Supporting Information

Hierarchical micro-/mesoporous N- and O-enriched carbon derived from disposable cashmere: A competitive cost-effective material for high performance electrochemical capacitors

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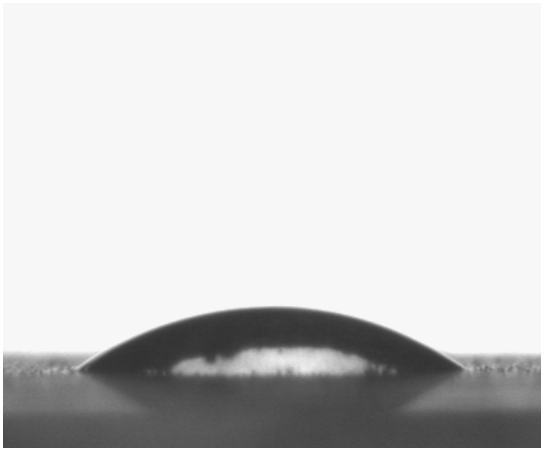

Fig. S1. Contact angle of the hierarchical CDMMC sample

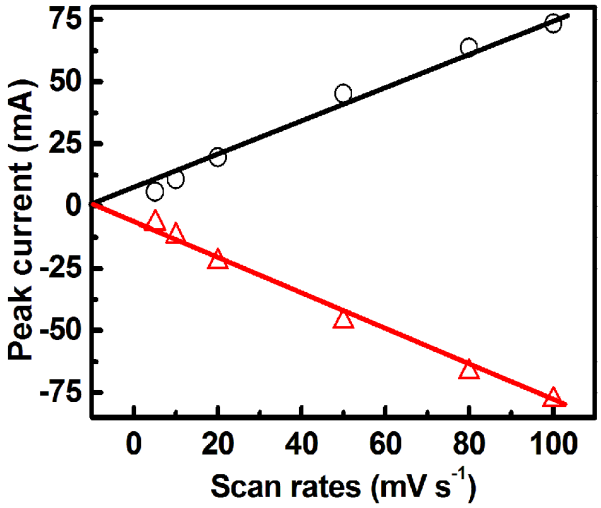

Fig. S2. Relationship between electrochemically cathodic and anodic redox peak currents and the sweep rate of the hierarchical CDMMC electrode in 1 M H_2SO_4 electrolyte

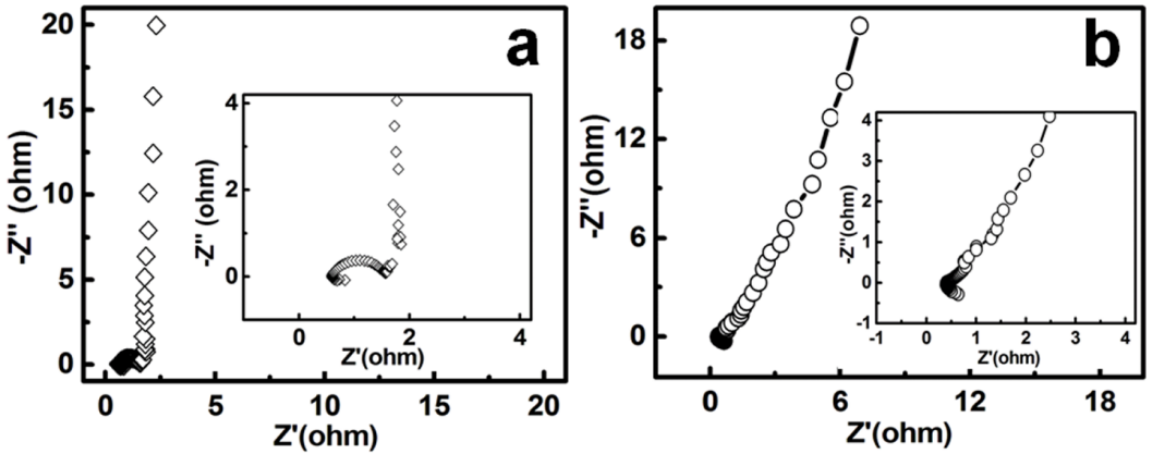

Fig. S3. EIS spectra of the CDMMC electrode in three-electrode configurations with (a) 6 M KOH and (b) 1 M H_2SO_4 solutions. The insets in (a, b) for the corresponding high-frequency regions of the EIS spectra, respectively

In general, the intersection of the plots at the X-axis represents solution resistance (R_s), which is associated with the following three items: the resistance of the aqueous solution, the intrinsic resistance of the electroactive material itself, and the contact resistance at the interface between electroactive material and current collector. As observed in **Fig. S3a**, **b**, the values for the R_s in the 6 M KOH and 1 M H_2SO_4 are observed as ~0.56 Ohm and 0.41 Ohm, respectively.

Table S1. SCs of the CDMMC *vs.* recently published heteroatom-rich carbons all tested in three-electrode configurations with different electrolytes

Carbon type	SCs (F g^{-1})/ discharge current density (A g^{-1})	electrolyte	electrochemical window (V)	Ref.
CDMMC	363/0.5	KOH	1.0	This work
CDMMC	460/0.5	H_2SO_4	1.0	This work
Porous N-doped CNT	220/0.5	KOH	1.0	[1]
Functionalized carbon	319/0.5	KOH	1.0	[2]
Hair-derived carbon	340/2.0	KOH	1.0	[3]
Nitrogen-doped graphene	280/<1.0	KOH	0.8	[4]
Leaves derived carbon	400/0.5	KOH	1.0	[5]
Partially reduced GO	347/0.2	H_2SO_4	1.0	[6]
Graphene-CNT architecture	326	H_2SO_4	1.0	[7]
Bacteria promoted carbon	327/1.0	H_2SO_4	1.0	[8]
N-containing HTC	300/0.2	H_2SO_4	1.0	[9]
Zeolite template carbon	340/0.1	H_2SO_4	1.2	[10]
PANI derived carbon	239/0.5	H_2SO_4	1.0	[11]
Rice husk	243/0.05	KOH	1.0	[12]

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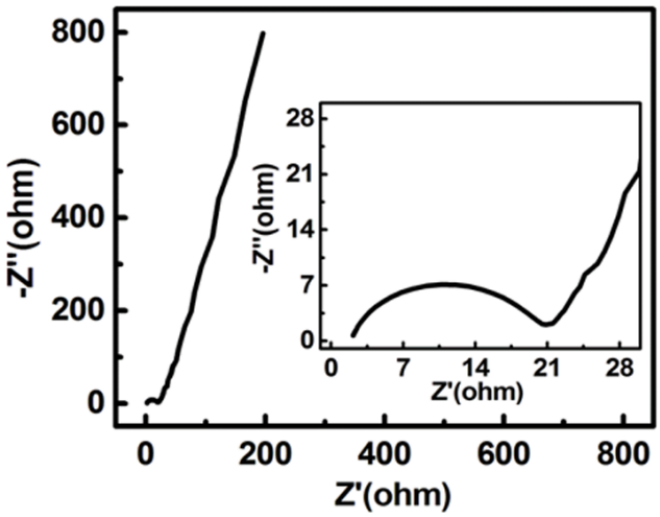

Fig. S4. EIS pattern of the CDMMC-based symmetric EC with 1 M $TEABF_4$/PC electrolyte. The inset for the corresponding high-frequency region of the EIS spectrum