

Supporting Information

The Union of Intercalation and Conversion Reactions to Improve the Volumetric Capacity of Cathode in Li-S Batteries

Ling Zhou^a, Lin Yao^a, Shixiong Li^a, Jiantao Zai^{* a}, Shutang Li^a, Qingquan He^b, Kai He^a,
Xiaomin Li^a, Donghai Wang^c, and Xuefeng Qian^{*a}

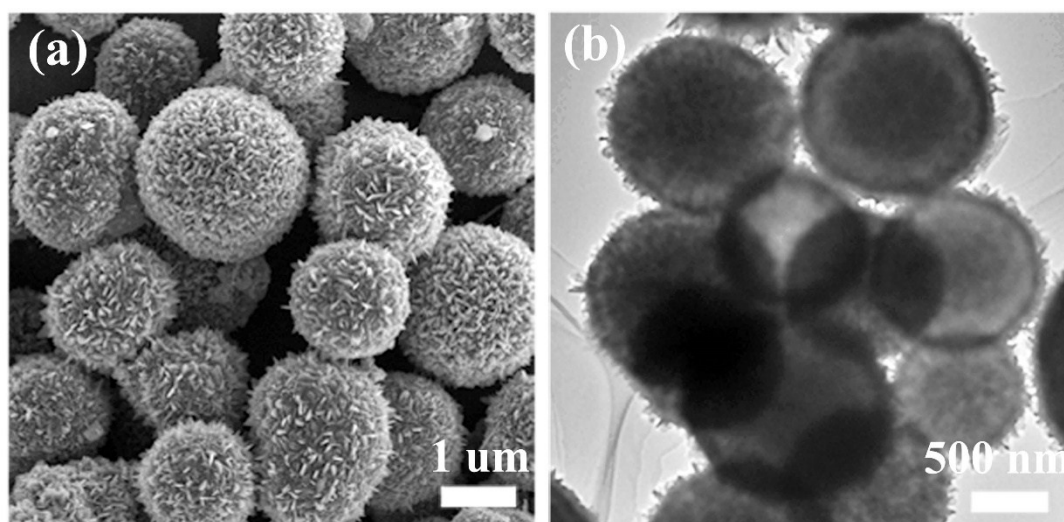


Figure S1. (a) SEM and (b) TEM images of VO₂ HSs.

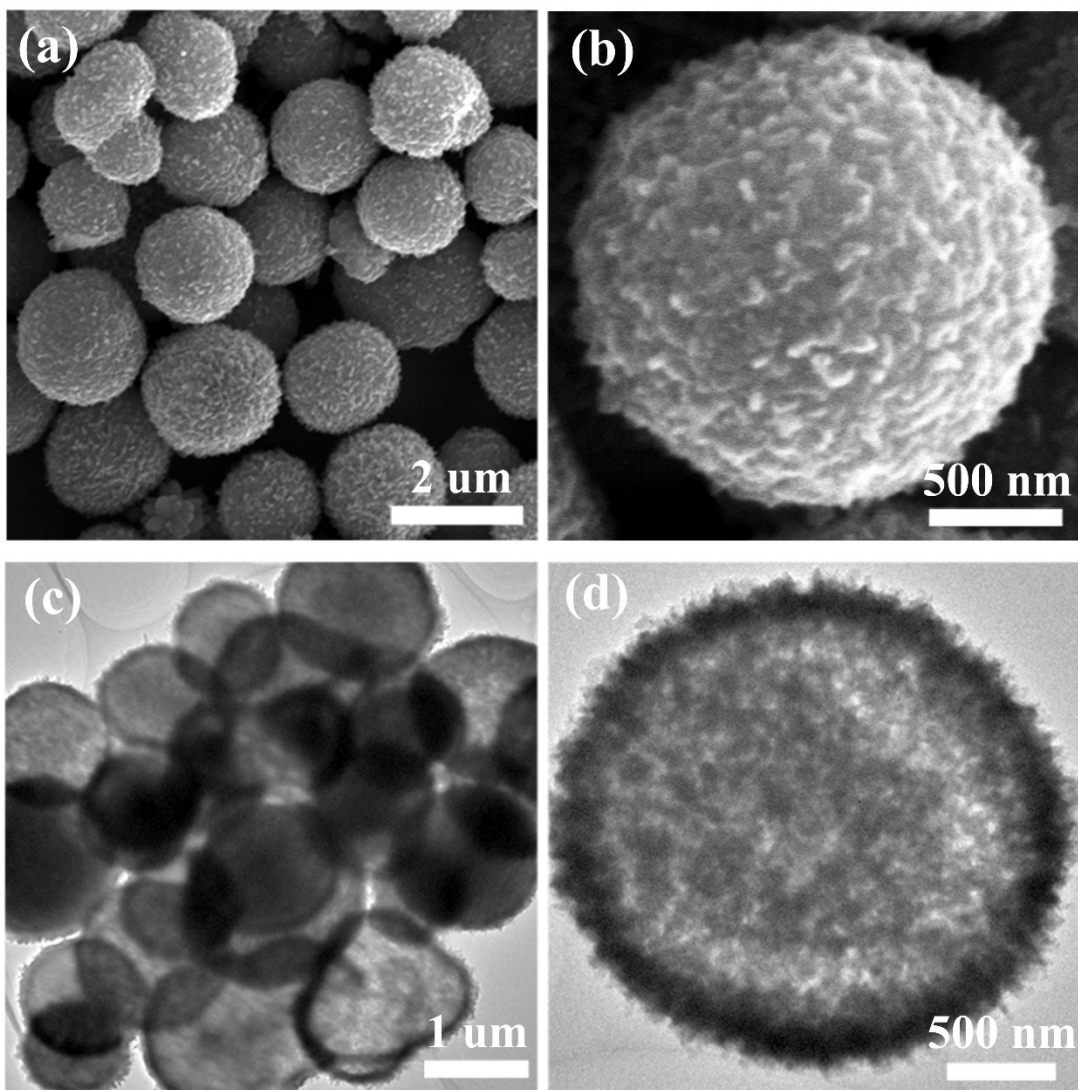


Figure S2. (a, b) SEM images and (c, d) TEM images of V_2O_5 HSs.

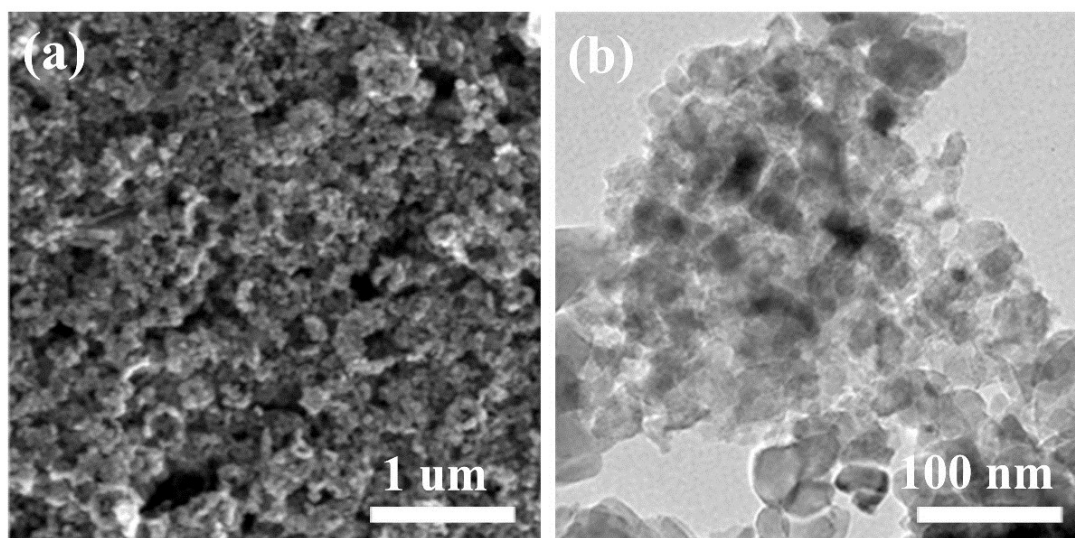


Figure S3. (a) SEM image and (b) TEM image of VO₂ particles.

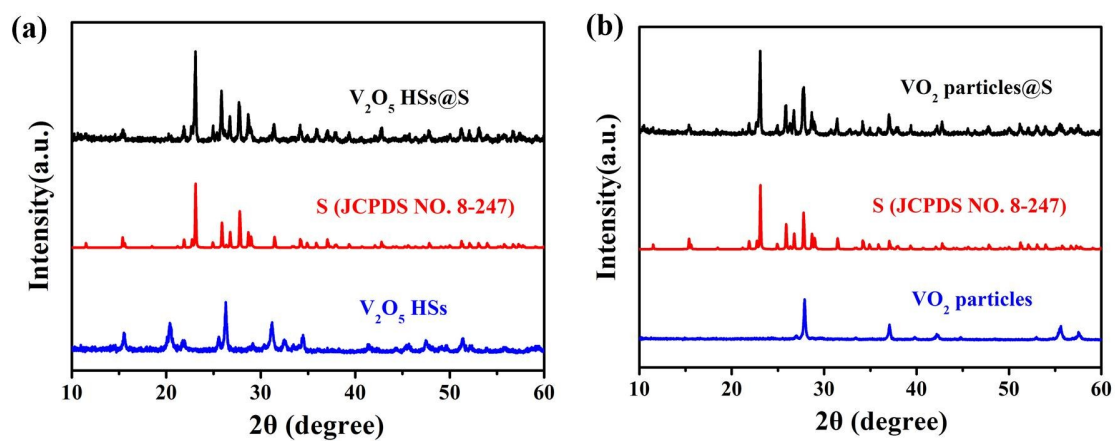


Figure S4. XRD patterns of (a) V₂O₅ HSs@S and (b) VO₂ particles@S.

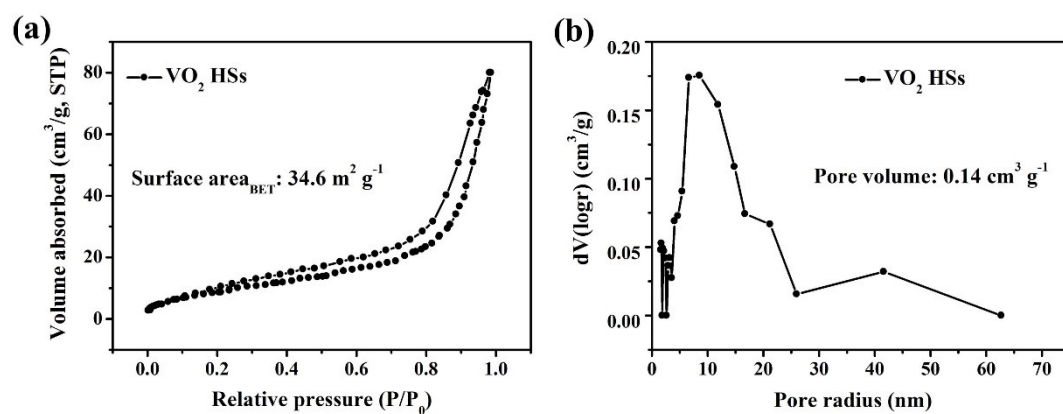


Figure S5. (a) N₂ adsorption/desorption isotherm, and (b) pore size distribution of VO₂ HSs.

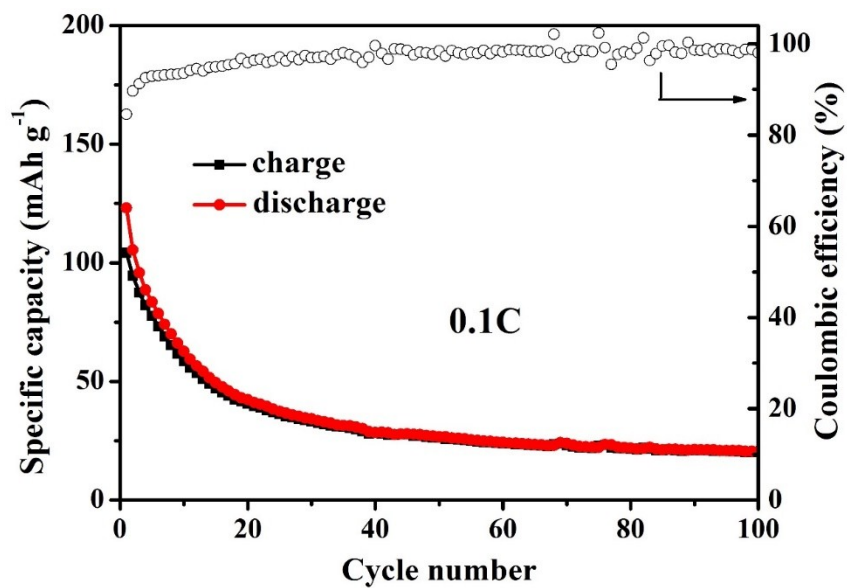


Figure S6. Cycling performance of a bare VO₂ HSs cathode at a current density of 0.1 C for 100 cycles.

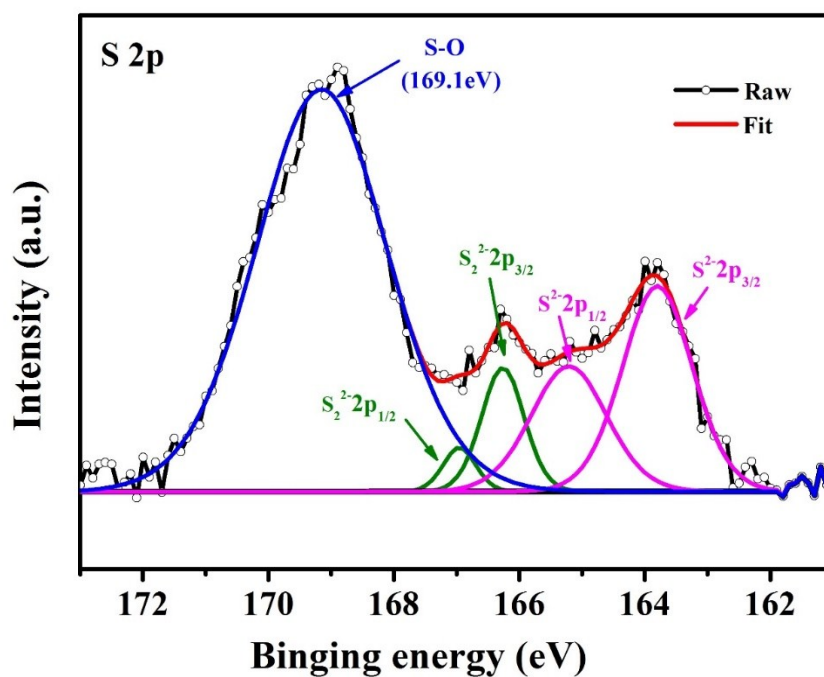


Figure S7. XPS spectra for S 2p of VO₂ HSs after remove sulfur from VO₂ HSs@S.