2D Bi_2Se_3 van der Waals Epitaxy on Mica for Optoelectronics Applications

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Supplementary Materials

S1. AFM images of Bi_2Se_3 film of 90 nm thick.

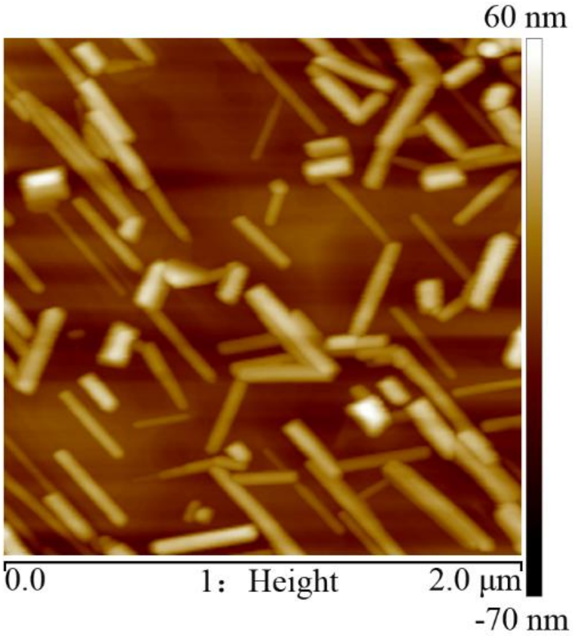

Figure S1. AFM images of Bi_2Se_3 film of 90 nm thick with a rms roughness of 17.8 nm.

S2. In-plane phi scan of Bi_2Se_3 on mica with buffer layer.

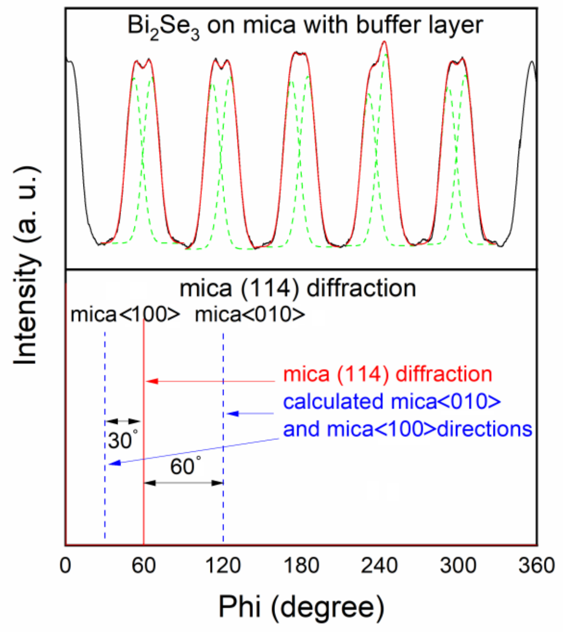

Figure S2. In-plane phi scan of Bi_2Se_3 on mica with buffer layer. Each diffraction peak can be deconvoluted into two peaks with an average FWHM of 13.8° indicated by the green dashed lines.

S3. UPS measurement of Bi_2Se_3.

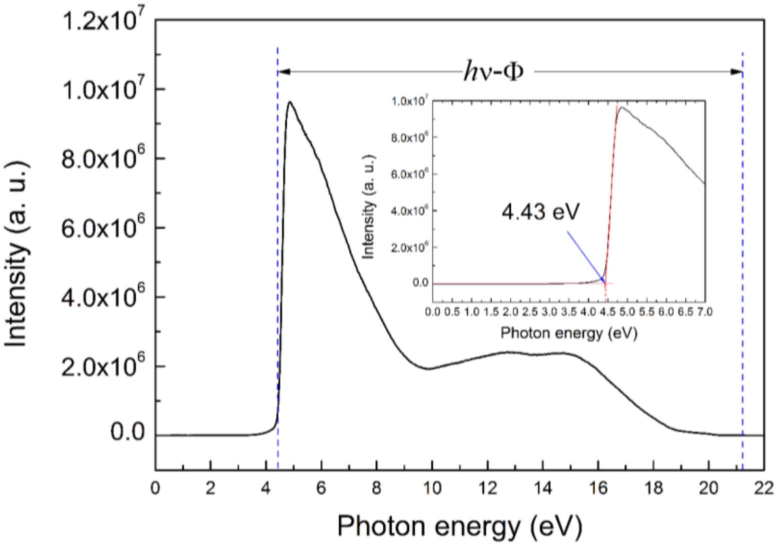

Figure S3. UPS spectrum of Bi_2Se_3. The work function is calculated to be 4.43 eV.