

## **A two-volt aqueous supercapacitor from porous dehalogenated carbon**

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## Supporting figures and captions

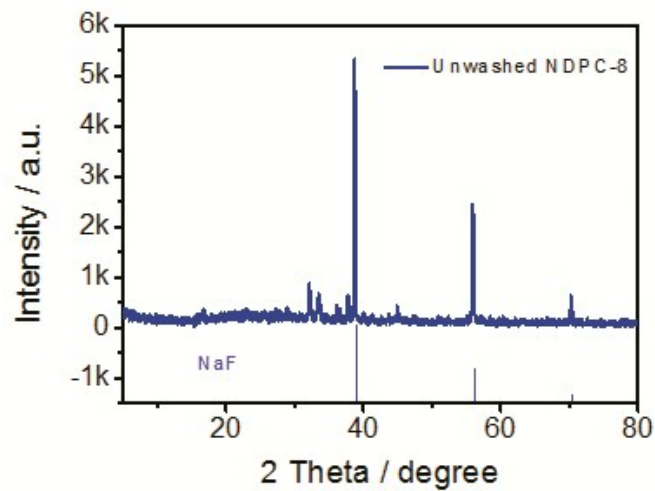


Figure S1. XRD profile of unwashed NDPC-8 with reference to standard lines of NaF. (JCPDF No#36-1455)

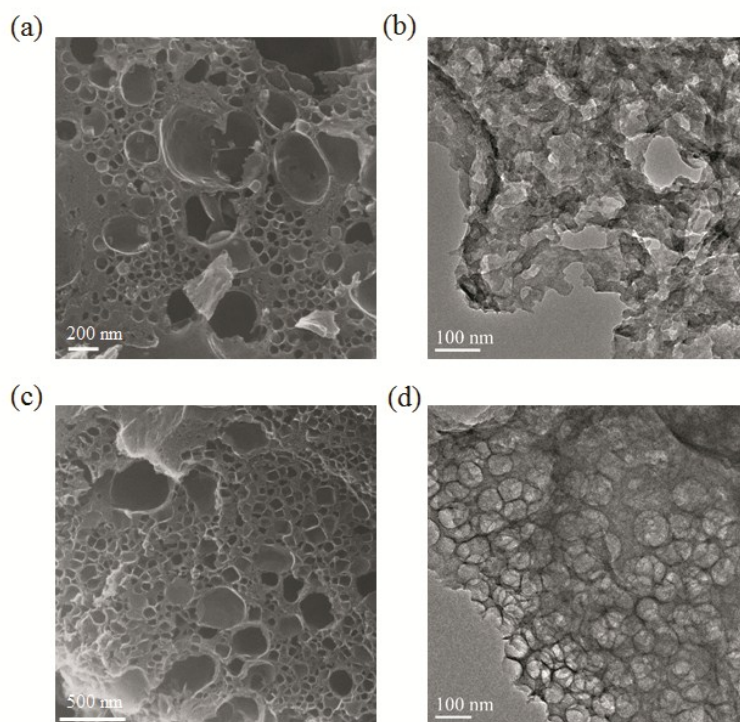


Figure S2. (a) SEM and (b) TEM images of NDPC-6. (c) SEM and (d) TEM images of NDPC-7

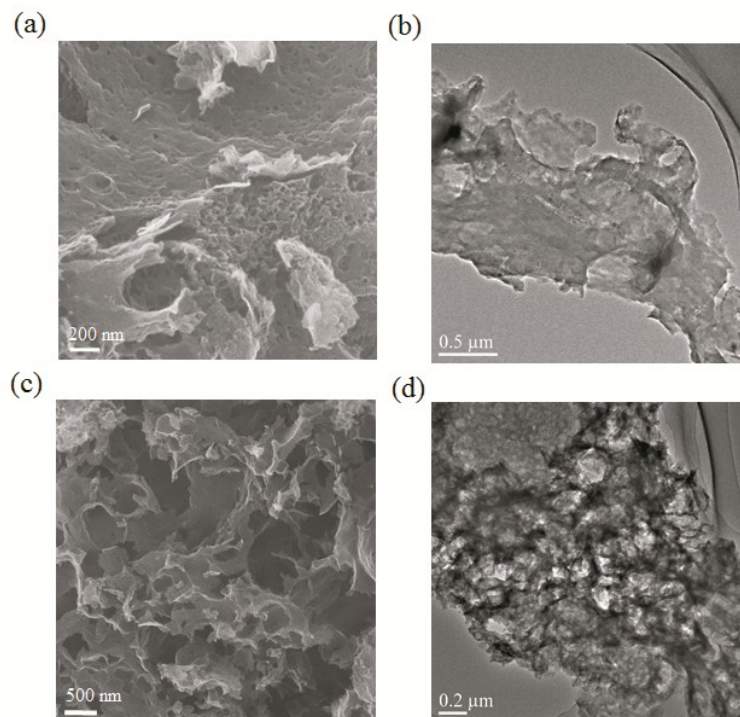


Figure S3. (a) SEM and (b) TEM images of O-PC-8, (c) SEM and (d) TEM images of N-PC-8.

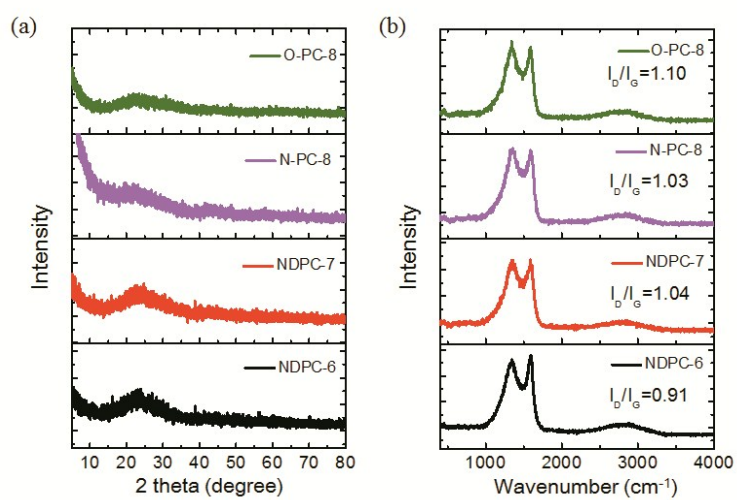


Figure S4. (a) XRD profiles and (b) Raman spectra of NDPC-6/7, N-PC-8, and O-PC-8.

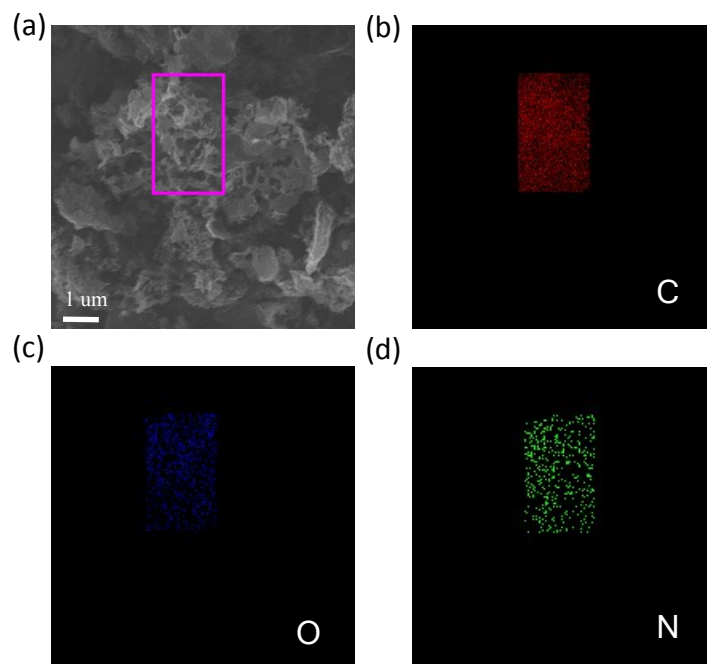


Figure S5. Element mapping of N-PC-8: (a) SEM image, element (b) C, (c) O, and (d) N.

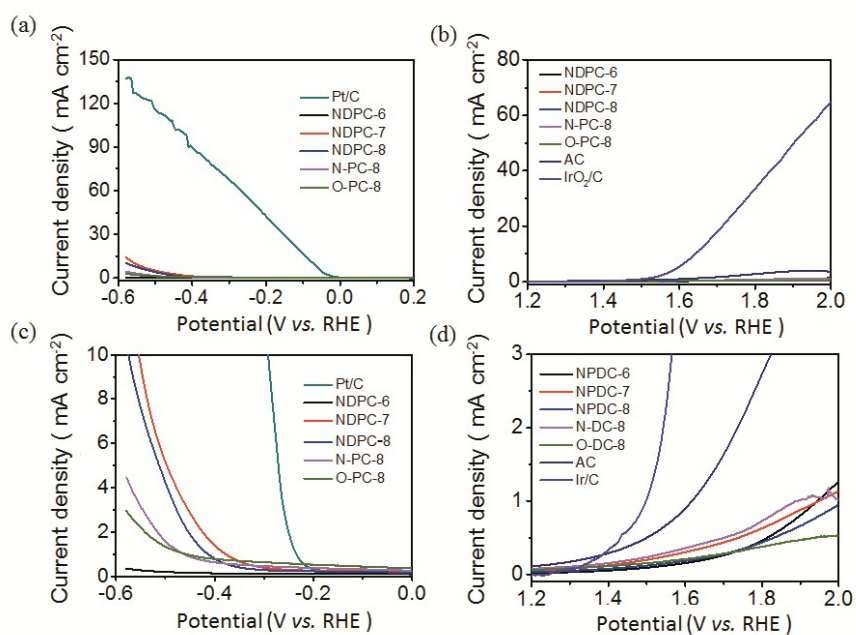


Figure S6. Hydrogen and oxygen evolution reaction performance of NDPC-6/7/8, N-PC-8, and O-PC-8 measured in (a/c) 0.5 M  $\text{H}_2\text{SO}_4$ , and (b/d) 0.1 M  $\text{KOH}$ , respectively. Panel (c) and (d) were the enlarged views of (a) and (b), respectively.

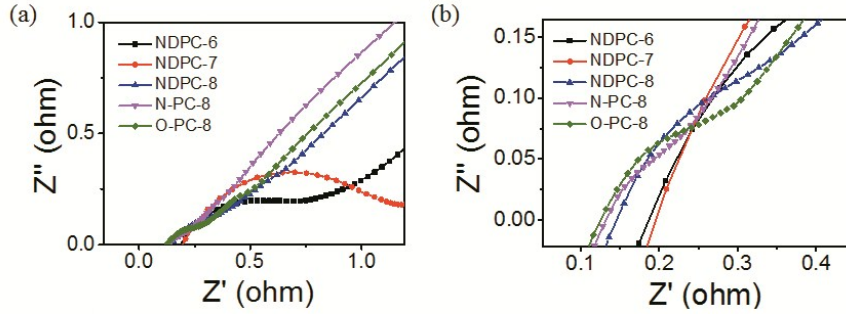


Figure S7. (a) EIS spectra of NDPC-6/7/8, N-PC-8, and O-PC-8, panel (b) is the enlarged view of the high-frequency region of (a).

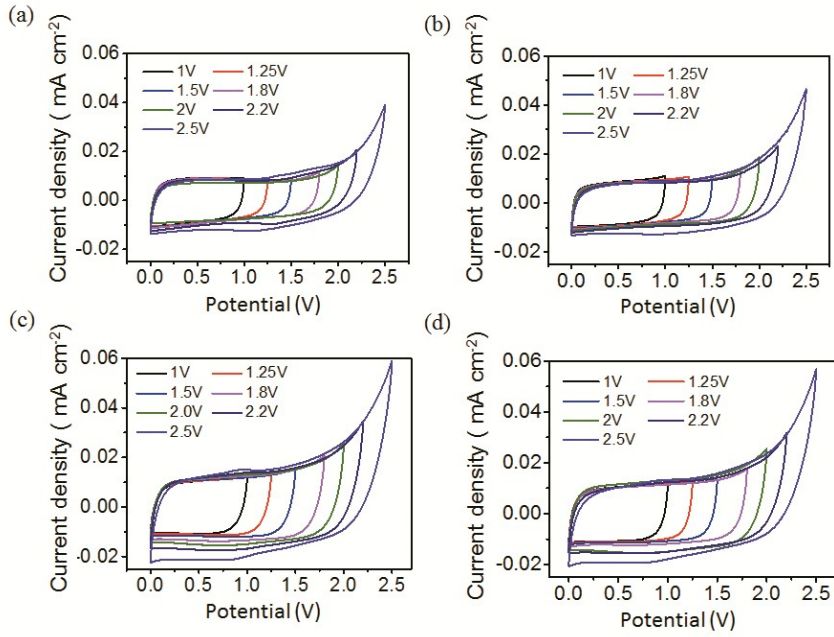


Figure S8. CV profiles of NDPC-(a) 6/ (b) 7, (c) N-PC-8, and (d) O-PC-8 with different given open circuit voltage, CV scanning rate was all set as 100.0 mV/s.

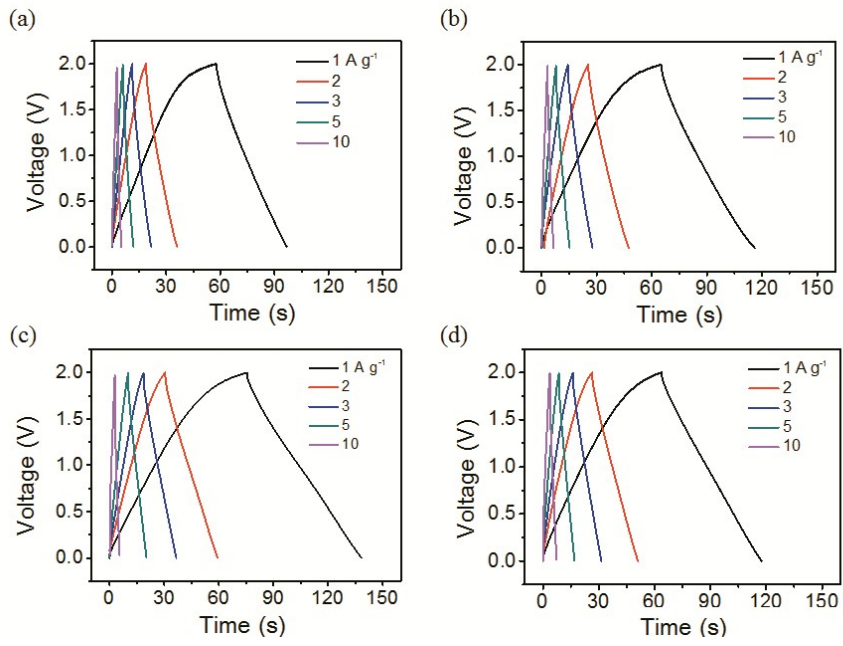


Figure S9. GCD profiles of NDPC-(a) 6/ (b) 7, (c) N-PC-8, and (d) O-PC-8.

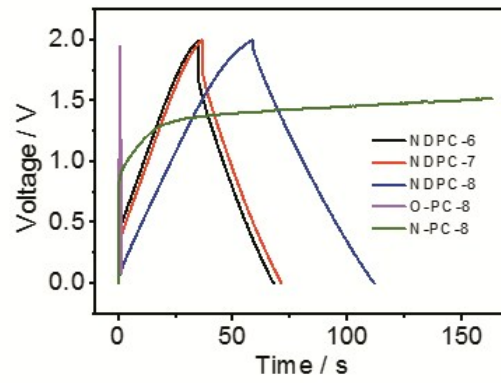


Figure S10. GCD profiles of NDPC samples, O-PC-8, and N-PC-8 after 5000 cycles of charge/discharge at 5.0 A/g