

Supporting Information

One-step synthesis of $\text{V}_2\text{O}_5/\text{Ni}_3\text{S}_2$ nanoflakes on Ni foam for high electrochemical performance

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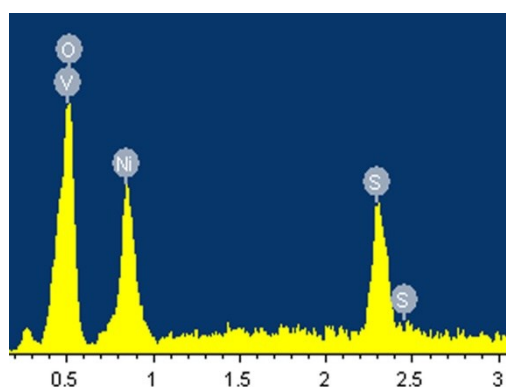


Fig. S1 EDX spectrum of the $\text{V}_2\text{O}_5/\text{Ni}_3\text{S}_2$ sample.

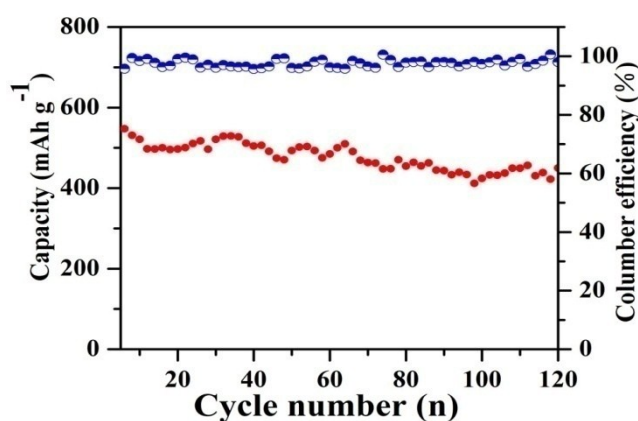


Fig S2 The cycling behavior of the $\text{V}_2\text{O}_5/\text{Ni}_3\text{S}_2$ nanoflakes electrode at a constant current density of 0.1 A g^{-1}

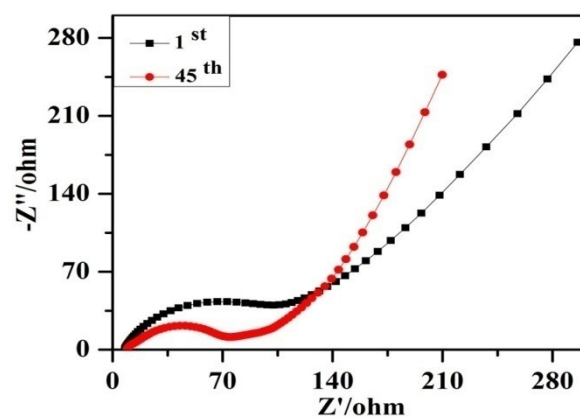


Fig. S3 Electrochemical impedance spectra of the $\text{V}_2\text{O}_5/\text{Ni}_3\text{S}_2$ nanoflakes electrodes at the first and 45th cycles in lithium ion batteries.

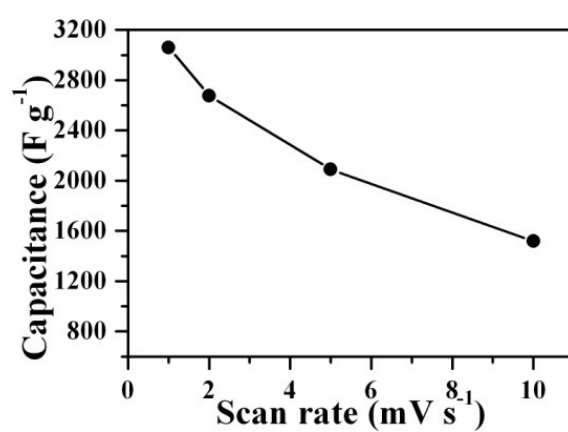


Fig. S4 The specific capacitance as a function of the scan rates of the $\text{V}_2\text{O}_5/\text{Ni}_3\text{S}_2$ electrode.

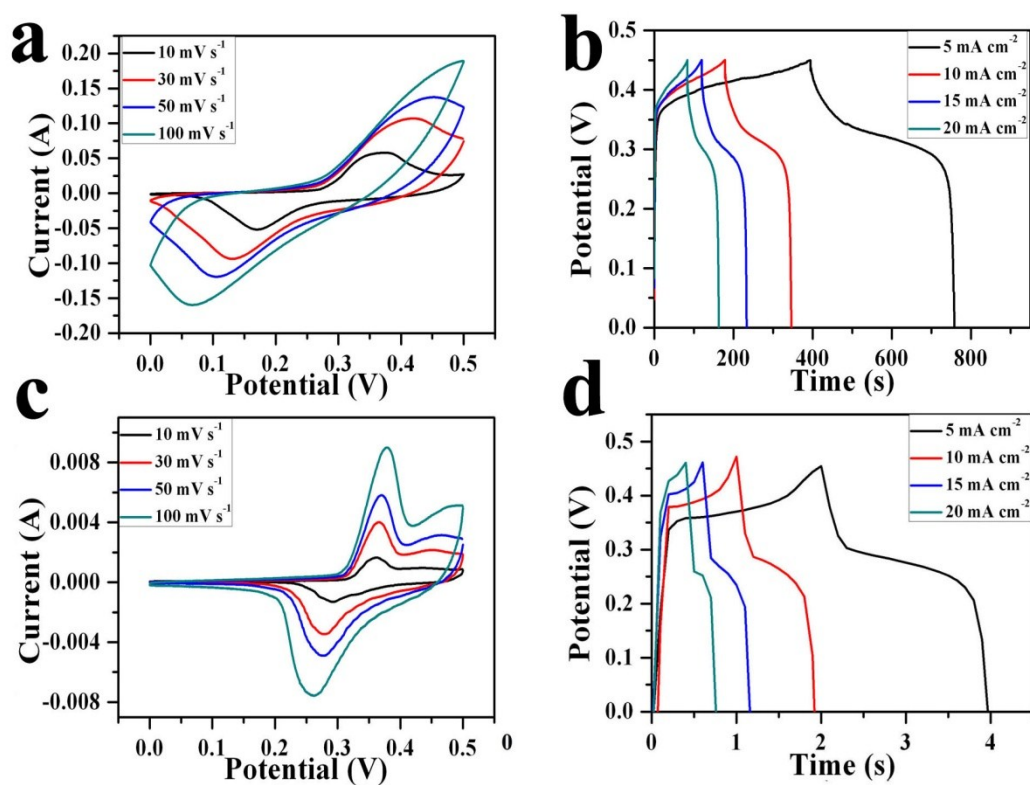


Fig. S5 CV curves of (a) $\text{V}_2\text{O}_5/\text{Ni}_3\text{S}_2$ nanoflakes and (c) Ni substrate electrode at various scan rates in 2 M NaOH; charge-discharge curves of (b) $\text{V}_2\text{O}_5/\text{Ni}_3\text{S}_2$ nanoflakes and (d) Ni substrate at a series of current densities in 2 M NaOH.

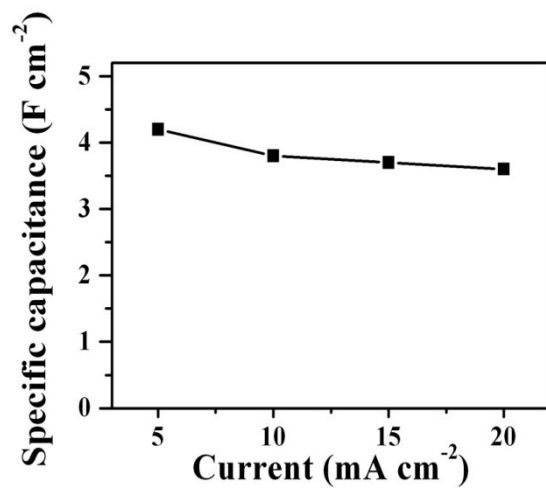


Fig. S6 The specific capacitance as a function of the current densities of the $\text{V}_2\text{O}_5/\text{Ni}_3\text{S}_2$ electrode.

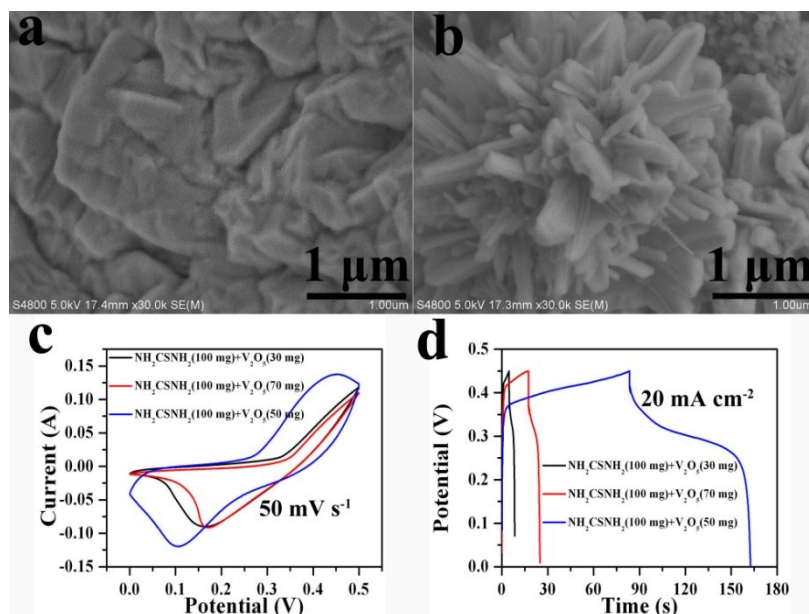


Fig. S7 (a) and (b) SEM images of sample at 30 mg V_2O_5 and 70 mg V_2O_5 , respectively; (c) CV curves and (d) discharge cycles of the different contents of V_2O_5 , respectively.

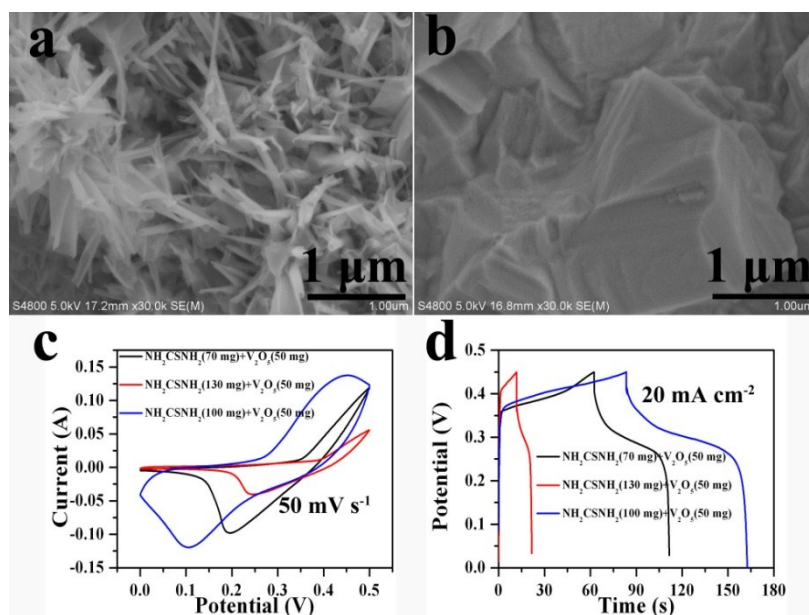


Fig. S8 (a) and (b) SEM images of sample at 70 mg thiourea and 130 mg thiourea, respectively; (c) CV curves and (d) discharge cycles of different contents of thiourea, respectively.

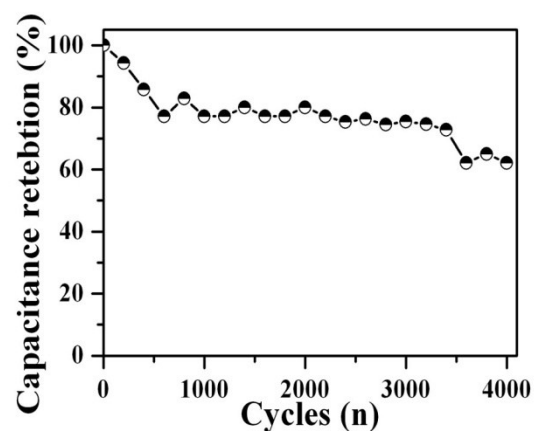


Fig. S9 Cycling stability curves of $\text{V}_2\text{O}_5/\text{Ni}_3\text{S}_2$ nanoflakes electrodes at a scan rate of 50 mV s^{-1} .

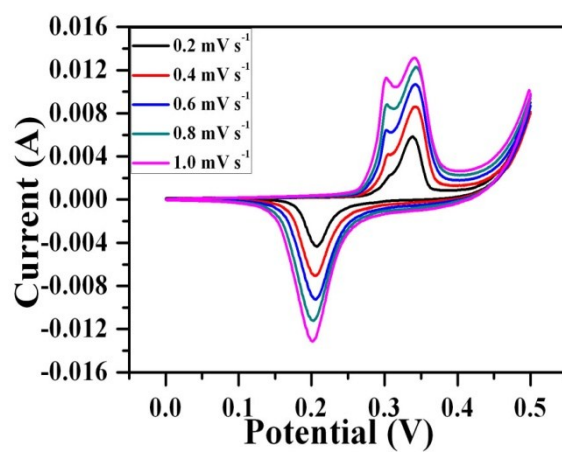


Fig. S10 CV results of $\text{V}_2\text{O}_5/\text{Ni}_3\text{S}_2$ electrode at different scan rates.