# Nanoscale Horizons

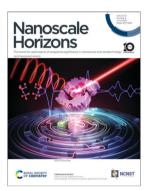
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### Cover

See Haejun Chung, Sejeong Kim et al., pp. 1077-1083. Image reproduced by permission of Sejeong Kim, Haejun Chung from Nanoscale Horiz., 2025, **10**, 1077.

### **REVIEWS**

### 1025

Advancements in MOF-based resistive gas sensors: synthesis methods and applications for toxic gas detection

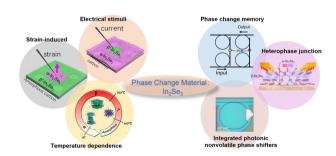
Linh Ho Thuy Nguyen, Ali Mirzaei, Jin-Young Kim, Thang Bach Phan, Lam Dai Tran, Kevin C.-W. Wu, Hyoun Woo Kim,\* Sang Sub Kim\* and Tan Le Hoang Doan\*



# 1054

Polymorphic phases in 2D In<sub>2</sub>Se<sub>3</sub>: fundamental properties, phase transition modulation methodologies and advanced applications

Weiying Zheng, Zhiquan Liu, Guoqiang Xi, Tengzhang Liu, Dingguan Wang, Lin Wang and Wugang Liao\*





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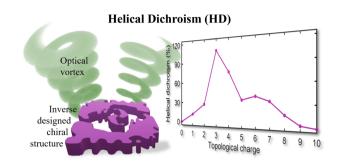
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### 1077

# Inverse design of chiral structures for giant helical dichroism

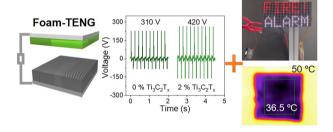
Chia-Chun Pan, Munseong Bae, Hongtao Wang, Jaesung Lim, Ranjith Rajasekharan Unnithan, Joel K. W. Yang, Haejun Chung\* and Sejeong Kim\*



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# Multifunctional Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub>-alginate foams for energy harvesting and fire warning

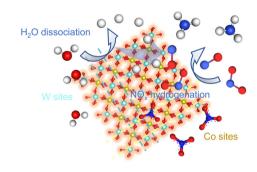
Bernd Wicklein,\* Hyunjoon Yoo, Geetha Valurouthu, Ji-Seok Kim, Mannan Khan, Manmatha Mahato, Federico Carosio, Yury Gogotsi and Il-Kwon Oh\*



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# CoWO<sub>4</sub> nanoparticles with dual active sites for highly efficient ammonia synthesis

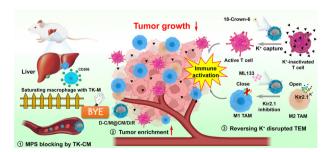
Lian Duan, Zhencong Huang, Gen Chen, Min Liu, Xiaohe Liu, Renzhi Ma\* and Ning Zhang\*



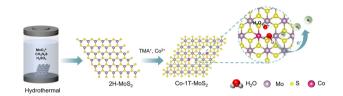
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# Reversing cancer immunosuppression via K<sup>+</sup> capture and repolarization of tumor-associated macrophages

Si-Ye Tong, Cong-Min Huo, Yu-Cheng Zuo, Shuo Gao, David Tai Leong,\* Wei Xue and Jing-Yi Zhu\*



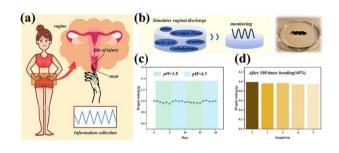
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# Achieving highly efficient electrocatalytic hydrogen evolution with Co-doped MoS<sub>2</sub> nanosheets

Fengrui Sun, Kebin Yang, Xinbo Qin, Weibing Wu\* and Yizhong Lu

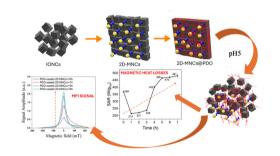
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# A bioinspired helical hydrogel scaffold with real-time sensing for enhanced precision in gynecological digital vaginal examination

Weipeng Lu, Qing He, Zheng Mao, Songchao Fu, Yue Wang, Zhiwei Jiang, Ying Wang, Yue Cao, Sunlong Li, Cihui Liu\* and Qian Dong\*

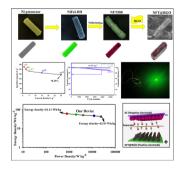
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# Magnetic nanosheets: from iron oxide nanocubes to polydopamine embedded 2D clusters and their multi-purpose properties

Giacomo Mandriota, Sahitya Kumar Avugadda, Ehsan Sadeghi, Niccolò Silvestri, Roberto Marotta, Helena Gavilán, Ulf Olsson, Cinzia Giannini, Yu Hsin Tsai, Anna Cristina S. Samia and Teresa Pellegrino

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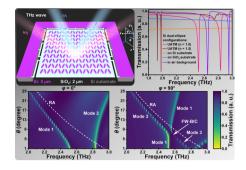
# Reinforced supercapacitor electrode via reduced graphene oxide encapsulated NiTe2-FeTe2 hollow nanorods

Mohammad Ali Saghafizadeh, Akbar Mohammadi Zardkhoshoui\* and Saied Saeed Hosseiny Davarani\*

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# An ultrathin all-dielectric terahertz metamaterial with quasi-BIC induced angular dispersion

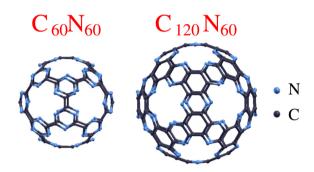
Daoye Zheng and Yu-Sheng Lin\*



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# Porous carbon nitride fullerenes: a novel family of porous cage molecules

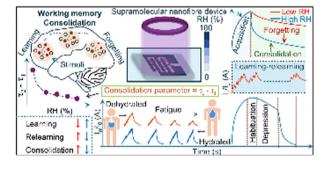
Zacharias G. Fthenakis\* and Nektarios N. Lathiotakis\*



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# Emulating working memory consolidation with a 1D supramolecular nanofibre-based neuromorphic device

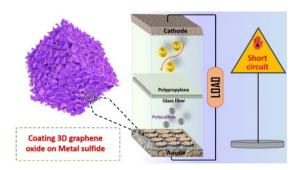
Tejaswini S. Rao, Subi J. George and Giridhar U. Kulkarni\*



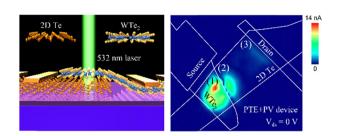
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# Optimizing sodium storage and durability in metal sulfide anodes with a 3D graphene architecture

Mujtaba Aminu Muhammad, Yangjie Liu, Baffa Haruna, Ahmed Abdel-aziz, Zul Qarnain, Amir Mahmoud Makin, Jiaqi Yu, Bo Zheng, Xiang Hu\* and Zhenhai Wen\*



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# Spatially resolved optoelectronic puddles of WTe2-2D Te heterostructure

Thi Uyen Tran, Ngoc Thanh Duong, Dae Young Park, Jaeuk Bahng, Hai Phuong Duong, Van Dam Do, Mun Seok Jeong and Seong Chu Lim\*

# CORRECTION

1224

Correction: ROS self-generation and hypoxia self-enhanced biodegradable magnetic nanotheranostics for targeted tumor therapy

Jinghua Li, Yun Liu, Xiaonan Li, Gaofeng Liang, Changshun Ruan\* and Kaiyong Cai\*