NJC

New Journal of Chemistry. A journal for new directions in chemistry

rsc.li/njc

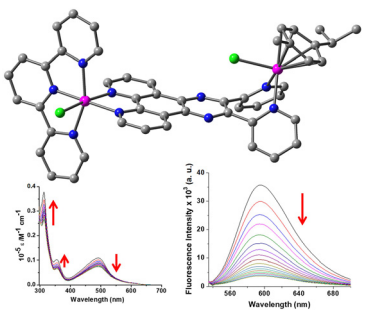
The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

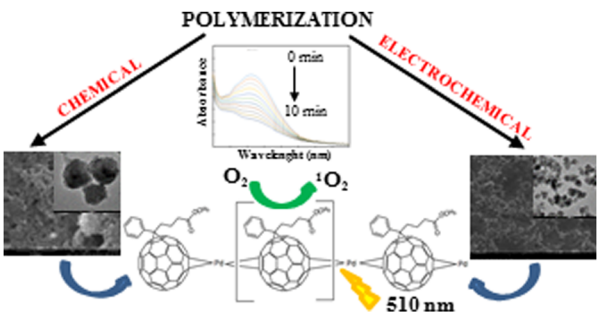
IN THIS ISSUE

ISSN 1144–0546 CODEN NJCHES 49(37) 15985–16466 (2025)

Cover
See Anwesha Mohanty and Srikanta Patra, pp. 15999–16007. Image reproduced by permission of Anwesha Mohanty and Srikanta Patra from *New J. Chem.*, 2025, **49**, 15999.

PAPERS





ROYAL SOCIETY OF CHEMISTRY

GOLD OPEN ACCESS

EES Solar

Exceptional research on solar energy and photovoltaics

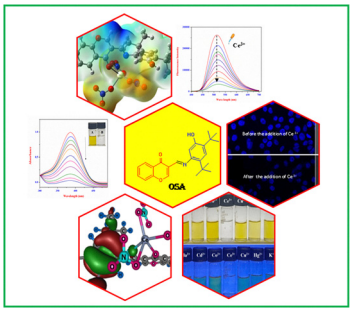
Part of the EES family

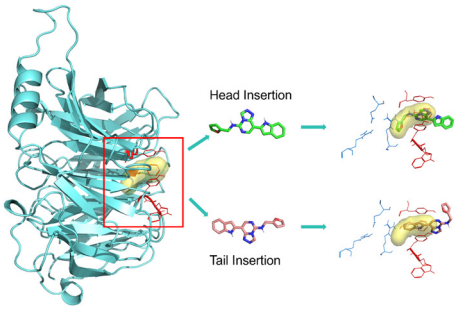
Join in | Publish with us

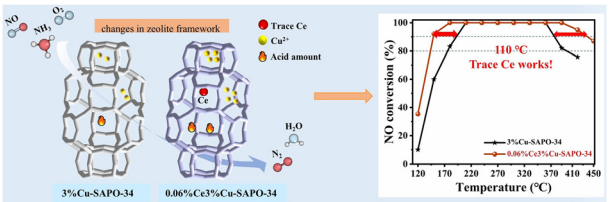
rsc.li/EESSolar

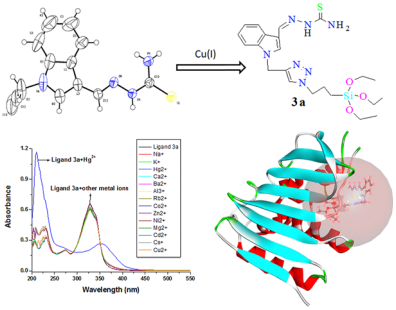
Registered charity number: 207890

PAPERS



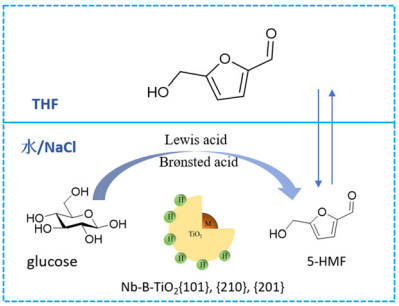






PAPERS

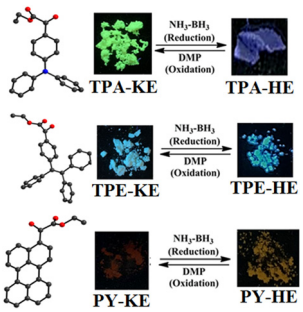
16070



Synergistic effect of metal-doped TiO_2 for glucose dehydration

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

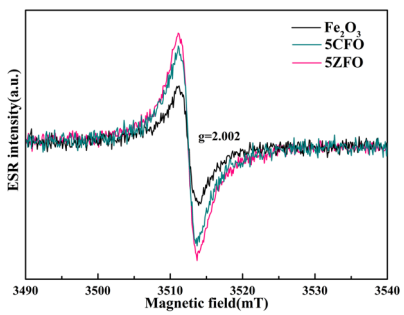
16075



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*

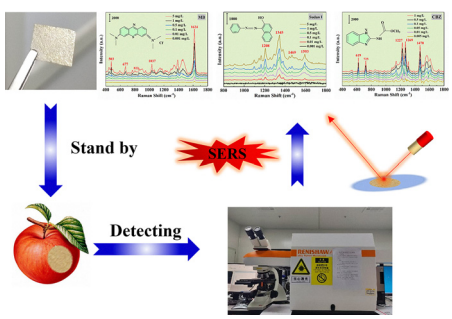
16086



Conversion of Fe_2O_3 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

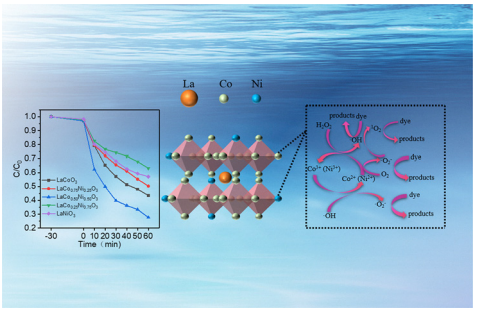
16097

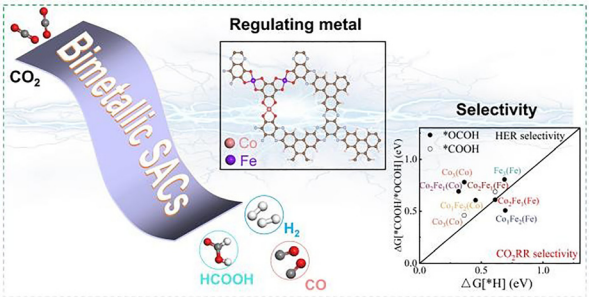


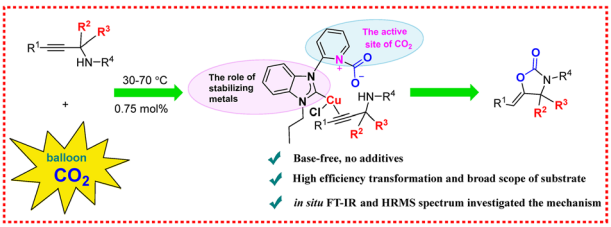
Long-chain thiol-regulated hierarchical flower-like silver nanoparticles self-assembled on filter paper as highly sensitive flexible SERS substrates for pesticide residue detection

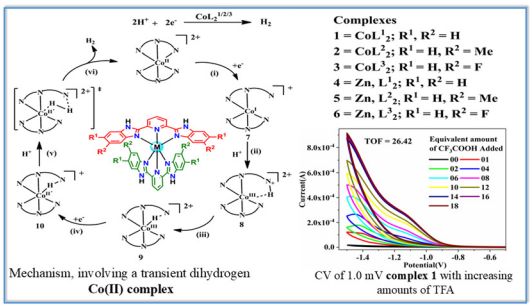
Yunpeng Shao,* Wenlong Deng, Yue Niu, Zicheng Zhang, Jiwei Song, Yuan Yao and Linyu Mei

PAPERS









Mechanism, involving a transient dihydrogen Co(II) complex

CV of 1.0 mV complex 1 with increasing amounts of TFA

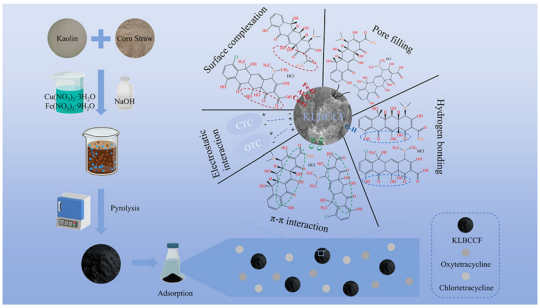
PAPERS

PAPERS

16187

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

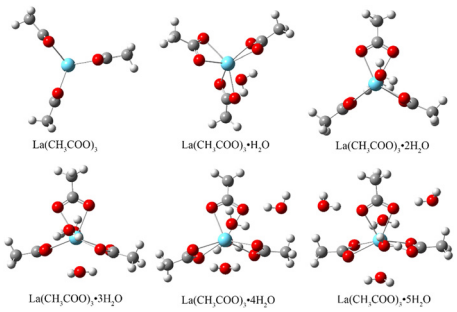
Yufei Liang, Lihong Zhao* and Liangbin Chen



16199

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

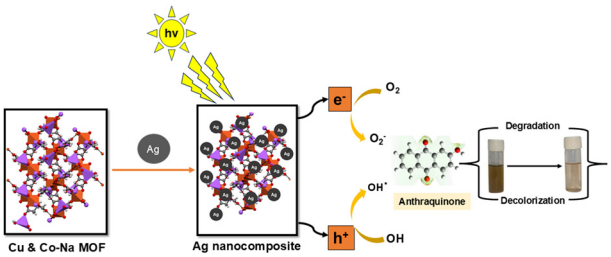
Caocheng Li, Wen Fang, Si Yang, Yuefei Zhang,* Lian Zou, Fang Zhou* and Ruan Chi



16213

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

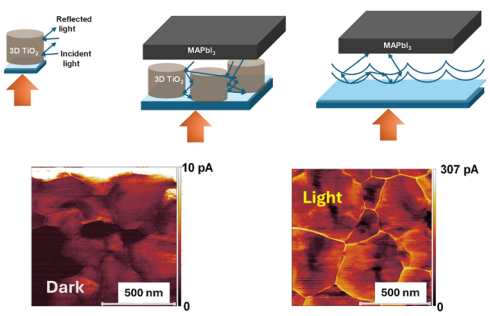
Sahil Sharma, Jyoti Rohilla, Sahil Thakur, Raghubir Singh* and Varinder Kaur*



16226

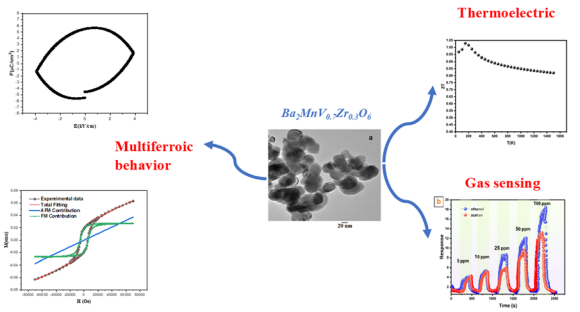
Unveiling the nanoscale photocurrent behavior in perovskite films on photonic-structured TiO_2

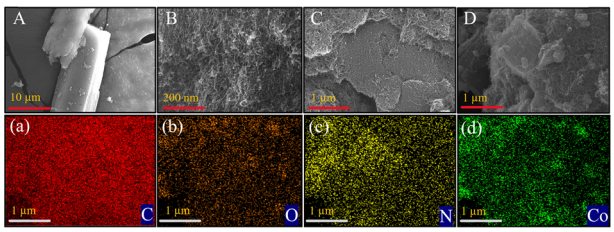
Jenny Boane, Shrabani Panigrahi,* Tomás Calmeiro, Edgar Coimbra, Ivan M. Santos, Elvira Fortunato, Rodrigo Martins, Manuel J. Mendes* and Hugo Águas

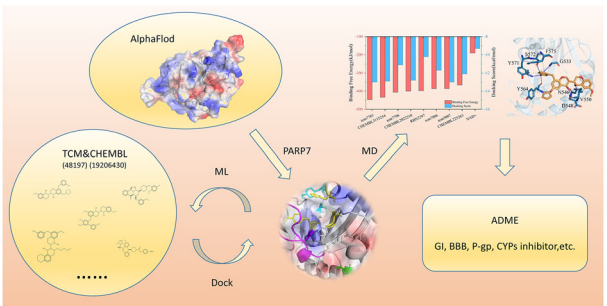


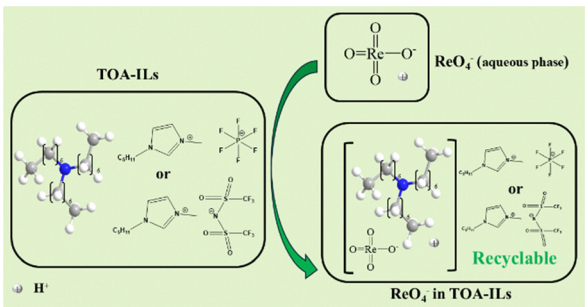
PAPERS

PAPERS









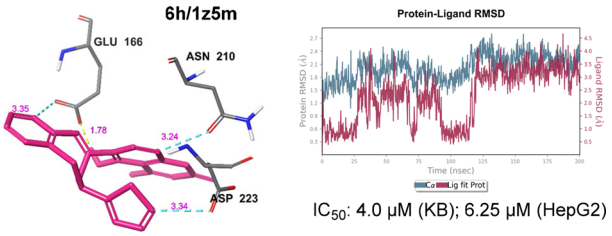
PAPERS

PAPERS

16397

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

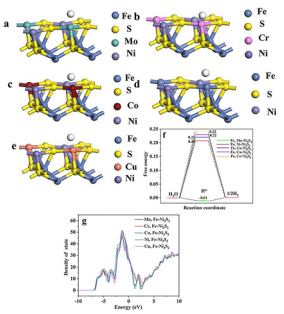
Duong Ngoc Toan,* Dinh Thuy Van and Nguyen Dinh Thanh*



16415

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

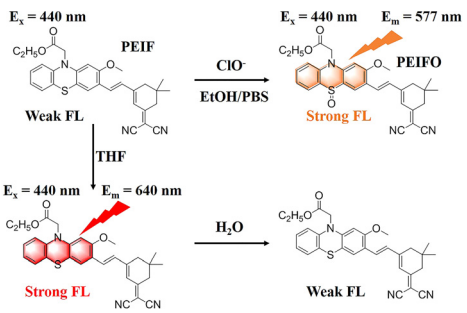
Fengchao Li, Xiaoqiang Du* and Xiaoshuang Zhang



16423

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

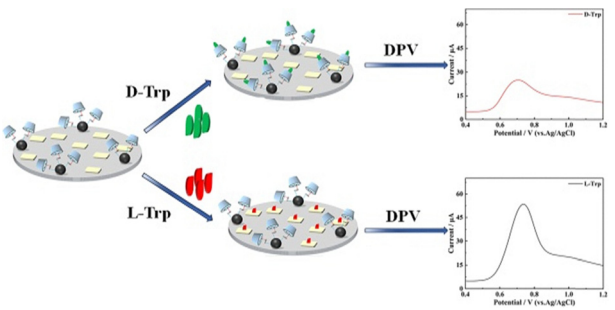
Yuehua Yuan, Siyi Shen, Chaoyi Yue, Mengqing Du, Yongjun Zhu, Yuzhen Wang, Feng Feng* and Maozhong Tian*



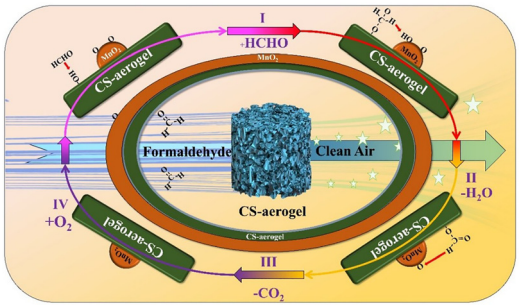
16433

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*

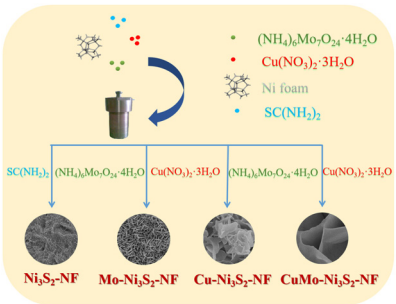


PAPERS



Cross-linker-free fabrication of chitosan–MnO_2 composite aerogels with synergistic adsorption-catalysis for high-efficiency room-temperature formaldehyde elimination

Yulong Fan, Wuyu Wang and Xuelai Zhao*



A CuMo dual-doped Ni_3S_2 porous ultrathin nanosheet as an efficient bifunctional electrocatalyst for urea–water electrolysis

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

