

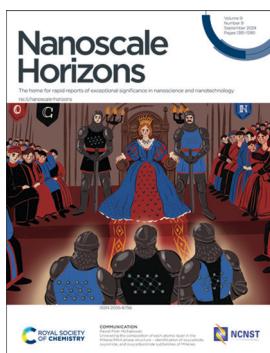
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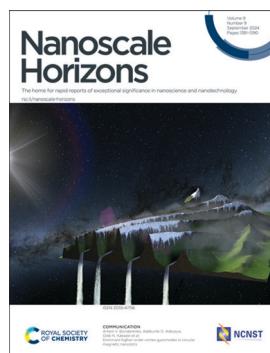
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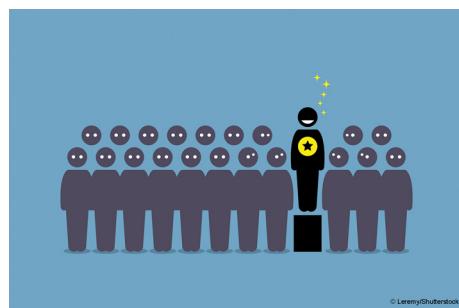
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EDITORIAL

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Outstanding Reviewers for *Nanoscale Horizons* in 2023

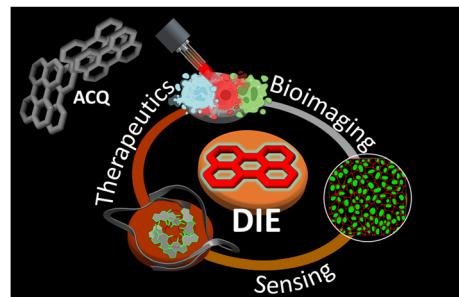


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Advancements in molecular disassembly of optical probes: a paradigm shift in sensing, bioimaging, and therapeutics

Karolina Saczuk, Marta Dudek, Katarzyna Matczyszyn and Marco Deiana*





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Elemental answers

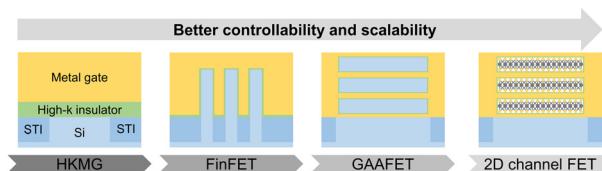
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REVIEWS

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Innovations of metallic contacts on semiconducting 2D transition metal dichalcogenides toward advanced 3D-structured field-effect transistors

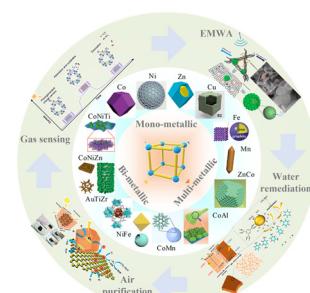
Byeongchan Kim, Seojoo Lee and Jin-Hong Park*



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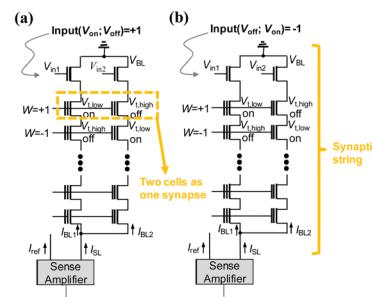
Wei Wang, Bergoi Ibarlucea, Chuanhui Huang, Renhao Dong, Muhamad Al Aiti,* Shirong Huang* and Gianaurelio Cuniberti*



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Sung-Tae Lee* and Jong-Ho Lee*

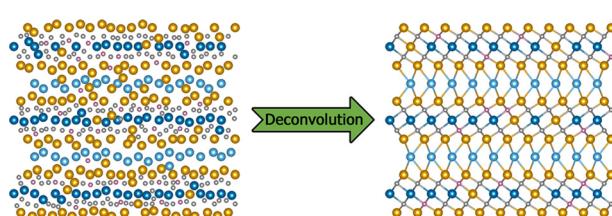


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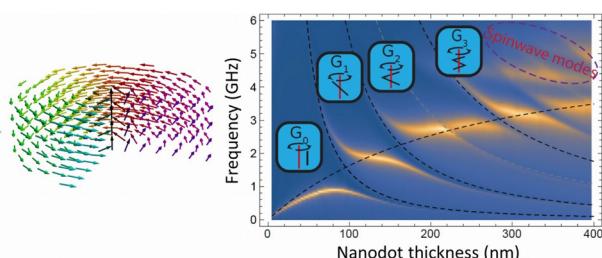
Unraveling the composition of each atomic layer in the MXene/MAX phase structure – identification of oxycarbide, oxynitride, and oxycarbonitride subfamilies of MXenes

Pawet Piotr Michałowski



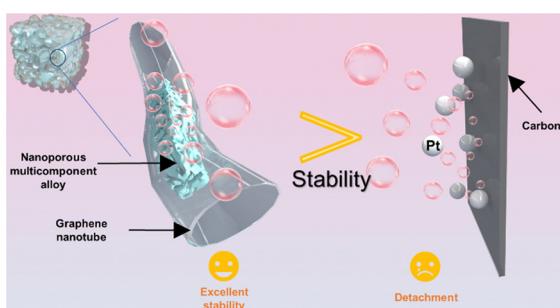
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**Dominant higher-order vortex gyromodes in circular magnetic nanodots**

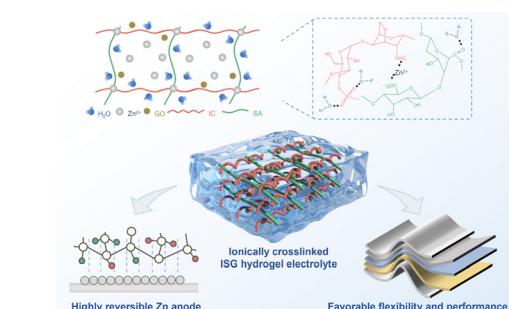
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**Bubbling resilient 3D free-standing nanoporous graphene with an encapsulated multicomponent nano-alloy for enhanced electrocatalysis**

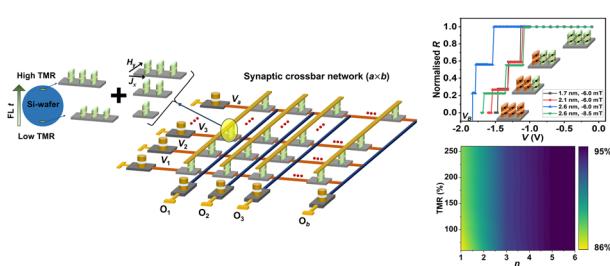
Linshan Zhu, Qingqing Li, Yixuan Hu, Xin Wu, Kolan Madhav Reddy,* Kaikai Li,* Guoqiang Xie, Xingjun Liu and Hua-Jun Qiu*

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**An ionically cross-linked composite hydrogel electrolyte based on natural biomacromolecules for sustainable zinc-ion batteries**

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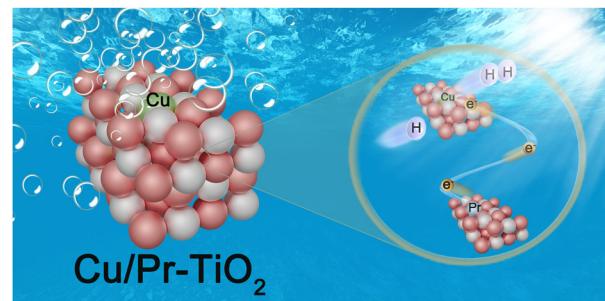


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Insight into mechanism for remarkable photocatalytic hydrogen evolution of Cu/Pr dual atom co-modified TiO₂

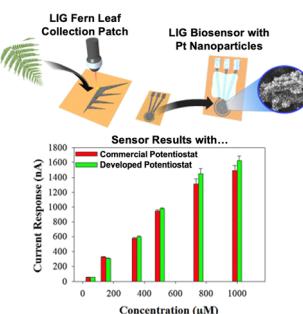
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Biomimetic laser-induced graphene fern leaf and enzymatic biosensor for pesticide spray collection and monitoring

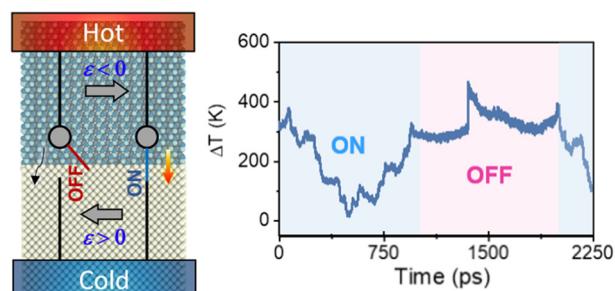
Nathan M. Jared, Zachary T. Johnson, Cicero C. Pola, Kristi K. Bez, Krishangee Bez, Shelby L. Hooe, Joyce C. Breger, Emily A. Smith, Igor L. Medintz, Nathan M. Neihart and Jonathan C. Claussen*



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Mechanical regulation to interfacial thermal transport in GaN/diamond heterostructures for thermal switch

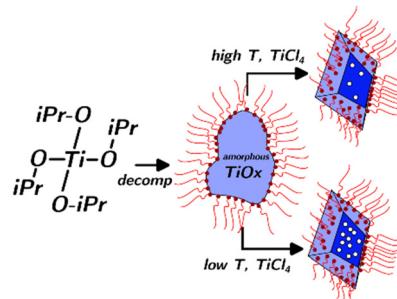
Xiaotong Yu, Yifan Li, Renjie He, Yanwei Wen, Rong Chen, Baoxing Xu* and Yuan Gao*



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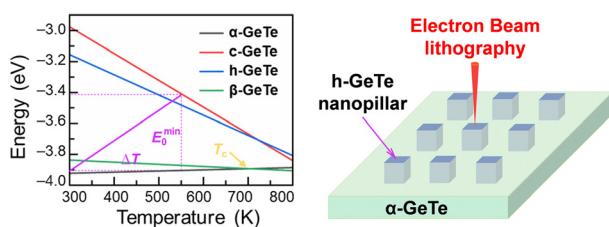
Colloidal TiO₂ nanocrystals with engineered defectivity and optical properties

Julia J. Chang, Bin Yuan, Sandro Mignuzzi, Riccardo Sapienza, Francesco Mezzadri and Ludovico Cademartiri*



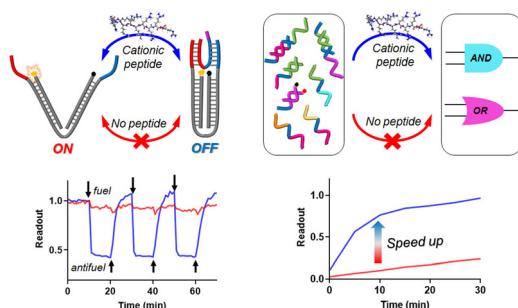
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Hu Zhang, Meng Li, Shao-Bo Mi,* Shao-Dong Cheng, Lu Lu and Zhi-Gang Chen*

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**Enhancing DNA-based nanodevices activation through cationic peptide acceleration of strand displacement**

Xianxue Zhang, Ruikai Du, Shichao Xu, Xinyue Wang and Zhen-Gang Wang*

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Correction: Supramolecular nanocapsules as two-fold stabilizers of outer-cavity sub-nanometric Ru NPs and inner-cavity ultra-small Ru clusters

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