Electronic Supplementary Material (ESI) for Nanoscale.

Supporting Information

Temperature-directed synthesis of N-doped carbon-based nanotubes and nanosheets decorated with Fe (Fe_3O_4, Fe_3C) nanomaterials

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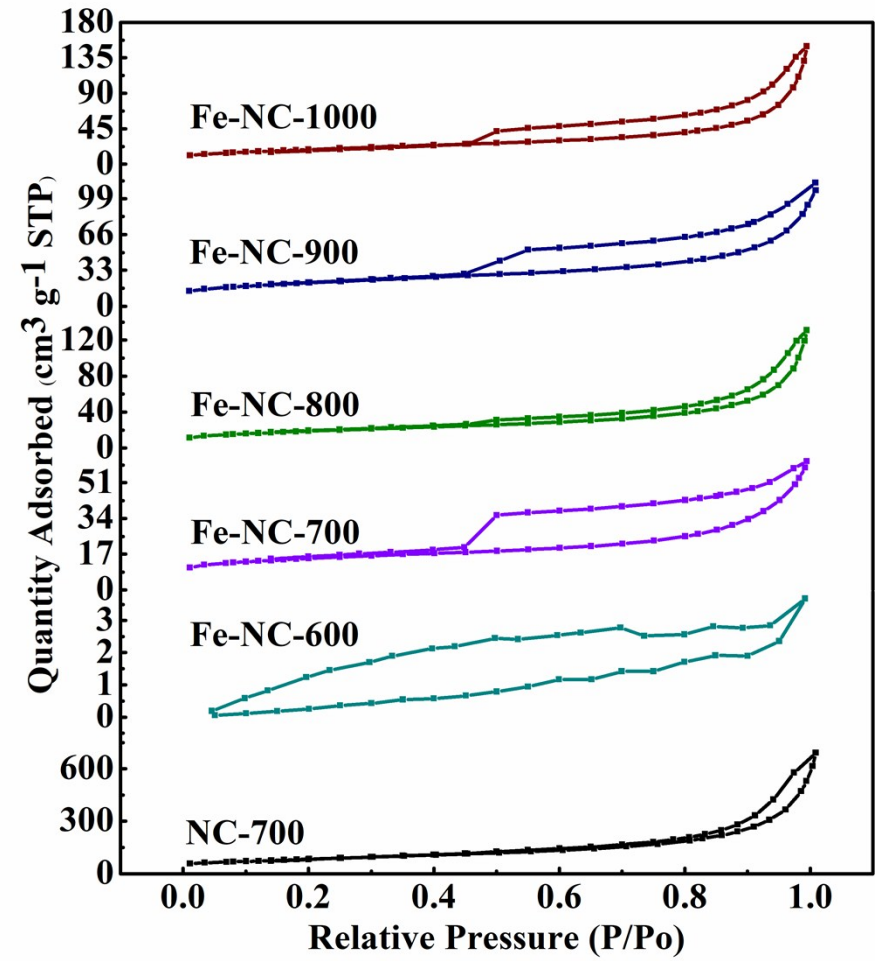

Fig. S1 Nitrogen adsorption/desorption isotherms of NC-700 and Fe-NC-Ts.

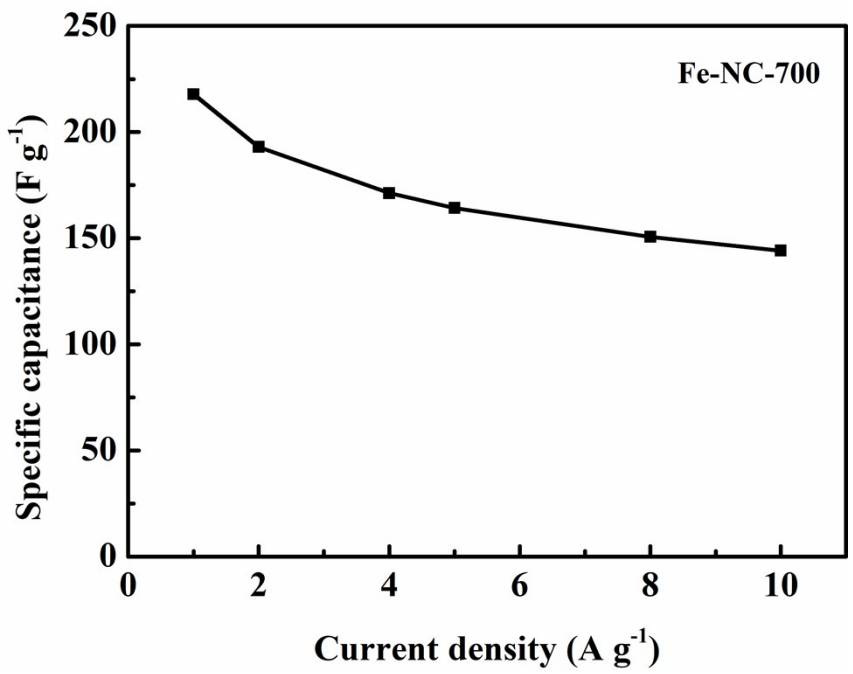

Fig. S2 Relationship between the specific capacitance versus current densities of Fe-NC-700.

Table S1 Summary of the recently reported iron oxides, iron carbides, iron/carbon hybrids and their electrochemical stabilities in three-electrode configurations.

Materials	ΔV (V)	Electrolytes	Cycling condition	retention
NS-Fe_3O_4@N-PC [1]	-0.1- 0.6	1M KOH	5000 cycles at 4 A g^{-1}	78.2%
Fe_3O_4/RGO [2]	-1 - 0	1 M KOH	1000 cycles at 10 A g^{-1}	79.2%
FeO_x-CNFs [3]	-1.2 - 0.1	6 M KOH	5000 cycles at 1 A g^{-1}	82%
Fe_3O_4/Fe-CNTs [4]	0 - 0.5	3 M KOH	1000 cycles at 1 A g^{-1}	82.1%
Fe_3O_4/3D-graphene [5]	0 - 0.4	3 M KOH	5000 cycles at 1 A g^{-1}	88%
NC/Fe/Fe_3C [6]	-1 - 0	6 M KOH	4000 cycles at 2 A g^{-1}	90.7%
NC/Fe_3C [7]	-1 - 0	6 M KOH	5000 cycles at 1 A g^{-1}	92%
Fe_3O_4/Fe/C [8]	-1.1 - 0.1	6 M KOH	1000 cycles at 3 A g^{-1}	94%
Fe-NC-700 (this work)	-1 - 0.2	6 M KOH	10000 cycles at 10 A g^{-}	82.1%
Fe-NC-800 (this work)	-1.0 - 0.2	6 M KOH	10000 cycles at 10 A g^{-}	91.3%

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