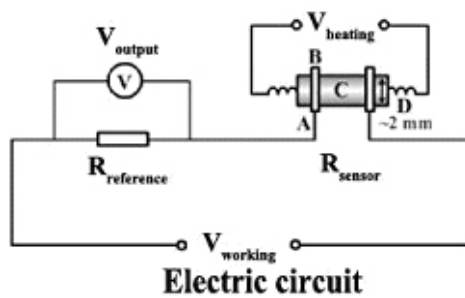


Electronic Supplementary Information for

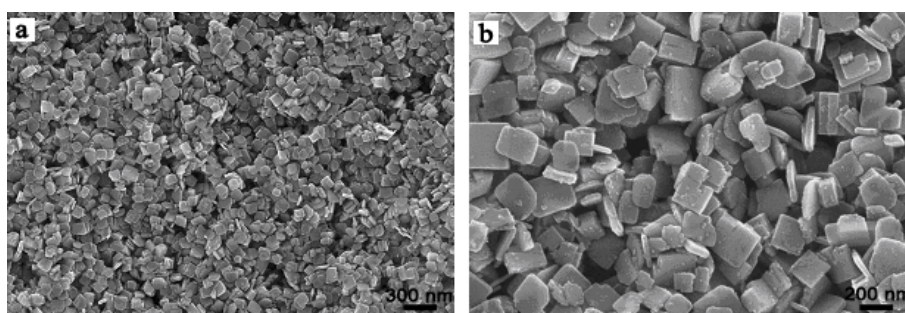
**Carboxyl-directed hydrothermal synthesis of WO<sub>3</sub>  
nanostructures and their morphology-dependent gas-sensing  
properties†**

**Shouli Bai, Kewei Zhang, Song Chen, Ruixian Luo,\* Dianqing Li and Aifan Chen**

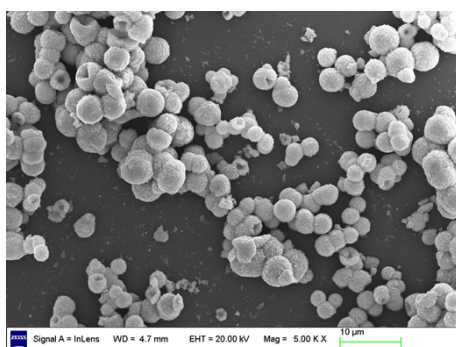
\*Corresponding author:  
Tel.: + 86 010 64961040  
E-mail: luorx@mail.buct.edu.cn



**Fig. S1** Schematic diagram of the test circuit for the gas-sensing measurement.



**Fig. S2** FESEM images of the  $\text{WO}_3$  samples obtained by adding 0.3 g (a) and 0.9 g (b) of citric acid



**Fig. S3** FESEM images of the  $\text{WO}_3$  hierarchical spheres with low magnification.

**Table S1** Physical properties of the  $\text{WO}_3$  with different morphologies after annealing at 600°C.

Sample	BET surface area ( $\text{m}^2/\text{g}$ )	Pore volume ( $\text{cm}^3/\text{g}$ )	Average pore diameter (nm)
0D nanoparticles	58.01	0.18	11.16
2D nanosheets	17.06	0.13	27.99
3D hierarchical spheres	8.58	0.07	32.93