Unravelling the Role of Temperature in a Redox Supercapacitor Composed of Multifarious Nanoporous Carbon@Hydroquinone

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Powder X-Ray Diffraction (PXRD) Results of MNC and MNC-H₂O

**Figure S1:** PXRD patterns of MNC and MNC-H₂O. Spikes in the spectra were presumably due to slight metal impurity in the MNC.

**Brunauer-Emmett-Teller (BET) Analysis of MNC**

**Figure S2:** Characterizations of MNC using BET. (a) N₂ adsorption/desorption isotherms, (b) Pore size distribution and (c) Cumulative pore volume.
Thermogravimetric Analysis (TGA) curve of $MNC-H_2Q$

Figure S3: TGA curve of $MNC-H_2Q$.

Differential scanning calorimetry (DSC) curve of $MNC-H_2Q$

Figure S4: DSC curve of $MNC-H_2Q$. 
Cyclic voltammetry (CV) overlays of MNC, H₂Q and MNC-H₂Q in three electrodes system

Figure S5: Overlay of CVs of MNC, H₂Q and MNC-H₂Q at 100 mV s⁻¹. Current for H₂Q has been multiplied by 100 for better visibility.

Figure S6. CV overlays of MNC-H₂Q during cyclic tests of the 10th and 1000th cycles at (a) 20 °C and at (b) 50°C. (Scan rate100 mV s⁻¹).
Table S1: Specific Capacitances of MNC at different scan rates.

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<th>Scan Rate (mV s(^{-1}))</th>
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Cyclic voltammetry (CV) overlays of MNC-H\(_2\)O in three electrodes system at different temperatures
Figure S7: CVs of MNC-H₂Q at (a) 50, (b) 40, (c) 30, (d) 20, (e) 10, (f) 0, and (g) -10 °C. (h). Variation of specific capacitance values at different temperatures at 100 and 1 mV s⁻¹.

Table S2: Specific Capacitances of MNC-H₂Q at different current densities and temperatures

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