

Special Topic on Twisted van der Waals Heterostructures

Guest editors: Jun Zhang and Zhongming Wei

RESEARCH HIGHLIGHTS

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[4 pages] Mengjia Li, Lixiu Zhang, Cong Chen, Jiangzhao Chen, and Liming Ding
- 010202 **The voltage loss in organic solar cells**
[3 pages] Zheng Tang and Liming Ding

COMMENTS AND OPINIONS

- 010301 **Moiré heterostructures: highly tunable platforms for quantum simulation and future computing**
[5 pages] Moyu Chen, Fanqiang Chen, Bin Cheng, Shi Jun Liang, and Feng Miao

NEWS AND VIEWS

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[2 pages] Xin Lu

EDITORIAL

- 010101 **Preface to Special Topic on Twisted van der Waals Heterostructures**
[2 pages] Jun Zhang and Zhongming Wei

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- 011001 **Interface engineering in two-dimensional heterostructures towards novel emitters**
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- 011002 **The twisted two-dimensional ferroelectrics**
[11 pages] Xinhao Zhang and Bo Peng
- 011901 **Recent progress on fabrication and flat-band physics in 2D transition metal dichalcogenides moiré superlattices**
[13 pages] Xinyu Huang, Xu Han, Yunyun Dai, Xiaolong Xu, Jiahao Yan, Mengting Huang, Pengfei Ding, Decheng Zhang, Hui Chen, Vijay Laxmi, Xu Wu, Liwei Liu, Yeliang Wang, Yang Xu, and Yuan Huang
- 011902 **Review of phonons in moiré superlattices**
[12 pages] Zhenyao Li, Jia-Min Lai, and Jun Zhang
- 011903 **Interaction of moiré excitons with cavity photons in two-dimensional semiconductor hetero-bilayers**
[6 pages] Yuchen Gao and Yu Ye

■ **ARTICLES**

012001 **Gate tunable spatial accumulation of valley-spin in chemical vapor deposition grown 40°-twisted bilayer WS₂**

[5 pages] Siwen Zhao, Gonglei Shao, Zheng Vitto Han, Song Liu, and Tongyao Zhang

■ **ARTICLES**

012301 **75 GHz germanium waveguide photodetector with 64 Gbps data rates utilizing an inductive-gain-peaking technique**

[6 pages] Xiuli Li, Yupeng Zhu, Zhi Liu, Linzhi Peng, Xiangquan Liu, Chaoqun Niu, Jun Zheng, Yuhua Zuo, and Buwen Cheng

012701 **Electromechanical and photoelectric properties of a novel semiconducting Janus InGaSSe monolayer**

[9 pages] Li Zhong, Xiaobao Li, Wei Wang, and Xinle Xiao