

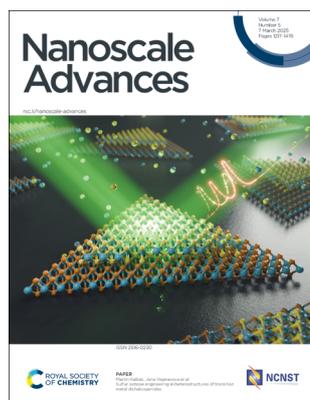
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IN THIS ISSUE

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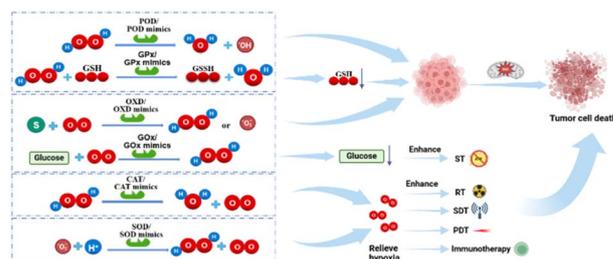
Cover
See Martin Kalbac, Jana Vejpravova *et al.*, pp. 1276–1286. Image reproduced by permission of Jana Kalbáčová Vejpravová from *Nanoscale Adv.*, 2025, 7, 1276.

REVIEWS

1226

Emerging engineered nanozymes: current status and future perspectives in cancer treatments

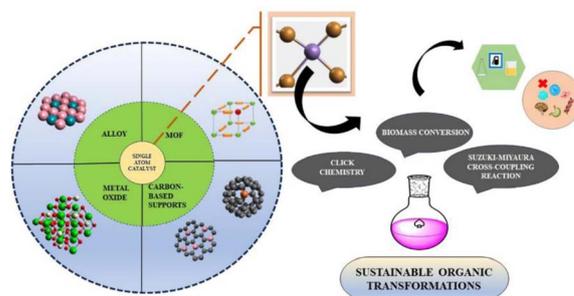
Jiajia Zheng, Weili Peng, Houhui Shi, Jiaqi Zhang, Qinglian Hu and Jun Chen*



1243

Structure–activity relationships in the development of single atom catalysts for sustainable organic transformations

Deepshikha Roy and Kalyanjyoti Deori*



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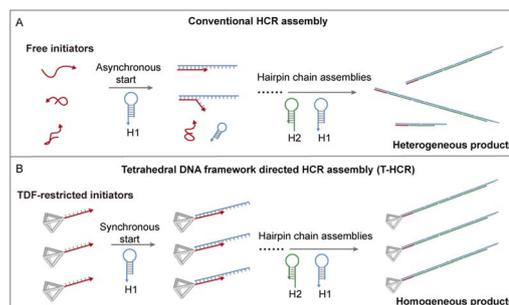
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1272

Tetrahedral DNA framework-directed hybridization chain reaction controlled self-assembly

Dongdong He, Pengyao Wei, Lin Li, Pan Fu, Jianping Zheng* and Kaizhe Wang*

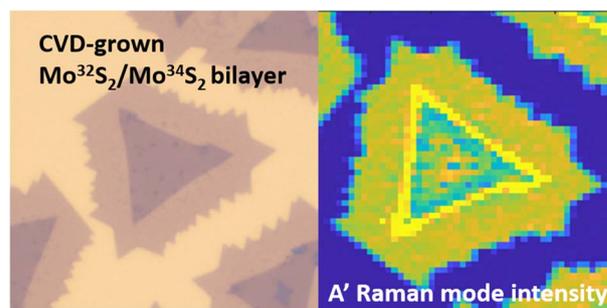


PAPERS

1276

Sulfur isotope engineering in heterostructures of transition metal dichalcogenides

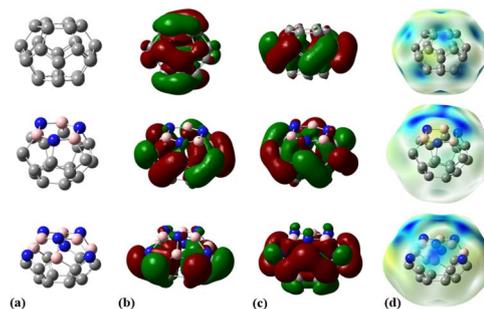
Vaibhav Varade, Golam Haider, Martin Kalbac* and Jana Vejpravova*



1287

Smart drug delivery: a DFT study of C_{24} fullerene and doped analogs for pyrazinamide

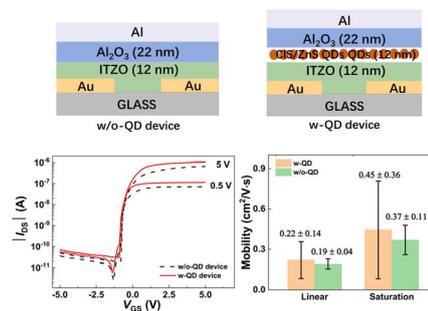
Azam Moumivand, Fereshteh Naderi,* Omid Moradi and Batoul Makiabadi



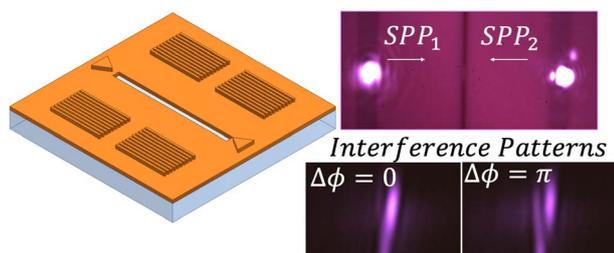
1300

Performance enhancement of InSnZnO thin-film transistors by modifying the dielectric-semiconductor interface with colloidal quantum dots

Sijie Chen, Haoran Chen, Chenghui Xia* and Zhenhua Sun*



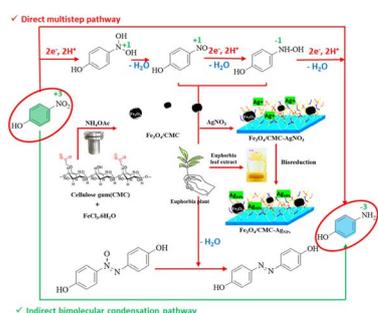
1305



Selective modal excitation in a multimode nanoslit by interference of surface plasmon waves

Marcos Valero, Luis-Angel Mayoral-Astorga, Howard Northfield, Hyung Woo Choi, Israel De Leon, Mallar Ray* and Pierre Berini*

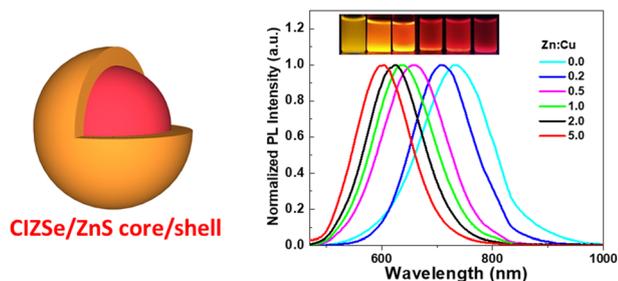
1318



Controlled bioreduction of silver ions to nanosized particles on a porous magnetic-biopolymer of carboxymethyl cellulose, Fe₃O₄/CMC-Ag NPs, serving as a sustainable nanocatalyst

Mojtaba Azizi,* Mahdi Jafari and Sadegh Rostamnia*

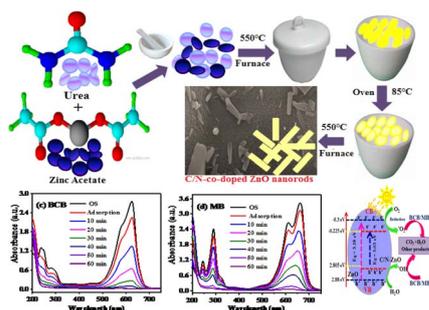
1326



Microwave-assisted synthesis of highly photoluminescent core/shell CuInZnSe/ZnS quantum dots as photovoltaic absorbers

Shubham Shishodia, Hervé Rinnert, Lavinia Balan, Jordane Jasniewski, Stéphanie Bruyère, Ghouti Medjahdi, Thomas Gries and Raphaël Schneider*

1335



Investigation of the photocatalytic potential of C/N-co-doped ZnO nanorods produced *via* a mechano-thermal process

Parmeshwar Lal Meena,* Ajay Kumar Surela, Lata Kumari Chhachhia, Jugmohan Meena and Rohitash Meena



1353

Pre-validation of a novel reconstructed skin equivalent model for skin irritation and nanoparticle risk assessment

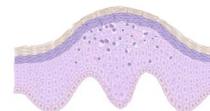
Priscila Laviola Sanches, Rosana Bizon Vieira Carias, Gutember Gomes Alves, Carolina Motter Catarino,* Bruna Bosquetti, Meg Cristina De Castilho Costa, Andrezza Di Pietro Micali, Desirée Cigaran Schuck, José Mauro Granjeiro* and Ana R. Ribeiro*

Epidermis model construction



OECD TG 439
Epidermis morphology
Cytokine production

NPs exposure

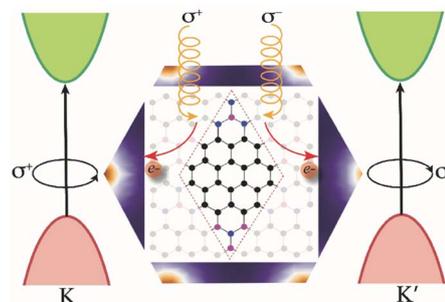


OECD TG 439
Epidermis morphology
Cytokine production
NPs internalization

1368

Excitonic circular dichroism in boron–nitrogen cluster decorated graphene

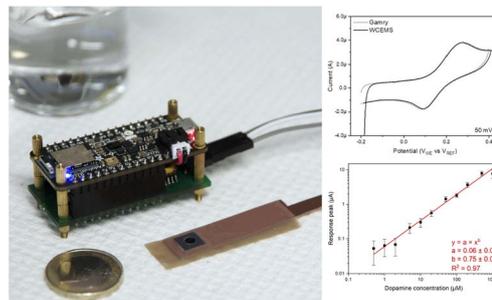
Shneha Biswas,* Souren Adhikary* and Sudipta Dutta*



1374

A customizable wireless potentiostat for assessing Ni(OH)₂ decorated vertically aligned MoS₂ thin films for electrochemical sensing of dopamine

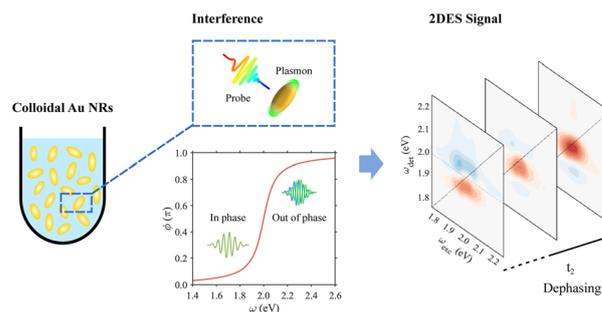
Topias Järvinen,* Olli Pitkänen, Tomi Laurila, Minna Mannerkorpi, Simo Saarakkala and Krisztian Kordas



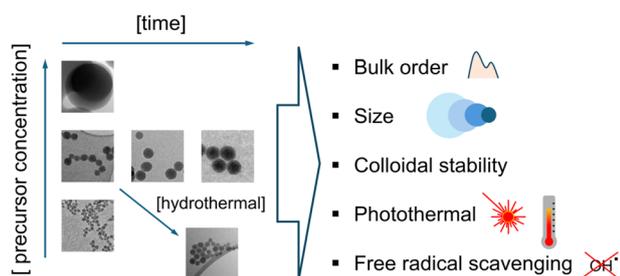
1384

Direct quantification of the plasmon dephasing time in ensembles of gold nanorods through two-dimensional electronic spectroscopy

Federico Toffoletti and Elisabetta Collini*



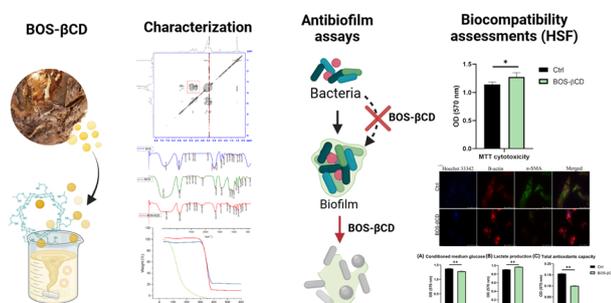
1391



Hydrothermal carbonization synthesis of amorphous carbon nanoparticles (15–150 nm) with fine-tuning of the size, bulk order, and the consequent impact on antioxidant and photothermal properties

Francesco Barbero,* Elena Destro, Aurora Bellone, Ludovica Di Lorenzo, Valentina Brunella, Guido Perrone, Alessandro Damin and Ivana Fenoglio

1405



A biocompatible β -cyclodextrin inclusion complex containing natural extracts: a promising antibiofilm agent

Obaydah Abd Alkader Alabraham, Mostafa Fytory, Ahmed M. Abou-Shanab, Jude Lababidi, Wolfgang Fritzsche, Nagwa El-Badri* and Hassan Mohamed El-Said Azzazy*

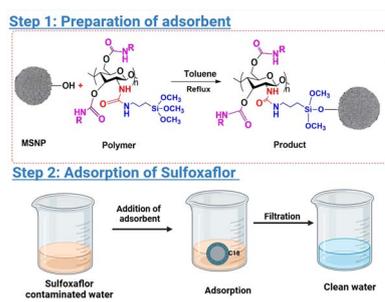
1421



Improving the aqueous solubility and antibacterial activity of triclosan using re-dispersible emulsion powder stabilized with gold nanoparticles

Arathy J. Nair and Dakrong Pisuwan*

1432



Synthesis of chiral mesoporous silica nanoparticles for the adsorptive removal of the chiral insecticide sulfoxaflor from water

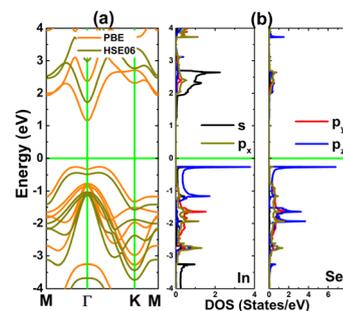
Sarah Alharthi, Ashraf Ali* and Eman Y. Santali



1443

Band structure and magnetism engineering of InSe monolayers through doping with IVA- and VA-group atoms: role of impurities

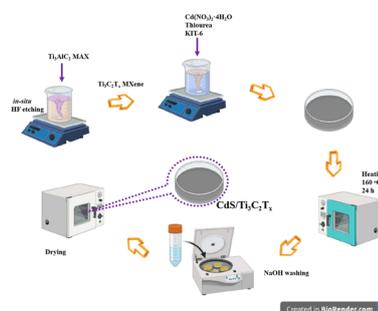
Nguyen Thi Han, J. Guerrero-Sanchez and D. M. Hoat*



1452

Highly selective ethanol gas sensor based on CdS/Ti₃C₂T_x MXene composites

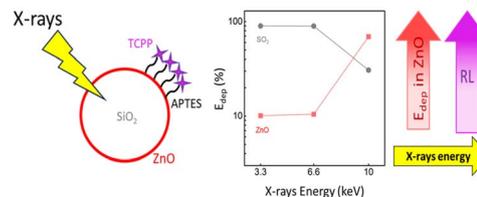
Ly Tan Nhiem, Jianbin Mao, Qui Thanh Hoai Ta* and Soonmin Seo*



1464

The role of energy deposition on the luminescence sensitization in porphyrin-functionalized SiO₂/ZnO nanoparticles under X-ray excitation

Irene Villa,* Roberta Crapanzano, Silvia Mostoni, Anne-Laure Bulin, Massimiliano D'Arienzo, Barbara Di Credico, Anna Vedda, Roberto Scotti and Mauro Fasoli



Upon X-ray irradiation, the dense ZnO-related enhancement of energy deposition in TCPF-functionalized SiO₂/ZnO nanoparticles is the mechanism that cooperates to activate the sensitization of TCPF luminescence (RL).

