

Supporting Information:

**Novel CuClSe₂ microribbons: microwave-assisted synthesis,
phase transformation and their photo-response properties**

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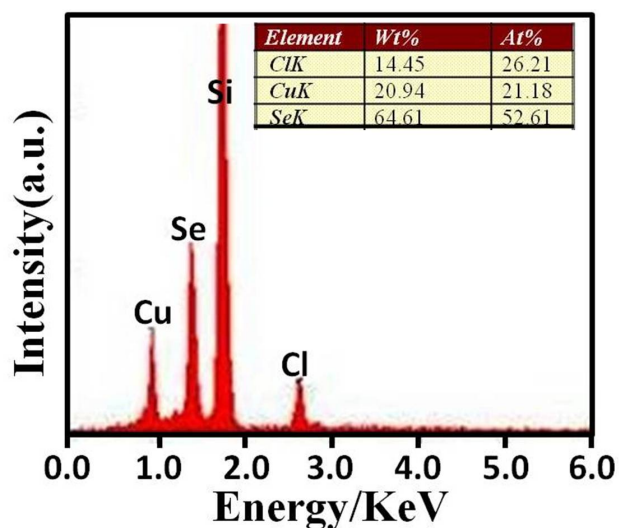


Figure S1. Energy dispersive X-ray spectrum of CuClSe₂ microribbons.

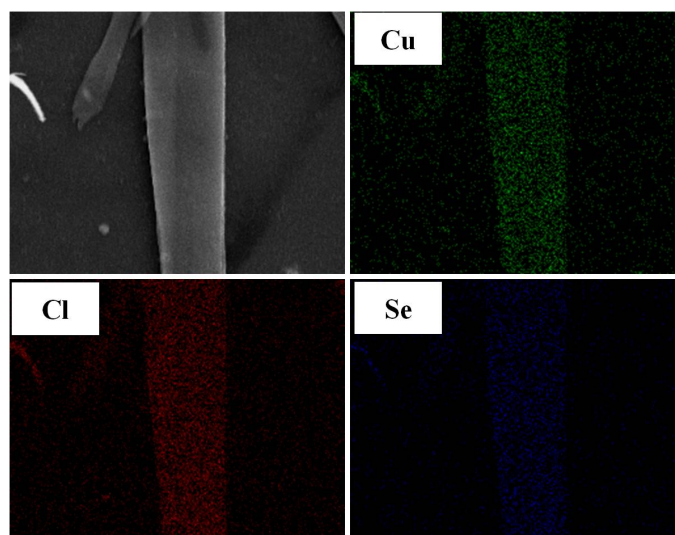


Figure S2. EDS mapping analysis of an individual CuClSe₂ microribbon.

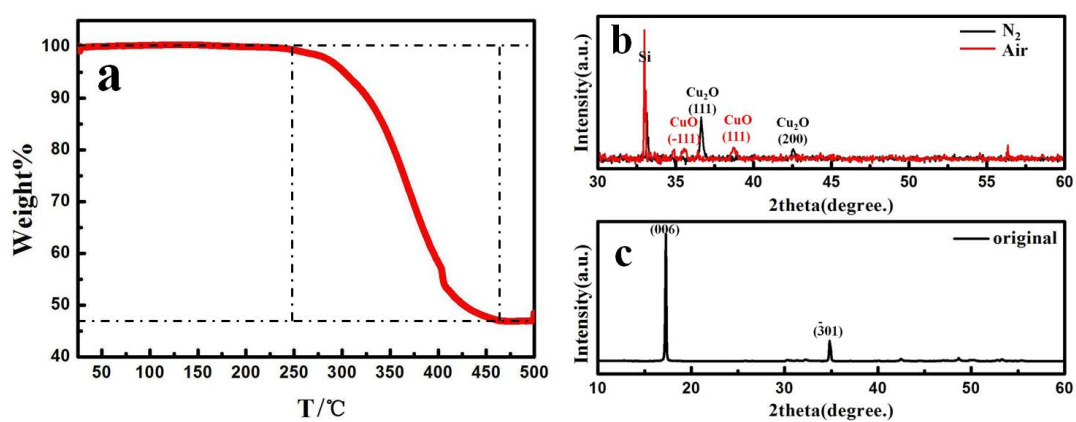


Figure S3. (a) TGA measurement with a heating rate of 10°C/min in N₂. (b-c) XRD patterns of the as-prepared MRs after treatment at selected temperatures in N₂ and air.

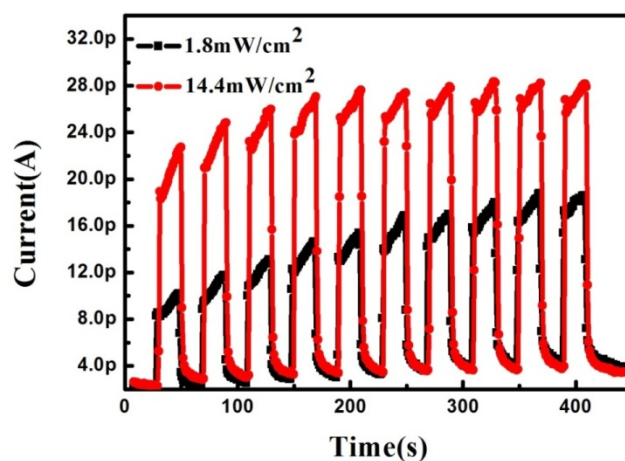


Figure S4. Time-resolved photoresponse curves at a bias of 10 V and an incident light density of 1.8 and 14.4 mW/cm².

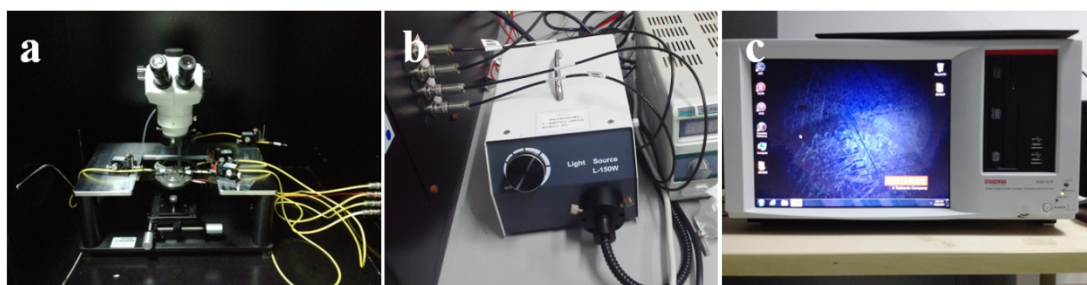


Fig S5. Experimental setup for the photoresponse characteristics: (a) SUSS PM8 probe station; (b) light source; (c) Keithley 4200-SCS.

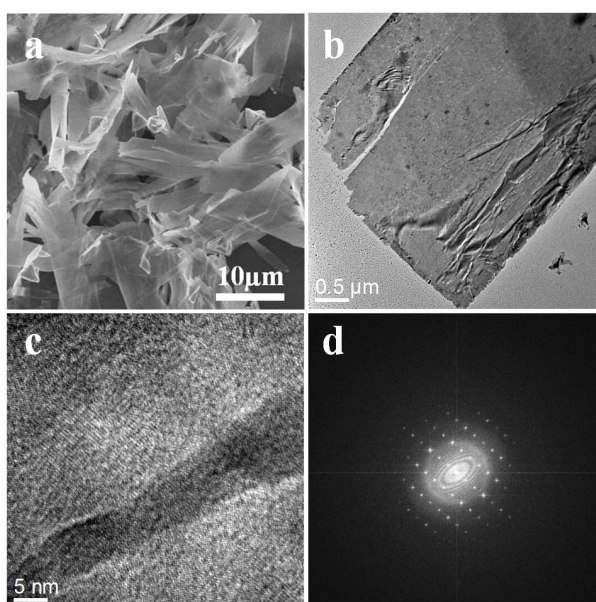


Fig S6. Structural and morphological characterization of copper bromine selenide microribbons: (a) SEM image; (b) TEM image; (c) HR-TEM image; (d) FFT image.