

## Supporting Information

# Phosphorus Concentration Dependent Microstructure and Optical Property of ZnO Nanowires Grown by High-pressure Pulsed Laser Deposition

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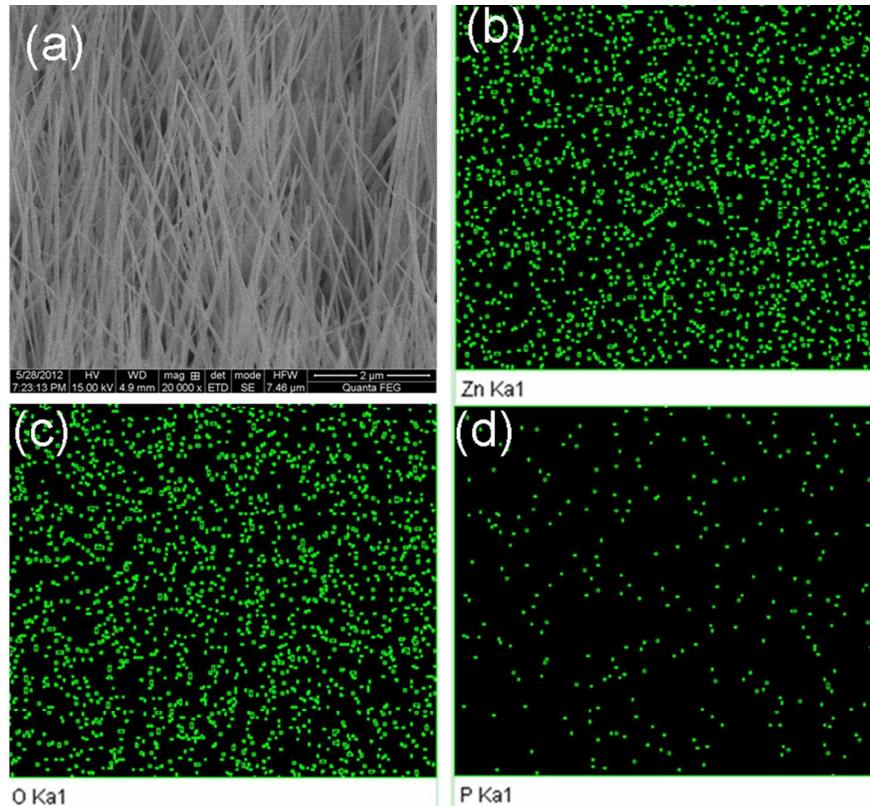
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**Figure S.** (a) SEM image showing the general morphology of P-doped ZnO nanowires (2 wt%), (b-d) elemental maps of Zn, O and P obtained by EDS.

To gain an insight into the existence and distribution of phosphorus element, EDX mappings were measured on a small-area ZnO:P nanowires, as shown in Figure S(a). The corresponding Zn and O elemental mappings were shown in Figure S(b, c), respectively. The brighter points represent a higher concentration of element. The phosphorus intensity of the ZnO:P nanowires in Figure S(d) was almost homogeneous, confirming the incorporation of phosphorus into the nanowires.

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