Electronic Supplementary Information

Sheet-to-Layer SnSe₂/MXene composite structure for advanced sodium ion battery anode

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Figure S1 TEM image of the as-prepared $Ti_3C_2T_x$.



Figure S2 (a) FESEM image and (b) Basic lattic structure diagram of the as-prepared SnSe₂.



Figure S3. (a, b) FESEM images of the as-prepared $Sn/SnO/Ti_3C_2T_x$.



Figure S4 SAED image of $SnSe_2/Ti_3C_2T_x$.



Figure S5 XRD curve of Sn/SnO/Ti $_3C_2T_x$.



Figure S6 XPS full spectra of $SnSe_2/Ti_3C_2T_x$.



Figure S7 XPS spectra of $SnSe_2/Ti_3C_2T_x$ composite Ti 2p high-resolution spectra



Figure S8 XPS spectra of $SnSe_2/Ti_3C_2T_x$ composite C1s high-resolution

spectra



Fig. S9 Cyclic voltammogram of $SnSe_2$ electrode between 0.01 and 3.0 V with a scan rate of 0.1mV s⁻¹.



Figure S10 Comparisons of the rate performance with other works.