Supporting information

Improve the Quality of Black Phosphorus by Selecting Mineralizer

Ying Yu¹, Boran Xing¹, Dan Wang¹, Liao Guan¹, Xinyue Niu¹, Jiadong Yao¹, Xiaoyuan Yan¹,
Shucheng Zhang¹, Yali Liu¹, Xiaoxiang Wu¹, Jian Sha¹ and Yewu Wang¹,2*

¹Department of Physics, Zhejiang Province Key Laboratory of Quantum Technology and Devices & State Key Laboratory of Silicon Materials, Zhejiang University, Hangzhou 310027, P. R. China.
²Collaborative Innovation Centre of Advanced Microstructures, Nanjing University, Nanjing 210093, P. R. China

*Corresponding author: yewuwang@zju.edu.cn.

Figure S1. OM and AFM calibration of BP flakes with multiple thickness gradients. On the left is a BP flakes on the substrate (300 nm SiO2/Si), and on the right is an AFM image, and the thickness is calibrated. In comparison, BP gradually changed from a light blue of 16 nm to a deep purple of 5 nm. The color represented by the thickness of about 10 nm is dark blue, which is the thickness of the device we prepared.
Figure S2. Optical photos of devices. (a-d) Devices based on Sn-BP. (e-h) Devices based on Pb-BP.