

Electronic Supplementary Information

Human Hair-Derived Carbon Flakes for Electrochemical Supercapacitors

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1. Pore-size distribution characterization of HMC-*T* materials

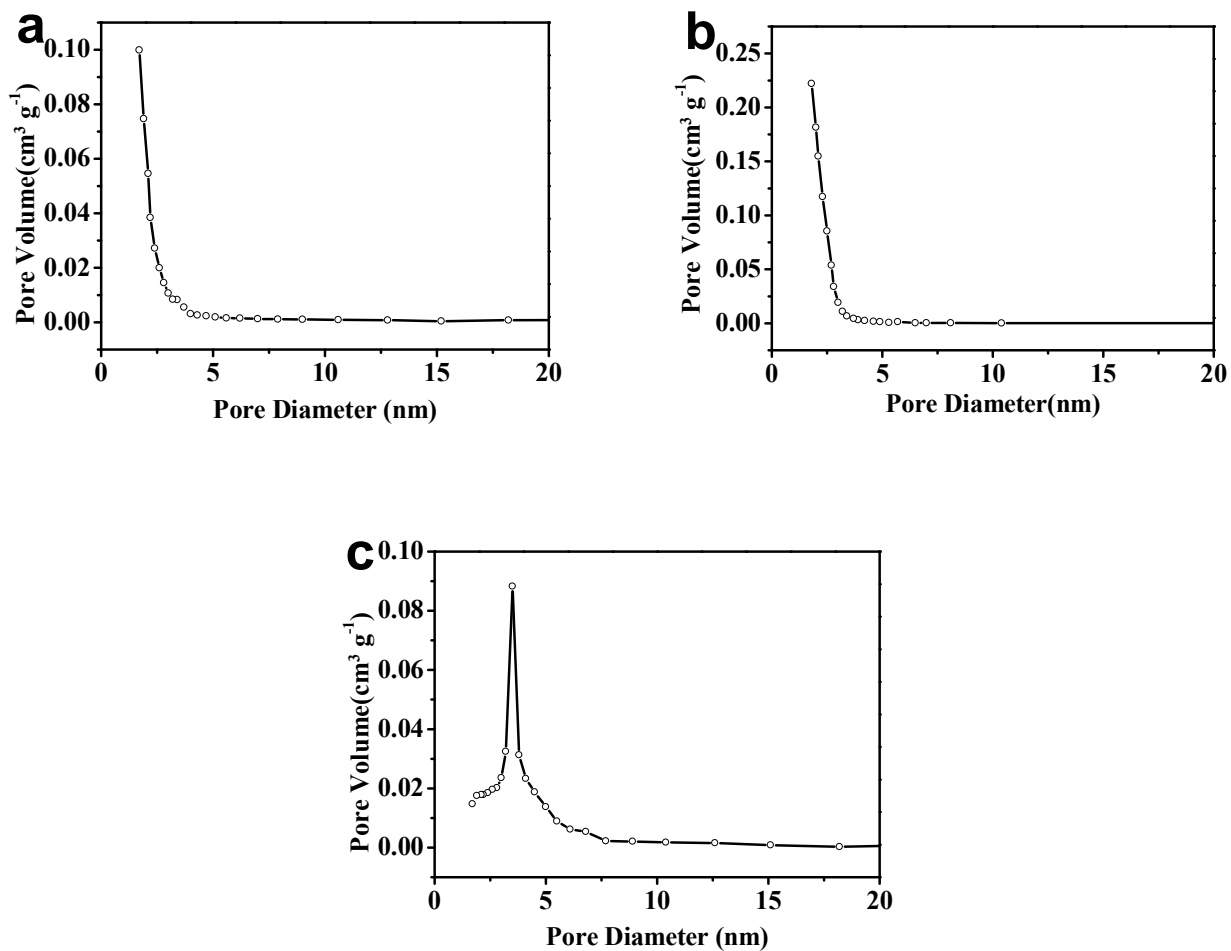


Fig. S1 Pore-size distributions of the HMC-*T*s activated at different temperature (a) HMC-700, (b) HMC-800, and (c) HMC-900 .

2. XPS Characterization of HMC-*T* materials

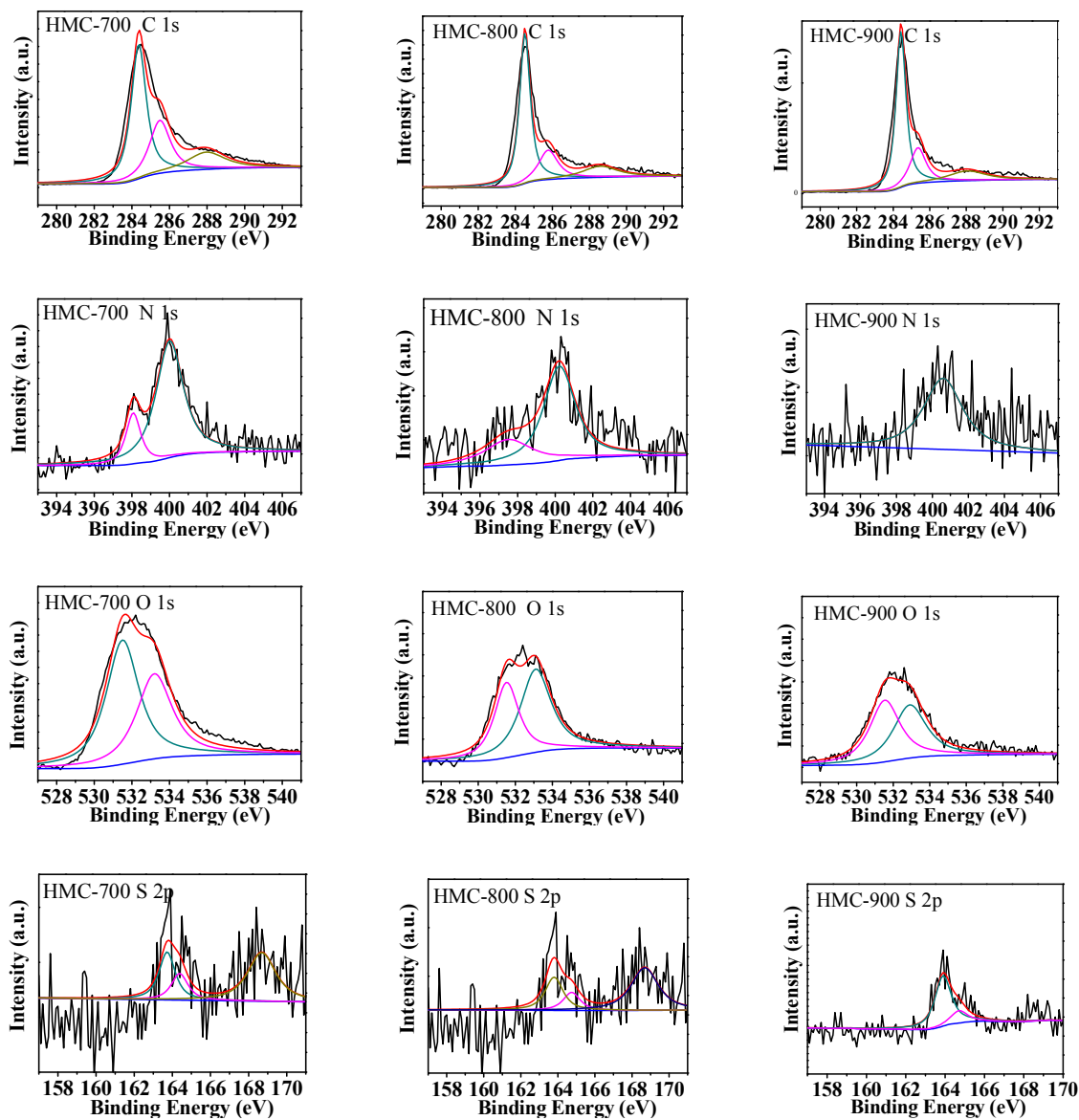


Fig. S2 XPS scans for C1s, N1s, O1s, and S2p orbitals of HMC-*T*s.

3. Electrochemical characterization of HMC-*T* materials

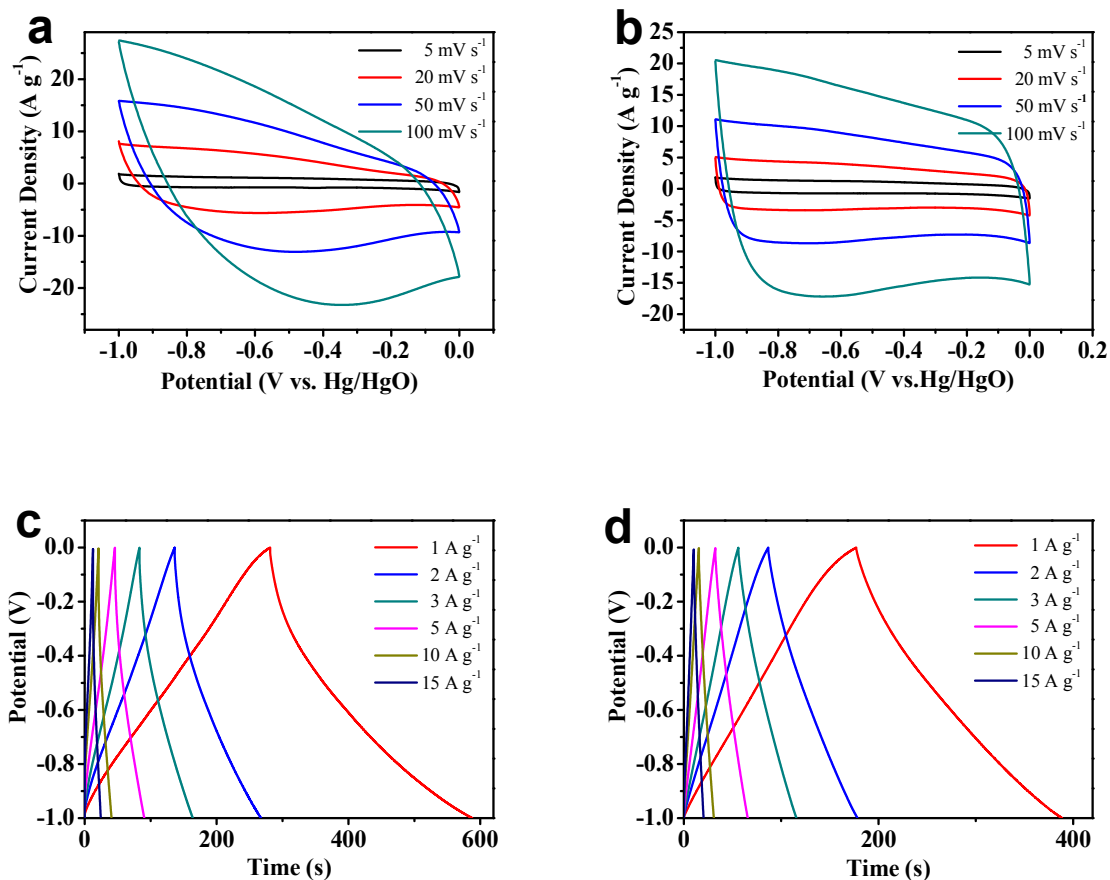


Fig. S3 Electrochemical characterization of the HMC-700 and HMC-900. Cyclic voltammograms of a) HMC-700 and b) HMC-900 at scan rates of 5, 20, 50, and 100 mV s^{-1} , respectively. Galvanostatic charge/discharge curves of c) HMC-700 and d) HMC-900 at current densities of 1, 2, 3, 5, 10, and 15 A g^{-1} , respectively.

4. Electrochemical characterization of HMC-800 material based symmetrical 2-electrode system

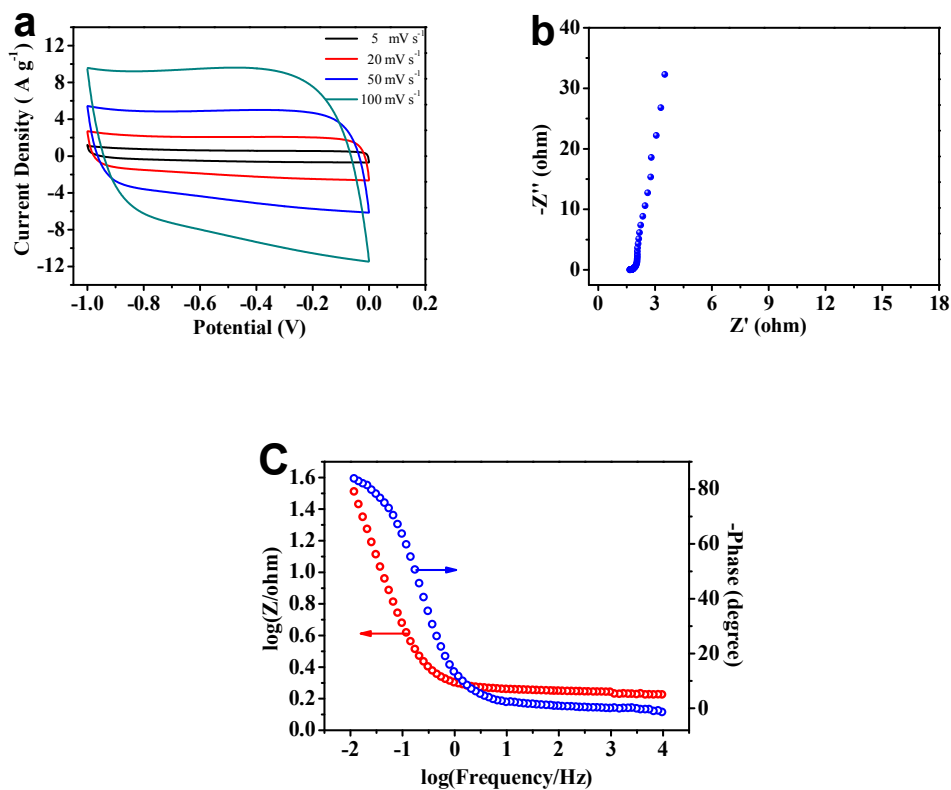


Fig. S4 a) Cyclic voltammetry profiles of HMC-800 material in 6M KOH electrolyte based symmetrical 2-electrode system; b) Nyquist plot of HMC-800 based symmetrical 2-electrode system; c) Bode plot of HMC-800 based symmetrical 2-electrode system.

5. Bode plots of the symmetrical HMC-800 based supercapacitor

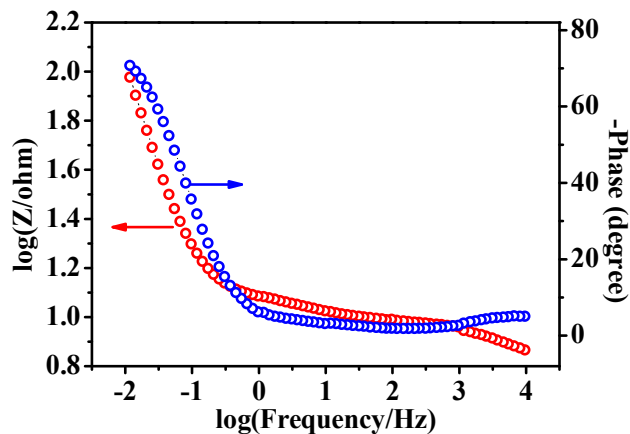


Fig. S5 Bode plots of of the symmetrical HMC-800 based supercapacitor.

6. Galvanostatic charge-discharge profiles of the symmetrical HMC-800 based supercapacitor

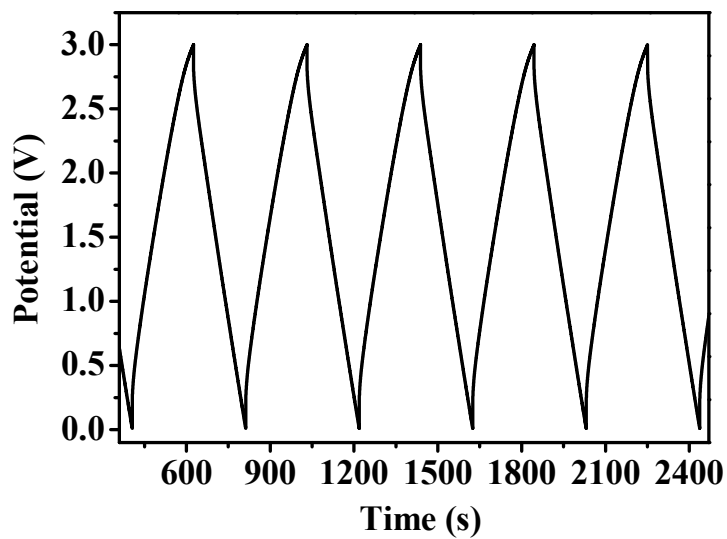


Fig. S6 Galvanostatic charge-discharge profiles of the symmetrical HMC-800 based supercapacitor at a current density of 1 A g^{-1} .