Nanoscale

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IN THIS ISSUE

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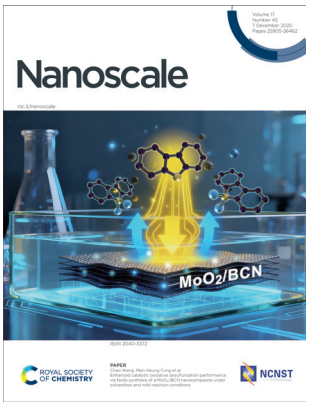

Cover
See Chao Wang, Man-Keung Fung *et al.*, pp. 26068–26076.

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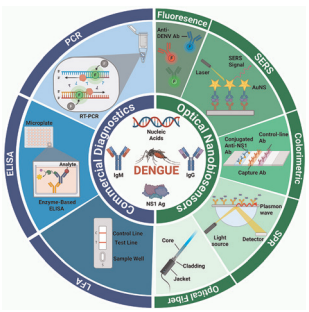
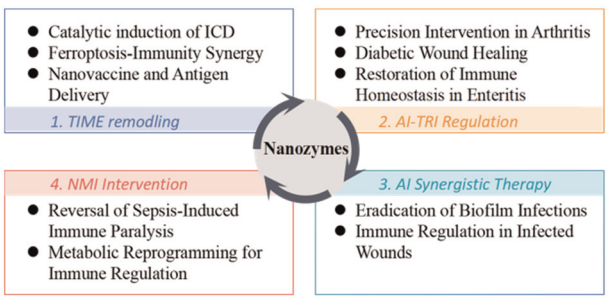
REVIEWS





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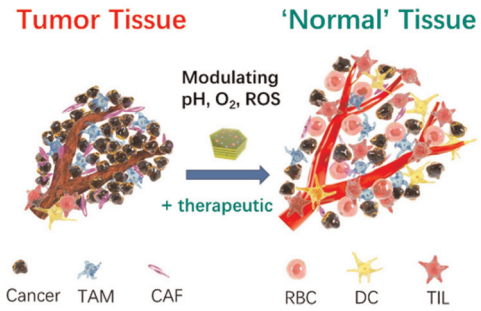

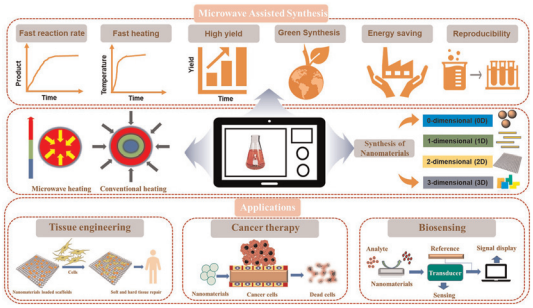

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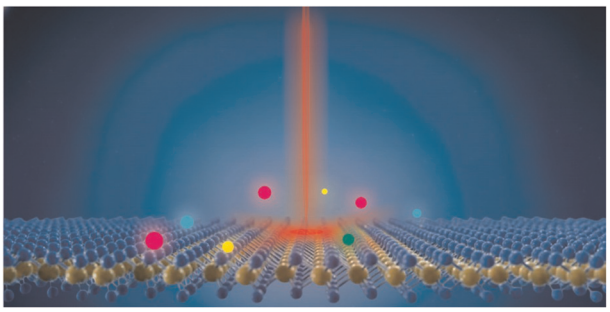
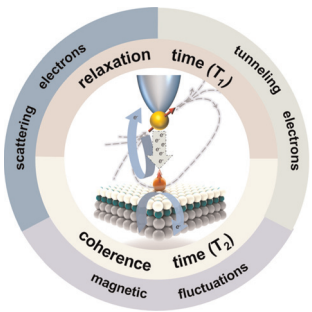




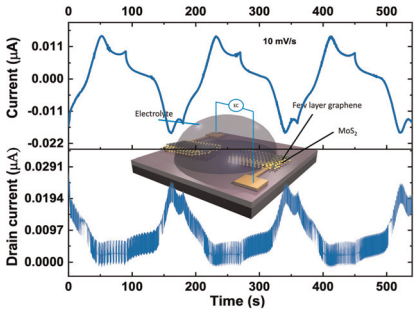
COMMUNICATIONS

COMMUNICATIONS

26062

Planar supercapacitor devices with nanometer electrodes

Sumana Kumar, Rahul Tripathi, Rajesh P. Achary and Abha Misra*



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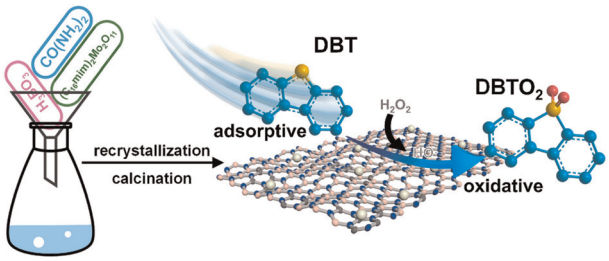
Enhanced catalytic oxidative desulfurization performance *via* facile synthesis of a MoO_2/BCN nanocomposite under solventless and mild reaction conditions

Chao Wang,* Xiaoyu Yao, Qi Sun, Hui Liu, Man-Keung Fung,* Ming Zhang and Huaming Li



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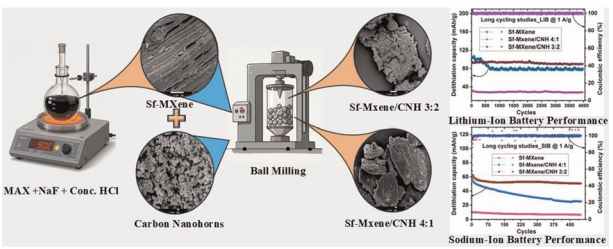
Synergistic enhancement in energy storage in lithium/sodium ion batteries using engineered composites of MXenes and carbon nanohorns

Mukul Swain, Saibrata Punyasloka, Sameer Nirupam Mishra, Kottisa Sumala Patnaik, Chinmay Ghoroi* and Noriyoshi Matsumi*



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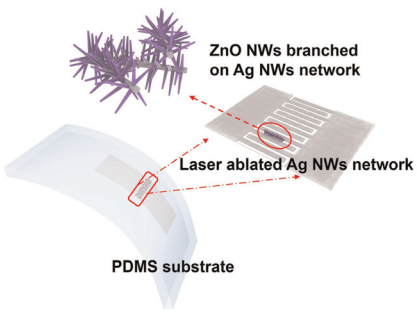
Flexible piezo-responsive photodetector based on hierarchical zinc oxide nanowire branches on a silver nanowire backbone

Changwook Lee, Taeseung Hwang, Hee Jin Lee, Jehoon Lee, Seonmi Ko, Hoon Eui Jeong* and Junyeob Yeo*



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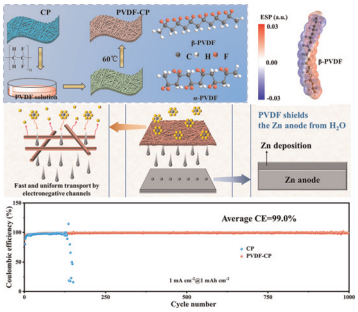
Bifunctional interface engineering of fluorinated cosmetic cotton separators: synergistic Zn^{2+} kinetics and hydrophobic shielding for ultra-stable Zn anodes

Suhong Li, Yanyan Qin, Ke Su, Jianyong Ren, Lin Li, Zhouyang Long* and Lingdi Shen*



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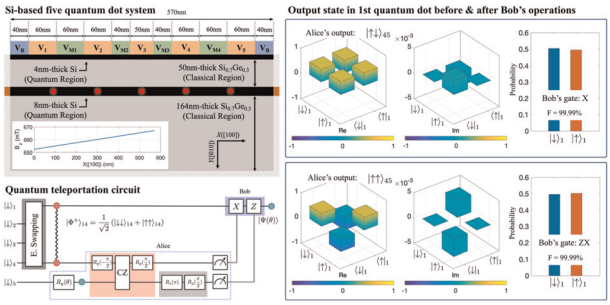
On the feasibility of quantum teleportation protocols implemented with silicon devices

Junghee Ryu and Hoon Ryu*



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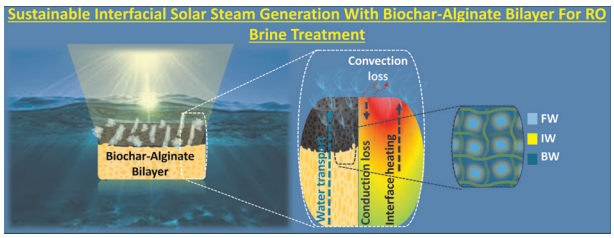
Sustainable interfacial solar steam generation with a biochar–alginate bilayer for RO brine treatment

Sumina Namboorimadathil Backer,*
Ismail W. Almanassra, Alaa Abushawish, Muataz Ali Atieh and Abdallah Shanableh*



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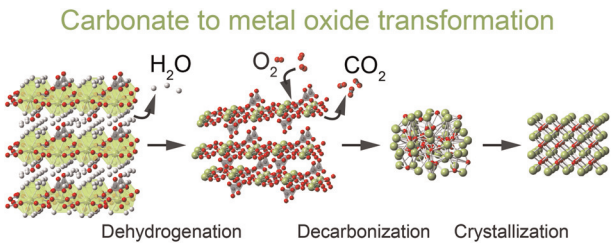
Nucleation and crystallization of metal oxides from carbonates

Yingying Jiang, Guoming Lin and Utkur Mirsaidov*



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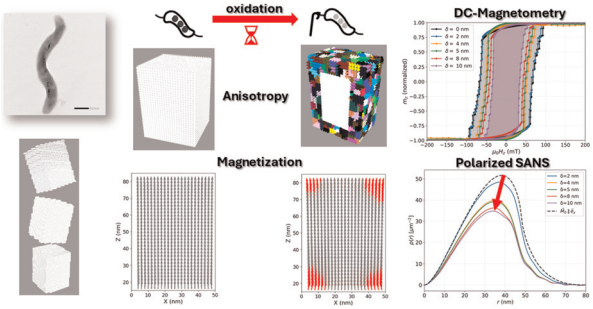

Micromagnetic structure of oxidized magnetite nanoparticles: sharp structural *versus* diffuse magnetic interface

Elizabeth M. Jefremovas,* Michael P. Adams, Lucía Gandarias, Lourdes Marcano, Javier Alonso, Andreas Michels and Jonathan Leliaert

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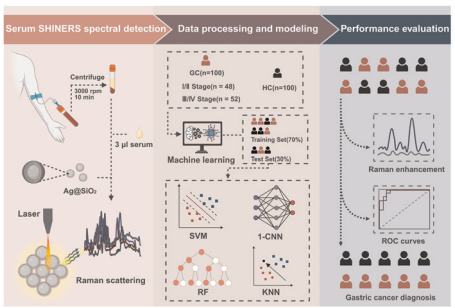

A machine learning-enhanced gastric cancer diagnostic method based on shell-isolated nanoparticle-enhanced Raman spectroscopy

Mengya Li, Liyi Li, Pan Yang, Jiangnan Zeng, Ruijia Ma, Jingzhe Peng, Yongzhong Wu, Wei Zhou,* Weiling Fu* and Yang Zhang*

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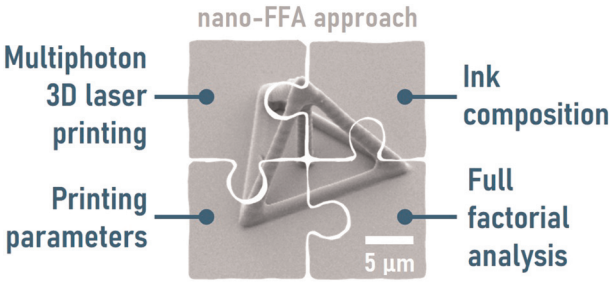

nano-FFA: ink formulation and process optimization in multiphoton 3D laser printing using full factorial analysis

Clara Vazquez-Martel, Samantha O. Catt and Eva Blasco*

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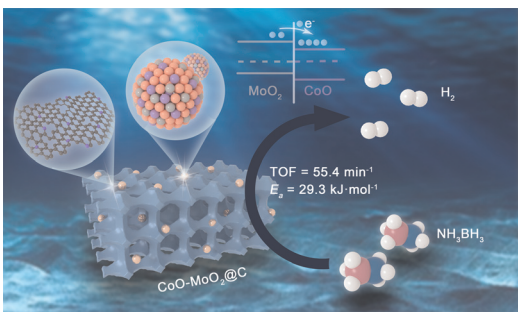

$\pi-\pi$ electron conjugation-assisted synthesis of a robust heterostructured CoO–MoO_2 catalyst: accelerated ammonia borane hydrolysis for hydrogen evolution

Junrui Zhang, Nuo Lei, Yunqi Jia, Shengrong Guo, Liuzhang Ouyang* and Xuezhang Xiao*

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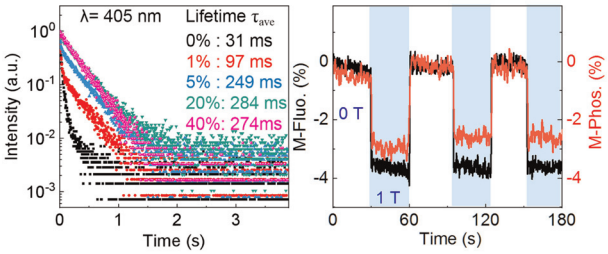

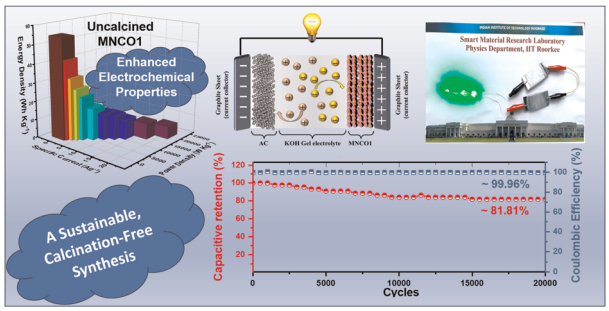

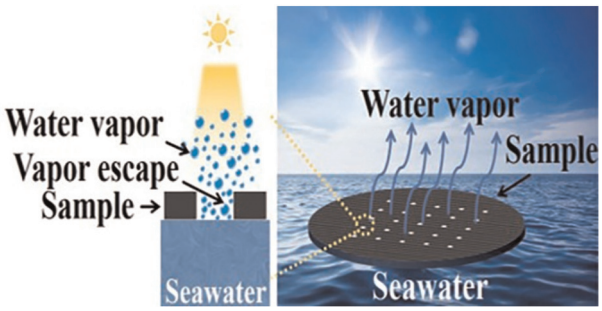

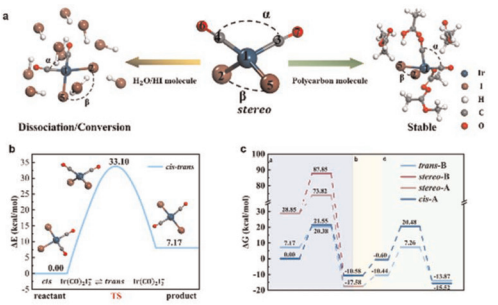

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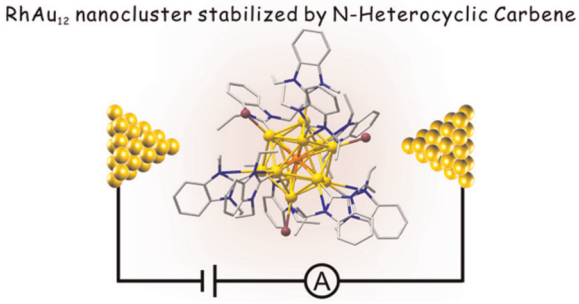

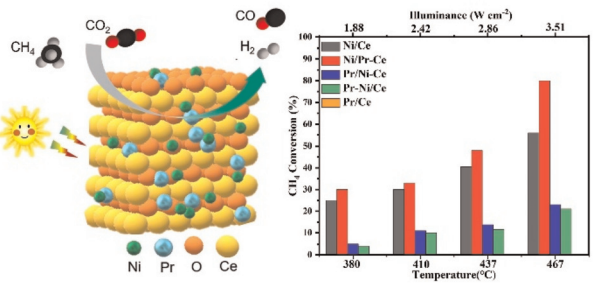

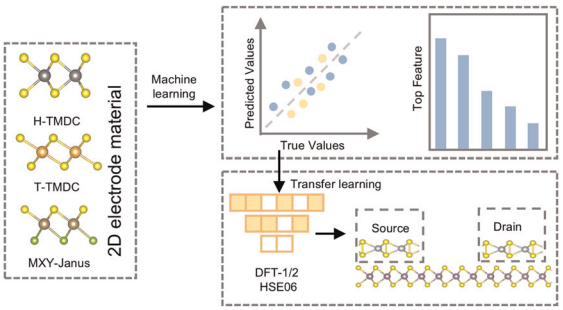

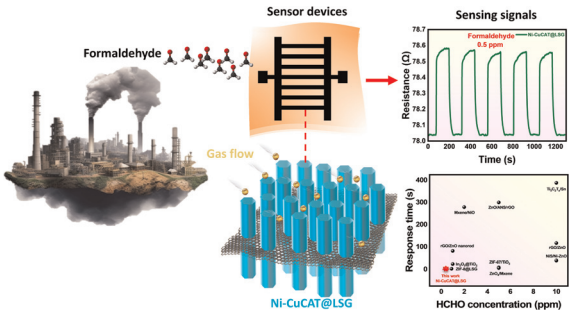

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