Effect of calcination temperature on the porous structure of cobalt oxide microflowers


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Fig. S1 SEM image of Co(OH)$_2$ prepared by halving the amount of ammonia, showing that the morphology and structure had few significant changes.
Fig. S2  SEM images of Co(OH)$_2$ prepared by (a) halving and (b) doubling the concentration of acetate group. It can be observed that when the concentration of acetate group was halved or doubled, the changes of the morphologies of as-prepared Co(OH)$_2$ were not obvious.

Fig. S3  Cycle-life data of Co$_3$O$_4$ calcined at 300 $^\circ$C calculated from the CV measurements at a scan rate of 20 mV s$^{-1}$.

Fig. S3 is the specific capacitance relation with cycling number of Co$_3$O$_4$ calcined at 300 $^\circ$C calculated from CV measurements at 20 mV s$^{-1}$. The capacitance increased about 20 % during the first 500 cycles. It indicates that the electrode is fully activated and reaches the optimum condition after 500 cycles. After 1000 cycles, the capacitance had almost no decrease which demonstrated the excellent cycle stability.