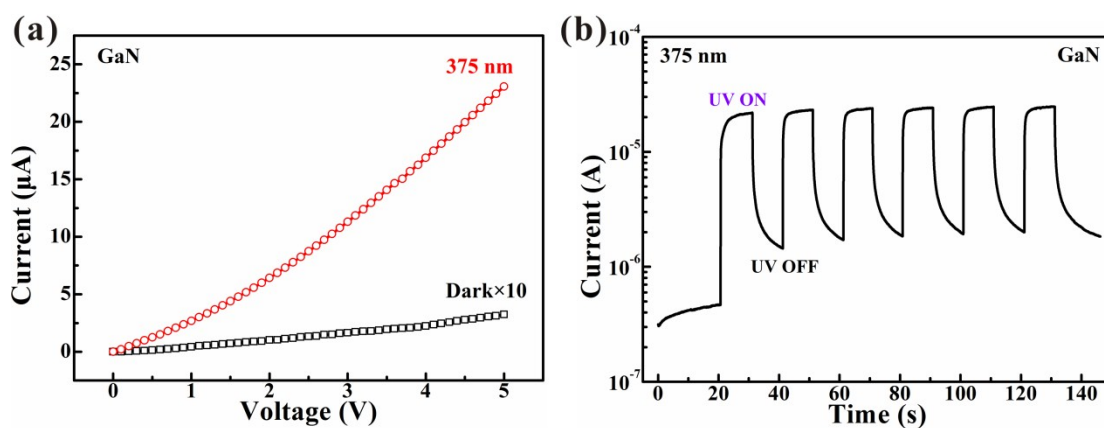


## Synthesis of large-area 2D WS<sub>2</sub> films and fabrication of heterostructure for self-powered ultraviolet photodetection and imaging applications

Zhihui Zhao, Di Wu,\* Jiawen Guo, Enping Wu, Cheng Jia, Zhifeng Shi, Yongtao Tian, Xinjian Li, and Yongzhi Tian\*

*Key Laboratory of Materials Physics of Ministry of Education, School of Physics and Engineering, Zhengzhou University, Zhengzhou, 450052, P. R. China.*

*E-mail: wudi1205@zzu.edu.cn, yztian@zzu.edu.cn*



**Fig. S1** (a) I-V curves and (b) photoresponse property of GaN substrate.