

Materials Advances

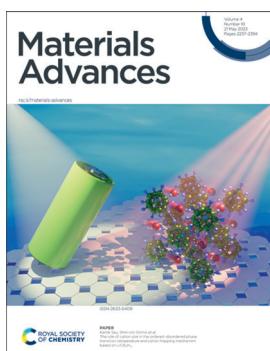
An open access journal publishing across the breadth of materials science

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IN THIS ISSUE

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Shin-ichi Orimo *et al.*,
pp. 2269–2280.
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EDITORIAL

2245

Introduction to biomass materials

Meisha L. Shofner* and Andrew G. Tennyson*

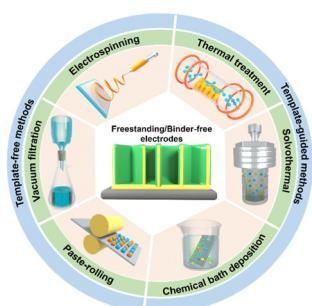


REVIEW

2247

Rational fabrication strategies of freestanding/binder-free electrodes for efficient capacitive deionization

Zhibo Zhao, Fangqiao Wang, Baobao Li, Zhuomin Chen,
Hao Zhou, Xiaoru Wen* and Meidan Ye*



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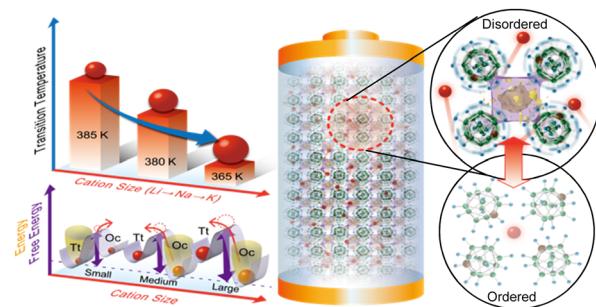


PAPERS

2269

The role of cation size in the ordered–disordered phase transition temperature and cation hopping mechanism based on $\text{LiCB}_{11}\text{H}_{12}$

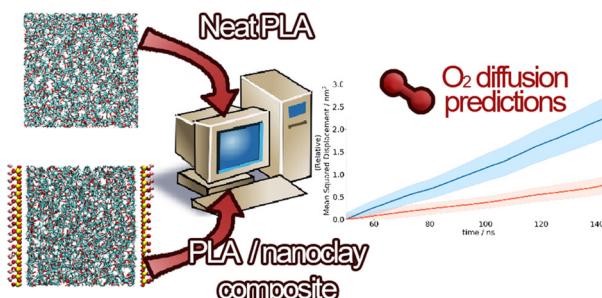
Kartik Sau,* Shigeyuki Takagi, Tamio Ikeshoji, Kazuaki Kisu, Ryuhei Sato and Shin-ichi Orimo*



2281

A molecular dynamics approach to modelling oxygen diffusion in PLA and PLA clay nanocomposites

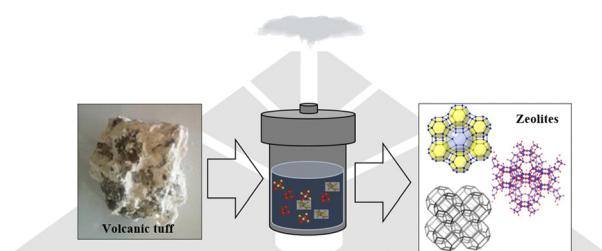
J. C. Lightfoot,* B. Castro-Dominguez, A. Buchard and S. C. Parker*



2292

Hydrothermal synthesis of zeolites using silica extracted from tropical volcanic ash

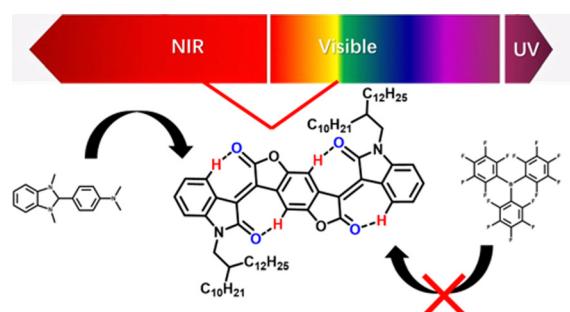
Stephen O. Otieno, Fredrick O. Kengara, Chrispin O. Kowenje* and Robert Mokaya*



2301

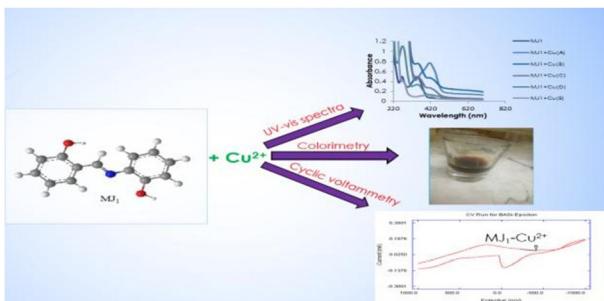
Aldol condensation-polymerized semiconducting polymers based on a BDOPV unit with near infrared absorption and better n-doped ability

Li Tian,* Airong Wang, Haowei Lin, Wenxi Cheng, Mengya Shang, Shanhong Xu and Xuefei Zhou



PAPERS

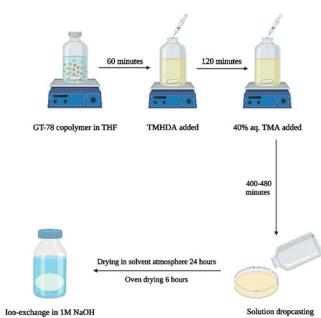
2308



Schiff bases as analytical tools: synthesis, chemo-sensor, and computational studies of 2-aminophenol Schiff bases

Felicia Ndidi Ejiah,* Mujeeb Olarewaju Rofiu, Oluwakemi Adekunbi Oloba-Whenu and Tolulope Mojisolaj Fasina

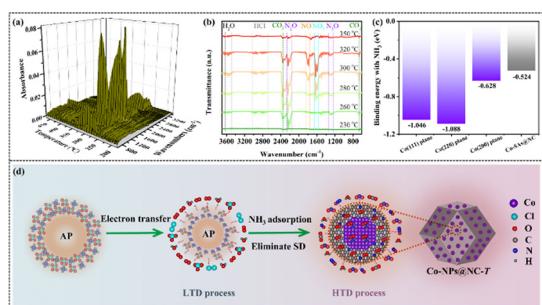
2322



In situ amination of anion conducting solid polymer electrolyte membranes

Parin N. Shah, Habin Park, Hui Min Tee, Chandler Dietrich and Paul A. Kohl*

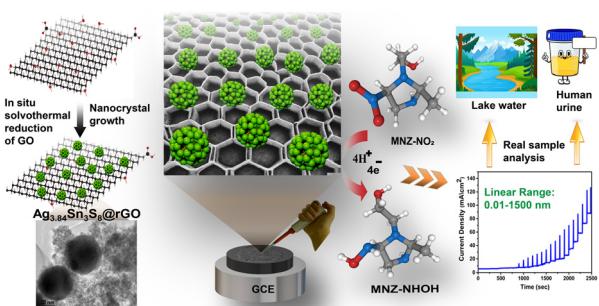
2332



Understanding the synergistically enhanced thermocatalytic decomposition of ammonium perchlorate using cobalt nanoparticle-embedded nitrogen-doped graphitized carbon

Hong Lin, Qingchun Zhang,* Huiyu Liu, Shiying Shen,* Zhiliang Guo, Bo Jin* and Rufang Peng

2340



In situ fabrication and design of a novel electrochemical sensor based on the Ag3.84Sn3S8@rGO nanocomposite for competitive ultra-detection of metronidazole in human urine

Jit Satra, Papri Mondal, Gopala Ram Bhadu and Bibhutosh Adhikary*

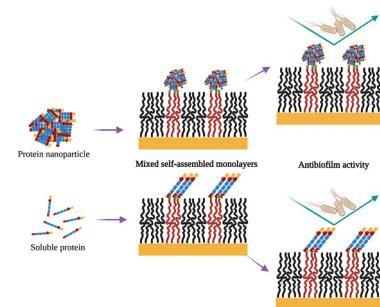


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2354

Antibiofilm surfaces based on the immobilization of a novel recombinant antimicrobial multidomain protein using self-assembled monolayers

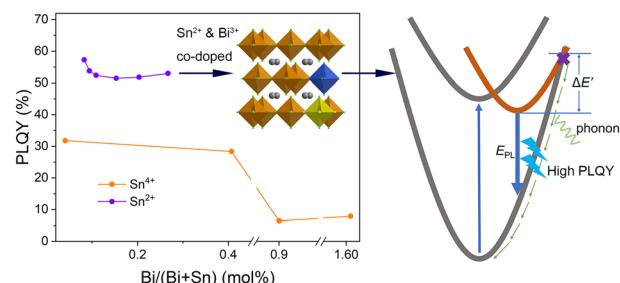
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2365

Sn^{2+} doping-induced large extra vibrational energy of an excited state for efficient blue emission in $\text{Cs}_2\text{SnCl}_6:\text{Bi}$

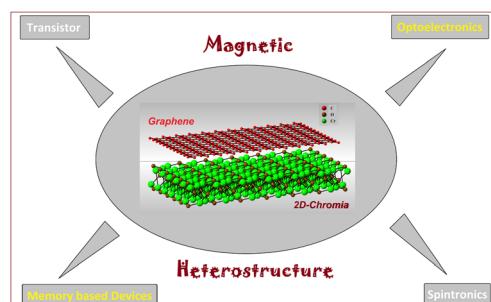
Shaofan Fang,* Jinbo Huang, Huixia Li, Jingheng Nie, Zexiang Liu, Feier Fang and Haizhe Zhong*



2372

Signature of magnetism in 2D-chromia: 2D analog of the natural $\alpha\text{-Cr}_2\text{O}_3$ mineral and its heterostructure with graphene

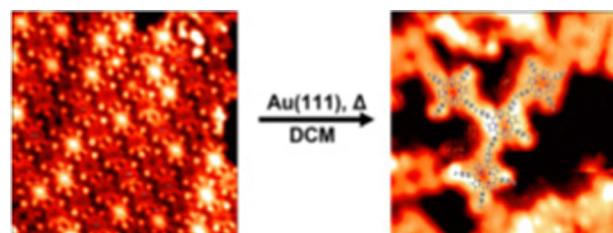
Renu Singla, Rahul Singla, Sarvesh Kumar, Timothy A. Hackett and Manish K. Kashyap*

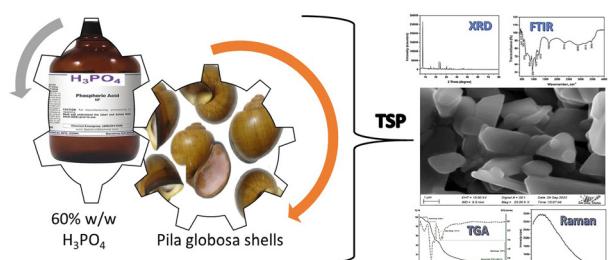


2379

Synthesis of extended covalently bound porphyrins on the $\text{Au}(111)$ surface

José J. Ortiz-Garcia* and Rebecca C. Quardokus





Synthesis and characterization of nano-crystallite triple superphosphate from waste *Pila globosa* shells for sustainable industrial production

Md. Sahadat Hossain, Md. Aftab Ali Shaikh,*
Md. Farid Ahmed and Samina Ahmed*

