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原位相分离合成 $V_2O_5/Fe_2V_4O_{13}$ 纳米复合材料及其储钠性能

周鹏, 盛进之, 高崇伟, 董君, 安琴友, 麦立强*

武汉理工大学材料复合新技术国家重点实验室, 武汉 430070

Synthesis of $V_2O_5/Fe_2V_4O_{13}$ Nanocomposite Materials using *In situ* Phase Separation and the Electrochemical Performance for Sodium Storage

Peng Zhou, Jinzhi Sheng, Chongwei Gao, Jun Dong, Qinyou An, Liqiang Mai *

State Key Laboratory of Advanced Technology for Materials Synthesis and Processing, Wuhan University of Technology, Wuhan 430070, P. R. China.

*Corresponding author. Email: mlq518@whut.edu.cn; Tel.: +86-13554628578.

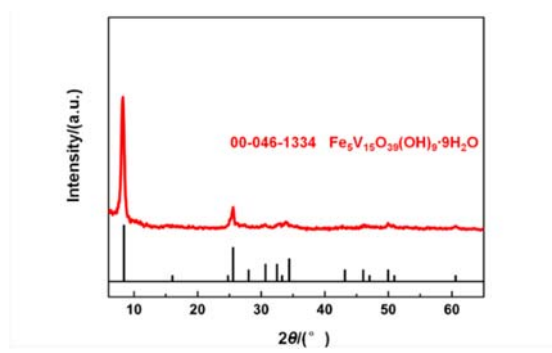


图 S1 $\text{Fe}_5\text{V}_{15}\text{O}_{39}(\text{OH})_9 \cdot 9\text{H}_2\text{O}$ 的 XRD 图谱
 Fig. S1 XRD pattern of $\text{Fe}_5\text{V}_{15}\text{O}_{39}(\text{OH})_9 \cdot 9\text{H}_2\text{O}$.

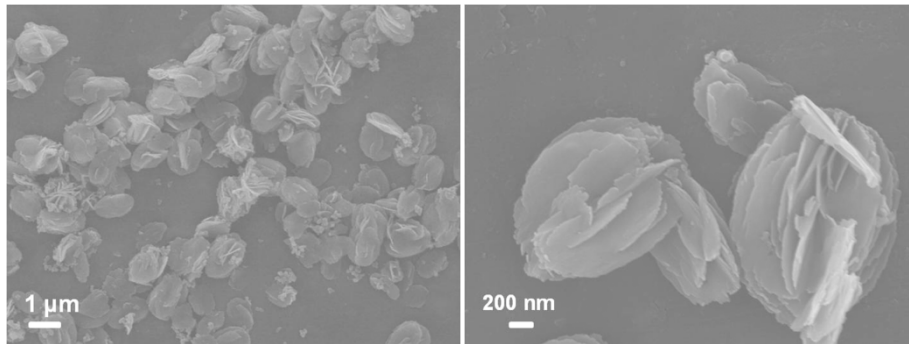


图 S2 $\text{Fe}_5\text{V}_{15}\text{O}_{39}(\text{OH})_9 \cdot 9\text{H}_2\text{O}$ 的 SEM 图
 Fig. S2 SEM images of $\text{Fe}_5\text{V}_{15}\text{O}_{39}(\text{OH})_9 \cdot 9\text{H}_2\text{O}$.



图 S3 VFO 的合成示意图
 Fig. S3 Schematic illustration of the preparation of VFO.

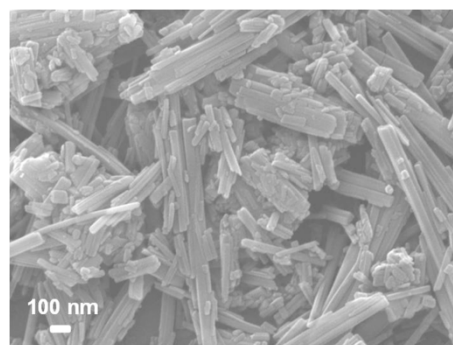


图 S4 V_2O_5 纳米线的 SEM 图
 Fig. S4 SEM image of V_2O_5 nanowires.

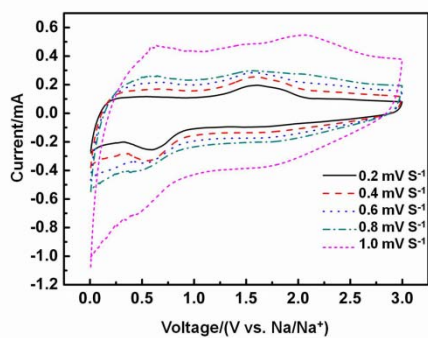


图 S5 VFO 在不同扫描速率下的 CV 曲线

Fig. S5 CV curves of VFO at different scan rates.

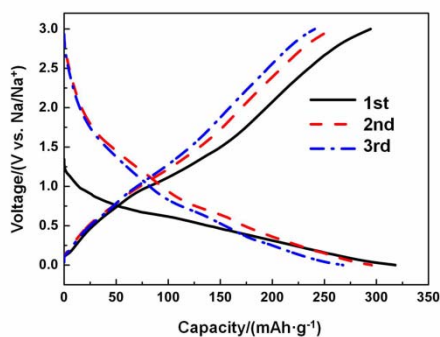


图 S6 V₂O₅ 纳米线在 0.1 A·g⁻¹ 电流密度下的充放电曲线

Fig. S6 The charge/discharge curves of V₂O₅ nanowires at a current density of 0.1 A·g⁻¹.

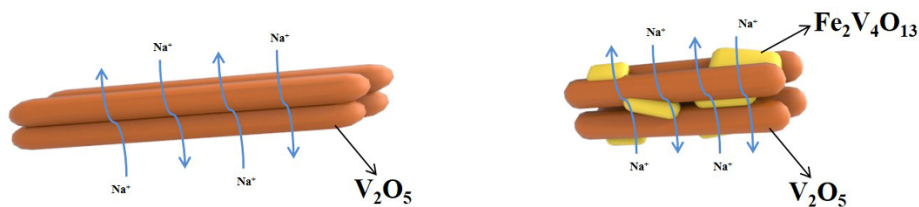


图 S7 V₂O₅ 纳米线和 VFO 的储钠示意图

Fig. S7 Schematic illustration of the V₂O₅ nanowires and VFO with fast Na⁺ diffusion.

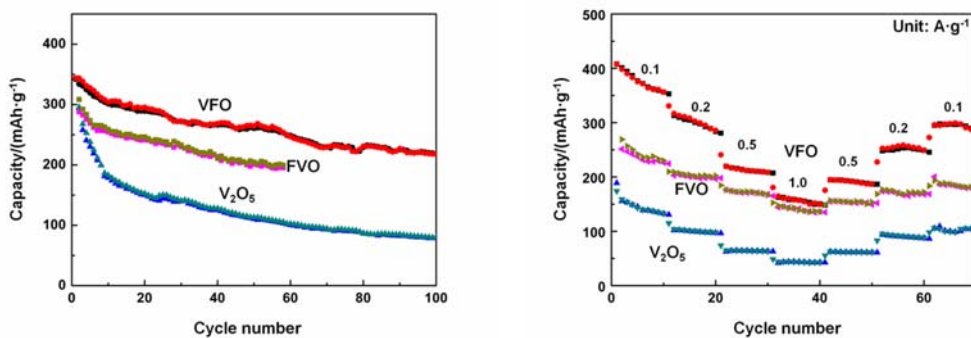


图 S8 VFO、Fe₅V₁₅O₃₉(OH)₉·9H₂O 和 V₂O₅ 的电化学性能表征

Fig. S8 The electrochemical performance of VFO, Fe₅V₁₅O₃₉(OH)₉·9H₂O and V₂O₅.

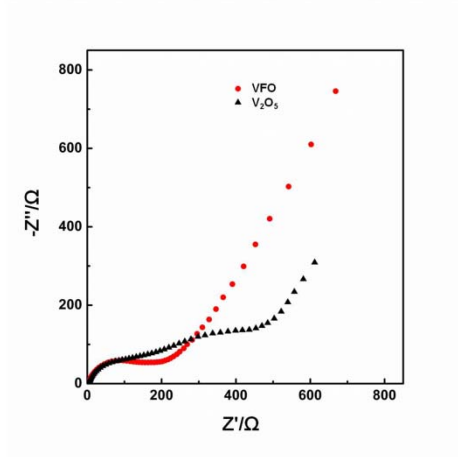


图 S9 VFO 和 V₂O₅ 的电化学阻抗图

Fig. S9 Electrochemical impedance spectra of VFO and V₂O₅.