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## **Supporting information**

## Narrowband Photoresponse of Self-powered CuI/SrTiO<sub>3</sub> Purple Light Detector with Ultraviolet-Shielding Effect

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Fig. S1. Schematic diagram of the CuI/STO device preparation process.



Fig. S2. The SEM images of CuI film on STO wafer with low magnification.







Fig. S4. The AFM images of the STO wafer.



Fig. S5. XPS spectra of  $SrTiO_3$ , (a) Sr 3d, (b) Ti 2p and (c) O 1s spectrum.