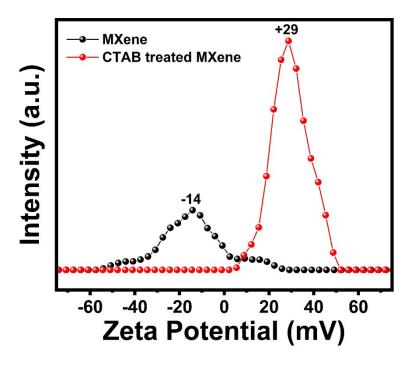
1

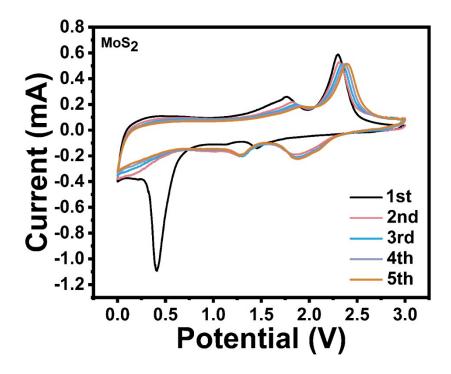
10

## Supplementary Information

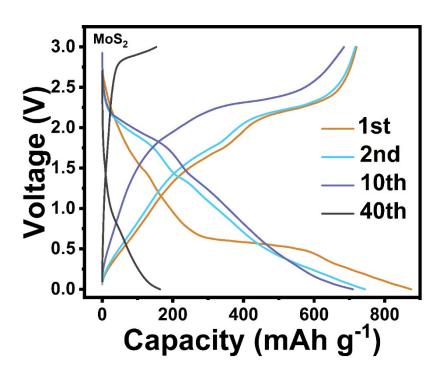
- 2 Few-layer MoS<sub>2</sub> nanosheets vertically supported on Ti<sub>3</sub>C<sub>2</sub>-MXene
- 3 sheets promoting lithium storage performance
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11 **Fig. S1** Zeta potential of MXene and CTAB treated MXene.



**Fig. S2** Initial five-cycle CV curves of MoS<sub>2</sub> at the scan rate of 0.1 mV s<sup>-1</sup>.



**Fig. S3** Initial five-cycle discharge/charge curves of MoS<sub>2</sub> at 200 mA g<sup>-1</sup>.