Supporting Information

Low-Crystalline Mesoporous $CoFe_2O_4$/C Composite with Oxygen Vacancies for High Performance Asymmetric Supercapacitor

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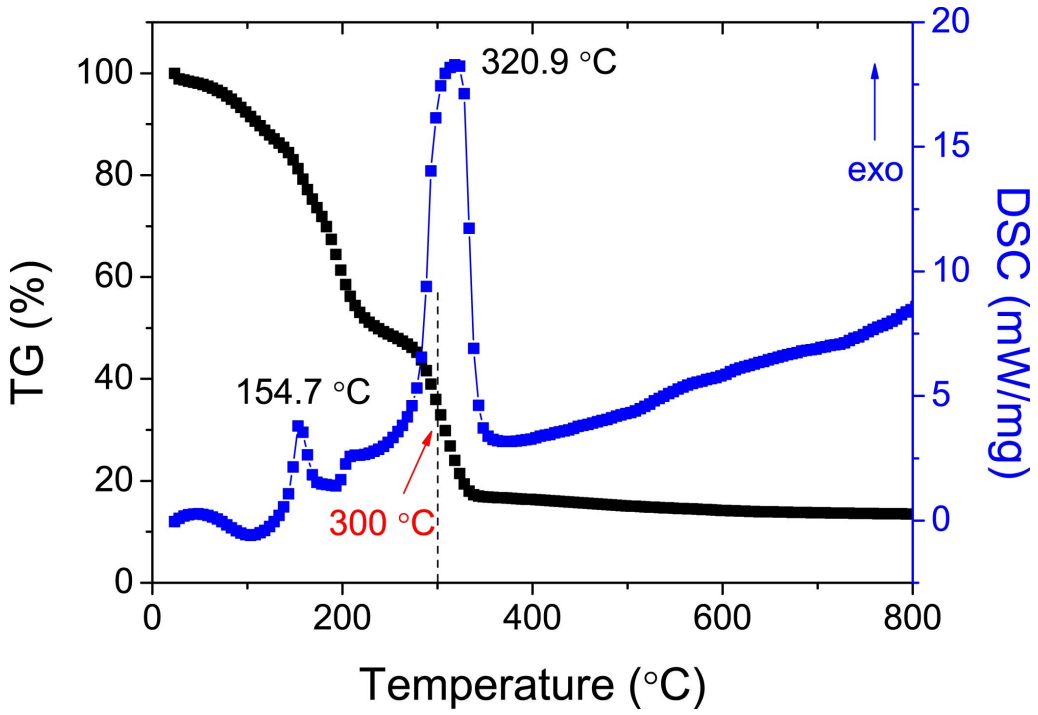

Fig. S1. TG and DSC analysis of mesoporous L-$CoFe_2O_4$/C composite

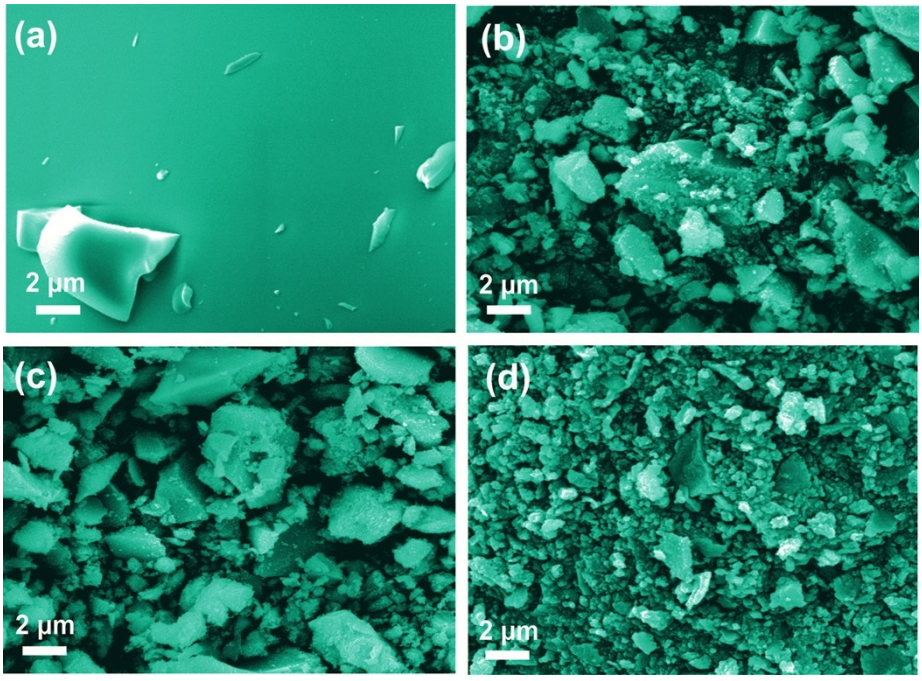

Fig. S2. The SEM images of (a) CoFe-Precursor, (b) Mesoporous L-$CoFe_2O_4$/C, (c) $CoFe_2O_4$-400 and (d) $CoFe_2O_4$-700 samples.

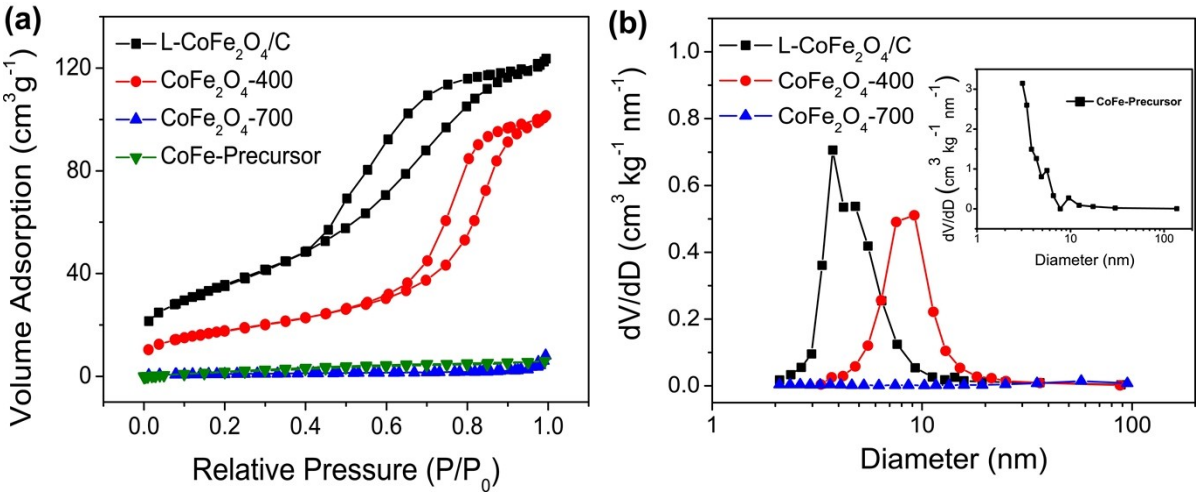

Fig. S3. (a) Nitrogen adsorption-desorption isotherms of CoFe-Precursor, mesoporous L-$CoFe_2O_4$/C composite, $CoFe_2O_4$-400 and $CoFe_2O_4$-700 samples and (b) the related pore size distribution, calculated from the adsorption isotherms using a DFT method.

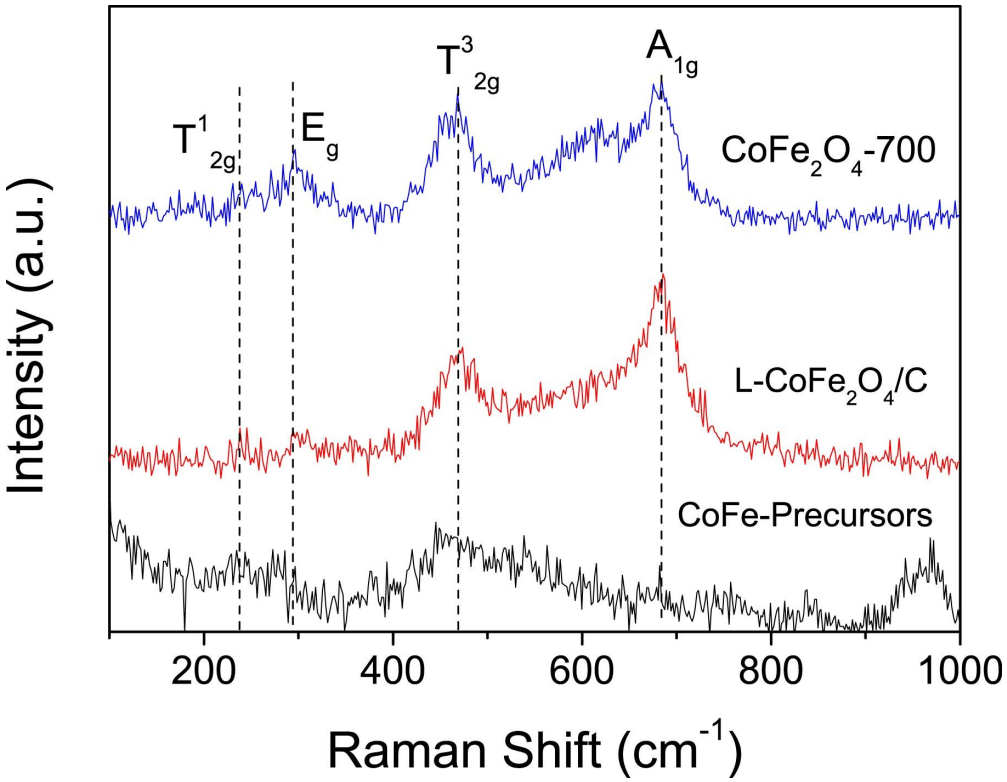

Fig. S4. Raman spectra of CoFe-Precursor, Mesoporous L-$CoFe_2O_4$/C composite and $CoFe_2O_4$-700.

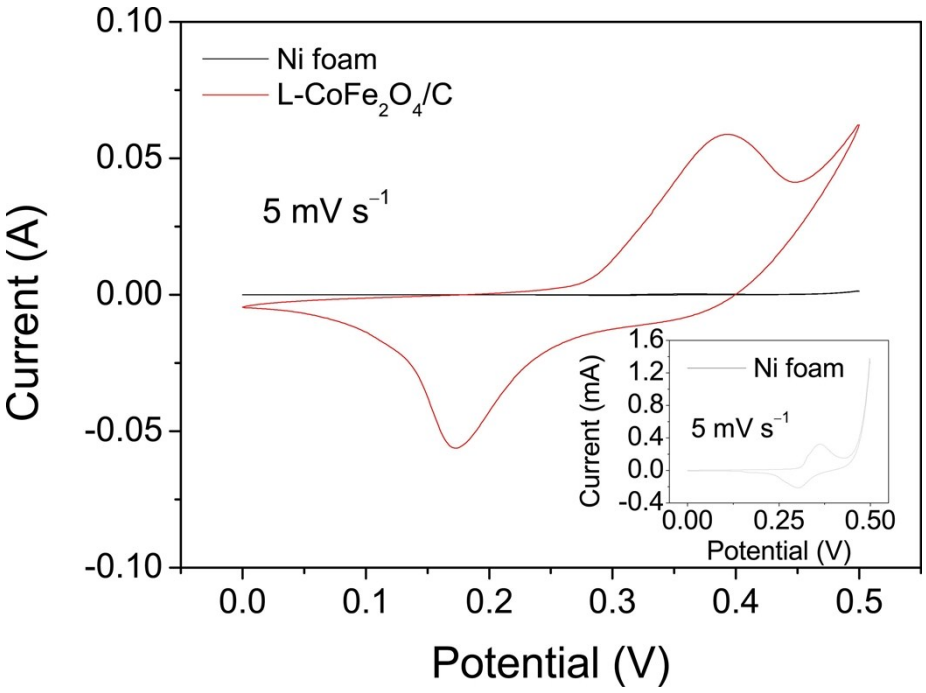

Fig. S5. CV curves of mesoporous L-$CoFe_2O_4$/C and Ni foam electrodes in a potential range of 0 to 0.5 V at a scan rate of 5 mV s^{-1}.

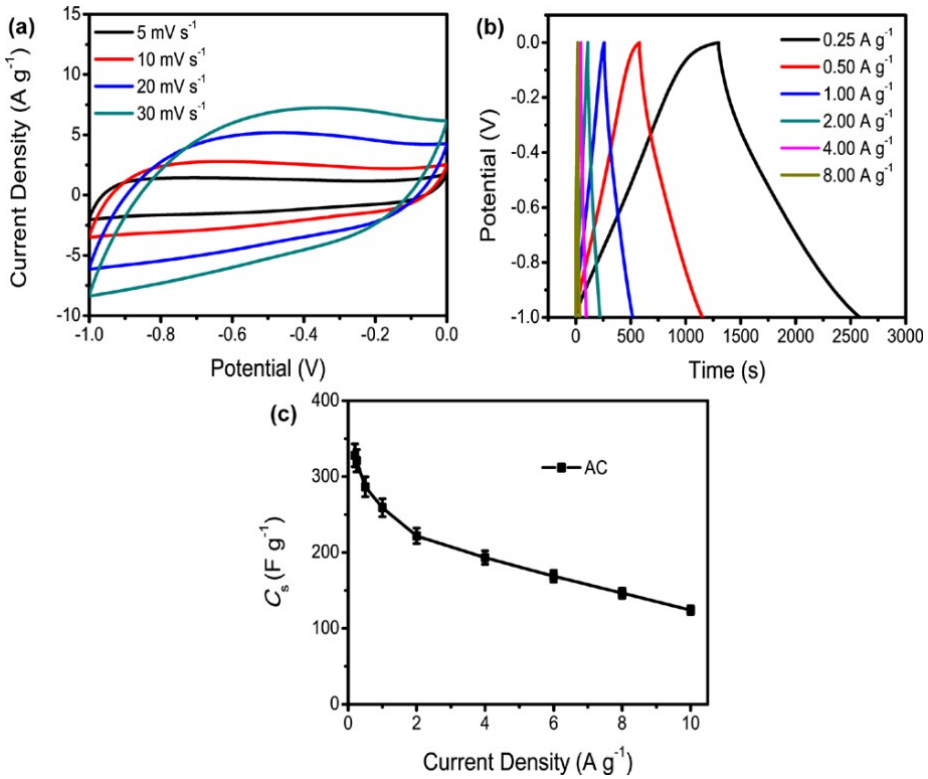

Fig. S6. a) CV curves of the AC electrode at different scan rates. b) Galvanostatic charge–discharge curves. c) C_s of AC electrode at different current densities.

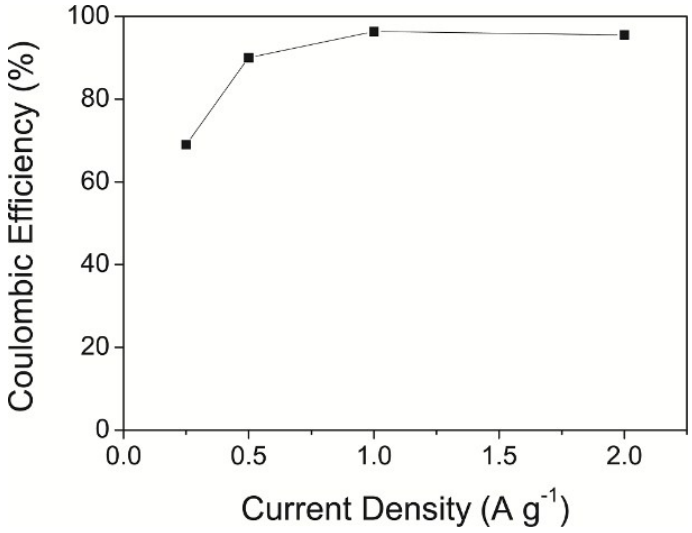

Fig. S7. Coulombic efficiency of L-$CoFe_2O_4$/C//AC asymmetric supercapacitor at different current densities.

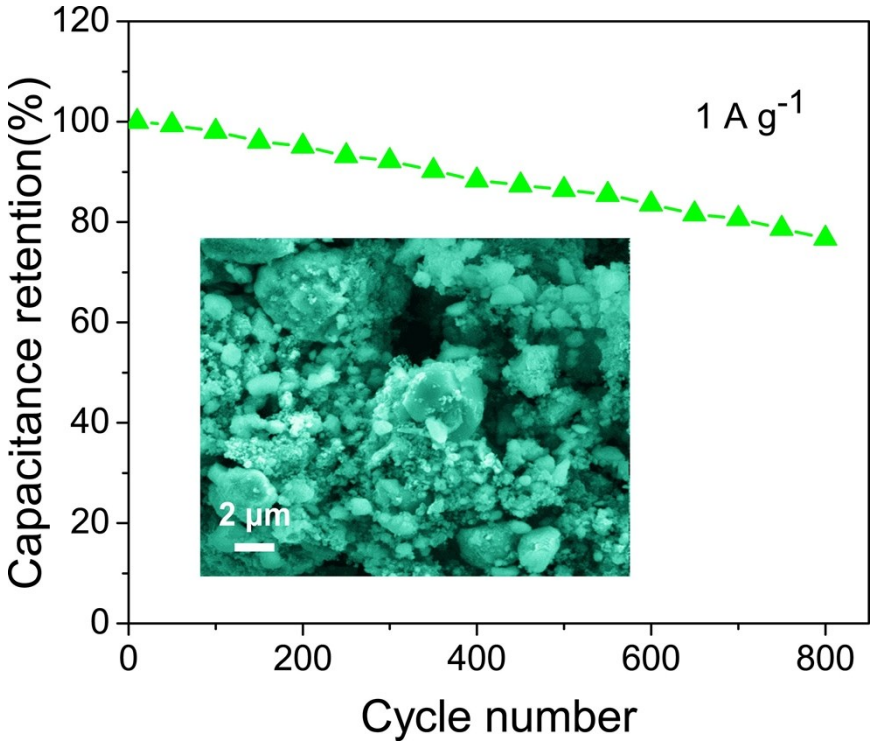

Fig. S8. Cycle stability of L-$CoFe_2O_4$/C//AC asymmetric supercapacitor at a current density of 1 A g^{-1}.

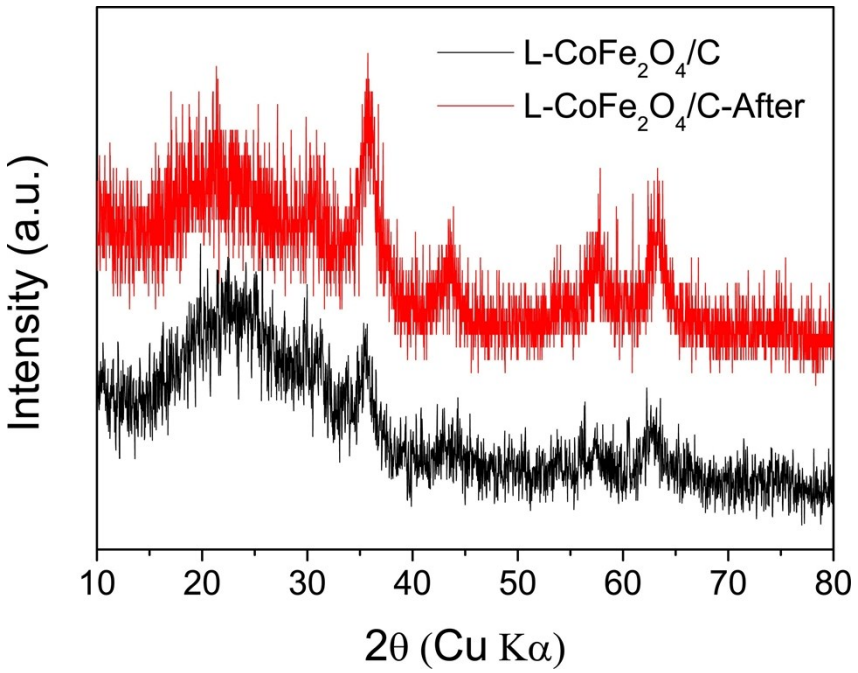

Fig. S9. XRD patterns of mesoporous L-$CoFe_2O_4$/C composite before and after 800 cycles charging/discharging process.