

Supporting Information

Engineering Bandgap of Ternary $\text{Ag}_2\text{Te}_x\text{S}_{1-x}$ Quantum Dots for Solution-processed Near-Infrared Photodetectors

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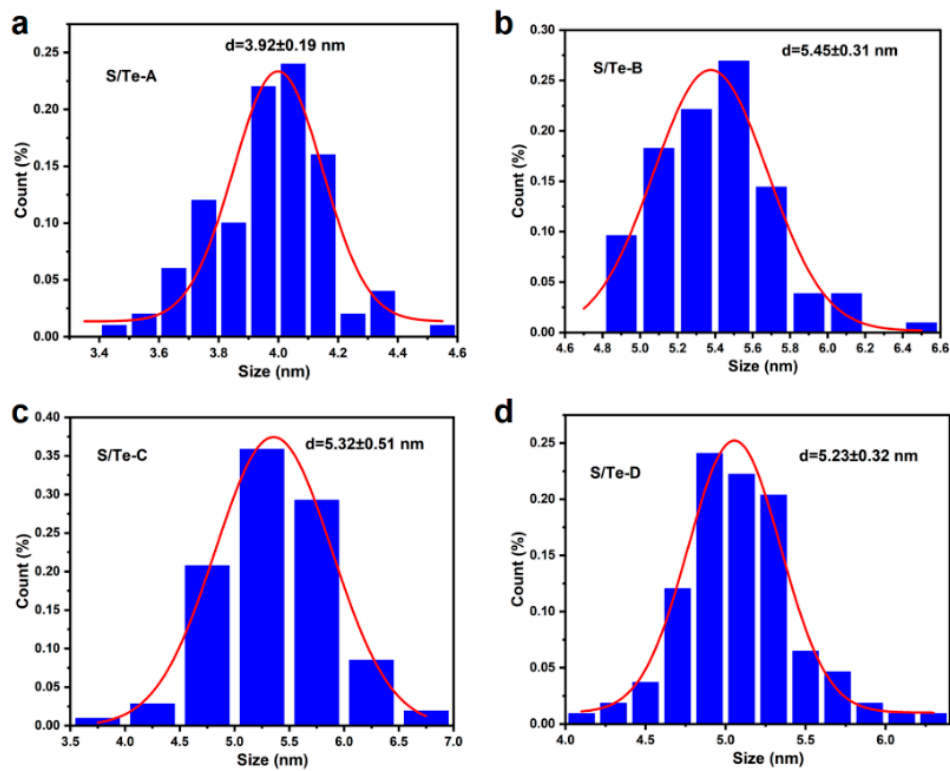


Fig. S1. The size distribution of $\text{Ag}_2\text{Te}_x\text{S}_{1-x}$ QDs.

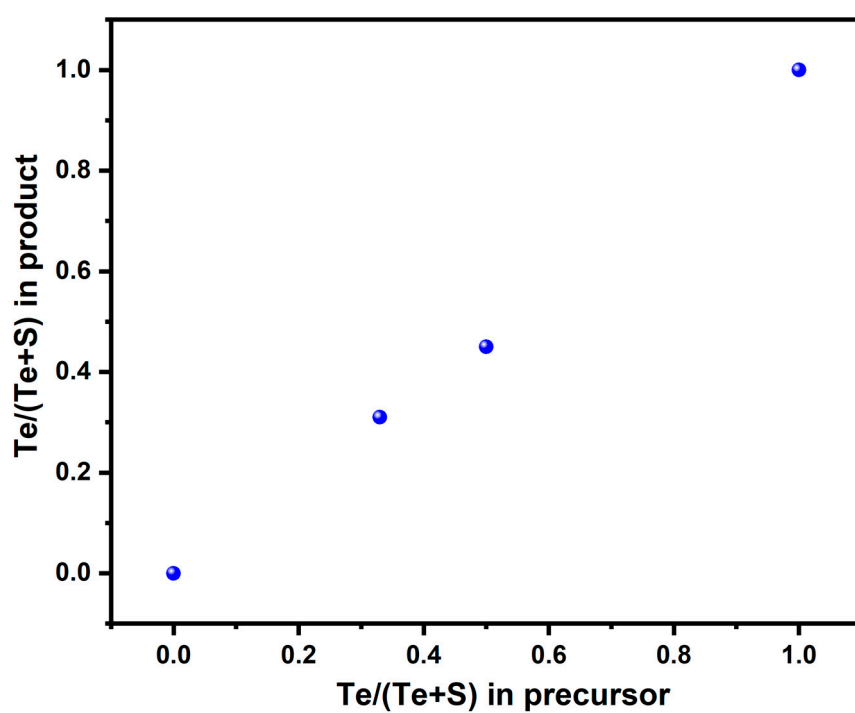


Fig. S2. ICP-OES data shows the relative amount of Te in the product versus the relative amount of Te in the precursor solution.

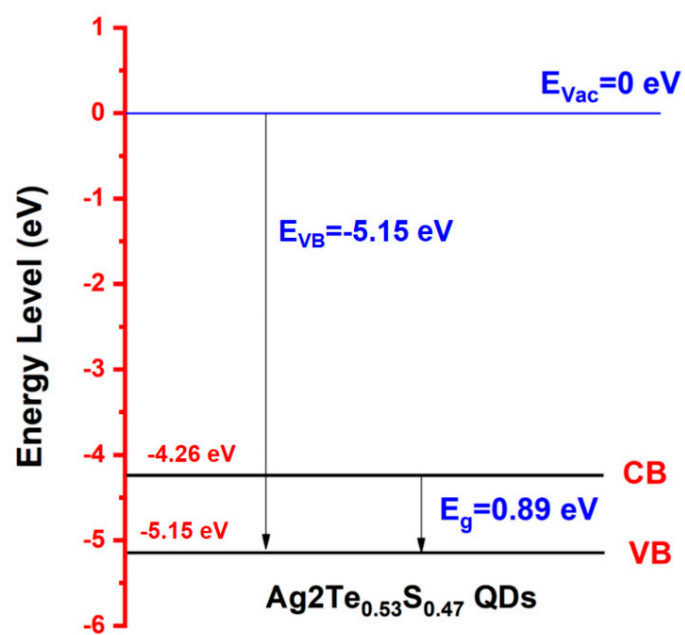


Fig. S3. The schematic band alignment of $\text{Ag}_2\text{Te}_{0.53}\text{S}_{0.47}$ alloyed QDs.

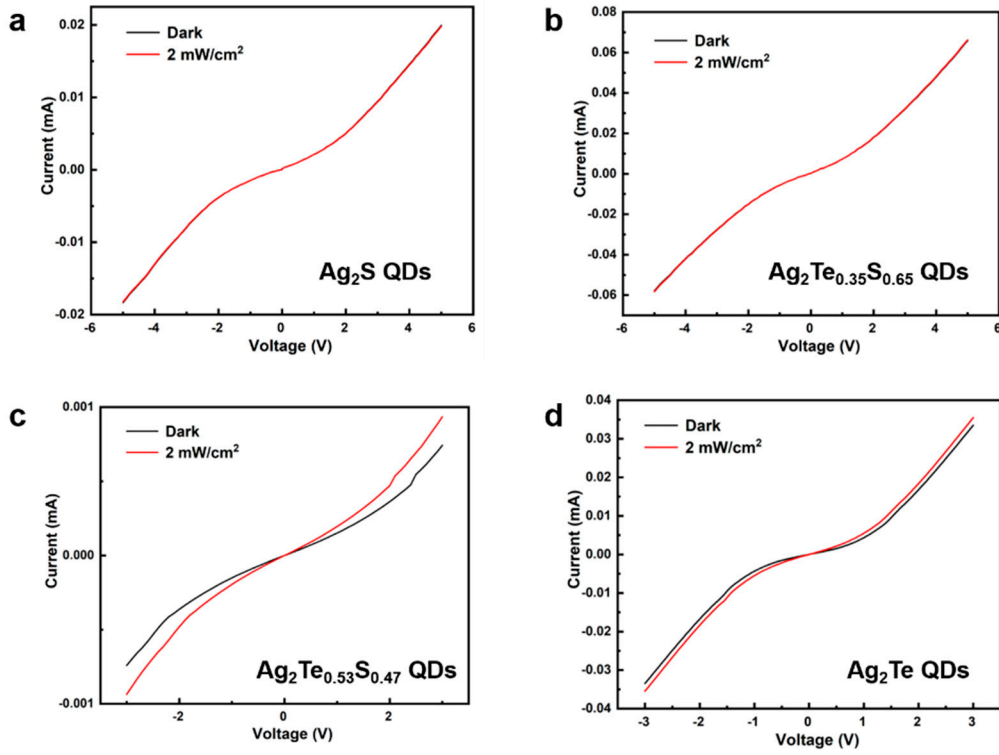


Fig. S4. The I-V characteristics of the fabricated $\text{Ag}_2\text{Te}_x\text{S}_{1-x}$ QD-based PD in dark and under 1350 nm NIR light with power densities of 2 mW/cm^2 : (a) Ag_2S QDs; (a) $\text{Ag}_2\text{Te}_{0.35}\text{S}_{0.65}$ QDs; (a) $\text{Ag}_2\text{Te}_{0.53}\text{S}_{0.47}$ QDs; (d) Ag_2Te QDs.