## **Supplementary Information for**

## Photoconducting response on bending of individual ZnO nanowires

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## Synthesis and characterization of the ZnO nanowires

The zinc oxide (ZnO) nanowires were prepared by a thermal evaporation process of ZnO powder, as described in the reference. <sup>1</sup> The synthesis process was carried out in a quartz tube with width of 1cm and length of 20cm. The source material was pure ZnO powder that was placed at the closed end of the quartz tube. The other end of the quartz tube was then inserted into a horizontal tube furnace heated 1100 °C. After 30 minutes evaporation, the quartz tube was drawn out from the furnace and cooled down to room temperature. White colour product formed on the inner wall of the quartz tube. Figure 1(a) is a typical scanning electron microscopy (SEM) image of the as-grown ZnO nanowires at a high yield. The lengths of the ZnO nanowire are in the range of several tens to several hundreds of micrometers. The diameters range from several tens to several hundreds of nanometers. A transmission electron microscopy (TEM) image, as shown in Figure 1(b), indicates the high structural uniformity of the ZnO nanowire. The selected area electron diffraction (SAED) pattern (inset of Figure 1(b), left-down) reveals the single-crystalline structure of ZnO nanowire. Furthermore, the axial direction of the nanowire is <0001>. Inset of Figure 1(b) (right-up) is the EDS spectra of the ZnO nanowire, showing the pure ZnO product.



**Figure 1** (a) SEM image of the as-grown ZnO naowires. (b) TEM image of a ZnO nanowire. (inset left) Corresponding electron diffraction pattern, indicating the nanowire grew along [0001]. (inset right) EDS spectrum of the ZnO nanowire.

Reference:

1. Z. W. Pan, Z. R. Dai, and Z. L. Wang, Science, 2001, 291, 1974.