

Supporting Information

Wet chemical Synthesis and magnetic properties of core-shell nanocolumns of Ni(OH)₂@Co(OH)₂ and their oxides

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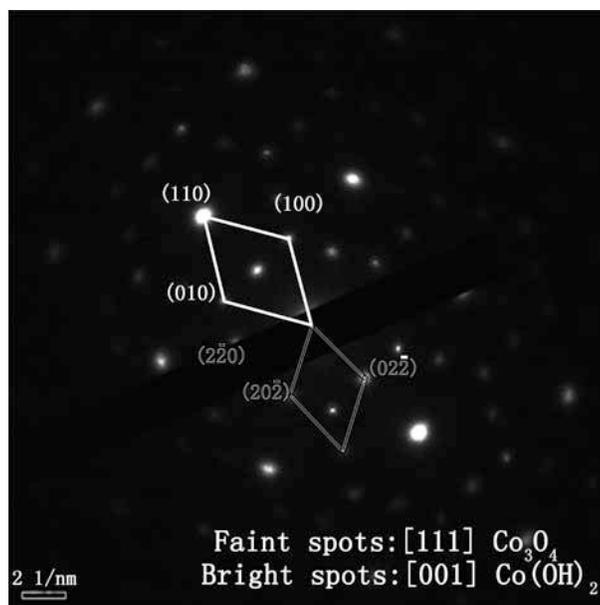


Figure S1. SAED image of the edge of as-prepared Ni(OH)₂@Co(OH)₂ nanocolumns after long time irradiating. The image shows two sets of diffraction patterns, which represents two sets of crystal structures. The bright one belongs to Co(OH)₂ along the [001] direction, and another were due to Co₃O₄ along the [111] direction.

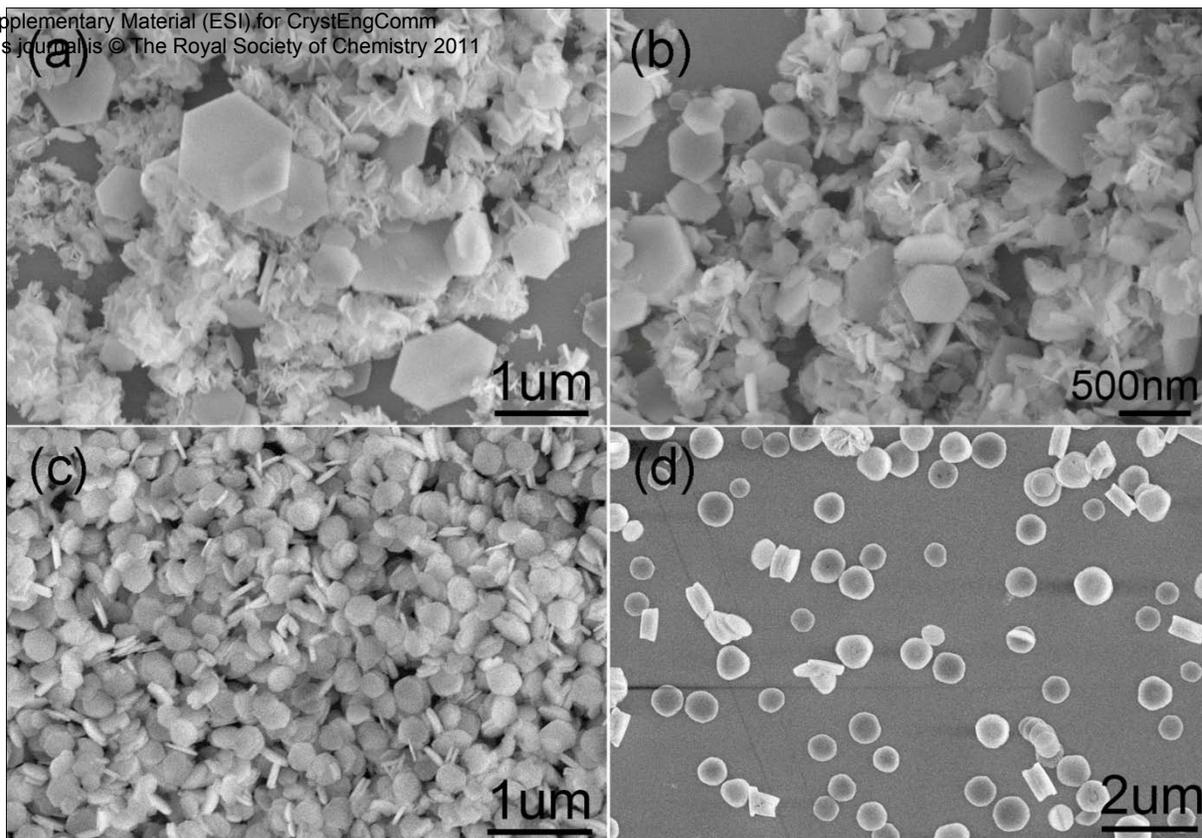


Figure S2. SEM images of the as-prepared samples with the different initial amount of $N_2H_4 \cdot H_2O$. (a) 0.1 mL; (b) 0.25 mL; (c) 0.5 mL; (d) 3 mL.

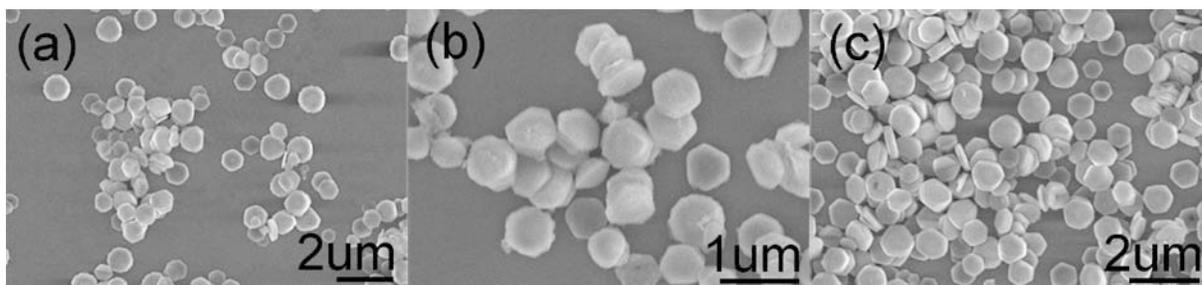


Figure S3. SEM images of the as-prepared samples with the different amount of $N_2H_4 \cdot H_2O$ after adding $CoCl_2$: (a) 3 mL (c) 4 mL (d) 5 mL.

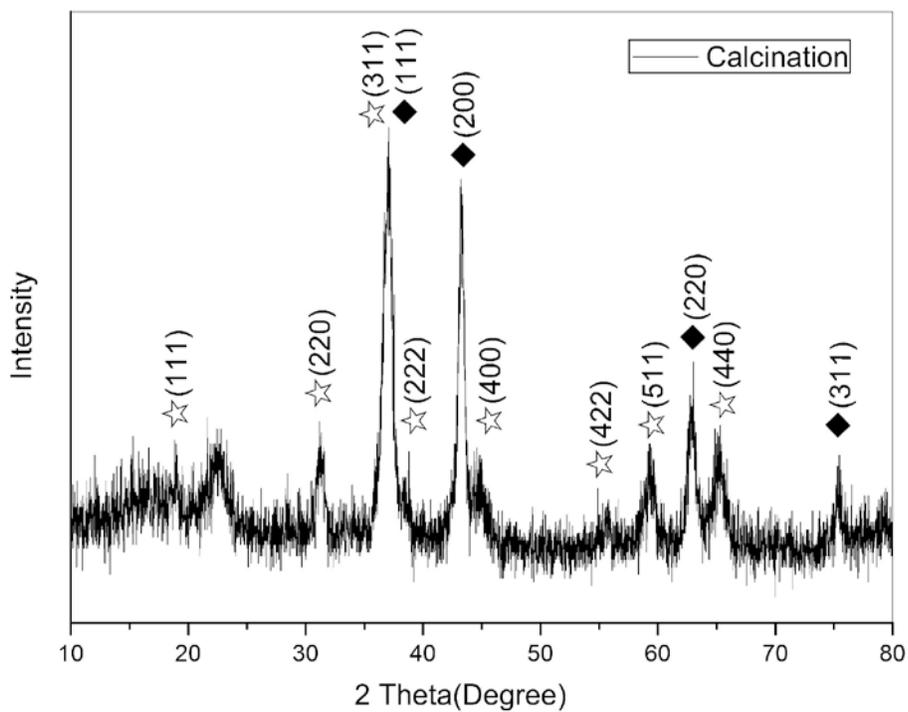


Figure S4. XRD image of the calcination. The diffraction peaks, marked with pentacles, can be indexed to the pure fcc Co₃O₄ (JCPDS No. 42-1467), and those marked with diamonds can be indexed to the pure fcc NiO (JCPDS No. 47-1049).