

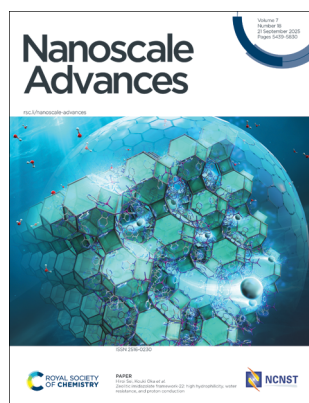
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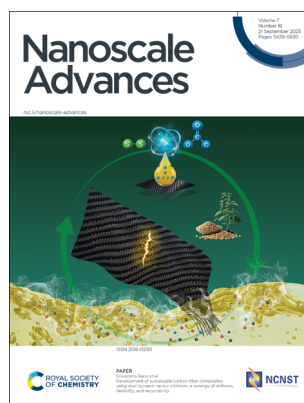
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Cover
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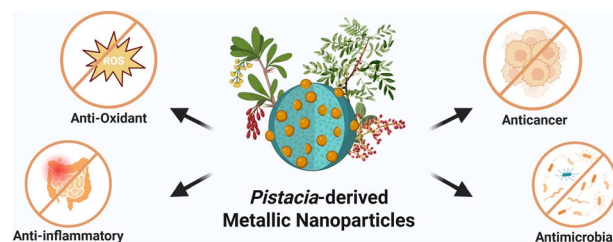
Inside cover
See Sravendra Rana *et al.*, pp. 5507–5518. Image reproduced by permission of Sravendra Rana from *Nanoscale Adv.*, 2025, 7, 5507.

REVIEWS

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Green synthesis of metallic nanoparticles using *Pistacia* species: improved stability and biological activities

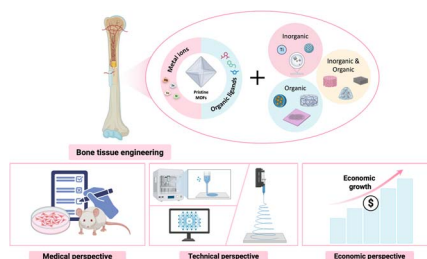
Obaydah Abd Alkader Alabrahim, Ahmed Maher Abdeldayem and Hassan Mohamed El-Said Azzazy*



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The synergy of metal–organic frameworks and biomaterials for bone tissue engineering: recent advances, challenges, and future recommendations

Luan Minh Nguyen, Yufeng Wang, Giao Thuy Quynh Vu, Qui Thanh Hoai Ta, Dieu Linh Tran, Ngoc Hoi Nguyen, Thuan Van Tran, Chao Zhang* and Dai Hai Nguyen*



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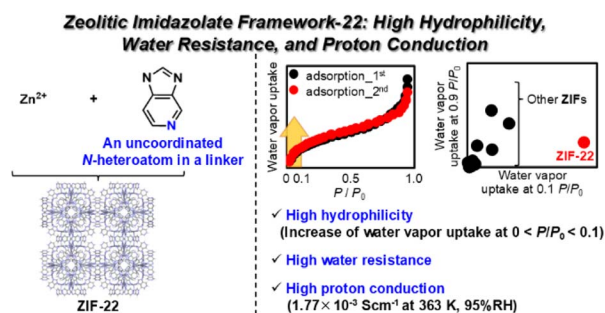
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5501

Zeolitic imidazolate framework-22: high hydrophilicity, water resistance, and proton conduction

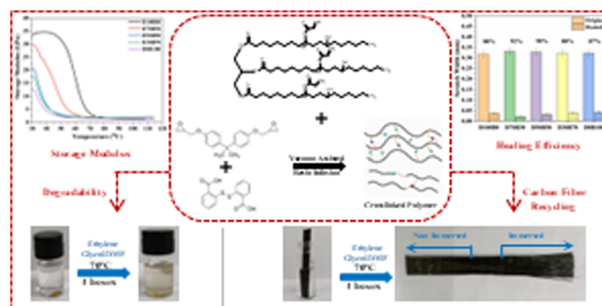
Hiroi Sei,* Hitoshi Kasai and Kouki Oka*



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Development of sustainable carbon fiber composites using dual dynamic epoxy vitrimers: a synergy of stiffness, flexibility, and recyclability

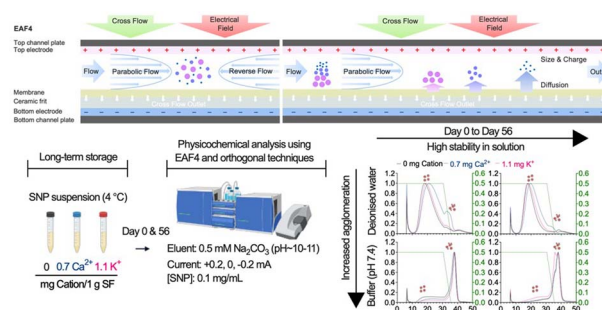
Harsh Sharma, Viranchika Bijalwan and Sravendra Rana*



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Evaluating the impact of bioinspired counterion inclusion on silk nanoparticle physicochemical attributes and physical stability

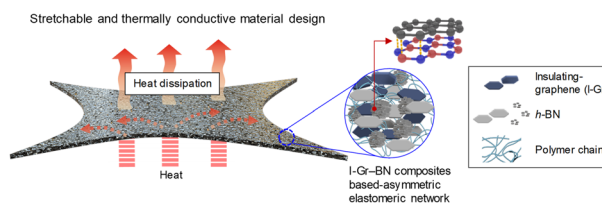
Napaporn Roamcharern, Panida Punnabhum, F. Philipp Seib and Zahra Rattray*



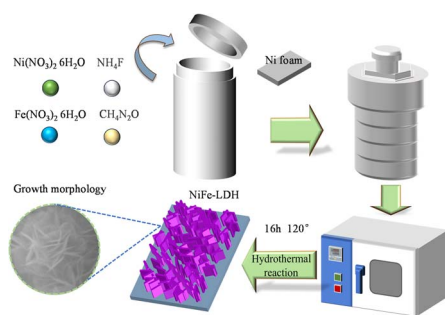
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Stretchable heat-dissipation sheet based on insulating graphene and boron nitride composites: asymmetric elastomeric networks for stable thermal conductivity under repeated tensile strain

Sang-Mi Jeong, Taekyung Lim, Jonguk Yang, Hee Sung Seo* and Sanghyun Ju*



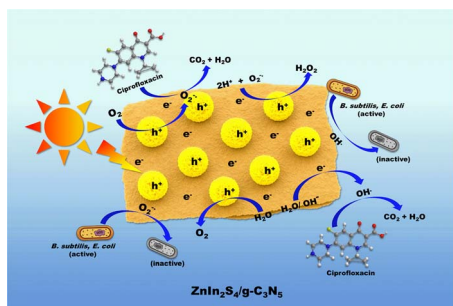
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NiFe-LDH as a bifunctional electrocatalyst for efficient water and seawater electrolysis: enhanced oxygen evolution and hydrogen evolution reactions

Xin Li, Song-lin Xu, Jia Li, Shuang-shuang Zhang, Bo-yao Zhang, Rong-da Zhao,* De-peng Zhao* and Fu-fa Wu*

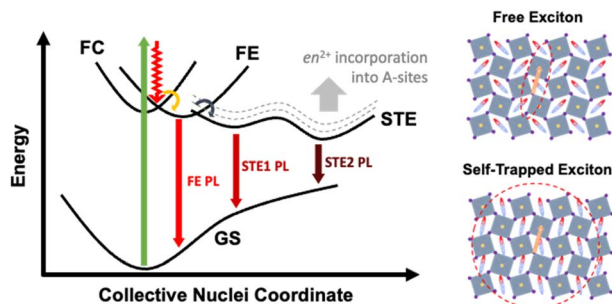
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A multi-functional novel Z-scheme $\text{ZnIn}_2\text{S}_4/\text{g-C}_3\text{N}_5$ heterojunction catalyst for enhanced visible light active photocatalysis and antimicrobial action

Pratyush Kumar Sahu, Aslisha Champati, Alaka Rath, Sovanika Pradhan, Abanti Pradhan and Brundabana Naik*

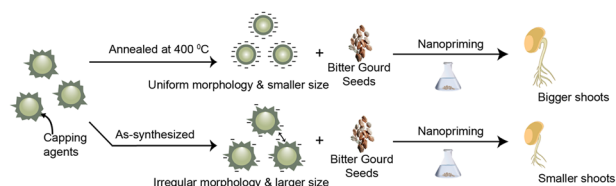
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Collective motion of methylammonium cations affects phase transitions and self-trapped exciton emission in A-site engineered MAPbI_3 films

Chia-Hsun Yeh, Wen-Yu Cheng, Tai-Che Chou, Yi-Chun Liu, Chia-Wei Chang, Yu-Sheng Chen, Chih-Hsing Wang, Shih-Chang Weng, Ian D. Sharp,* Pi-Tai Chou and Chang-Ming Jiang*

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Annealing-induced optimization of green-synthesized ZnO nanoparticles for improved nanoprimering in sustainable agriculture

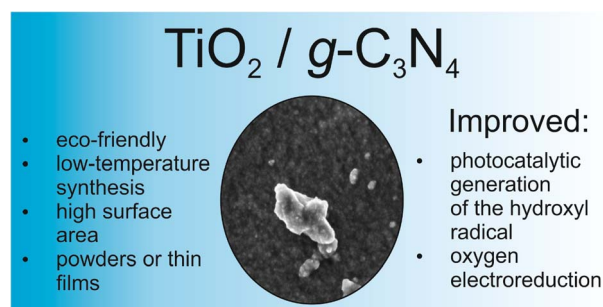
Md. Shadman Mostafa, Samia Yeasmin, Md. Mahmudul Hassan Pranto, Syeda Maliha Reza, Taslim Ur Rashid, Harinarayan Das, Mahmudur Rahman and Ahsan Habib*



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Eco-friendly preparation of titanium dioxide/carbon nitride nanocomposites for photoelectrocatalytic applications

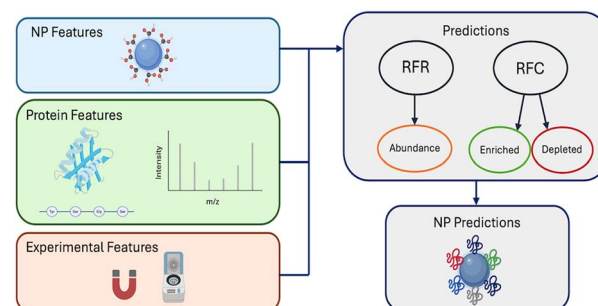
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Predicting the protein corona on nanoparticles using random forest models with nanoparticle, protein, and experimental features

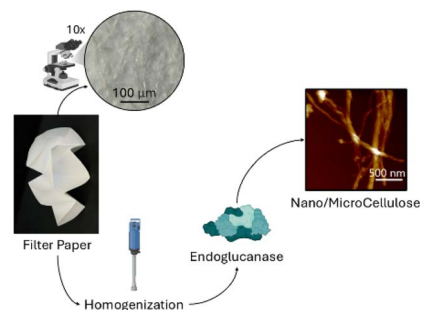
Nicole Vijgen, Karsten M. Poulsen, Gustavo Sosa Macias and Christine K. Payne*



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A mechano-enzymatic method to produce nano/microcellulose with ancestral endoglucanase. A comparative study

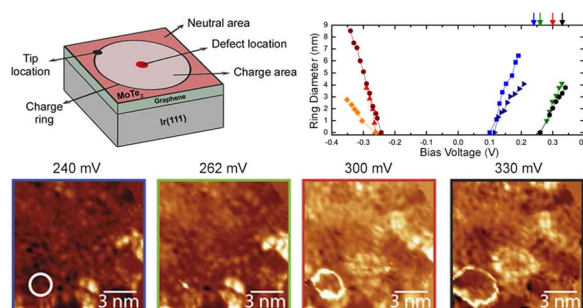
Ane Rivas-Zúñiga, Arantxa Eceiza* and Borja Fernández-d'Arlas*



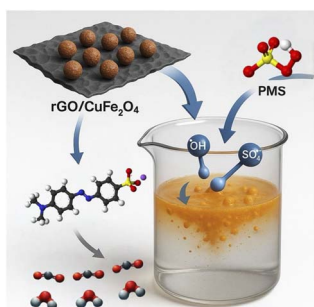
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Defect identification in monolayer MoTe₂ through tunneling tip-induced charging and theoretical analysis

Pablo Casado, Michele Pisarra, Fabian Calleja, Cristina Díaz, Fernando Martín, Amadeo L. Vázquez de Parga and Manuela Garnica*



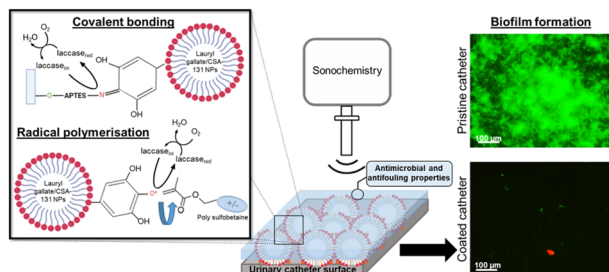
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Copper ferrite–graphene oxide catalyst for enhanced peroxydisulfate activation and pollutant degradation

Imane Sebah* and Moustapha Belmouden

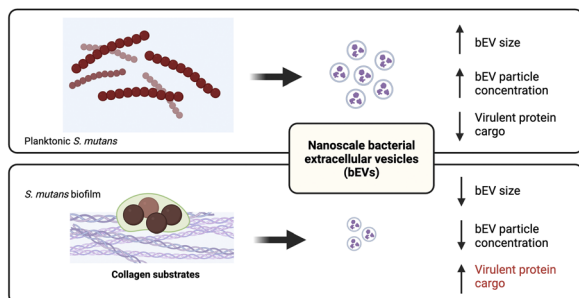
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Bottom-up sono-enzymatic approach to build antimicrobial and antifouling nano-enabled coatings on urinary catheters

Antonio Puertas-Segura, Leonardo Martín Pérez, Paul Savage, Kristina Ivanova, Gianluca Ciardelli and Tzanko Tzanov*

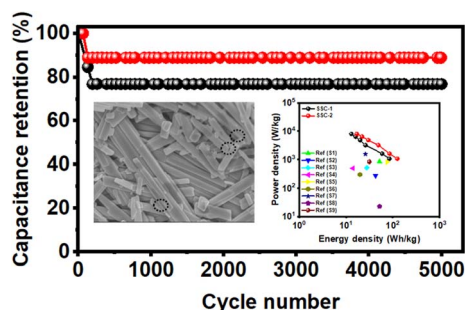
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Biofilm formation on collagen substrates modulates *Streptococcus mutans* bacterial extracellular nanovesicle production and cargo

Camila Leiva-Sabadini, Pablo Berríos, Paula Saavedra, Javiera Carrasco-Rojas, José Vicente González-Aramundiz, Mario Vera, Estefanía Tarifeño-Saldívar, Christina M. A. P. Schuh* and Sebastian Aguayo*

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Tuning the electrochemical performance of a hierarchical MoO₃/CdO binary heterostructure for supercapacitor applications

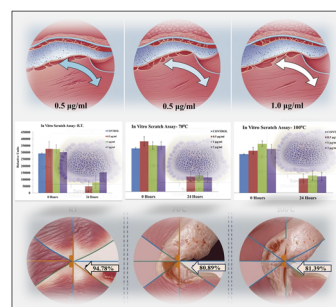
Saifullah, Probal Roy, Md. Abdullah Zubair and Muhammad Rakibul Islam*



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Semiconductor NbSe₂ nanoparticles synthesized at various temperatures: a novel promising antifungal candidate with *in vitro* wound healing potential

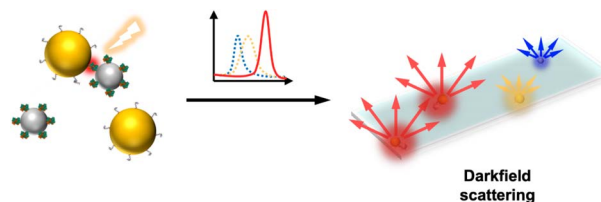
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A compartment-free digital plasmonic coupling assay via single-particle imaging and counting

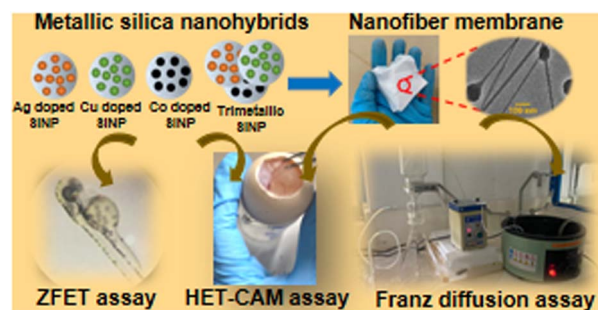
Shengwei Zhang, Sina Jamalzadegan, Yan Wang, Natalie Kelmer and Qingshan Wei*



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Evaluation of the safety profile of a metal-based nanosystem for developing antimicrobial polymer membranes in healthcare applications

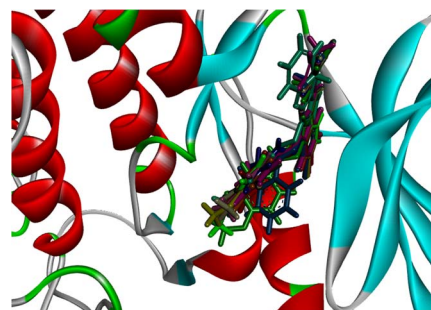
Piumika Yapa, Imalka Munaweera* and Mayuri Geethanjali Thammitiyagodage*



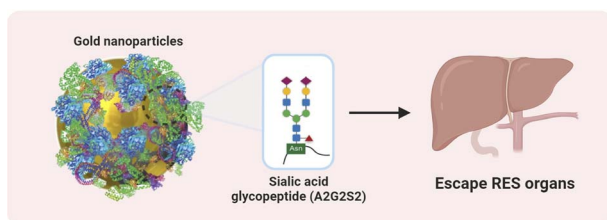
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Synthesis, molecular docking, pharmacological evaluation, MD simulation, and DFT calculations of quinazolin-12-one derivatives as PDK1 inhibitors

Zahra Sadeghian, Mohammad Bayat* and Davood Gheidari*



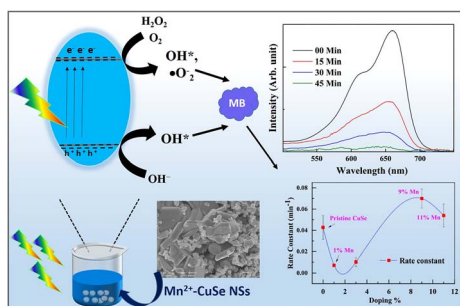
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Decoration of gold nanoparticles with glycopeptides leads to a lower cellular uptake and liver retention

Mahmoud G. Soliman, Jennifer Fernandez Alarcon, Tanja Ursula Lüttke, Martina B. Violatto, Marko Dobricic, Chiara Cordiglieri, Alessandro Corbelli, Fabio Fiordaliso, Giovanni Sitia, James S. O'Donnell, Daniel I. R. Spencer, Sergio Moya, Paolo Bigini* and Marco P. Monopoli*

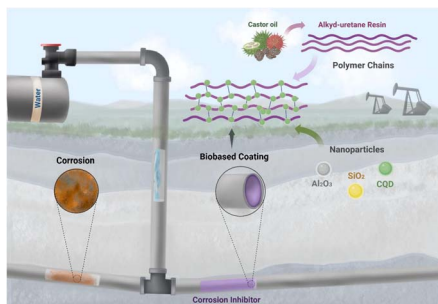
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Investigation of Mn^{2+} dopant-induced crystal defects in photoactive CuSe nanosheets for enhanced visible-NIR range absorption and natural solar-driven photocatalysis

Vikas Kumar, Jai Prakash,* Mahmoud Abid, Mikhael Bechelany, Hendrik Christoffel Swart and Awnish Kumar Tripathi*

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Bio-nanocoatings based on castor oil enhanced with nanomaterials as corrosion reducers in injection wells pipelines

Juan D. Quintero, Yurany Villada, Helen Iniciarte, Claudia Gomez, Esteban A. Taborda, Luis Rios, Camilo A. Franco* and Farid B. Cortés*

