Supporting Information:

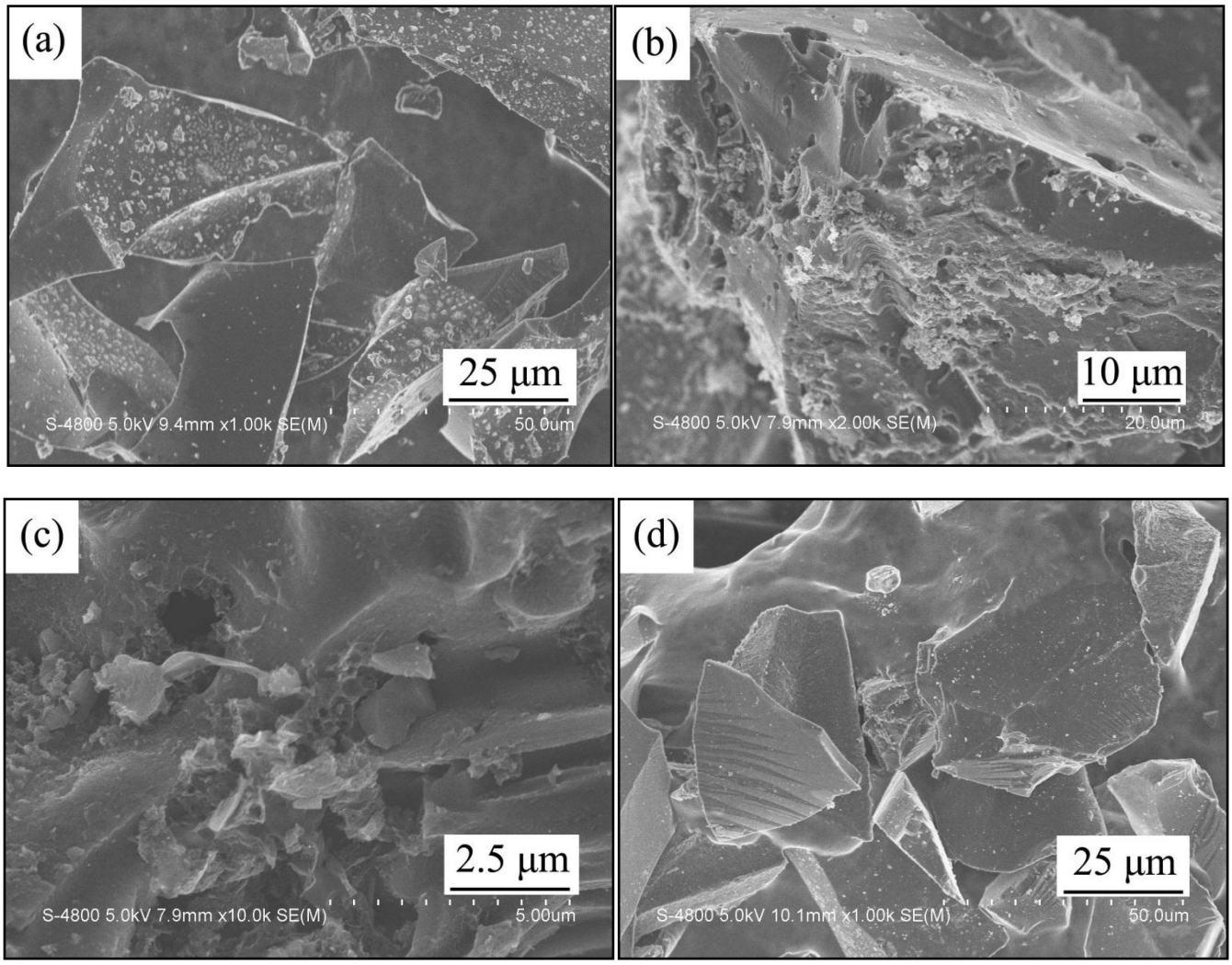


Fig. S1. FESEM images of carbon samples: (a) **PF-blank**; (b) **PF-Zn-1:3**; (c) **PF-Zn-1:5**; (d) **PF-PVB-1:1**.

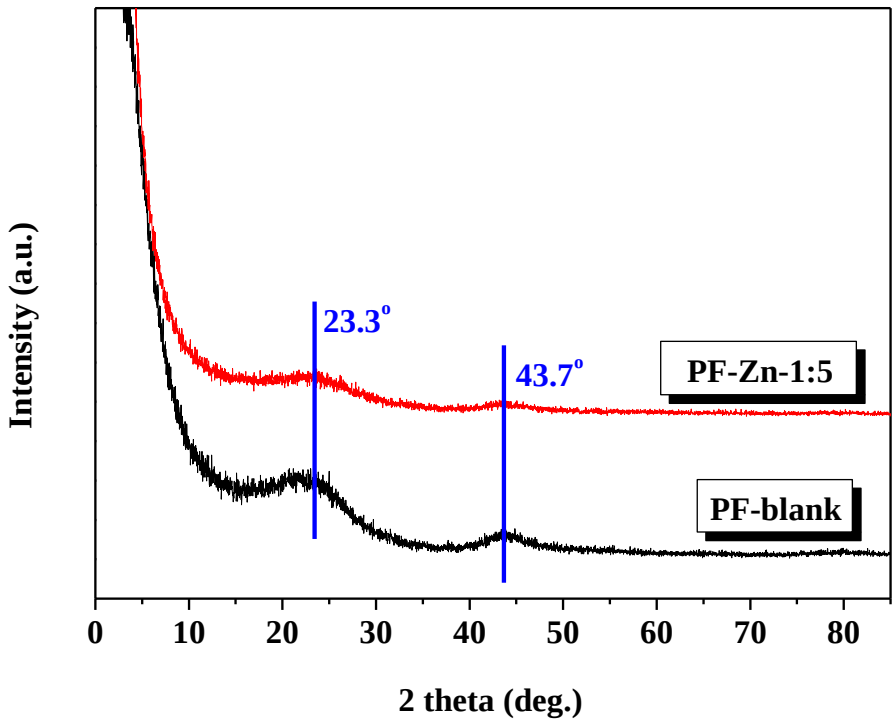


Fig. S2. XRD patterns of the **PF-blank** and **PF-Zn-1:5** samples.

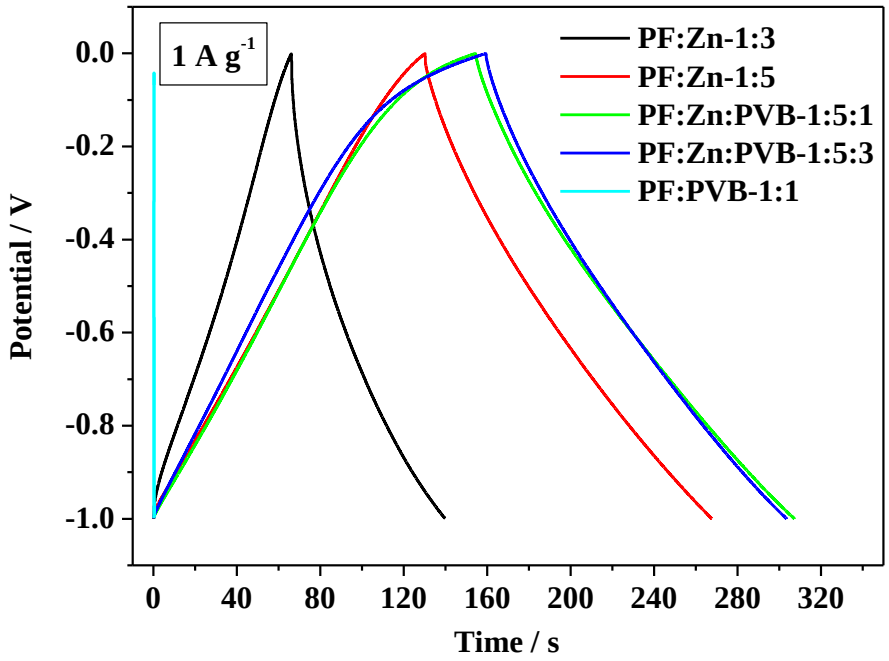


Fig. S3. Galvanostatic charge-discharge curves measured at a current density of 1 A g^{-1} of the carbon samples.

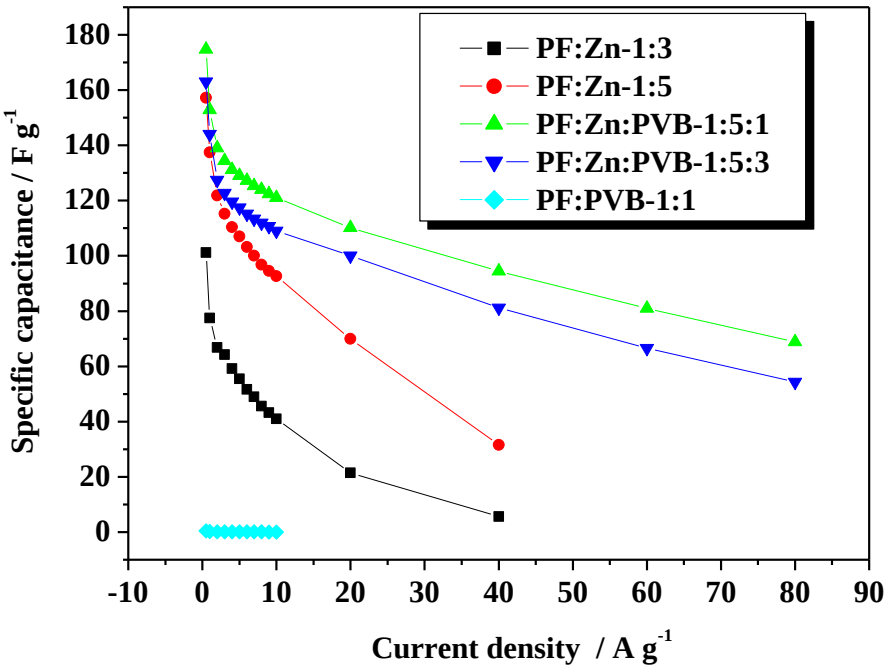


Fig. S4. Specific capacitances at various current densities of the carbon samples.

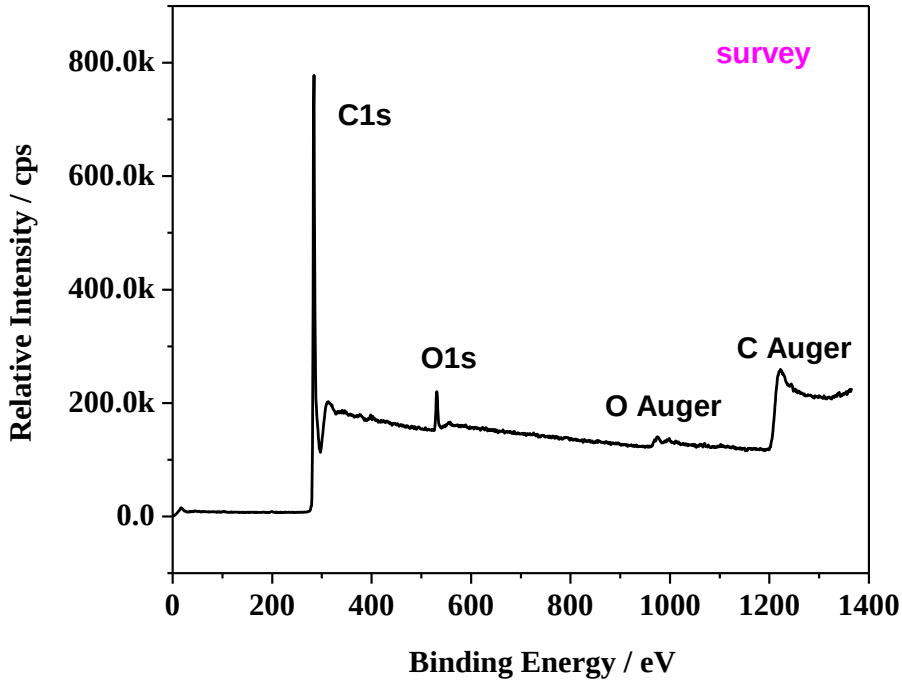
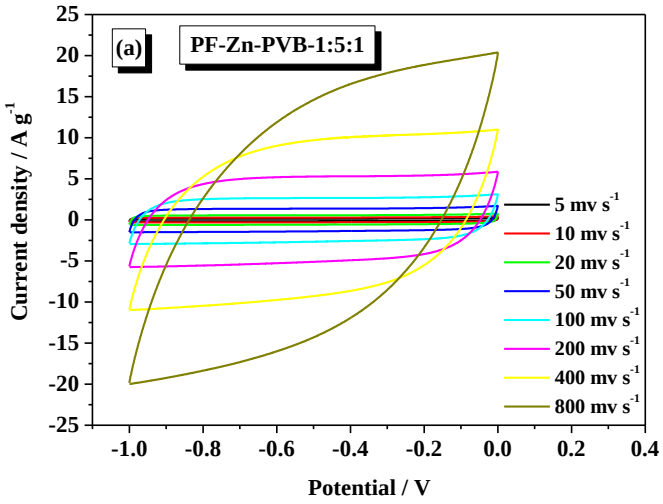
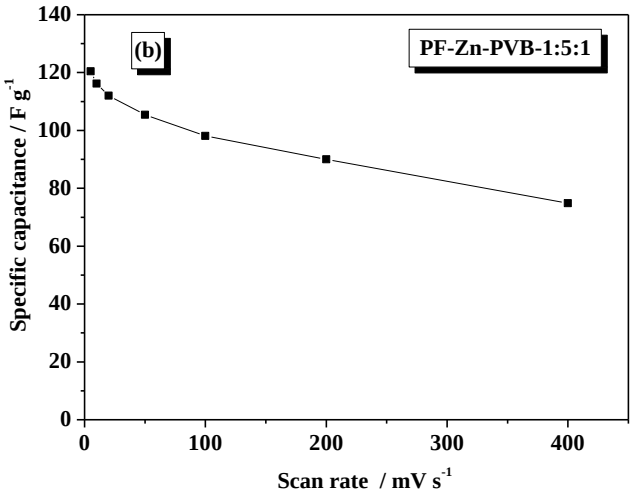
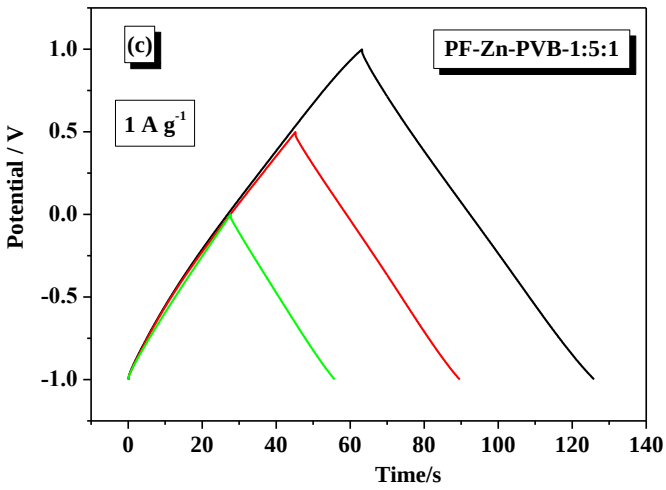
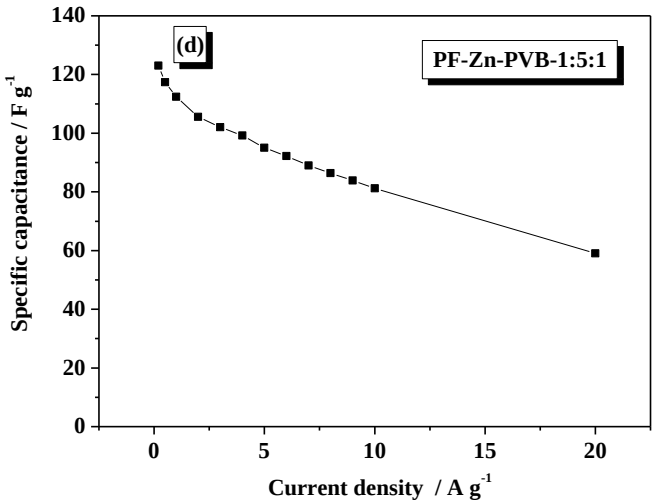


Fig. S5. XPS spectrum of the **PF-Zn-PVB-1:5:1** sample.









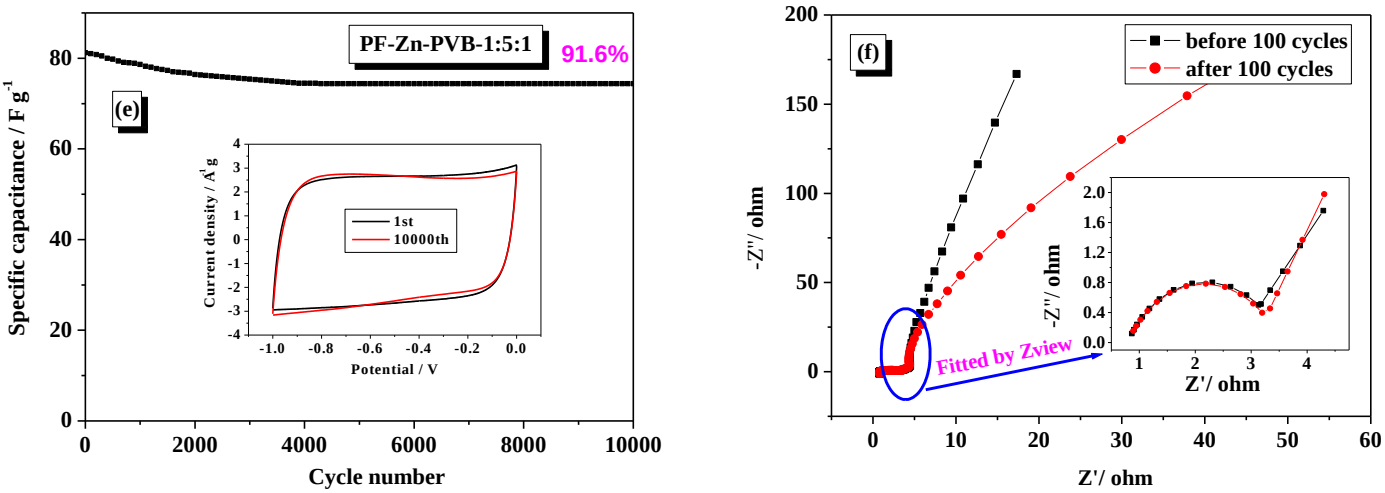


Fig. S6. PF-Zn-PVB-1:5:1 sample: (a) Cyclic voltammograms at various scan rates; (b) Specific capacitances derived from CV tests; (c) Galvanostatic charge-discharge curves with different potential windows measured at a current density of 1 A g^{-1}; (d) Specific capacitances at various current densities; (e) Cycling stability after 10000th cycles as well as the cyclic voltammograms of the 1st and 10000th cycles (the inset) at a current density of 20 A g^{-1}; (f) Nyquist plots before/after 100 cycles.

Notes: <u>The electrochemical results shown in Fig. S6 are measured in a two-electrode cell.</u>

Gravimetric capacitance for a single electrode was calculated from the discharge curve in a two-electrode cell as

$$C_{single} = \frac{4I/\Delta t}{m\Delta V}$$

where I (A) is the constant current and m (mg) is the total mass for both carbon electrodes, Δt (s) is the discharge time, and ΔV (V) is the voltage change during the discharge process.

Ref. <u>J. Han, L. L. Zhang, S. Lee, S. Park et al. *ACS NANO*, 2013, **7**, 19-26.</u>