Electronic Supplementary Information (ESI)

Near-infrared optical performances of two Bi_2Se_3 nanosheets

Hanhan Xie[a], Jundong Shao[b], Jiahong Wang*[b], Zhengbo Sun[b], Xue-Feng Yu*[b] and Qu-Quan Wang*[a]

[a]*Department of Physics, Key Laboratory of Artificial Micro- and Nano-structures of Ministry of Education and School of Physics and Technology, Wuhan University, Wuhan 430072, China. E-mail:* qqwang@whu.edu.cn

[b]*Institute of Biomedicine and Biotechnology, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, Shenzhen 518055, P. R. China*
E-mails: xf.yu@siat.ac.cn, jh.wang1@siat.ac.cn

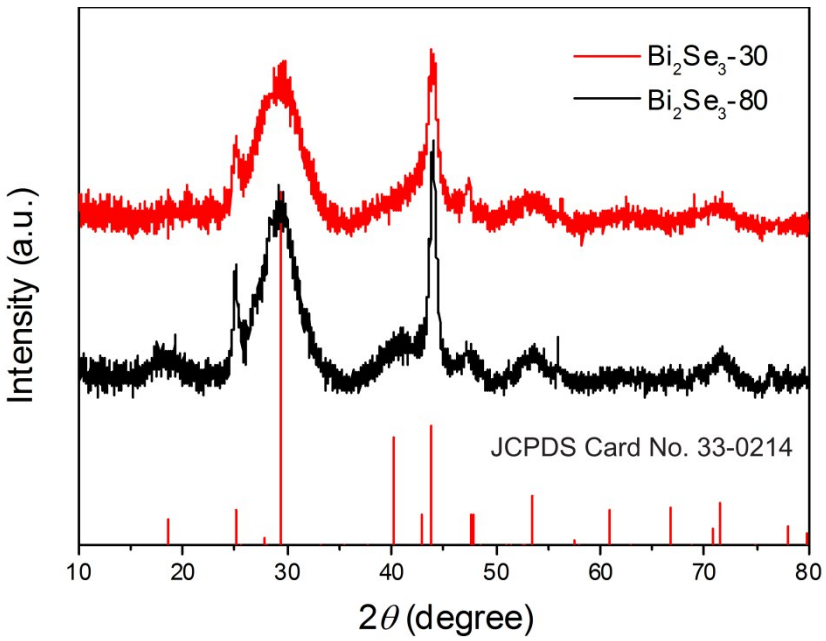

Fig. S1. XRD patterns of the two Bi_2Se_3 nanosheets.

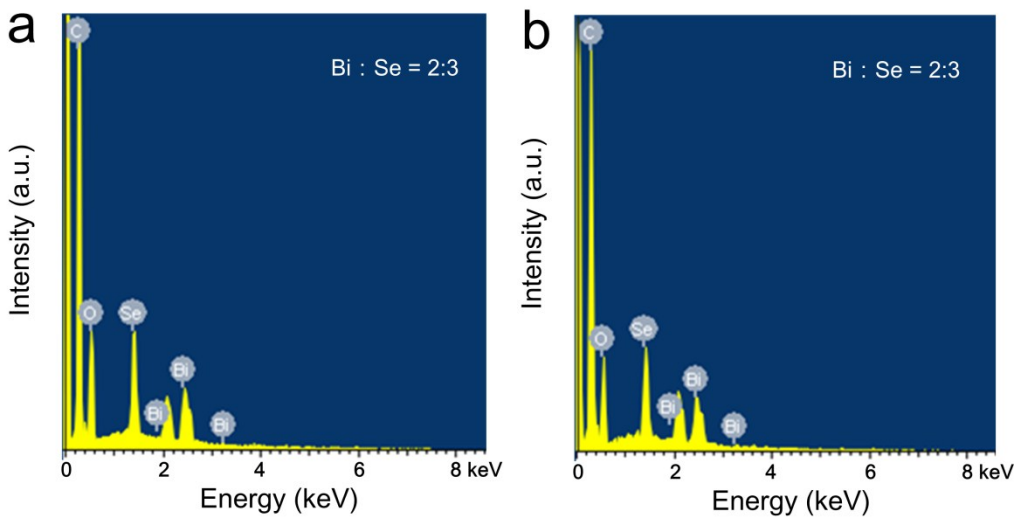

Fig. S2. EDS spectra of (a) Bi_2Se_3-30 and (b) Bi_2Se_3-80 nanosheets.

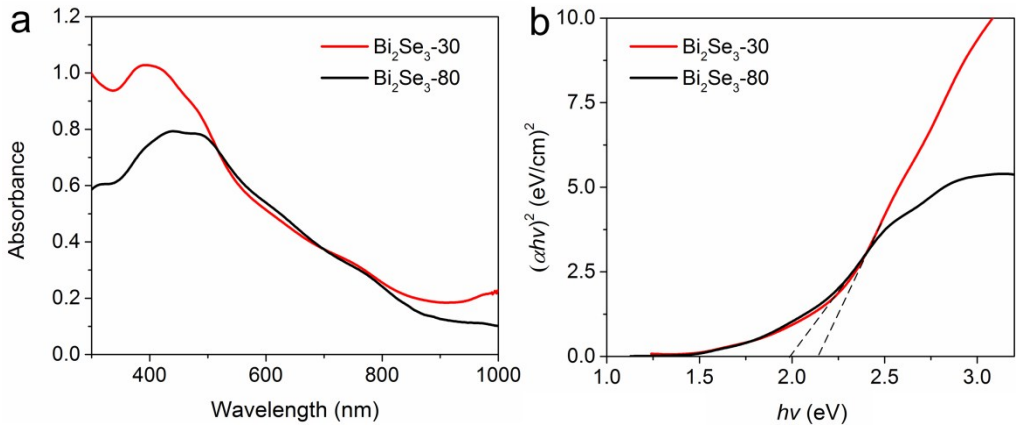

Fig. S3. (a) Absorption spectra of the two Bi_2Se_3 nanosheets. (b) Plots of $(\alpha hv)^2$ *vs.* hv of the two Bi_2Se_3 nanosheets.

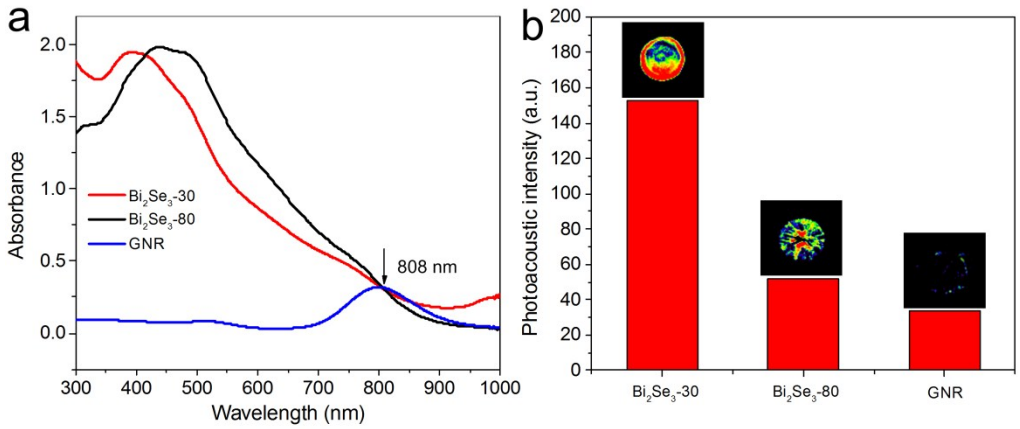

Fig. S4. (a) Absorption spectra of the two Bi_2Se_3 nanosheets and GNRs with same intensities at 808 nm. (b) Corresponding photoacoustic images and quantitative intensities of the two Bi_2Se_3 nanosheets and GNRs.