

Supporting Information

Enhanced Photoresponsivity, Detectivity by Sb Doping into Bi₂Se₃ Thin Films for Visible Light Photodetectors

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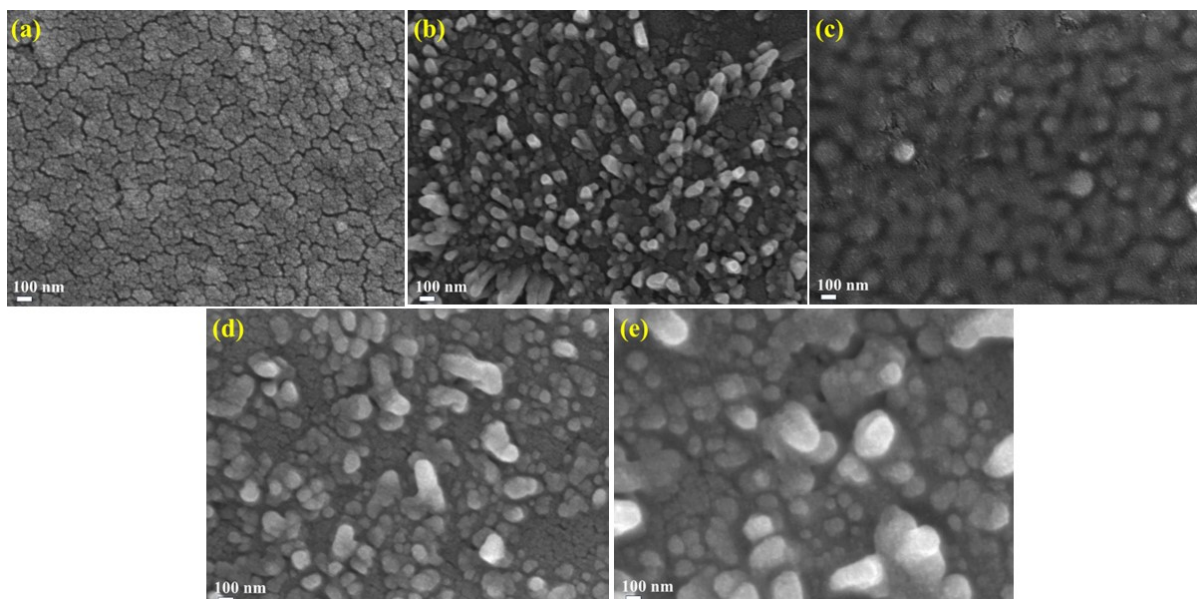


Fig.S1. FESEM view of (a) as-prepared, (b)100 °C, (c) 150 °C, (d) 200 °C, (e) 250 °C annealed film at 100 nm scale.

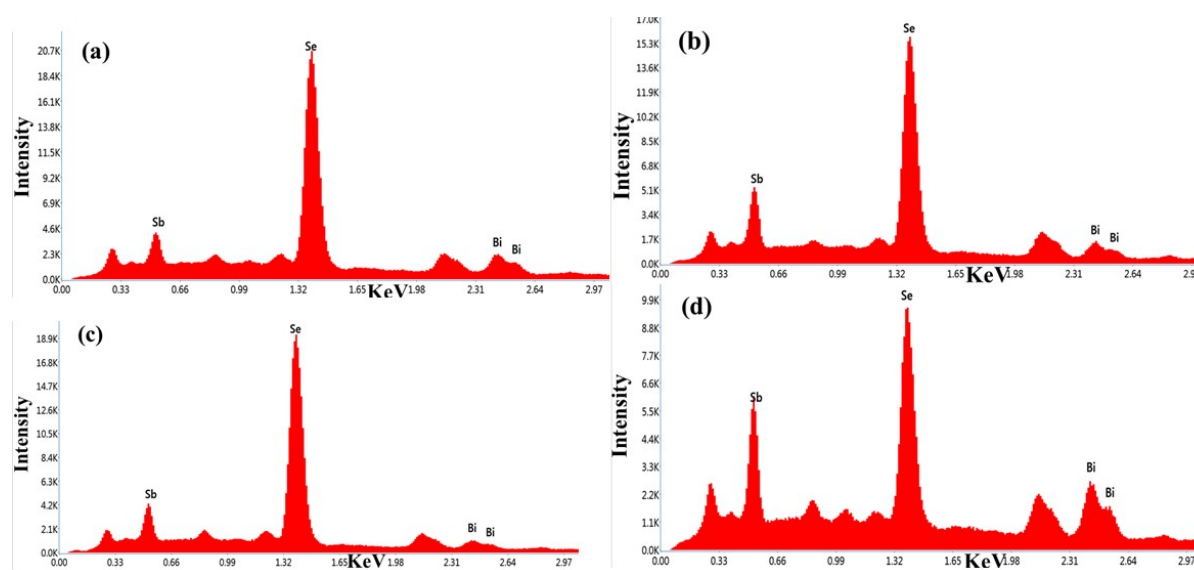


Fig.S2. EDS spectra of (a) un-annealed, (b)100 °C, (c) 150 °C, (d) 200 °C, annealed film.

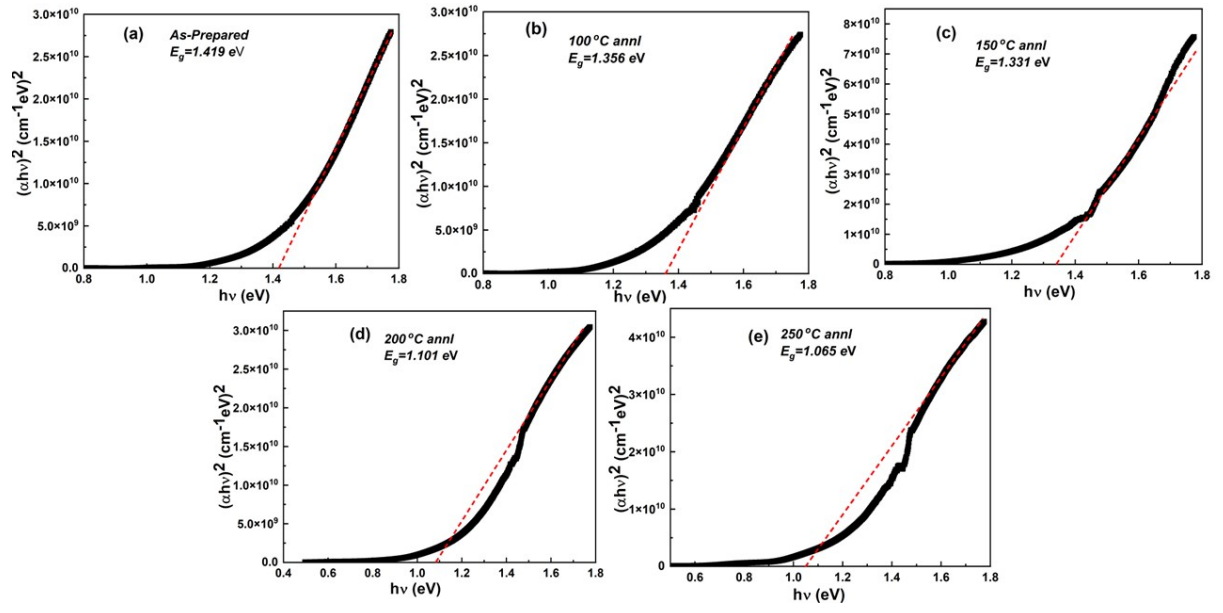


Fig.S3. Bandgap calculation for (a) as-prepared, (b)100 °C, (c) 150 °C, (d) 200 °C, (e) 250 °C annealed film

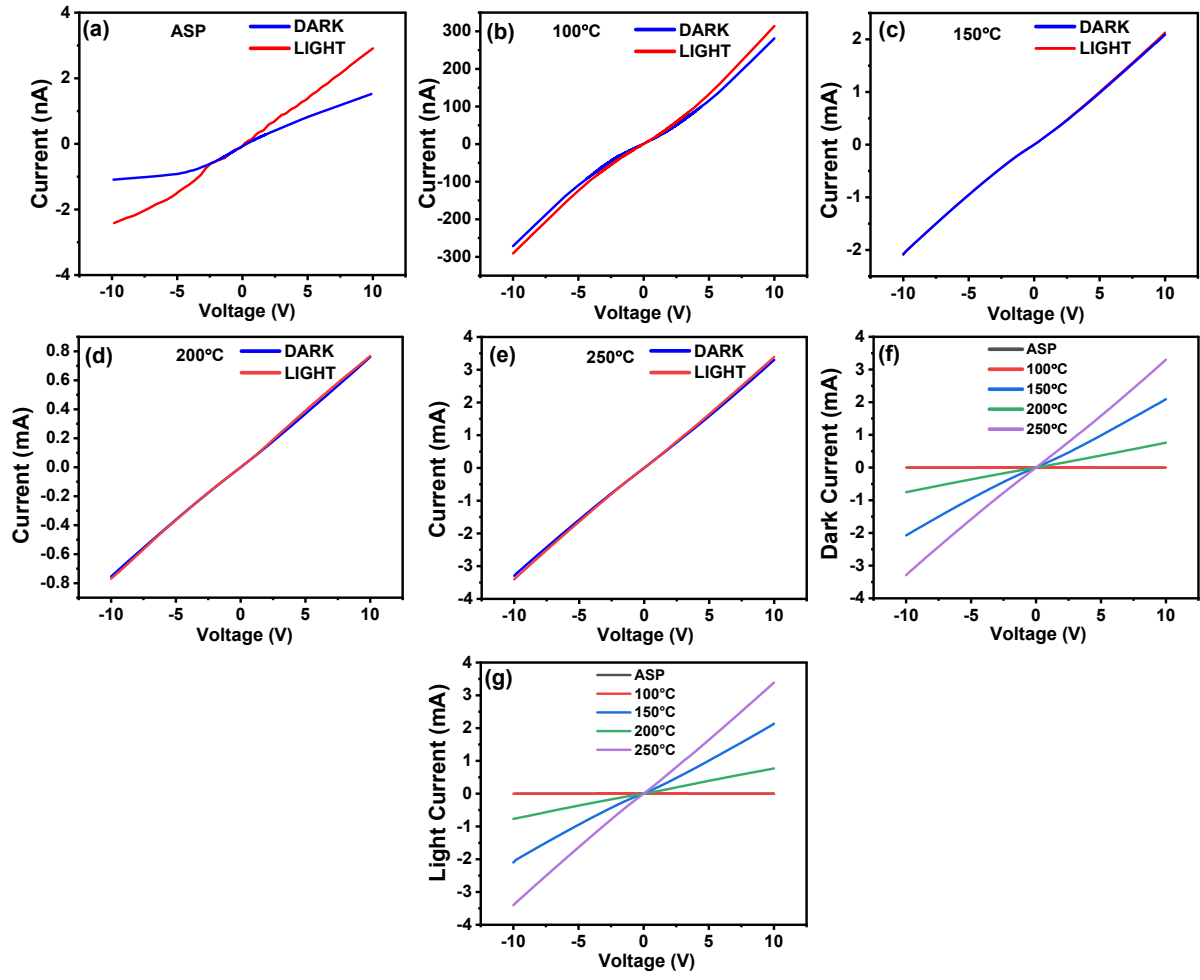


Figure S4. I~V characteristics plot with linear axis in both dark and light conditions of Sb/Bi₂Se₃ bilayer films (a) asp, (b) 100 °C, (c) 150 °C, (d) 200 °C, and (e) 250 °C.