Electronic Supplementary Material (ESI) for CrystEngComm.
This journal is © The Royal Society of Chemistry 2015

Supporting Information for

Controlled synthesis and gas sensing properties of porous Fe_2O_3/NiO hierarchical nanostructures

Xiaoping Shen,*[a] Qiang Liu,[a] Zhenyuan Ji,[a] Guoxing Zhu,[a] Hu Zhou[b] and Kangmin Chen[c]

[a] *School of Chemistry and Chemical Engineering, Jiangsu University, Zhenjiang 212013, P. R. China*

b *School of Material Science and Engineering, Jiangsu University of Science and Technology, Zhenjiang 212003, P. R. China*

c *School of Material Science and Engineering, Jiangsu University, Zhenjiang 212013, P. R. China*

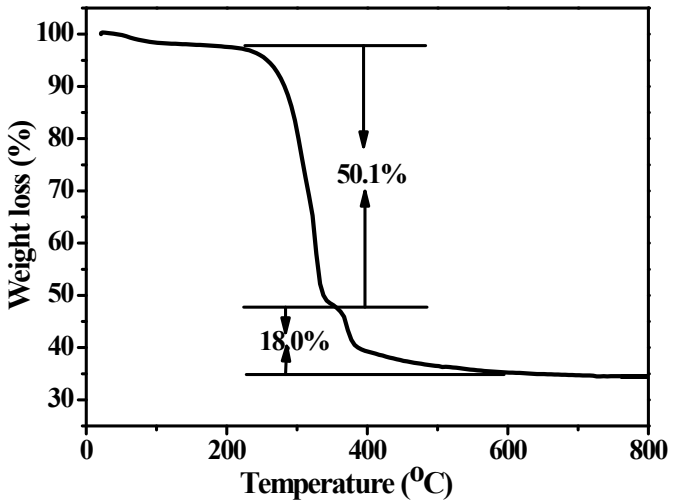

Fig. S1 TG curve of the precursor of $Fe(3\text{-}Clpy)_2[Ni(CN)_4]$.

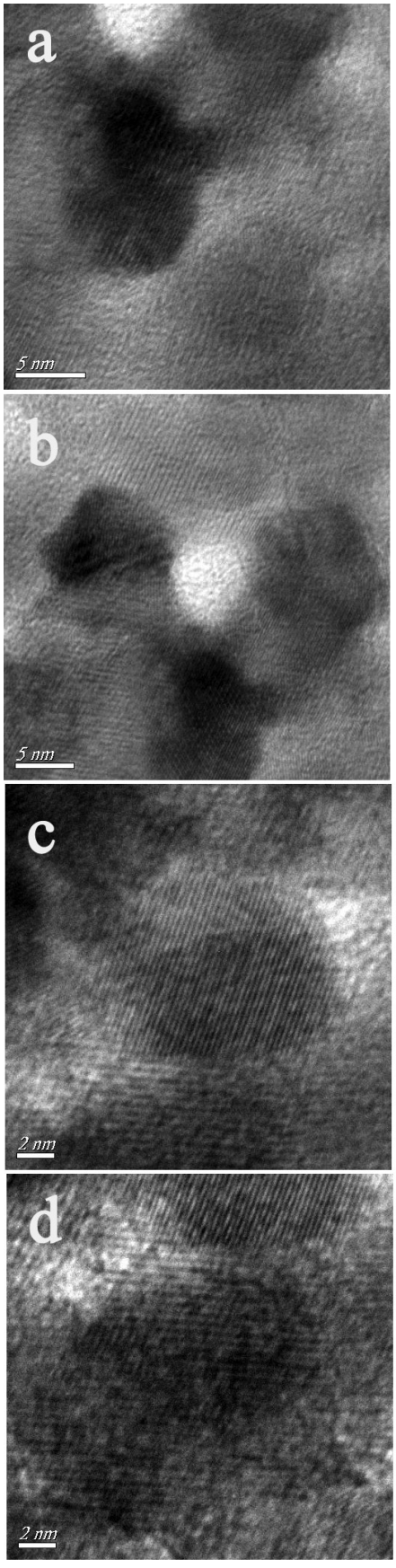
a
5 nm
b
5 nm
c
2 nm
d
2 nm

Fig. S2 HRTEM images of the cuboid-like Fe_2O_3/NiO nanocomposite.

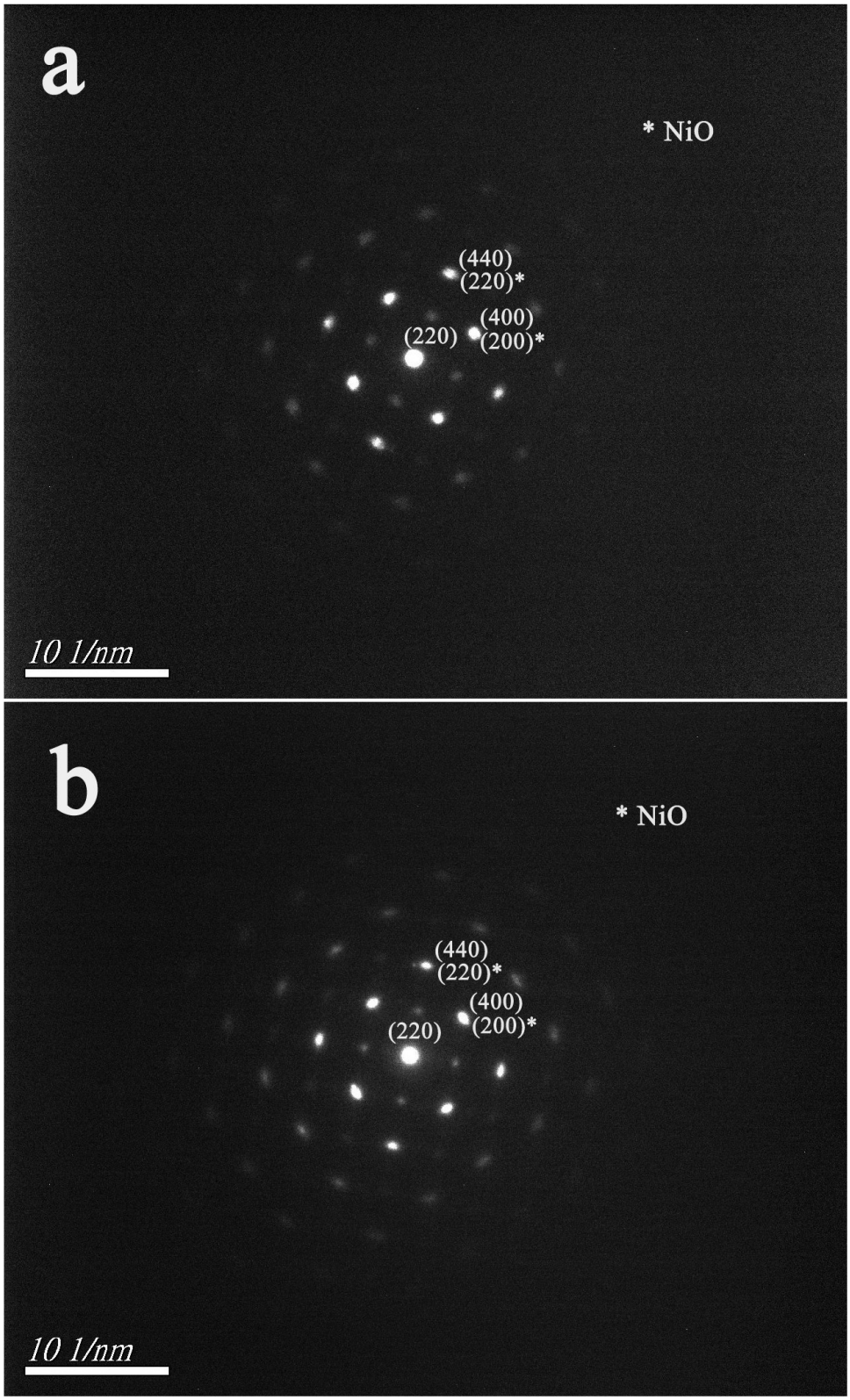

Fig. S3 SAED patterns of the cuboid-like Fe_2O_3/NiO nanocomposite.

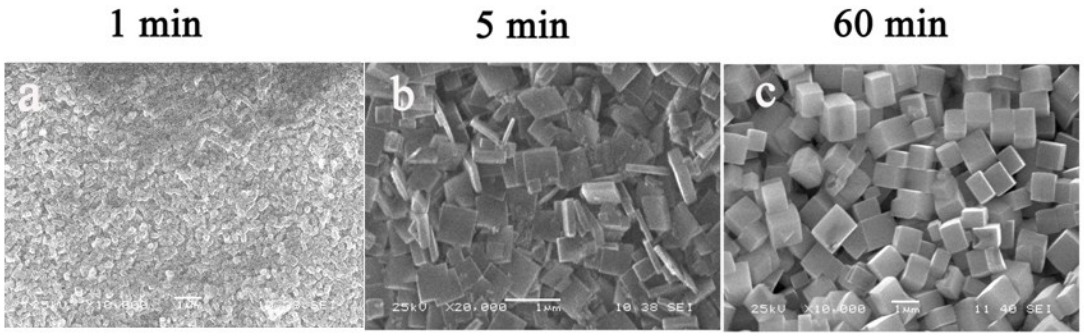

Fig. S4 SEM images of the precursor products obtained at different reaction times.

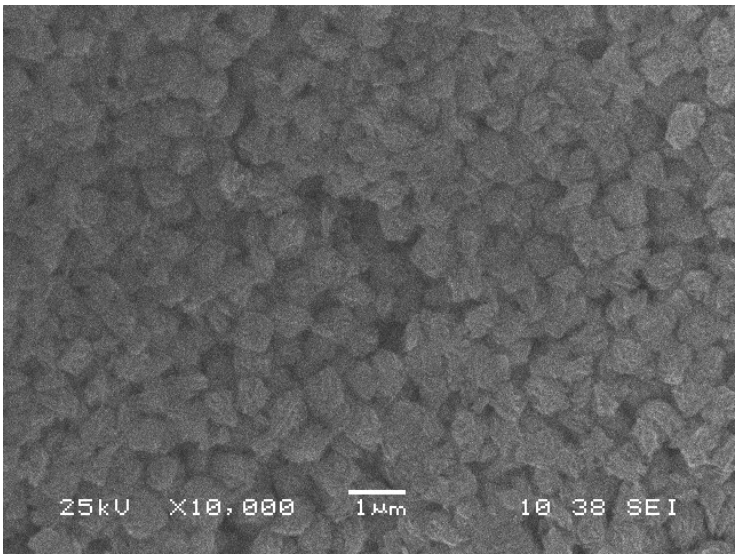

Fig. S5 SEM image of the precursor product obtained at reaction time of 1 min in the presence of PEG.

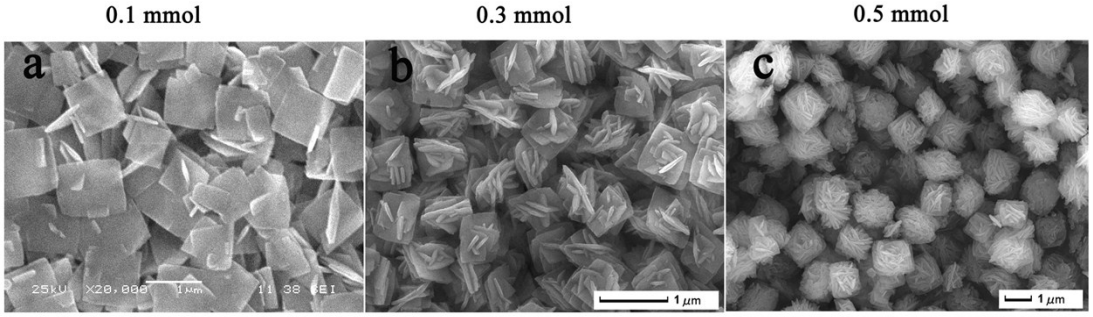

Fig. S6 SEM images of the precursor products obtained with different amounts of $K_2[Ni(CN)_4]$ in the presence of PEG (the molar ratios of $K_2[Ni(CN)_4]$ /3-Clpy / $Fe(BF_4)_2 \cdot 6H_2O$ / PEG = 1:2:1:10).

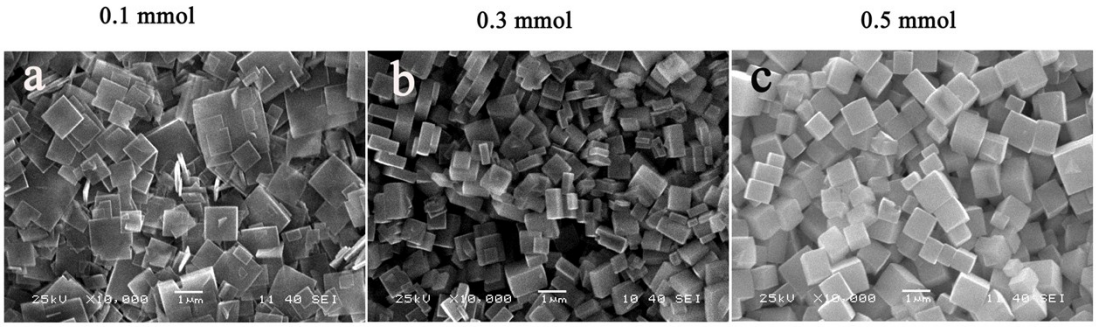

Fig. S7 SEM images of the precursor products obtained with different amounts of $K_2[Ni(CN)_4]$ without PEG (the molar ratios of $K_2[Ni(CN)_4]$ / 3-Clpy / $Fe(BF_4)_2 \cdot 6H_2O$ = 1:2:1).

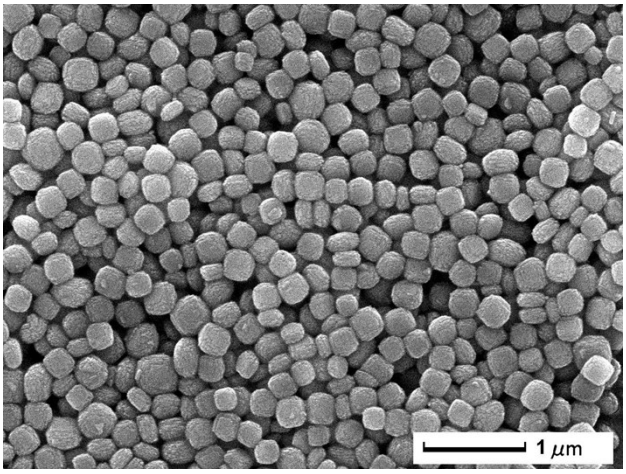

Fig. S8 SEM image of the precursor product synthesized with the same condition as the flower-like precursor except for using PVP (5 mmol) instead of PEG as the surfactant.