Supporting information for

Three Dimensional Carbon Nanotube/Nickel Hydroxides Gels for Advanced Supercapacitors

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**Fig. S1** FESEM images of gel composites in smaller magnification: (a) Ni(OH)$_2$ at nickel foam (b) CNTs hydrogel (c) CNTs xerogel (d) NiC hydrogel (NiC-hydro) composite and (e) NiC xerogel (NiC-xero) composite
Fig. S2 Cross sectional area image of (a) NiC-hydro and (b) NiC-xero.
Fig. S3 FESEM images of the Ni(OH)$_2$/SWNT xerogel (NiC-xero) composites having Ni(OH)$_2$ deposited at different charges: (a) 1.11C (b) 3.33C (c) 5.55C (d) 7.77C.
Fig. S4 TEM images of (a) NiC-hydro (b) NiC-xero, SAED pattern of the (c) NiC-hydro and (d) NiC-xero
Fig. S5 Electrochemical performance of xerogel electrodes having different Ni(OH)$_2$ loadings: (a) CV curves of difference Ni(OH)$_2$/SNWT xerogel electrodes (b) specific capacitances of the Ni(OH)$_2$/SNWT xerogel electrodes calculated from different scan rates (c) discharge profiles of the Ni(OH)$_2$/SNWT xerogel electrodes and (d) specific capacitances of the Ni(OH)$_2$/SNWT xerogel electrodes calculated from different galvanic discharge rates.
Fig. S6 Comparison of areal capacitance of (a) different Ni(OH)$_2$/SWNT gel composites and (b) Ni(OH)$_2$/SWNTs xerogel composites synthesized through different accumulated during synthesis.
**Fig. S7** Electrochemical impedance spectroscopy: (a) fitting results of NiC-xero and NiC-hydro and (b) equivalent circuit model.