

Supporting Information for

Enhanced Pseudo-Capacitive Contributions to High-Performance Sodium Storage in TiO₂/C Nanofibers via Double Effects of Sulphur Modification

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Supplementary Figures

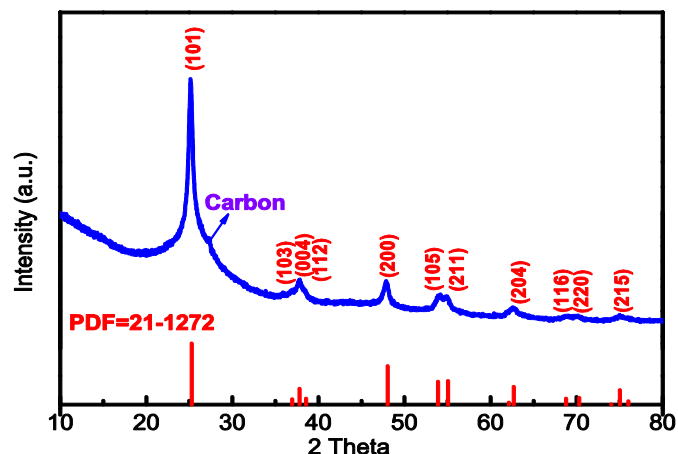


Fig. S1 XRD patterns of as-spun of TiO₂/C nanofiber composites

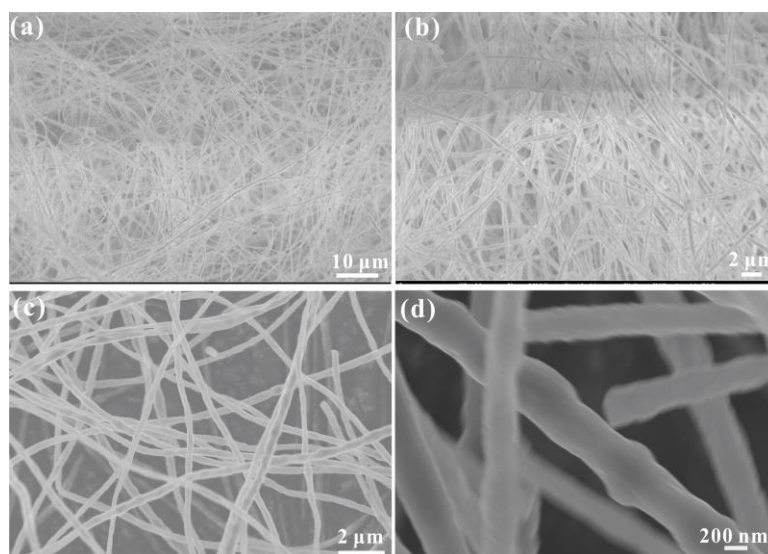


Fig. S2 SEM images of **a-b** as-spun PAN-TBOT precursors. **c-d** TiO₂/C nanofiber composites

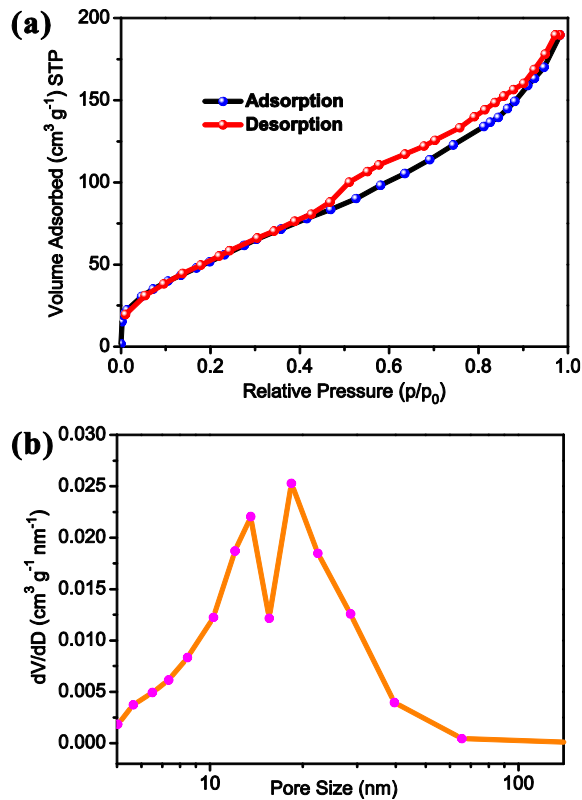


Fig. S3 **a** N₂ adsorption/desorption isotherm curves. **b** Corresponding DFT pore size distribution curves of TiS₂/S-TiO₂/C nanofibers composites

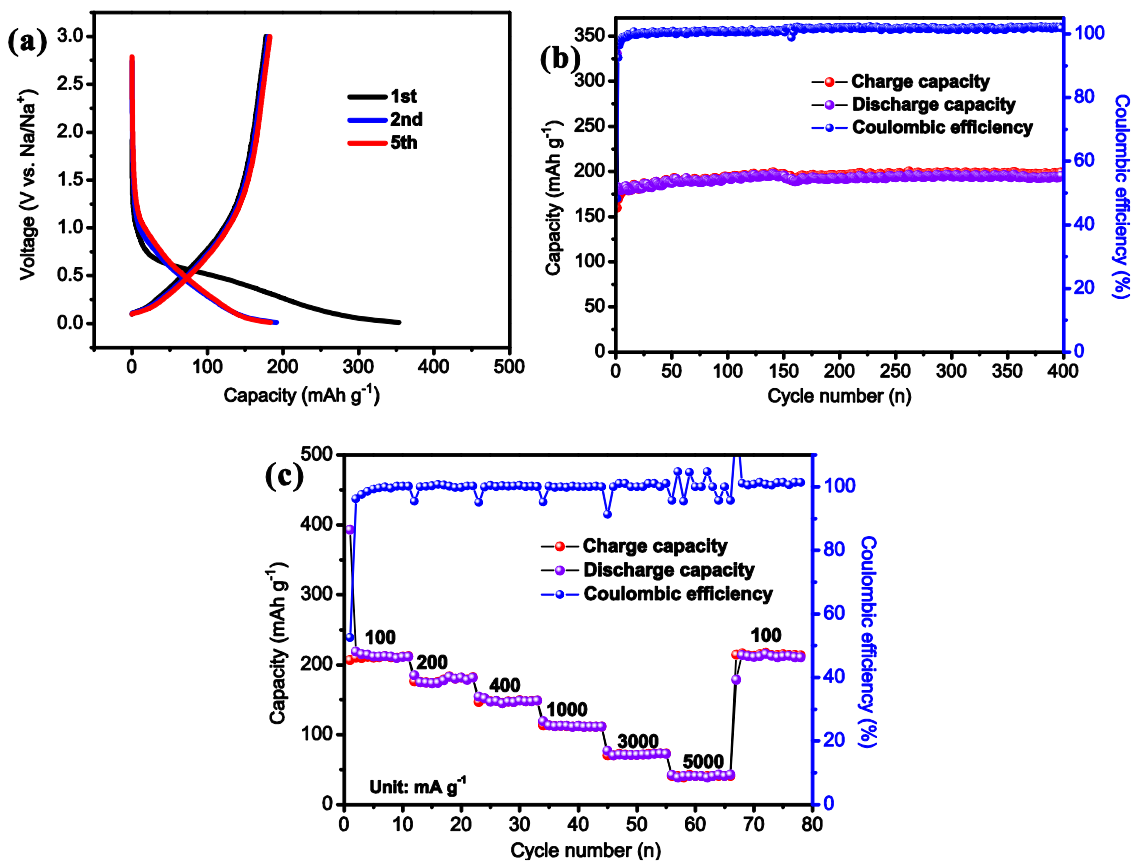


Fig. S4 **a** Charge-discharge profiles of the first, second and fifth cycle at a current density of 100 mA g⁻¹. **b** Cycling performances at a current density of 100 mA g⁻¹. **c** Rate performances at different densities of TiO₂/C nanofiber electrode in SIBs

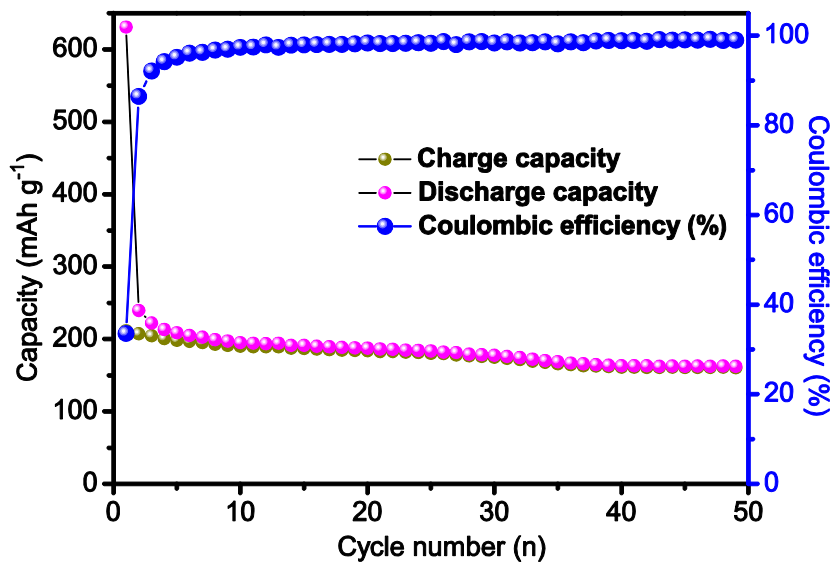


Fig. S5 Cycling performances at a current density of 100 mA g^{-1} of pure C nanofiber electrode in SIBs

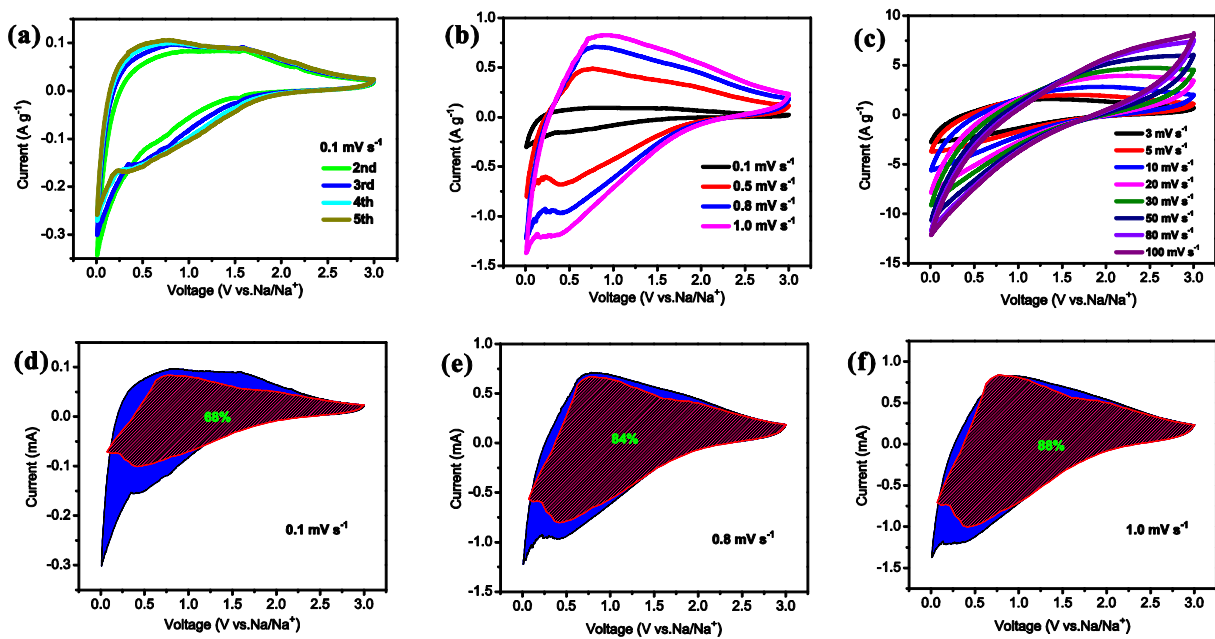


Fig. S6 **a** 2nd-5th CV curves at a scan rate of 0.1 mV s^{-1} . **b-c** CV curves at stepwise scan rates. **d-f** the capacitive contribution at a scan rate of 0.1 mV s^{-1} , 0.8 mV s^{-1} and 1.0 mV s^{-1} of $\text{TiS}_2/\text{S-TiO}_2/\text{C}$ nanofiber electrode in SIBs

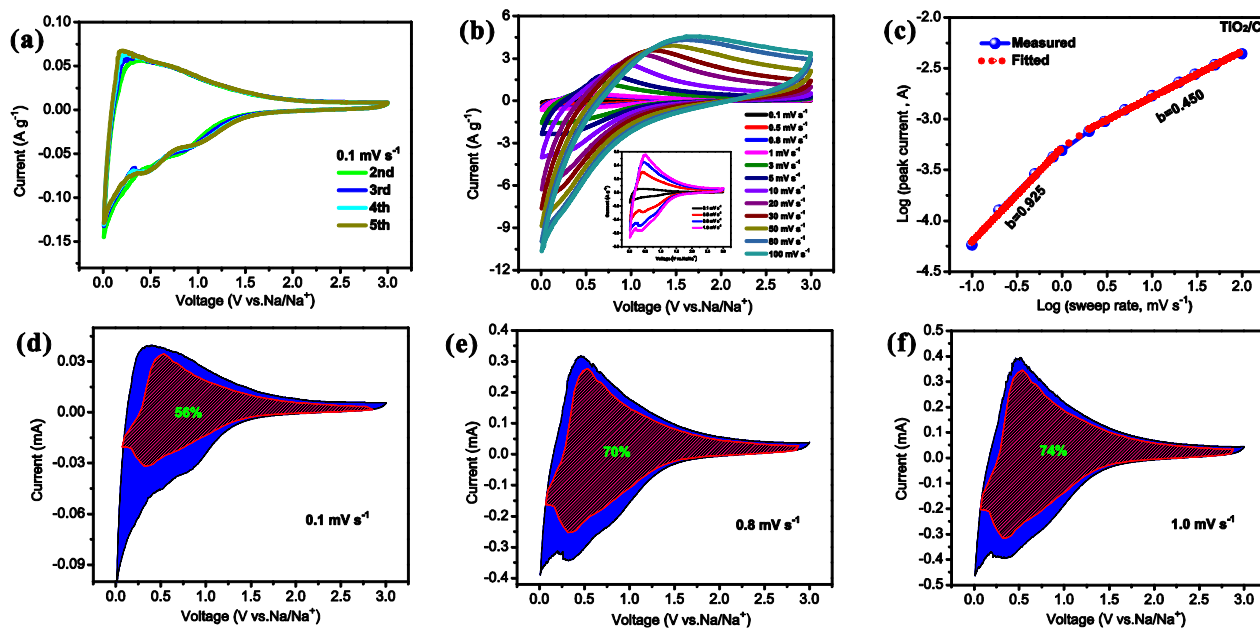


Fig. S7 **a** 2nd-5th CV curves at a scan rate of 0.1 mV s^{-1} . **b** CV curves at stepwise scan rates. **c** Relationship between $\log(i)$ and $\log(v)$. **d-f** Capacitive contribution at a scan rate of 0.1, 0.8, and 1.0 mV s^{-1} of TiO_2/C nanofiber electrode in SIBs

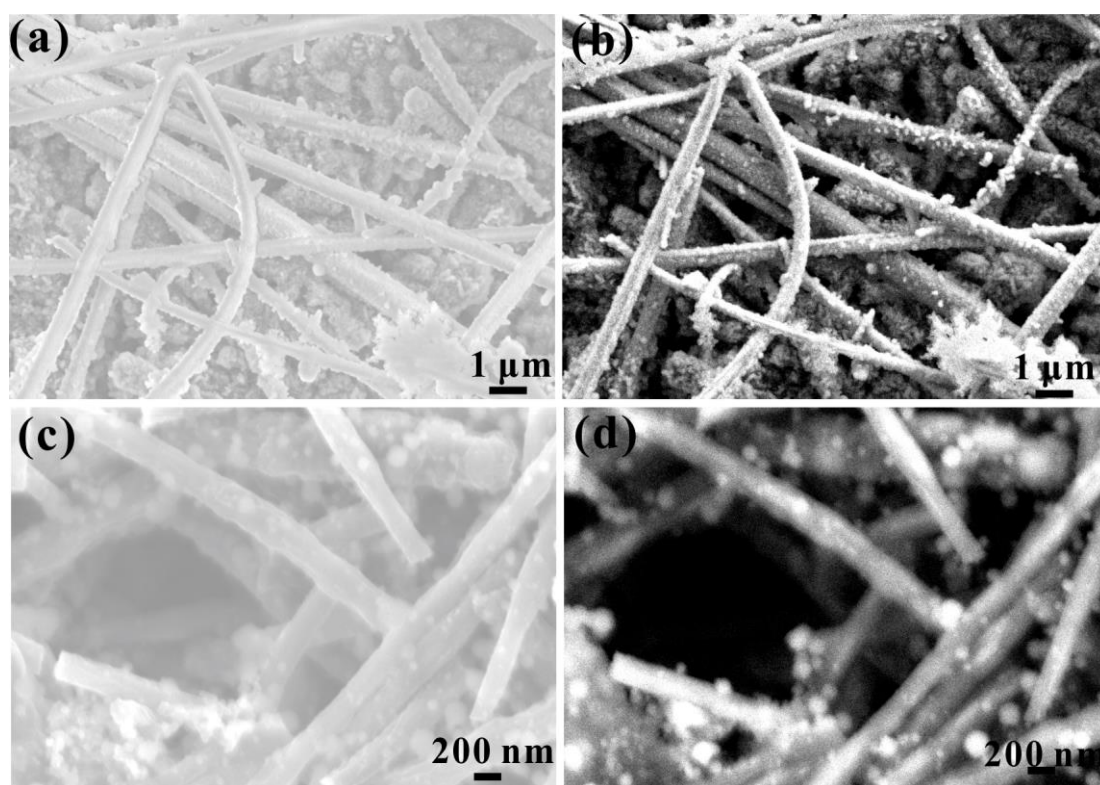


Fig. S8 SEM images of **a-b** $\text{TiS}_2/\text{S}-\text{TiO}_2/\text{C}$ nanofibers electrodes and **c-d** TiO_2/C nanofiber electrodes after cycling

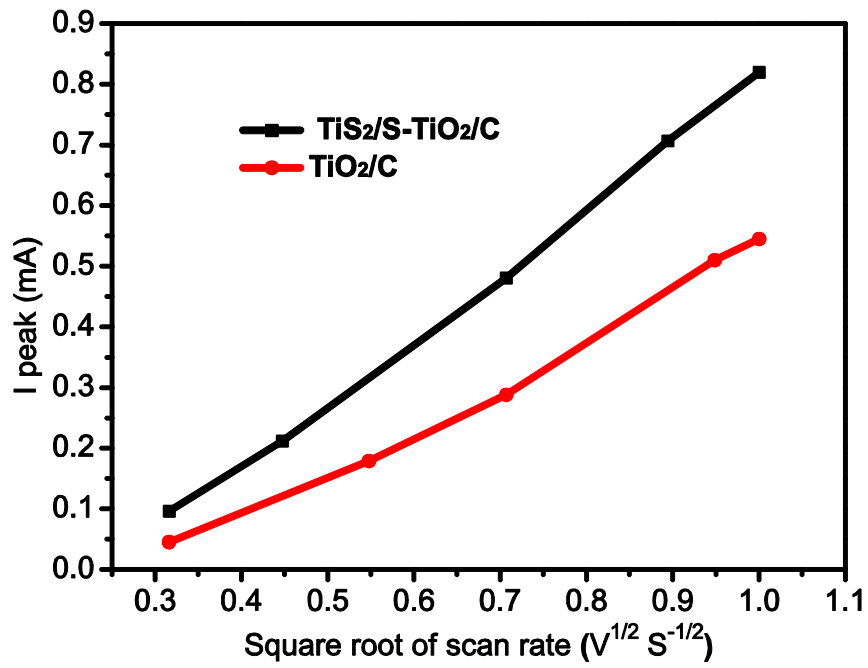


Fig. S9 Comparison of sodium ion diffusion coefficients for the TiS₂/S-TiO₂/C nanofibers electrodes and TiO₂/C nanofiber electrodes