## **Electronic Supplementary Information for**

## Electrochemical Na<sup>+</sup> storage properties of SnO<sub>2</sub>/graphene anode in carbonate-

## based and ionic liquid electrolytes

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**Figure S1** (a) TEM image and (b) AFM data of synthesized graphene nanosheets. (c) Electron diffraction pattern of SnO<sub>2</sub>/graphene composite.



**Figure S2** Electrochemical impedance spectroscopy data of  $SnO_2$ /graphene electrodes measured in various electrolytes. Where  $R_s$ ,  $R_{ct}$ , CPE, and W are the electrolyte resistance, interfacial charge transfer resistance, interfacial constant phase element, and Warburg impedance associated with Na<sup>+</sup> diffusion in the electrode, respectively.



Figure S3 Cyclic stability of SnO<sub>2</sub>/graphene electrode measured in PC electrolyte at 25 °C.