

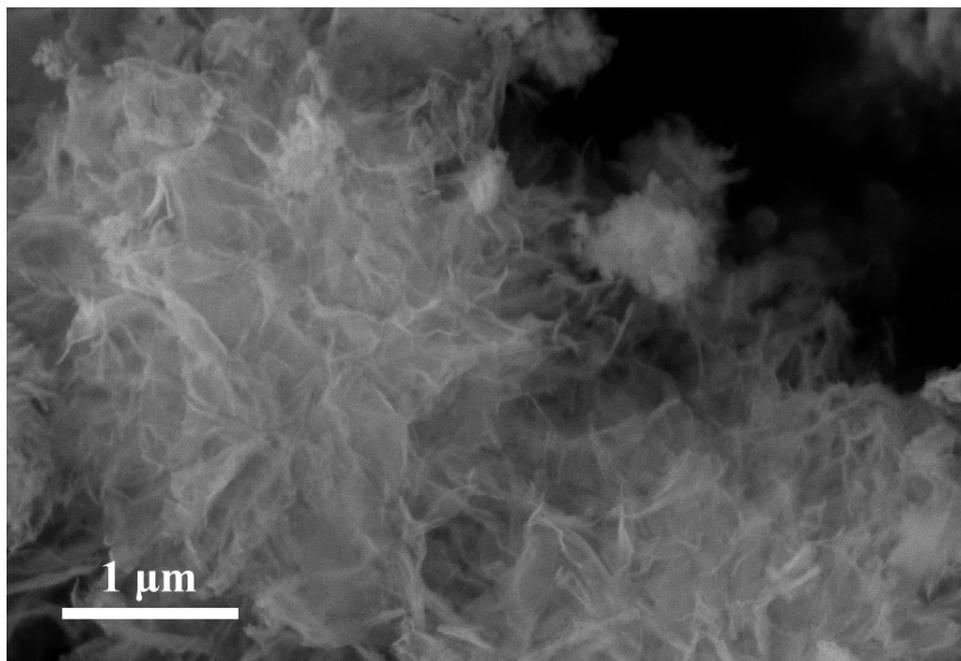
## Supporting Information

### **2D amorphous iron phosphate nanosheets with high rate capability and ultra-long cycle life for sodium ion batteries**

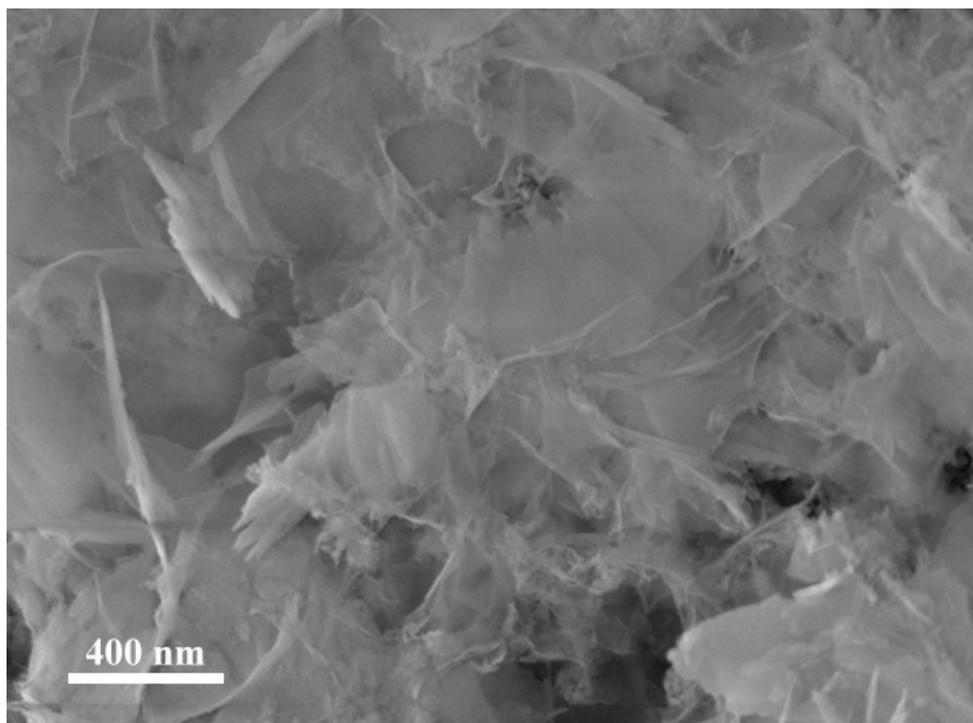
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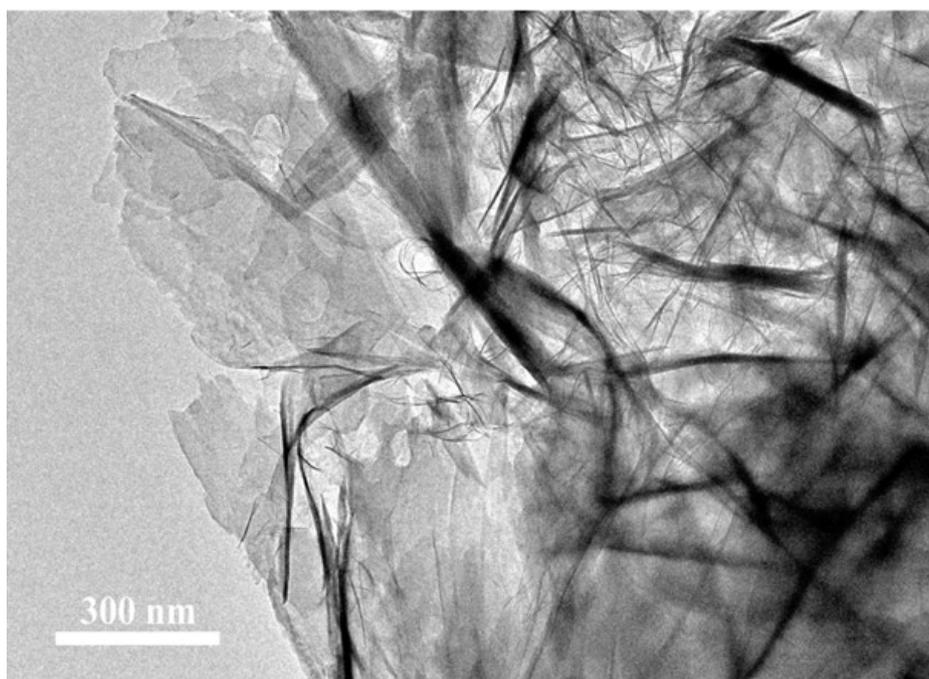
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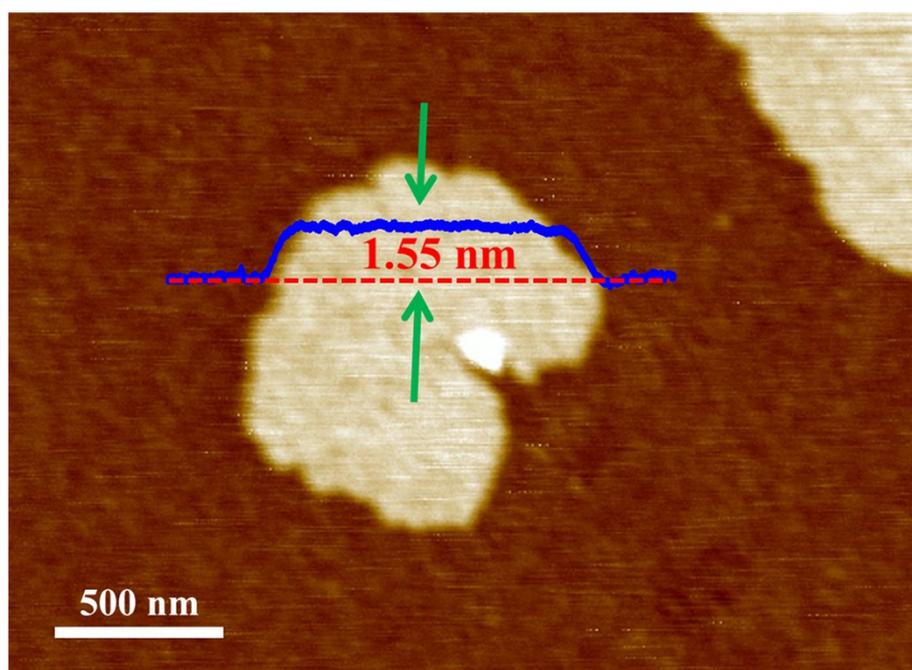
**Figure S1** SEM images of the 2D nanosheets.



**Figure S2** SEM images of the 2D nanosheets.



**Figure S3** TEM image of 2D nanosheets.



**Figure S4** AFM image of a typical nanosheet with a thickness of 1.55 nm, corresponding to two atomic layers.

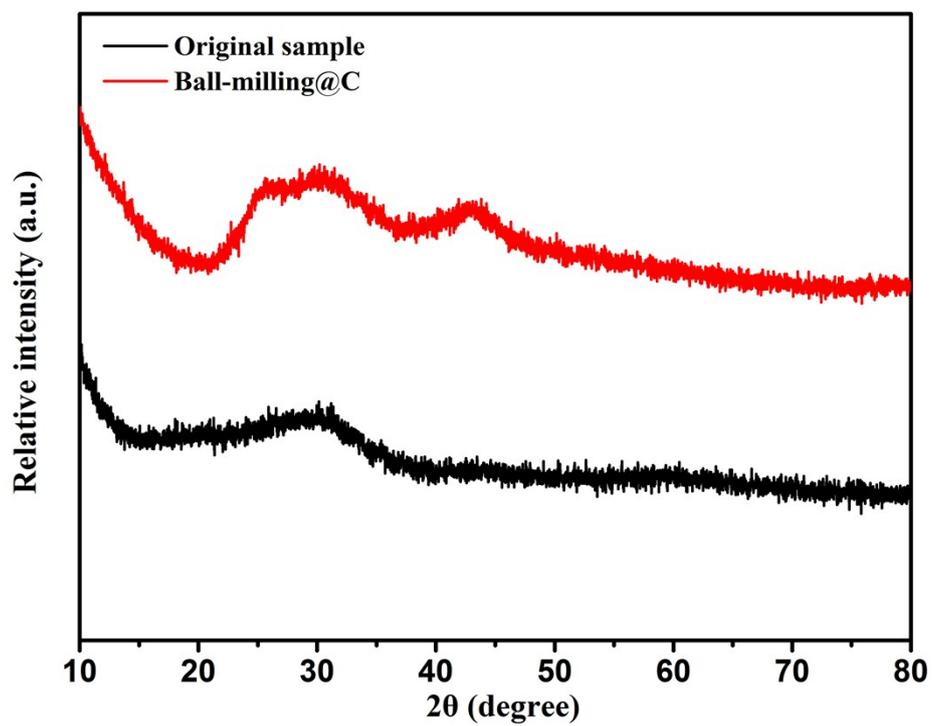


Figure S5 XRD of samples for 2D nanosheets and 2D nanosheets@C.

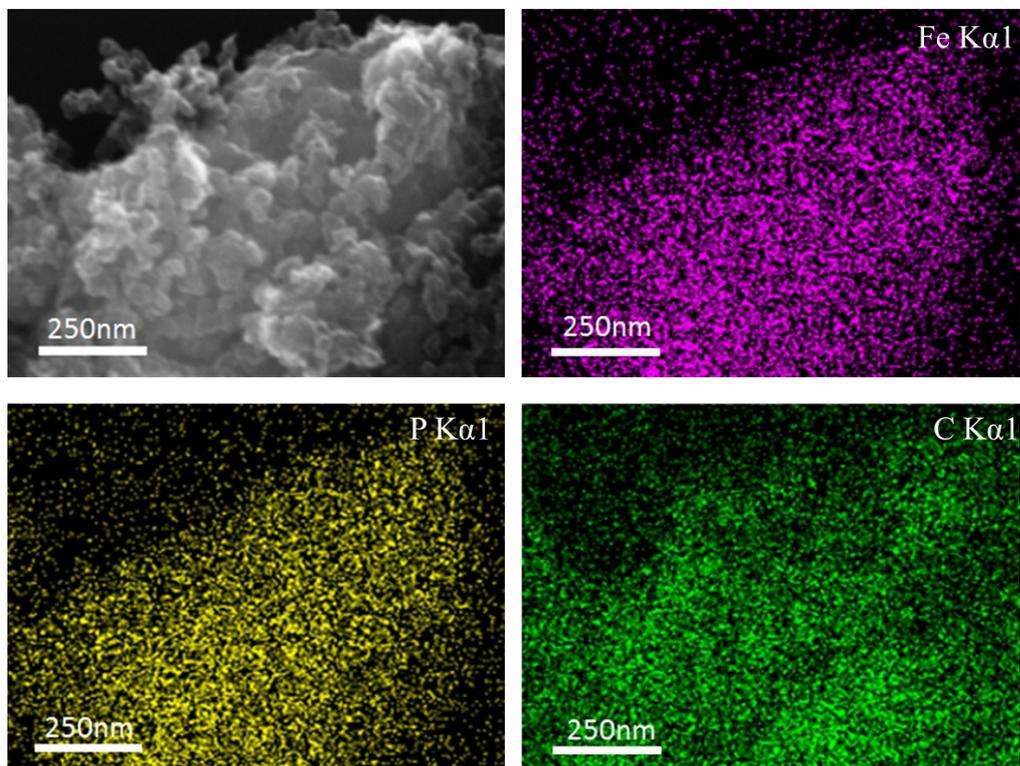


Figure S6 EDS mapping images for the mixture of nanosheets and carbon black.

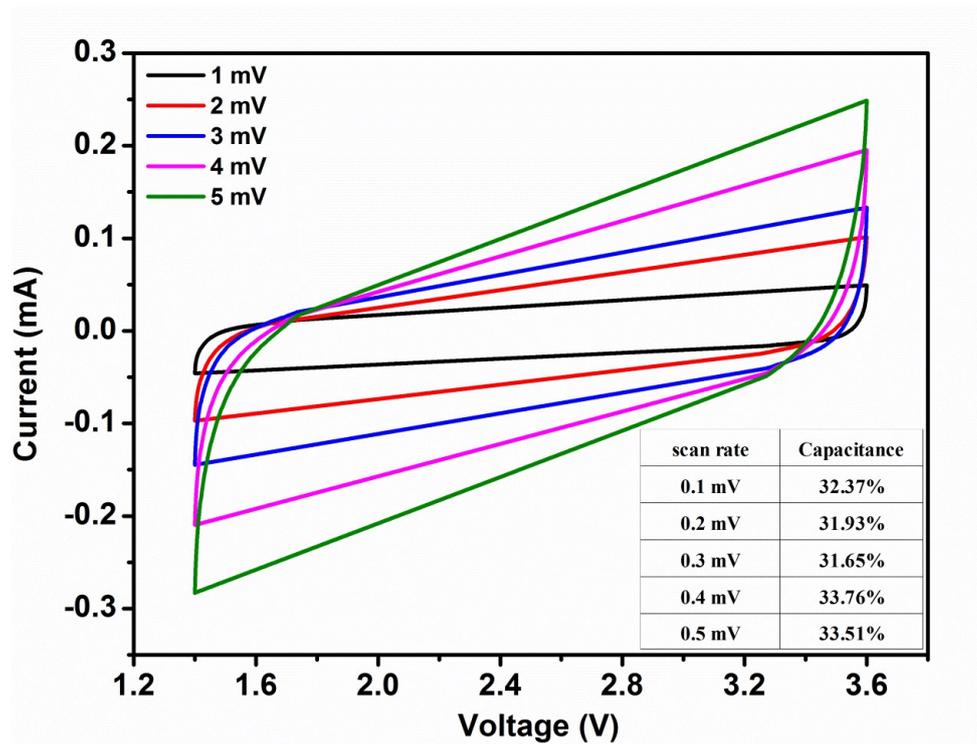


Figure S7 Capacitance contribution of CV curves at different scan rates.

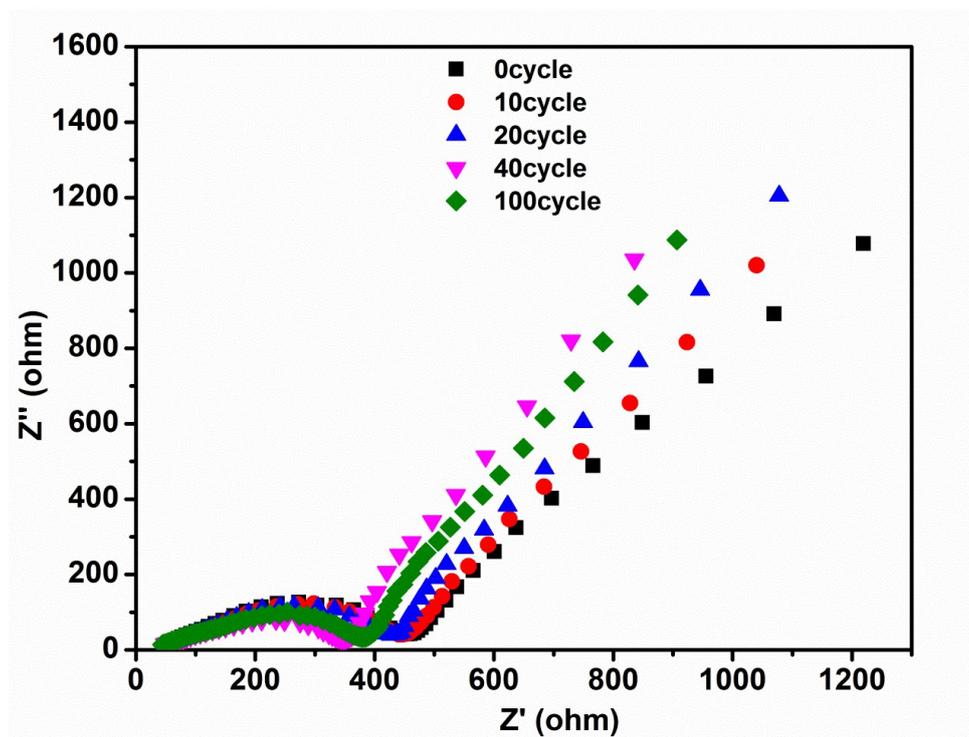
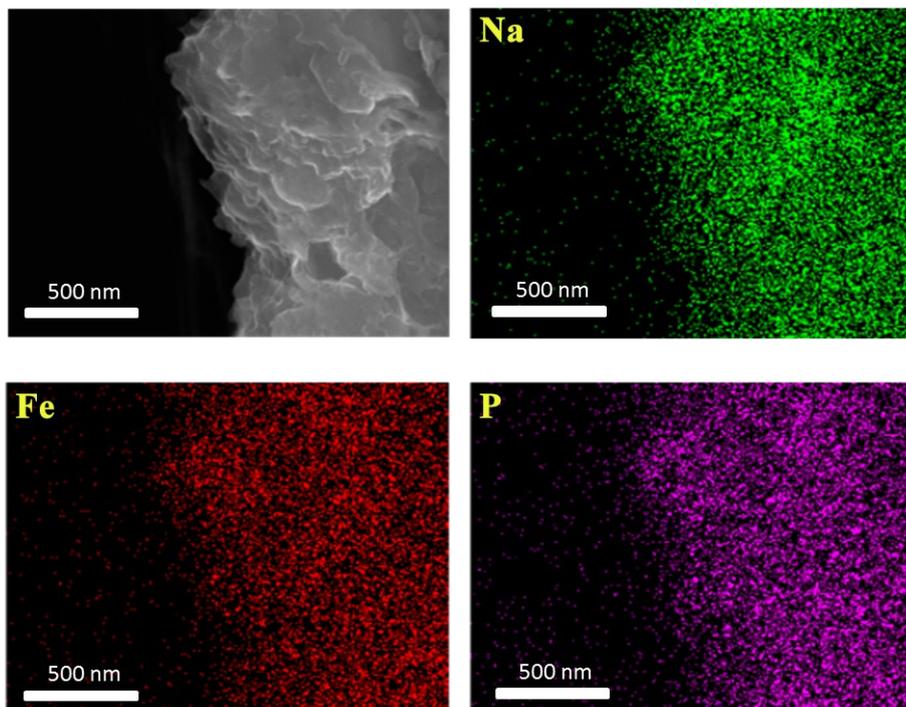
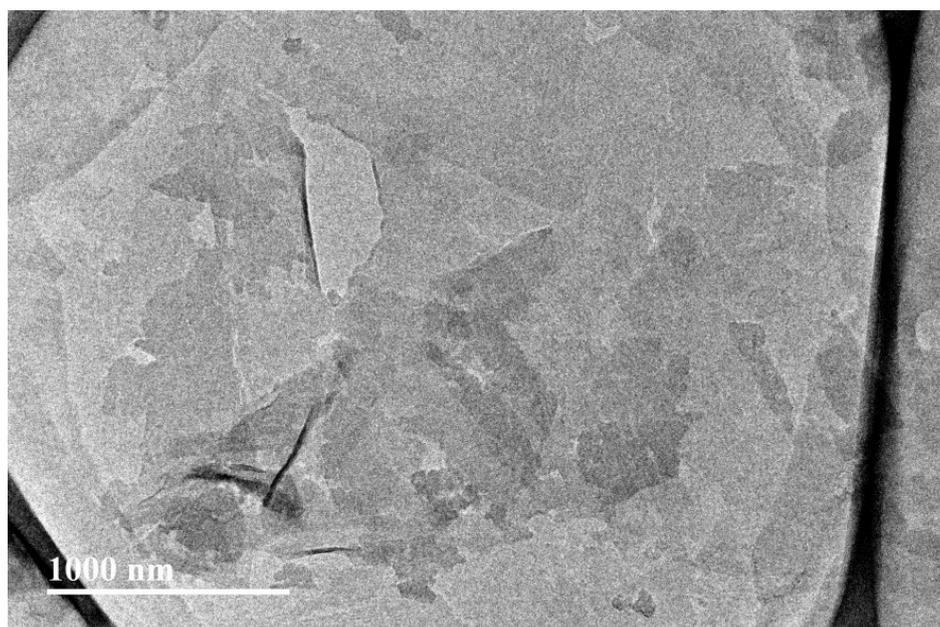


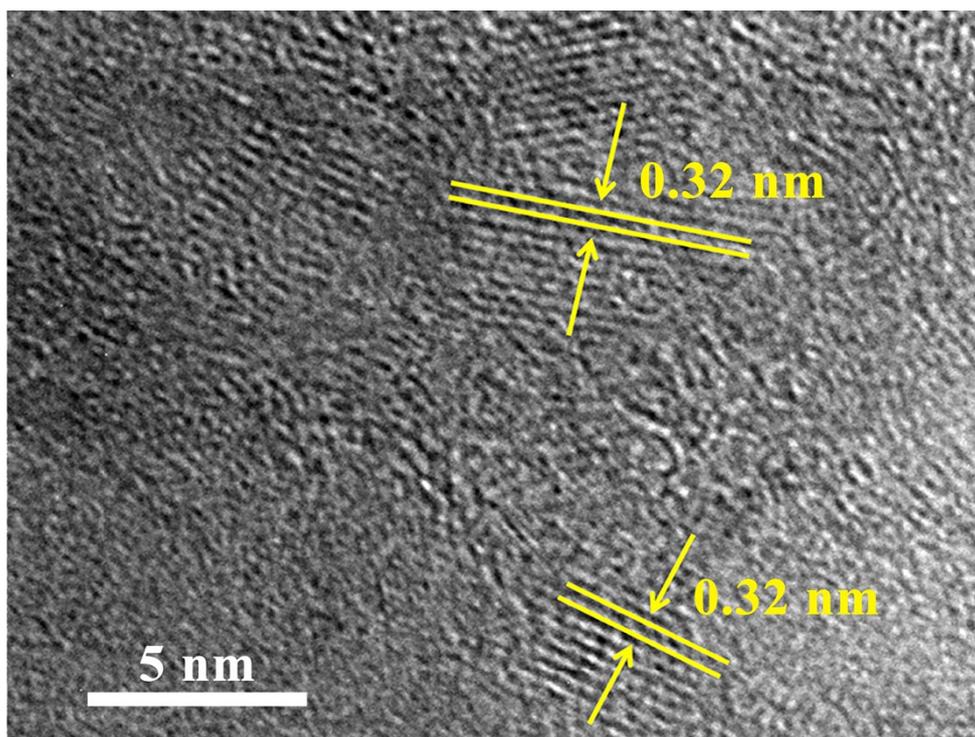
Figure S8 Electrochemical impedance spectroscopy (EIS) for 0, 10, 20, 40 and 100 charge/discharge cycles.



**Figure S9** EDS mapping images for the mixture of nanosheets and carbon black.



**Figure S10** TEM image for the nanosheets after 1000 charge/discharge cycles.



**Figure S11** HR-TEM image for crystallization of 2D sheets.