Electronic Supplementary Information

Novel three-dimensional $NiCo_2O_4$ hierarchitectures: solvothermal synthesis and electrochemical properties

Cuihua An, Yijing Wang,*Yanan Huang, Yanan Xu, Changchang Xu, Lifang Jiao and Huatang Yuan

Institute of New Energy Material Chemistry, Key Laboratory of Advanced Energy Materials Chemistry (MOE), The Co-Innovation Center of Chemistry and Chemical Engineering of Tianjin, Tianjin Key Lab on Metal and Molecule-based Material Chemistry, Nankai University, Tianjin 300071, China.

*Corresponding author. Tel.: +86 22 23503639 Fax: +86 22 23503639
Email Address: wangyj@nankai.edu.cn

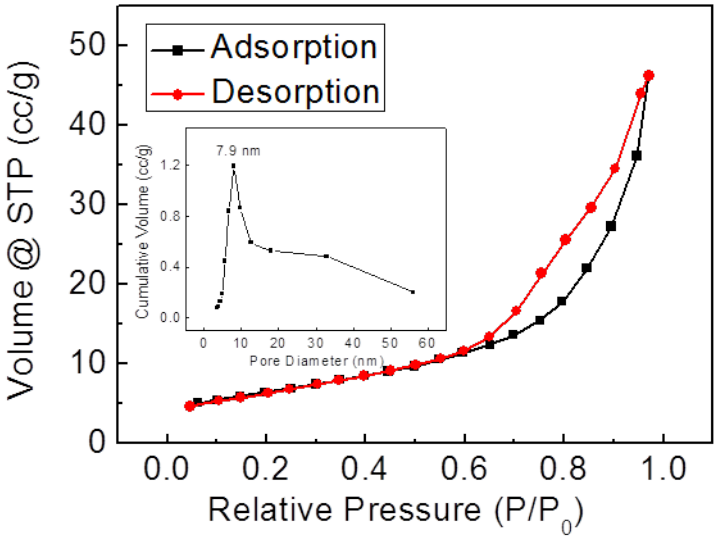

Fig.S1 Nitrogenadsorption and desorption isotherms and its corresponding pore size distribution curves of the as-prepared $NiCo_2O_4$ hierarchitectures.

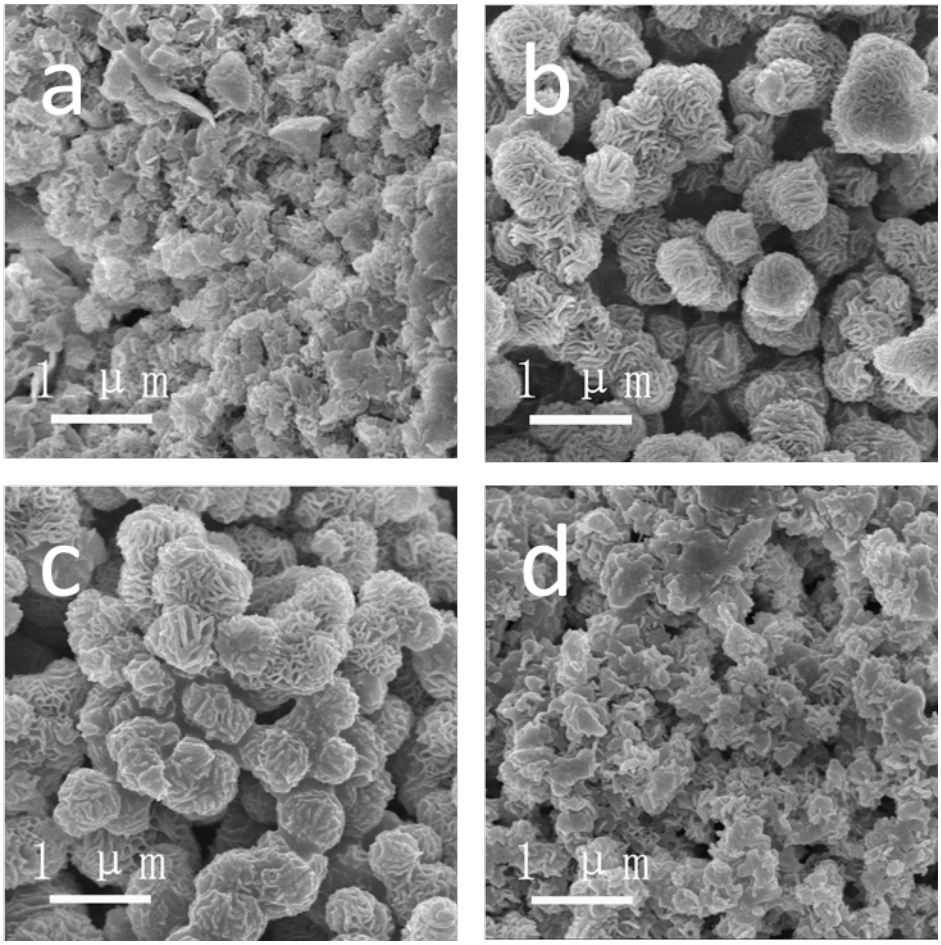

Fig.S2 SEM images of the precursors prepared with different amount of the surfactant PVP of 0 g (a), 0.05 g (b), 0.09 (c) and 0.13 g (d).

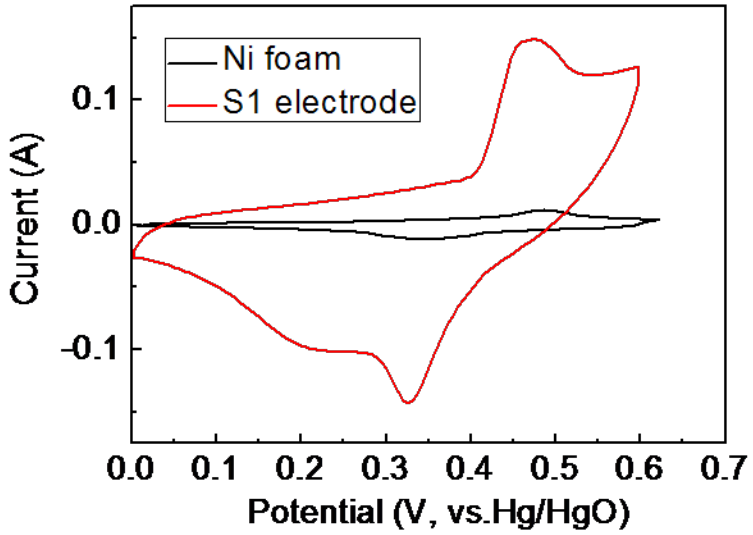

Fig.S3 The CV curves of Ni foam with and without loading of $NiCo_2O_4$ materials, 50 mV s^{-1}.

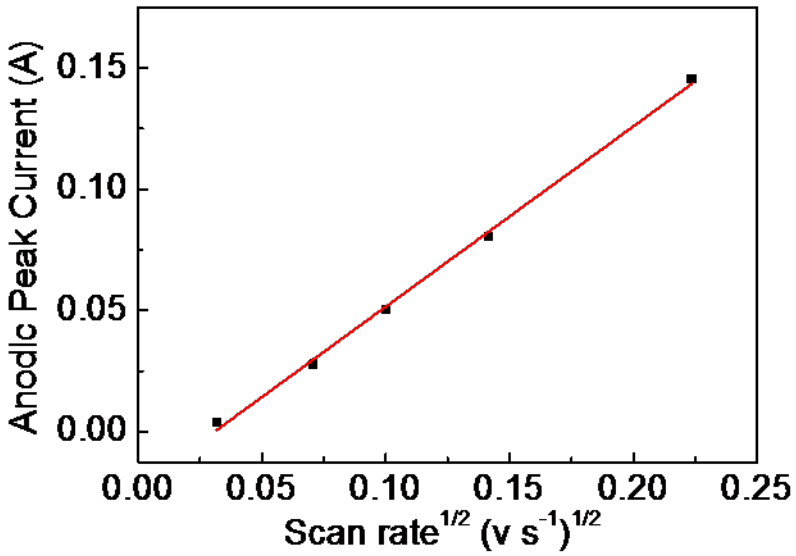

Fig.S4 Dependence of the current on scan rate$^{1/2}$ plot for the S1 electrode.

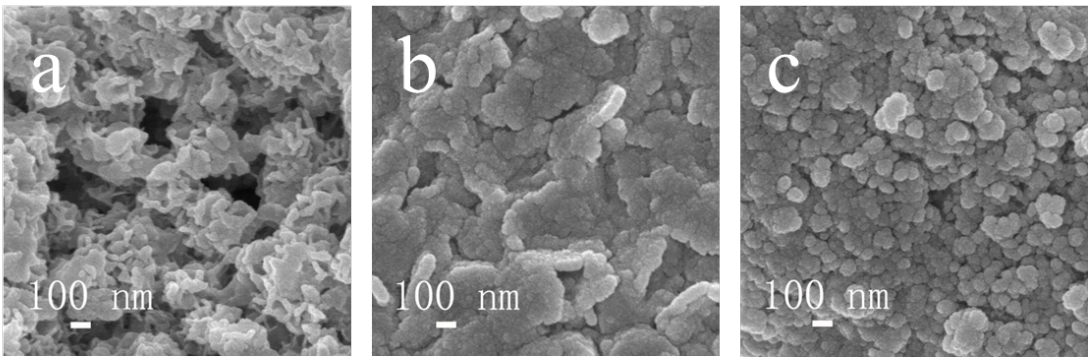

Fig.S5 SEM images of the precursors prepared with different quality of the surfactant PVP of 0.05 g (a), 0.09 g (b) and 0 g (c) discharged after 1500 cycles.