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Cover

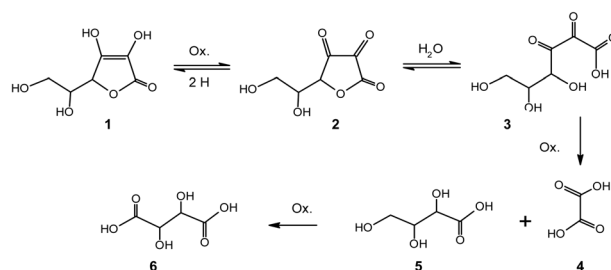
See Musaib Y. Wani and Shakeel A. Shah, pp. 19044-19059. Image reproduced by permission of Musaib Y. Wani and Shakeel A. Shah from *New J. Chem.*, 2024, **48**, 19044. Cover image was generated using Google Gemini.

PERSPECTIVE

19017

Ascorbic acid in vanadium biochemistry, pharmacology and detoxification

Enrique J. Baran

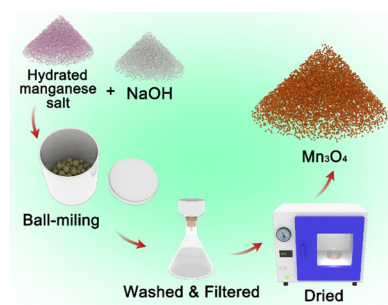


COMMUNICATIONS

19025

Rapid solid-state synthesis of Mn_3O_4 nanocrystals at room temperature

Wei Chen and Haisheng Fang*



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Fundamental questions
Elemental answers

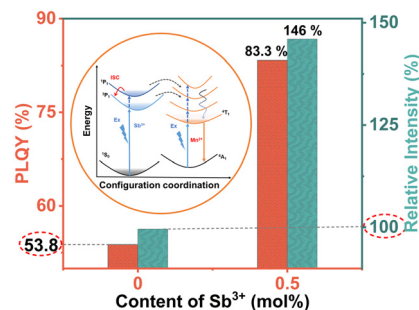


COMMUNICATIONS

19030

Synchronously improved luminescence efficiency and thermal stability of organic–inorganic chloride single crystals through doping of Sb^{3+}

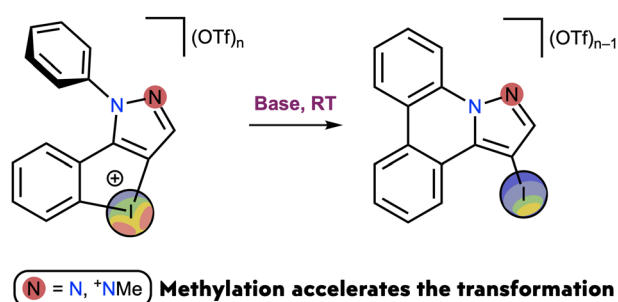
Zongqi Chen, Aibo Li, Yushan Xie, Haoqi Long, Qiang Zhou,* Long Jiang, Peng Ren and Zhengliang Wang*



19034

Base-mediated intramolecular aryl–aryl coupling in pyrazolyl-containing iodolium salts

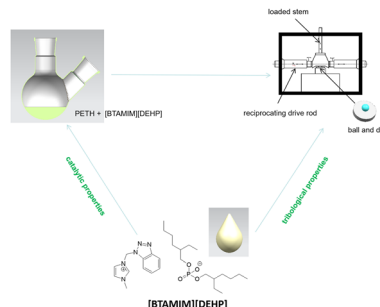
Yana V. Safinskaya, Mikhail V. Il'in and Dmitrii S. Bolotin*



19040

A green method for the synthesis of lubricating ester oil using a bi-functional ionic liquid

Yanan Wang, Qilong Zhao, Jun Yin, Huaigang Su, Hongyuan Yu and Wenjing Lou*

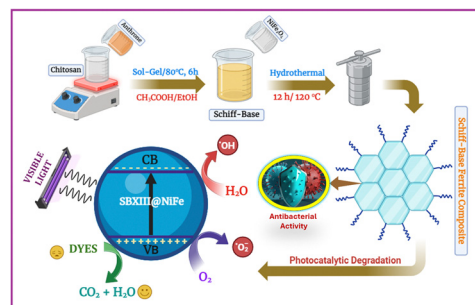


PAPERS

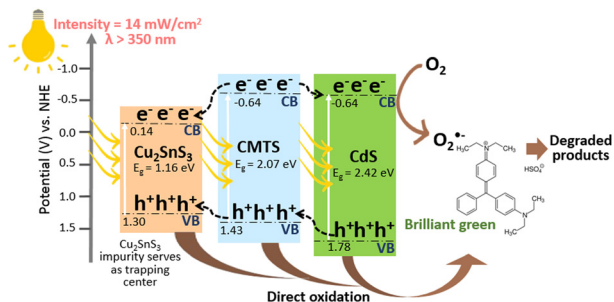
19044

Smart chitosan Schiff base ferrite: a dual-action visible light photocatalyst for dye degradation and antimicrobial defense

Musaib Y. Wani* and Shakeel A. Shah*



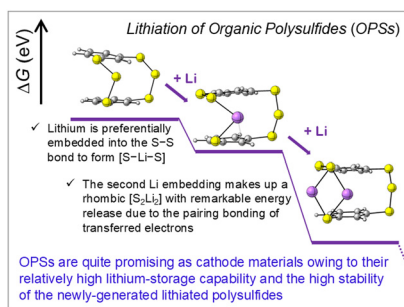
19060



Visible-light-active type-II heterojunction CdS@Cu_{0.5}Mg_{2.5}SnS₄ composites for the efficient removal of brilliant green dye

Ashmalina Rahman, Fazlurrahman Khan, James Robert Jennings, Young-Mog Kim and Mohammad Mansoob Khan*

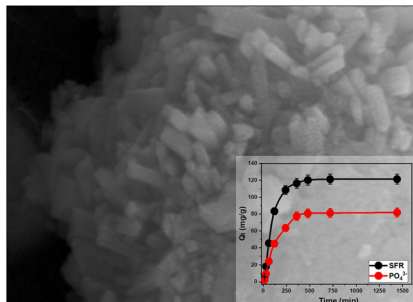
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Lithiation of organic polysulfides: insight into embedding site preference and lithium storage capability from DFT calculations

Junyi Liu, Lin Zhang and Zexing Cao*

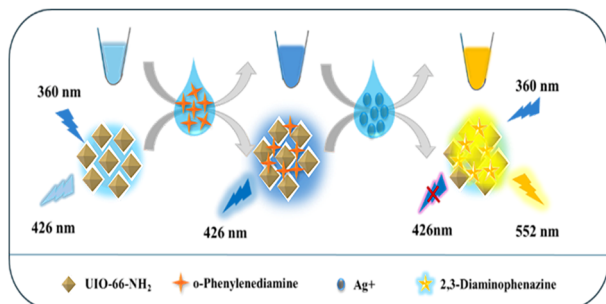
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Facet-dependent adsorption of safranin dye and phosphate ions by synthesized hematite nanorods derived from natural lateritic iron ore: steric and energetic investigations

Dina Mostafa, Nabila Shehata, Mohamed Shaban,* Haifa A. Alqhtani, Ahmed A. Allam and Mostafa R. Abukhadra*

19096



A dual-functional fluorescent nanoprobe based on UIO-66-NH₂ for the continuous detection of o-phenylenediamine and Ag⁺

Yanmei Si, Yansong Li, Ranxu Zhou, Xin Zhang, Wei Liu, Duyuan Yue* and Yehao Yan*

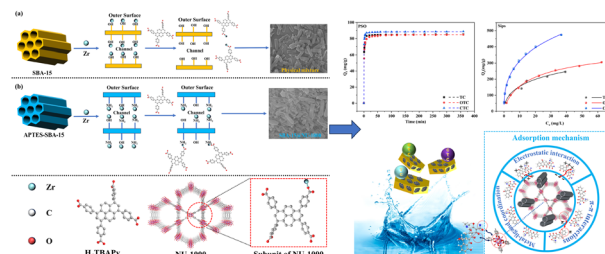


PAPERS

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Amino functional SBA-15 assisted NU-1000 for the rapid and efficient adsorption of tetracycline antibiotics

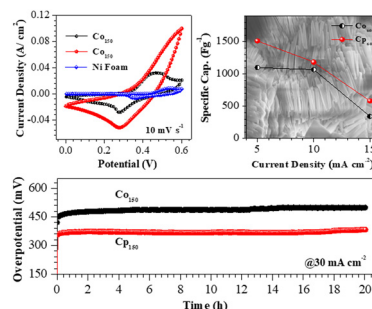
Jiawei Yang, Junfei Wu, Lina Gao, Long-Hui Duan and Jing Wang*



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Cobalt phosphate nanorod bundles for efficient supercapacitor and oxygen evolution reaction applications and their temperature dependence

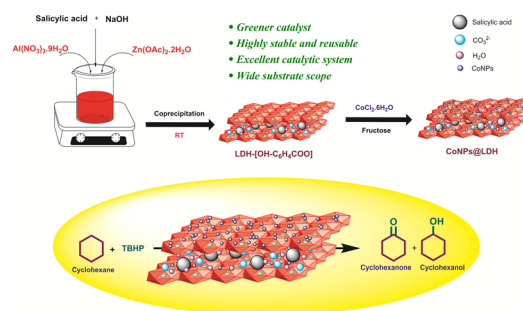
Sushama M. Nikam, Suhas H. Sutar, Shubham D. Jituri, Akbar I. Inamdar* and Sarfraz H. Mujawar*



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Selective oxidation of cyclohexane to KA oil over Co and Fe nanoparticles immobilized on layered double hydroxide nanocatalytic system

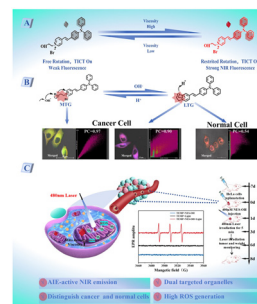
Jagat Singh Kirar,* Neeraj Mohan Gupta, Kailash Chandra, Hitesh Kumar Vani, Yogesh Deswal and Savita Khare



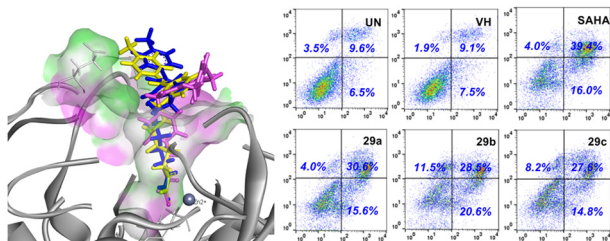
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Dual-targeted and viscosity-sensitive infrared AIE photosensitizer based on tumor microenvironmental response for photodynamic cancer therapy

Xiaoye Wen, Zhilin Shi, Yongfei Huang and Zhefeng Fan*



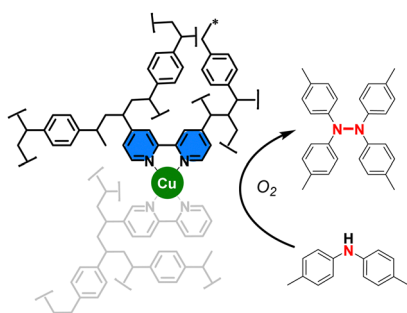
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Design, synthesis and bioevaluation of novel N-heterocyclic hydroxamic acids as histone deacetylase inhibitors and their antitumor activity study

Nguyen Quoc Thang, Nguyen Thi Nga, Ji Su Kim, Hwa Kyung Kim, Jiyeon Kim, Jong Soon Kang, Truong Thanh Tung, Do Thi Mai Dung,* Duong Tien Anh,* Sang-Bae Han* and Nguyen-Hai Nam*

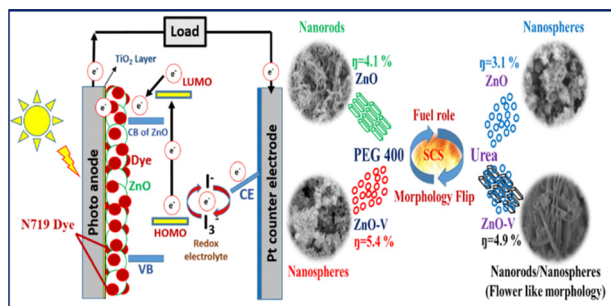
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Molecular copper complexes embedded within porous polymer macroligands for the heterogeneously catalyzed aerobic oxidative formation of N–N bonds

Rémi Beucher,* Emmanuel Lacôte, Jérôme Canivet* and David Farrusseng

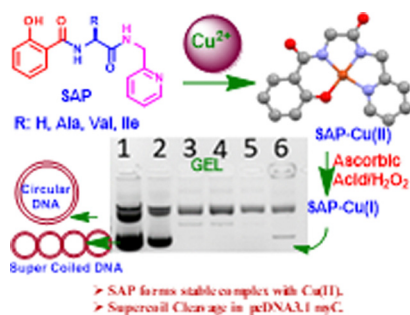
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Fuel-influenced nanorod-to-nanosphere transformation of vanadium-doped ZnO and its performance in dye-sensitized solar cells

Sasikumar Kuppasamy, Theanmozhi Mohan, G. Gnana kumar, Chinnakonda S. Gopinath, Arindam Saha and Robin Jude Vimal Michael*

19188



Synthesis and DNA cleavage studies of rationally designed metallopeptides from N-salicyl-AA-picolamide (SAP) and Cu(II) ions

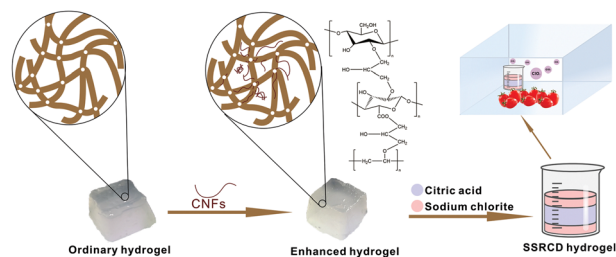
Subhashree S. Panda, Supriya Kumari, Manjusha Dixit and Nagendra K. Sharma*



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A solid slow-release chlorine dioxide system using a modified starch-based nanofiber hydrogel for fruit preservation

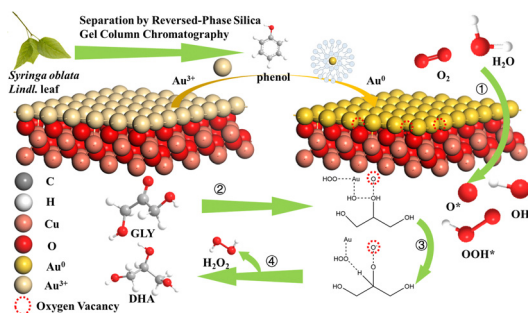
Yuluo Zheng, Beiwei Wang, Yafei Qin, Bingchen Shi, Lijuan Tang, Shuangling Huang and Lijie Huang*



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Plant-mediated biosynthesized Au/CuO catalysts for efficient glycerol oxidation to 1,3-dihydroxyacetone: effect of biomass component on catalytic activity

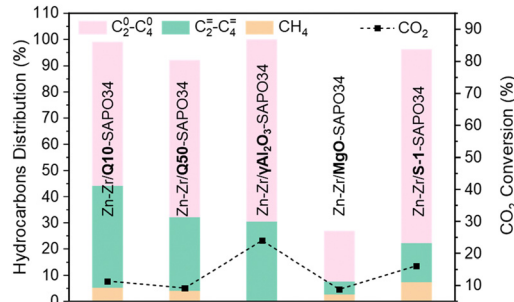
Li Cui, Fei Wang, Xiaoli Zhang, Yuewen Chen, Hai Liu, Yihu Ke, Yimin Wang* and Xiya Zhang*



19220

CO₂ hydrogenation to light olefins over Zn–Zr/support-SAPO-34: comparison of different supports

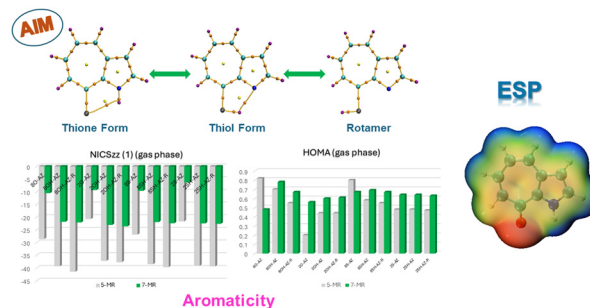
Peng Lu, Qianwen Hu, Kui Wang, Shiyong Chen, Zongxiao Li, Xinjie Chen, Chuang Xing, Yanhong Wang* and Ce Du*



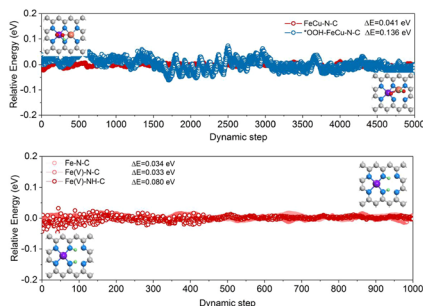
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Structures, aromaticity, AIM, and NBO analyses of hydroxy and mercapto azaazulene: a DFT study

Abrar S. Hussein, Mohammed T. Abdel-Aal, Ahmed M. El-Nahas and Asmaa B. El-Meligy*



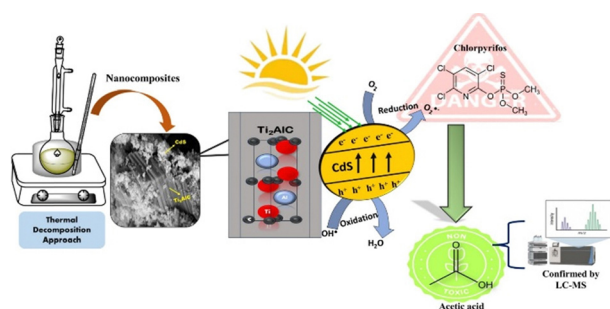
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Insights into (Mn/Fe/Co)M–N–C dual-atom catalysts for the oxygen reduction reaction: the critical role of structural evolution

Xiaoming Zhang, Suli Wang,* Zhangxun Xia, Huanqiao Li, Shansheng Yu and Gongquan Sun*

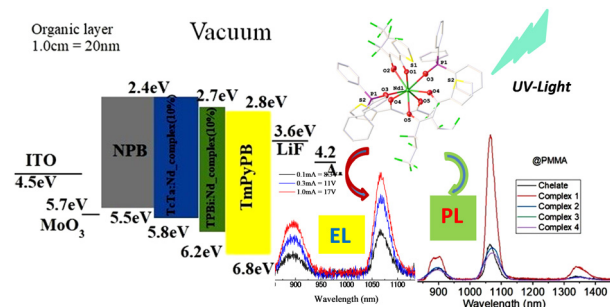
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Photocatalytic mineralization of chlorpyrifos using CdS/MAX-phase nanocomposites and detailed investigation of the mechanism and degradation pathways

Jinal Patel, Rama Gaur,* Syed Shahabuddin* and Inderjeet Tyagi

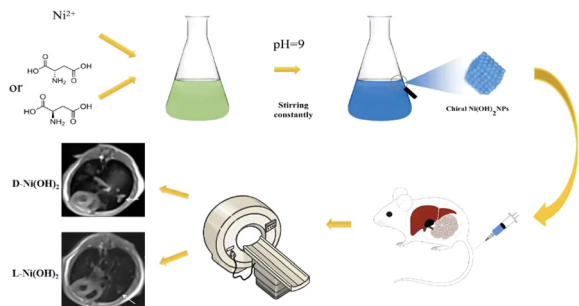
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Photophysical and optoelectronic studies of 1.06 and 13.3 μm emissive neodymium complexes

Zubair Ahmed,* Asgar Ali, Faisal Imam, Rafael S. Carvalho and Marco Cremona

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Chiral ultrasmall nickel hydroxide nanoparticles enable enantioselective magnetic resonance imaging of hepatocellular carcinoma and lung metastases

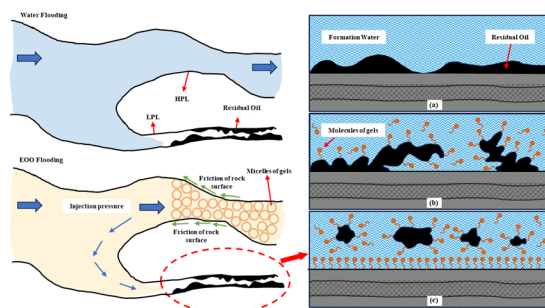
Yu Li, Zefan Zhang, Meimei Gao, Jinwei Bai, Xuan Zhang, Wenyan Cheng, Baodui Wang* and Junqiang Lei*



19296

Study of a small molecule gel fracturing fluid and its *in situ* conversion into an efficient oil displacement agent

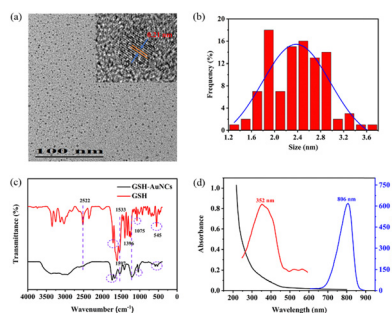
Jingwen Yang, Bo Liu, Tianjiang Wu, Pengcheng Zhou, Qiaona Liu, Ying Tang, Hai Huang* and Gang Chen*



19308

Near-infrared fluorescence probes for the selective and sensitive detection of sulfur ions based on glutathione capped gold nanoclusters

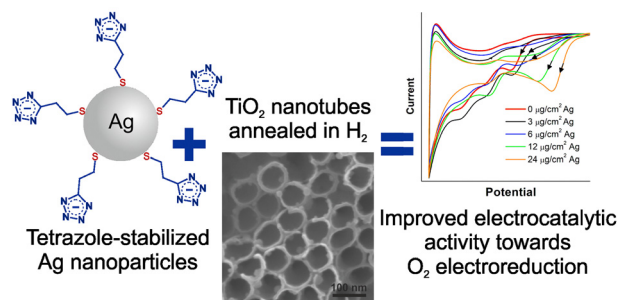
Jia Shi, Zhuorong Fan, Rongrong Zhang, Ziyu Feng, Xiaojuan Gong, Shengmei Song and Wenjuan Dong*



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Tetrazole-stabilized Ag nanoparticles incorporated into TiO₂ nanotubes for oxygen electroreduction

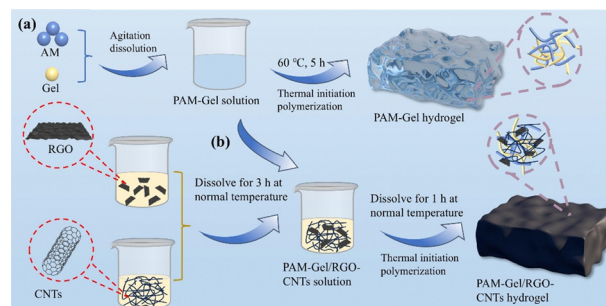
Anna Mal'tanova,* Nikita Bel'ko, Maria Nichick, Pavel Malakhovskiy, Artem Konakov, Sergei Voitekovich, Tatiana Gaevskaya, Battsengel Baatar, Michael Samtsov, Shude Liu and Sergey Poznyak



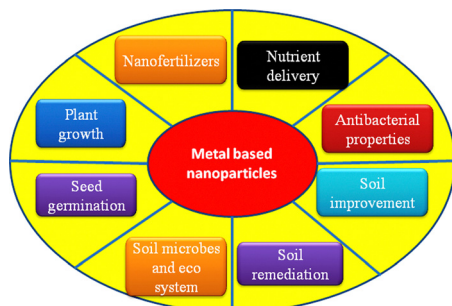
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Preparation of high-toughness PAM-Gel/CNTs-RGO hydrogel and its electromagnetic shielding properties

Kunlan Diao, Teng Zhou, Jijia Du, Yuhuan Xu and Daohai Zhang*



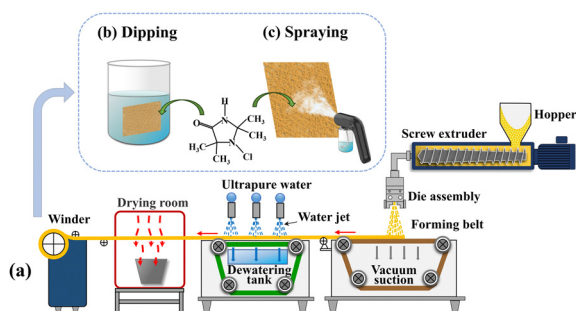
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Modern agricultural breakthroughs made using metal-based nanoparticles: an environmentally friendly strategy

Milan K. Barman

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Preparation, characterization and antibacterial properties of hydro-charged melt-blown nonwovens coated with an *N*-halamine

Chao Liu,* Jiayan Shi, Fengxiang Luo and Xing Zhang*

EXPRESSION OF CONCERN

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Expression of concern: Sonochemistry: a good, fast and clean method to promote the removal of Cu(II) and Cr(VI) by MWCNT/CoFe₂O₄@PEI nanocomposites: optimization study

Mohammad Hassan Omidi, Mohammad Hossein Ahmadi Azqhandi* and Bahram Ghalami-Chooabar*

