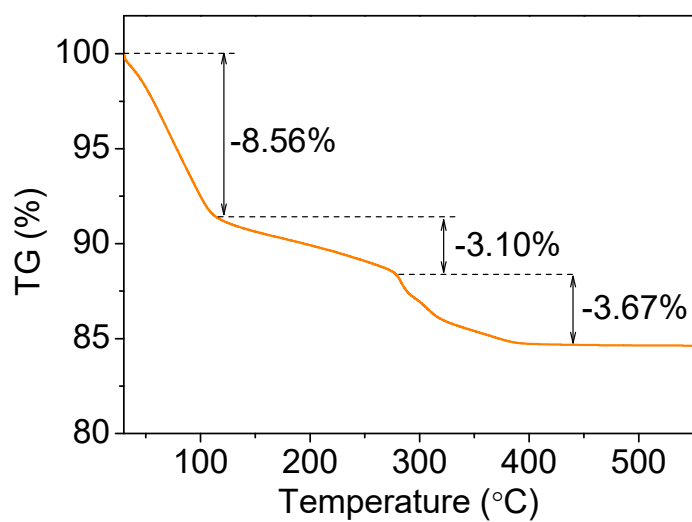


# Supplementary Materials

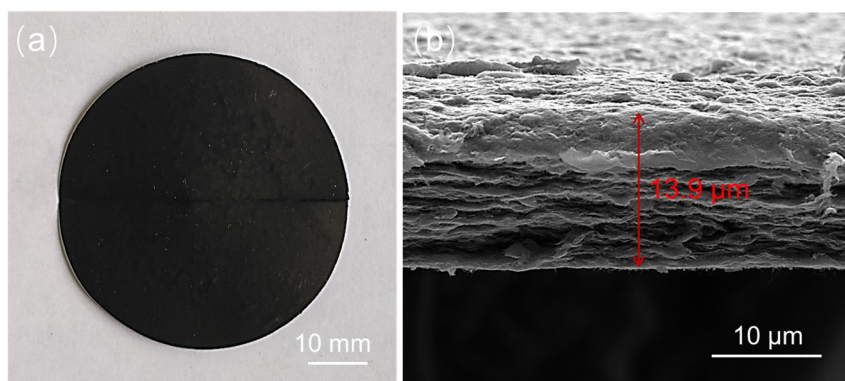
## Facile and Rapid Synthesis of Porous Hydrated V<sub>2</sub>O<sub>5</sub> Nanoflakes for High-Performance Zinc Ion Battery Applications

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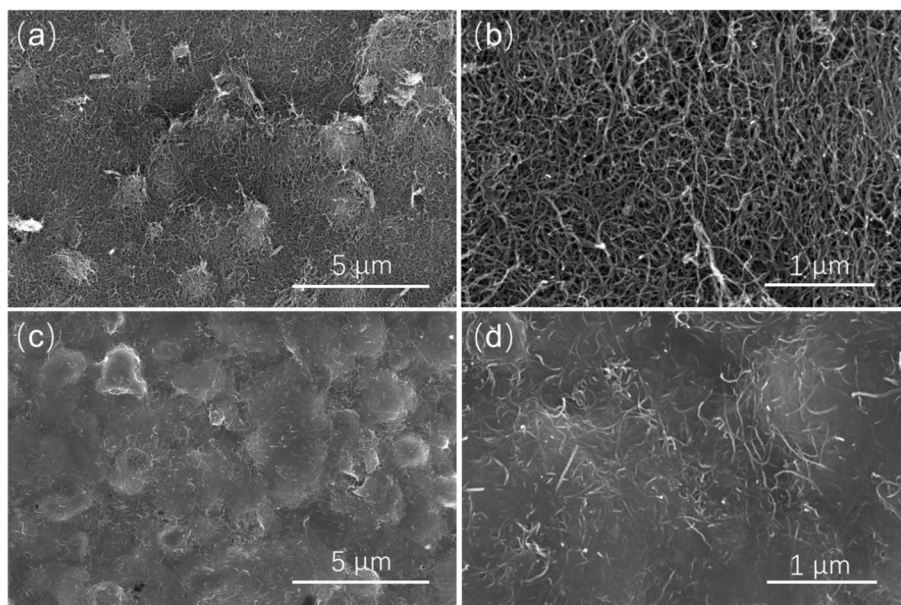
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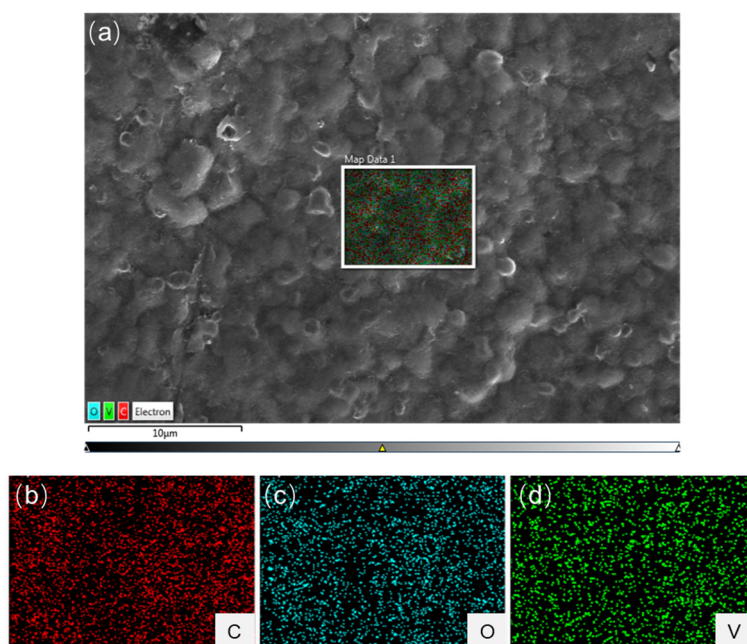
**Figure S1.** TG analysis of hydrated  $V_2O_5$  nanomaterial.



**Figure S2.** The structural characterization of  $V_2O_5 \cdot nH_2O/CNT$  composite film. (a) Photo and (b) cross-section SEM image of the composite film.



**Figure S3.** Morphology characterization of pure CNT film and V<sub>2</sub>O<sub>5</sub>·nH<sub>2</sub>O/CNT composite film. (a) and (b) SEM images of pure CNT film. (c) and (d) SEM images of V<sub>2</sub>O<sub>5</sub>·nH<sub>2</sub>O /CNT composite film.



**Figure S4.** EDS characterization of V<sub>2</sub>O<sub>5</sub>·nH<sub>2</sub>O/CNT composite film. (a) SEM image and, (b–d) carbon, oxygen, and vanadium element distribution in the selected area.