

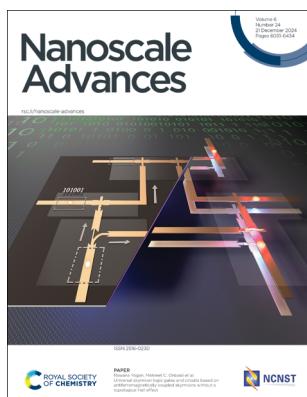
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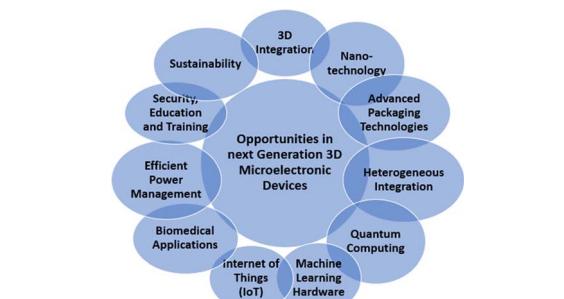
See Rawana Yagan, Mehmet C. Onbasli et al., pp. 6142–6153.
Image reproduced by permission of Mehmet Cengiz Onbaşlı from *Nanoscale Adv.*, 2024, 6, 6142.

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Challenges and opportunities in engineering next-generation 3D microelectronic devices: improved performance and higher integration density

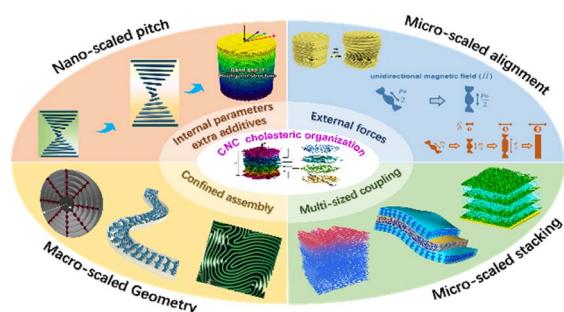
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Multi-scaled regulation for cholesteric organization of cellulose nanocrystals based on internal and external factors

Baiqi Song, Richu Luo, Haixing Jiao, Fangling Li, Juan Yu* and Xiaofang Zhang*



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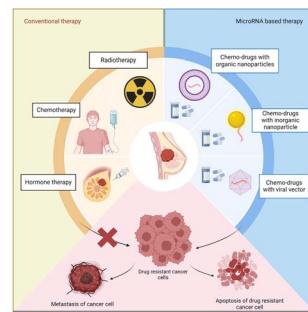
Fundamental questions
Elemental answers

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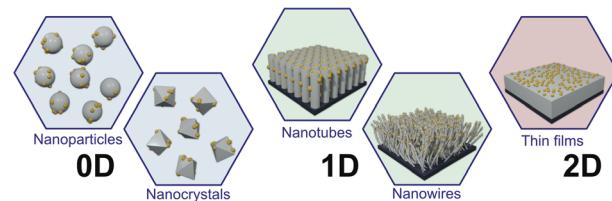
Aditi Verma, Krunal Patel and Ashutosh Kumar*



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Salih Veziroglu,* Josiah Shondo, Tim Tjardts, Tamim B. Sarwar, Ayse Sünbul, Yogendra Kumar Mishra, Franz Faupel and Oral Cenk Aktas*

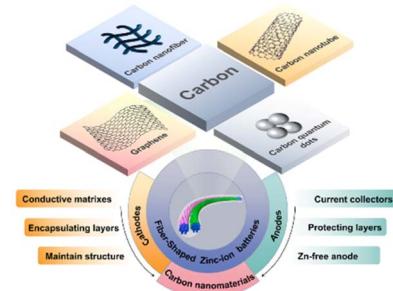


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Recent progress in carbon nanomaterials for highly flexible fibrous aqueous zinc-ion batteries

Guoqing Lu, Qiqing Xi, Yanyan Shao, Yinan Yang, Yichuan Rui* and Yuanlong Shao*

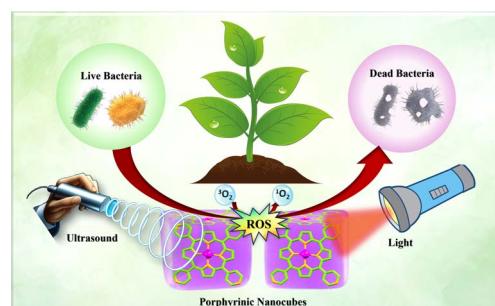


COMMUNICATIONS

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Green synthesis of porphyrin-based self-assembled nanocubes for augmented sono-photodynamic inactivation of bacteria: a sustainable approach towards advanced antimicrobial strategies

Pradeep Singh Thakur and Muniappan Sankar*



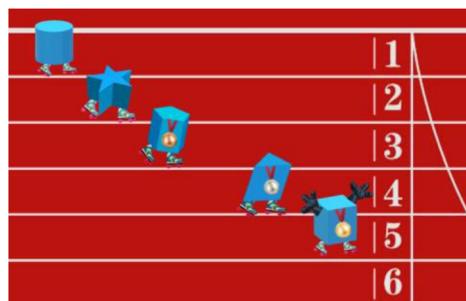
COMMUNICATIONS

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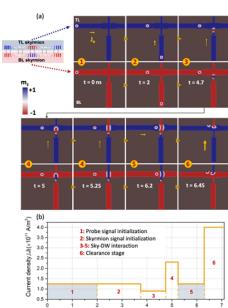
Spaghetti **Capelli d'Angelo** **Nanopasta**
~2 mm **~900 µm** **~370 nm**

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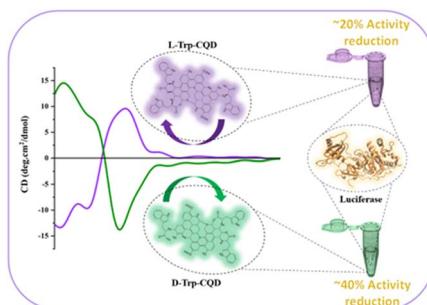
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Mehrnaz Rad-Faraji, Marziyeh Mousazadeh, Maryam Nikkhah,* Sajad Moradi, Mohabbat Ansari, Klara Cepe, Saman Hosseinkhani and Aram Rezaei*

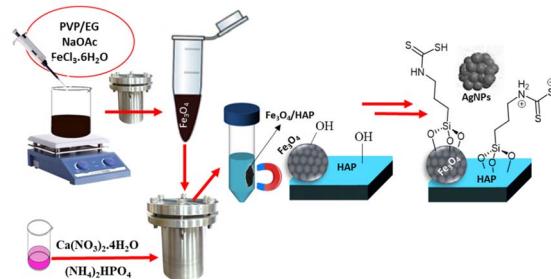


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Bactericidal behavior of silver nanoparticle decorated nano-sized magnetic hydroxyapatite

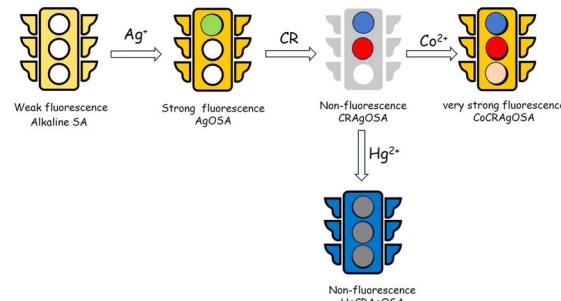
Ebrahim Sadeghi, Reza Taghavi, Amir Hasanzadeh* and Sadegh Rostamnia*



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Simultaneous ionic cobalt sensing and toxic Congo red dye removal: a circular economic approach involving silver-enhanced fluorescence

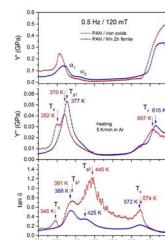
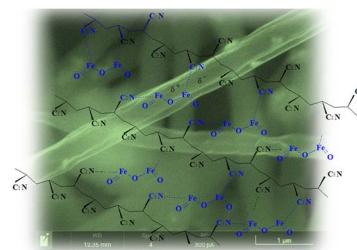
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Thermomechanical properties of confined magnetic nanoparticles in electrospun polyacrylonitrile nanofiber matrix exposed to a magnetic environment: structure, morphology, and stabilization (cyclization)

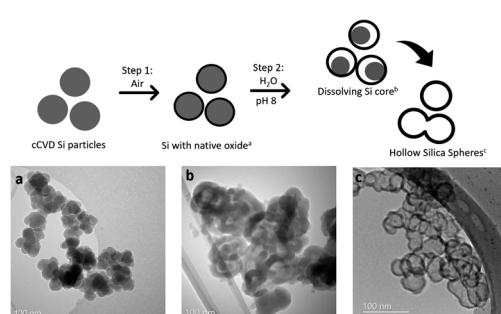
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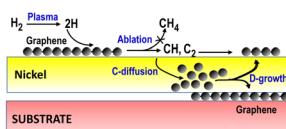
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Hennie Marie Johnsen,* Anuj Pokle, Werner Filtnedt, Marianne Hiorth, Jo Klaveness and Anja Olafsen Sjåstad



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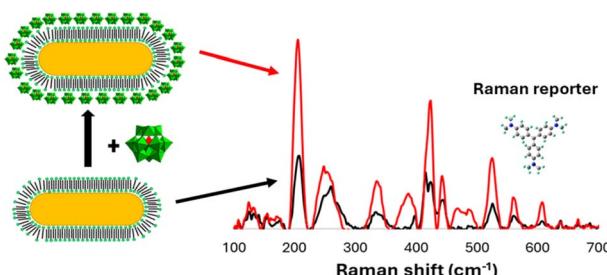


Hydrogen radicals promote Carbon diffusion through Nickel film and Graphene growth on the substrate surface

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Hemostatic bioactivity and mechanism of novel *Rubia cordifolia* L.-derived carbon dots

Zhaojiong Zhang, Wenjing Hu, Aiqi Yu, Haixue Kuang and Meng Wang*

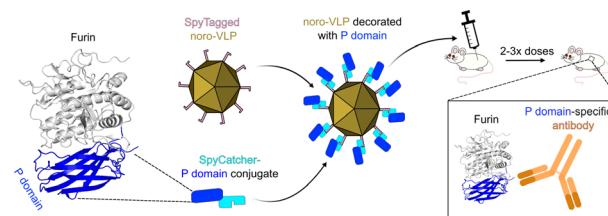


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Experimental VLP vaccine displaying a furin antigen elicits production of autoantibodies and is well tolerated in mice

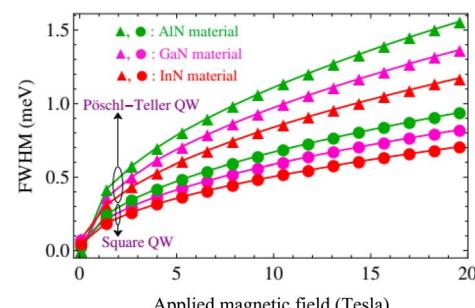
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Optical, magnetic, and transport properties of two-dimensional III-nitride semiconductors (AlN, GaN, and InN) due to acoustic phonon scattering

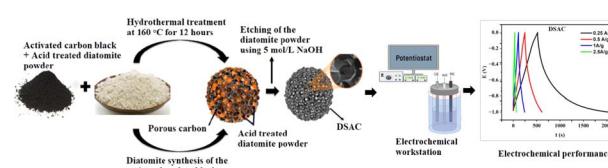
Ho Kim Dan, Pham Tuan Vinh and Nguyen Dinh Hien*



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Tailoring a hierarchical porous carbon electrode from carbon black via 3D diatomite morphology control for enhanced electrochemical performance

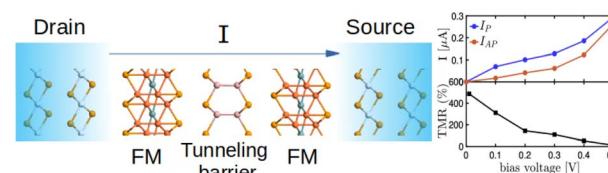
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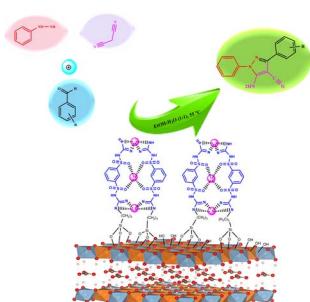
Efficient spin filtering through Fe_4GeTe_2 -based van der Waals heterostructures

Masoumeh Davoudiniya and Biplab Sanyal*



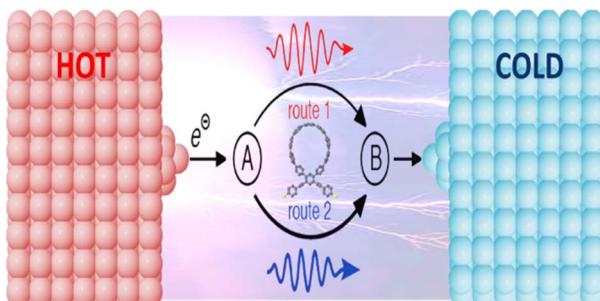
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Green and efficient synthesis of 5-amino-1*H*-pyrazole-5-carbonitriles utilizing novel modified LDH

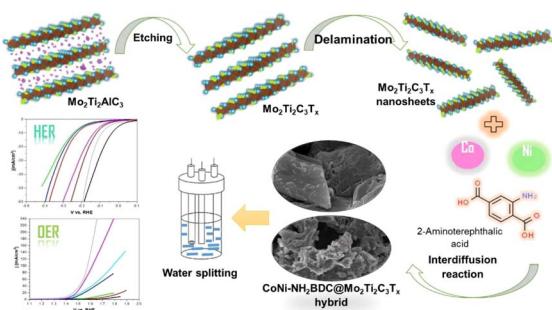
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Quantum interference features and thermoelectric properties of macrocyclic-single molecules: theoretical and modelling investigation

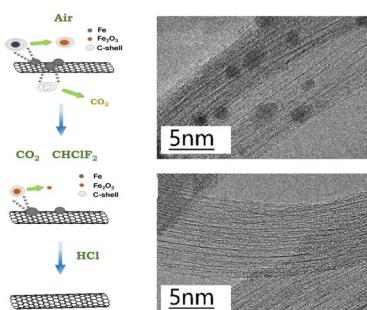
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Maida Murtaza, Komal Farooq, Waqas Ali Shah, Iftikhar Ahmad and Amir Waseem*

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Freon–CO₂-assisted purification of single-walled carbon nanotubes

Yiman Huang, Xiao Zhu,* Tao Chen, Hongyan Li, Liang Han and Xilai Jia*



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Exsolution of Ni nanoparticles in A-site excess STO films

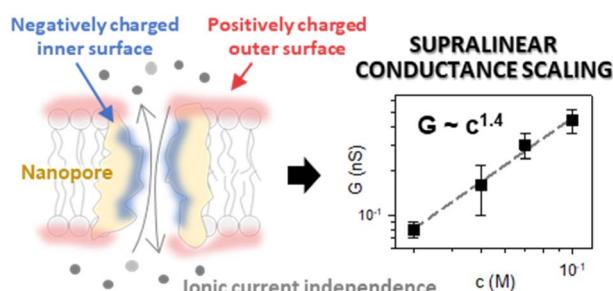
Kevin G. Both,* Dragos Neagu, Øystein Prytz, Truls Norby and Athanasios Chatzitakis*



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Supralinear scaling behavior of ionic transport in membrane nanochannels regulated by outer-surface charges

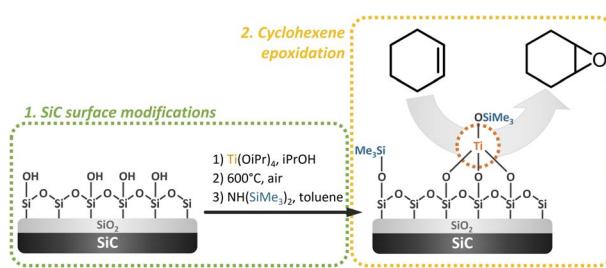
Laidy M. Alvero-González, Marcel Aguilera-Arzo, D. Aurora Perini, Lucie A. Bergdolt, María Queralt-Martín* and Antonio Alcaraz*



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Titanium dioxide functionalized silicon carbide phases as heterogeneous epoxidation catalysts

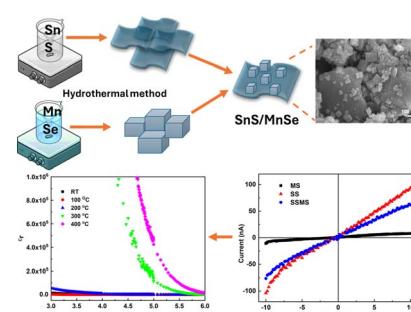
Léa Gonçalves, Olinda Gimello, Karim Bouchmella, Peter Hesemann and Johan G. Alauzun*



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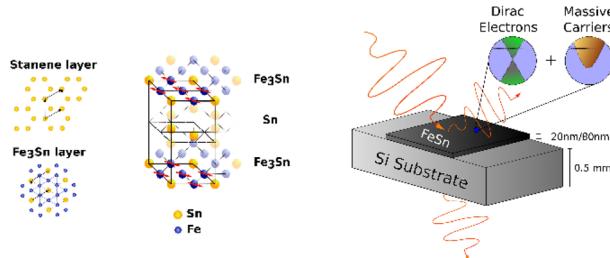
SnS/MnSe heterostructures for enhanced optoelectronics and dielectric applications

Abinash Parida, Satish Kumar Samal, Sripan Chinnaiyah and Ramakanta Naik*



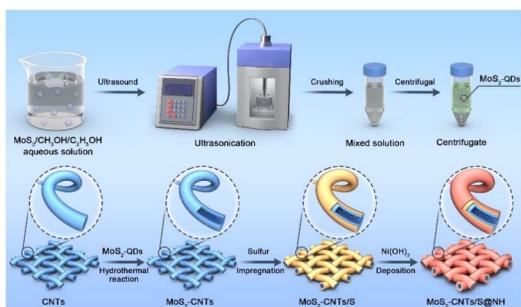
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**Evidence of high electron mobility in magnetic kagome topological metal FeSn thin films**

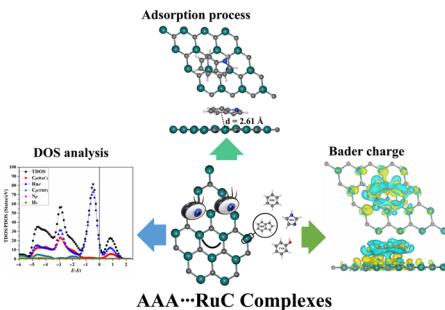
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**MoS₂ quantum dot-decorated CNT networks as a sulfur host for enhanced electrochemical kinetics in advanced lithium–sulfur batteries**

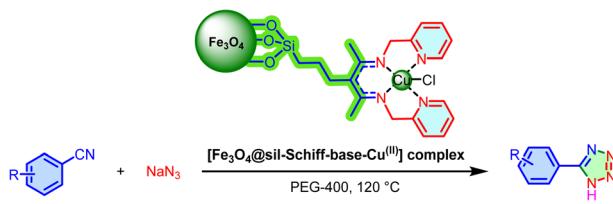
Meng Wei,* Hanqing Lu, Zhen Wang, Baowen Lu, Pengtao Wang, Xinxin Zhang, Bingjie Feng, Yingjie Xie, Tao Zhang, Guanghui Liu and Song Xu*

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Injectable pH-responsive polypeptide hydrogels for local delivery of doxorubicin

Yijun Guo, Yong Chen, Yiqun Wu, Ying Zhu, Shiyao Luo, Juan Shen* and Yongjun Luo*

