

Supporting Information

Enhanced electrical conductivity and photoconductive properties of Sn-doped Sb_2Se_3 crystals

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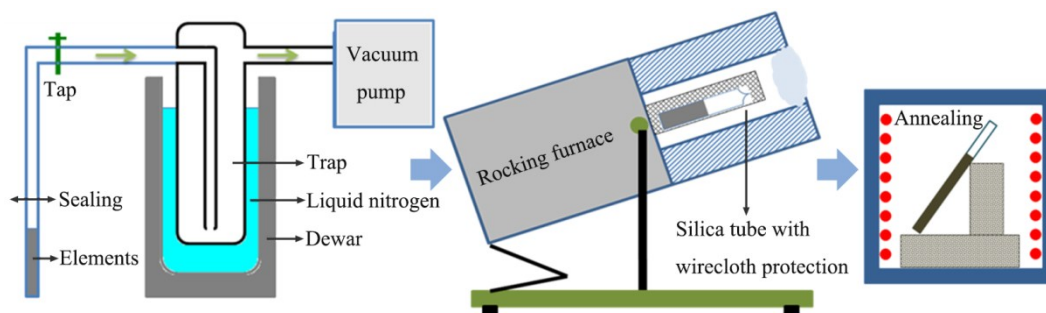


Fig. S1 Schematic illustration of the $(\text{Sn}_x\text{Sb}_{1-x})_2\text{Se}_3$ crystals preparation process.

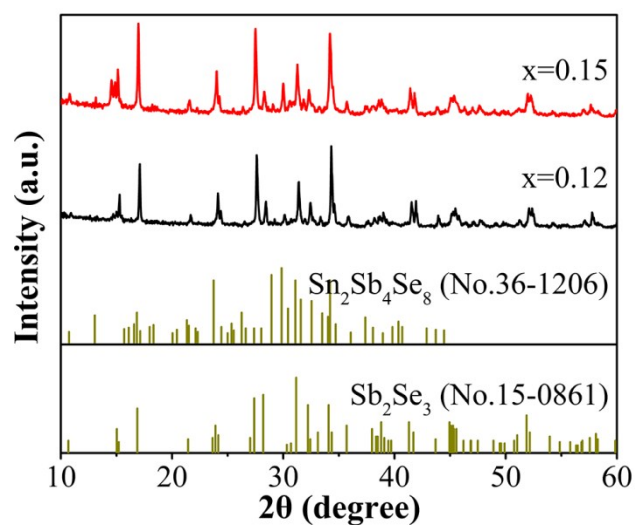


Fig. S2 XRD patterns of the powdered $(\text{Sn}_x\text{Sb}_{1-x})_2\text{Se}_3$ samples ($x=0.12$ and 0.15).

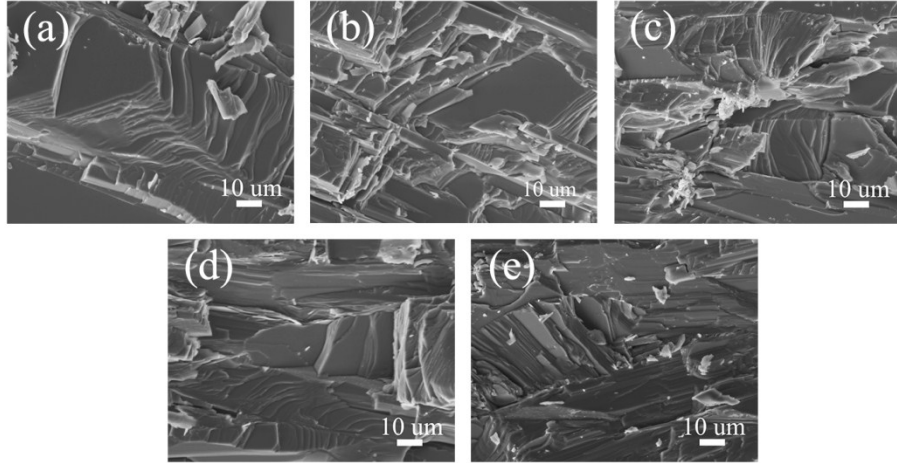


Fig. S3 (a-e) SEM images of the fractured surface of $(\text{Sn}_x\text{Sb}_{1-x})_2\text{Se}_3$ crystals with Sn concentration x of 0.00, 0.03, 0.05, 0.07 and 0.10, respectively.

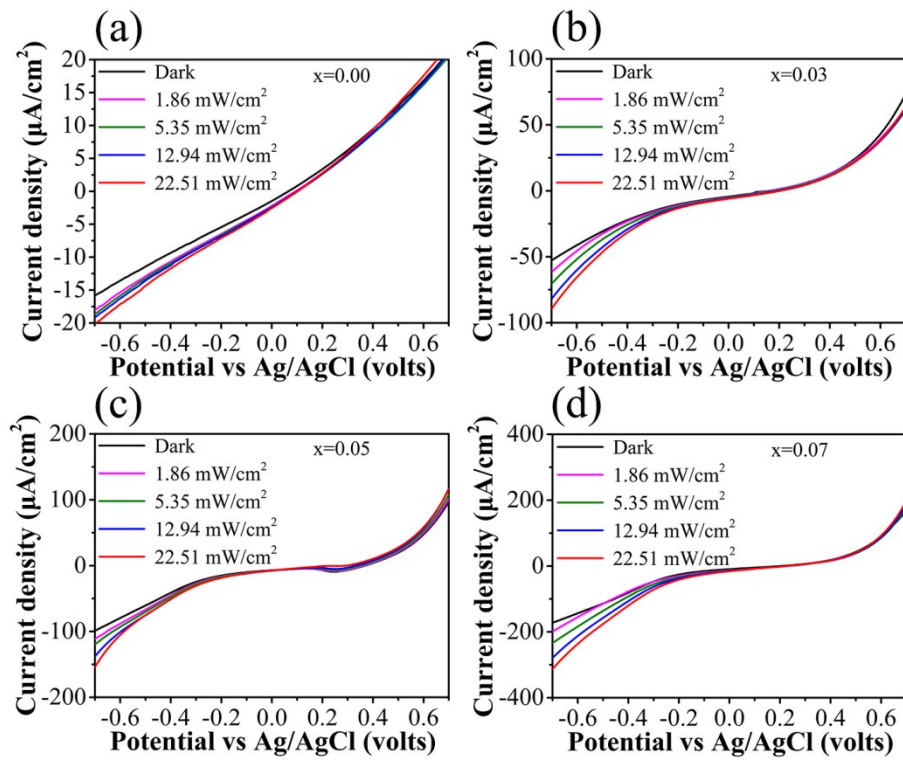


Fig. S4 Current-voltage characteristics at different power densities of the $(\text{Sn}_x\text{Sb}_{1-x})_2\text{Se}_3$ crystals at $x=0.00$ (a), $x=0.03$ (b), $x=0.05$ (c) and $x=0.07$ (d).