

## Supporting Information

### **N/O Co-doped Hierarchical Nanoporous Biochar Derived from Waste Polypropylene Nonwoven for High-performance Supercapacitors**

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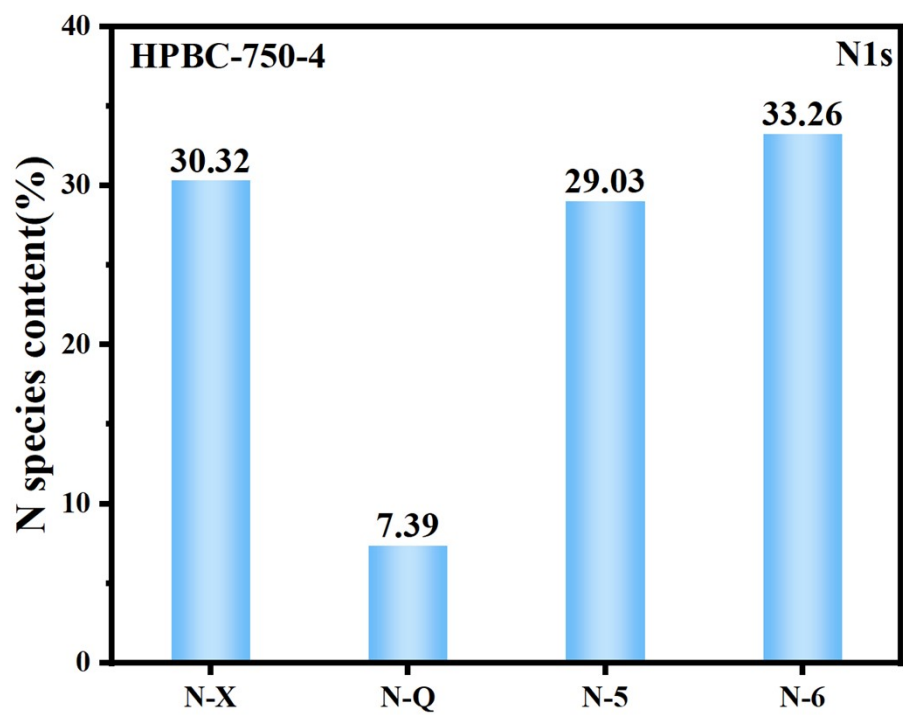


Fig. S1. Different nitrogen content in the N1s spectrum of HPBC-750-4.

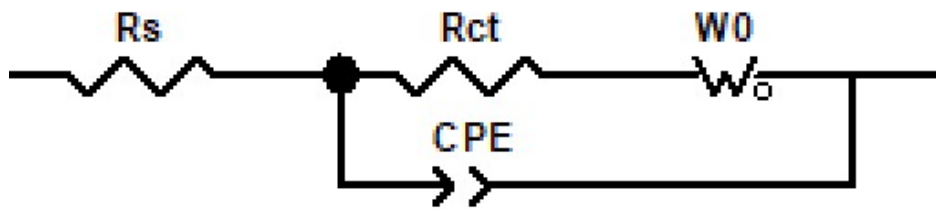
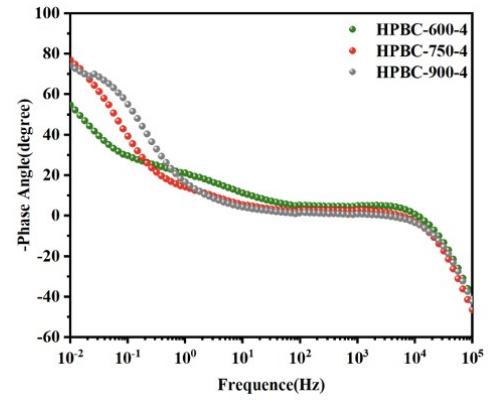
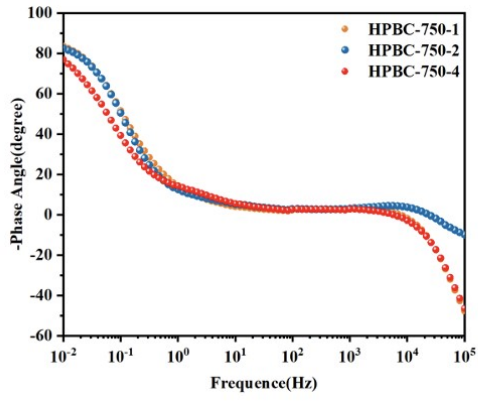
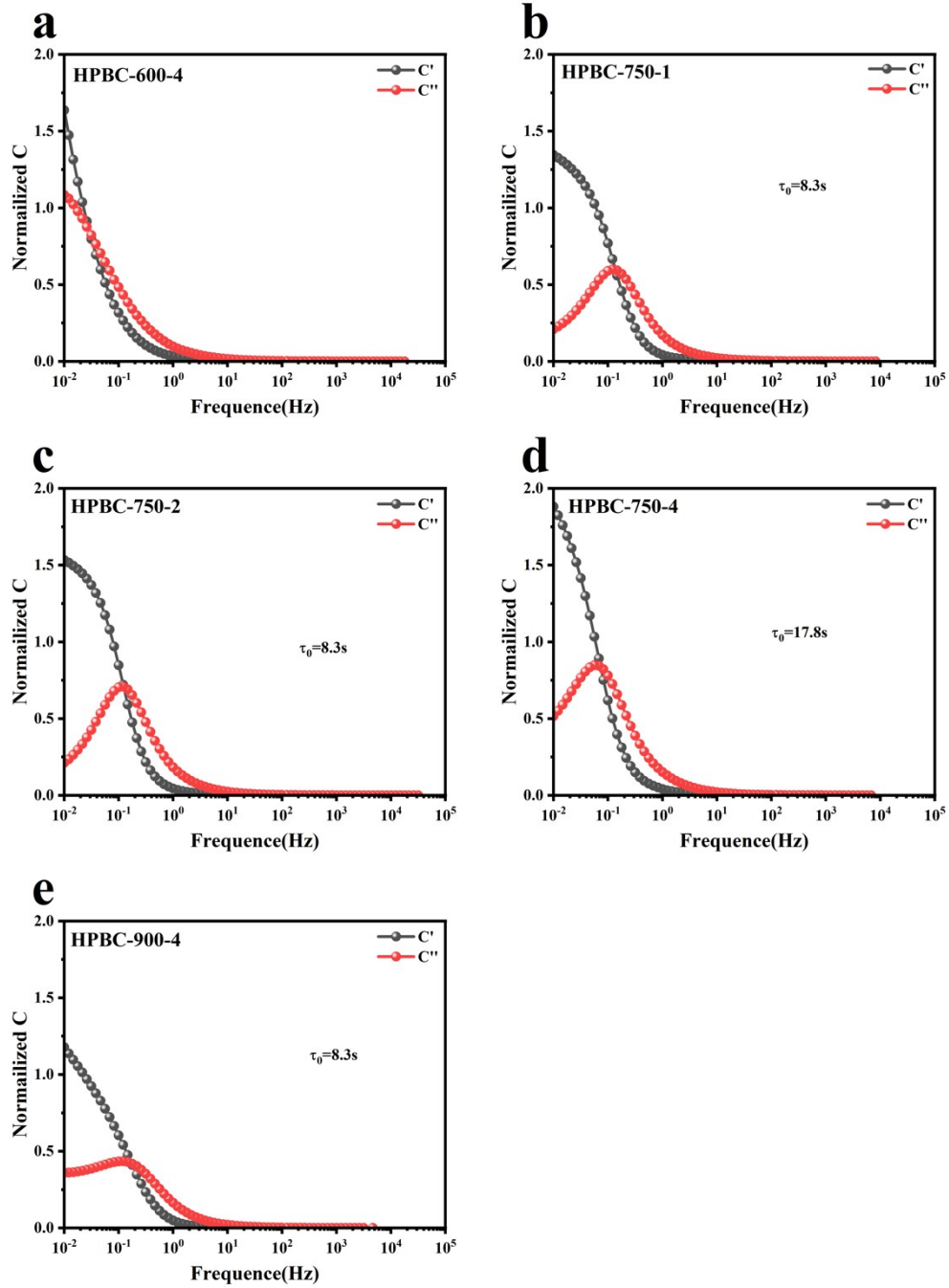


Fig. S2. EIS simulation equivalent circuit.



**Fig. S3.** Bode plots of all HPBCs.



**Fig. S4.** (a–d) The normalized real capacitance ( $C'$ ) and imaginary capacitance ( $C''$ ) of HPBC-600-4, HPBC-750-1, HPBC-750-2, HPBC-750-4, and HPBC-900-4, respectively.

**Table S1.**  $R_s$  and  $R_{ct}$  of different samples.

Sample	$R_s$	$R_{ct}$
HPBC-600-4	0.63	0.102
HPBC-750-1	0.58	0.059
HPBC-750-2	0.49	0.119
HPBC-750-4	0.63	0.045
HPBC-900-4	0.69	0.019

**Table S2.** Carbon, oxygen, and nitrogen contents of all samples measured by XPS.

Sample	C(wt.%)	O(wt.%)	N(wt.%)
HPBC-600-4	84.87	13.97	1.16
HPBC-750-1	83.49	13.7	2.81
HPBC-750-2	89.44	8.83	1.73
HPBC-750-4	85.59	13.25	1.16
HPBC-900-4	91.18	6.91	1.91