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氮硫双掺杂活性炭材料的制备和电容性能

李朝辉　　李仕蛟　　周　晋*　　朱婷婷　　沈红龙　　禚淑萍*

(山东理工大学化学工程学院，山东 淄博 255049)

Preparation and Supercapacitive Performance of N, S Co-Doped Activated Carbon Materials

LI Zhao-Hui　　LI Shi-Jiao　　ZHOU Jin*　　ZHU Ting-Ting

SHEN Hong-Long　　ZHUO Shu-Ping*

(*School of Chemical Engineering, Shandong University of Technology, Zibo 255049, Shandong Province, P. R. China*)

*Corresponding authors. ZHOU Jin, Email: zhoujsdut@gmail.com.

ZHUO Shu-Ping, Email: zhuosp_cademic@yahoo.com; Tel/Fax: +86-533-2781664.

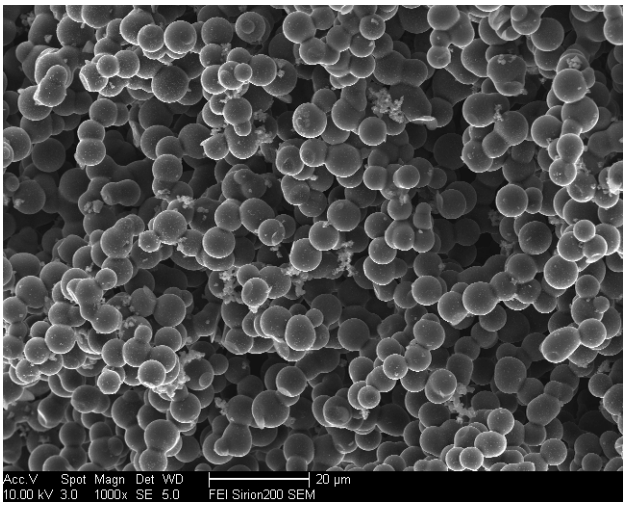

Fig.S1 Hydrothermal carbonaceous microspheres given by 2 g sucrose and 4 mL hair solution

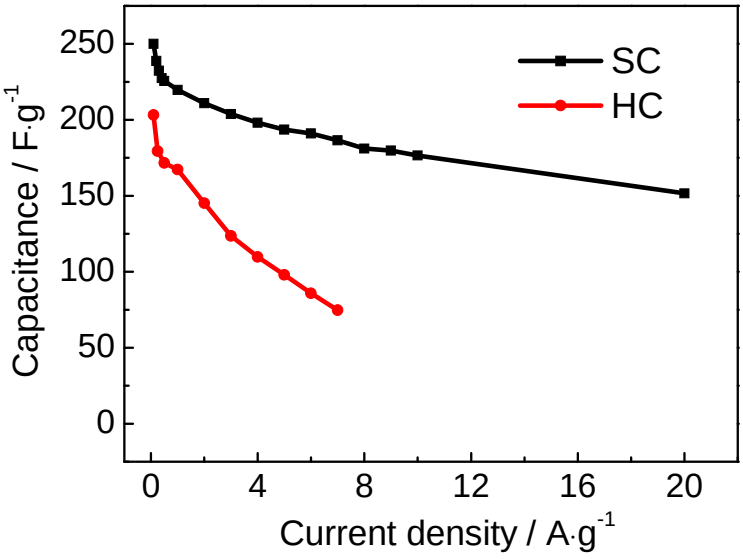

Fig.S2 Specific capacitances of SC and HC

Table S1 Peak assignments of C 1*s*, O 1*s*, N 1*s* and S 2*p* for the prepared carbons

Peak	Binding energy/eV	Assignment	Fraction of species/%		
			NSC-1	NSC-2	NSC-3
C 1*s*	284.7	sp^2 C-C	41.0	39.0	39.8
	285.4	C-N/C-O/C-S	32.0	27.7	24.4
	286.4	C=O/C=N	9.8	19.6	22.5
	289	O=C-O	17.2	13.7	13.3
O 1*s*	531.2	C=O	44.8	47.1	24.9
	532.3	O-C-O/C-OH	25.7	30.4	46.5
	533.5	O-C=O	29.5	22.5	28.6
N 1*s*	398.2	N-6	37.0	34.5	30.4
	400.4	N-5	30.1	38.1	34.0
	401.2	N-Q	17.2	20	24.0
	402.5-403.4	N-X	15.7	7.4	11.5
S 2*p*	162.1-162.3	C-S-S-C disulfide	9.0	16.8	13.9
	163.8-164.7	thiophenic (C-S-C)	68.1	50.3	42.0
	168.0-169.5	oxidized sulfur	22.9	32.9	44.1