

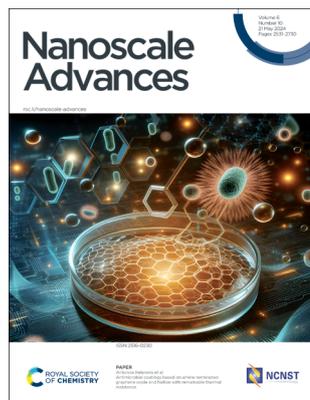
Nanoscale Advances

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(10) 2531–2730 (2024)



Cover
See Antonios Kelarakis *et al.*, pp. 2594–2601. Image reproduced by permission of Antonios Kelarakis from *Nanoscale Adv.*, 2024, 6, 2594.



Inside cover
See Anshu Pandey *et al.*, pp. 2602–2610. Image reproduced by permission of Anshu Pandey from *Nanoscale Adv.*, 2024, 6, 2602.

REVIEW

2539

Bioinspired graphene-based metal oxide nanocomposites for photocatalytic and electrochemical performances: an updated review

Ajay K. Potbhare, S. K. Tarik Aziz, Mohd. Monis Ayyub, Aniket Kahate, Rohit Madankar, Sneha Wankar, Arnab Dutta, Ahmed Abdala, Sami H. Mohmood,* Rameshwar Adhikari* and Ratiram G. Chaudhary*



MINIREVIEW

2569

Nano revolution: pioneering the future of water reclamation with micro-/nano-robots

Subham Preetam*



RSC Applied Interfaces

GOLD
OPEN
ACCESS

Interfacial and surface research
with an applied focus

Interdisciplinary and open access

rsc.li/RSCApplInter

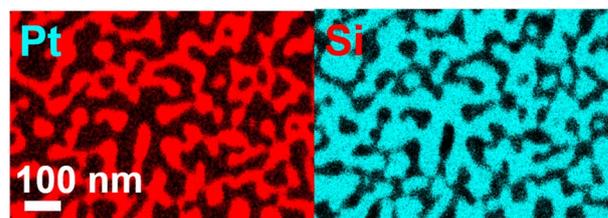
Fundamental questions
Elemental answers

COMMUNICATIONS

2582

Sub-50 nm patterning of alloy thin films via nanophase separation for hydrogen gas sensing

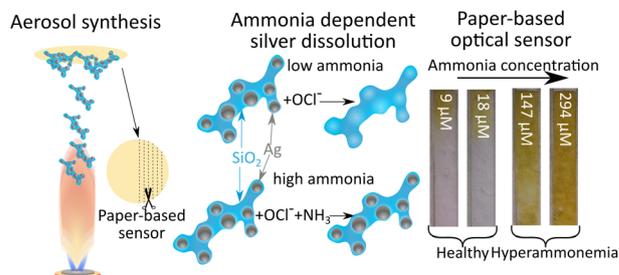
Sherjeel Mahmood Baig, Satoshi Ishii and Hideki Abe*



2586

Paper-based colorimetric hyperammonemia sensing by controlled oxidation of plasmonic silver nanoparticles

Padryk Merkl and Georgios A. Sotiriou*



PAPERS

2594

Antimicrobial coatings based on amine-terminated graphene oxide and Nafion with remarkable thermal resistance

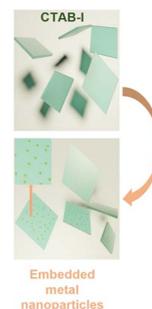
Mohammed Suleman Beg, Ella Nicole Gibbons, Spyridon Gavalas, Mark A. Holden, Marta Krysmann and Antonios Kelarakis*



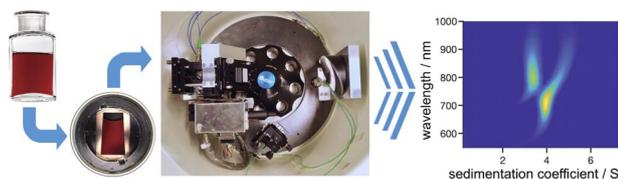
2602

Embedding plasmonic nanoparticles in soft crystals: an approach exploiting CTAB-I structures

Navyashree Vasudeva, Annie Jayasing, Kishorkumar Sindogi, Isha Yadav, T. N. Guru Row, Sheetal K. Jain and Anshu Pandey*



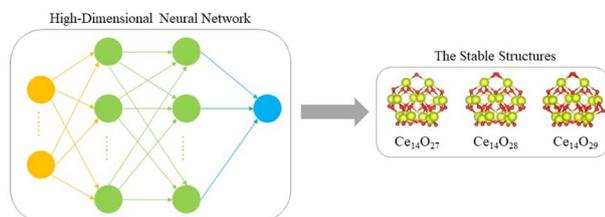
2611



Development of an advanced multiwavelength emission detector for the analytical ultracentrifuge

Vanessa Lautenbach, Georgy Onishchukov, Simon E. Wawra, Uwe Frank, Lukas Hartmann, Wolfgang Peukert and Johannes Walter*

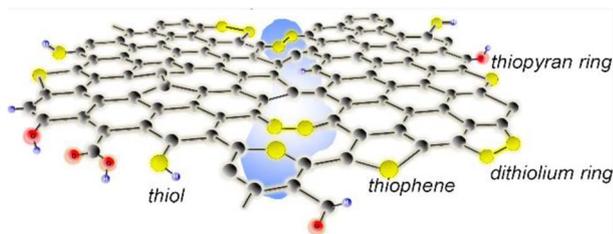
2623



Exploring the stable structures of cerium oxide nanoclusters using high-dimensional neural network potential

Huabing Cai, Qinghua Ren* and Yi Gao*

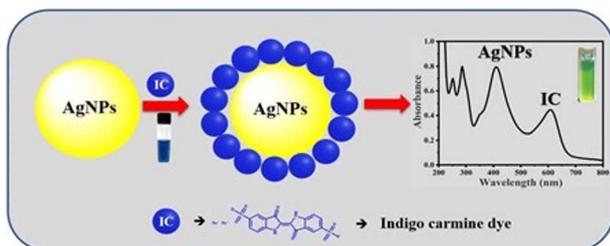
2629



Defect healing and doping of CVD graphene by thermal sulfurization

Giuseppe Valerio Bianco,* Alberto Sacchetti, Antonella Milella, Maria Michela Giangregorio, Stefano Dicorato and Giovanni Bruno

2636



Anomalous spectral shift of localized surface plasmon resonance

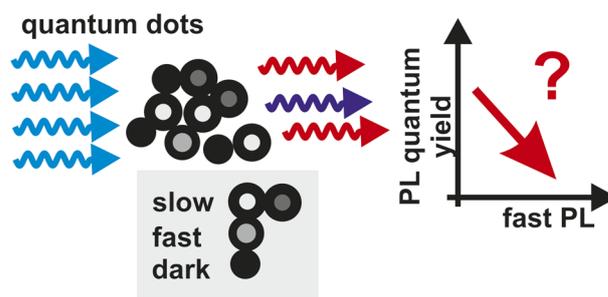
Saikiran Kosame, Mukkath Joseph Josline, Jae-Hyun Lee and Heongkyu Ju*



2644

Why do Si quantum dots with stronger fast emission have lower external photoluminescence quantum yield?

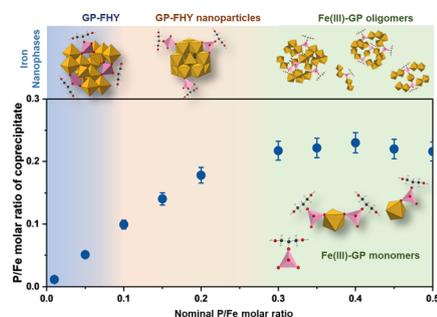
Tomáš Popelář, Filip Matějka, Jakub Kopenec, Giacomo Morselli, Paola Ceroni and Kateřina Kůsová*



2656

Impact of organic phosphates on the structure and composition of short-range ordered iron nanophases

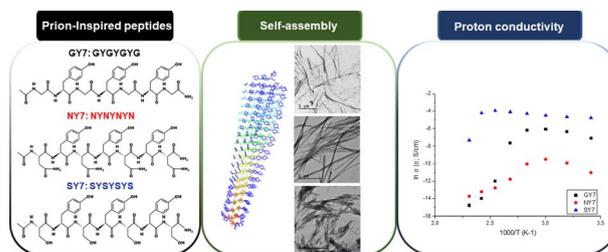
Zhengzheng Chen,* Jeffrey Paulo H. Perez,* Glen J. Smales, Roberts Blukis, Brian R. Pauw, Jessica A. Stammeier, Jörg Radnik, Andrew J. Smith and Liane G. Benning



2669

Harnessing prion-inspired amyloid self-assembly for sustainable and biocompatible proton conductivity

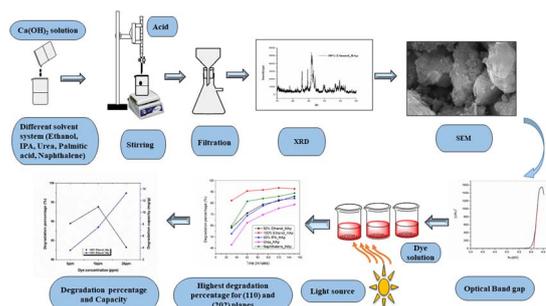
Susanna Navarro,* Andreu Andrio, Marta Diaz-Caballero, Salvador Ventura and Vicente Compañ*



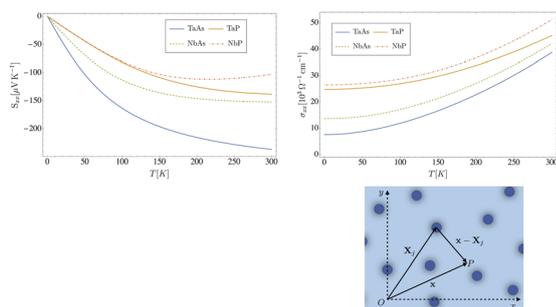
2682

Different solvents and organic modifiers for the control of crystallographic parameters in nanocrystallite hydroxyapatite for amplification of photocatalytic activity

Md. Kawsar, Md. Sahadat Hossain, Sumaya Tabassum, Newaz Mohammed Bahadur and Samina Ahmed*



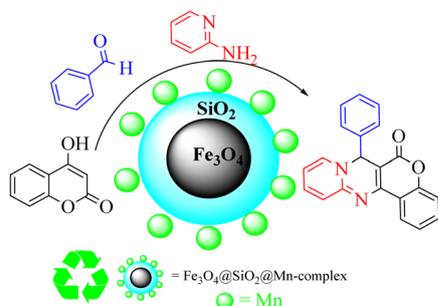
2701



Thermoelectric transport in Weyl semimetals under a uniform concentration of torsional dislocations

Daniel A. Bonilla and Enrique Muñoz*

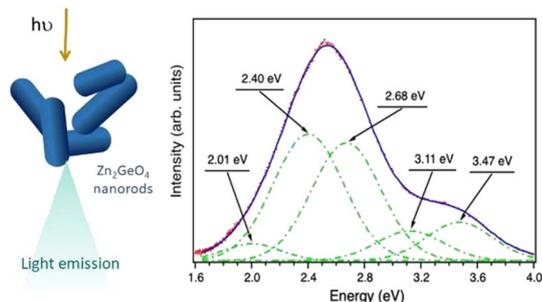
2713



An immobilized Schiff base–Mn complex as a hybrid magnetic nanocatalyst for green synthesis of biologically active [4,3-*d*]pyrido[1,2-*a*]pyrimidin-6-ones

Mohammad Ali Bodaghifard,* Seied Ali Pourmousavi,
Najmieh Ahadi and Payam Zeynali

2722



Controllable synthesis and morphology-dependent light emission efficiency of Zn₂GeO₄ nanophosphors

Miguel Tinoco,* José Miguel Lendínez,
José M. González-Calbet, Bianchi Méndez,
Julio Ramírez-Castellanos and Pedro Hidalgo*

CORRECTION

2728

Correction: Influence of the carbazole moiety in self-assembling molecules as selective contacts in perovskite solar cells: interfacial charge transfer kinetics and solar-to-energy efficiency effects

Dora A. González, Carlos E. Puerto Galvis, Wenhui Li, Maria Méndez, Ece Aktas, Eugenia Martínez-Ferrero and Emilio Palomares

