Electronic Supplementary Material (ESI) for Nanoscale. This journal is © The Royal Society of Chemistry 2019

Supplementary Information

Ultrahigh Responsivity Self-powered Solar-blind Photodetector Based on Centimeter-Sized β -Ga₂O₃/Polyaniline Heterojunction

Yuefei Wang, ‡a Li Li, ‡b Hebin Wang, a Longxing Su, b Hongyu Chen, *a Wanpeng Bian, a

Jiangang Ma,^d Bingsheng Li,^{*d} Zhiguo Liu^{*a} and Aidong Shen^e

^eDepartment of Electrical Engineering, The City College of New York, New York 10031, USA.

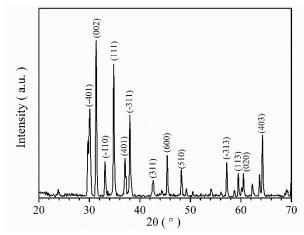


Fig. S1 XRD pattern of Ga_2O_3 microwires. Because it is difficult to measure a single Ga_2O_3 microwire, so we placed multiple samples on the substrate. As shown in the figure, the diffraction peaks agree well with the monoclinic phase of Ga_2O_3 .

^a Department of Physics, Harbin Institute of technology, Harbin 150001, China. E-mail: chenhy@hit.edu.cn; liuzhiguo@hit.edu.cn

^bSchool of Life Science and Technology, Harbin Institute of Technology, Harbin 150080, China ^cDepartment of Physical Science and Technology, ShanghaiTech University, Shanghai 201210, China.

^cDepartment of Physical Science and Technology, ShanghaiTech University, Shanghai 201210, China.

^dKey Laboratory of UV-Emitting Materials and Technology of Ministry of Education, Northeast Normal University, Changchun 130024, China. E-mail: libs@nenu.edu.cn

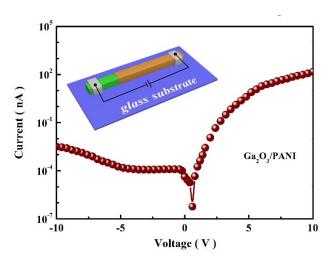


Fig. S2 The I-V curve of $\beta\text{-}\text{Ga}_2\text{O}_3$ /PANI heterojunction in log scale