

# Nanoscale Horizons

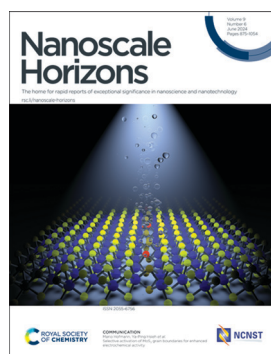
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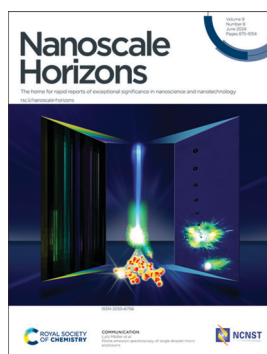
## IN THIS ISSUE

ISSN 2055-6756 CODEN NHAOAW 9(6) 875-1054 (2024)



### Cover

See Mario Hofmann, Ya-Ping Hsieh *et al.*, pp. 946–955.  
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### Inside cover

See Lutz Mädler *et al.*, pp. 956–967.  
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## EDITORIAL

883

**Nanoscale Horizons Emerging Investigator Series:**  
**Dr Baisheng Sa, Fuzhou University, China**

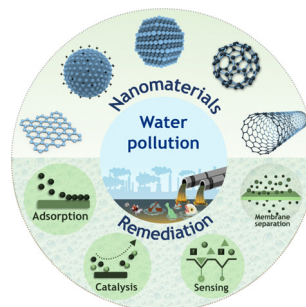


## FOCUS

885

**Nanoscience and nanotechnology for water remediation: an earnest hope toward sustainability**

Subhajit Dutta\*, Anna Sinelshchikova, Jacopo Andreo and Stefan Wuttke\*



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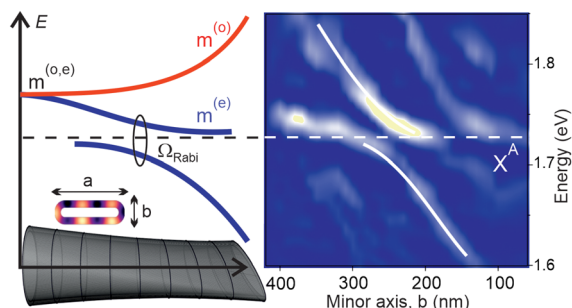
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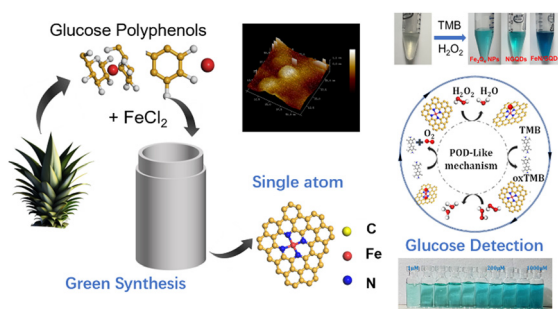
968



### Direct observation of split-mode exciton-polaritons in a single MoS<sub>2</sub> nanotube

A. I. Galimov, D. R. Kazanov, A. V. Poshakinskiy, M. V. Rakhlin, I. A. Eliseyev, A. A. Toropov, M. Remškar and T. V. Shubina\*

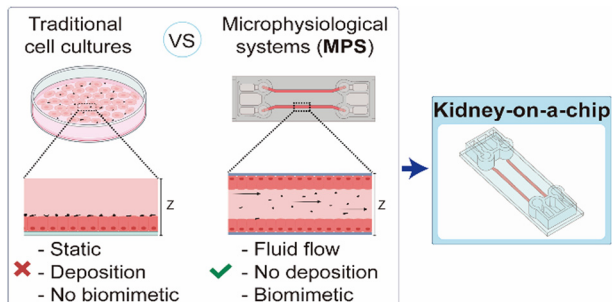
976



### Green synthesis of iron-doped graphene quantum dots: an efficient nanozyme for glucose sensing

Xinqi Li, Guanyou Lin, Lijun Zhou, Octavia Prosser, Mohammad H. Malakooti\* and Miqin Zhang\*

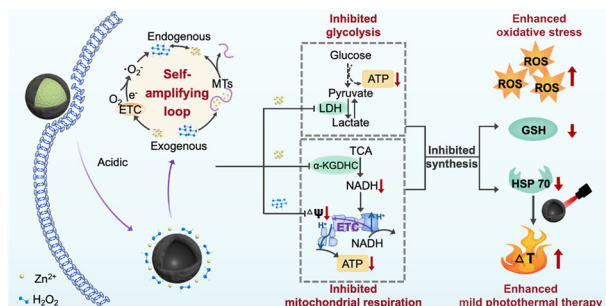
990



### A microphysiological system for handling graphene related materials under flow conditions

Alodia Lacueva-Aparicio, Viviana Jehová González, Ana Rosa Remacha, Daniel Woods, Eduardo Prado, Ignacio Ochoa, Sara Oliván\* and Ester Vázquez\*

1002



### Polydopamine-encapsulated zinc peroxide nanoparticles to target the metabolism-redox circuit against tumor adaptability for mild photothermal therapy

Yue Qiao, Xiaodan Jia, Yue Wang, Lin Liu,\* Mengchao Zhang\* and Xiue Jiang\*

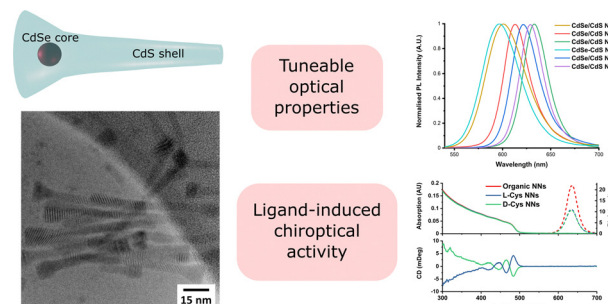


## COMMUNICATIONS

1013

## Chiroptically active quantum nanonails

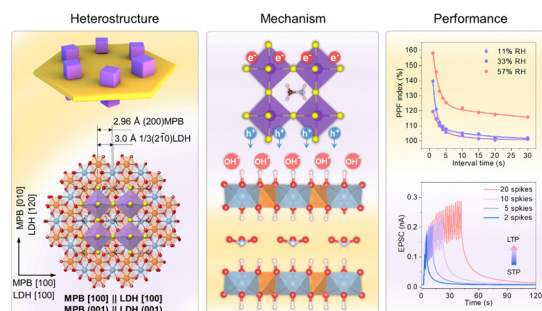
Finn Purcell-Milton,\* Vera A. Kuznetsova,\* Xue Bai,  
Áine Coogan, Marina Martínez-Carmona,  
Jorge A. García, A. Louise Bradley and Yurii K. Gun'ko\*



1023

### Heterointerface engineering of layered double hydroxide/MAPbBr<sub>3</sub> heterostructures enabling tunable synapse behaviors in a two-terminal optoelectronic device

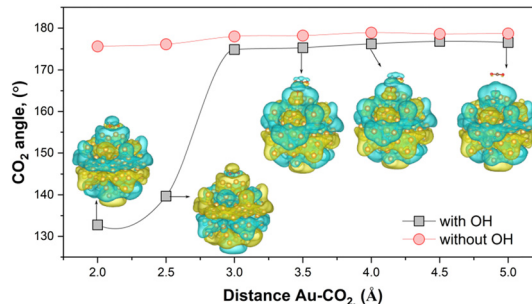
Qian Chen, Jiacheng Cao, Zhiwei Yang, Zeyi Wang,  
Jian Wang, Shilong Yu, Chenjie Hao, Nana Wang,  
Hai Li and Xiao Huang\*



1030

### *Ab initio* investigation of hot electron transfer in CO<sub>2</sub> plasmonic photocatalysis in the presence of hydroxyl adsorbate

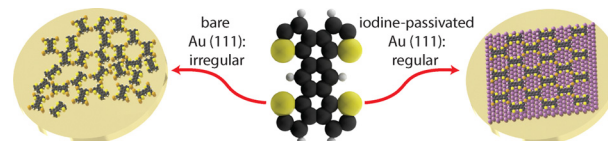
Zelio Fusco,\* Dirk Koenig, Sean C. Smith and  
Fiona Jean Beck



1042

### Iodine passivation facilitates on-surface synthesis of robust regular conjugated two-dimensional organogold networks on Au(111)

Arash Badami-Behjat, Gianluca Galeotti, Rico Gutzler,  
Dominik L. Pastoetter, Wolfgang M. Heckl, Xinliang Feng  
and Markus Lackinger\*



## CORRECTION

1052

**Correction: Pickering emulsion templated proteinaceous microparticles as glutathione-responsive carriers for endocytosis in tumor cells**

Weijie Jiang, Xin Guan, Wei Liu, Yunxing Li, Hang Jiang\* and To Ngai\*

