Synthesis, Characterization and Enhanced Gas Sensing Performance of WO$_3$ Nanotube Bundles

Jin Li, a Junwu Zhu, a Xiaoheng Liu, a*

a Key Laboratory of Education Ministry for Soft Chemistry and Functional Materials, Nanjing University of Science and Technology, Nanjing 210094, China. xhliu@mail.njust.edu.cn

Fig. S1 Histogram showing the size distribution of the WO$_3$ nanotube bundles: (a) diameter, and (b) length of the nanotube bundles.

The nanotube bundles are composed of nanotubes with a relatively regular arrangement, and the average diameter of the nanotube bundles is approximately 80–120 nm, while their lengths were up to 1–4 μm.
Fig. S2 Photoluminescence spectra of the WO₃ powders with different morphology.

The nanotree, nanoplate, nanosheet and nanorod WO₃ were synthesized basing on the following references.

Fig. S3 Response curves of the sensors to ethanol, aceton and the mixture of ethanol and aceton with different concentrations at 300 °C