

## Supporting information

### **A conductive network enhanced self-assembled diphasic Prussian blue analogs for aqueous zinc-ion batteries**

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*= Representative same contributions*

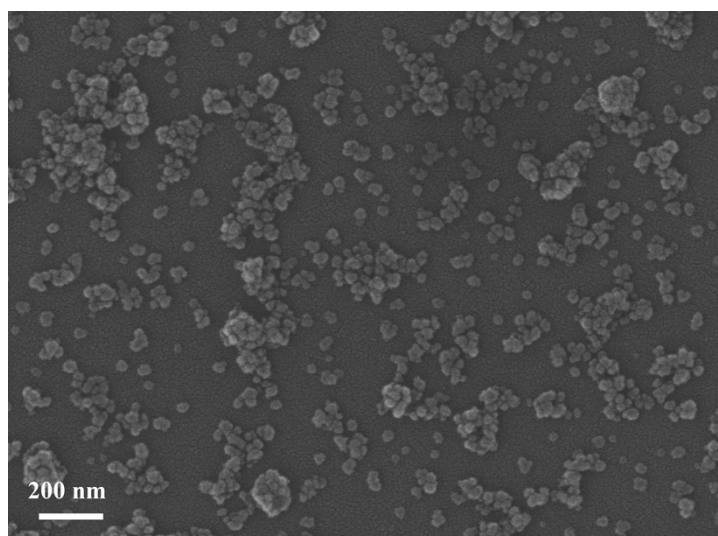


Fig. S1 SEM images of VOHCF

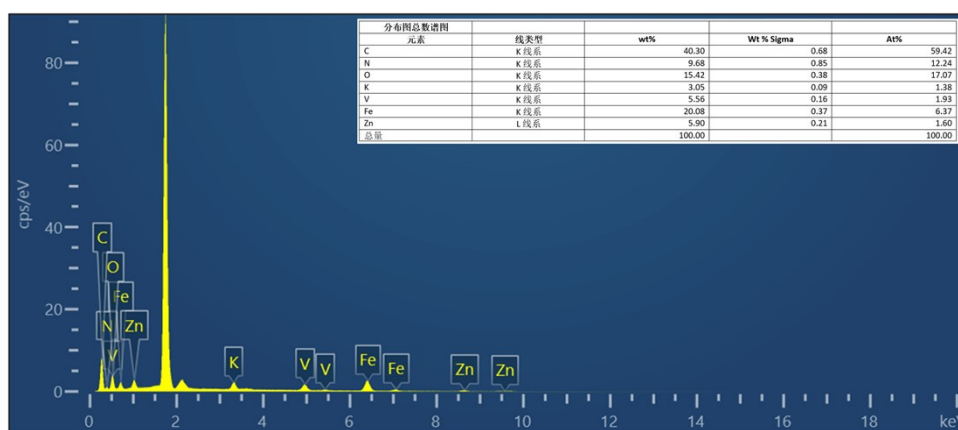


Fig. S2 Elemental distribution general spectrum of ZnVHCF@rGO

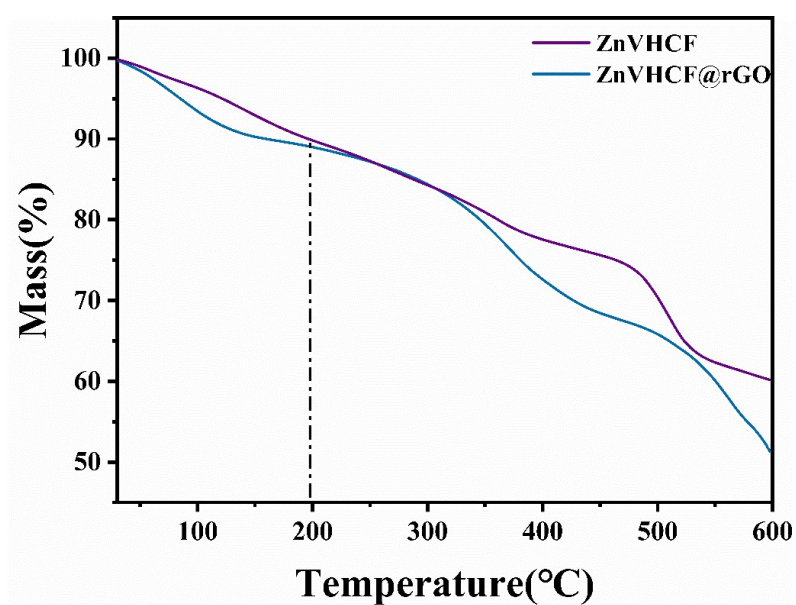


Fig. S3 TG curves of ZnVHCF and ZnVHCF@rGO

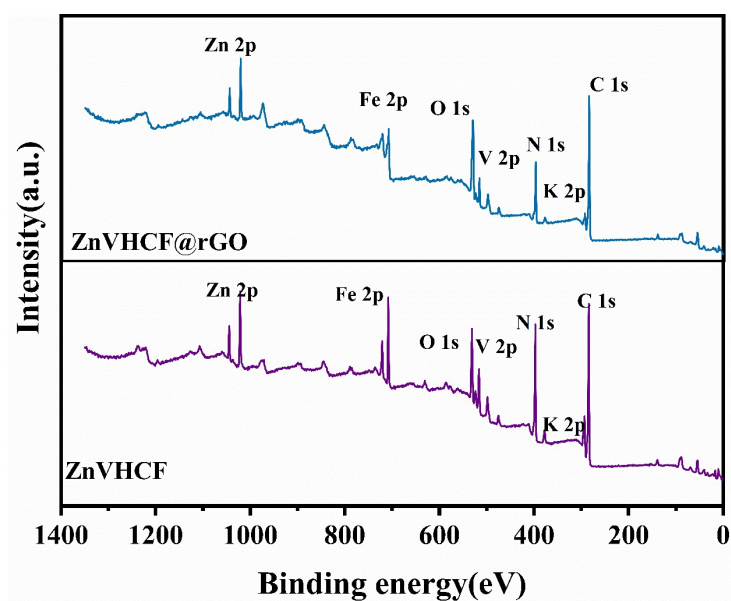


Fig. S4 Full XPS spectra of ZnVHCF and ZnVHCF@rGO

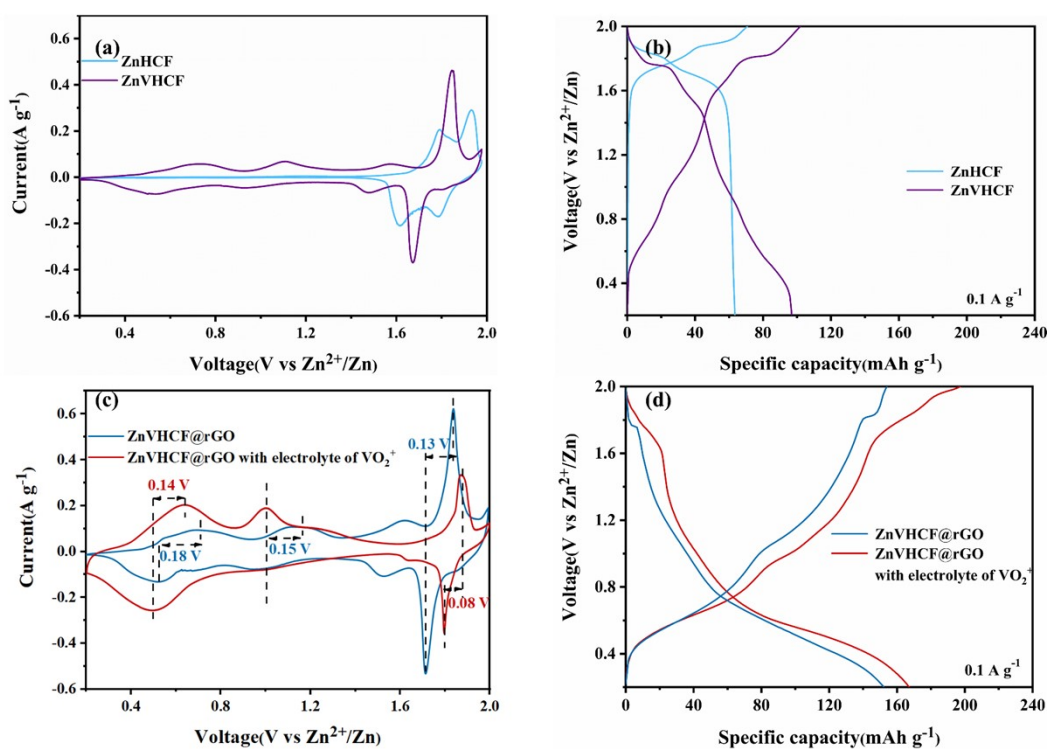


Fig. S5 (a) CV curves at  $0.2 \text{ mV s}^{-1}$  and (b) GCD curves at  $0.1 \text{ A g}^{-1}$  of ZnHCF and ZnVHCF; (c) CV curves at  $0.2 \text{ mV s}^{-1}$  and (d) GCD curves at  $0.1 \text{ A g}^{-1}$  of ZnVHCF@rGO and ZnVHCF@rGO with electrolyte of  $\text{VO}_2^{2+}$ ;

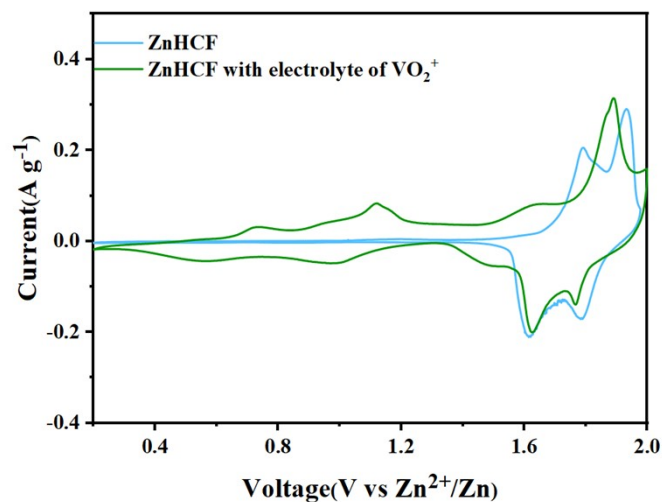


Fig. S6 CV curves at  $0.2 \text{ mV s}^{-1}$  of ZnHCF in two electrolytes

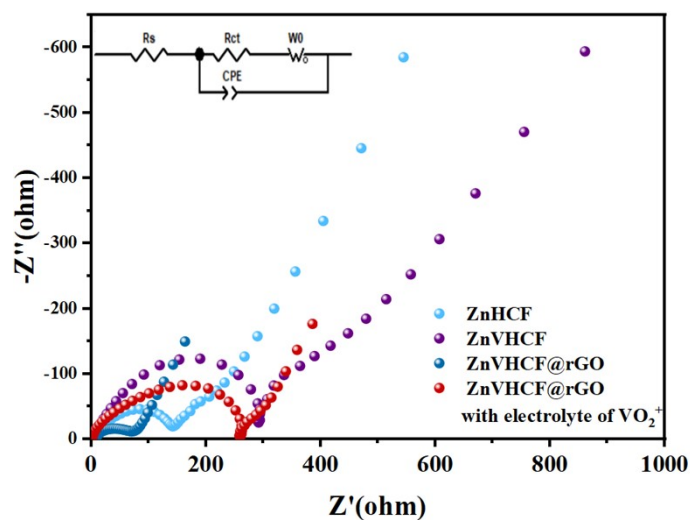


Fig. S7 Nyquist plots

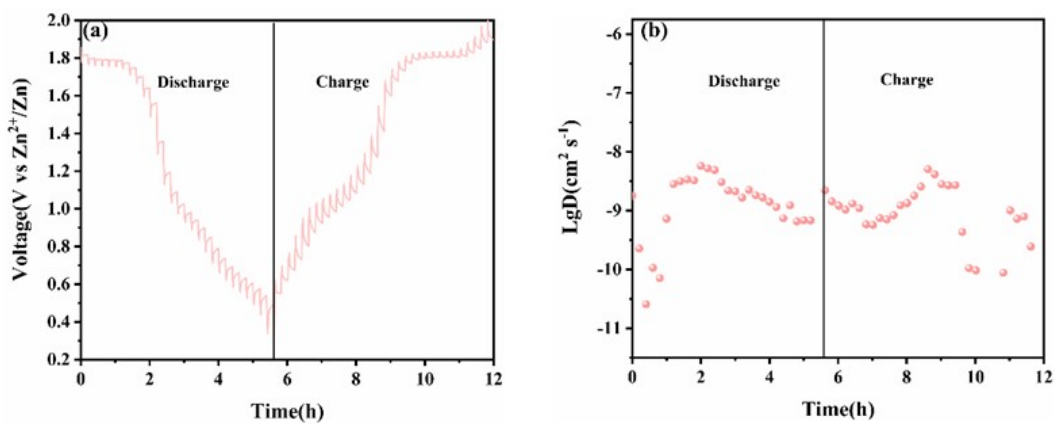


Fig. S8 (a)GITT bright and (b) the corresponding ion diffusion coefficients for ZnVHCF

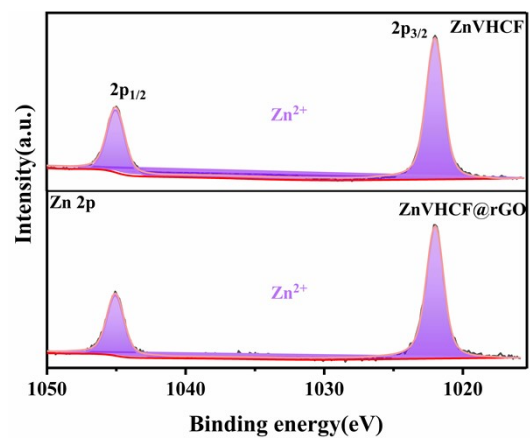


Fig. S9 Zn 2p at the charge/discharge for ZnVHCF@rGO