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Ultra-thin carbon nanofiber networks derived from bacterial-cellulose for capacitive deionization

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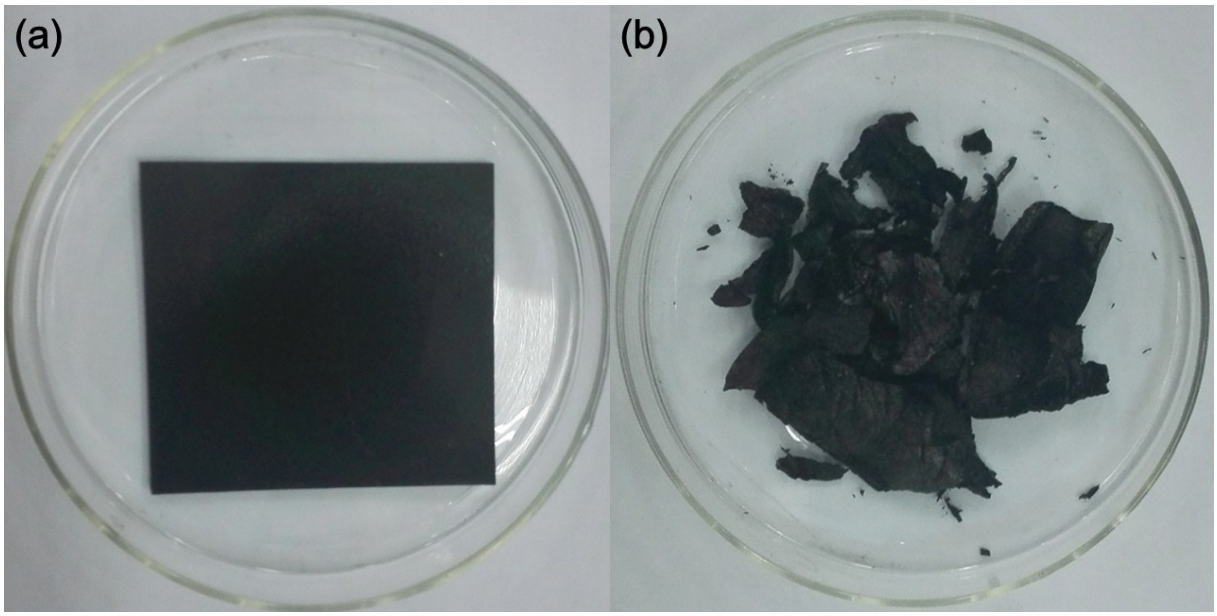

Fig. S1. Photograph of bc-CNFs treated at (a) 800 °C and (b) 1000 °C.

As shown in Fig S1, when the carbonization temperature was over 800 °C the free-standing structure of the bc-CNFs electrode was destroyed.

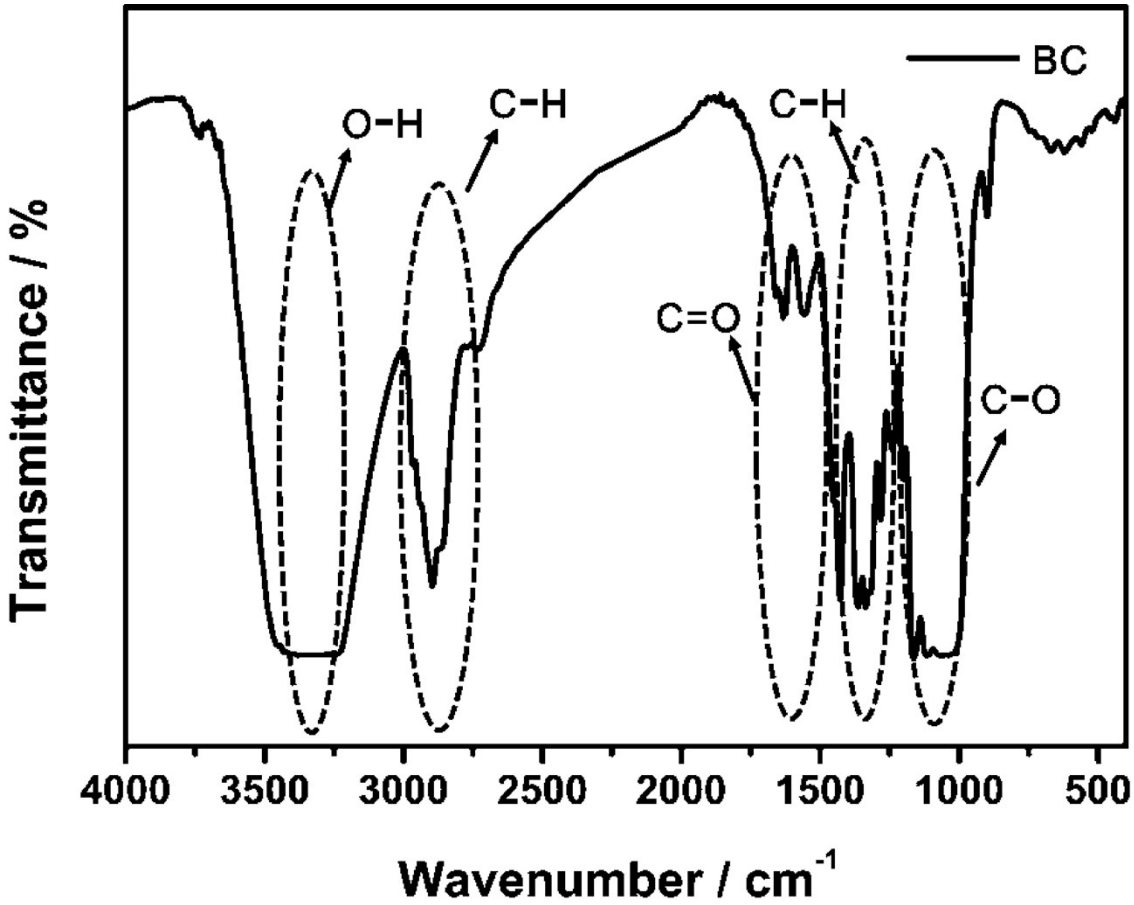

Fig. S2. FTIR spectrum of BC.

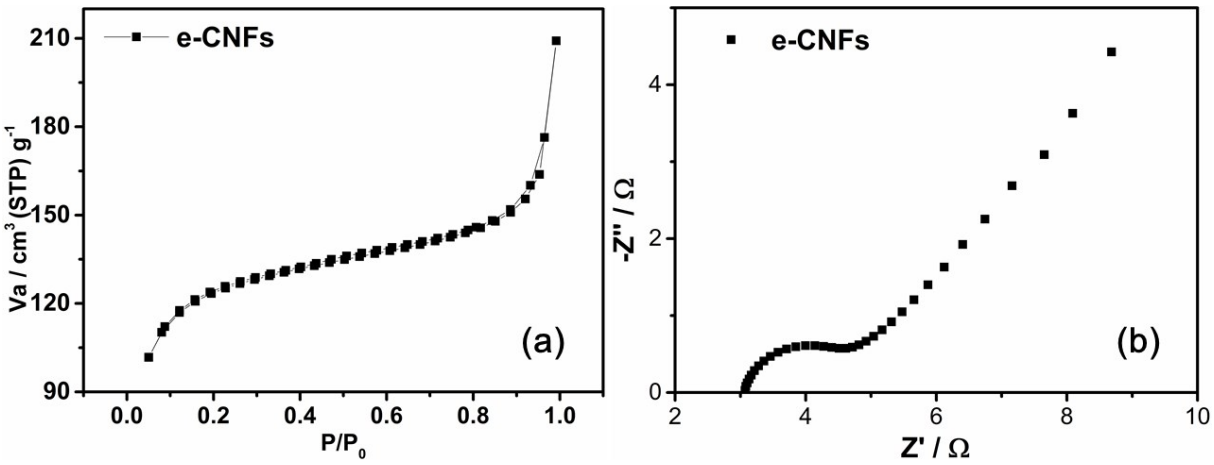

Fig. S3. (a) Nitrogen adsorption-desorption isotherm and (b) Nyquist plot of e-CNFs.

Nitrogen adsorption-desorption isotherm of e-CNFs is presented in Fig. S3 (a). The specific surface area of e-CNFs is 410.0 m^2 g^{-1}, which is determined by the Brunauer-Emmett-Teller method. Fig. S3 (b) shows the Nyquist plots of e-CNFs electrode and the fitted R_{ct} of e-CNFs is 2.35 Ω.