Electronic Supplementary Information

Nanowire Network-based Photodetectors with Imaging Performance for Omnidirectional Photodetecting through Wire-shaped Structure

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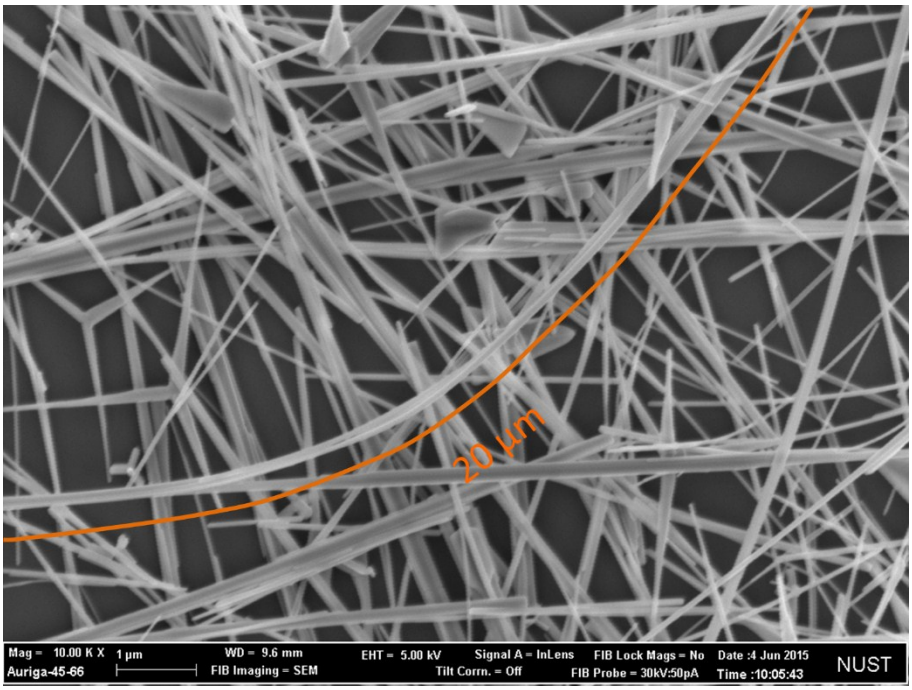

Figure S1. SEM image of ZnO NWs.

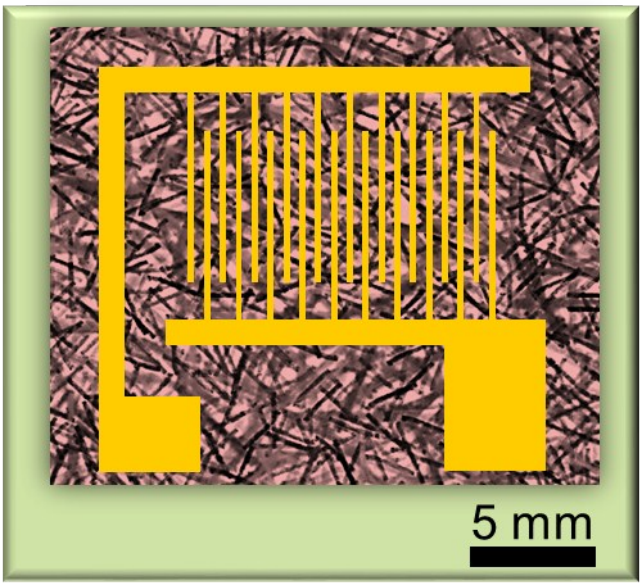

Figure S2. Device structure of ZnO NW network PDs.

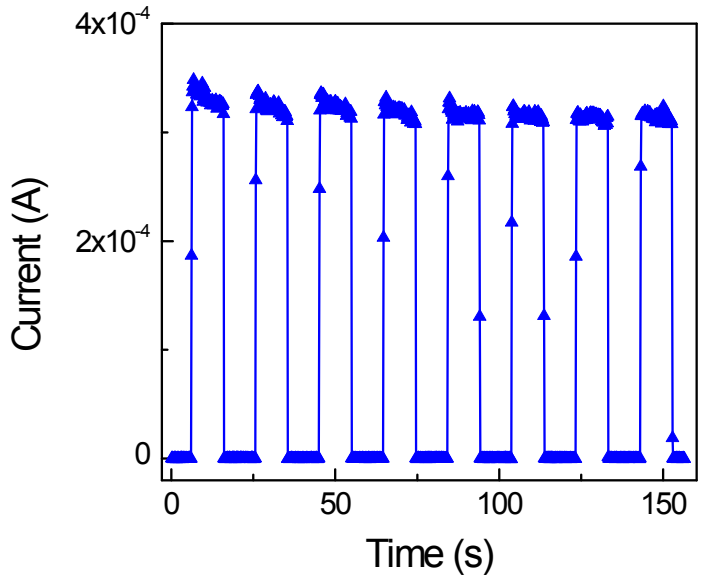

Figure S3. *I-t* curve of ZnO NW network-based PDs.

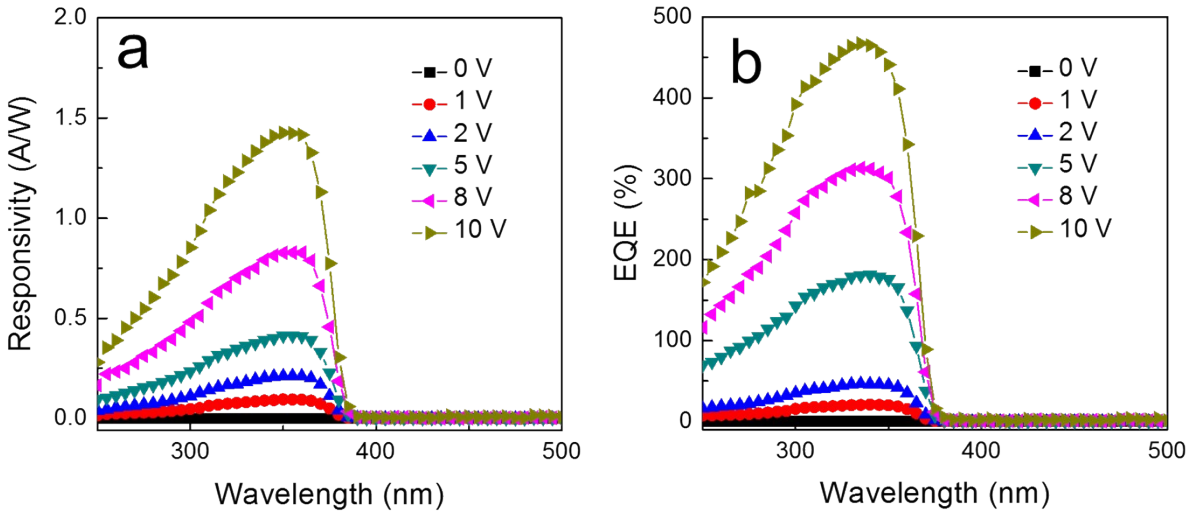

Figure S4. (a) The relationship between responsivity and wavelength at different bias voltages of ZnO NW PD. (b) The relationship between EQE and wavelength at different bias voltages of ZnO NW PD.

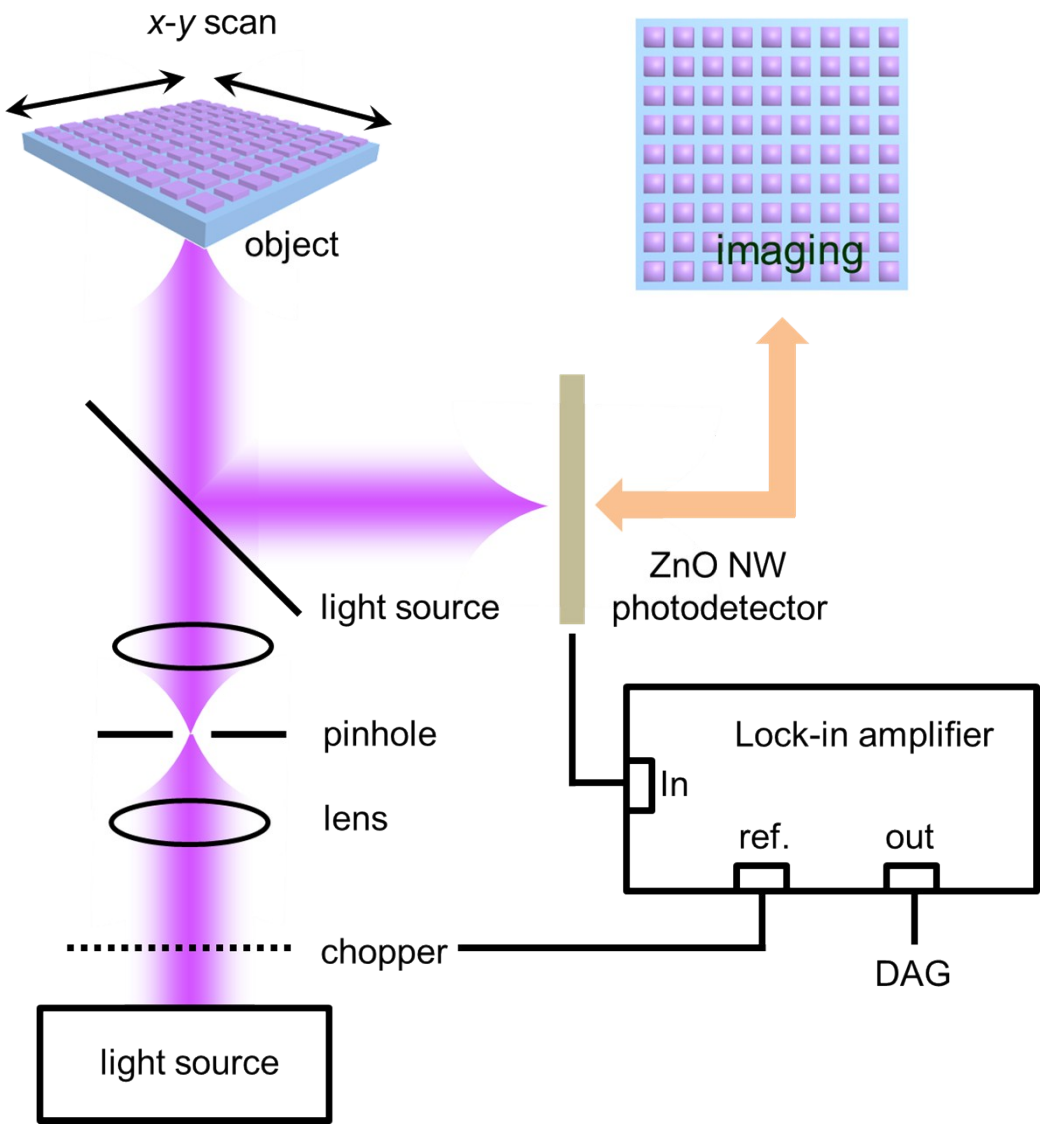

Figure S5. Schematic of the PD imaging setup

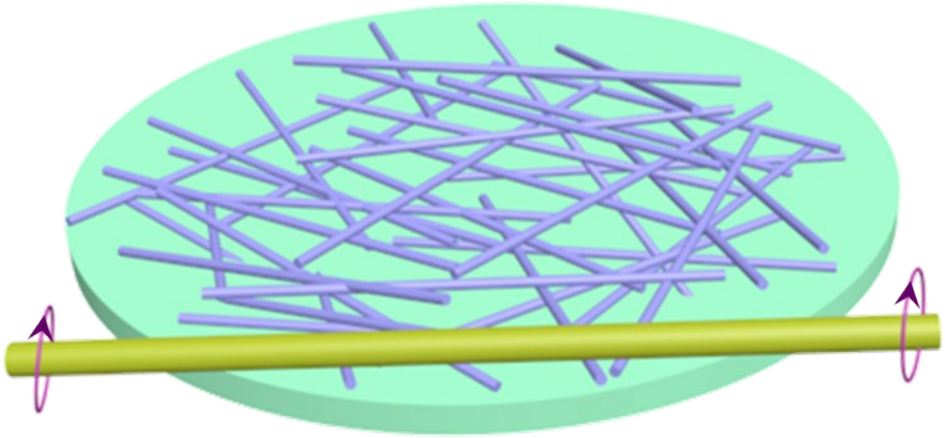

Figure S6. Schematic illustration of the transfer process of ZnO NWs from PVDF filter membrane to KEVLAR wire.

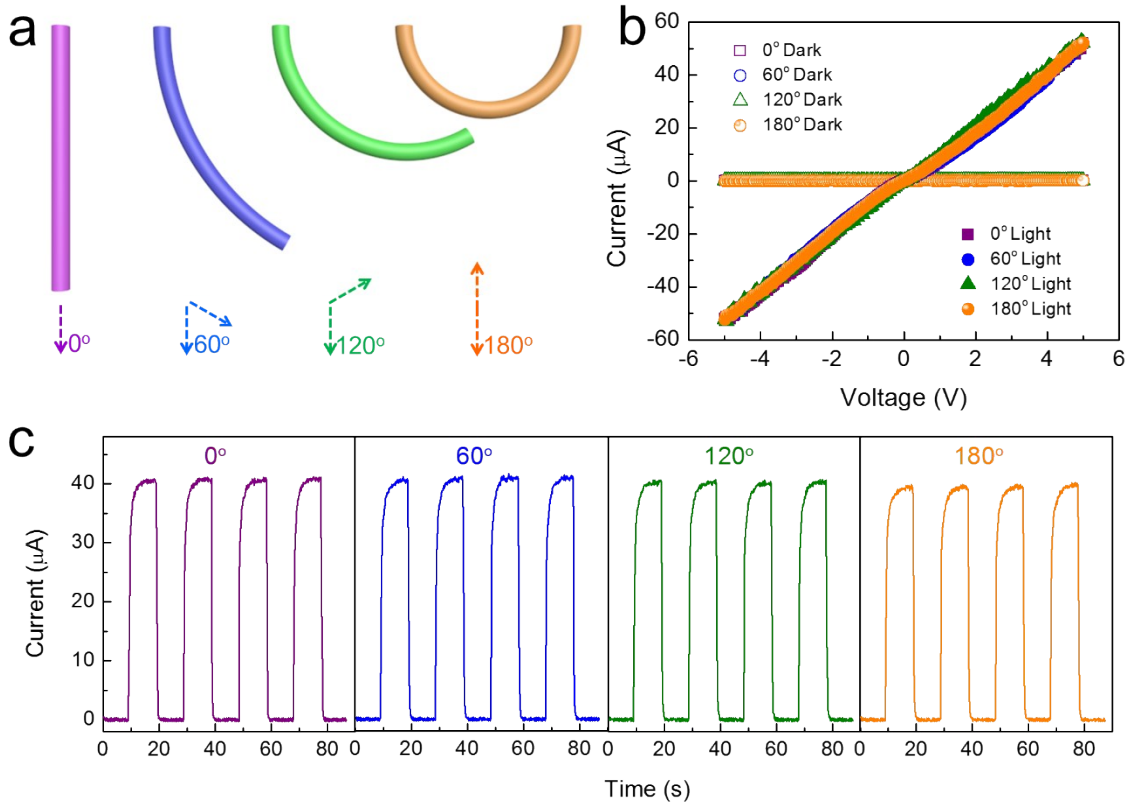

Figure S7. (a) Illustration of different bending angles of the wire-shaped ZnO PDs (b) characteristics of wire-shaped ZnO NW PD under different bending angles in dark and under 365 nm (0.35 mW·cm^{-2}) illumination. (c) *I-t* curves (365 nm, 1 mW·cm^{-2}) of wire-shaped ZnO NW PD under different bending angles.

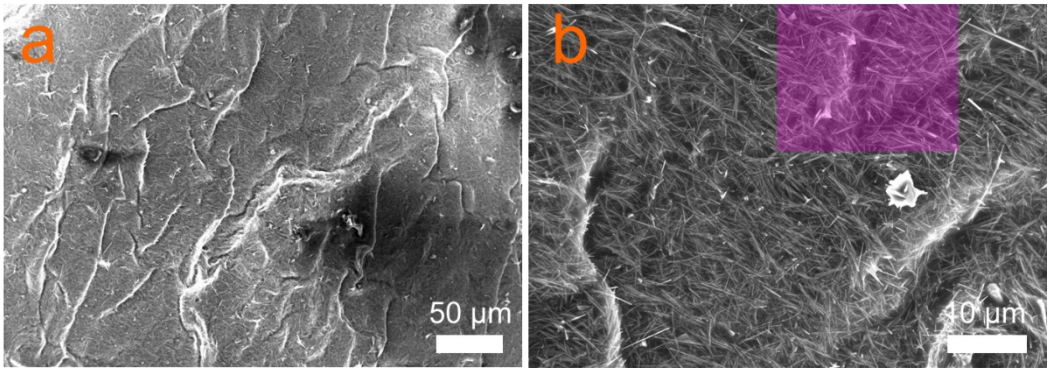

Figure S8. SEM images of wire-shaped ZnO NW PD after 500 times bending.

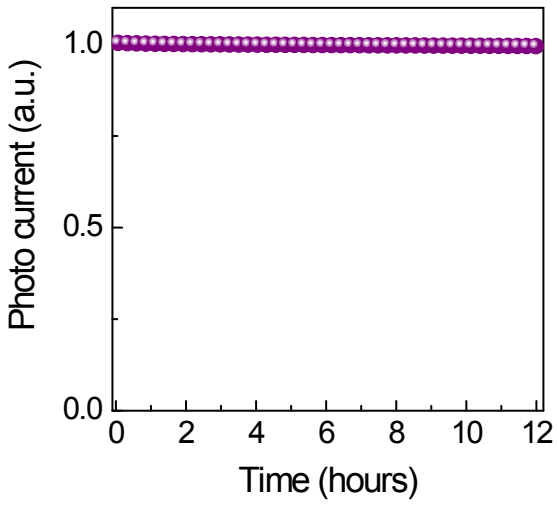

Figure S9. Stability of I_{light} after more than 12 hours irradiation under the power intensity of 0.1 $mW \cdot cm^{-2}$.