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Supplementary Information

From nanofibers to ordered ZnO/NiO heterojunction arrays for self-powered and transparent UV photodetector

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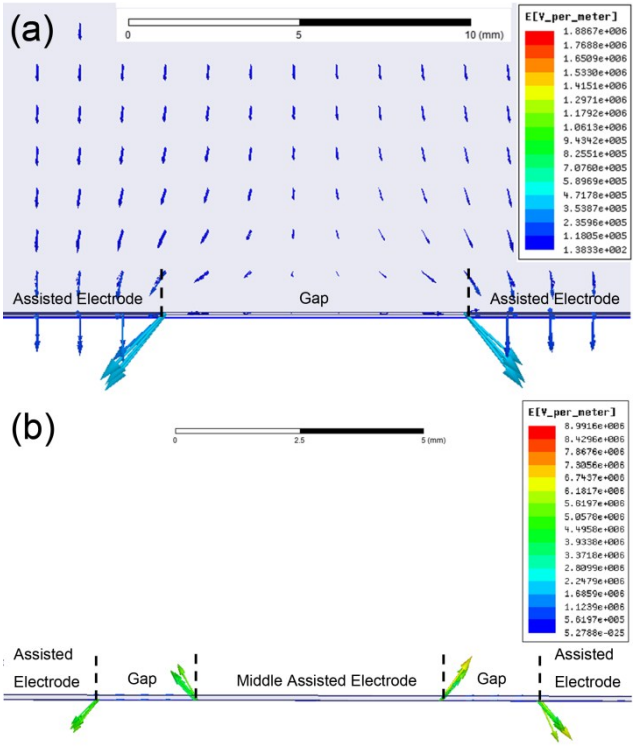

Fig. S1. Side view of simulative electric field distribution when using (a) two assisted electrodes and (b) three assisted electrodes in electrospinning.

Electric field distribution was simulated using the Electrostatic Field Simulation function of ANSYS Maxwell 16.0 software. The electric field strength at the edge of three assisted electrodes was about 5×10^6 V m^{-1}, which was more than one order of magnitude stronger than that of two assisted electrodes (about 4.5×10^5 V m^{-1}).

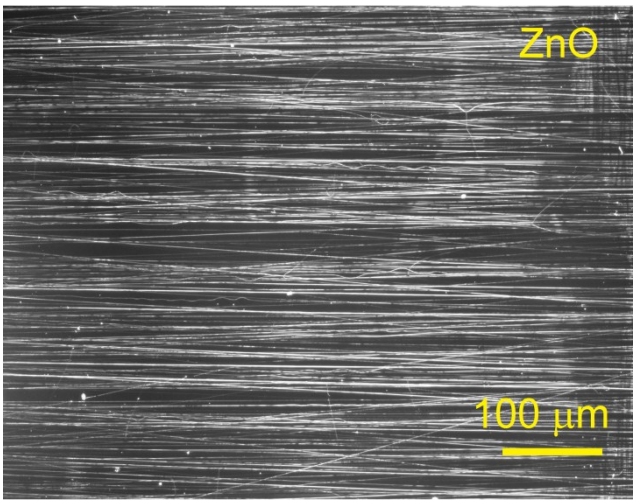

Fig. S2. Optical image of electrospun ZnO nanofiber arrays prepared with three assisted electrodes and 120 s deposition time.

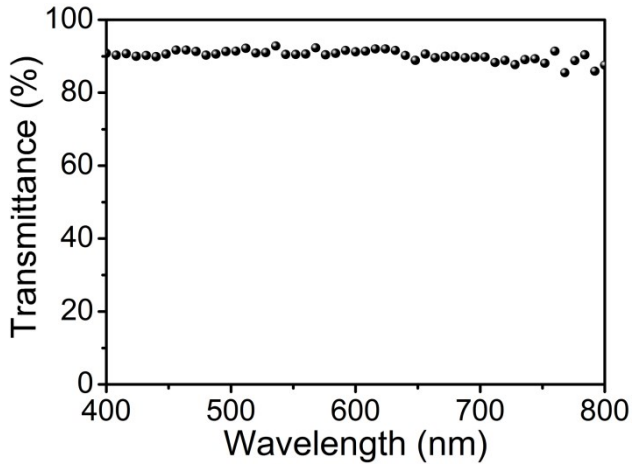

Fig. S3. Transmittance of a bare glass slide used as the substrate of devices in 400-800 nm wavelength range.