

Supplementary information

Fabrication of solution processed, highly flexible few layer MoS₂ (n)-
CuO (p) piezotronic diode on paper substrate for active analog
frequency modulator and enhanced broadband photodetector

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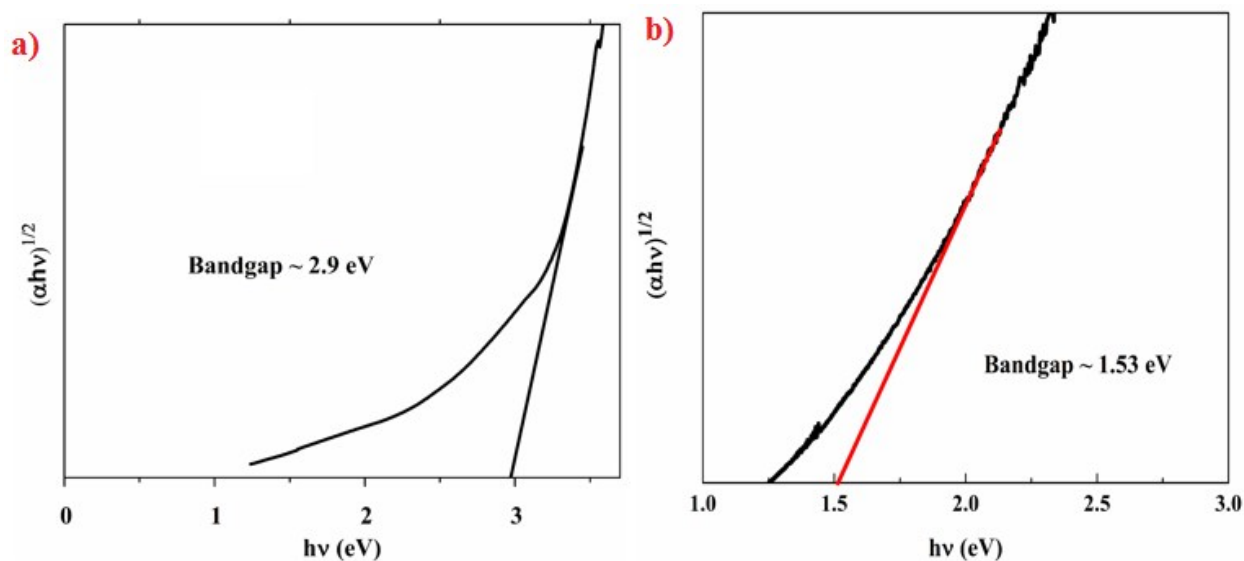


Fig S1: Tauc plot of a) CuO showing optical bandgap value of 2.9 eV b) MoS₂ showing optical bandgap value to be 1.53 eV

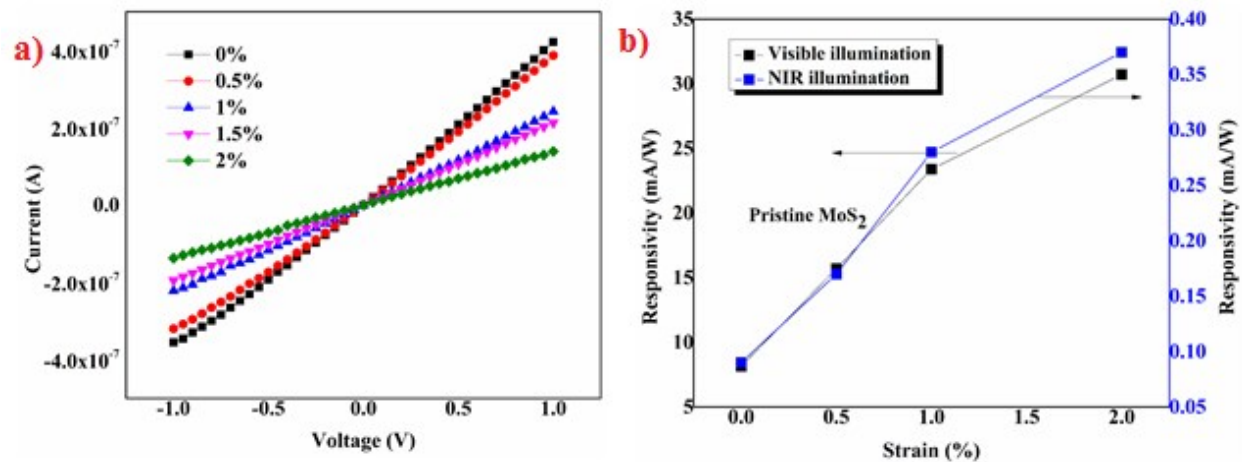


Figure S2: a) I-V characteristic of pristine MoS₂ under strain b) Responsivity of pristine MoS₂ device under visible and NIR illumination

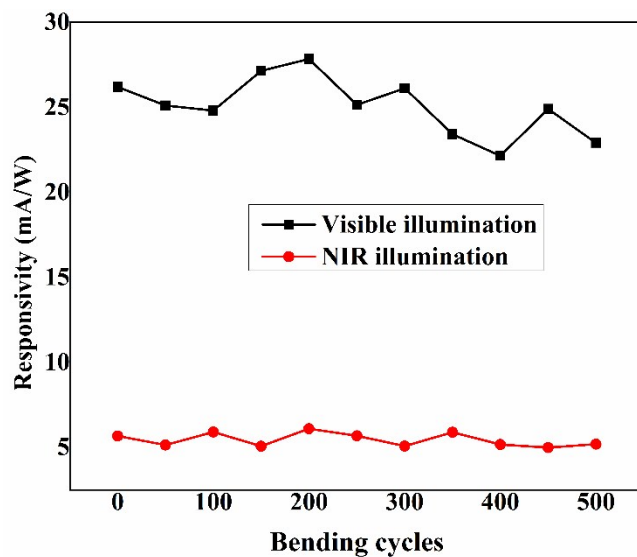


Figure S3: Graph showing the bending cycle test for MoS₂/CuO piezotronic diode demonstrating negligible change in the responsivity values under both visible and NIR illumination