Electronic Supplementary Material (ESI) for Inorganic Chemistry Frontiers.

Supporting Information

Sandwich nanocomposite composed of commercially available SnO and reduced graphene oxide as advanced anode materials for sodium-ion full batteries

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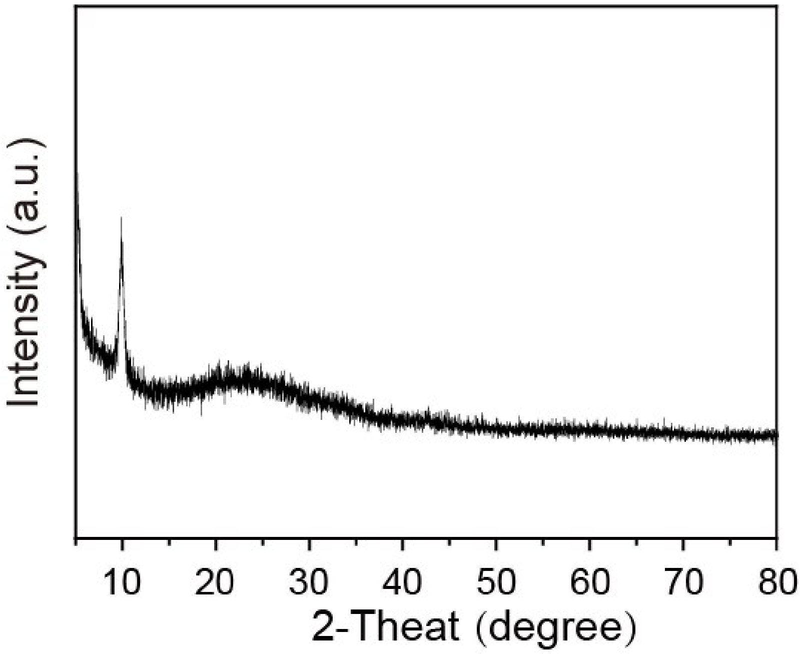

Figure S1 XRD pattern of rGO.

The molecular formula of sample can be calculated based on the thermogravimetric analysis results (Figure S2) through the following formulations:

After the heating treatment to 800 ^{o}C, the rGO component in the sample is full lost while the SnO is oxidized into SnO_2, therefore, the final product with content of 82.28% is ascribed to SnO_2. Based on this, the content of rGO in the original sample can be obtained:

$$SnO\% = 82.28\% \times \frac{134.71}{150.71} = 74.08\%$$

$$rGO\% = 1 - 74.08\% = 25.92\%$$

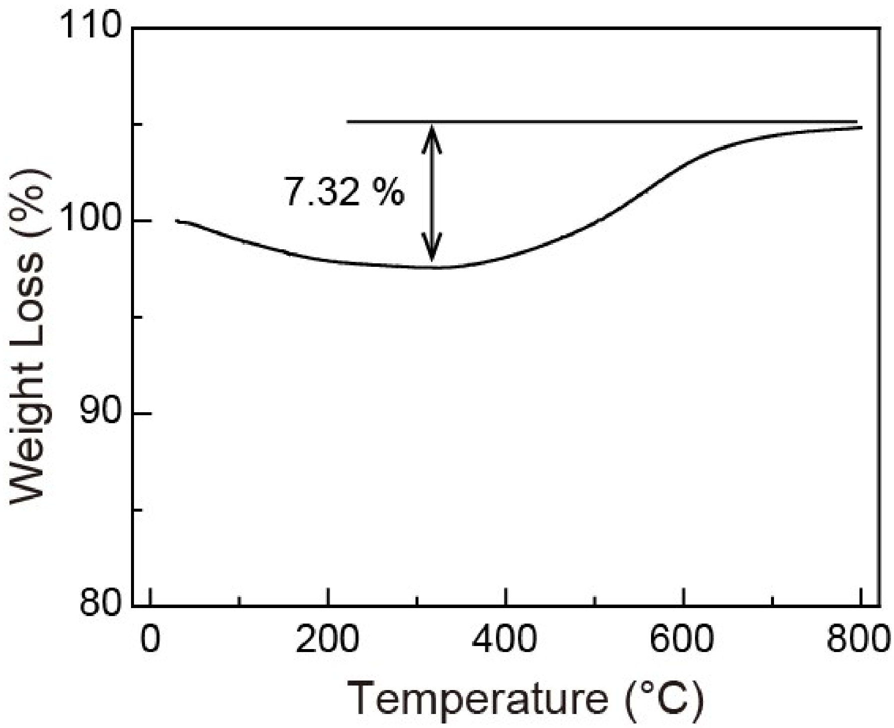

Figure S2 The TG curve of BM-SnO.

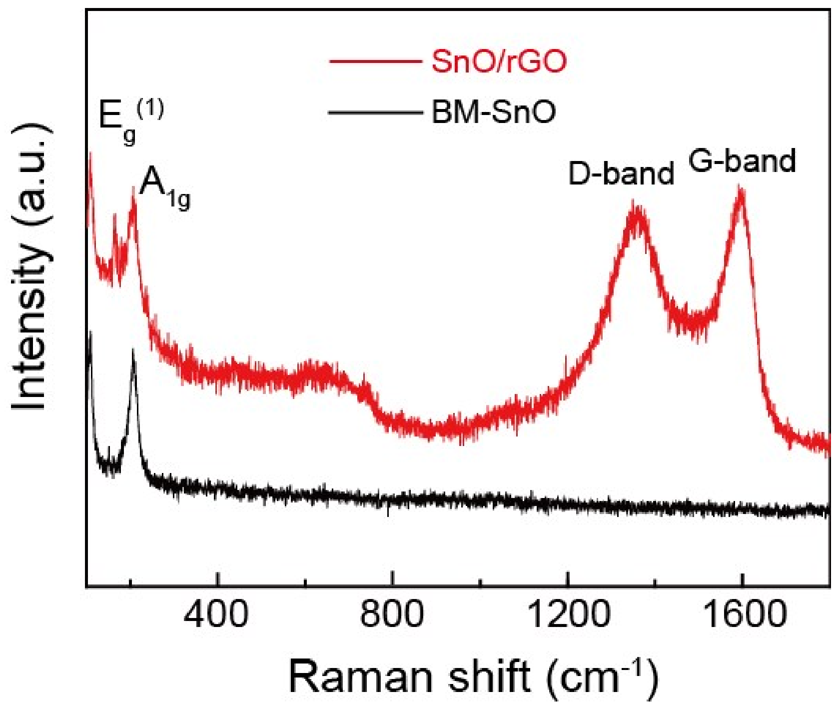

Figure S3 Raman spectra of BM-SnO and SnO/rGO.

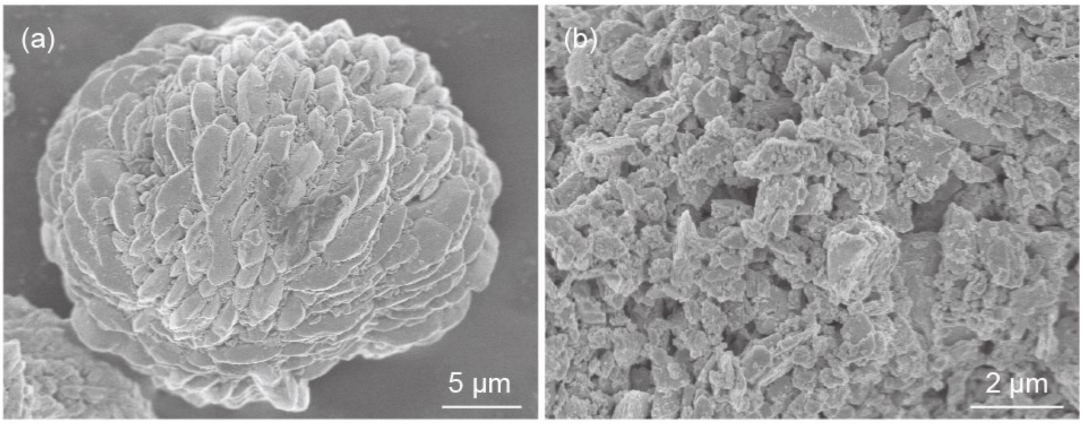

Figure S4 SEM images of (a) SnO and (b) BM-SnO.

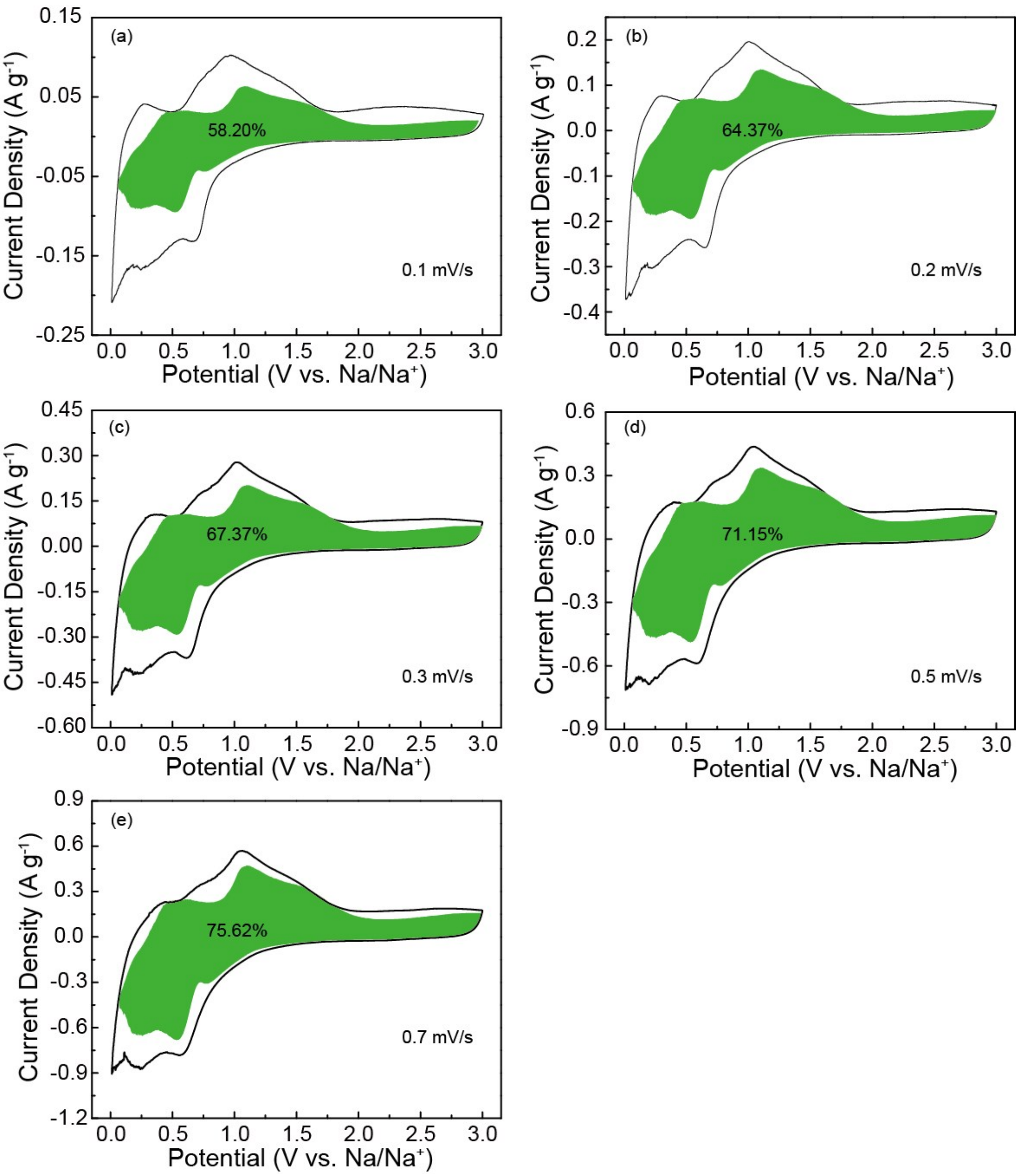

Figure S5 CV curve with the pseudocapacitive fraction shown by the green region of SnO/rGO at a scan rate of (a) 0.1 mV s^{-1}, (b) 0.2 mV s^{-1}, (c) 0.3 mV s^{-1}, (d) 0.5 mV s^{-1} and (e) 0.7 mV s^{-1}.

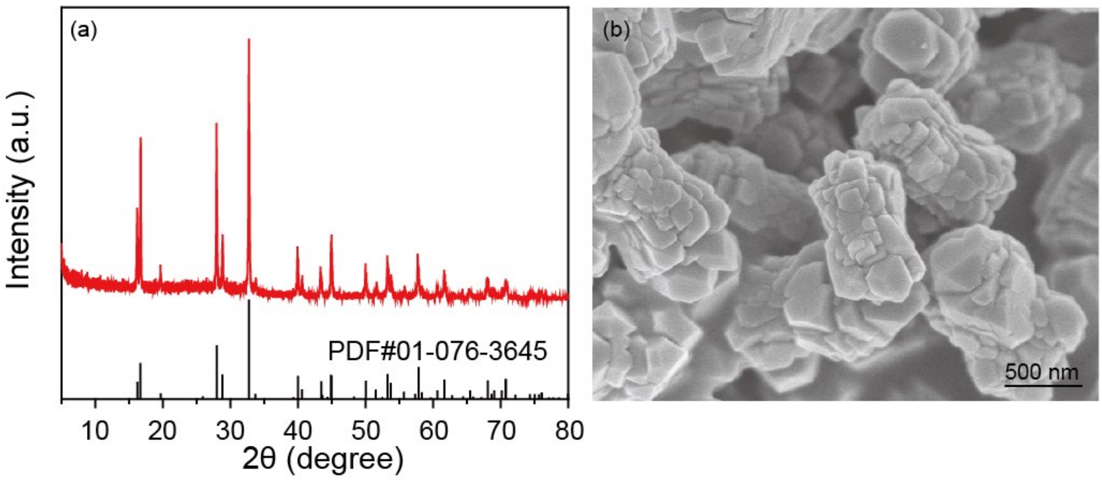

Figure S6 (a) XRD pattern of NVPOF; (b) SEM image of NVPOF.

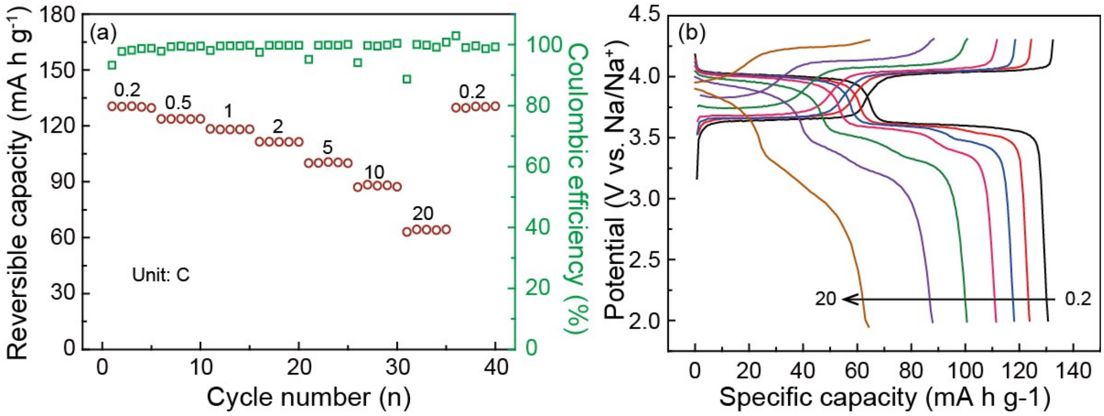

Figure S7 the electrochemical performance of NVPOF (a) rate performance and (b) charge/discharge curves at various rates.