

## Supporting information

### **MnO<sub>2</sub>/MXene-Ti<sub>3</sub>C<sub>2</sub>Tx flexible foam use for lithium ion storage**

Jingze Yan,<sup>a</sup> Lu Yu,<sup>a</sup> Donghua Wang,<sup>a</sup> Wenyuan Zhang,<sup>a</sup> Zhihao Xiong,<sup>a</sup>  
Tianshuo Nie,<sup>a</sup> Zhen Ji,<sup>a\*</sup> Xiaoqin Yan,<sup>a,b\*</sup>

\*Corresponding author

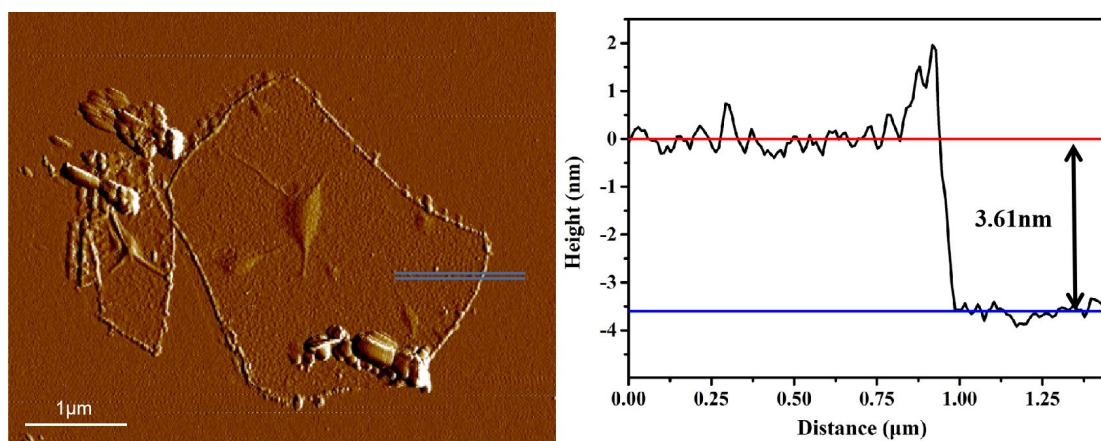
a State Key Laboratory for Advanced Metals and Materials, School of Materials Science and Engineering, University of Science and Technology Beijing, Beijing 100083, PR China

E-mail: xqyan@mater.ustb.edu.cn; jizhen@mater.ustb.edu.cn

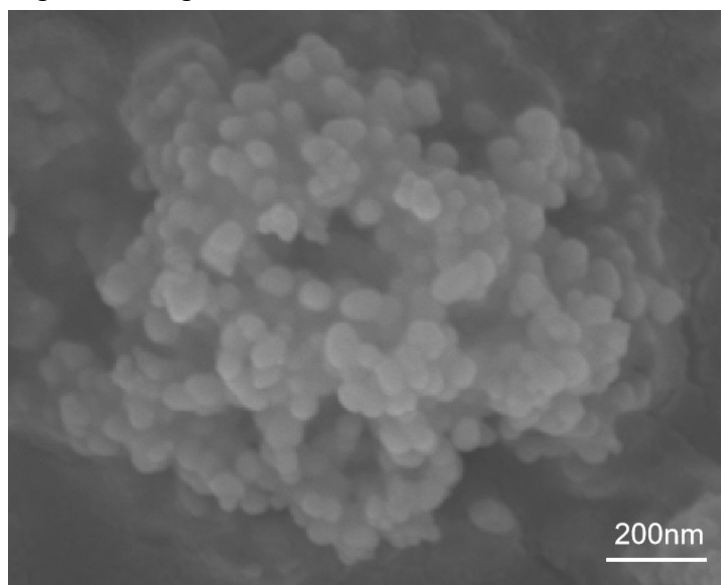
b The Beijing Municipal Key Laboratory of New Energy Materials and Technologies, University of Science and Technology Beijing, Beijing 100083, China



**Fig.S1** Picture of MnO<sub>2</sub>/MXene Foam electrode



**Fig.S2** AFM images and height curve of MXene-Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub>



**Fig.S3** SEM image of MnO<sub>2</sub> nanoparticles

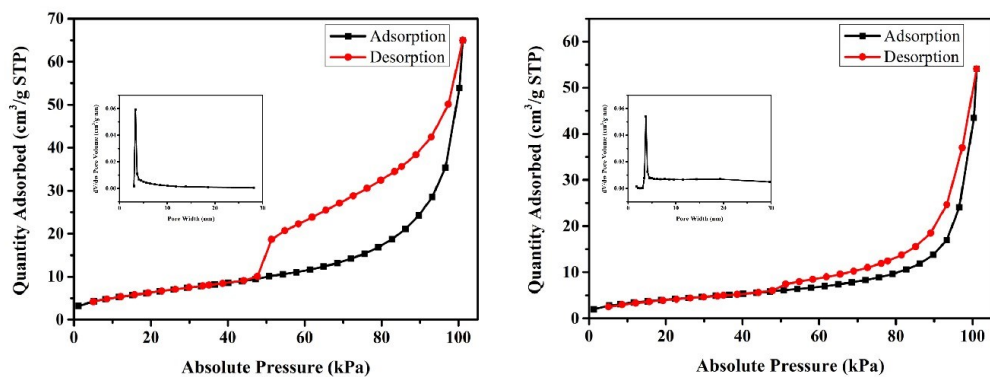


Fig.S4 BET of MXene Foam and MnO<sub>2</sub>/MXene Foam

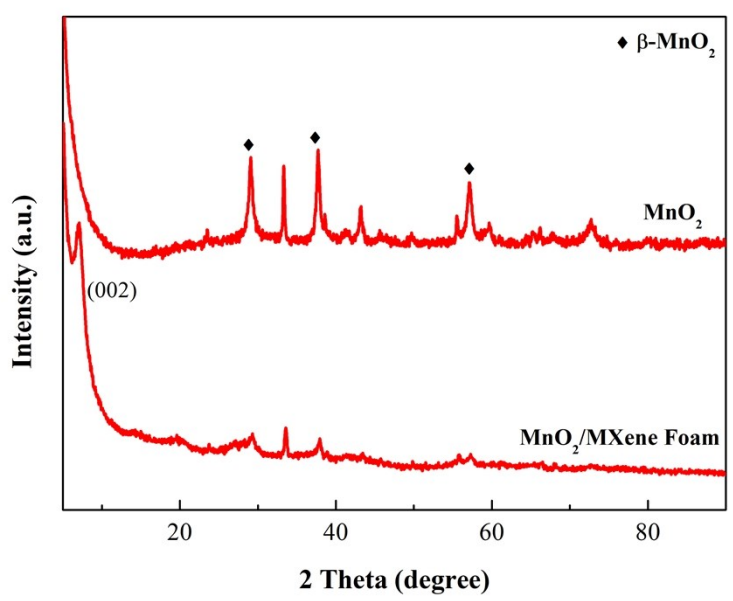


Fig.S5 XRD graph of the MnO<sub>2</sub> and MnO<sub>2</sub>/MXene Foam

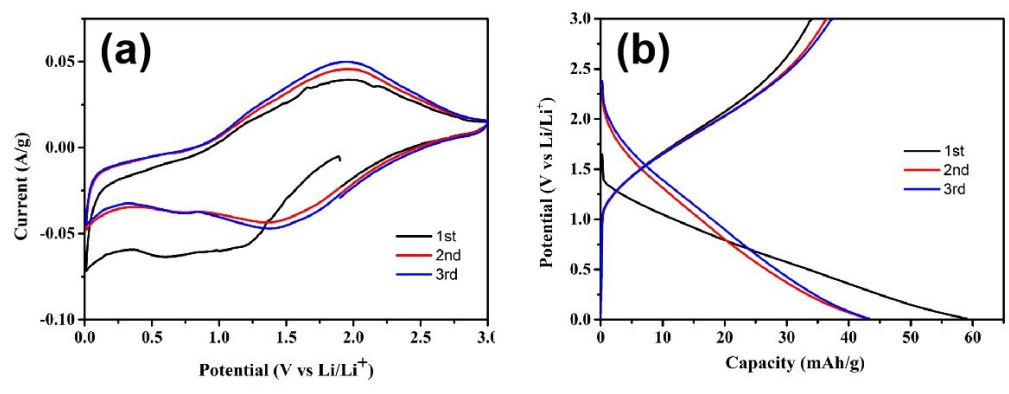
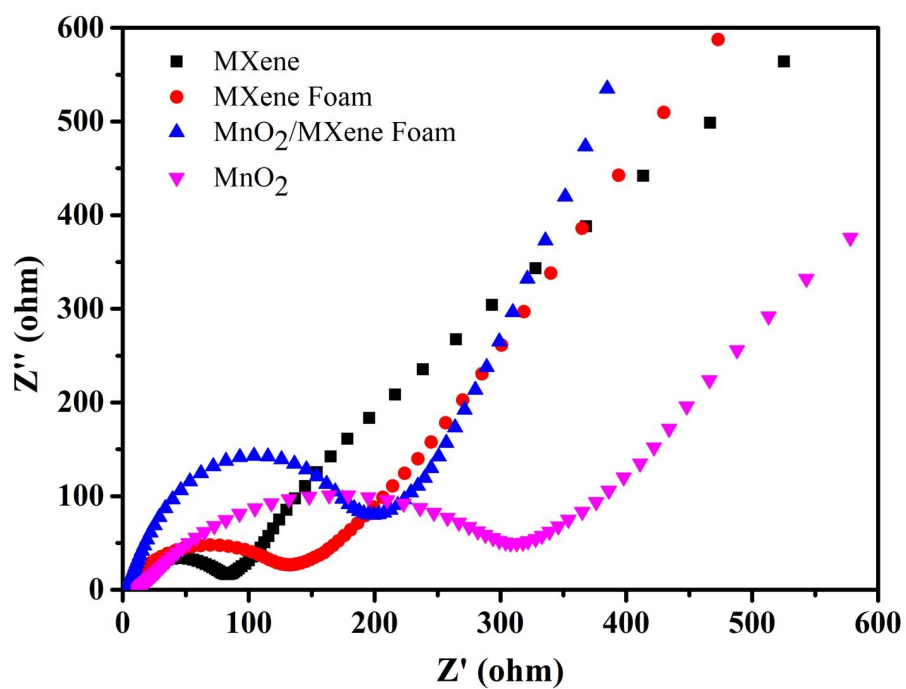


Fig.S6 (a) CV curves and (b) GCD curves of the MXene



**Fig.S7** EIS of the MXene, MXene Foam, MnO<sub>2</sub>/MXene Foam and MnO<sub>2</sub> nanoparticles electrodes.