Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

Fabrication of $NiCo_2O_4$ and Carbon Nanotube Nanocomposite Films as High-performance Flexible Electrode of Supercapacitor

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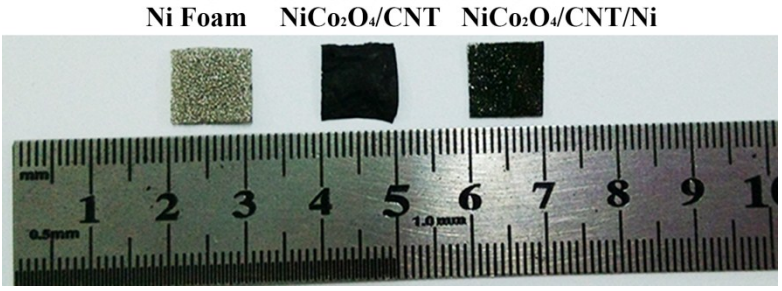

Fig. S1 Fabrication of the working electrode.

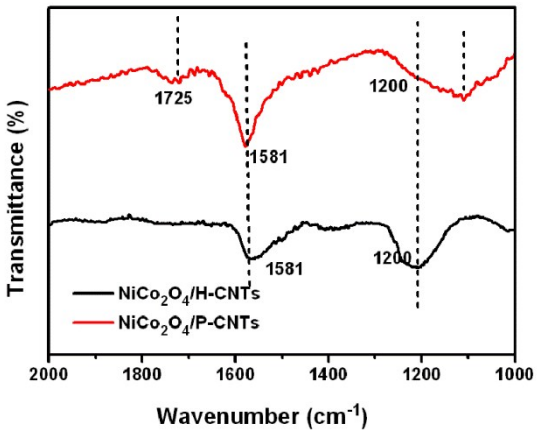

Fig. S2 FT-IR spectra of pristine CNTs and H-CNTs: The sample of pristine CNTs has two peaks: 1581 cm^{-1} and 1200 cm^{-1}, assigned to the carbon skeleton.[1, 2] Comparing with pristine CNTs, the extra peaks in H-CNTs at 1725 cm^{-1} and 1100 cm^{-1} are corresponding to C=O and C-O stretching vibration of carboxyl group which manifests the formation of hydrophilic groups on the surface of CNTs.

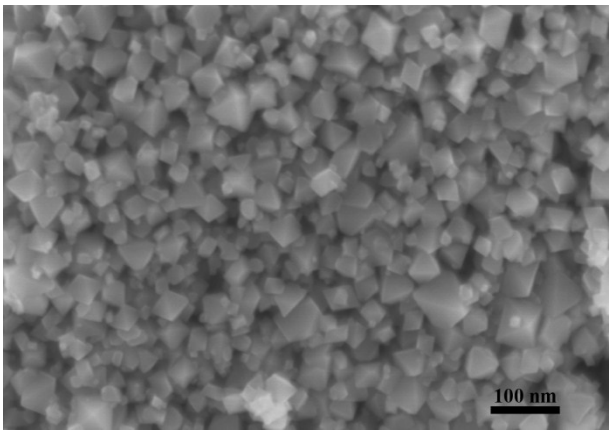

Fig. S3 The morphology of pure $NiCo_2O_4$.

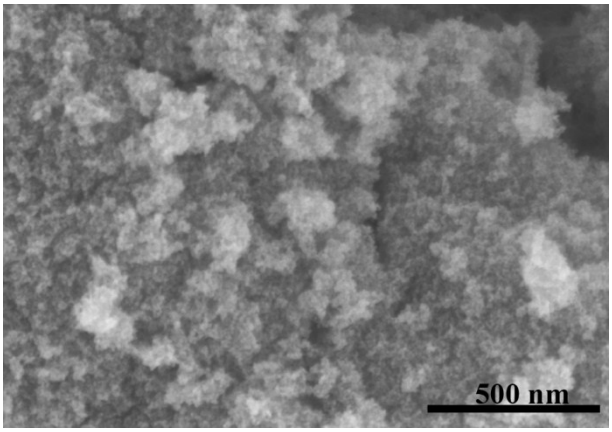

Fig. S4 SEM images of excessive $NiCo_2O_4$ deposition on CNT films.

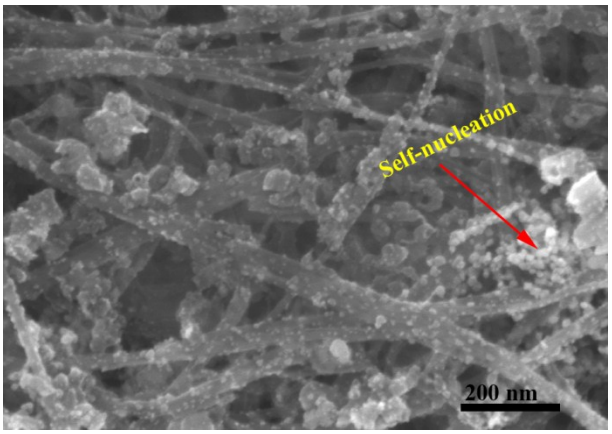

Fig. S5 SEM images of $NiCo_2O_4$ deposition on CNT films without drying process before adding ammonia.

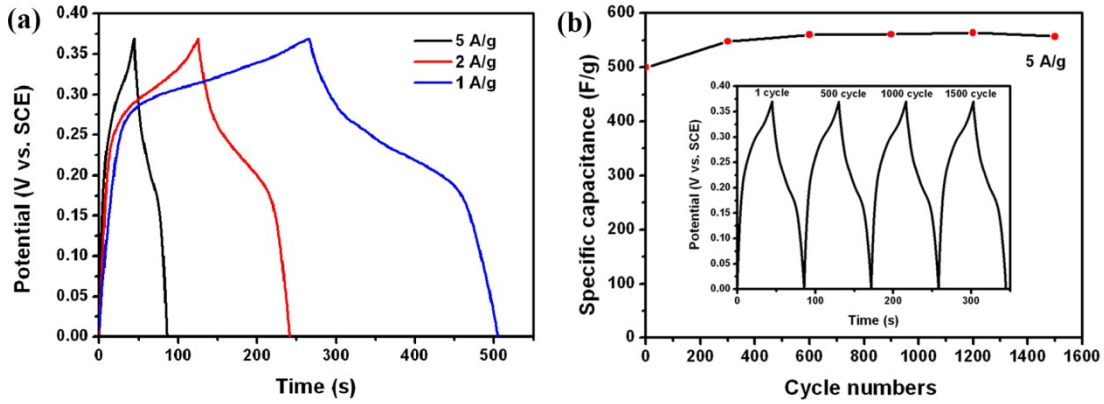

Fig. S6 Galvanostatic charge-discharge at different current densities curves of $NiCo_2O_4$/CNTs-50% (a); cycling stability of $NiCo_2O_4$/ CNTs-50% electrodes at a current density of 5 A/g (b).

Reference:

1. M. S. P. Shaffer, X. Fan and A. H. Windle, *Carbon*, 1998, **36**, 1603-1612.
2. T. G. Ros, A. J. van Dillen, J. W. Geus and D. C. Koningsberger, *Chem.-Eur. J.*, 2002, **8**, 1151-1162.