

**Engineering of VO_x structure integrating oxygen vacancies for improved zinc ions storage
based on cations doping regulation with electric density**

Juan Xu*, Nengneng Han, Sihao Chen, Yahui Zhang, Yuezhou Jing, Pibin Bing, Zhongyang Li*
School of Electrical College, North China University of Water Resources and Electric Power,
Zhengzhou 450045, P. R. China

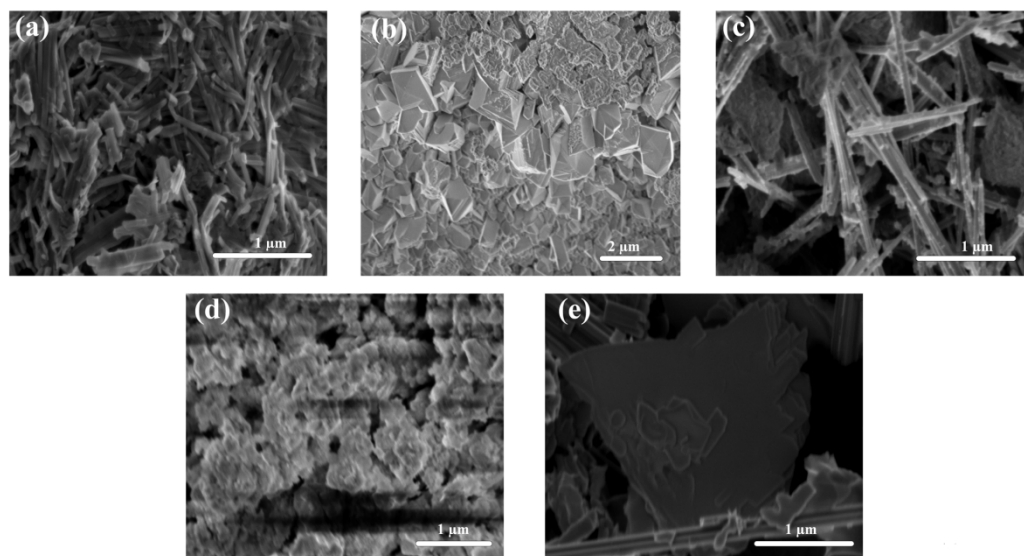


Fig. S1 (a,b,c,d,e) SEM images of K-VO_x, Fe-VO_x, Sn-VO_x, Nb-VO_x and W-VO_x compounds, respectively.

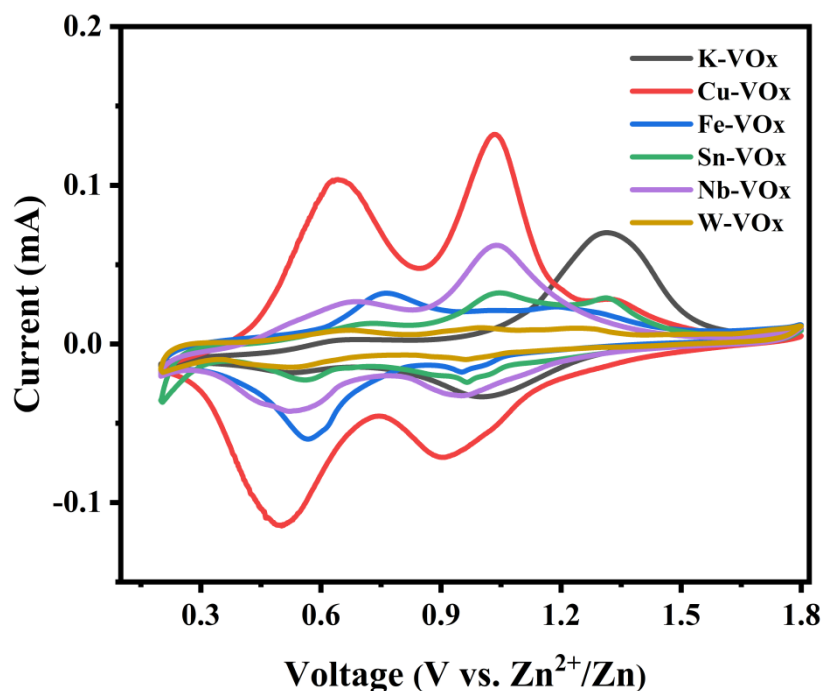


Fig. S2 CV curves of K-VO_x, Cu-VO_x, Fe-VO_x, Sn-VO_x, Nb-VO_x and W-VO_x electrodes at the scan rate of 0.1 mV s⁻¹, respectively.

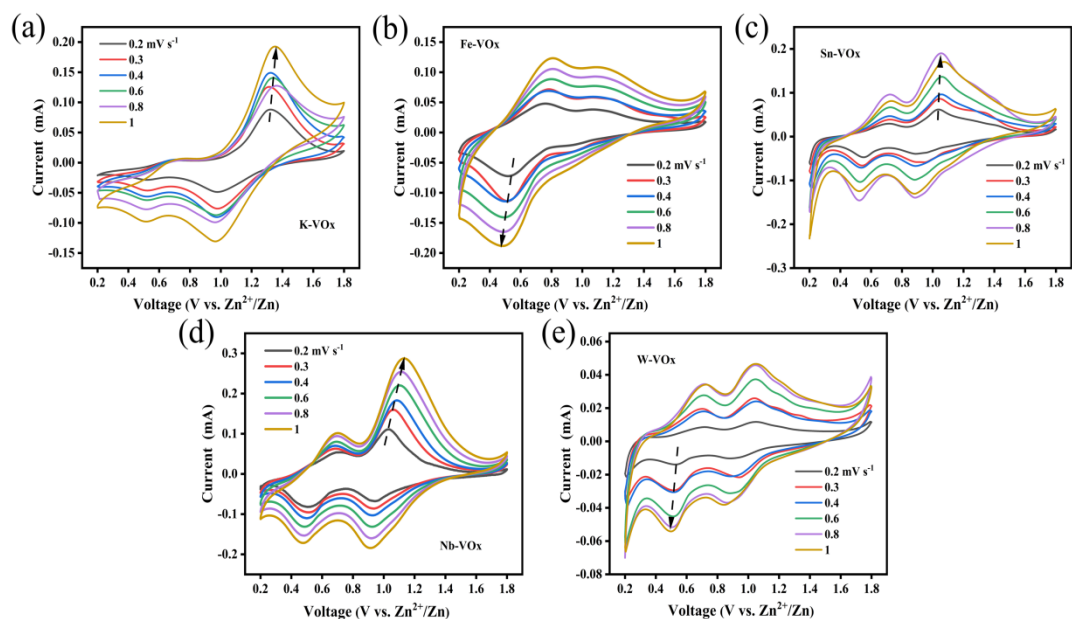


Fig. S3 (a,b,c,d,e) CV curves of K-VO_x, Fe-VO_x, Sn-VO_x, Nb-VO_x and W-VO_x electrodes at various scan rates from 0.2 to 1 mV s⁻¹, respectively.

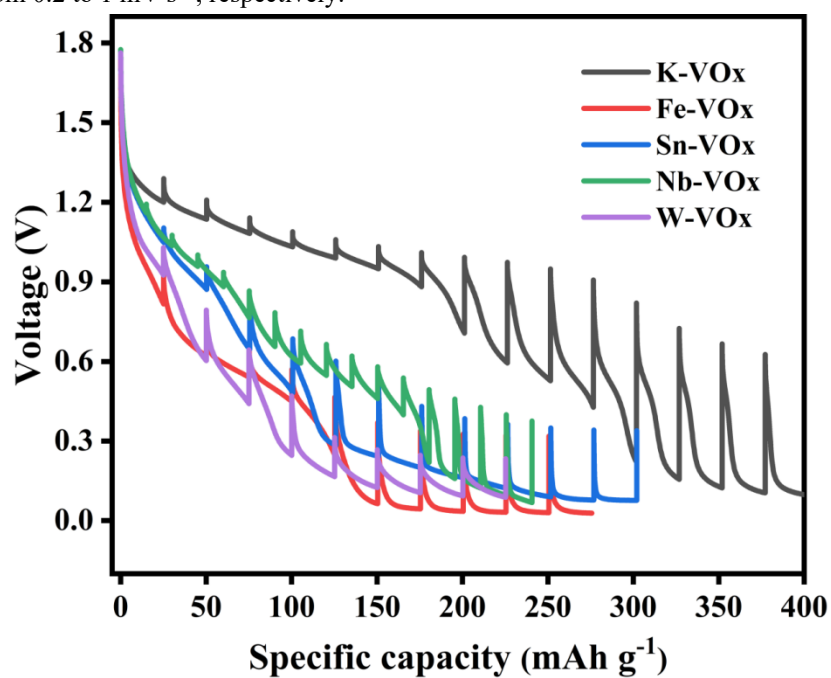


Fig. S4 Discharging GITT curves of K-VO_x, Fe-VO_x, Sn-VO_x, Nb-VO_x and W-VO_x electrodes, respectively.