

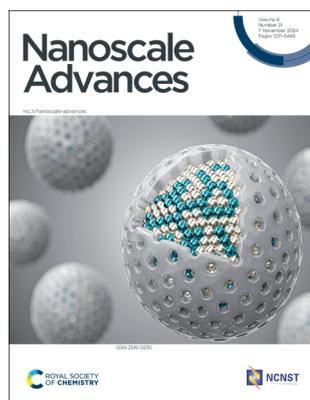
Nanoscale Advances

An open access journal publishing across the breadth of nanoscience and nanotechnology
rsc.li/nanoscale-advances

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 2516-0230 CODEN NAADAI 6(21) 5211–5466 (2024)



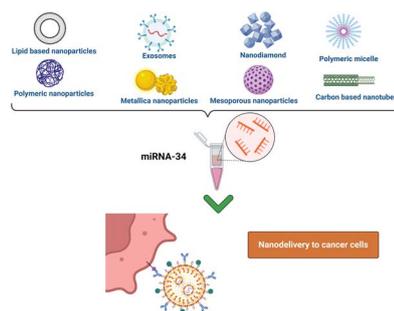
Cover
Image credit: © Thom Leach/
Science Photo Library/Getty
Images.

REVIEWS

5220

Revolutionizing cancer therapy: nanoformulation of miRNA-34 – enhancing delivery and efficacy for various cancer immunotherapies: a review

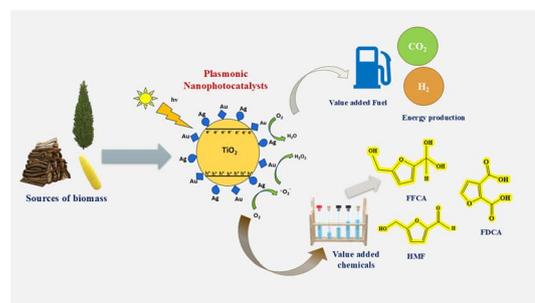
Marola Paula Fawzy, Hatem A. F. M. Hassan, Nada K. Sedky, Mohamed S. Nafie, Rana A. Youness and Sherif Ashraf Fahmy*



5258

Photocatalytic nanomaterials and their implications towards biomass conversion for renewable chemical and fuel production

Shikha Katre, Pawan Baghmare and Ardhendu S. Giri*



RSC Advances

At the heart of open access for
the global chemistry community

Editor-in-chief

Russell J Cox

Leibniz Universität Hannover, Germany

We stand for:



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

Submit your work now

rsc.li/rsc-advances

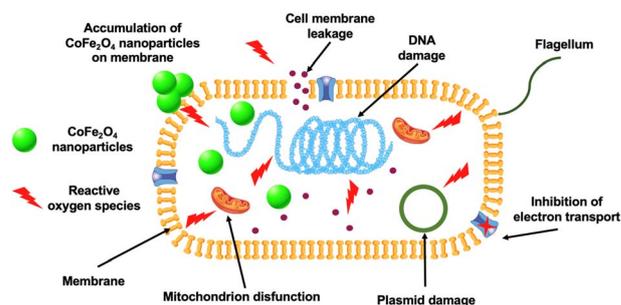
@RSC_Adv

REVIEWS

5285

Recent developments in the bio-mediated synthesis of CoFe_2O_4 nanoparticles using plant extracts for environmental and biomedical applications

Giang Thanh Tran, Luan Minh Nguyen, Thuy Thi Thanh Nguyen, Dai Hai Nguyen and Thuan Van Tran*

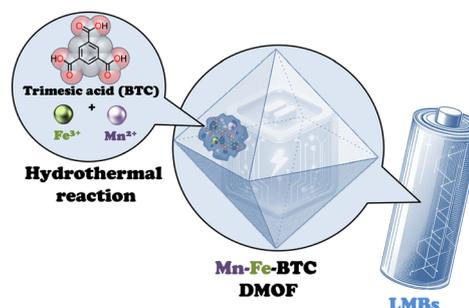


COMMUNICATION

5301

Mn–Fe dual metal–organic framework based on trimesic acid as a high-performance electrode for lithium metal batteries

Saira Sarwar, Verónica Montes-García,* Maria Stachowiak, Tomasz Chudziak, Wojciech Kukułka, Cataldo Valentini, Krzysztof Karoń, Dawid Pakulski* and Artur Ciesielski*

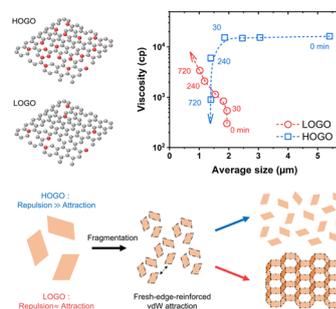


PAPERS

5306

Decisive role of electrostatic interaction in rheological evolution of graphene oxide under ultrasonic fragmentation

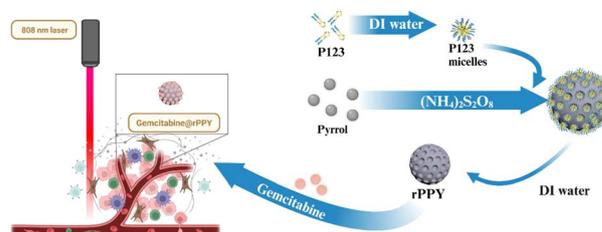
Dongpyo Hong, Matlabjon Sattorov, Ok Sung Jeon, Se Hun Lee, Gun-Sik Park,* Young Joon Yoo* and Sang Yoon Park*



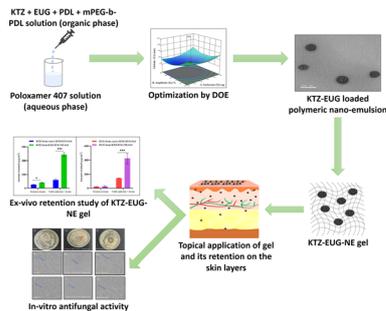
5313

Construction of polypyrrole nanoparticles with a rough surface for enhanced chemo-photothermal therapy against triple negative breast cancer

Yuanyin Xi, Shiqi Zhou, Junhui Long, Linxi Zhou, Peng Tang, Hang Qian,* Jun Jiang* and Ying Hu*



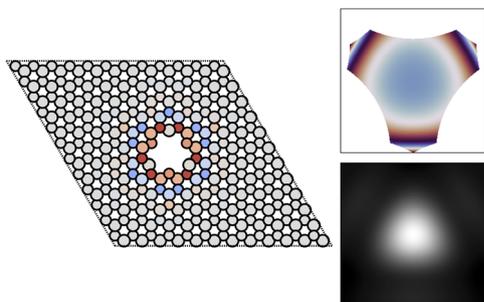
5322



A poly- δ -decalactone (PDL) based nanoemulgel for topical delivery of ketoconazole and eugenol against *Candida albicans*

Prashant Dubey, Ankaj Kumar, Klaudi K. Vaiphei, Sargun Basrani, Ashwini Jadhav, Carl-Eric Wilen, Jessica M. Rosenholm, Kuldeep K. Bansal, Rudra Chakravarti, Dipanjan Ghosh and Arvind Gulbake*

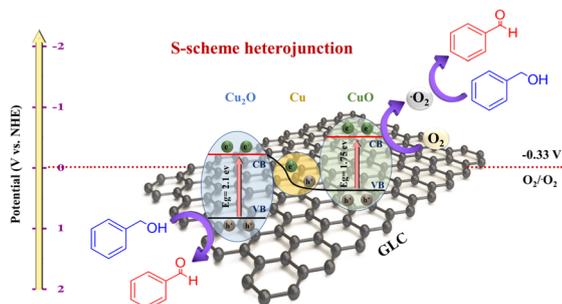
5337



Atomic diffraction by nanoholes in hexagonal boron nitride

Eivind Kristen Osestad, Ekaterina Zossimova, Michael Walter, Bodil Holst and Johannes Fiedler*

5348



Synergistic atom co-sharing and S-scheme heterojunction: constructing Cu/CuO/Cu₂O with ultrathin graphene-like carbon derived from basil seeds for enhanced photo-oxidation of benzyl alcohols to aldehydes

Zahra Kohansal Nalkyashree, Nadiya Koukabi,* Kheibar Dashtian* and Farzad Seidi

5361



Sustainable green synthesis of *Hedychium coronarium* leaf extract-stabilized silver nanoparticles and their applications: colorimetric sensing of Sn²⁺ and Hg²⁺ and antifungal and antimicrobial properties

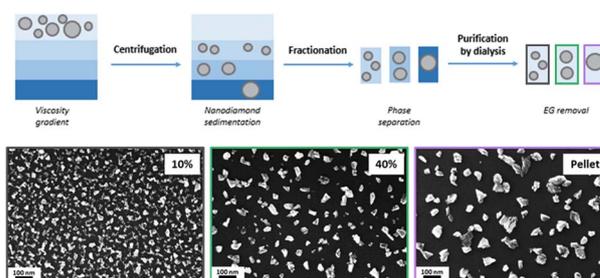
Sanjay Kumar Sahu, Anjana Kushwaha, Umakant Pradhan, Purusottam Majhi, Awadesh Kumar Shukla* and Tanmay Kumar Ghorai*



5375

How to efficiently isolate multiple size ranges of oxidized or hydrogenated milled nanodiamonds

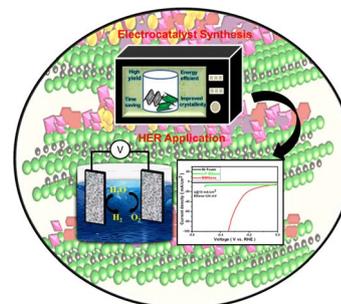
Marie Finas, Hugues A. Girard and Jean-Charles Arnault*



5388

HF-free microwave-assisted synthesis of MXene as an electrocatalyst for hydrogen evolution in alkaline media

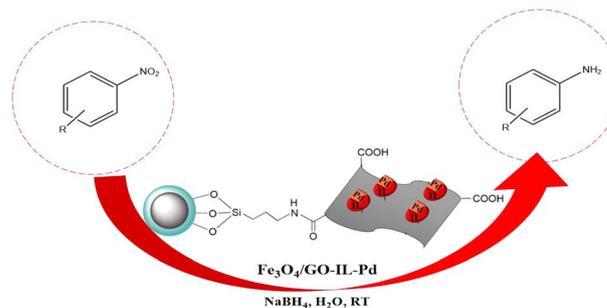
Kajal Mahabari, Ranjit D. Mohili, Monika Patel, Arvind H. Jadhav, Kwangyeol Lee* and Nitin K. Chaudhari*



5398

A Pd-containing ionic liquid modified magnetic graphene oxide nanocomposite (Fe₃O₄/GO-IL-Pd) as a powerful catalyst for the reduction of nitrobenzenes

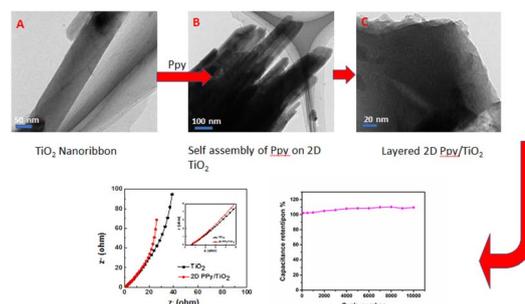
Farkhondeh Dadvar and Dawood Elhamifar*



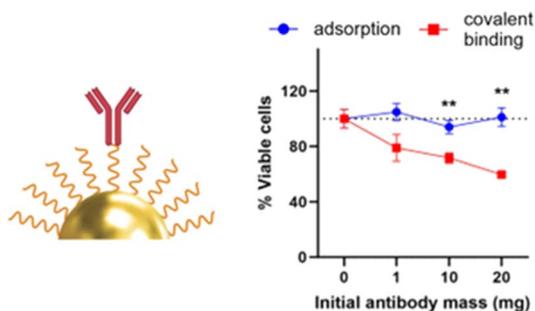
5409

Growth mechanism of 2D heterostructures of polypyrrole grown on TiO₂ nanoribbons for high-performance supercapacitors

Abeer Enaiet Allah* and Fatma Mohamed



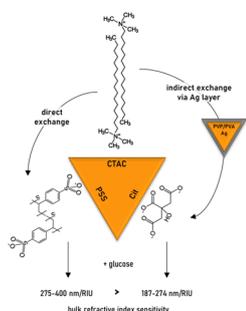
5420



Impact of synthesis methods on the functionality of antibody-conjugated gold nanoparticles for targeted therapy

Adi Anaki, Chen Tzror-Azankot, Menachem Motiei, Tamar Sadan and Rachela Popovtzer*

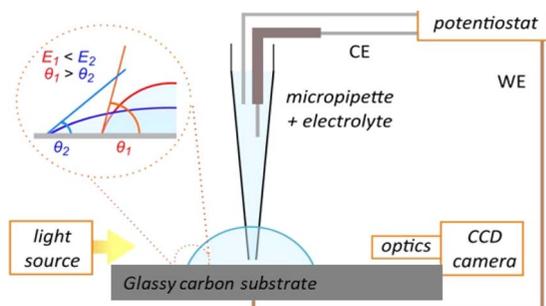
5430



Customizable ligand exchange on the surface of gold nanotriangles enables their application in LSPR-based sensing

Ekaterina Podlesnaia,* Sarmiza Elena Stanca, Buşra Çinçin, Gabriel Zieger, Andrea Csáki and Wolfgang Fritzsche*

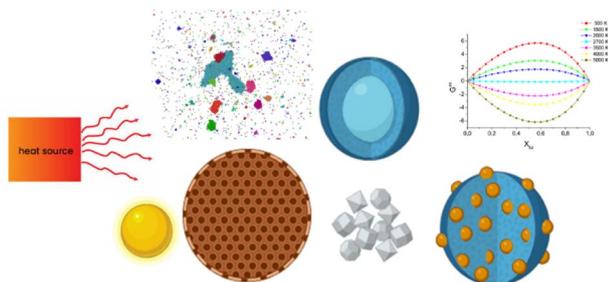
5441



Electrowetting on glassy carbon substrates

Sittipong Kaewmorakot, Athanasios A. Papaderakis and Robert A. W. Dryfe*

5451



Understanding mono- and bi-metallic Au and Ni nanoparticle responses to fast heating

Tatiana E. Itina*



CORRECTION

5464

Correction: Understanding mono- and bi-metallic Au and Ni nanoparticle responses to fast heating

Tatiana E. Itina*

Open Access Article. Published on 22 October 2024. Downloaded on 5/5/2026 6:27:14 AM.
This article is licensed under a Creative Commons Attribution 3.0 Unported Licence.

