

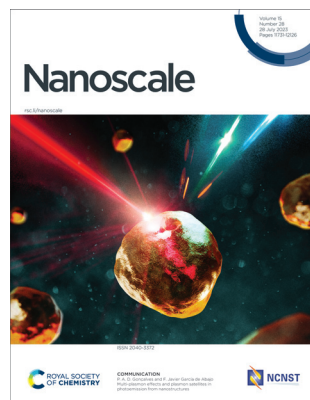
# Nanoscale

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ISSN 2040-3372 CODEN NANOHL 15(28) 11731–12126 (2023)



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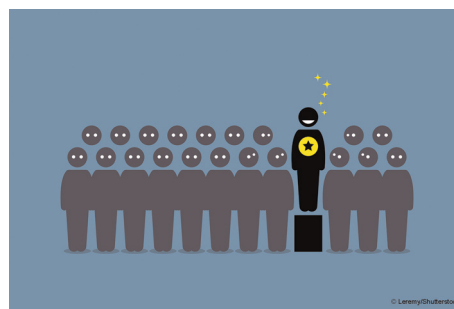
See P. A. D. Gonçalves and F. Javier García de Abajo, pp. 11852–11859.

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## EDITORIAL

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### Outstanding Reviewers for *Nanoscale* in 2022

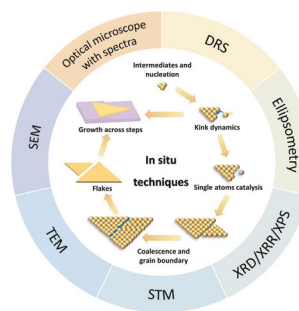


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### Progress on the *in situ* imaging of growth dynamics of two-dimensional materials

Xiaokai Zhu, Honggang Wang, Kangkang Wang and Liming Xie\*



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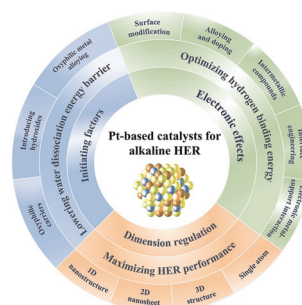
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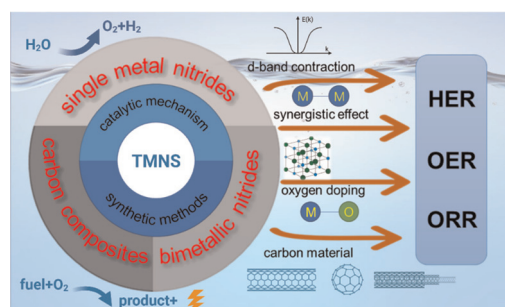


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**Advanced Pt-based electrocatalysts for the hydrogen evolution reaction in alkaline medium**Wei Ma, Xueyuan Zhang, Wenya Li, Menggai Jiao,\*  
Lili Zhang,\* Renzhi Ma and Zhen Zhou

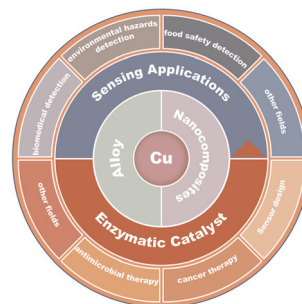
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**Recent progress in the synthesis of transition metal nitride catalysts and their applications in electrocatalysis**Zheng-Gang Yang, Hui-Min Xu, Ting-Yu Shuai,  
Qi-Ni Zhan, Zhi-Jie Zhang, Ke Huang, Chunlong Dai  
and Gao-Ren Li\*

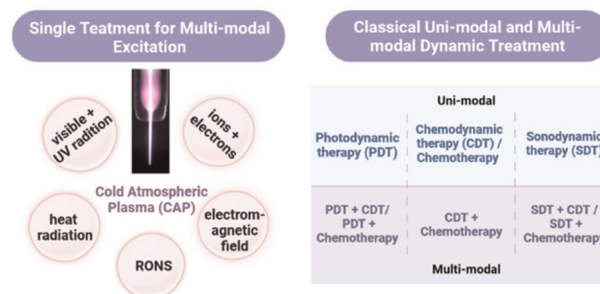
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**Copper-based biological alloys and nanocomposites for enzymatic catalysis and sensing applications**

Yaoyang Pu, Shiyue Chen, Yujun Yang\* and Xiang Mao\*

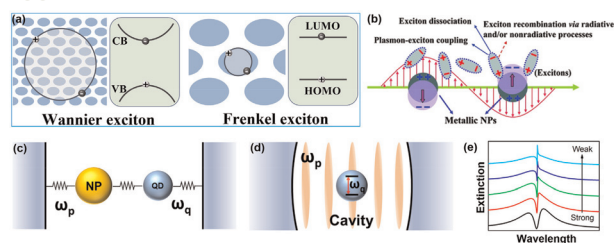


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**A review on reactive oxygen species (ROS)-inducing nanoparticles activated by uni- or multi-modal dynamic treatment for oncotherapy**Jinyong Lin, Dong Li, Changhong Li, Ziqi Zhuang,  
Chengchao Chu, Kostya (Ken) Ostrikov,  
Erik W. Thompson, Gang Liu and Peiyu Wang\*

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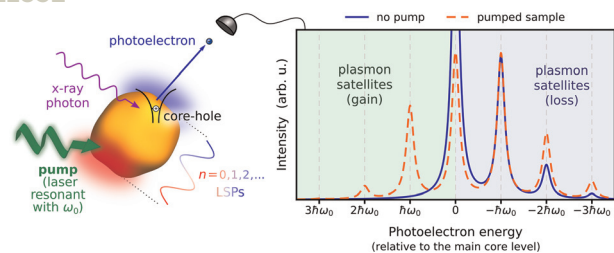


## Plexcitonics: plasmon–exciton coupling for enhancing spectroscopy, optical chirality, and nonlinearity

Yichuan Chen and Mengtao Sun\*

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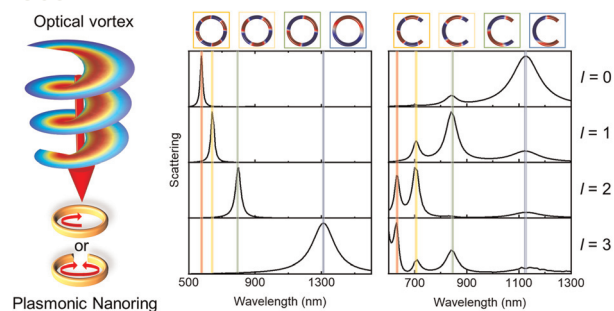
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## Multi-plasmon effects and plasmon satellites in photoemission from nanostructures

P. A. D. Gonçalves and F. Javier García de Abajo\*

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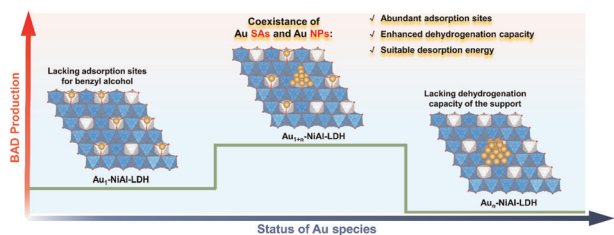


## Selective high-order resonance in asymmetric plasmonic nanostructures stimulated by vortex beams

Da-Jie Yang\* and Ji-Cai Liu\*

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## Coexistence of Au single atoms and Au nanoparticles on NiAl-LDH for selective electrooxidation of benzyl alcohol to benzaldehyde

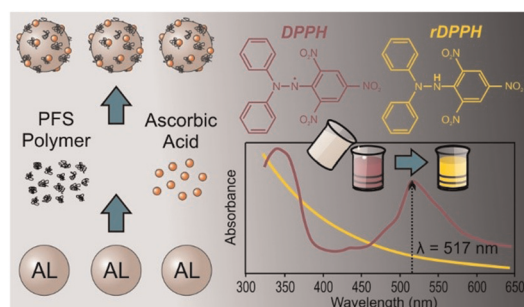
Ziheng Song, Tianyang Shen, Yihang Hu, Guihao Liu, Sha Bai, Xiaoliang Sun, Si-Min Xu and Yu-Fei Song\*



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### Dual functionality of ferrocene-based metallopolymers as radical scavengers and nanoparticle stabilizing agents

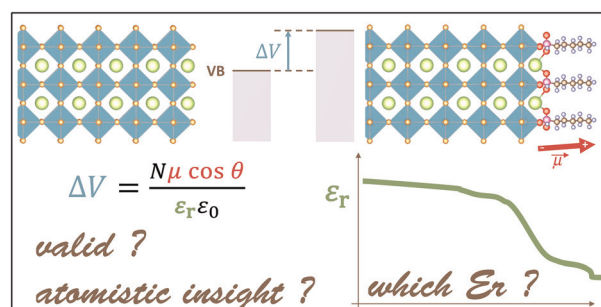
Nizar B. Alsharif, Tibor Gergo Halmágyi, Mark A. Hempenius, G. Julius Vancso, Corinne Nardin and Istvan Szilagyi\*



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### Interfacial engineering to modulate surface dipoles, work functions and dielectric confinement of halide perovskites

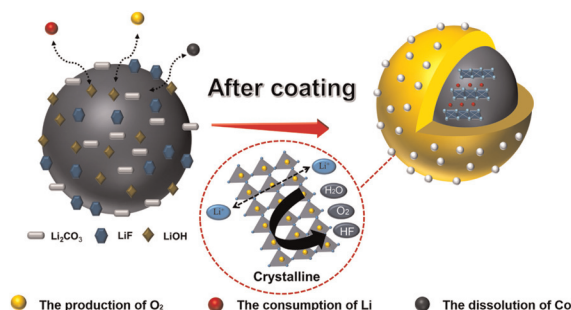
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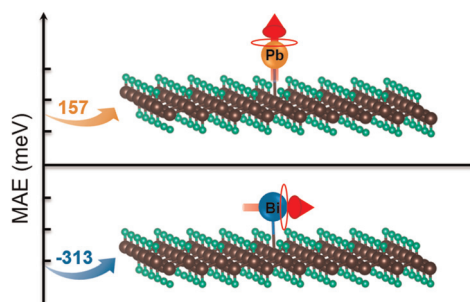
Yuxuan Ji, Jian Wei,\* Di Liang, Bing Chen, Xueting Li, Hao Zhang and Zongyou Yin\*



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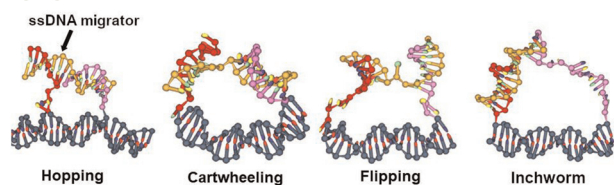
### Giant magnetic anisotropy of adatoms on the graphane surface

Kuan-Rong Hao, Yang Song and Lizhi Zhang\*



## PAPERS

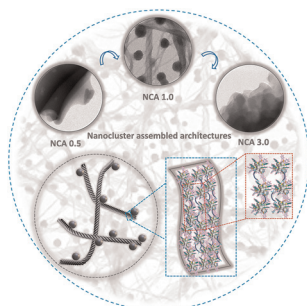
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### Exhaustive classification and systematic free-energy profile study of single-stranded DNA inter-overhang migration

Hon Lin Too and Zhisong Wang\*

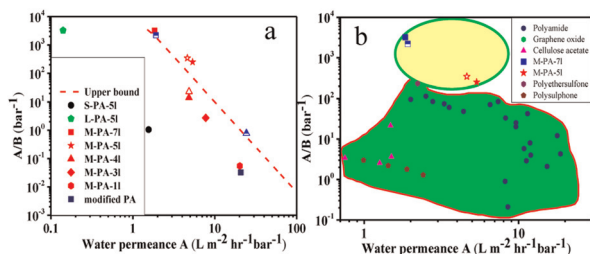
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### Secondary ligand-induced orthogonal self-assembly of silver nanoclusters into superstructures with enhanced NIR emission

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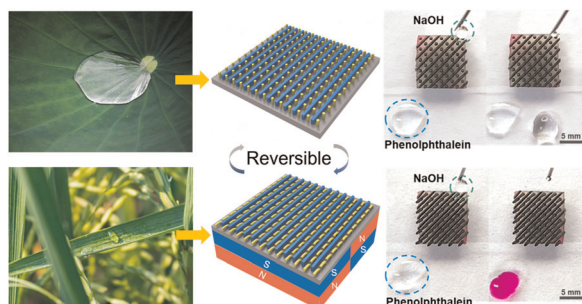
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### Enhanced efficiency of water desalination in nanostructured thin-film membranes with polymer grafted nanoparticles

Aparna Swain, S. Adarsh, Ashish Biswas, Suryasarathi Bose, Brian C. Benicewicz, Sanat K. Kumar and J. K. Basu\*

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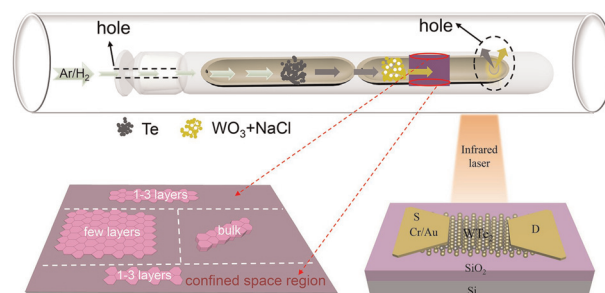
Yucheng Bian, Suwan Zhu, Xin Li,\* Yuan Tao, Chenyu Nian, Chenchu Zhang, Yubin Peng, Chuanzong Li, Wei Xiong, Wulin Zhu, Yanlei Hu, Jiawen Li, Jiaru Chu and Dong Wu\*



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### Growth of few-layer $WTe_2$ by a salt-assisted double-tube chemical vapor deposition method with high infrared photosensitivity

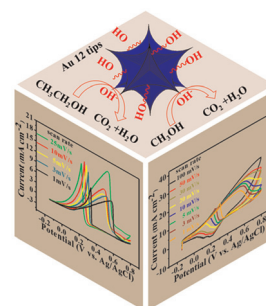
Zhengui Zhao, Fangfei Dong, Yuyan Wang,\*  
Jiacheng Sun, Huanyu Ye, Rongming Wang and  
Junying Zhang\*



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### A high-index facet gold 12 tip nanostar for an improved electrocatalytic alcohol oxidation reaction with superior CO tolerance

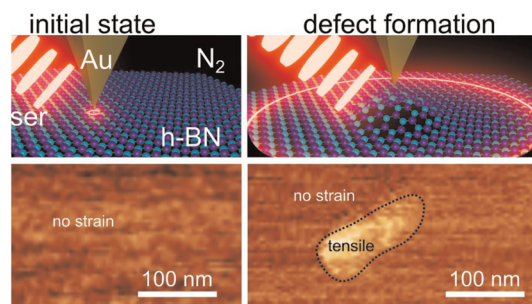
Sanjeevan Rajagopal, Suresh Thangudu and  
Kuo Chu Hwang\*



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### Locally strained hexagonal boron nitride nanosheets quantified by nanoscale infrared spectroscopy

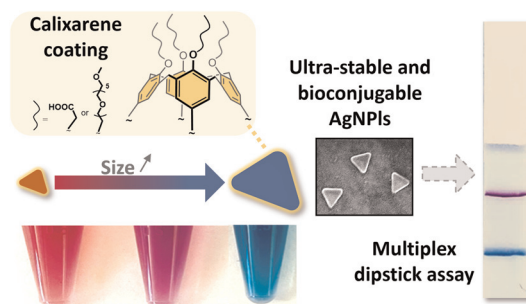
Fernand E. Torres-Davila, Chance Barrett,  
Michael Molinari, Muhammad Sajid, Ari P. Seitsonen,  
Abdelkader Kara\* and Laurene Tetard\*



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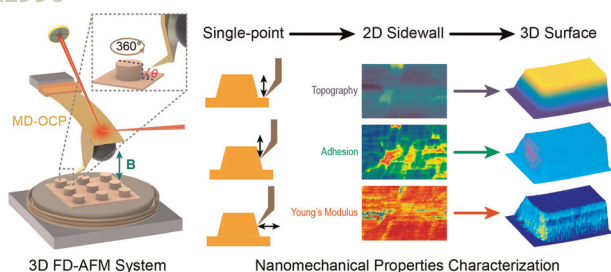
### Ultra-stable silver nanotriangles: efficient and versatile colorimetric reporters for dipstick assays

Maurice Retout, Bryan Gosselin, Amina Adrović,  
Pascale Blond, Ivan Jabin\* and Gilles Bruylants\*



## PAPERS

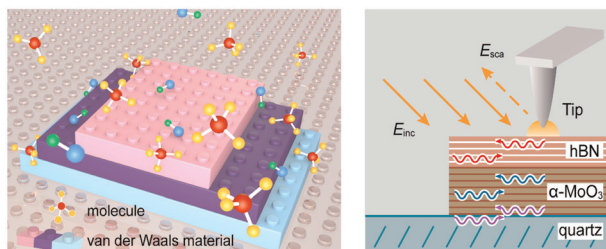
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### A 3D surface nanomechanical property mapping method with a magnetic-drive orthogonal cantilever probe

Junyuan Geng, Hao Zhang,\* Xianghe Meng and Hui Xie\*

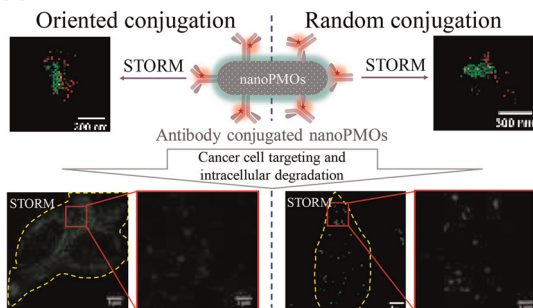
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### Phonon polaritons in van der Waals polar heterostructures for broadband strong light-matter interactions

Tianwei Qin, Weiliang Ma, Tao Wang\* and Peining Li\*

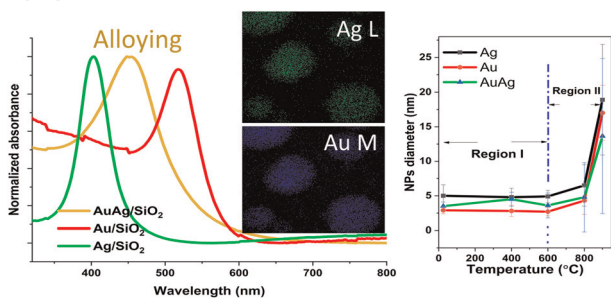
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### Super-resolution imaging of antibody-conjugated biodegradable periodic mesoporous organosilica nanoparticles for targeted chemotherapy of prostate cancer

Pradip Das,\* Silvia Pujals,\* Lamiaa M. A. Ali, Magali Gary-Bobo, Lorenzo Albertazzi and Jean-Olivier Durand

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### Investigating the thermal stability of ultra-small Ag, Au and AuAg alloy nanoparticles embedded in a silica matrix

Hemant Jatav, Maja Mičetić, Anusmita Chakravorty, Ambuj Mishra, Matthias Schwartzkopf, Andrei Chumakov, Stephan V. Roth and Debdulal Kabiraj\*

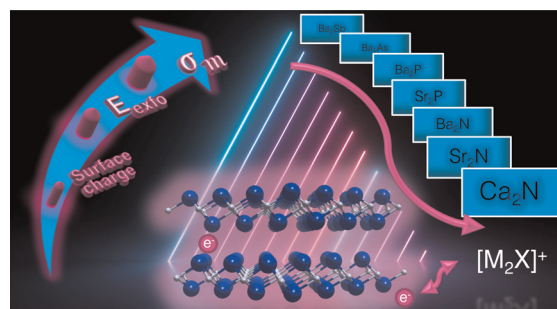


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## Periodic trends in the structural, electronic, and transport properties of electrenes

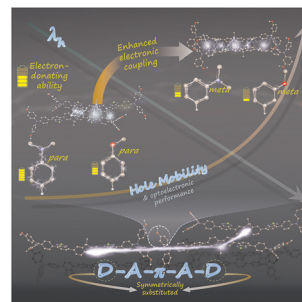
Mohammad Rafiee Diznab, Erin R. Johnson\* and Jesse Maassen\*



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Modifying a D–A– $\pi$ –A–D HTM system for higher hole mobility by the *meta*-substitution strategy to weaken the electron-donating ability of the donor unit: a DFT study

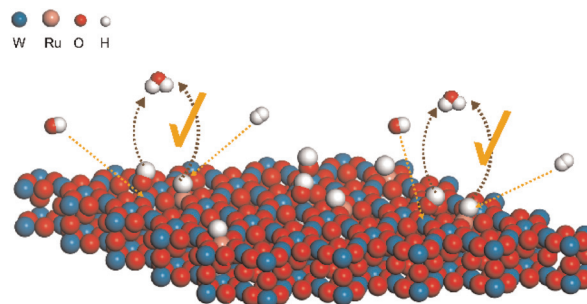
Ke-Li Wang, Qun-Gui Wang, Cui-E Hu,\* Yan Cheng,\* Guang-Fu Ji and Xiang-Rong Chen



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Ru-doped  $\text{WO}_3$  enabling efficient hydrogen oxidation reaction in alkaline media

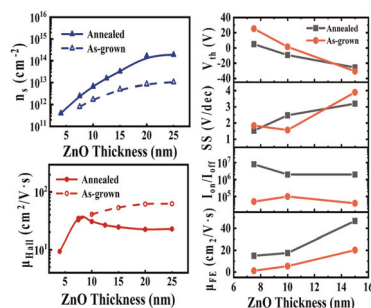
Hai Liu, Zhuang Zhang, Mengxuan Li, Yaping Li,\* Yun Kuang and Xiaoming Sun\*



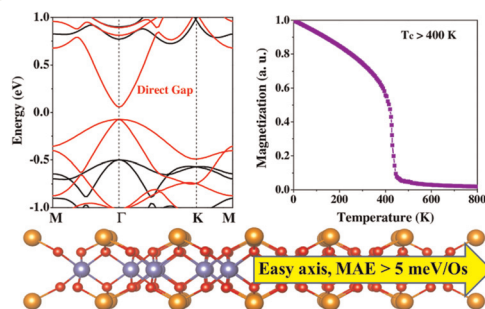
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Carrier tuning of 2D electron gas in field-effect devices based on  $\text{Al}_2\text{O}_3/\text{ZnO}$  heterostructures

Xinyi Zhu, Tianbao Zhang, Yongjie He, Yuhang Liu\* and Hao Zhu\*



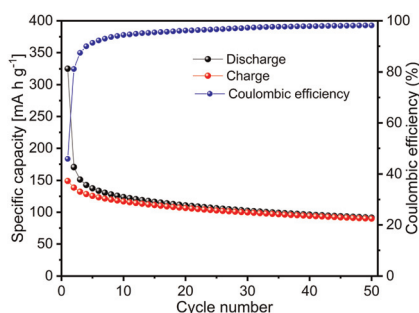
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### Two-dimensional ferromagnetic semiconductors of monolayer $\text{BiXO}_3$ ( $X = \text{Ru}, \text{Os}$ ) with direct band gaps, high Curie temperatures, and large magnetic anisotropy

Hongbo Wu, Fengxian Ma, Zhixue Tian, Ying Liu, Yalong Jiao\* and Aijun Du

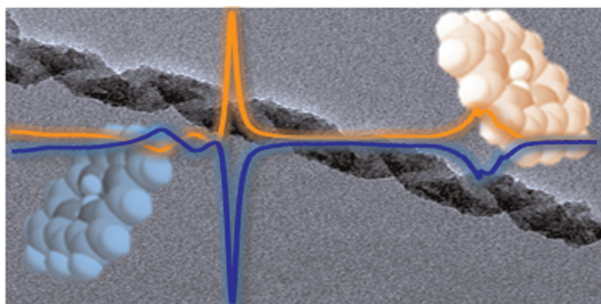
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### An ionic liquid synthesis route for mixed-phase sodium titanate ( $\text{Na}_2\text{Ti}_3\text{O}_7$ and $\text{Na}_2\text{Ti}_6\text{O}_{13}$ ) rods as an anode for sodium-ion batteries

Pooja Kumari, Yining Li and Rebecca Boston\*

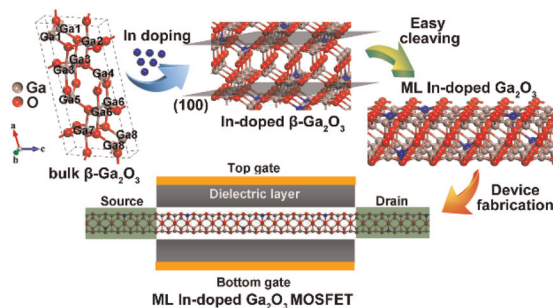
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### Induced circular dichroism from helicoidal nano substrates to porphyrins: the role of chiral self-assembly

Gautier Duroux, Lucas Robin, Peizhao Liu, Emilie Dols, Matheus De Souza Lima Mendes, Sonia Buffière, Elodie Pardieu, Antoine Scalabre, Thierry Buffeteau, Sylvain Nlate, Reiko Oda, Maria Sara Raju, Matteo Atzori, Cyrille Train, Geert L. J. A. Rikken, Patrick Rosa, Elizabeth A. Hillard\* and Emilie Pouget\*

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### Indium doping-assisted monolayer $\text{Ga}_2\text{O}_3$ exfoliation for performance-enhanced MOSFETs

Penghui Li, Linpeng Dong,\* Chong Li, Bin Lu, Chen Yang, Bo Peng, Wei Wang, Yuanhao Miao\* and Weiguo Liu

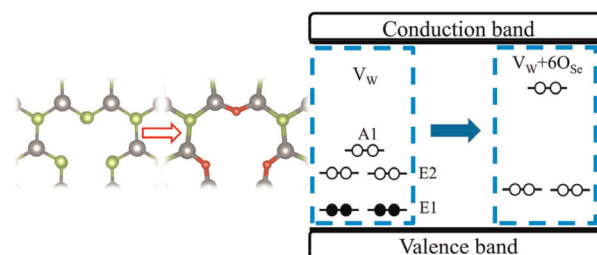


## PAPERS

12116

**Origin of p-type conductivity in a WSe<sub>2</sub> monolayer**

Yu-Zhou Zhang, Guo-Jun Zhu and Ji-Hui Yang\*



## CORRECTIONS

12123

**Correction: Secondary ligand-induced orthogonal self-assembly of silver nanoclusters into superstructures with enhanced NIR emission**

Korath Shivan Sugi, Amritha P. Sandra, Nonappa, Debasmita Ghosh, Jyoti Sarita Mohanty, Murugesan Paulthangam Kannan, B. S. Sooraj, Pillalamarri Srikrishnarka, Jayoti Roy, Wakeel Ahmed Dar and Thalappil Pradeep\*

12124

**Correction: Label free localization of nanoparticles in live cancer cells using spectroscopic microscopy**

Graham L. C. Spicer, Luay Almassalha, Ignacio A. Martinez, Ronald Ellis, John E. Chandler, Scott Gladstein, Di Zhang, The-Quyen Nguyen, Seth Feder, Hariharan Subramanian, Roberto de la Rica, Sebastian A. Thompson\* and Vadim Backman\*

