

## Supplementary Information

# Local electrical response in alkaline-doped electrodeposited CuInSe<sub>2</sub>/Cu films.

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Figures S1 to S5 display the averaged IV curves of the 5 CIS films prepared in this work. The error bars account for the standard deviation of the averaged curves. The scans were performed from the negative bias to the positive one, i.e. first forward direction, second the backward direction. The actual hysteresis and x-y displacement are not corrected here. The hysteresis between the curves is due to the charge accumulation observed in the CAFM images that dissipate as bias sweeps back.

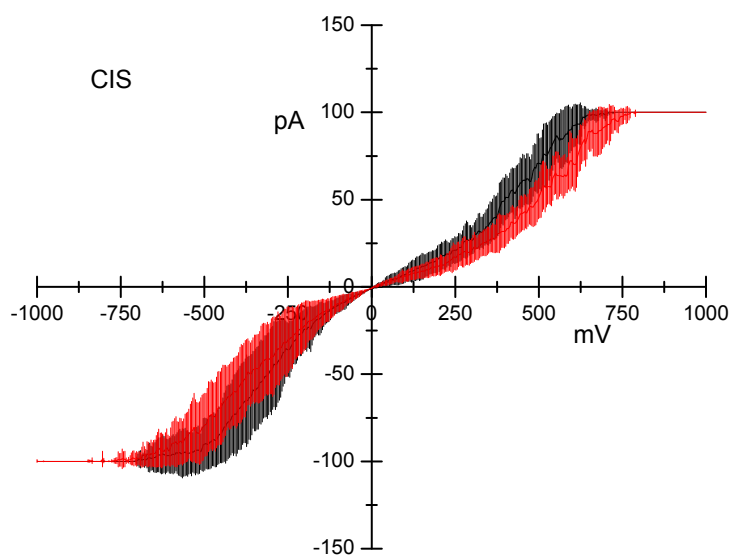


Figure S1. Averaged IV curves of undoped CIS film

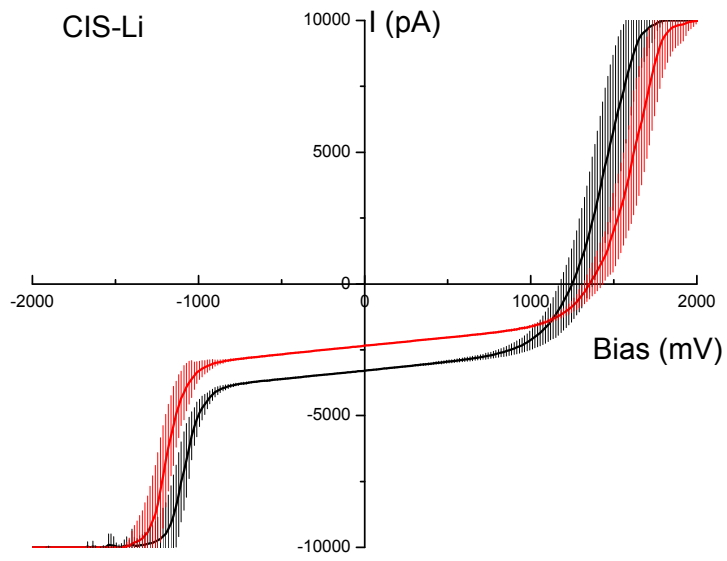


Figure S2. Averaged IV curve of the Li-doped CIS film

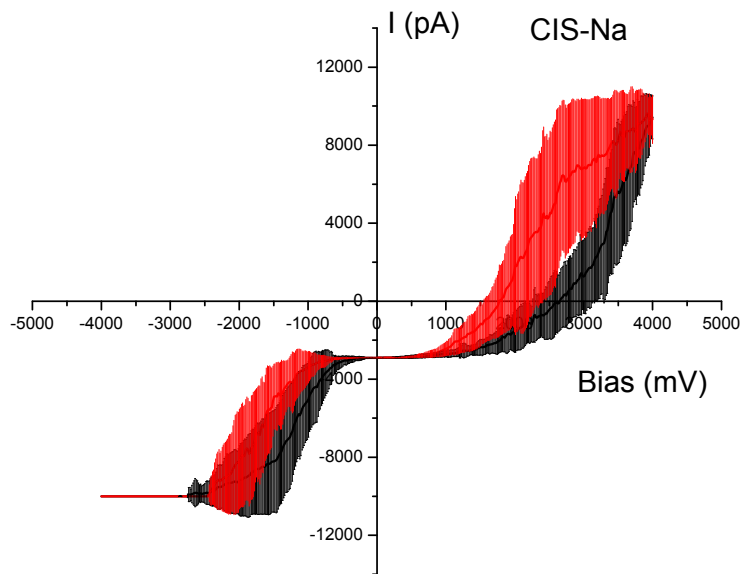


Figure S3. Averaged IV curve of the Na-doped CIS film

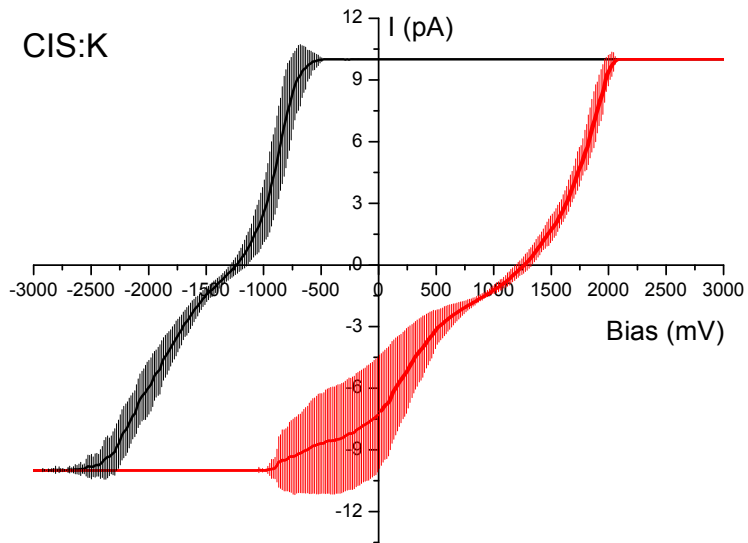


Figure S4. Averaged IV curve of the K-doped CIS film

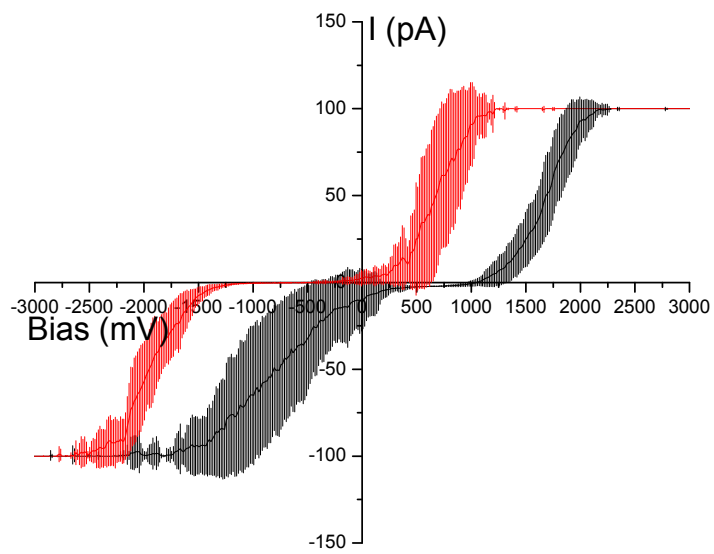


Figure S5. Averaged IV curve of the Cs-doped CIS film