Supporting Information

Fabrication of porous α -Fe₂O₃ nanoshuttles and their application for toluene sensor

Shurong Wang*, Yanshuang Wang, Hongxin Zhang, Liwei Wang, Xueling Gao, Jiedi Yang and Yao Wang

* Tianjin Key Lab of Metal and Molecule-based Material Chemistry, Department of Chemistry, Nankai University, Tianjin, 300071, China.

Fax: +86-22-23502458;

Tel: +86-22-23505896;

E-mail: shrwang@nankai.edu.cn

Supplementary Figures



Fig. S1. The working principle of gas sensor test. (Vc: Test circuit voltage; Vh: Heating voltage;

Vout: Output signal voltage; RL: Load resistance).



Fig. S2. (a) N_2 adsorption–desorption isotherm and (b) BJH pore-size distribution plot (b) of as-prepared α -Fe₂O₃ NSs.



Fig. S3. (a) Low-magnification and (b) high-magnification TEM images of the α -Fe₂O₃ product prepared at 60 °C for 12h.



Fig. S4. (a) Low-magnification and (b) high-magnification TEM images of the α -Fe₂O₃ product prepared at 100 °C for 12h.