

IN THIS ISSUE

ISSN 1466-8033 CODEN CRECF4 27(25) 4223–4416 (2025)



Cover

See Marcos A. P. Martins et al.,

pp. 4264–4273.

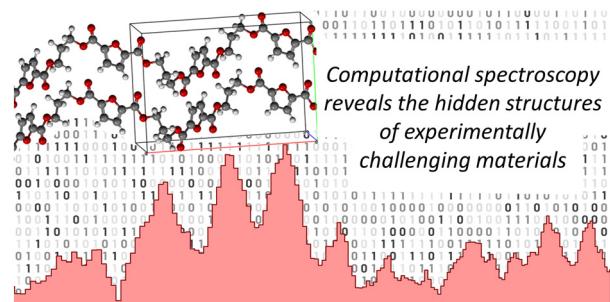
Image reproduced by permission
of Marcos A. P. Martins from
CrystEngComm, 2025, 27, 4264.

HIGHLIGHTS

4231

Computational spectroscopy for crystalline materials: from structure to properties

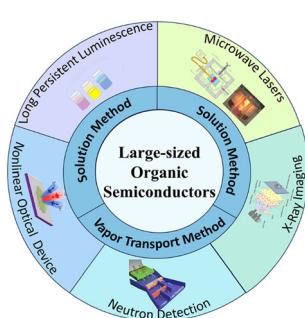
Mariela M. Nolasco,* Pedro D. Vaz, Rafael A. F. Serrano, João T. Martins, Catarina F. Araújo and Paulo Ribeiro-Claro



4243

Large-sized organic semiconductors: crystallization, characterization and applications

Jiawei Lin, Kezhao Du* and Hui Jiang*





A circular badge with a gold gradient background and black text that reads 'GOLD OPEN ACCESS'.

RSC Advances

At the heart of open access for the global chemistry community

Editors-in-Chief

Russell Cox University of Bristol & Leibniz Universität, Germany

Karen Faulds University of Strathclyde, UK



Breadth We publish work in all areas of chemistry and reach a global readership



Quality Research to advance the chemical sciences undergoes rigorous peer review for a trusted, society-run journal



Affordability Low APCs, discounts and waivers make publishing open access achievable and sustainable



Community Led by active researchers, we publish quality work from scientists at every career stage, and all countries

**Join
in** | Submit now
rsc.li/rsc-advances

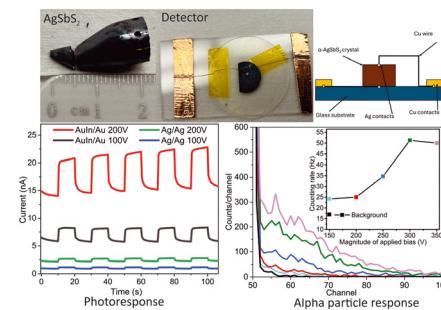
Registered charity number: 207890

COMMUNICATION

4258

Crystal growth of α -AgSbS₂ and its preliminary characterization for radiation detector applications

Venika Ekanayake, Matthew F. Webster, Manipaul Dhillon, David A. Kunar, Serge Nagorny, Mert Turfanda, Michael P. Lewis and Peng Li Wang*

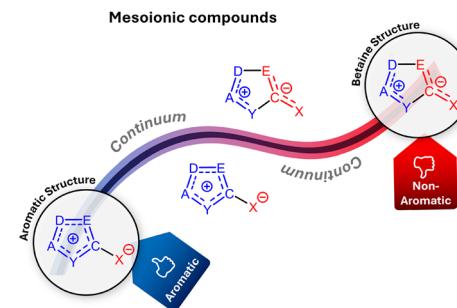


PAPERS

4264

Evaluation of mesoionic compound aromaticity using the HOMHED index

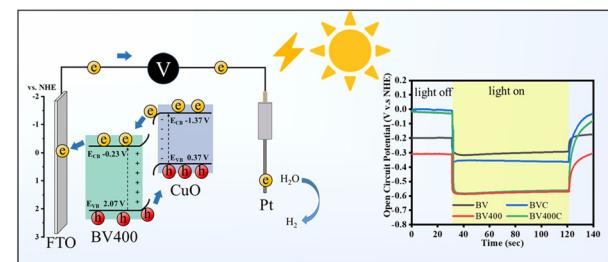
Marcos Antonio Pinto Martins,* Tainára Orlando, Jéssica Maria Luis Rosa, Priscila Santos Vieira de Lima and Paulo Roberto dos Santos Salbego



4274

Enhancing photoelectrochemical performance by effectively managing the density of oxygen vacancies in CuO/BiVO₄ composites

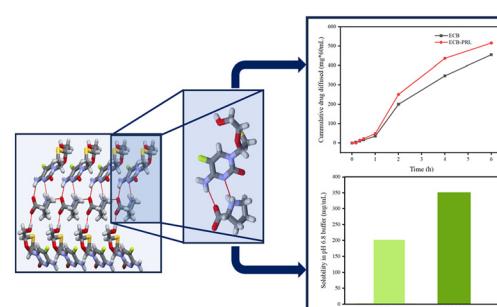
Yuan-Chang Liang* and Jin-Rong Chen



4292

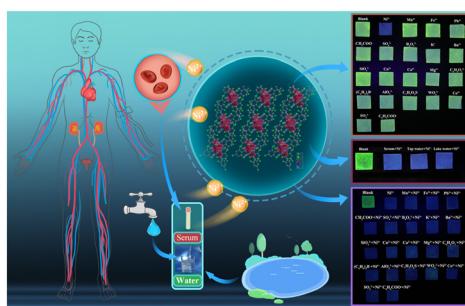
A multicomponent crystal approach with increased permeability of cocrystal of emtricitabine with zwitterionic L-proline

Daliya K. Shajan, Palanisamy Kandhan, Alexey N. Kuznetsov, Vladimir V. Chernyshev* and Palash Sanphui*



PAPERS

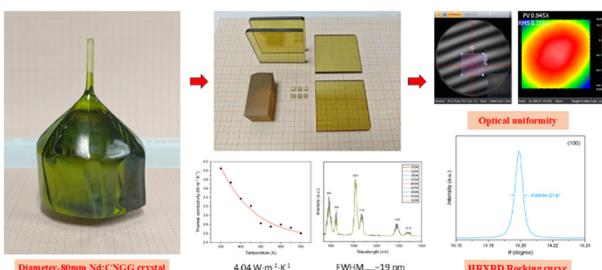
4304



Visual sensing Ni^{2+} in real samples with test paper based on a new dinuclear terbium complex

Ziyan Cai, Ping Li, Xiaobo Yu, Lin Lai, Cilin Yu, Yuan Hu, Xiaolei Gao* and Chenghui Zeng*

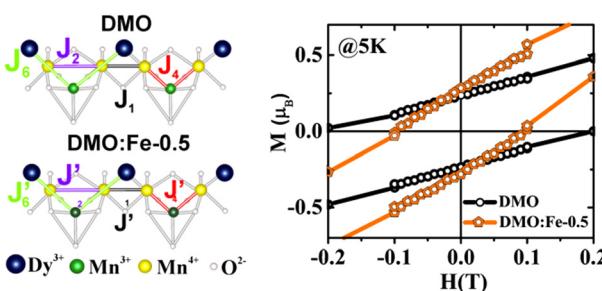
4312



Growth and property characterization of large-sized Nd:CNGG crystals for high-energy chirped pulse amplification systems

Shuqi Liu, Jingjing Xu, Dazhi Lu,* Hongxu Gu, Fei Liang, Zhongben Pan, Yongguang Zhao, Shuxian Wang, Jinfeng Han, Kui Wu,* Haohai Yu* and Huaijin Zhang

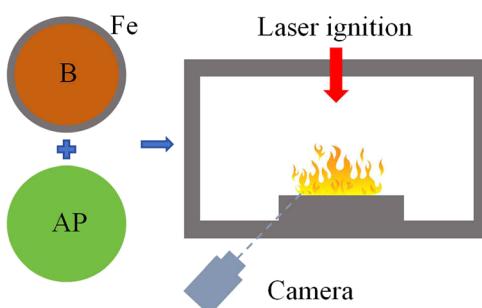
4320



Revealing the influence of Fe substitution on the structural and magnetic features of orthomanganite DyMn_2O_5

Vishwajit M. Gaikwad*

4329



Investigation of the influence of B@Fe composite fuel on the thermal decomposition and ignition combustion performance of ammonium perchlorate (AP)

Hongyang Li,* Ran Wang, Chao Wang, Hong Li, Shentao Zeng, Sujun Shi, Ran Hu, Wenqi Xu, Ruiling Xie, Cui Luo and Ying Liu

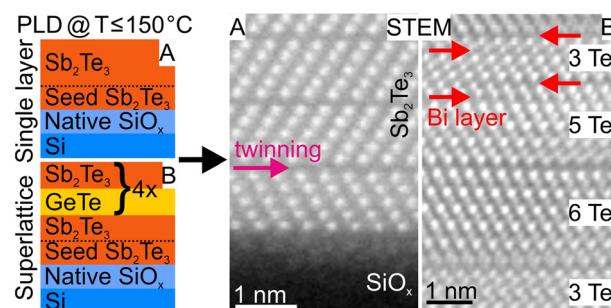


PAPERS

4338

Pulsed laser deposition of highly oriented Sb₂Te₃ and GeTe–Sb₂Te₃ thin films on amorphous SiO_x layers at low temperatures

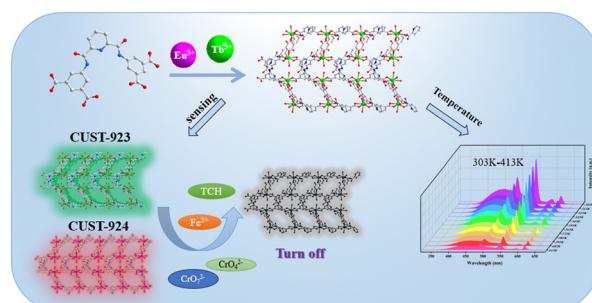
Sonja Cremer,* Nils Braun, Lennart Voß, Jens Bauer, Vladimir Roddatis, Lorenz Kienle and Andriy Lotnyk*



4351

Lanthanide metal–organic frameworks as multifunctional sensors for chemicals and temperature

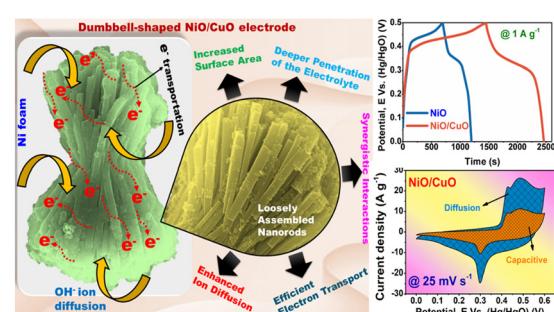
Yang Lin, Wenxi Zhang, Yanjie Lv, Yihe Zhao, Hongtao Cui, Jing Sun,* Xiao Li,* Dongling Zhou* and Zhongmin Su



4360

Dumbbell-shaped nanorod assembly of a NiO/CuO composite for high-performance redox-active battery-type supercapacitor electrodes

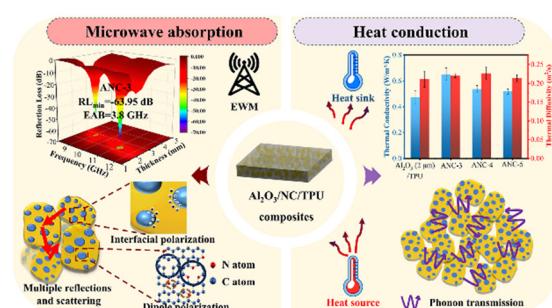
Mulla Jakeer Hussain, Mohamed A. Ghanem, Y. Veera Manohara Reddy, G. Madhavi,* Sang Woo Joo* and Gutturu Rajasekhara Reddy*



4378

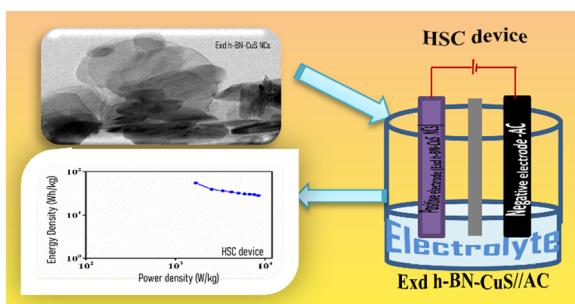
Nitrogen-doped carbon encapsulated Al₂O₃ composites for microwave absorption and heat conduction

Yixin Peng, Yidan He, Jiayi Chen and Xiaojuan Zhang*



PAPERS

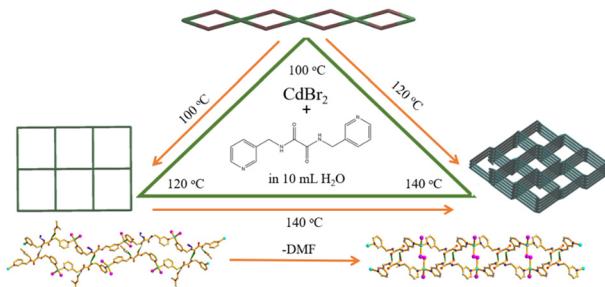
4389



Development of cohesive exfoliated h-BN-CuS nanosheets through an ultrasonic approach for hybrid supercapacitors

Dhamodharan Krishnamoorthy, Richa Chaudhary, Varun Chaudhary and Abhishek Kumar Singh*

4404



Zn(II), Cd(II) and Hg(II) halide coordination polymers supported by bis-pyridyl-bis-amide: structural diversity and structural transformation

Arigna Rasphone, Hong-Chuan Zhang, Yun-Syuan Lee, Yu-Hui Ye, Ying-Tong Kuo, Yi-Fang Lai, Zhi-Ling Chen, Song-Wei Wang and Jhy-Der Chen*

