Bhattacharya, Franziska Emmerling, Ahmad A. Ifseisi and Surajit Biswas*

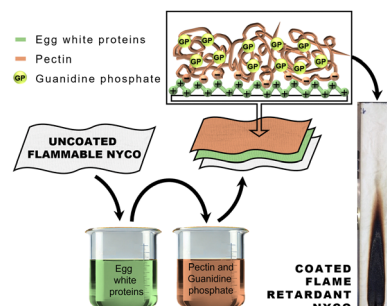


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4464

Sustainable two-step polyelectrolyte complex for flame retardant nylon-cotton fabric

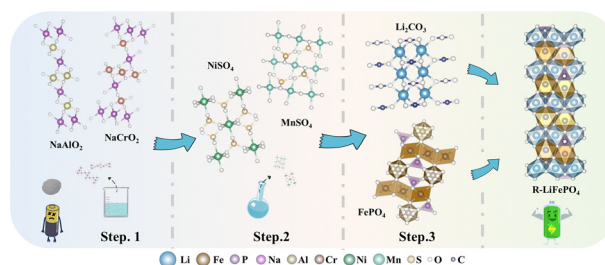
Jovana Petkovska, Marija Radoičić, Darka Marković, Danixa Rodriguez-Melendez, Dallin L. Smith, Ethan T. Iverson, Vesna Dimova, Maja Radetić, Jaime C. Grunlan* and Igor Jordanov*



4477

Study on impurity removal from black powder of lithium iron phosphate cathode materials

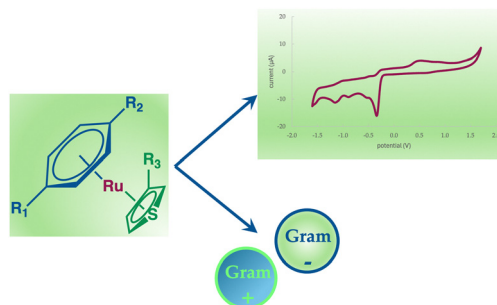
Yajie Zhou, Yuezhi Zhang, Shuaiqi Gong, Xin Zhao, Yulin Min and Penghui Shi*



4488

Sandwich-type (η^6 -*p*-cymene)Ru(η^5 -thiophene) complexes: synthesis, spectroscopic and electrochemical characterization, and antimicrobial activity

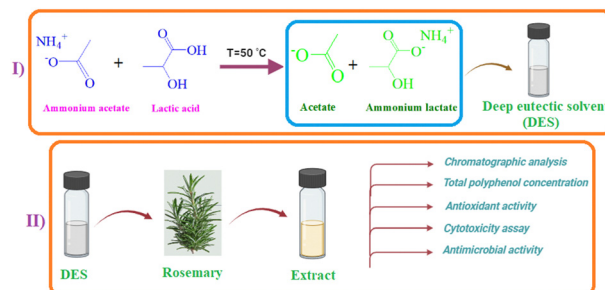
Maria I. Pilo,* Antonio Zucca, Giuseppe Vacca, Gavino Sanna, Nadia Spano, Germano Orrù and Alessandra Scano



4495

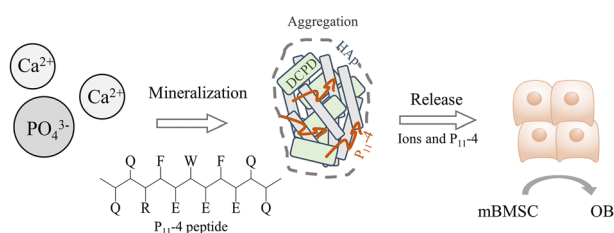
Deep eutectic solvent-based extraction of rosemary leaves: optimization using central composite design and evaluation of antioxidant and antimicrobial activities

Mohammad Hashem Hashempur, Zahra Zareshahrabadi, Sara Shenavari, Kamiar Zomorodian, Banafsheh Rastegari and Forough Karami*



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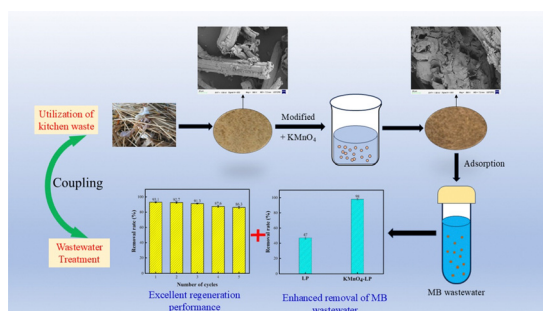
4506



Effect of peptide secondary structure on calcium phosphate mineralization for bone regeneration

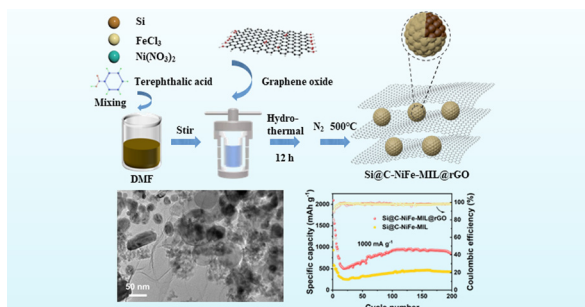
Liting Liu, Dongyue Yin, Kexin Liu, Jian Ren, Wanru Han and Chunlin Deng*

4512

Enhanced removal of methylene blue using KMnO_4 -modified kitchen waste-derived lignin

Hao Hu,* Kui Li, Yan-Jun Liu, Zheng-Hao Li, Yan-Kun Liu, Lian-Kun Dong and Kun Ding*

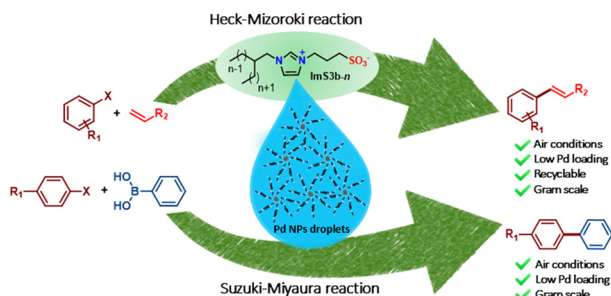
4522



NiFe-MIL-derived Si@C nanoparticles decorated on graphene sheets for efficient lithium storage

Jie Huang, Yanlin Zhang, Junhong Lu, Haoyang Jiang, Ben Liang, Benyuan Wang, Dafang He* and Haiqun Chen*

4530



Sustainable Heck–Mizoroki and Suzuki–Miyaura reactions mediated by aqueous palladium nanoparticles and imidazolium–sulfonate additives

Elvis N. Nishida, Laíze Zaramello, Roberta R. Campedelli, Mateus H. Keller, Raphaell Moreira and Bruno S. Souza*

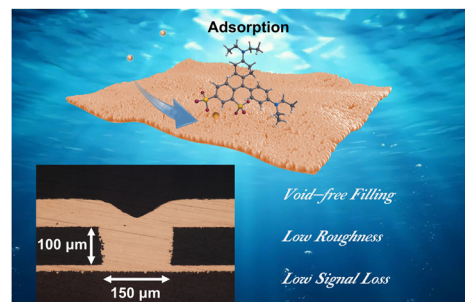


PAPERS

4538

Filling performance of an Acid Blue 1 leveler on blind microvias

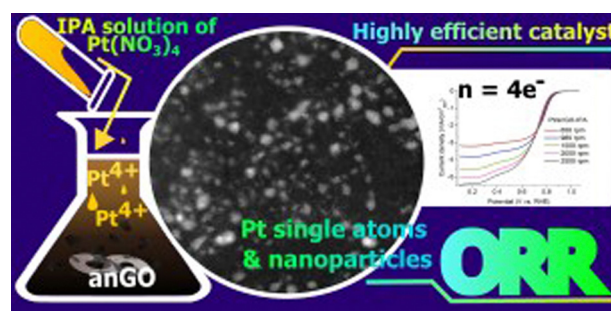
Mingjie Li, Xuesong Peng, Jie Jiang, Yaqiang Li,*
Fan Meng, Youzheng Wu, Maozhong An,
Ruopeng Li,* Penghui Ren* and Peixia Yang*



4547

Highly dispersed nanostructured platinum catalysts for the oxygen reduction reaction: the roles of the platinum precursor and the synthesis conditions

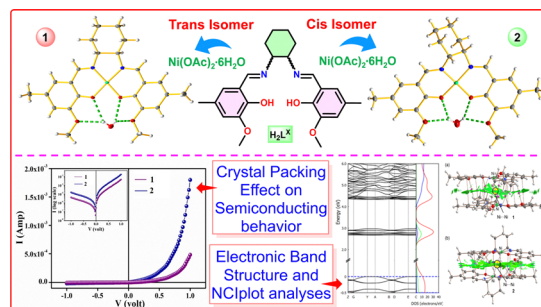
Anna Prytkova, Vasiliy Brusko, Maria Kirsanova,
Igor Yanilkin and Ayrat M. Dimiev*



4557

Impact of isomeric ligands on molecular stacking and semiconducting behavior in square planar Ni(II) complexes

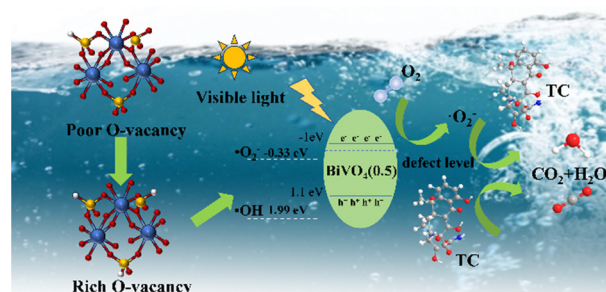
Narayan Ch. Jana, Mainak Das, Paula Brandão,
Joaquin Ortega-Castro, Antonio Frontera,
Partha Pratim Ray* and Anangamohan Panja*



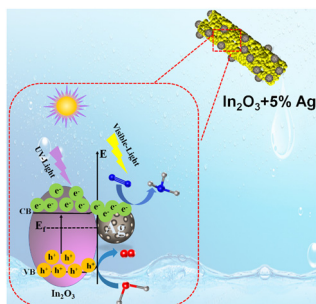
4571

Significantly enhanced photocatalytic degradation towards tetracycline hydrochloride in BiVO4 via surface defect engineering

Lv Qian, Junfu Xiong, Xicheng Li, Bicheng Ji and
Changzheng Wang*



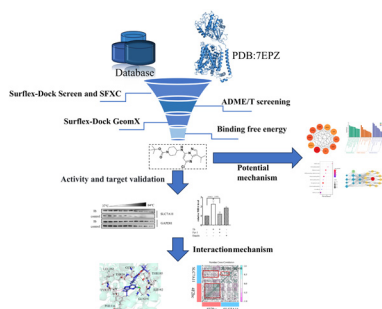
4580



Ag nanoparticles modified hollow tubular In_2O_3 for enhanced photocatalytic nitrogen reduction to ammonia

Yang Yang, Mengyao Tan, Xiaoman Li* and Min Luo*

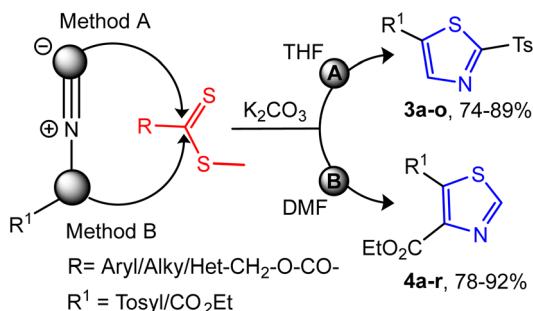
4590



Identification and molecular mechanism study of a novel small molecule inhibitor targeting solute carrier family 7 member 11 for the treatment of hepatocellular carcinoma

Xiaomeng Wang, Yan Yang, Qiao Fu, Jing Luo and Juan Wang*

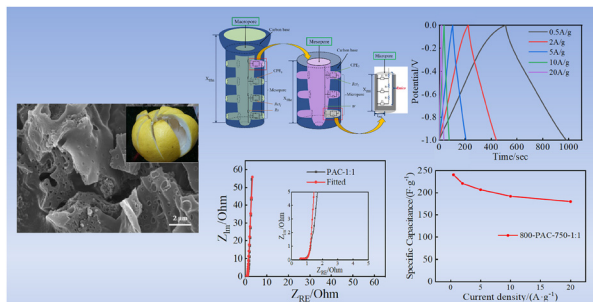
4604



Base-promoted regioselective synthesis of alkyl (2-tosyl/4-ethylcarbonyl) thiazole-5-carboxylates employing dithioates and active methylene isocyanides

Chikkappaiahnayaka Santhosh, Krishna Ravi Singh, Manoj V. Mane, Kalleshappa Sheela, Kalleshappa Sharath and Maralinganadoddi P. Sadashiva*

4615



Electrochemical impedance model-assisted optimization of biomass hierarchical porous carbon electrodes for supercapacitors

Yujie Zhang, Xu Ren, Ling Liu, Ridong He* and Yanfang Gao*

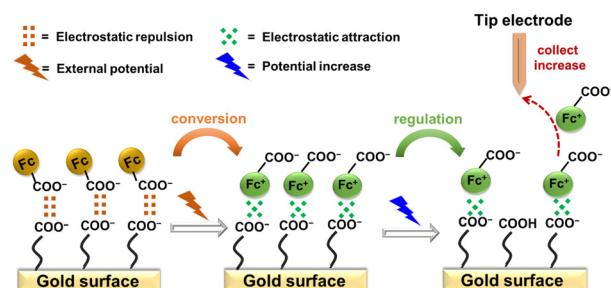


PAPERS

4625

In situ conversion of electrostatic repulsion into attraction and its regulation induced by external potential on the surface of self-assembled monolayers

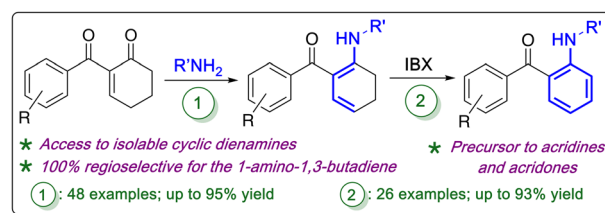
Zhuangzhuang Chen and Huibo Shao*



4639

Access to isolable cyclic dienamines and *N*-aryl-2-aminobenzophenones from Morita–Baylis–Hillman ketones

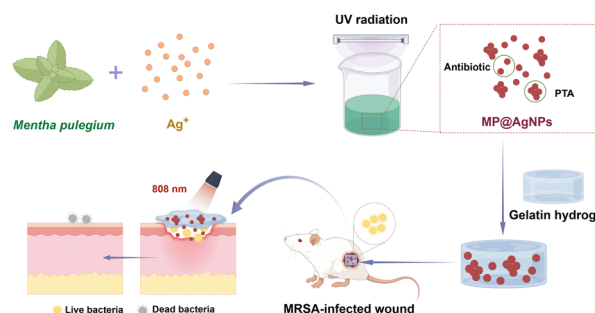
Sachin Sharma, Nikita Kanwar, Akram Gulam Hussain Khan and Srinivasan Easwar*



4647

Fabrication of photothermal silver nanoparticles for accelerating MRSA-infected wound healing

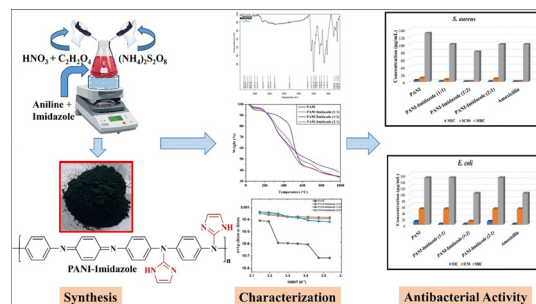
Simin Wei, Yuhui Wang, Mengmeng Wang, Siqi Su, Mengke Hao and Yinghui Wang*



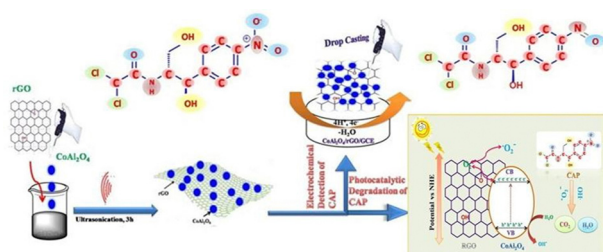
4658

Molecular docking and antibacterial activity of a one-pot synthesized novel polyaniline substituted imidazole (PANI–imidazole) copolymer

Chetna Kumari, Amrita Singh, Nirmala Kumari Jangid,* Jaya Dwivedi and Swapnil Sharma



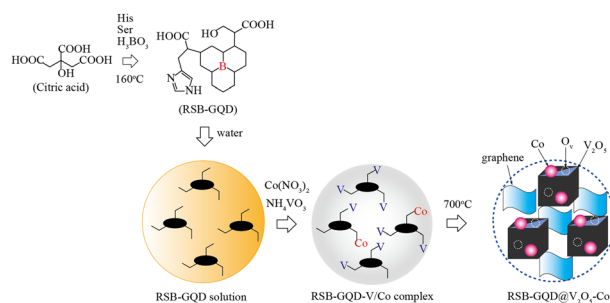
4668



Rapid detection and visible light driven photocatalytic degradation of chloramphenicol in aqueous medium using a $\text{CoAl}_2\text{O}_4/\text{rGO}$ nanocomposite

Kamalpreet Kaur, Tarab Akhtar, Gagandeep Singh, Navneet Kaur* and Narinder Singh*

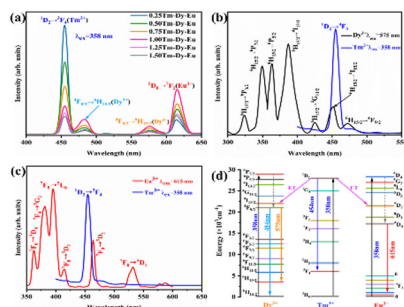
4682



Co-doped V_2O_5 nanozyme with excellent peroxidase- and oxidase-like activities for efficient degradation of oxytetracycline without an activator

Li Ruiyi, Yang Chen and Li Zaijun*

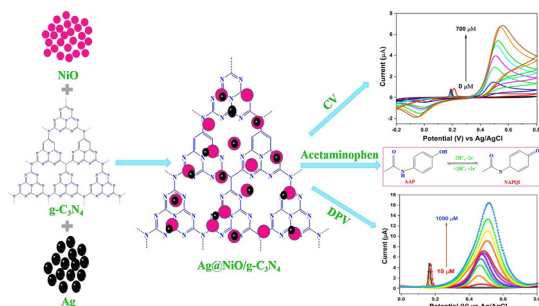
4692



Study on luminescence and energy transfer of $\text{Tm}^{3+}-\text{Dy}^{3+}-\text{Eu}^{3+}$ tri-doped BBaLiAlP glass to realize white light emission

Li Wang, Yeye Zhang and Zhongli Zhu*

4703



$\text{Ag}@\text{NiO}/\text{g}-\text{C}_3\text{N}_4$ nanocomposite: an efficient and high-performance electrochemical sensor for acetaminophen detection

Kanagaraj Narayanan, Krishnan Senthil Murugan* and Thillai Sivakumar Natarajan*



EXPRESSION OF CONCERN

4716

Expression of Concern: Facile synthesis and investigation of 1,8-dioxooctahydroxanthene derivatives as corrosion inhibitors for mild steel in hydrochloric acid solution

Behrooz Maleki,* Ali Davoodi, Mojtaba Vakili Azghandi, Mehdi Baghayeri, Elahe Akbarzadeh, Hojat Veisi, Samaneh Sedigh Ashrafi and Massomeh Raei

CORRECTION

4717

Correction: 2D Ni-BDC-stabilized Pickering emulsion for enabling friction-reducing application

Yi-yan Xu, Chao Song, Lei Fan* and Zhi-lin Cheng*

