Supplementary Materials: Co_3O_4@CoS Core-Shell Nanosheets on Carbon Cloth for High Performance Supercapacitor Electrodes

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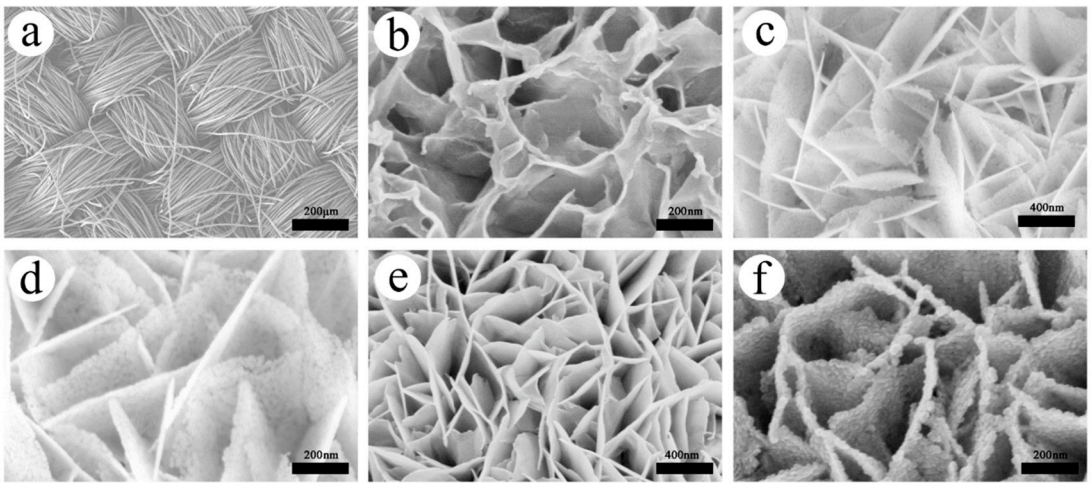

Figure S1: SEM images of (**a**) CC; (**b**) Co_3O_4-100s/CC; (**c**) Co_3O_4-200s/CC; (**d**) Co_3O_4-300s/CC; (**e**) Co_3O_4-400s/CC; (**f**) Co_3O_4-500s/CC

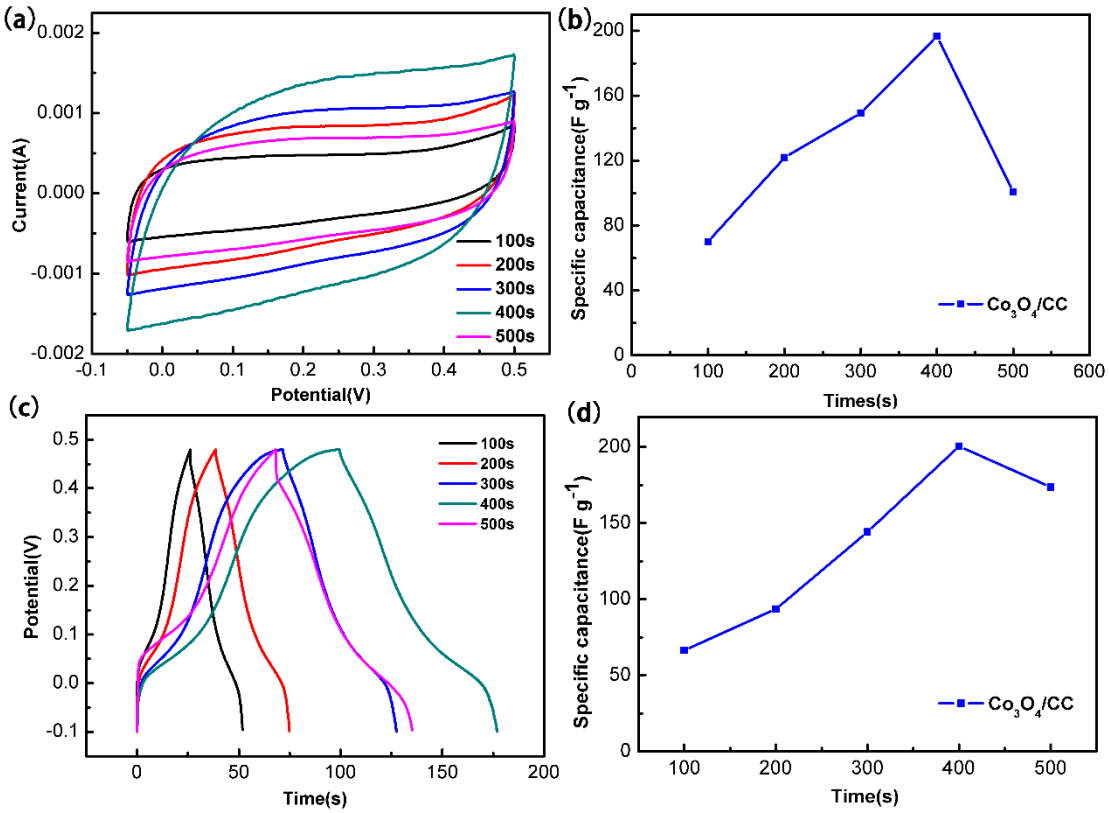

Figure S2: (**a**) CV curves of the Co_3O_4/CC measured at 10 mV·s^{-1}; (**b**) Specific capacitance of the Co_3O_4/CC measured at 10 mV·s^{-1}; (**c**) GCD curves of the Co_3O_4/CC measured at 1.0A·g^{-1}; (**d**) Specific capacitance of the Co_3O_4/CC measured at 1.0 A·g^{-1}.

Table S1: Comparison of the electrochemical performances of Co_3O_4 or CoS between literature and this study.

Materials	Maximum C_s ($F \cdot g^{-1}$)	Capacitance Retention	Ref.
Co_3O_4 film	162	72.2% (after 1000 cycles at 2.75 $A \cdot g^{-1}$)	[1]
Co_3O_4@MWCNTs	273	88% (after 1000 cycles at 0.5 $A \cdot g^{-1}$)	[2]
Co_3O_4@graphene	357	87% (after 1000 cycles at 1.0 $A \cdot g^{-1}$)	[3]
CoS nanocages	1475	88.2% (after 1000 cycles at 1.0 $A \cdot g^{-1}$)	[4]
CoS particulates	586	91% (after 1000 cycles at 1.0 $A \cdot g^{-1}$)	[5]
Co_3O_4@CoS/CC	887.5	78.1% (after 5000 cycles at 5.0 $A \cdot g^{-1}$) 96.16% (after 1000 cycles at 5.0 $A \cdot g^{-1}$)	This study

Table S2. Comparison of the electrochemical performances and synthesis method between literature and this study.

Materials	C_s ($F \cdot g^{-1}$)	Capacitance retention	Synthesis Method	Ref.
Co_3O_4@MnO_2	671	95.2% (after 2000 cycles)	Self-assembly	[6]
Co_3O_4@MnO_2/CFP	1209	80.3% (after 1000 cycles)	Hydrothermal	[7]
CoS@$NiCo_2O_4$	7.62 $F \cdot cm^{-1}$	71.7% (after 3000 cycles)	Hydrothermal	[8]
Co_3O_4/CF	598.9	90% (after 1000 cycles)	Electrodeposition	[9]
CoS/$Ni(OH)_2$	1837	95.8% (after 5000 cycles)	Electrodeposition	[10]
Co_3O_4@Co_3S_4/Ni Foam	425.1	93.1% (after 5000 cycles)	Hydrothermal and sulfurization	[11]
Co_3O_4@CoS/CC	887.5	78.1% (after 5000 cycles) 96.16% (after 1000 cycles)	Electrodeposition	This study

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