

Supplementary Materials

N/S co-doped interconnected porous carbon nanosheets as high-performance supercapacitor electrode materials

WEI Yu-chen, ZHOU Jian, YANG Lei, GU Jing, CHEN Zhi-peng, HE Xiao-jun*

School of Chemistry and Chemical Engineering, Anhui Key Laboratory of Coal Clean Conversion and High Valued Utilization, Key Lab of Metallurgical Emission Reduction and Resources Recycling, Ministry of Education, Anhui University of Technology, Maanshan, 243002, China

E-mail: xjhe@ahut.edu.cn; wycglut@foxmail.com

Fig. S1 Thermogravimetric curve of $\text{Na}_2\text{S}_2\text{O}_3 \cdot 5\text{H}_2\text{O}$; (b) Micropores size distribution of IPCNs.

Fig. S2 O1s spectra of IPCNs: (a) NS-IPCN750, (b) NS-IPCN800, (c) NS-IPCN850 (d) N-IPCN800 and (e) S-IPCN800.

Fig. S3 N1s spectra of IPCNs: (a) NS-IPCN750, (b) NS-IPCN800, (c) NS-IPCN850 and (d) N-IPCN800.

Fig. S4 S2p spectra of IPCNs: (a) NS-IPCN750, (b) NS-IPCN800, (c) NS-IPCN850 and (d) S-IPCN800.

Fig. S5 CV curves of (a) NS-IPCN750 electrode, (b) NS-IPCN850 electrode, (c) N-IPCN800 electrode and (d) S-IPCN800 electrode at different scan rates.

Table S1 Contents of N and S elements in IPCNs.

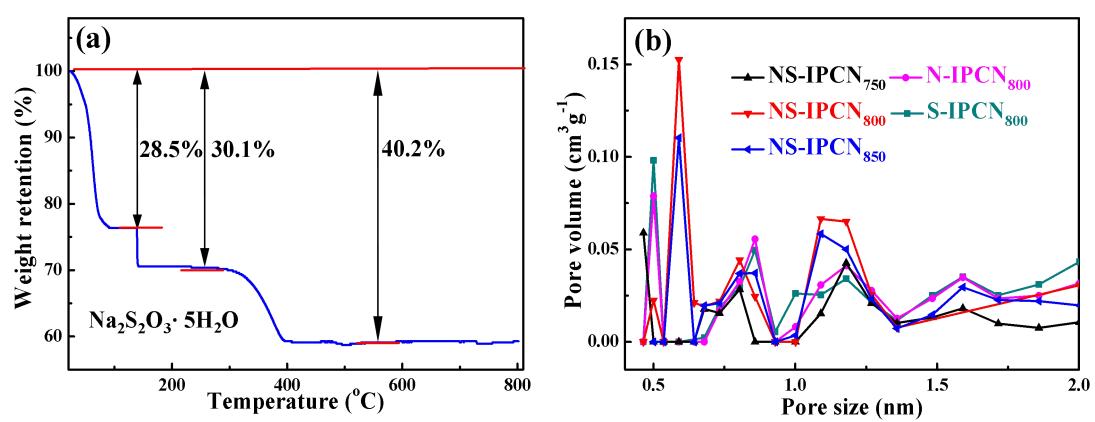


Fig. S1 (a) Thermogravimetric curve of $\text{Na}_2\text{S}_2\text{O}_3 \cdot 5\text{H}_2\text{O}$; (b) Micropores size distribution of IPCNs.

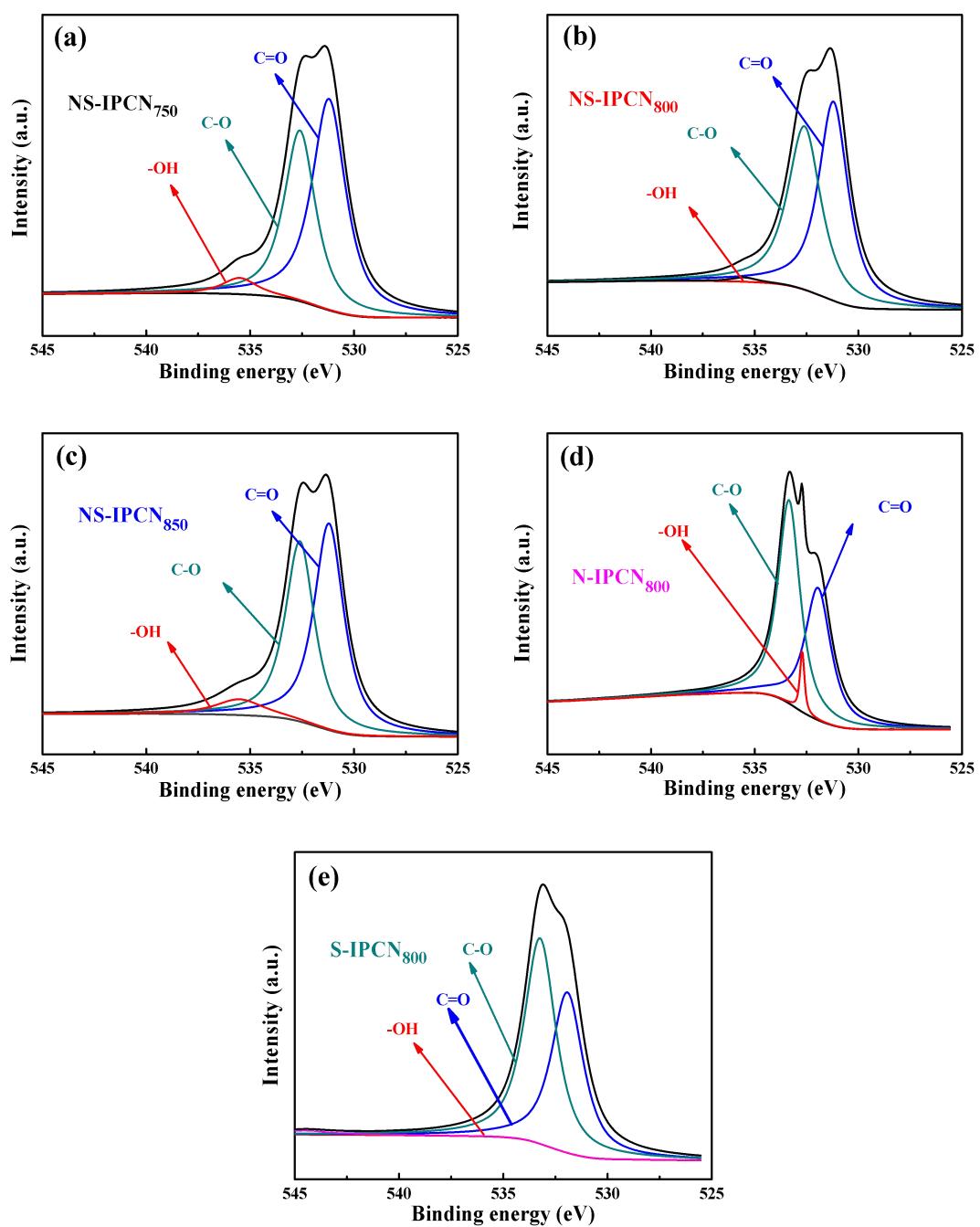


Fig. S2 O1s spectra of IPCNs: (a) NS-IPCN₇₅₀, (b) NS-IPCN₈₀₀, (c) NS-IPCN₈₅₀ (d) N-IPCN₈₀₀ and (e) S-IPCN₈₀₀.

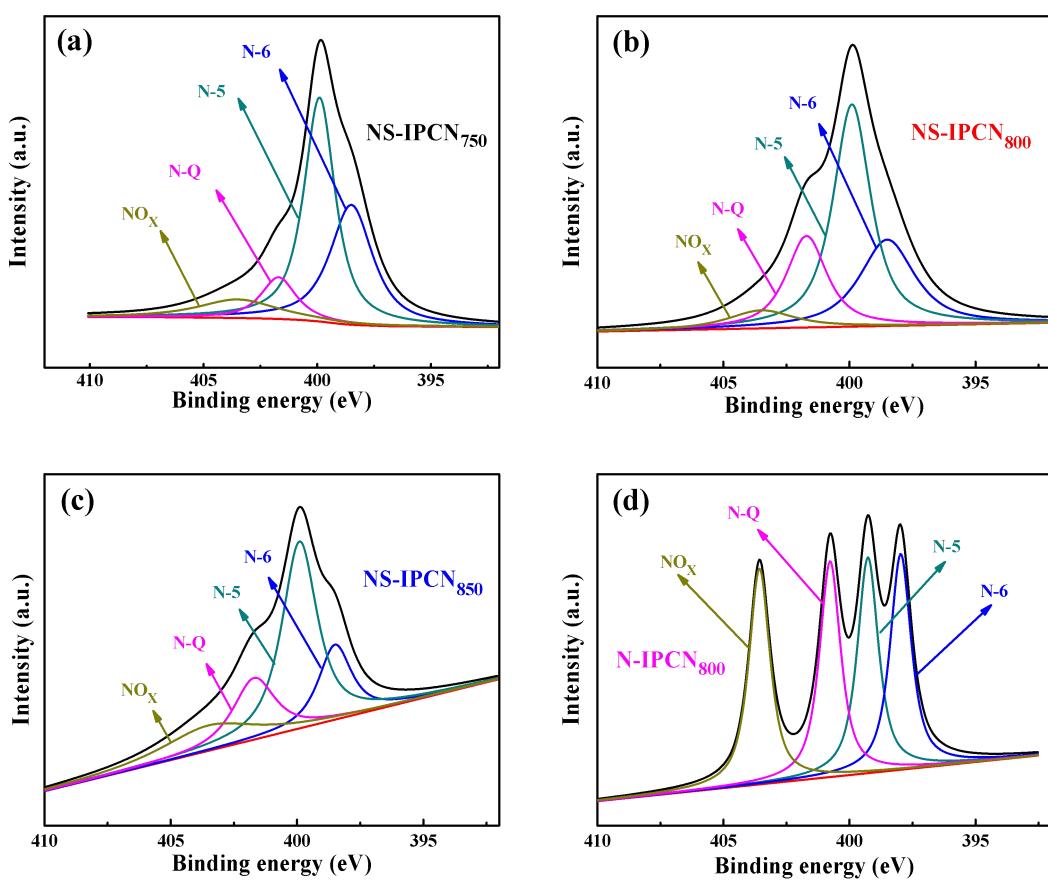


Fig. S3 N1s spectra of IPCNs: (a) NS-IPCN₇₅₀, (b) NS-IPCN₈₀₀, (c) NS-IPCN₈₅₀ and (d) N-IPCN₈₀₀.

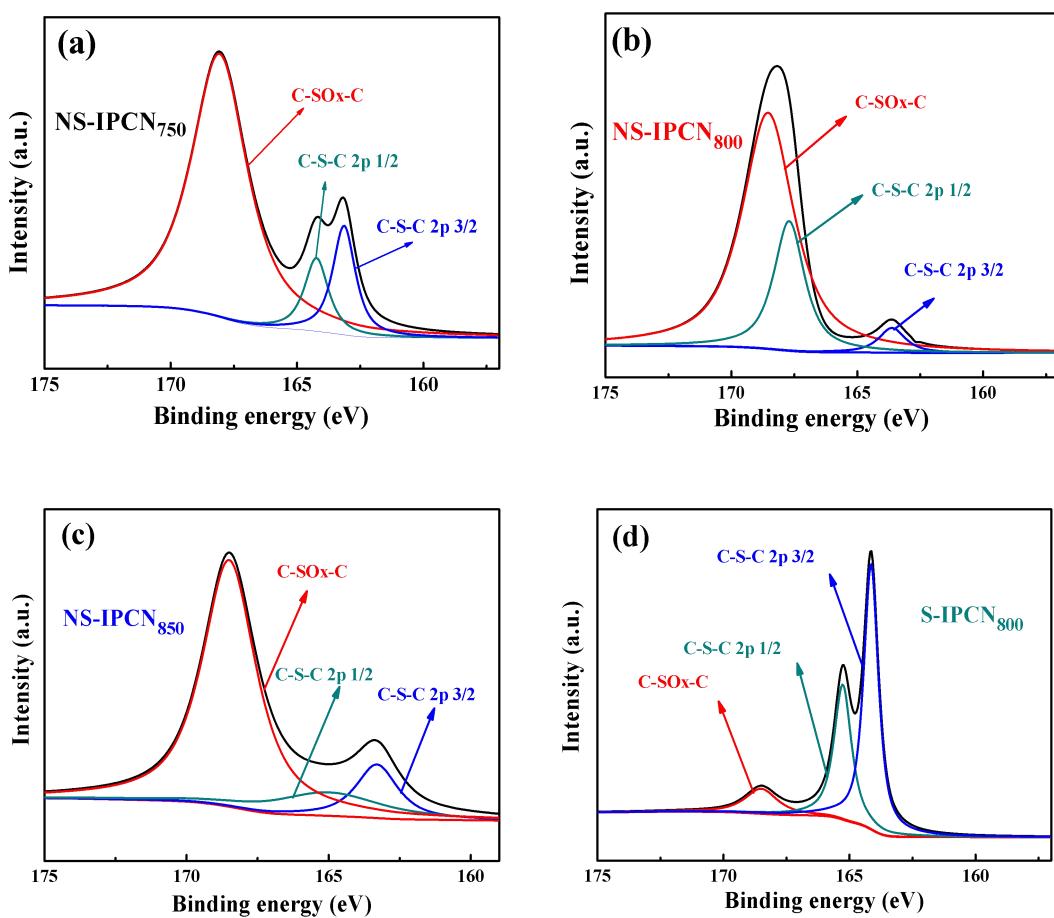


Fig. S4 S2p spectra of IPCNs: (a) NS-IPCN₇₅₀, (b) NS-IPCN₈₀₀, (c) NS-IPCN₈₅₀ and (d) S-IPCN₈₀₀.

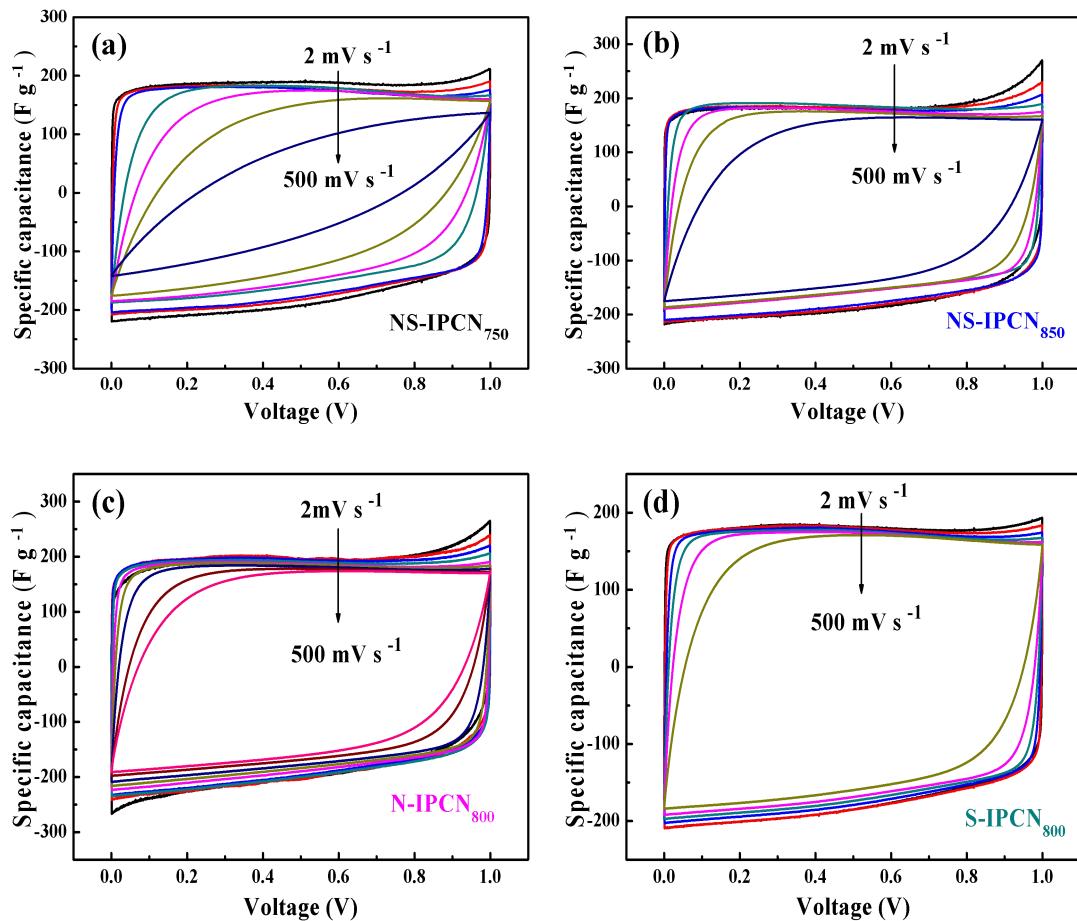


Fig. S5 CV curves of (a) NS-IPCN₇₅₀ electrode, (b) NS-IPCN₈₅₀ electrode, (c) N-IPCN₈₀₀ electrode and (d) S-IPCN₈₀₀ electrode at different scan rates.

Table S1 Contents of N and S elements in IPCNs.

Samples	N1s				S2p		
	N-5 (at.%)	N-6 (at.%)	N-Q (at.%)	NO _x (at.%)	S2p _{3/2} (at.%)	S2p _{1/2} (at.%)	SO _x (at.%)
NS-IPCN ₇₅₀	0.844	0.821	0.151	0.174	0.110	0.077	0.653
NS-IPCN ₈₀₀	0.465	0.256	0.206	0.063	0.021	0.131	0.278
NS-IPCN ₈₅₀	0.417	0.156	0.162	0.135	0.044	0.040	0.246
N-IPCN ₈₀₀	0.853	0.850	0.854	0.853	-	-	-
S-IPCN ₈₀₀	-	-	-	-	1.749	0.870	0.421