

Supporting Information:

# Chitosan-assisted Fabrication of Network C@V<sub>2</sub>O<sub>5</sub>

## Cathode for High-performance Zn-ion Battery

*Chunxue Liu,<sup>†,‡</sup> Rui Li,<sup>†,‡</sup> Weijia Liu,<sup>†,‡</sup> Guozhen Shen,<sup>\*,‡</sup> and Di Chen<sup>\*,†</sup>*

<sup>†</sup> College of Physics and Mathematics and Beijing Key Laboratory for Magneto-Photoelectrical Composite and Interface Science, University of Science and Technology Beijing, Beijing 100083, China

<sup>‡</sup> State Key Laboratory for Superlattice and Microstructures, Institute of Semiconductors, Chinese Academy of Sciences, Beijing 100083, China

**Corresponding Author**

\*Prof. Di Chen, [chendidi@ustb.edu.cn](mailto:chendidi@ustb.edu.cn)

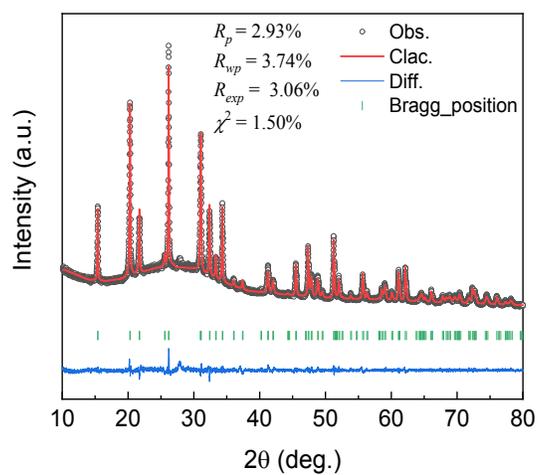


Figure S1. Rietveld refined XRD pattern of network C@V<sub>2</sub>O<sub>5</sub>.

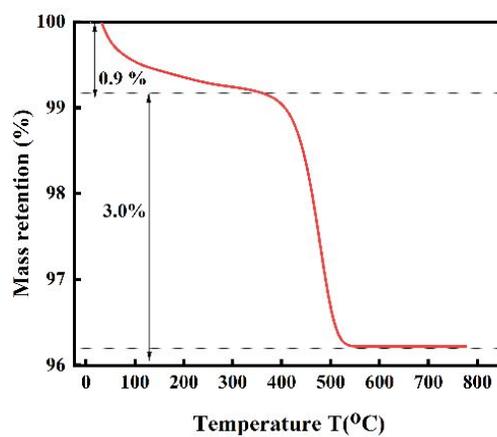


Figure S2. TG curve of network C@V<sub>2</sub>O<sub>5</sub>.

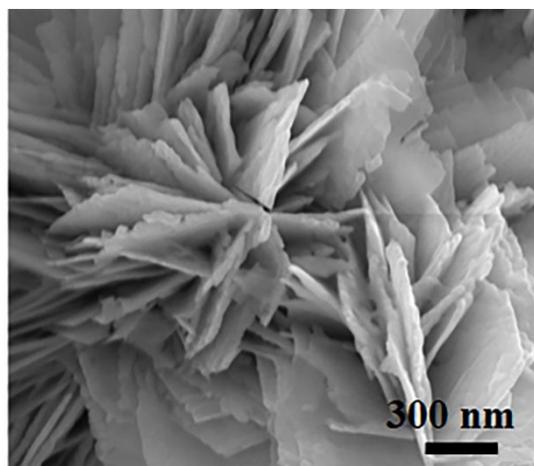


Figure S3. SEM image of flake V<sub>2</sub>O<sub>5</sub>.

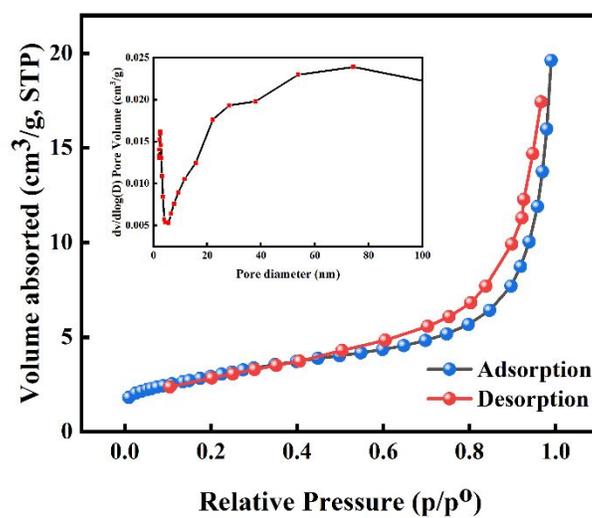
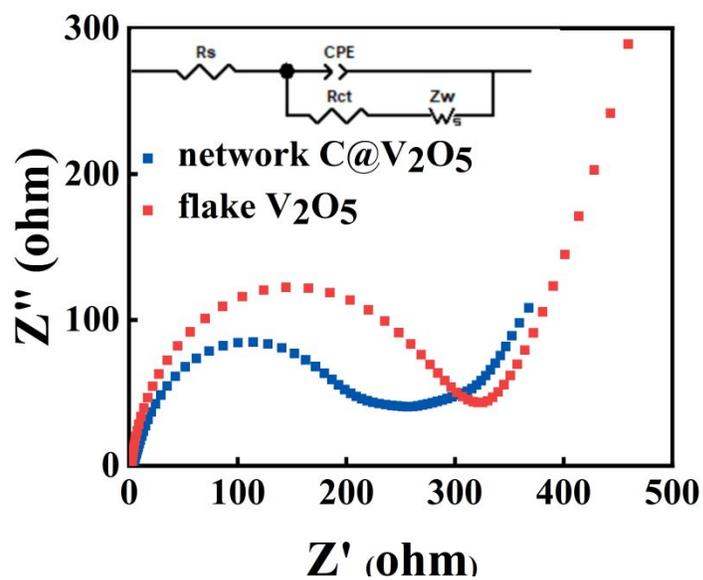
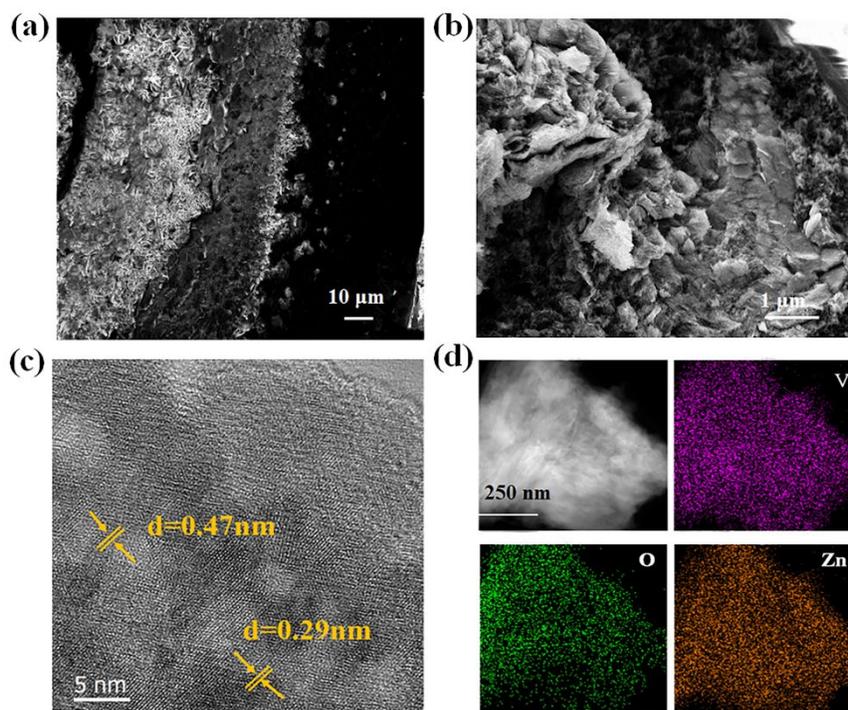


Figure S4. N<sub>2</sub> adsorption/desorption isotherms of network C@V<sub>2</sub>O<sub>5</sub> and Inset shows corresponding BJH pore-size distribution.



**Figure S5.** EIS curves of network C@V<sub>2</sub>O<sub>5</sub> cathode and flake V<sub>2</sub>O<sub>5</sub> cathode after activation.



**Figure S6.** (a), (b) SEM images and (c) HRTEM image, (d) TEM-EDS mapping images of network C@V<sub>2</sub>O<sub>5</sub> electrode after 2000 cycles.