

Electronic Supplementary Information

Nitrogen-phosphorous co-doped hollow carbon microspheres with hierarchical micro-meso-macroporous shell as efficient electrodes for supercapacitors

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Table S1 Specific capacitances of NPHCMs calculated from CV curves measured by three-electrode system

Samples	Specific capacitances (F g^{-1}) at different scan rates (mV s^{-1}) ¹⁾					
	5	10	20	50	100	200
NPHCMs-65-700	326	304	283	251	226	198
NPHCMs-65-800	310	299	288	273	260	244
NPHCMs-65-900	254	244	235	220	208	196

Table S2 Specific capacitance of the symmetric supercapacitor devices calculated from CV curves measured by two-electrode system

Samples	Specific capacitances (F g^{-1}) at different scan rates (mV s^{-1}) ¹⁾					
	5	10	20	50	100	200
NPHCMs-65-700	78	69	62	53	45	36
NPHCMs-65-800	76	67	58	53	47	37

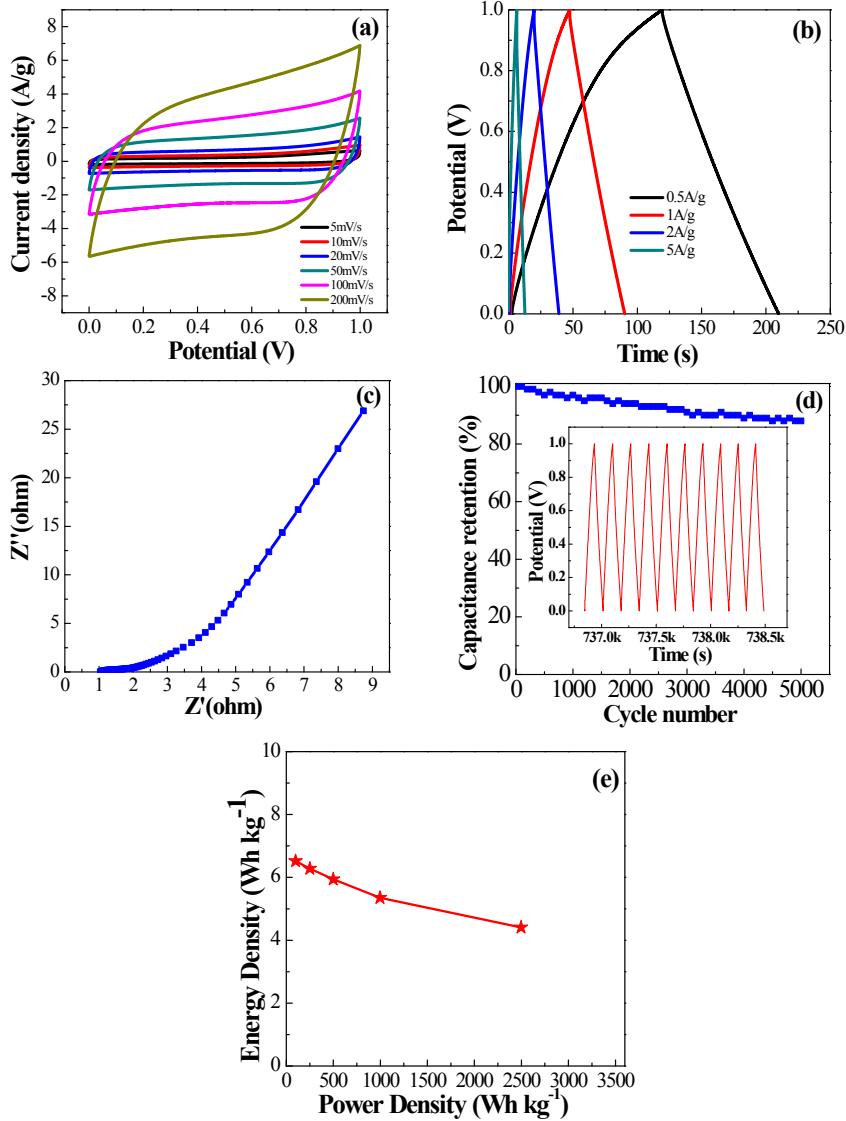


Fig. S1 (a) CV curves in symmetric systems from 0 to 1 V at various scan rates ranging from 5 to 200 mV s⁻¹; (b) Galvanostatic charge-discharge curves at different current densities (0.5 – 5 A g⁻¹); (c) EIS of symmetric supercapacitor devices; (d) Cycling stability of symmetric supercapacitor devices at current density of 0.5 A g⁻¹ measured by two electrodes system; (e) Ragone plots of NPHCMs-65-700.

Table S3 Specific capacitance of the symmetric supercapacitor devices calculated from charge-discharge curves.

Sample	Specific capacitances (F g^{-1}) at different current densities (A g^{-1})							
	0.5		1		2		5	
	C_s	C_{cell}	C_s	C_{cell}	C_s	C_{cell}	C_s	C_{cell}
NPHCMs-65-700	181	(45.2)	171	(42.7)	154	(38.5)	127	(31.7)
NPHCMs-65-800	180	(45)	172	(43)	163	(40.7)	146	(36.5)