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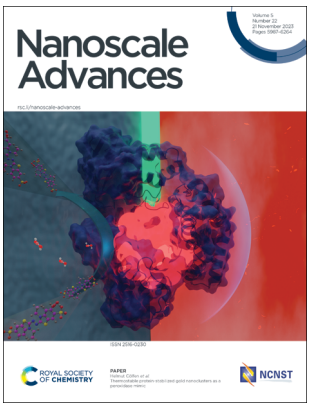

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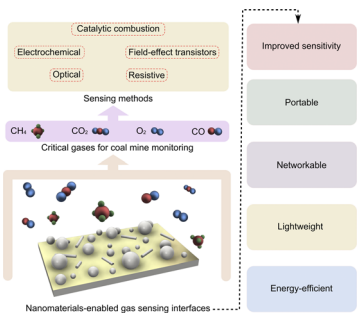
Gas nanosensors for health and safety applications in mining

Mahroo Baharfar,* Jiancheng Lin, Mohamed Kilani, Liang Zhao, Qing Zhang and Guangzhao Mao*



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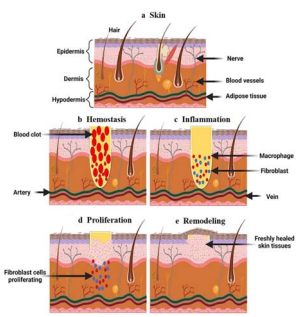
Research progress related to thermosensitive hydrogel dressings in wound healing: a review

Ruting Gu, Haiqing Zhou, Zirui Zhang, Yun Lv, Yueshuai Pan, Qianqian Li, Changfang Shi, Yanhui Wang* and Lili Wei*



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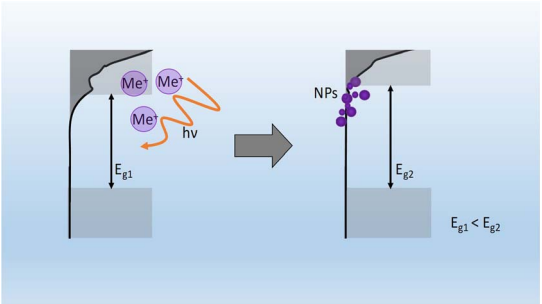
New insights into the influence of plasmonic and non-plasmonic nanostructures on the photocatalytic activity of titanium dioxide

Anna Jakimińska, Kaja Spilarewicz and Wojciech Macyk*



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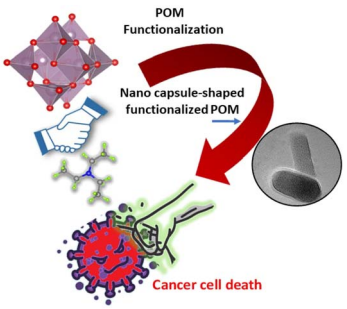
A polyoxomolybdate-based hybrid nano capsule as an antineoplastic agent

Arti Joshi, Sobhna Acharya, Neeta Devi, Ruby Gupta, Deepika Sharma and Monika Singh*



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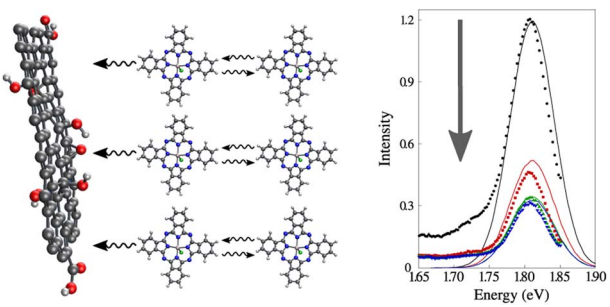
Modelling the quenching effect of chloroaluminum phthalocyanine and graphene oxide interactions: implications for phototherapeutic applications

Fernando Teixeira Bueno, Leonardo Evaristo de Sousa, Leonardo Giordano Paterno, Alan Rocha Baggio, Demétrio Antônio da Silva Filho and Pedro Henrique de Oliveira Neto*



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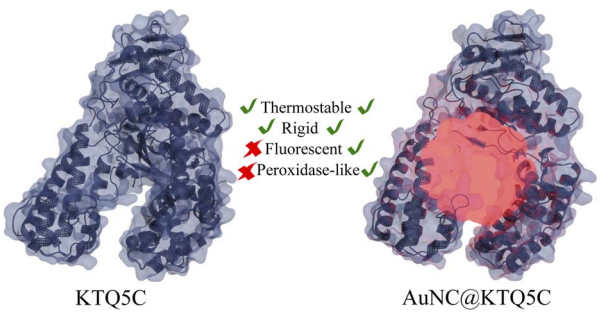
Thermostable protein-stabilized gold nanoclusters as a peroxidase mimic

Özlem Akyüz, Maite Mißun, Rose Rosenberg, Martin Scheffner, Andreas Marx and Helmut Cölfen*



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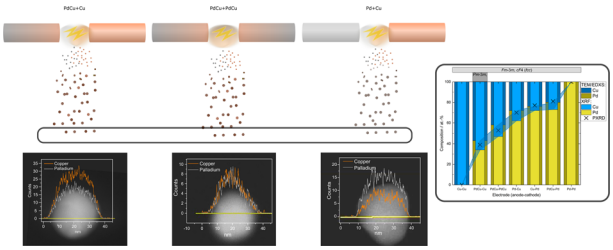

Compositional tuning of gas-phase synthesized Pd–Cu nanoparticles

Sara M. Franzén,* Linnéa Jönsson, Pau Ternero, Monica Kåredal, Axel C. Eriksson, Sara Blomberg, Julia-Maria Hübner and Maria E. Messing

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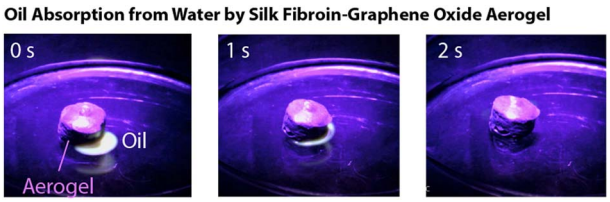

Graphene oxide nanosheets augment silk fibroin aerogels for enhanced water stability and oil adsorption

Catherine E. Machnicki, Eric M. DuBois, Meg Fay, Snehi Shrestha, Zachary S. S. L. Saleeba, Alex M. Hruska, Zahra Ahmed, Vikas Srivastava, Po-Yen Chen and Ian Y. Wong*

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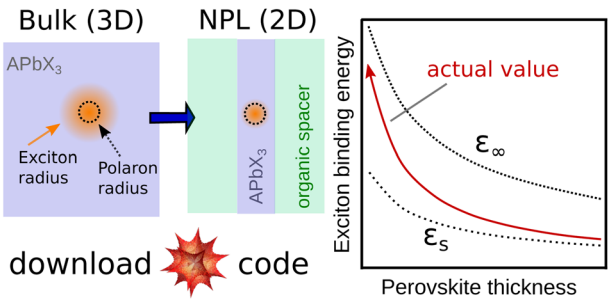

Excitons in metal halide perovskite nanoplatelets: an effective mass description of polaronic, dielectric and quantum confinement effects

Jose L. Movilla, Josep Planelles and Juan I. Climente*

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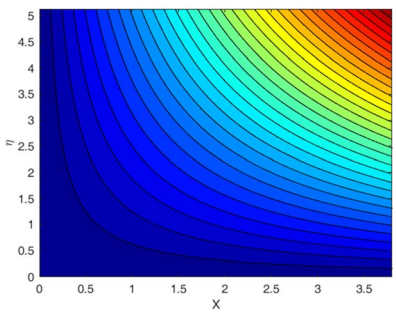

Viscoelastic fluid flow over a horizontal flat plate with various boundary slip conditions and suction effects

K. Sudarmozhi, D. Iranian, M. Asif Memon, P. D. Selvi, M. Sabeel Khan and Amsalu Fenta*

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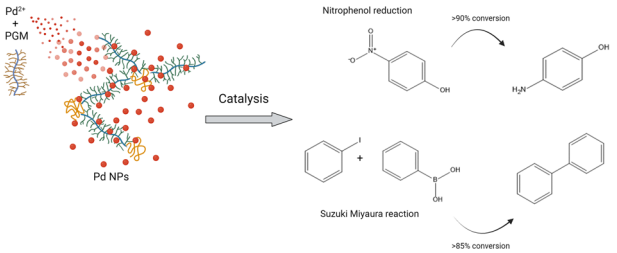
One-pot green bio-assisted synthesis of highly active catalytic palladium nanoparticles in porcine gastric mucin for environmental applications

Roman Nudelman, Shir Zuarets, Meiron Lev, Shira Gavriely, Louisa Meshi, Ines Zucker and Shachar Richter*



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Molecular transport and water condensation inside mesopores with wettability step gradients

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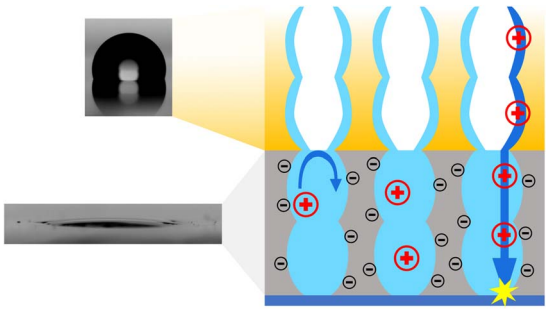

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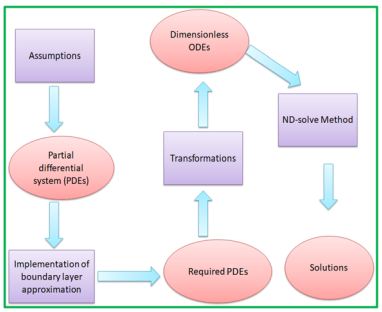
KHA model comprising MoS_4 and $CoFe_2O_3$ in engine oil invoking non-similar Darcy–Forchheimer flow with entropy and Cattaneo–Christov heat flux

Sohail A. Khan,* T. Hayat and A. Alsaedi



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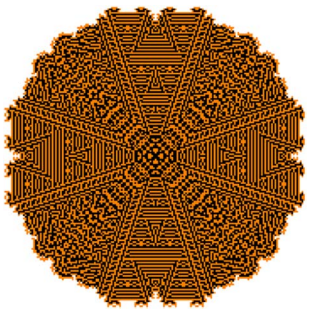
Computational assessment of the potential of cross-catalytic coprecipitating systems for the bottom-up design of nanocomposites

Joti Rouillard,* Britta Maier, Helmut Cölfen and Juan-Manuel García-Ruiz*



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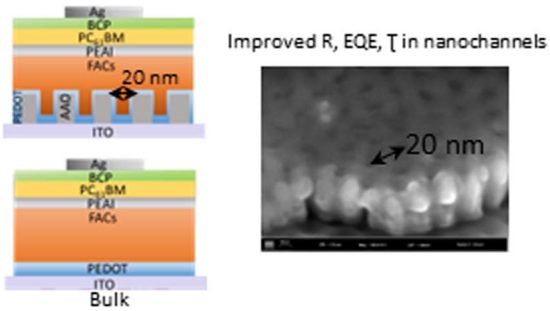

Structured hybrid photodetectors using confined conducting polymer nanochannels

Sukanya Das, K. H. Girish, N. Ganesh and K. S. Narayan*

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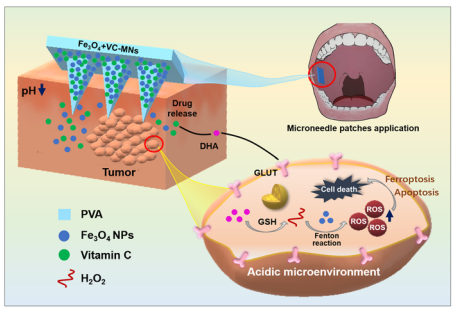

A tumor microenvironment-responsive microneedle patch for chemodynamic therapy of oral squamous cell carcinoma

Siyu Zhao, Yue Li and Bo Cheng*

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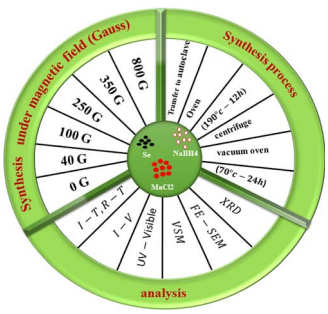

Magnetic field effects on the crystal structure, morphology, energy gap, and magnetic properties of manganese selenide nanoparticles synthesized by hydrothermal method

Ali Salmani Nokabadi and Ahmad Yazdani*

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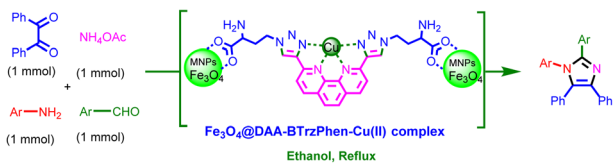

Synthesis of a bistriazolyl-phenanthroline–Cu(II) complex immobilized on nanomagnetic iron oxide as a novel green catalyst for synthesis of imidazoles *via* annulation reactions

Raed H. Althomali, Ebraheem Abdu Musad Saleh,* Riyadh Hasan Mohammed Ali, Ikromjon Ilkhomidinovich Mamadoliev, Montather F. Ramadan, Ashwaq Talib Kareem, Saurabh Aggarwal and Salema K. Hadrawi

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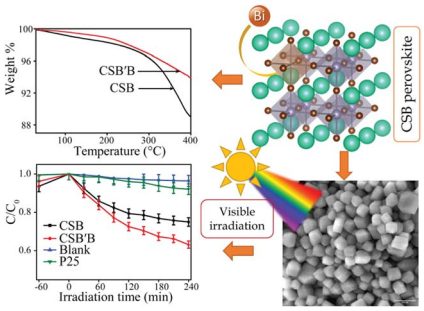
Tuning the morphology, stability and optical properties of $CsSnBr_3$ nanocrystals through bismuth doping for visible-light-driven applications

Md. Asif Adib, Fahmida Sharmin and M. A. Basith*



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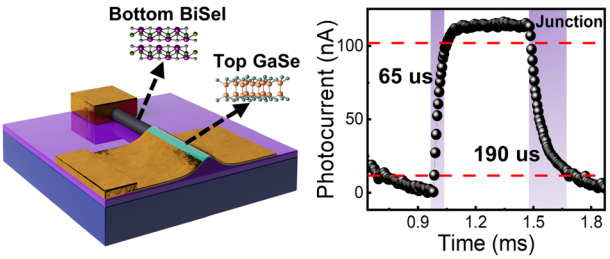
A mixed-dimensional quasi-1D BiSeI nanowire-2D GaSe nanosheet p–n heterojunction for fast response optoelectronic devices

Huijie Hu, Weili Zhen, Zhilai Yue, Rui Niu, Feng Xu, Wanli Zhu, Keke Jiao, Mingsheng Long, Chuanying Xi,* Wenka Zhu* and Changjin Zhang*



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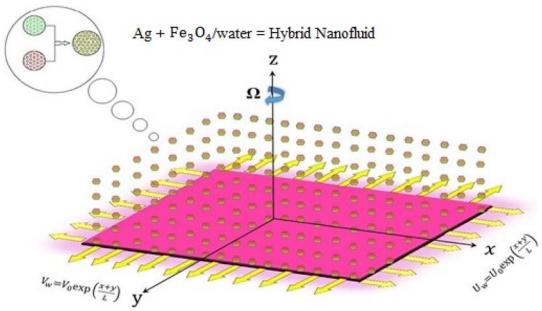
Thermal analysis of micropolar hybrid nanofluid inspired by 3D stretchable surface in porous media

Aisha M. Alqahtani, Basharat Ullah, Bilal Ahmad, Umar Khan,* Hafiz Abdul Wahab and Roobaea Alroobaea



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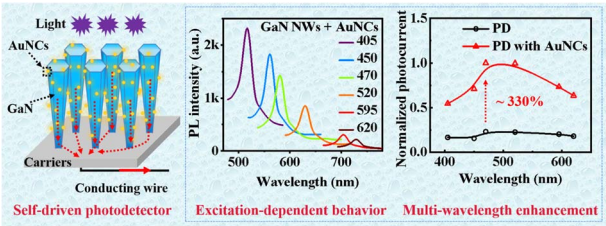
Engineering GaN/AuNC core–shell nanowire heterojunctions by gold nanoclusters with excitation-dependent behavior for enhancing the responsivity and stability of self-driven photodetectors

Yuanyuan Huang, Jianya Zhang, Min Zhou, Renjun Pei* and Yukun Zhao*



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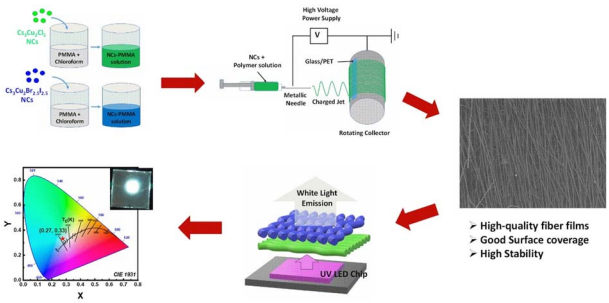

Stable and luminescent cesium copper halide nanocrystals embedded in flexible polymer fibers for fabrication of down-converting WLEDs

Manav Raj Kar, Kajol Sahoo, Ashutosh Mohapatra and Saikat Bhaumik*

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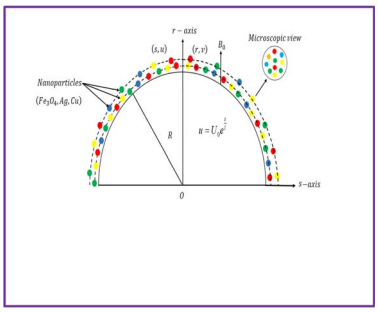

A numerical study on the flow of water-based ternary hybrid nanomaterials on a stretchable curved sheet

W. Shinwari,* T. Hayat, Z. Abbas and S. Momani

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