Supporting Information

High-Performance $NiCo_2O_4$@Ni_3S_2 Core/Shell Mesoporous Nanothorn Arrays on Ni Foam for Supercapacitors

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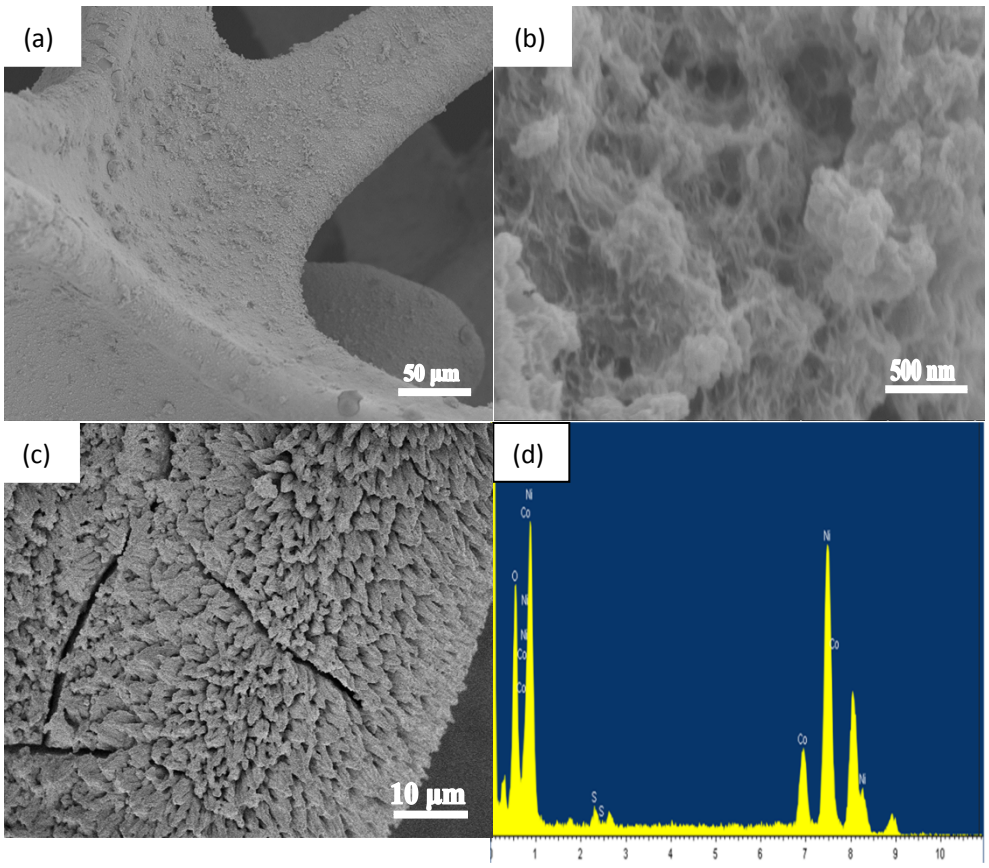

Fig. S1 (a) Low-magnification and (b) high-magnification FESEM images of Ni_3S_2; (c) FESEM images and (d) X-ray energy dispersive spectroscopy of the $NiCo_2O_4$@Ni_3S_2 Core/Shell mesoporous nanothorn arrays on Ni foam

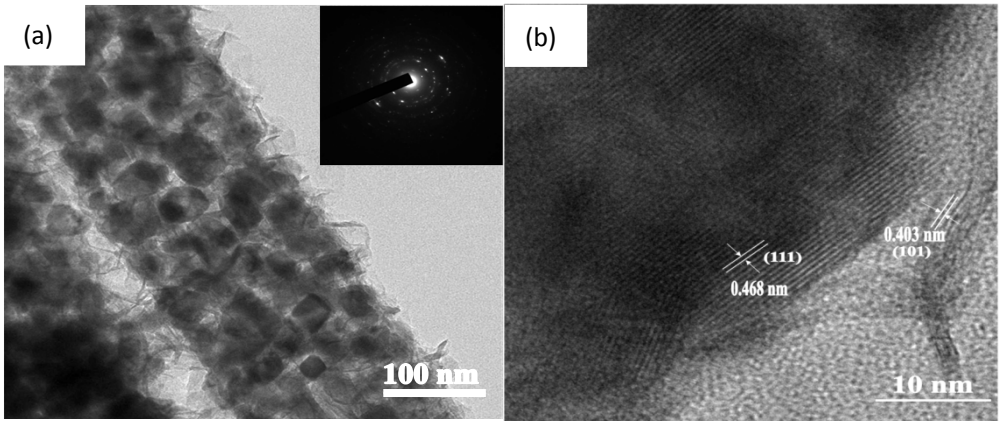

Fig. S2 (a) TEM image of $NiCo_2O_4$@Ni_3S_2 (the inset is the selected area electron diffraction (SAED) pattern); (b) HRTEM image of $NiCo_2O_4$@Ni_3S_2.

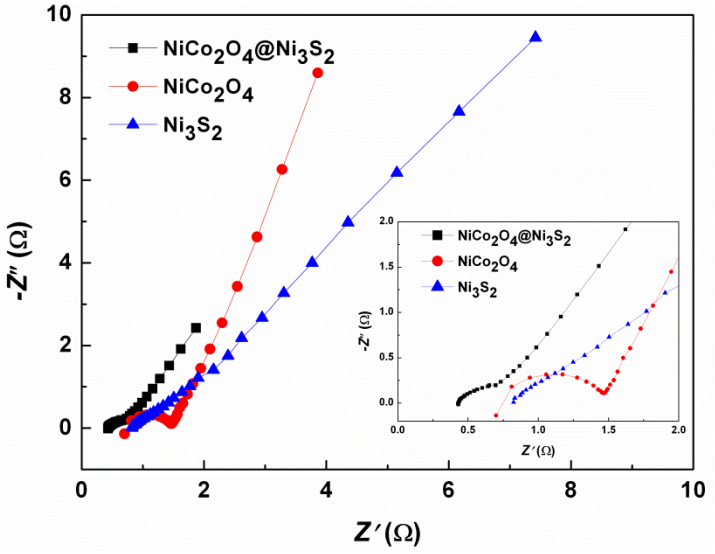

Fig. S3 Nyquist plots of the $NiCo_2O_4$, Ni_3S_2 and $NiCo_2O_4$@Ni_3S_2, inset shows the amplification of high-frequency region nyquist plots.

Table S1 The fitted parameters of $NiCo_2O_4$@Ni_3S_2 electrode before and after 2000 cycles

Electrode	Internal resistance (R_e) Ω	Charge transfer resistance (R_{ct}) Ω	Diffusive resistance (W) Ω
Before cycle	0.44	0.43	0.09
After 2000 cycles	0.45	0.51	0.16

Table S2 The fitted parameters of $NiCo_2O_4$@Ni_3S_2, $NiCo_2O_4$ and Ni_3S_2 electrodes

Electrode	Internal resistance (R_e) Ω	Charge transfer resistance (R_{ct}) Ω	Diffusive resistance (W) Ω
$NiCo_2O_4$@Ni_3S_2	0.44	0.43	0.09
$NiCo_2O_4$,	0.72	1.70	0.06
Ni_3S_2	0.80	0.01	0.34