# Nanoscale Advances

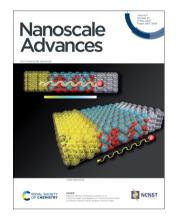
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Inside cover

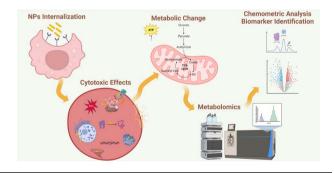
See Mohammad Awashra and Piotr Młynarz, pp. 2674–2723. Image reproduced by permission of Mohammad Awashra, using the building blocks of Dr. Joseph Manion with permission, from *Nanoscale Adv.*, 2023, **5**, 2674. The authors thank Prof. Sami Franssila for his advice and funding.

### REVIEWS

#### 2674

The toxicity of nanoparticles and their interaction with cells: an *in vitro* metabolomic perspective

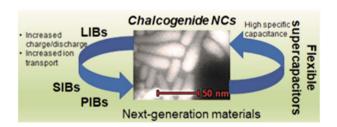
Mohammad Awashra\* and Piotr Młynarz



#### 2724

### Transition metal chalcogenides for next-generation energy storage

Soubantika Palchoudhury,\* Karthik Ramasamy, Jinchen Han, Peng Chen and Arunava Gupta\*



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#### 2743

#### Microfluidic static droplet generated quantum dot arrays as color conversion layers for full-color micro-LED displays

Licai Zhu, Jin Tao,<sup>\*</sup> Panyuan Li, Wenchao Sun, Jiwei Li, KaiLi Fan, Jinguang Lv, Yuxin Qin, Kaifeng Zheng, Baixuan Zhao, Yingze Zhao, Yupeng Chen, Yingwen Tang, Weibiao Wang and Jingqiu Liang<sup>\*</sup>

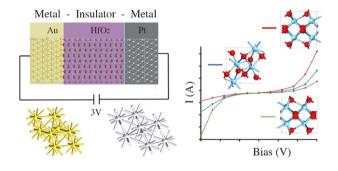
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### PAPERS

#### 2748

# First-principles investigation of interface phenomena in hafnium-based metal–insulator–metal diodes

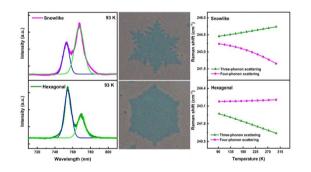
Eleonora Pavoni, Elaheh Mohebbi, Pierluigi Stipa, Luca Pierantoni, Davide Mencarelli, Mircea Dragoman, Martino Aldrigo\* and Emiliano Laudadio\*



### 2756

### Morphological dependent exciton dynamics and thermal transport in MoSe<sub>2</sub> films

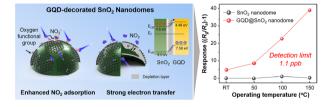
Jay Deep Gupta, Priyanka Jangra, Bishnu Pada Majee and Ashish Kumar Mishra\*



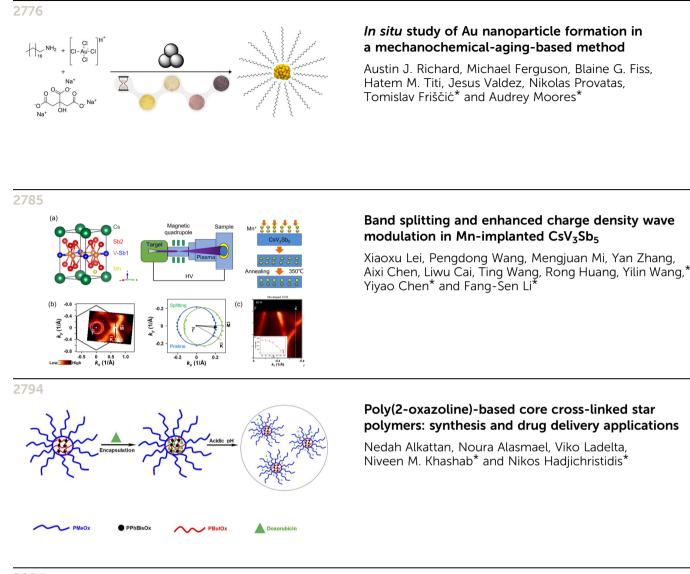
#### 2767

# Role of graphene quantum dots with discrete band gaps on SnO<sub>2</sub> nanodomes for NO<sub>2</sub> gas sensors with an ultralow detection limit

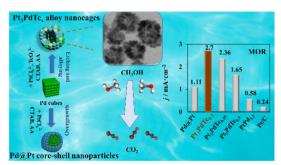
Jinho Lee, Minsu Park, Young Geun Song, Donghwi Cho, Kwangjae Lee, Young-Seok Shim\* and Seokwoo Jeon\*



#### PAPERS



2804



#### Te-induced fabrication of Pt<sub>3</sub>PdTe<sub>0.2</sub> alloy nanocages by the self-diffusion of Pd atoms with unique MOR electrocatalytic performance

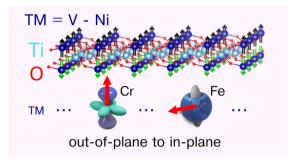
Yuhe Shi, Ling Zhang,\* Huiwen Zhou, Ruanshan Liu, Shichen Nie, Guojie Ye, Fengxia Wu, Wenxin Niu,\* Jing Long Han\* and Ai Jie Wang

#### PAPERS

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#### Magnetic order and magnetic anisotropy in twodimensional ilmenenes

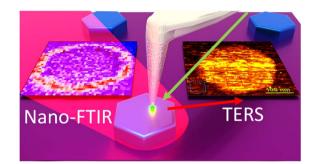
R. H. Aguilera-del-Toro, M. Arruabarrena, A. Leonardo and A. Ayuela\*



#### 2820

### Local phonon imaging of AlN nanostructures with nanoscale spatial resolution

Ilya Milekhin,<sup>\*</sup> Kirill Anikin, Nina N. Kurus, Vladimir G. Mansurov, Timur V. Malin, Konstantin S. Zhuravlev, Alexander G. Milekhin, Alexander V. Latyshev and Dietrich R. T. Zahn



#### CORRECTION

#### 2831

Correction: A hierarchical integrated 3D carbon electrode derived from gingko leaves *via* hydrothermal carbonization of H<sub>3</sub>PO<sub>4</sub> for high-performance supercapacitors

Han Liu, Fuming Zhang, Xinyu Lin, Jinggao Wu and Jing Huang\*