Electronic Supplementary Material (ESI) for Nanoscale.


# Supplementary Information

Photosensing Performance of Branched CdS/ZnO Heterostructures as Revealed by *in situ* TEM and Photodetector Tests

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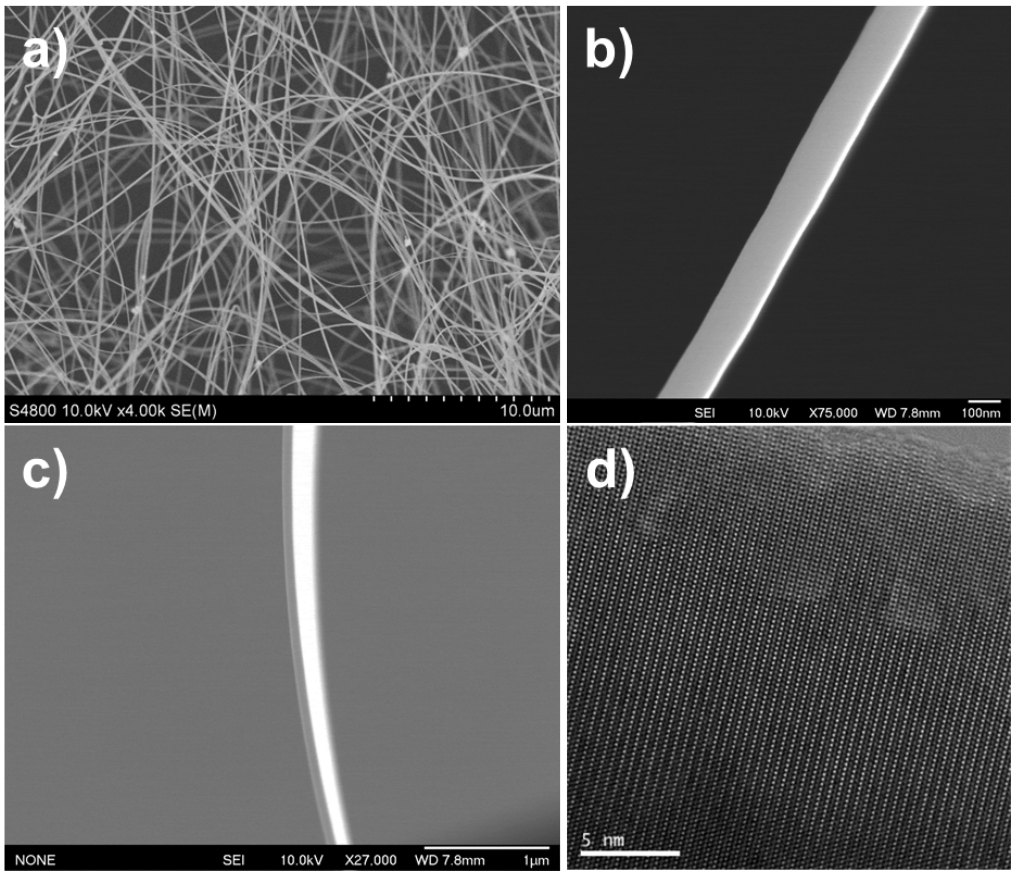


**Figure S1.** Structural characterization of a CdS nanobelt. (a) Low magnification SEM image of CdS nanostructures. (b-c) High magnification SEM images of CdS nanobelts. (d) High-resolution TEM image of the as-synthesized CdS nanobelt.

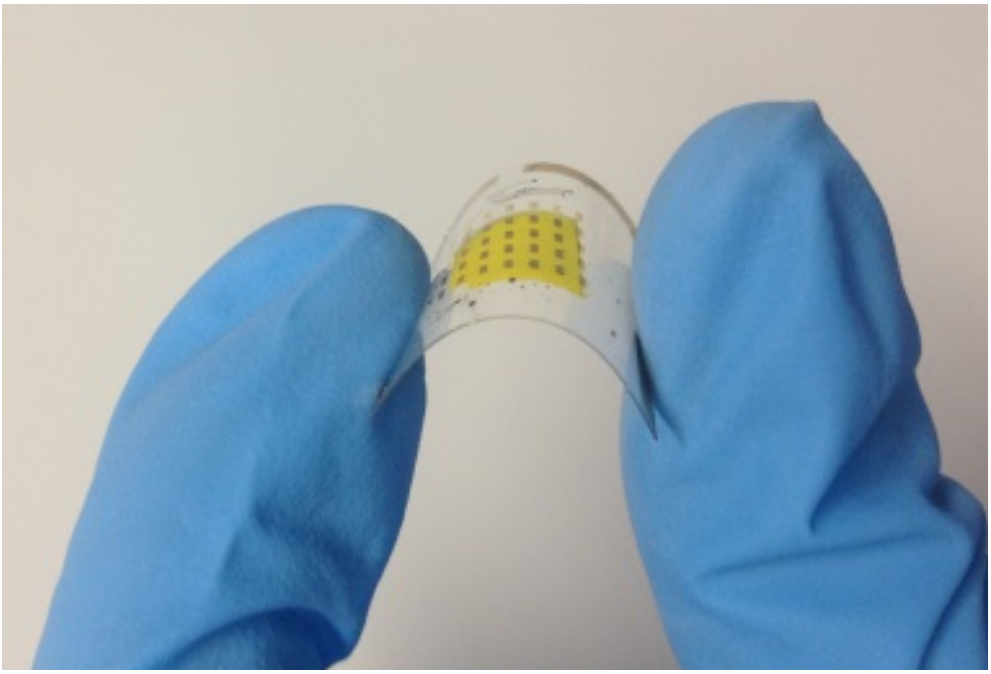

**Figure S2.** Real photo of numerous assembled PET-based flexible CdS/ZnO branched heterostructure photodetector devices.

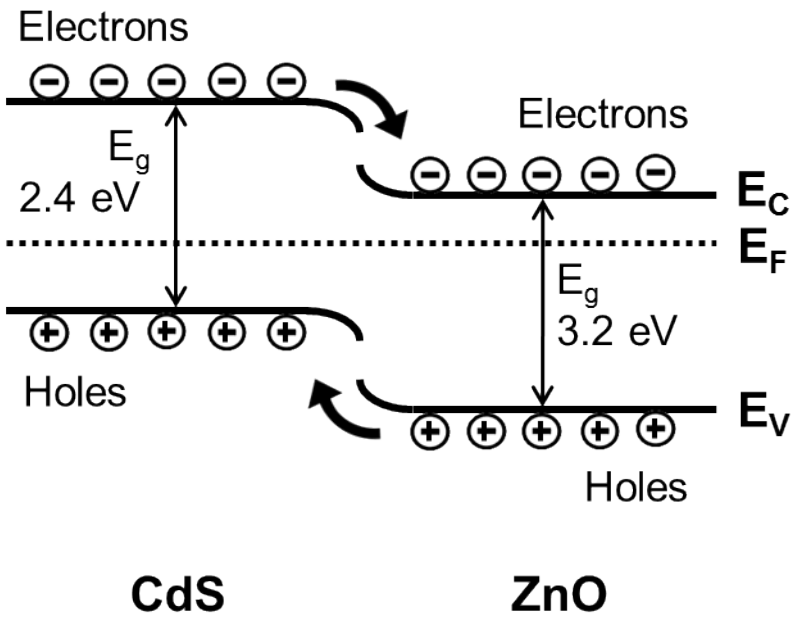


Figure S3. Schematic energy band diagram for CdS/ZnO branched nanostructure under UV illumination, showing electron-hole pair separation.