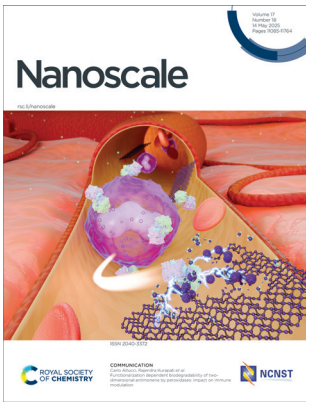
Nanoscale

rsc.li/nanoscale

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

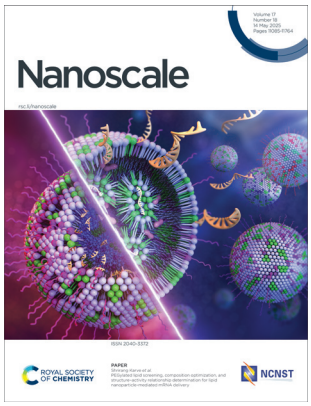
IN THIS ISSUE

ISSN 2040-3372 CODEN NANOHL 17(18) 11085–11764 (2025)



Cover
See Carlo Altucci, Rajendra Kurapati *et al* pp. 11293–11304.

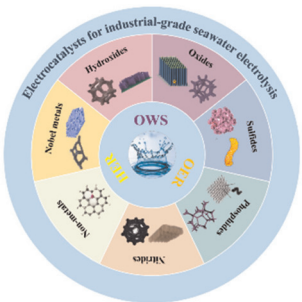
Image reproduced by permission of Rajendra Kurapati from *Nanoscale*, 2025, **17**, 11293.

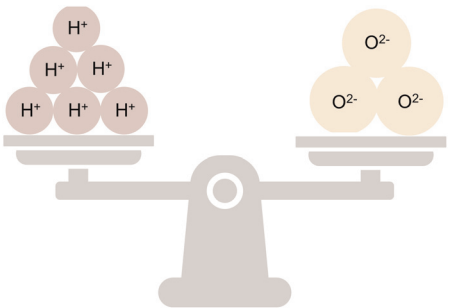


Inside cover
See Shrirang Karve *et al.*, pp. 11329–11344.

Image reproduced by permission of Shrirang Karve from *Nanoscale*, 2025, **17**, 11329.

REVIEWS





Industrial Chemistry & Materials

GOLD OPEN ACCESS

Focus on industrial chemistry
Advance material innovations
Highlight interdisciplinary feature

Innovative.
Interdisciplinary.
Problem solving

APCs currently waived

Learn more about ICM
Submit your high-quality article

@IndChemMater

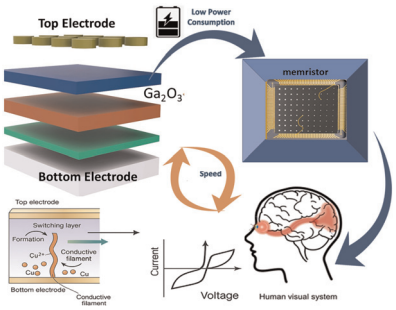
@IndChemMater

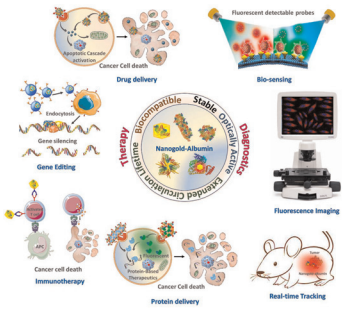
rsc.li/icm

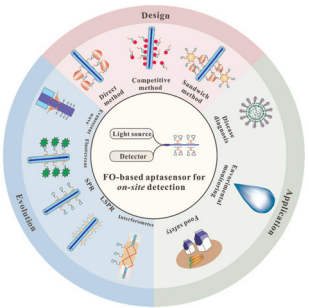
ROYAL SOCIETY OF CHEMISTRY

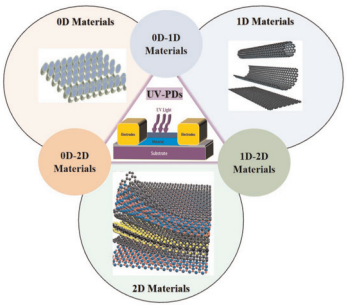
Industrial Chemistry & Materials

REVIEWS



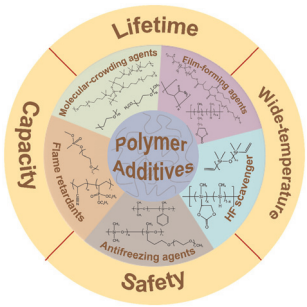






MINIREVIEW

11275

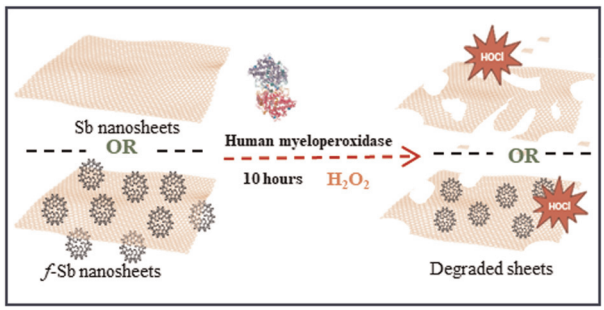


Polymer additives in liquid electrolytes for advanced lithium batteries

Kefeng Wang, Man Zhang, Jingxiao Ren, Wei Wei* and Jianwei Nai*

COMMUNICATIONS

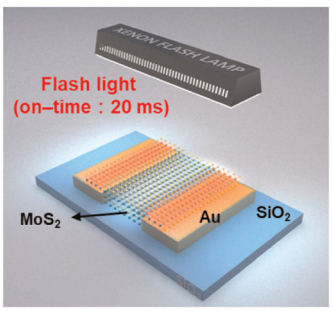
11293



Functionalization dependent biodegradability of two-dimensional antimonene by peroxidases: impact on immune modulation

Jasneet Kaur, K. Swetha, Manjot Singh, Avazbek Abduvakhidov, Michela Varra, Manikrishna Lakavathu, Jaber Adam, Anjali Prajapati, Srinivasa Reddy Bonam, Carlo Altucci* and Rajendra Kurapati*

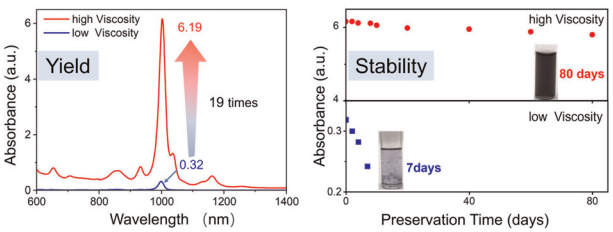
11305



Selective and local flash-annealing for improvement in the contact characteristics of MoS_2 transistors

Jun-Hwe Cha, Inseong Lee, Seol Won Yun, Woonggi Hong, Hyo Hoon Byeon, Jungyeop Oh, Seohak Park and Sung-Yool Choi*

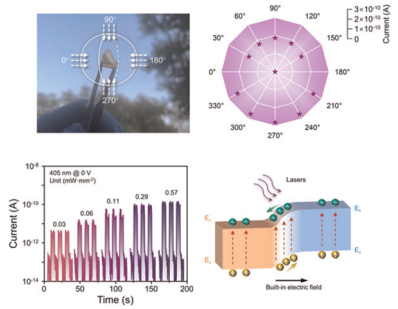
11316



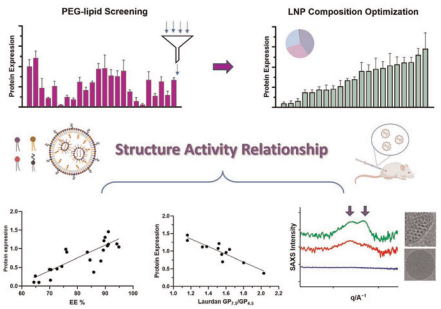
Key factor in enhancing yield and stability in single-chirality carbon nanotubes extraction: solvent viscosity

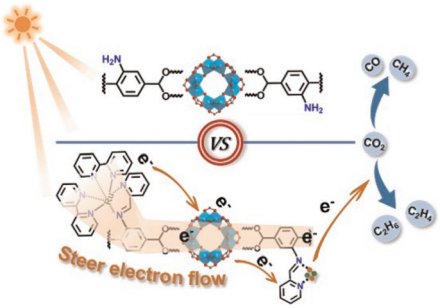
Feng Jin, Qingyuan Li, Yuqi He, Deng Pan, Yujie Peng, Yahui Li, Song Qiu,* Chuanling Men* and Zheng Chen*

COMMUNICATIONS



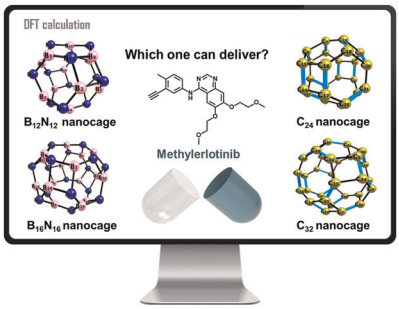
PAPERS

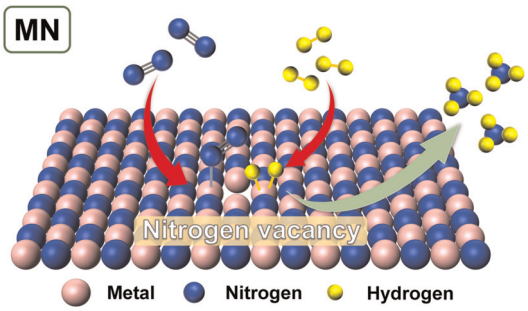


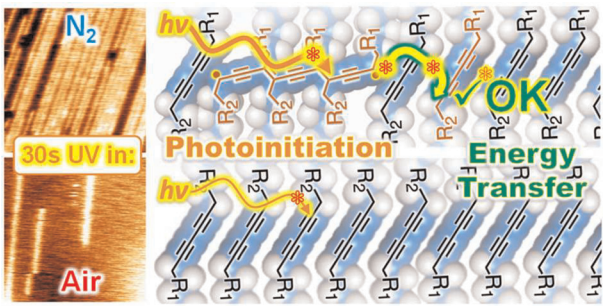


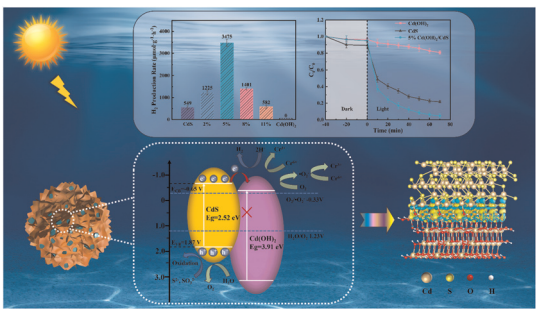
PAPERS

PAPERS



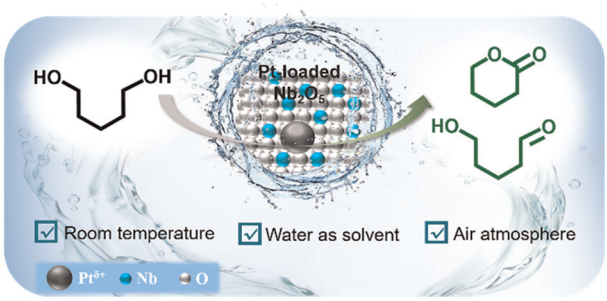


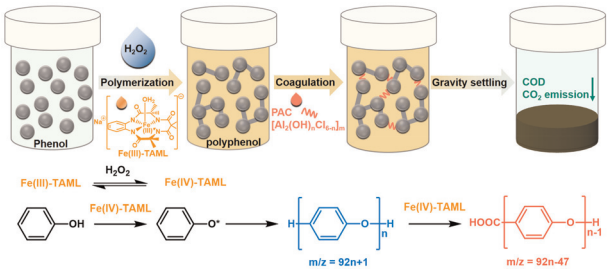


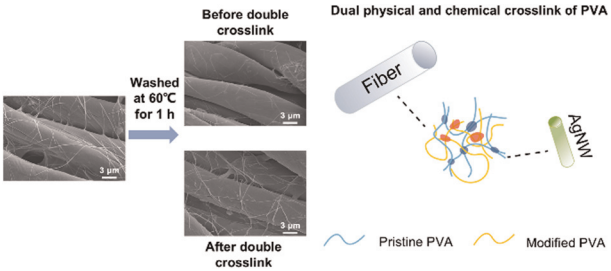


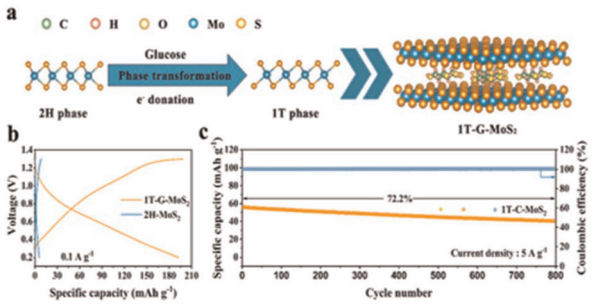
PAPERS

PAPERS



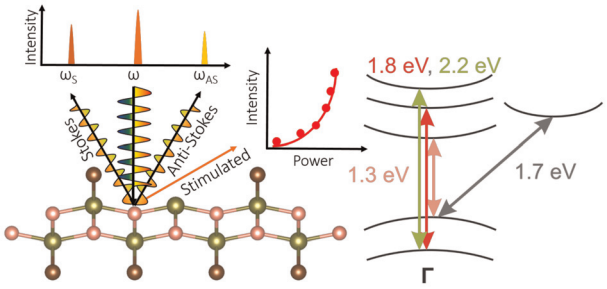






PAPERS

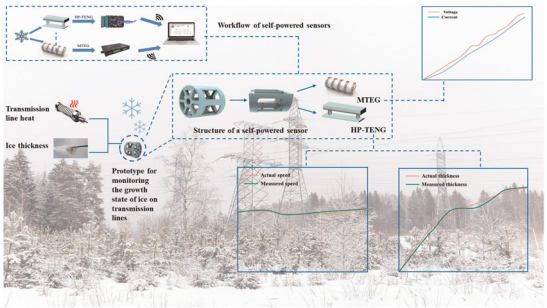
11539



Resonance Raman scattering and anomalous anti-Stokes phenomena in CrSBr

Satyam Sahu,* Charlotte Berrezueta-Palacios, Sabrina Juergensen, Kseniia Mosina, Zdeněk Sofer, Matěj Velický,* Patryk Kusch* and Otakar Frank*

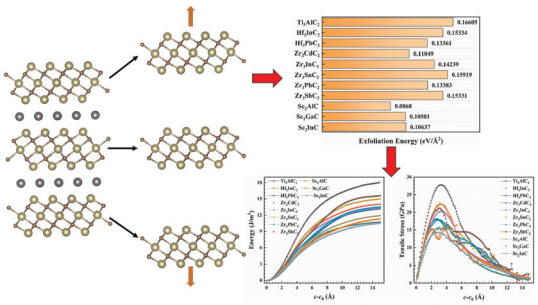
11547



A self-powered ice growth sensing system for transmission lines based on a triboelectric nanogenerator and a micro thermoelectric generator

Yingli Lu, Changxin Liu,* Yi Wang, Zhijie Hao, Chutian Chen, Bo Dong and Xun Zhou

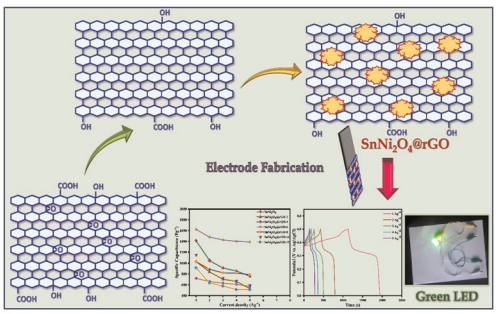
11564



DFT insights into the role of A elements on the phase stability, crystal structure and properties of recently discovered M_3AC_2 and Sc_2AC

Kebin Qin, Hang Yin, Mingkai Li, Xiaodong He, Guangping Song, Yongting Zheng and Yuelei Bai*

11578



Structural modulation of tin nickelate nanostructures embedded in reduced graphene oxide for high-performance asymmetric supercapacitors

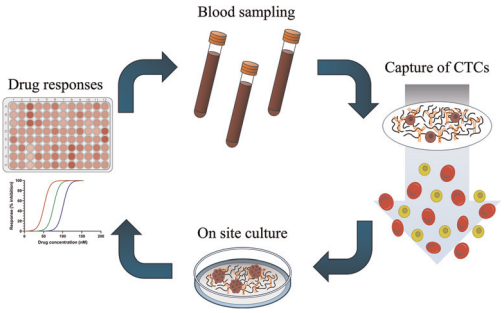
E. Murugan* and F. Lyric

PAPERS

11592

Replication of patient specific circulating tumor cells on a microfibrous filter for drug screening

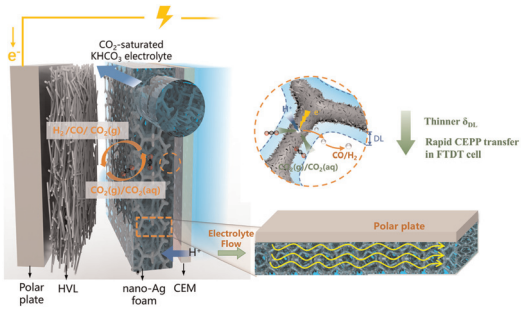
Grith Skovborg, Frederik Højberg Svejsø, Christoph Müller, Bjarke Nørrehvedde Jensen, Jesper Godrim Jensen, Sara Egsgaard Majidi, Cecilie Linneberg Matthiesen and Menglin Chen*



11605

Highly selective CO_2 electroreduction in an exsolution-induced flow cell using a hierarchical monolithic nano-Ag foam electrode

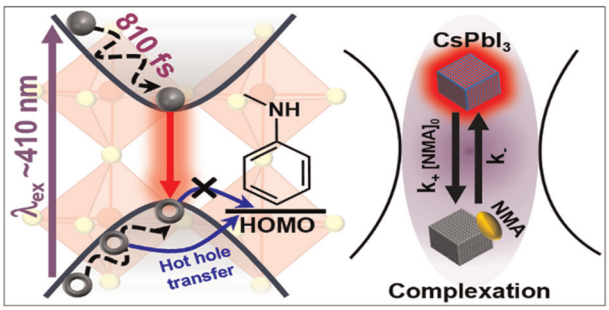
Yue Zhang, Yang Wang, Jun Li, Liang Zhang, Xun Zhu, Qian Fu* and Qiang Liao



11615

Hot carrier harvesting at the interface of $CsPbI_3$ nanocrystals

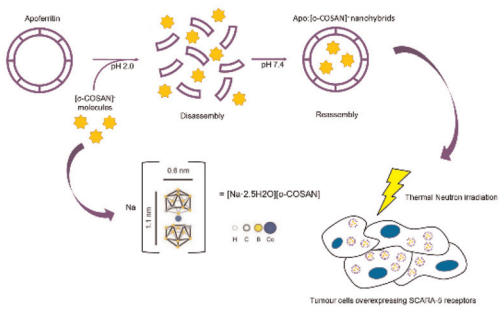
Debopam Acharjee, Shreya Mishra, Asit Baran Mahato, Mrinal Kanti Panda, Dipak Samanta and Subhadip Ghosh*



11624

Cobaltabis(dicarbollide) [o-COSAN]$^-$ loaded apoferritin: an innovative high-capacity boron delivery system to target tumour cells for BNCT applications

D. Alberti, J. N. Piña Marcos, S. Rakhshan, N. Protti, S. Altieri, M. Nuez-Martínez, F. Teixidor, C. Viñas and S. Geninatti Crich*



PAPERS

PAPERS

PAPERS