

Supporting Information

Broadband near-infrared optoelectronic synaptic TFTs enabled by Ag₂S QDs/IGZO composite-channels

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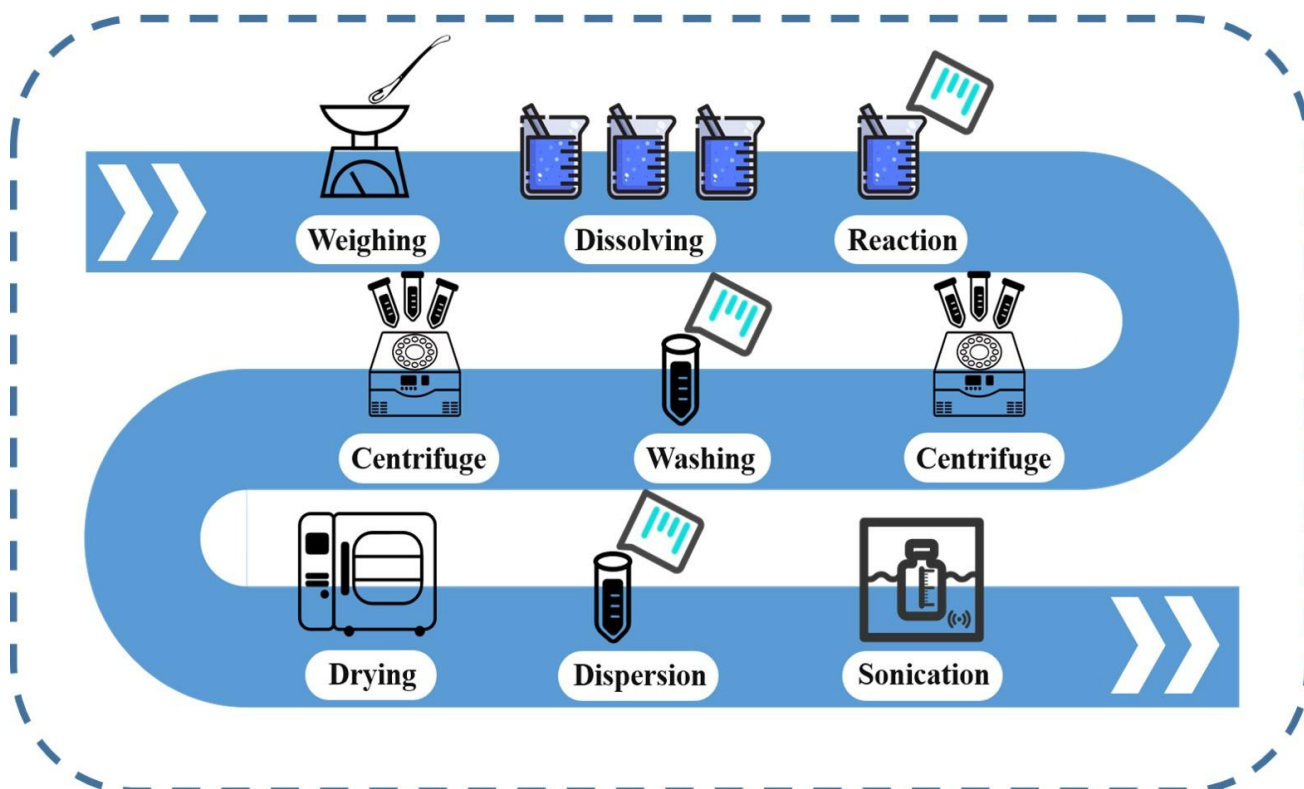


Figure S1. Schematic illustration of the quantum dots preparation process.

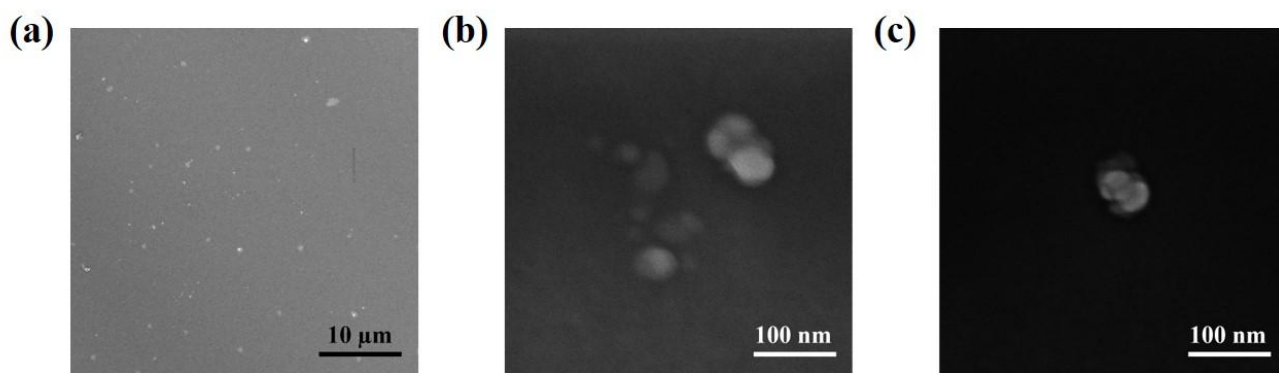


Figure S2. (a) Regional SEM image of Ag₂S QDs. (b) SEM image of a group Ag₂S QDs. (c) SEM image of a single Ag₂S QD.

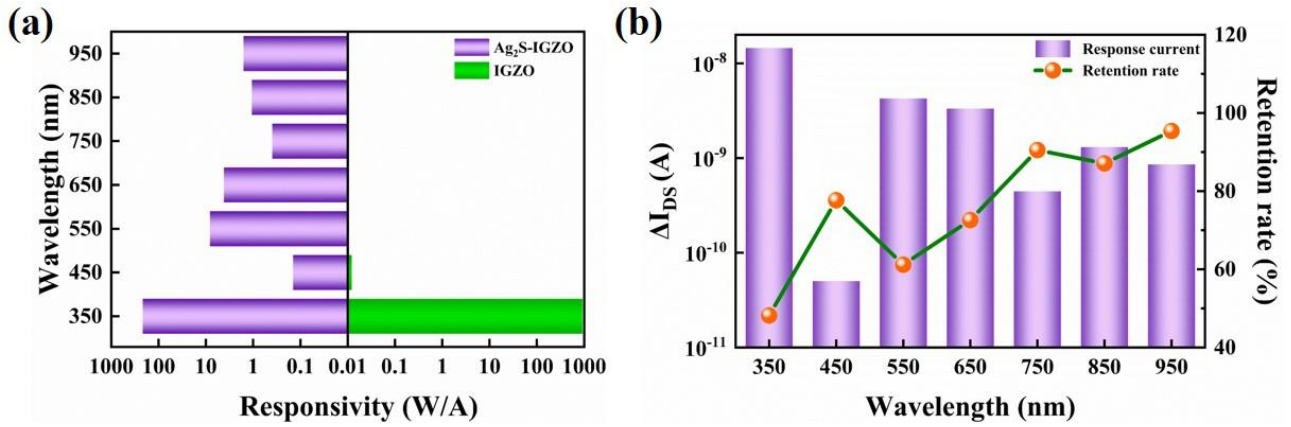


Figure S3. (a) Comparison of responsivity versus wavelength between Ag_2S QDs composite-channel devices and pristine IGZO devices. (b) PSC and PSC retention rate revolution with wavelength of the composite channel devices.

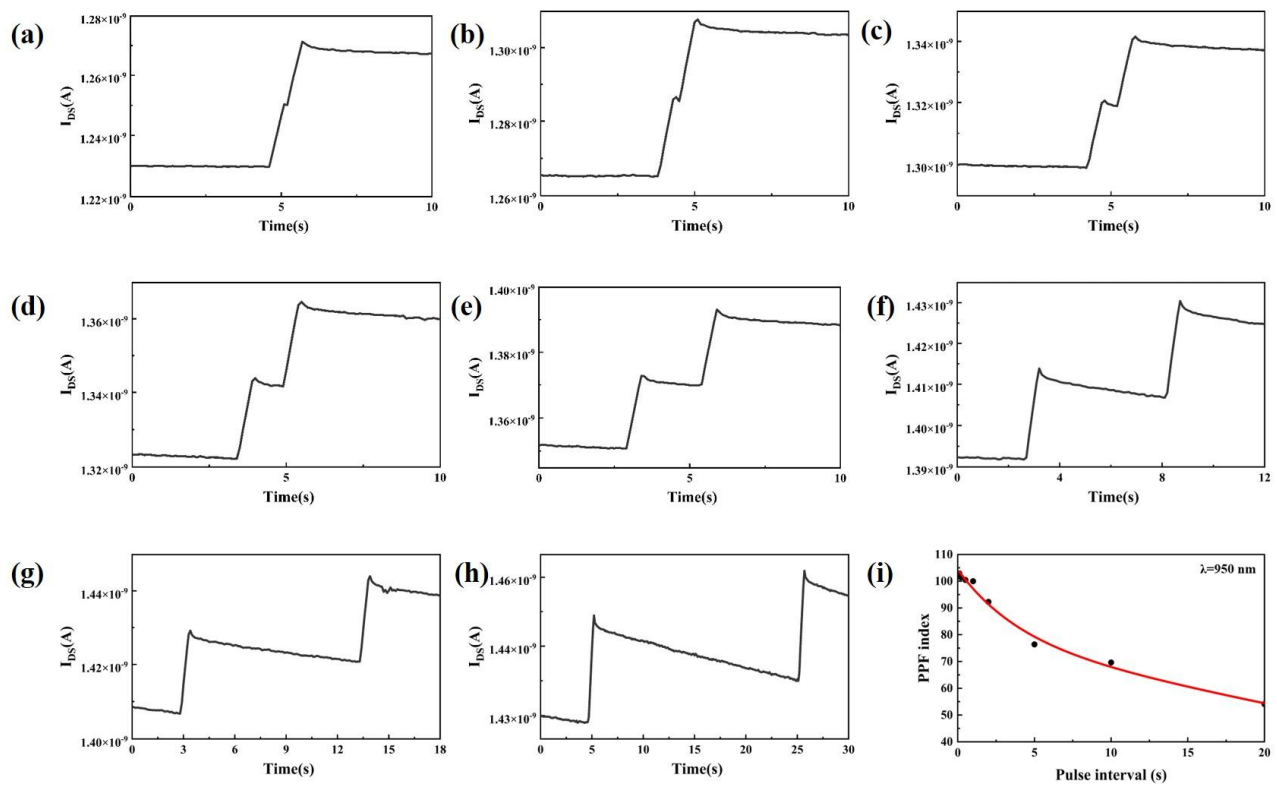


Figure S4. (a)-(h) Series of paired-pulse facilitation plots at different time intervals (0.1 s - 20 s). (i) Fitting curve of the paired-pulse facilitation index versus pulse interval.

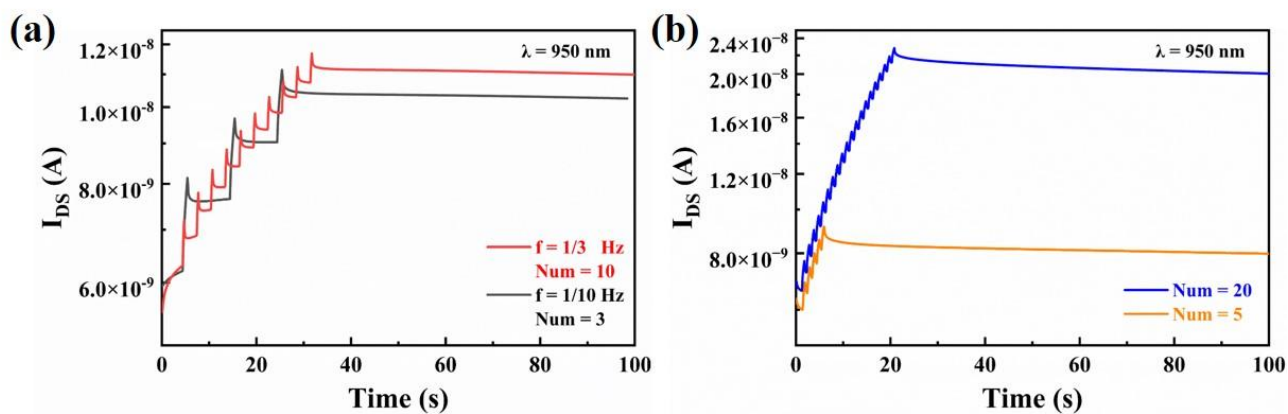


Figure S5. (a) Evolution of PSC with identical light stimulation duration but varying pulse frequencies. (b) Evolution of PSC with fixed pulse frequency but different numbers of pulses.

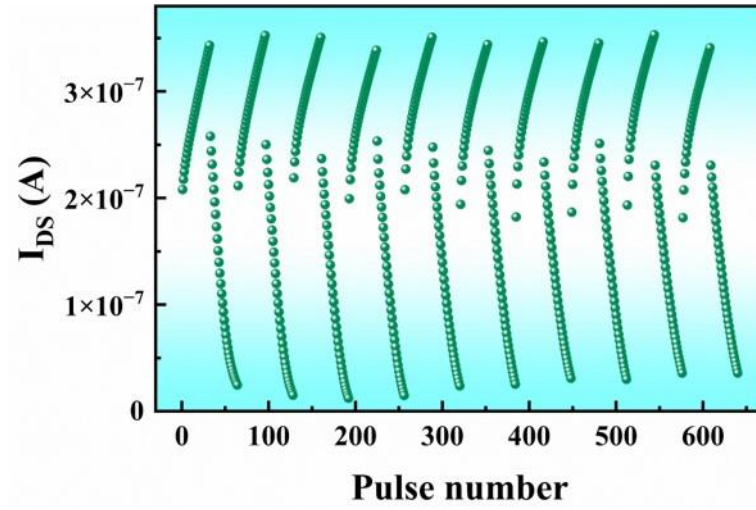


Figure S6. Measurement results of enhancement-suppression data for ten sets of composite channel devices.