

Supporting Information

Mixed-Valent Vanadium oxide Cathode with Ultrahigh Rate Capability for Aqueous Zinc-Ion Battery

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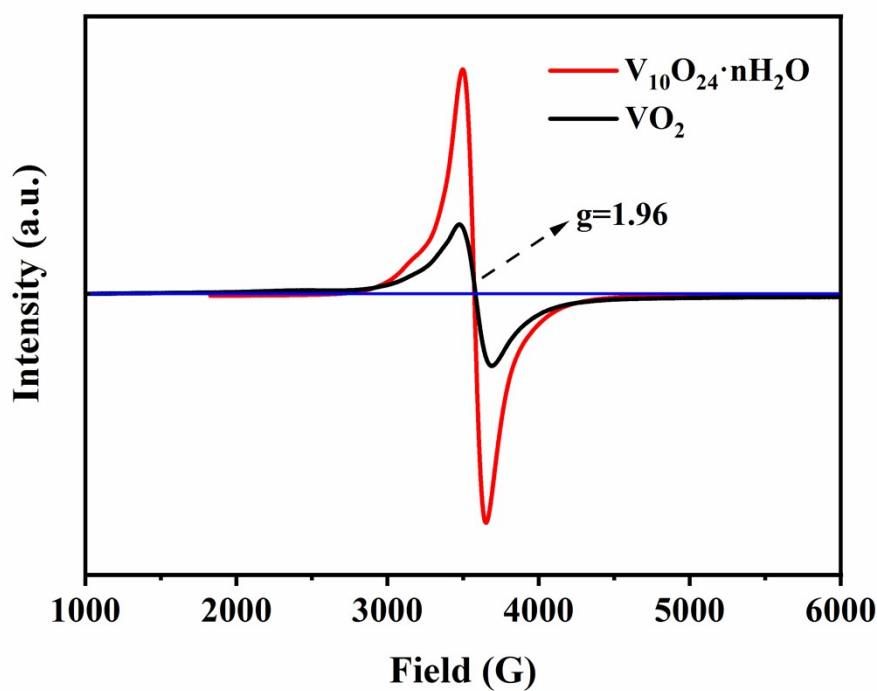


Figure S1. EPR spectra of $V_{10}O_{24} \cdot nH_2O$ and VO_2 with the giso-factor 1.96.

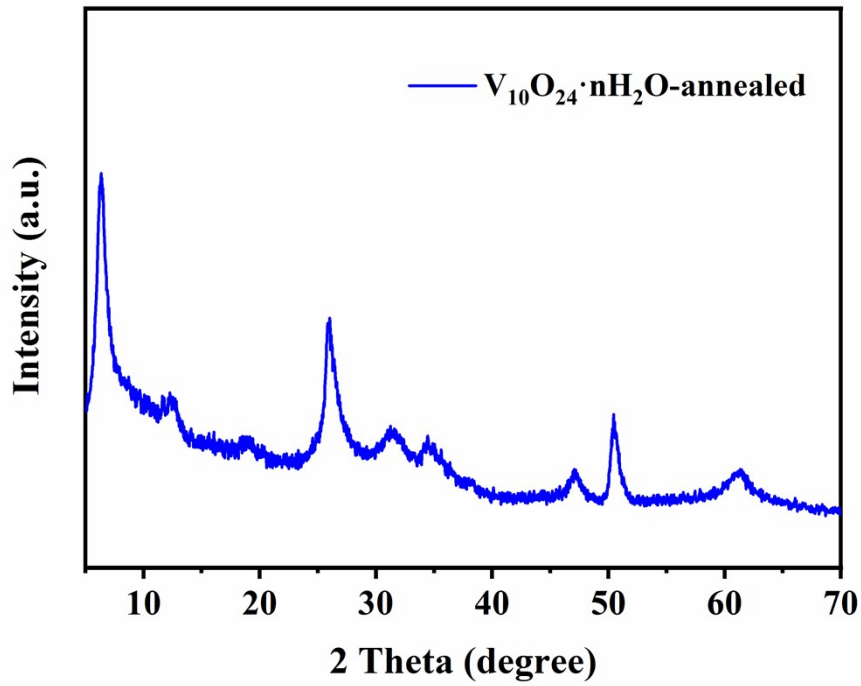


Figure S2. The XRD pattern of $V_{10}O_{24} \cdot nH_2O$ -annealed composite.

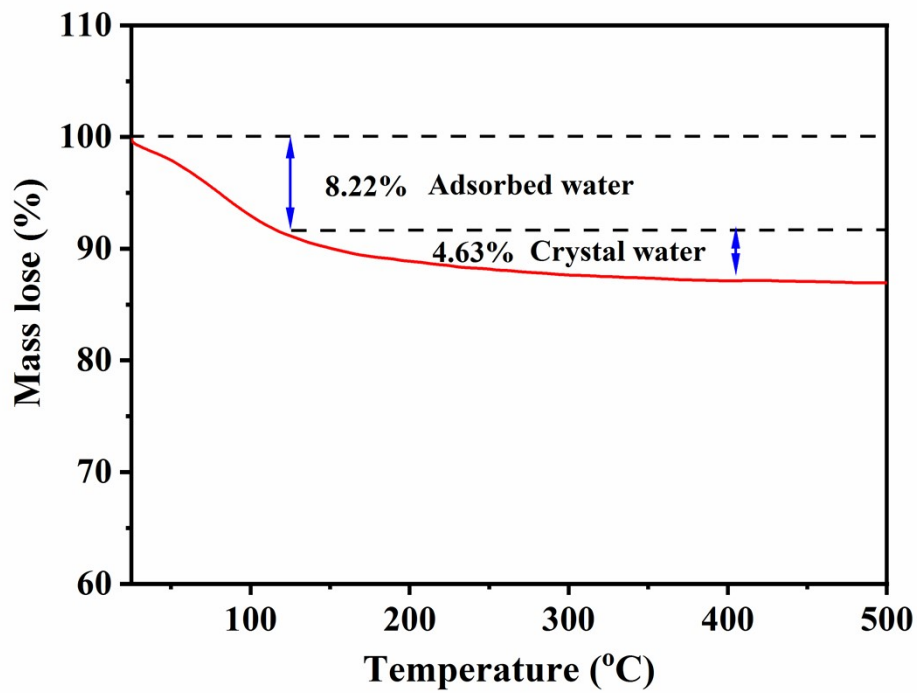


Figure S3. The TG curve of $V_{10}O_{24} \cdot nH_2O$ -annealed composite.

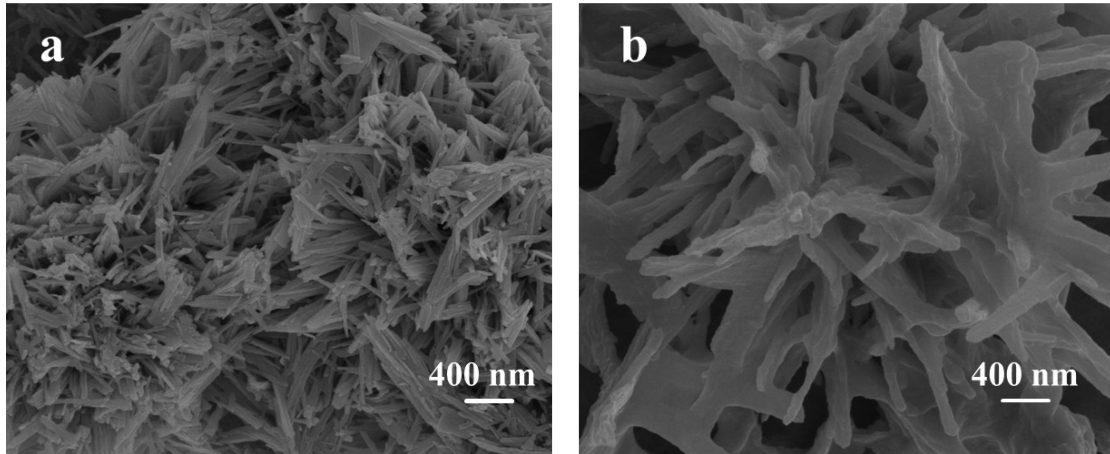


Figure S4. SEM images of (a) as-prepared VO₂ and (b) V₁₀O₂₄·nH₂O-annealed.

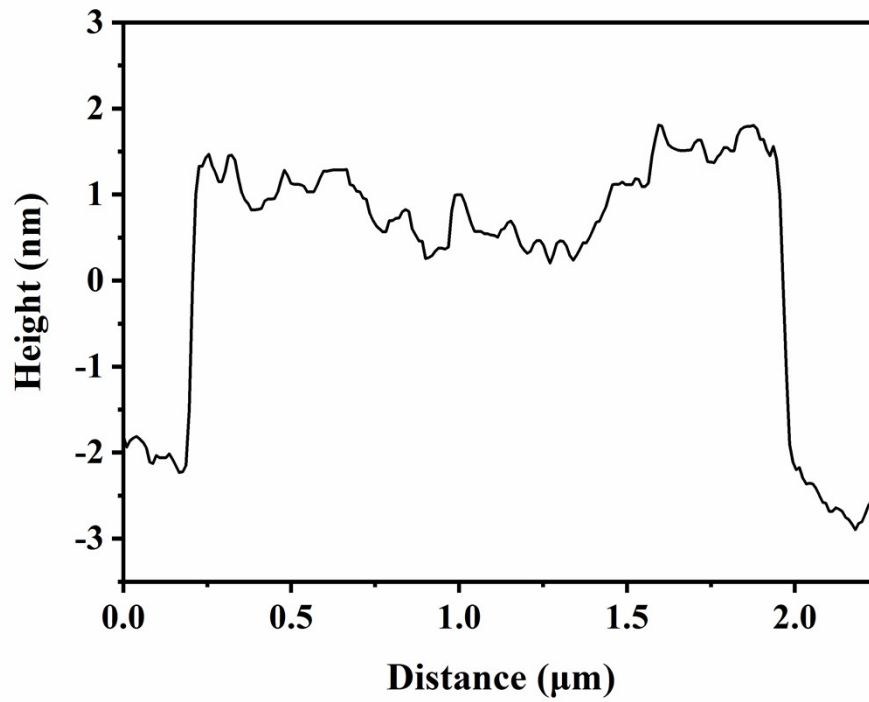


Figure S5. The corresponding height profiles of individual nanoribbons taken along the red line in Figure 2e.

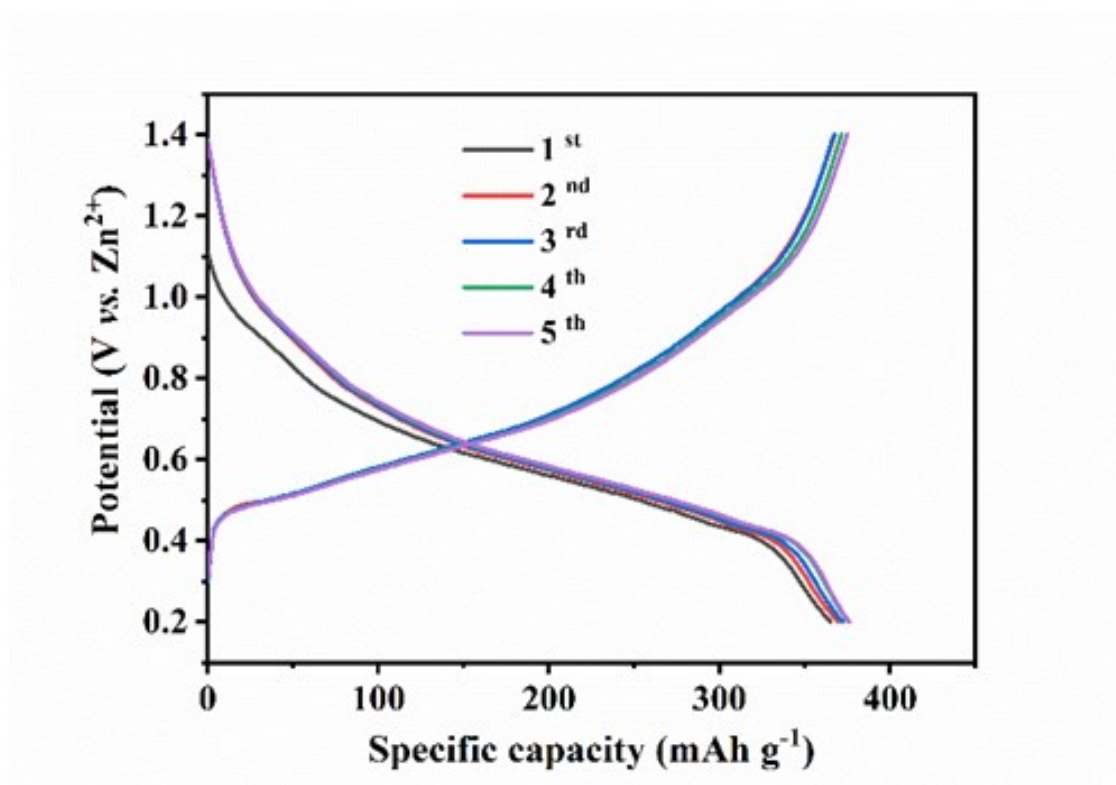


Figure S6. Charge-discharge profiles for the $V_{10}O_{24} \cdot nH_2O$ electrode at different cycles at 0.2 A g^{-1} .

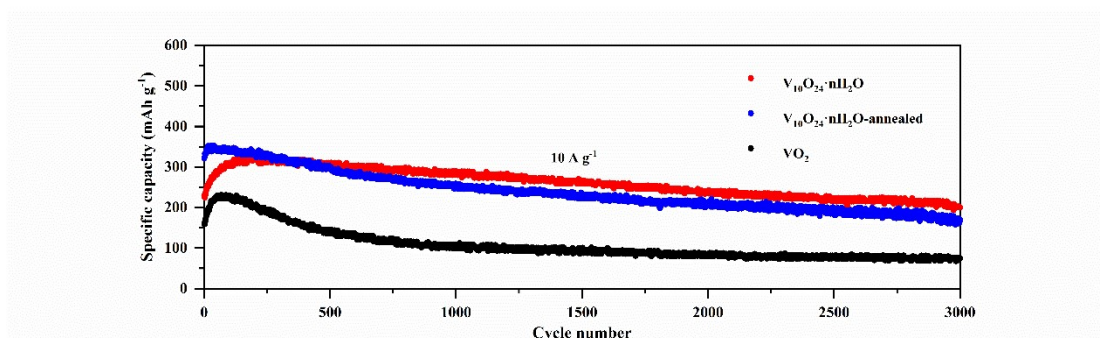


Figure S7. Long cycling performance of $V_{10}O_{24} \cdot nH_2O$, $V_{10}O_{24} \cdot nH_2O$ -annealed and VO_2 at 10 A g^{-1} for 3000 cycles.

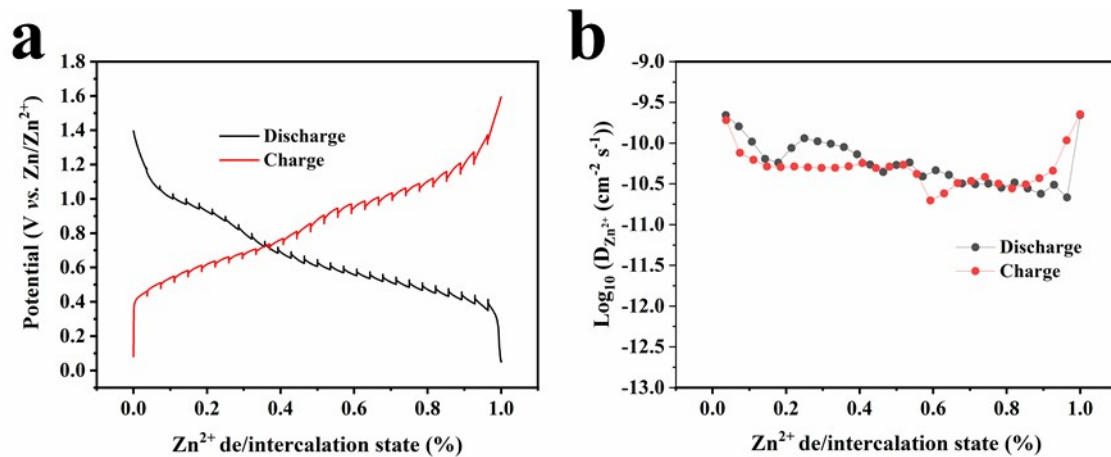


Figure S8. (a) Charge–discharge GITT curves at a current density of 0.1 A g^{-1} . (b) the corresponding Zn^{2+} diffusion coefficient of $V_{10}O_{24} \cdot nH_2O$ -annealed electrode.