

Materials Advances

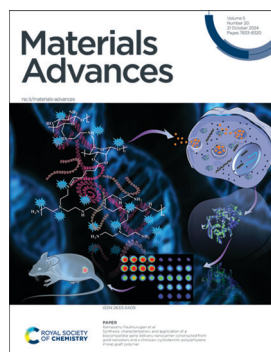
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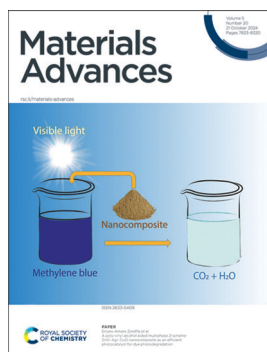
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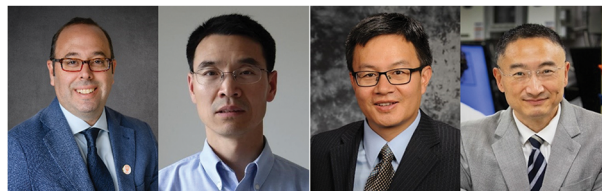
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Introduction to 'Conducting ceramic membranes for energy conversion and storage'

Kyle Brinkman,* Fanglin (Frank) Chen, Dong Ding and Xiao-Dong Zhou



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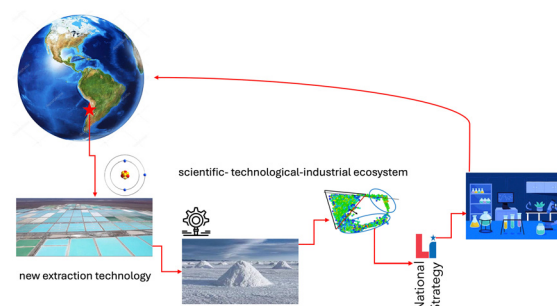
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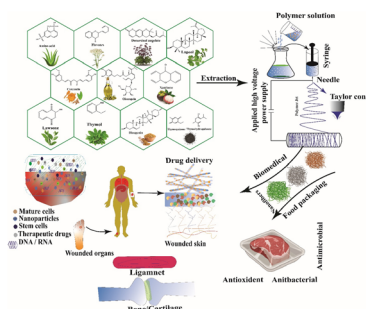
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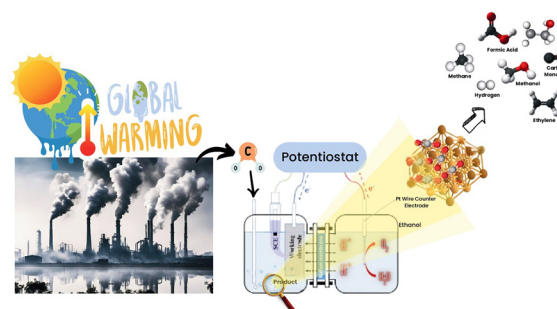
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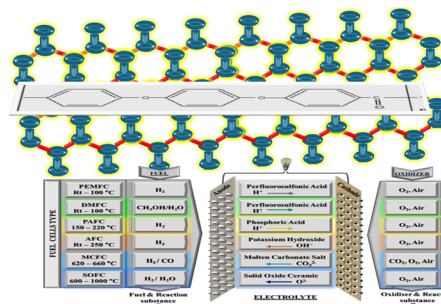
Sheraz Yousaf, Iqbal Ahmad,* Muhammad Farooq Warsi and Asad Ali*



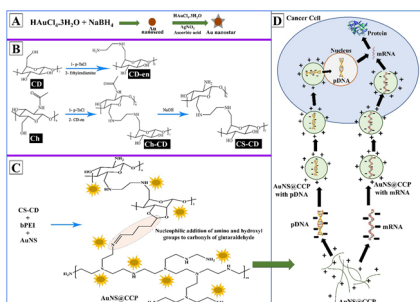
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Mayetu Segale, Tumelo Seadira,* Rudzani Sigwadi, Touhami Mokrani and Gabriel Summers



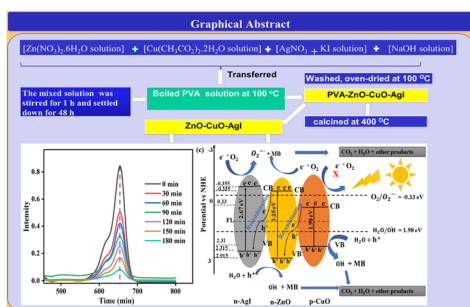
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Synthesis, characterization, and application of a biocompatible gene delivery nanocarrier constructed from gold nanostars and a chitosan–cyclodextrin–poly(ethylene imine) graft polymer

Farbod Tabesh, Golnaz Haghverdi, Kireeti Phani Devarakonda, Tarik F Massoud and Ramasamy Paulmurugan*

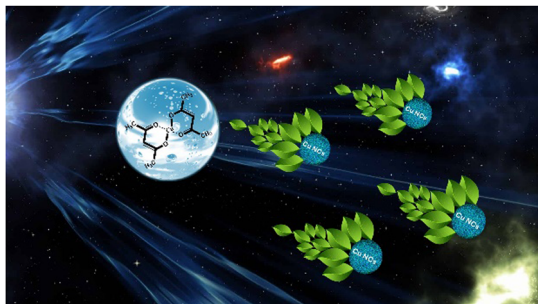
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A poly-vinyl alcohol aided multiphase Z-scheme ZnO–AgI–CuO nanocomposite as an efficient photocatalyst for dye photodegradation

Teketel Girma Gindose, Tsegaye Belege Atisme, Gebrehiwot Gebreslassie, Abera Beyene Gebresilassie and Enyew Amare Zereffa*

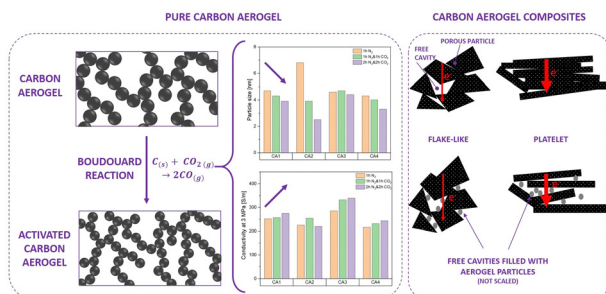
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Photochemical eco-friendly synthesis of photothermal and emissive copper nanoclusters in water: towards sustainable nanomaterials

Angelo Ferlazzo,* Stefano Bonforte, Federica Florio, Salvatore Petralia,* Lorenzo Sorace, Beatrice Muzzi, Andrea Caneschi* and Antonino Gulino*

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Electrical conductivity of monolithic and powdered carbon aerogels and their composites

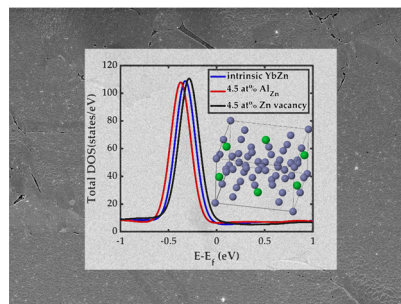
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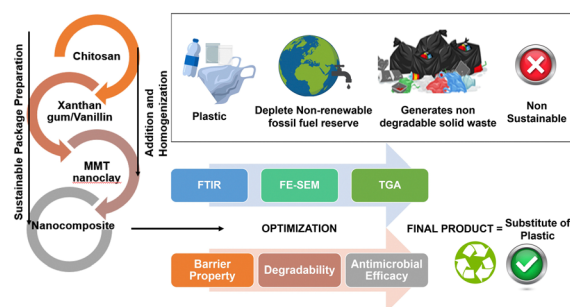
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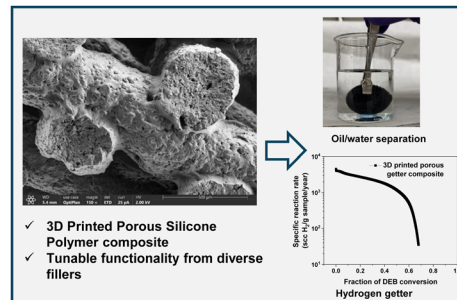
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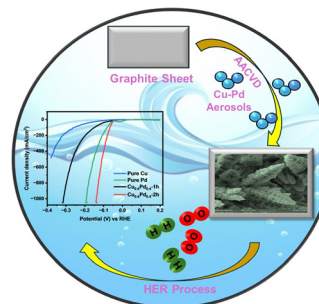
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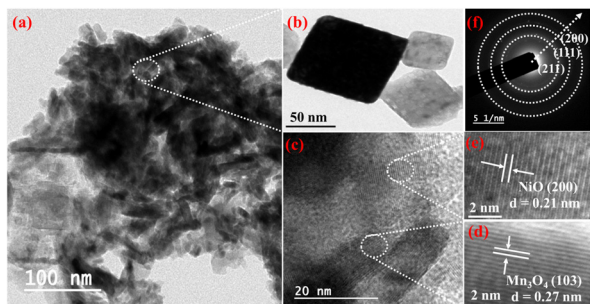
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Facile fabrication of binary copper–palladium alloy thin film catalysts for exceptional hydrogen evolution performance

Muhammad Ali Ehsan,* Akilarasan Muthumariappan, Muhammad Ali, Abbas Saeed Hakeem and Wasif Farooq



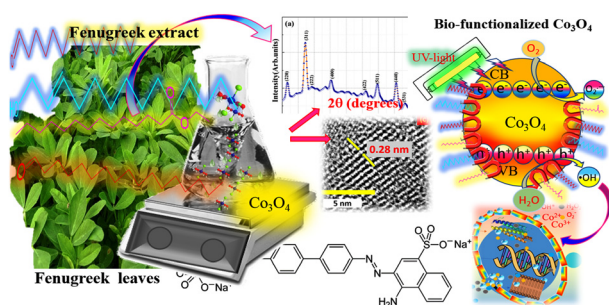
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Construction of a 3D flower-like NiO/Mn₃O₄ heterojunction using Tulsi leaf extract for enhanced photodegradation of thiamethoxam pesticide and organic dyes under direct sunlight

Mandvi, Prit Pal Singh, Suhas Ballal, Mamta Chahar, Jaya Bansal, Ranvijay Kumar, Sandeep Kumar and Sandeep Kaushal*

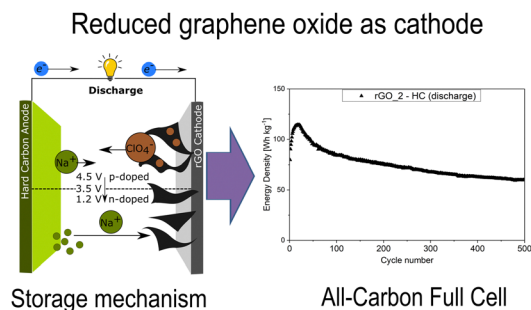
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Enhanced photocatalytic degradation and antimicrobial activities of biogenic Co₃O₄ nanoparticles mediated by fenugreek: sustainable strategies

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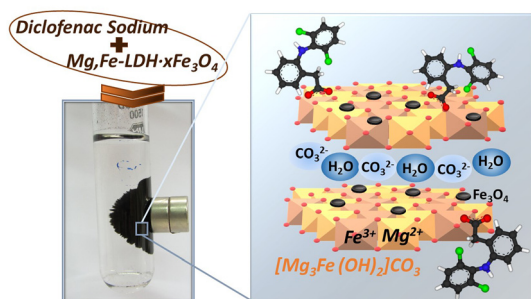
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Understanding the electrochemical behaviour of reduced graphene oxide cathodes in all-carbon Na-ion batteries

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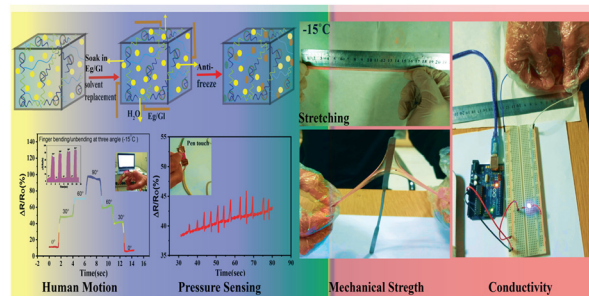
Tetiana Hubetska, Victor Demchenko and Natalia Kobylinska*



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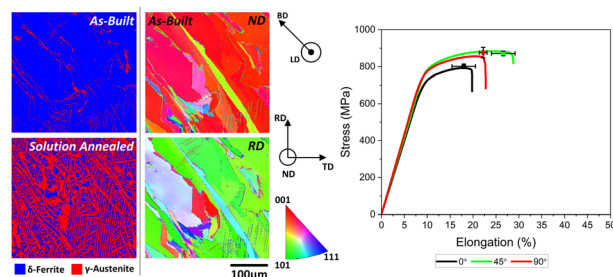
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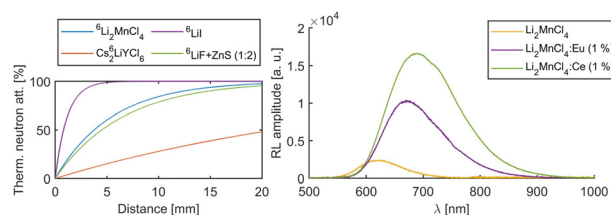
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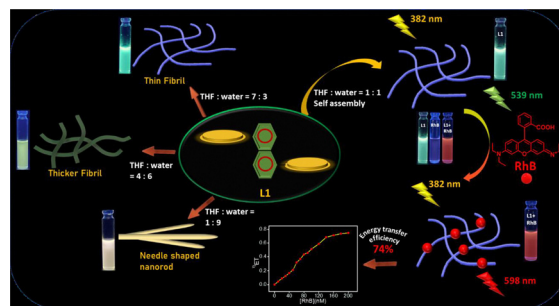
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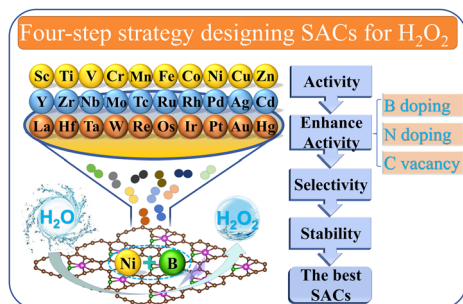
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A naphthalene–phenanthro[9,10-*d*]imidazole-based π -conjugated molecule with a self-assembly-induced tuneable multiple fluorescence output exhibits artificial light-harvesting properties

Priya Rana, Mallayasamy Siva, Rabindranath Lo* and Priyadip Das*



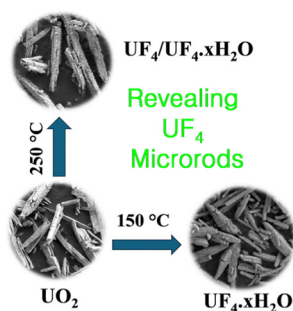
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Rational design of single-atom catalysts for efficient H_2O_2 production *via* a four-step strategy

Shu-Long Li, Xiaogui Song, Zuhui Zhou, Hongyuan Zhou, Liang Qiao,* Yong Zhao* and Li-Yong Gan*

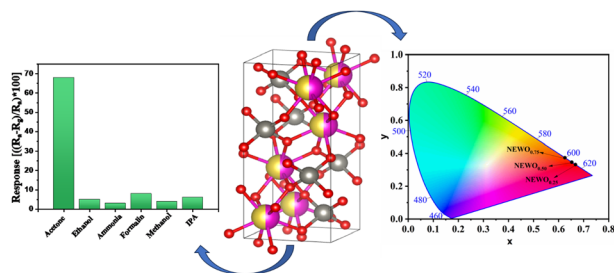
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Revealing uranium tetrafluoride microrods

Harry Jang and Frederic Poineau*

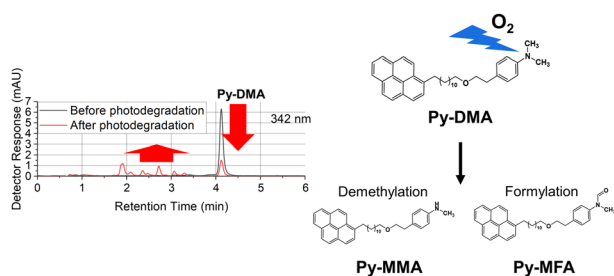
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Multifunctional $\text{NaEu(WO}_4)_2$: defect-tuned red emission and acetone sensing at room temperature

Kumar Riddhiman Sahoo, Tanushri Das, Mrinal Pal, Mohammad Rezaul Karim, Asiful H. Seikh and Chandan Kumar Ghosh*

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Primary photodegradation pathways of an exciplex-forming A–D molecular system

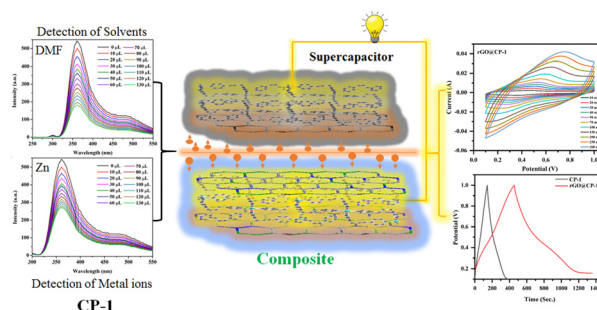
Yeongcheol Ki, Jonghyun Kim, Yeri Son, Suhyun Park, Won-jin Chung, Tae-Young Kim* and Hohjai Lee*



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A dual functional Cu(II)-coordination polymer and its rGO composite for selective solvent detection and high performance energy storage

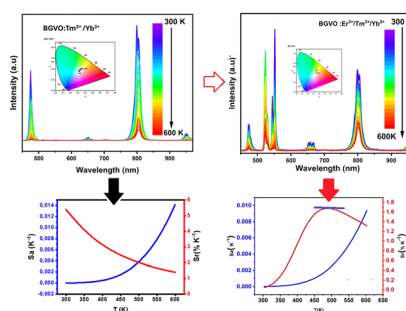
Basree, Waris, Arif Ali, Nishat Khan, Mohammad Zain Khan, Ganesh Chandra Nayak, Kafeel Ahmad Siddiqui* and Musheer Ahmad*



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Enhancing thermometric precision: modulating the temperature of maximum sensitivity via erbium dopant addition in Ba₂GdV₃O₁₁:Tm³⁺/Yb³⁺ nano phosphors

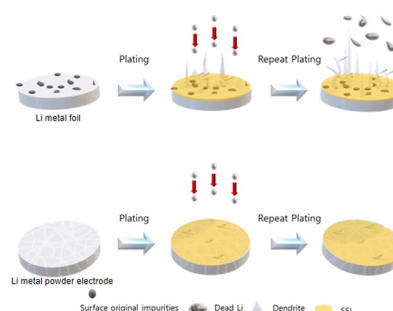
Ikhlas Kachou, Kamel Saidi, Christian Hernández-Álvarez, Mohamed Dammak* and Inocencio R. Martin



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Attaining improved cycling durability and engineering a dendrite-free lithium metal anode

Hyeong-Seok Oh, Rae-Hyun Lee, Jong-Kyu Lee, Jung-Rag Yoon,* Hyun-Kyung Kim* and Seung-Hwan Lee*



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Recycling waste aluminium foil to bio-acceptable nano photocatalysts [aluminium oxide (Al₂O₃) & aluminium oxyhydroxide (AlOOH)]; dye degradation as proof-of-concept

Bunty Sharma, Arshdeep Sahi, Jaspreet Dhau, Ajeet Kaushik, Rajeev Kumar* and Ganga Ram Chaudhary*

