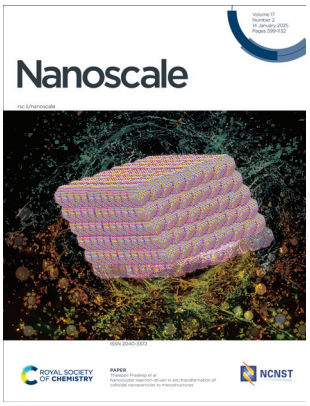
Nanoscale

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(2) 599–1132 (2025)



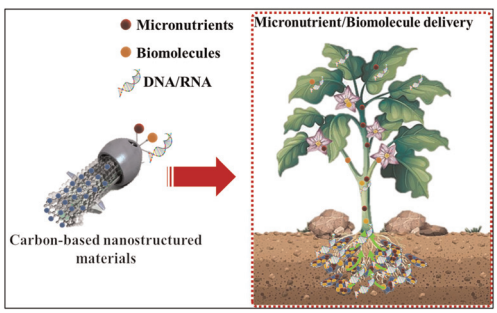
Cover
See Thalappil Pradeep *et al.*, pp. 803–812.

Image reproduced by permission of Thalappil Pradeep from *Nanoscale*, 2025, **17**, 803.

Generated using iStock AI generator.

EDITORIAL

REVIEWS



ROYAL SOCIETY OF CHEMISTRY

Environmental Science: Atmospheres

GOLD OPEN ACCESS

Connecting communities and inspiring new ideas

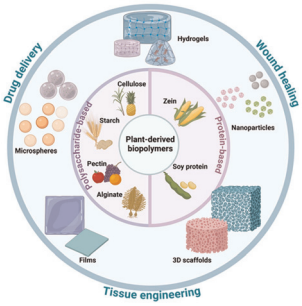
rsc.li/submittoEA

Fundamental questions
Elemental answers

Registered charity number: 207890

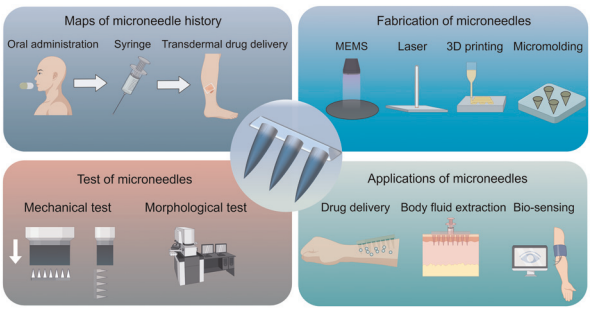
REVIEWS

REVIEWS



Plant-derived materials for biomedical applications

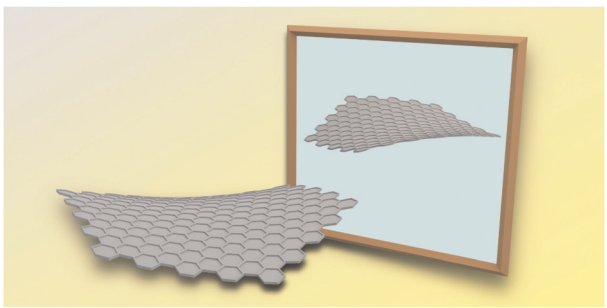
Lele Li, Danni Zhong, Shoujie Wang* and Min Zhou*



Microneedles: multifunctional devices for drug delivery, body fluid extraction, and bio-sensing

Zhitao Wang, Siyu Tong, Jiaqi Niu, Cheng Cao, Ang Gao, Yingao Jiao, Yanfei Fu, Dongxia Li, Xinni Pan, Daxiang Cui, Nengquan Sheng, Li Yan, Shengsheng Cui,* Shujing Lin* and Yanlei Liu*

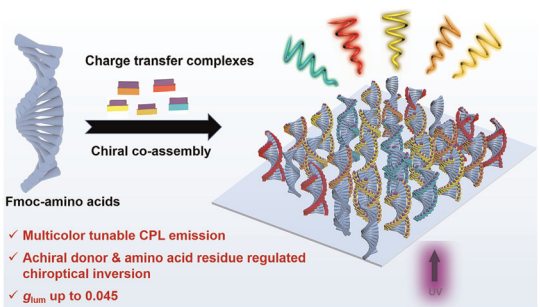
MINIREVIEW



Chirality generation on carbon nanosheets by chemical modification

Ryo Sekiya,* Saki Arimura, Haruka Moriguchi and Takeharu Haino*

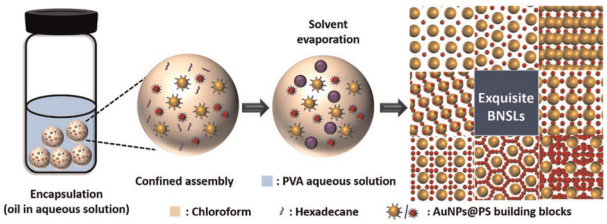
COMMUNICATIONS



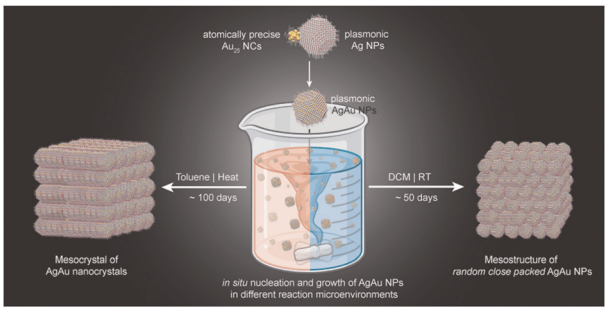
Multicolor and sign-invertible circularly polarized luminescence from nonchiral charge-transfer complexes assembled with N-terminal aromatic amino acids

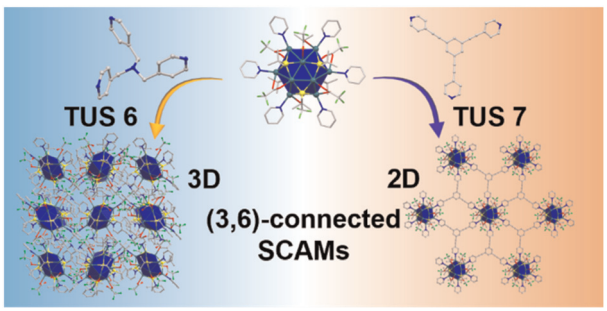
Liyun Lai, Shunan Wang, Yunxiao Sang, Chen Feng, Min Liu, Fang Wang,* Shaoliang Lin* and Quan Zhou*

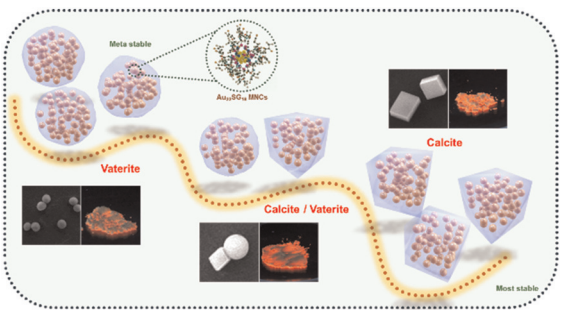
COMMUNICATIONS



PAPERS

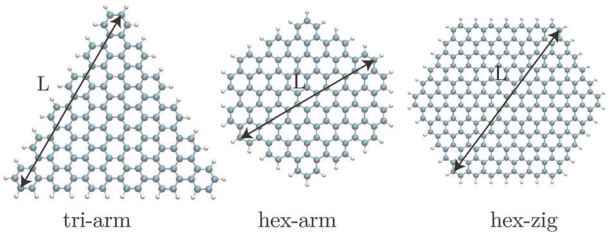


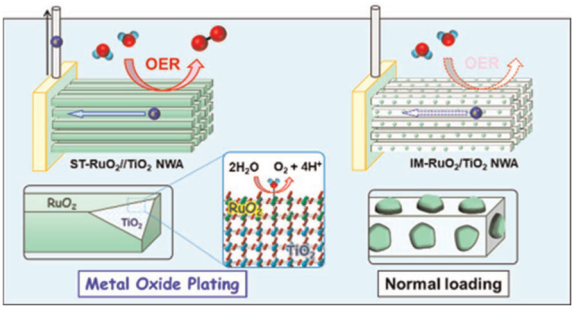


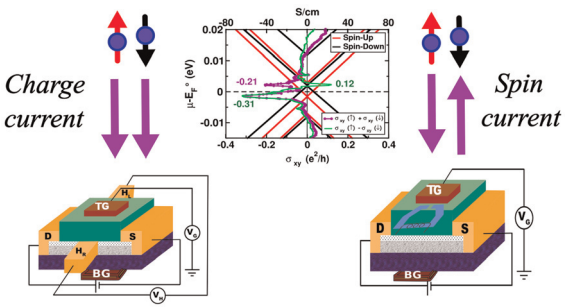


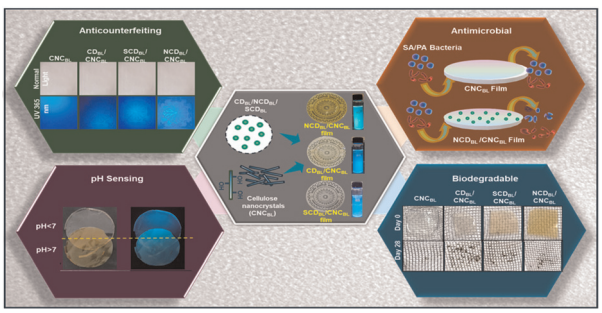
PAPERS

PAPERS







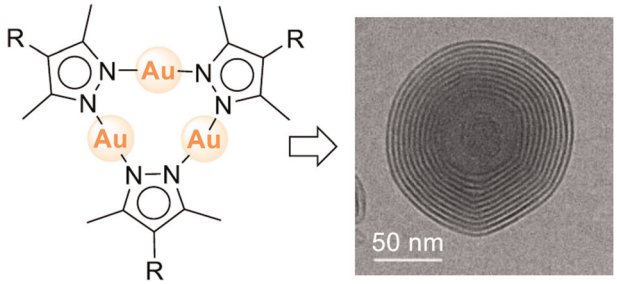


PAPERS

PAPERS

PAPERS

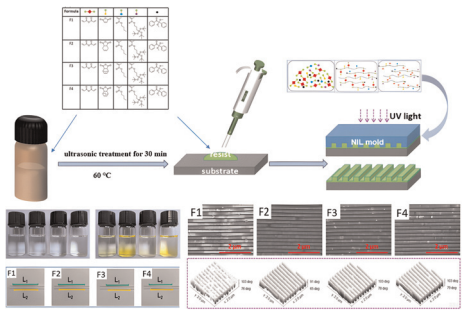
1007



Nano onions based on an amphiphilic Au_3(pyrazolate)$_3$ complex

Atena B. Solea, Davide Dermutas, Farzaneh Fadaei-Tirani, Luigi Leanza, Massimo Delle Piane, Giovanni M. Pavan and Kay Severin*

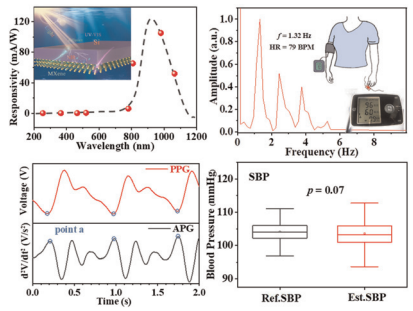
1013



Low volume shrinkage, alkaline degradable UV nanoimprint lithography resists based on acrylic anhydride

Chuan-Zhe Zhao, Ya-Juan Cai, Yi-Xing Sun, Ya-Ge Wu, Ke-xiao Sang, Ting Yue, Zi-Hao Yang* and Jing-Gang Gai*

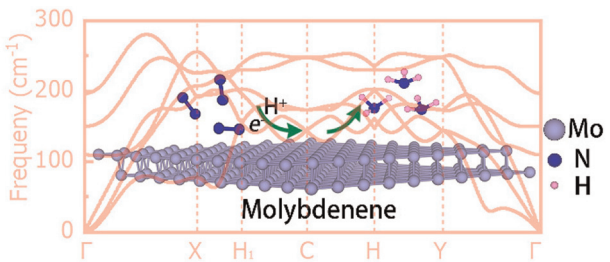
1021



In situ fabrication of self-filtered near-infrared $Ti_3C_2T_x$/n-Si Schottky-barrier photodiodes for a continuous non-invasive photoplethysmographic system

Chen Wang, Yu Xia, Wenli Duan, Yongqiang Yu,* Qingyan Yang,* Jianyong Jie, Xiujuan Zhang and Jiansheng Jie*

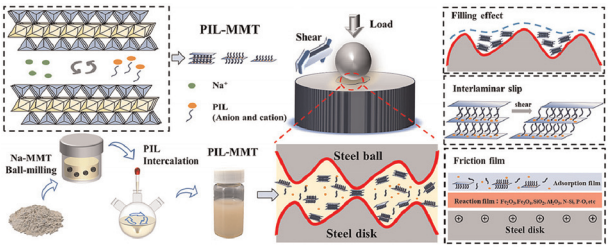
1031

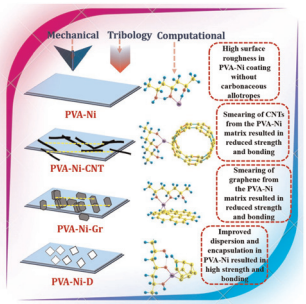


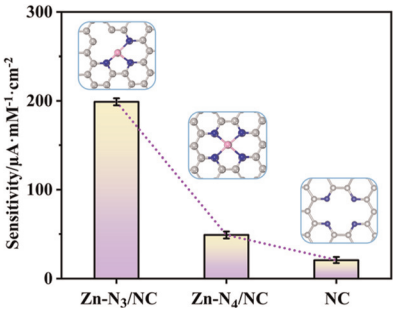
Novel two-dimensional molybdenene as a promising electrocatalyst for the nitrogen reduction reaction: a first-principles prediction

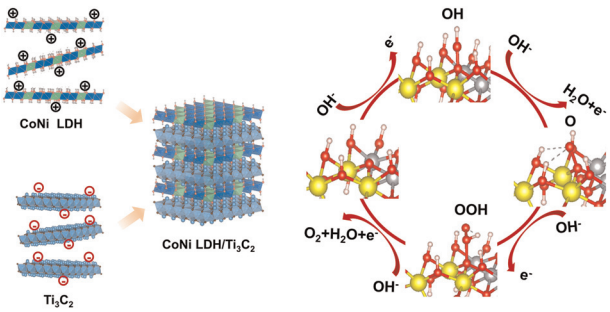
Song Yu, Huajian Pan, Xinzhuo Zhou, Xuepeng Xu, Dongxiao Yang and Gang Bi*

PAPERS









PAPERS

CORRECTION