

Supporting Information for

**Zwitterionic polymer-derived nitrogen and sulfur co-doped
carbon-coated Na₃V₂(PO₄)₂F₃ as a cathode material for
sodium ion battery energy storage**

Tianyi Lu, Xiaobo Yu, Xiaokai Li, Jiawei Qi, Shu Huang, Zu Man, Haitao Zhuo*

College of Chemistry and Environmental Engineering, Shenzhen University,
Shenzhen, 518060, P. R. China

* Corresponding author: haitaozhuo@163.com

Number of pages: 5

Number of figures: 5

TABLE OF CONTENT

1. Supplementary Figures

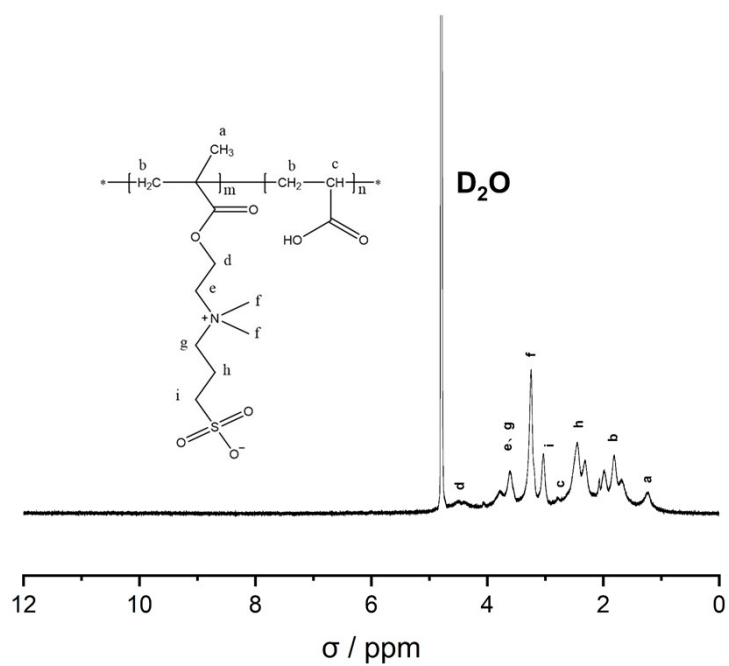


Fig. S1 ¹H-NMR of DMAPS-co-AA

Fig. S1 is the ¹H-NMR diagram of DMAPS-co-AA, in which each hydrogen is assigned as follows: 4.49 (d, -OCH₂); 3.60、3.79 (e、g, -NCH₂); 3.25 (f, -N(CH₃)₂); 3.03 (i, -CH₂-SO₃⁻); 2.48、2.31 (c、h, -CH₂-C-SO₃⁻); 1.99、1.81、1.67 (b, -CH₂); 1.23 (a, -CH₃);

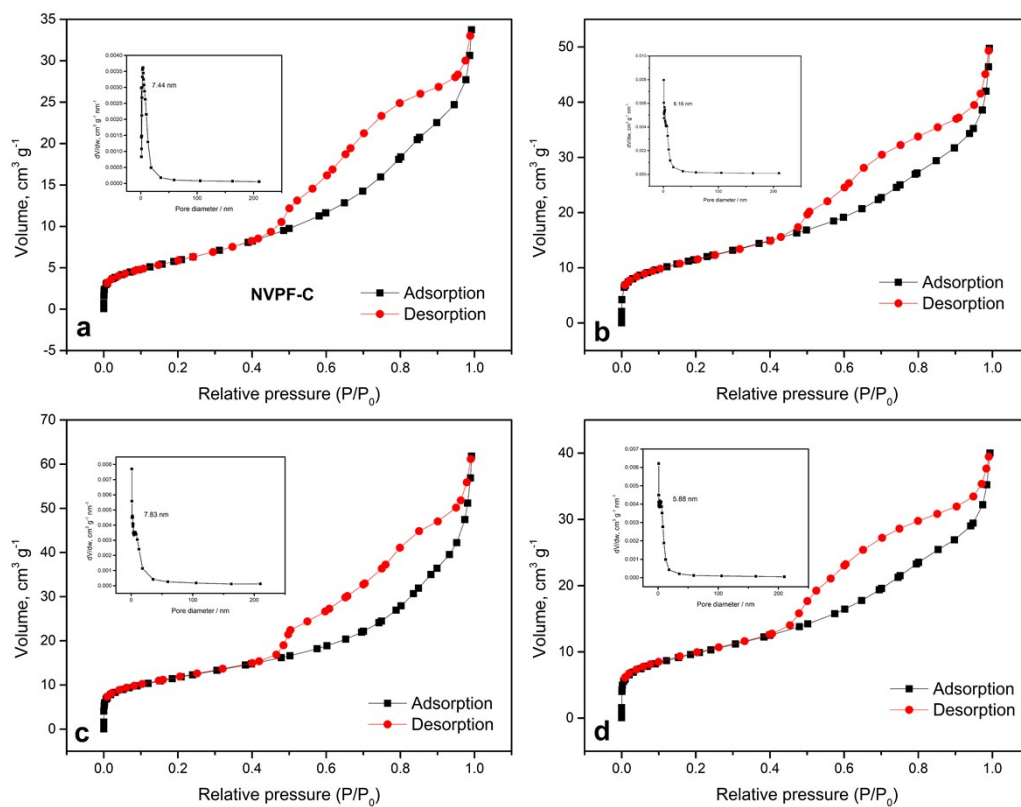


Fig. S2 N_2 adsorption-desorption isotherms and corresponding BJH pore-size distribution curve (the inset) of all samples.

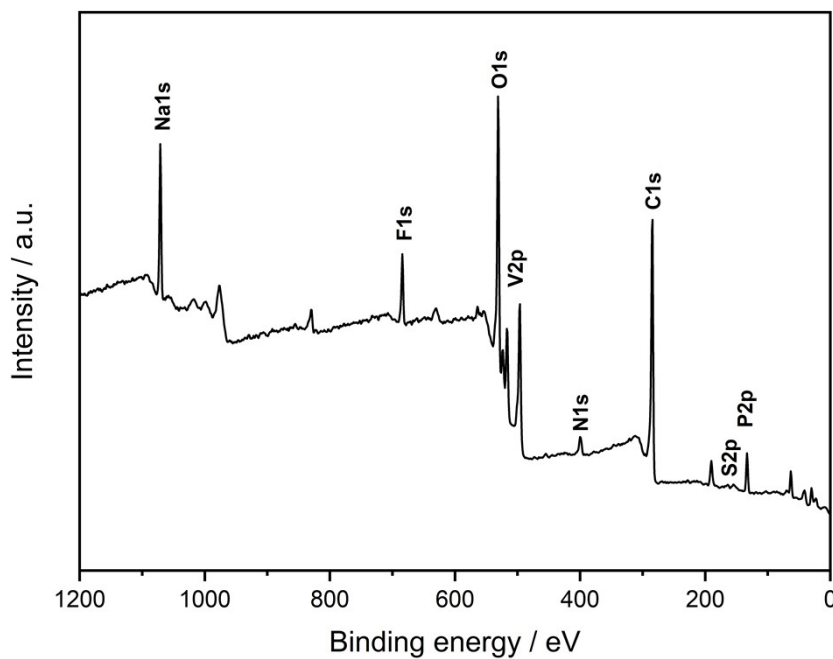


Fig. S3 Full XPS spectra of NVPF-NSC-2.

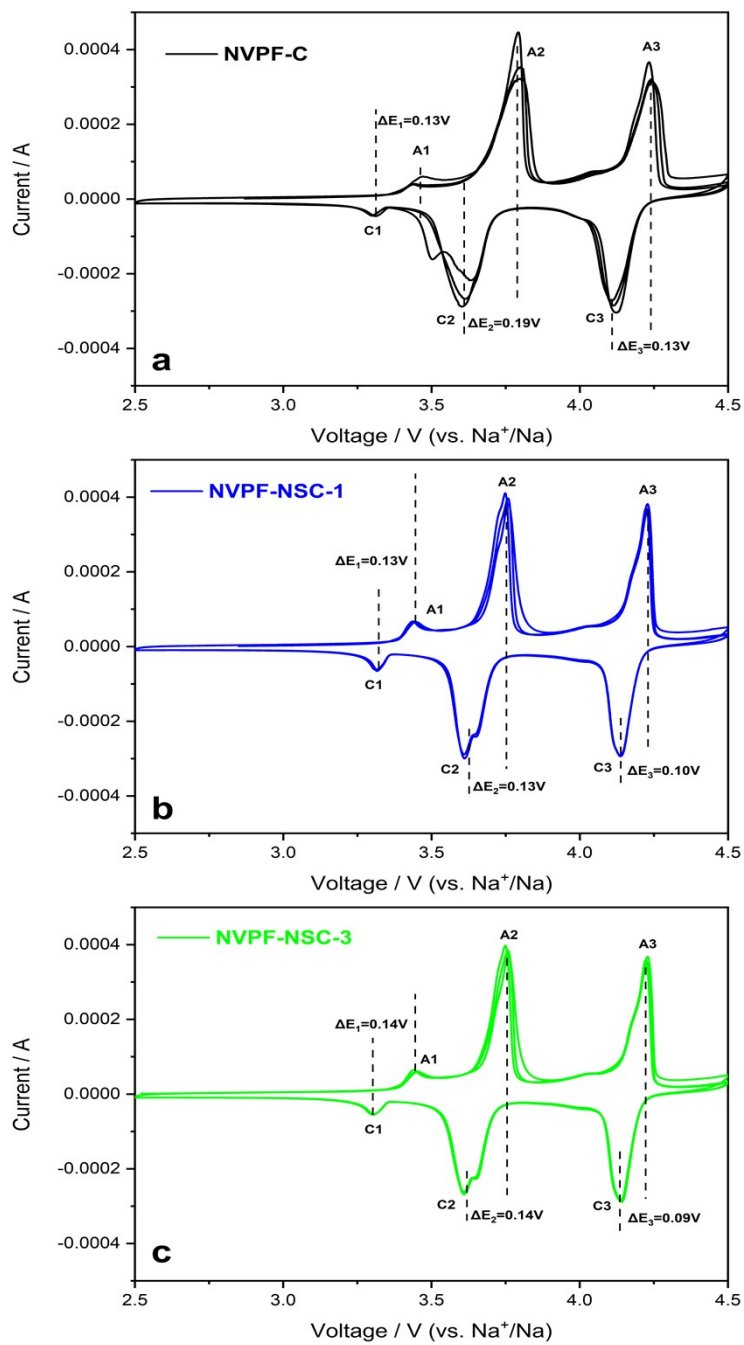


Fig. S4 CV curves for the first three cycles of NVPF-C、NVPF-NSC-1、NVPF-NSC-3, respectively.

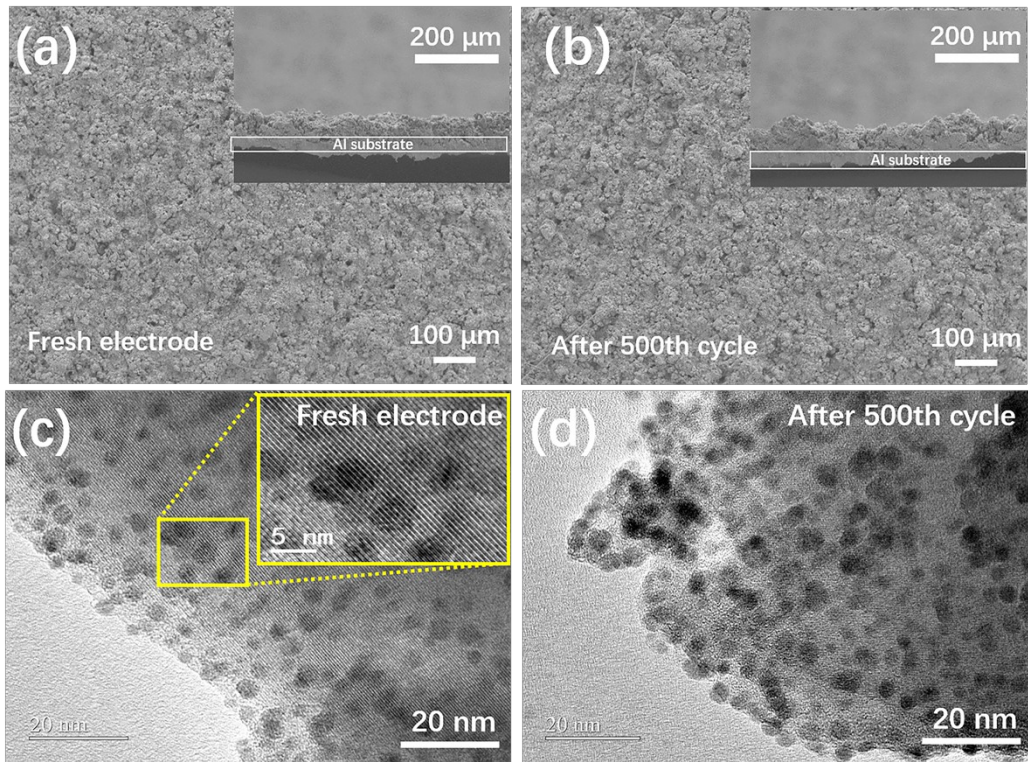


Fig. S5 SEM and TEM images of NVPF-NSC-2 material under high current cycle.