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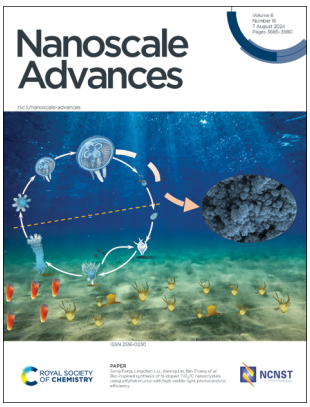

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See Song Feng, Lingchen Liu, Jianing Lin, Bin Zhang *et al.*, pp. 3759–3774. Image reproduced by permission of Song Feng from *Nanoscale Adv.*, 2024, **6**, 3759.

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Rajeev Ahuja* and Rajendra Srivastava*

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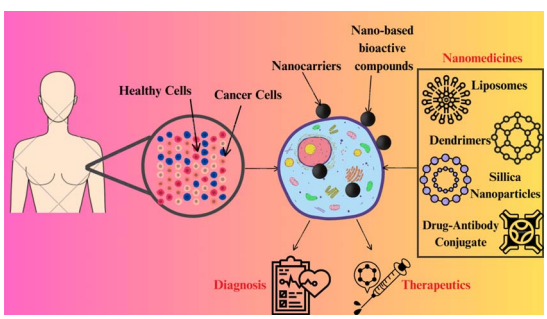
Lipsa Leena Panigrahi, Pallavi Samal, Sameer Ranjan Sahoo, Banishree Sahoo, Arun Kumar Pradhan, Sailendra Mahanta, Sandip Kumar Rath and Manoranjan Arakha*



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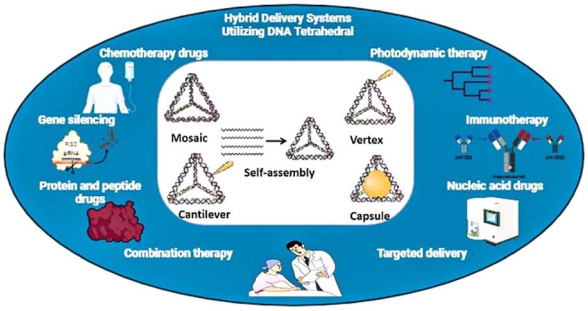
REVIEWS

3714

Revolutionizing cancer therapy using tetrahedral DNA nanostructures as intelligent drug delivery systems

Ayushi Sharma, Payal Vaswani and Dhiraj Bhatia*



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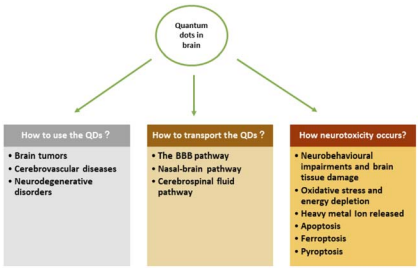
Application of quantum dots in brain diseases and their neurotoxic mechanism

Yuanyuan Hu, Xiaoli Wang, Yiru Niu, Keyu He* and Meng Tang*



Application of Quantum Dots in Brain Diseases and Its Neurotoxic Mechanism

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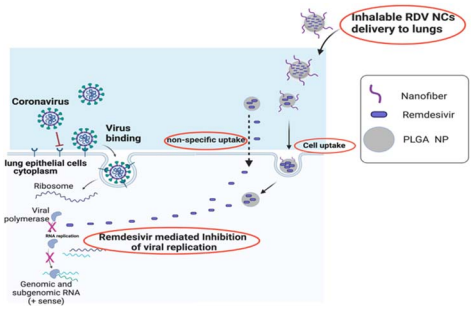
A novel nanocomposite drug delivery system for SARS-CoV-2 infections

Uday Chintapula, Shazeed-Ul Karim, Priyanka Raghunathan Iyer, Haritha Asokan-Sheeja, Biswas Neupane, Farzana Nazneen, He Dong, Fengwei Bai* and Kytai T. Nguyen*



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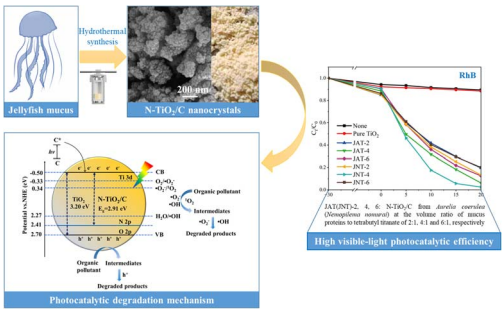
Bio-inspired synthesis of N-doped TiO_2/C nanocrystals using jellyfish mucus with high visible-light photocatalytic efficiency

Song Feng,* Lingchen Liu,* Jianing Lin,* Ziwei Wang, Jinzeng Gu, Lutao Zhang, Bin Zhang* and Song Sun



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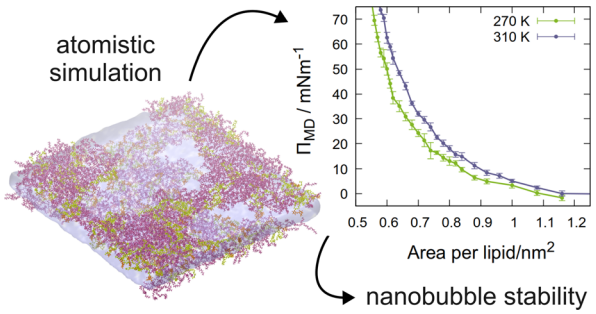

Ruptures of mixed lipid monolayers under tension and supercooling: implications for nanobubbles in plants

Stephen Ingram,* Bernhard Reischl, Timo Vesala and Hanna Vehkamäki

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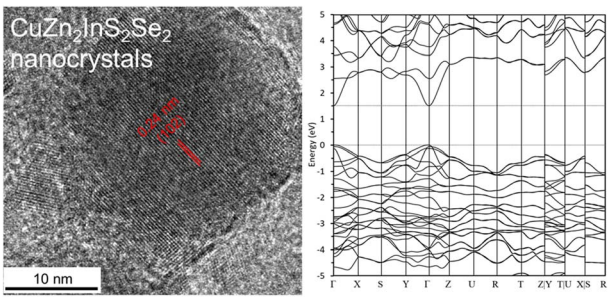

Multinary light absorbing semiconductor nanocrystals with diversified electronic and optical properties

Soubantika Palchoudhury,* Benjamin T. Diroll, Panchapakesan Ganesh, Jessica Cobos, Sohini Sengupta and Jingsong Huang*

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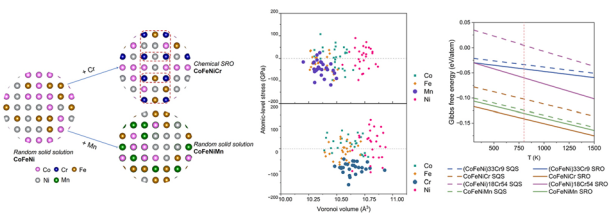

Unveiling the mechanism of tuning elemental distribution in high entropy alloys and its effect on thermal stability

Panhua Shi, Yiying Yang, Baodian Yao, Jiaxuan Si and Yuexia Wang*

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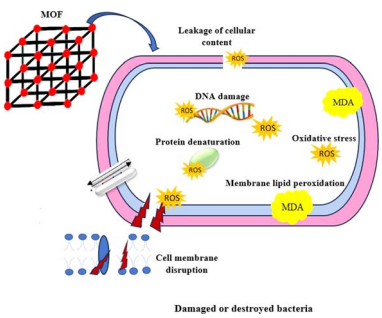

Enhanced antibacterial activity of a novel silver-based metal organic framework towards multidrug-resistant *Klebsiella pneumonia*

Payam B. Hassan, Sameera Sh. Mohammed Ameen, Lana Mohammed, Sirwan M. Muhammed Ameen and Khalid M. Omer*

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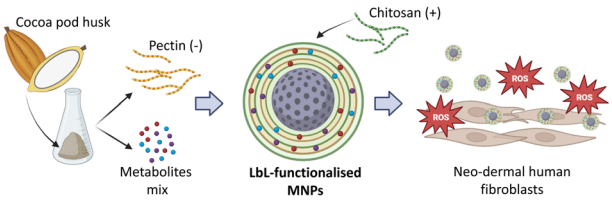
Exploiting residual cocoa biomass to extract advanced materials as building blocks for manufacturing nanoparticles aimed at alleviating formation-induced oxidative stress on human dermal fibroblasts

Joel Girón-Hernández,* Yeison Barrios Rodríguez, Noemi Corbezzolo, Dayana Orozco Blanco, Carlos Carranza Gutiérrez, William Cheung and Piergiorgio Gentile*



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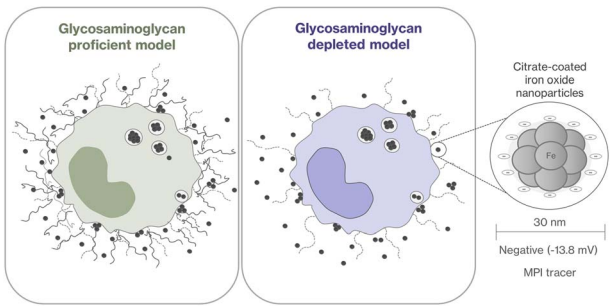
Rapid cellular uptake of citrate-coated iron oxide nanoparticles unaffected by cell-surface glycosaminoglycans

Lena Kampen,* Amani Remmo, Shailey Gale Twamley, Andrea Weller, Anke Stach, Paul Turko, Norbert Löwa, Frank Wiekhorst and Antje Ludwig*



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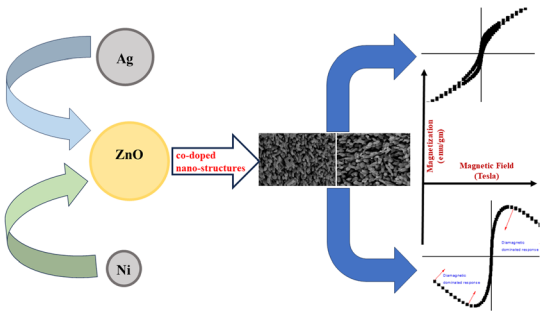
Spectroscopic analysis of nanosized Zn(Ag, Ni)O systems and observation of superparamagnetism at low temperature

Kamakhya Prakash Misra, Saikat Chattopadhyay,* Atul Bandyopadhyay, Albin Antony, Ashok Rao, P. Poornesh,* J. Jedryka, K. Ozga, B. Kucharska, Yanting Yin, Gunther Andersson, Arunava Agarwala and Yung-Kang Kuo



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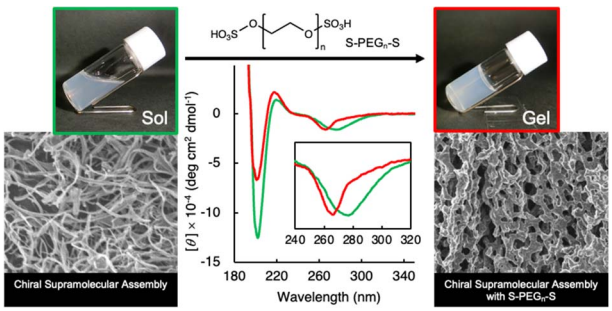
Nanofibrous chiral supramolecular assembly-derived self-healing hydrogels with polyethylene glycol

Makoto Takafuji,* Kenji Kawamoto, Nanami Hano, Mako Otsuki and Hirotaka Ihara*



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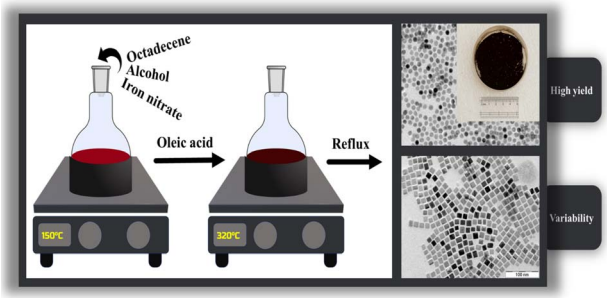

Low-cost one-pot synthesis of hydrophobic and hydrophilic monodispersed iron oxide nanoparticles

Sohel Reja,* Manoj Kumar and Sukumaran Vasudevan

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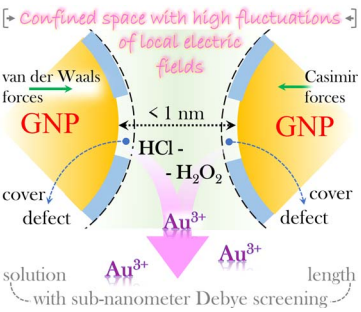

Agglomeration compaction promotes corrosion of gold nanoparticles

Borys A. Snopok,* Shavkat N. Nizamov, Tetiana V. Snopok and Vladimir M. Mirsky

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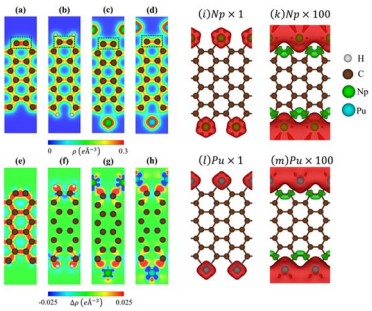

Electronic, magnetic, and optical properties of Np and Pu decorated armchair graphene nanoribbons: a DFT study

Nguyen Thi Han,* K. Dien Vo, Tu Le Manh, Ong Kim Le and Dinh Thuy Van

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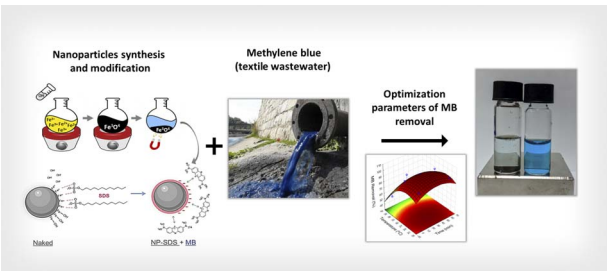

Methylene blue removal using a nanomagnetic support: a response surface approach

Thais Ribeiro do Nascimento Moraes Calazans, Ana Carolina de Lima Barizão, Thais de Andrade Silva, Fabiana Vasconcelos Campos, Sérvio Tulio Alves Cassini, Araceli Veronica Flores Nardy Ribeiro, Madson de Godoi Pereira, Marco Cesar Cunegundes Guimarães, Jairo Pinto de Oliveira* and Joselito Nardy Ribeiro

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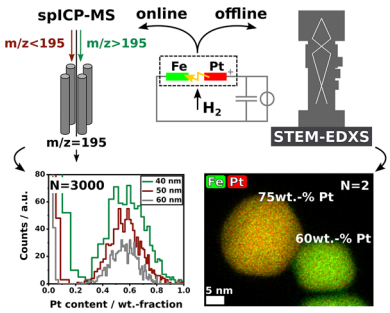
Synergizing ICP-MS, STEM-EDXS, and SMPS single particle analytics exemplified by superlattice $L1_0$ Pt/Fe aerosol nanoparticles produced by spark ablation

Vinzent Olszok,* Philipp Rembe, Tim Grieb, Eshan J. Wijeyeratnam, Andreas Rosenauer and Alfred P. Weber



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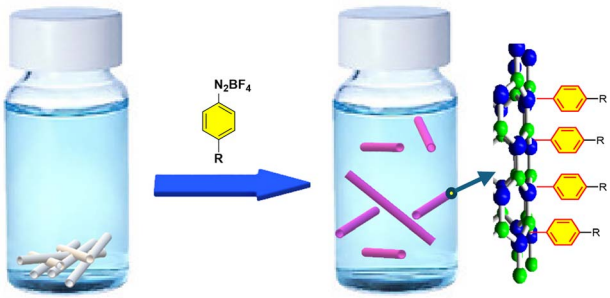
Facile covalent functionalization of boron nitride nanotubes *via* coupling reaction

Thang Quoc Huynh, Minsung Kang, Jeung Gon Kim* and Seokhoon Ahn*



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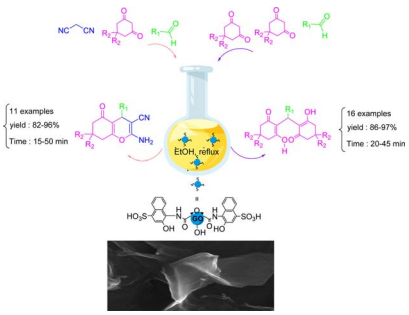
Functionalized graphene oxide by 4-amino-3-hydroxy-1-naphthalenesulfonic acid as a heterogeneous nanocatalyst for the one-pot synthesis of tetraketone and tetrahydrobenzo[*b*] pyran derivatives under green conditions

Sara Gharghish, Mohammad G. Dekamin* and Sepideh Hasanzadeh Banakar



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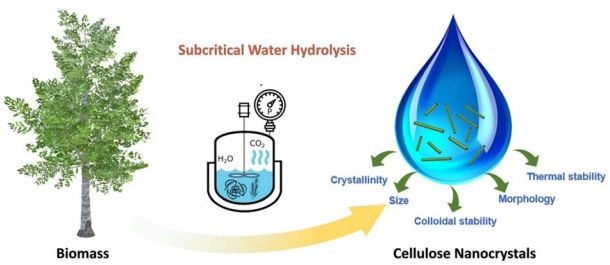
Subcritical water digestion of woody biomass: extraction of cellulose nanomaterials under acid-lean condition

Ruby Osei-Bonsu, Mahfuzul Hoque, Philip S. McMichael and E. Johan Foster*



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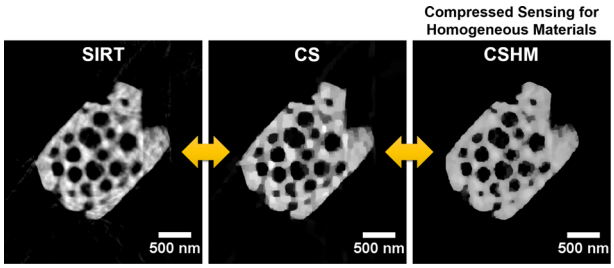

Improving reconstructions in nanotomography for homogeneous materials *via* mathematical optimization

Sebastian Kreuz, Benjamin Apeleo Zubiri,* Silvan Englisch, Moritz Buwen, Sung-Gyu Kang, Rajaprakash Ramachandramoorthy, Erdmann Spiecker, Frauke Liers and Jan Rolfes*

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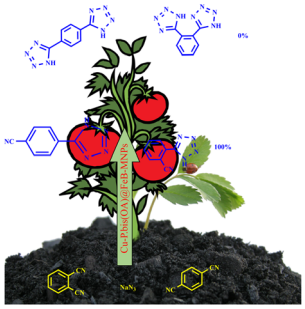

A multidentate copper complex on magnetic biochar nanoparticles as a practical and recoverable nanocatalyst for the selective synthesis of tetrazole derivatives

Marwan Majeed Maseer, Tavan Kikhavani* and Bahman Tahmasbi*

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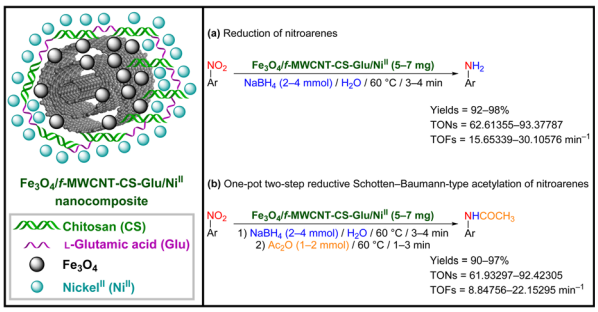

Ni^{II}-containing L-glutamic acid cross-linked chitosan anchored on Fe_3O_4/*f*-MWCNT: a sustainable catalyst for the green reduction and one-pot two-step reductive Schotten–Baumann-type acetylation of nitroarenes

Hossein Mousavi,* Behzad Zeynizadeh and Morteza Hasanpour Galehban

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