

Supplementary Information

Broadband detection based on 2D Bi₂Se₃/ZnO nanowire heterojunction

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In the low magnification SEM observation of ZnO, it can be seen that synthesized ZnO nanowires have fully covered the substrate with uniform distribution. In the high magnification image of Fig.S1b, the uniform orientation of ZnO nanowire arrays could also be observed clearly. In SEM image of Bi₂Se₃, the even and flat CVD synthesized Bi₂Se₃ film could be observed and the characterization of AFM could also support this conclusion.

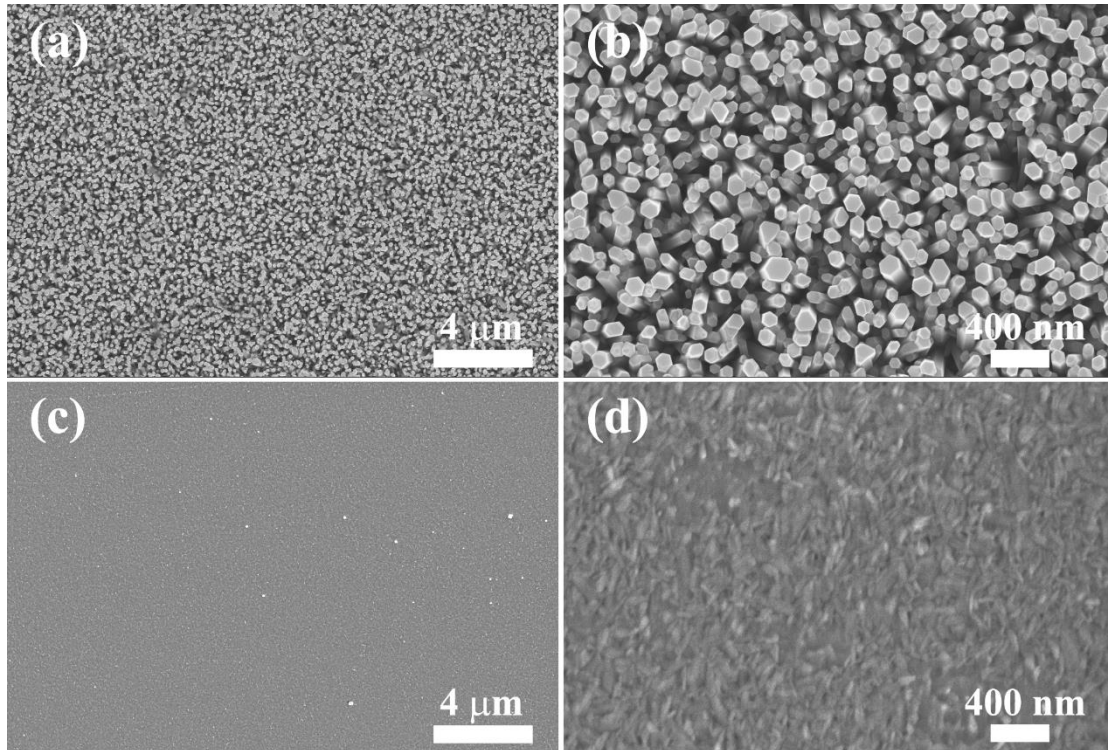


Fig. S1. (a) low magnification and (b) high magnification SEM images of ZnO NWAs; (c) low magnification and (d) high magnification SEM images of Bi₂Se₃;

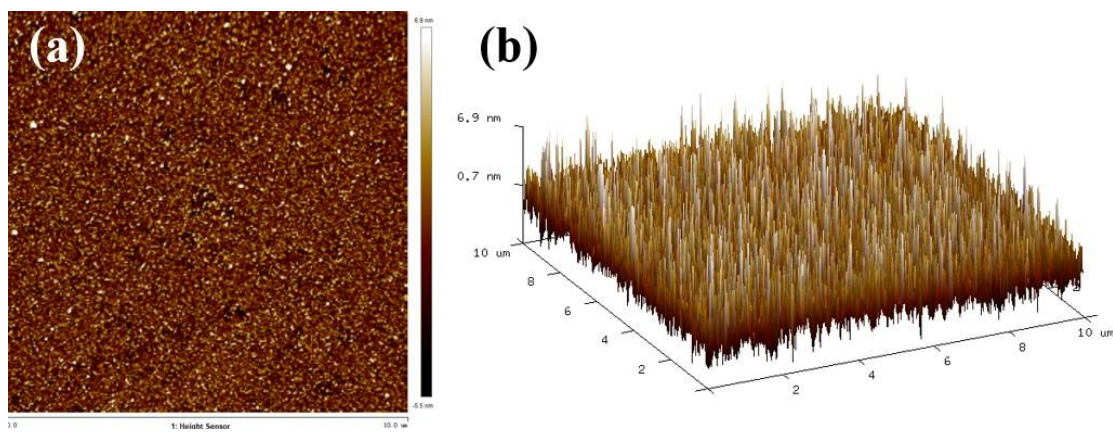


Fig.S2. (a) 2D and (b) 3D AFM images of Bi₂Se₃;X