

Supplementary Materials

Directly Using $Ti_3C_2T_x$ MXene for a Solid-Contact Potentiometric pH Sensor Toward Wearable Sweat pH Monitoring

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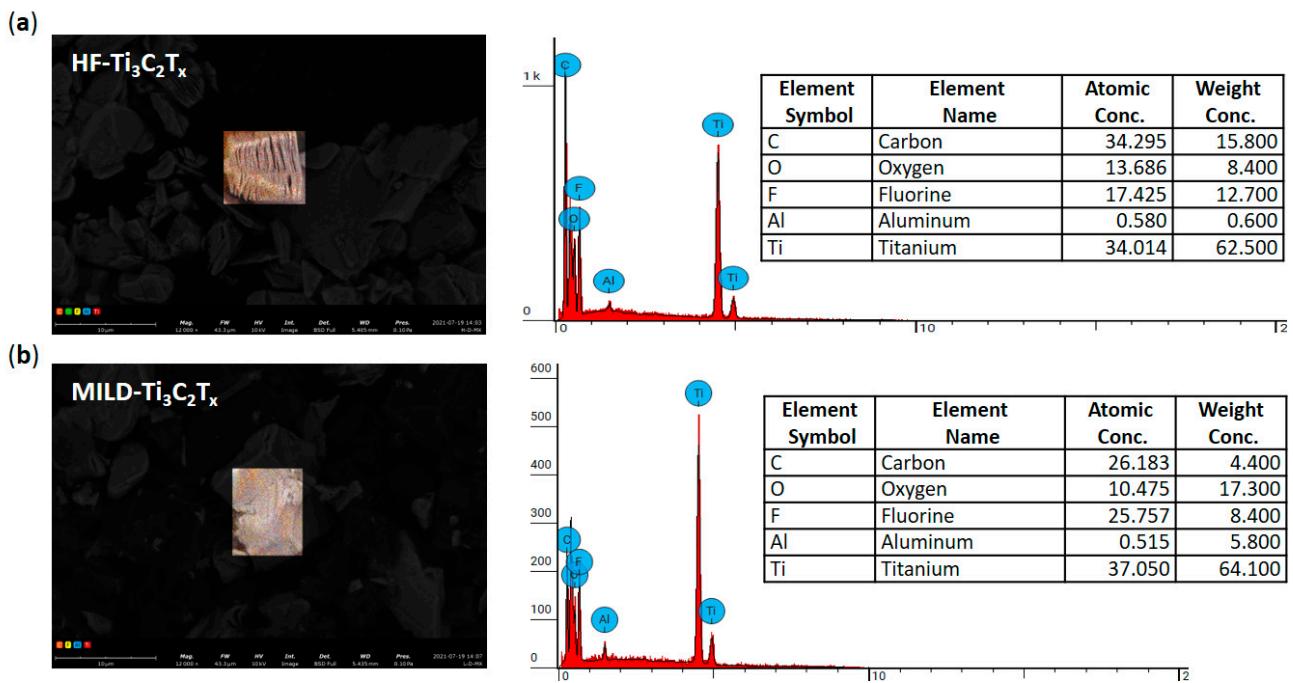


Figure S1. Element mapping and compositions for (a) HF -Ti₃C₂T_x and (b) MILD -Ti₃C₂T_x.

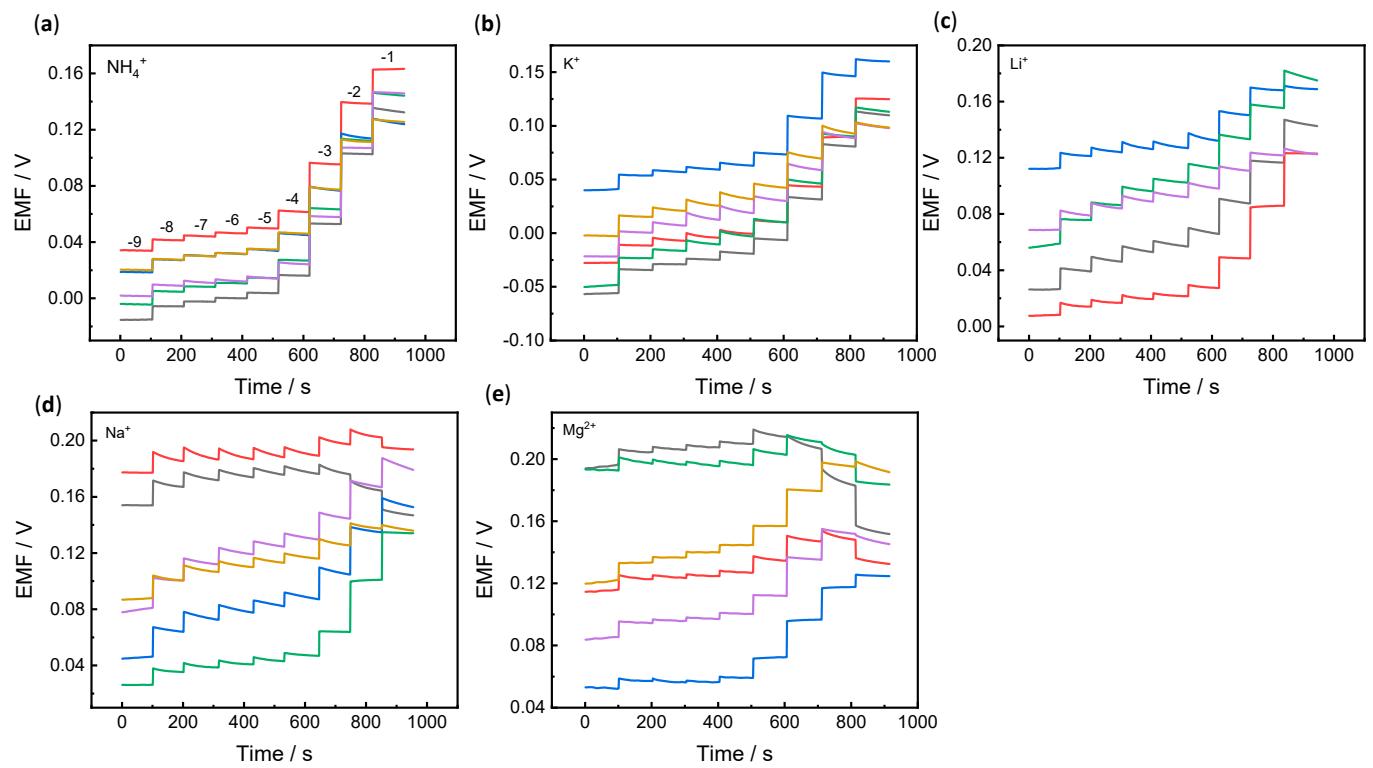


Figure S2. Potentiometric responses of Ti_3AlC_2 electrodes toward a series of interfering ions (a) NH_4^+ , (b) K^+ , (c) Li^+ , (d) Na^+ , (e) Mg^{2+} with the concentration from 10^{-9} to 10^{-1} M. The six curves represent tests on six individual electrodes.

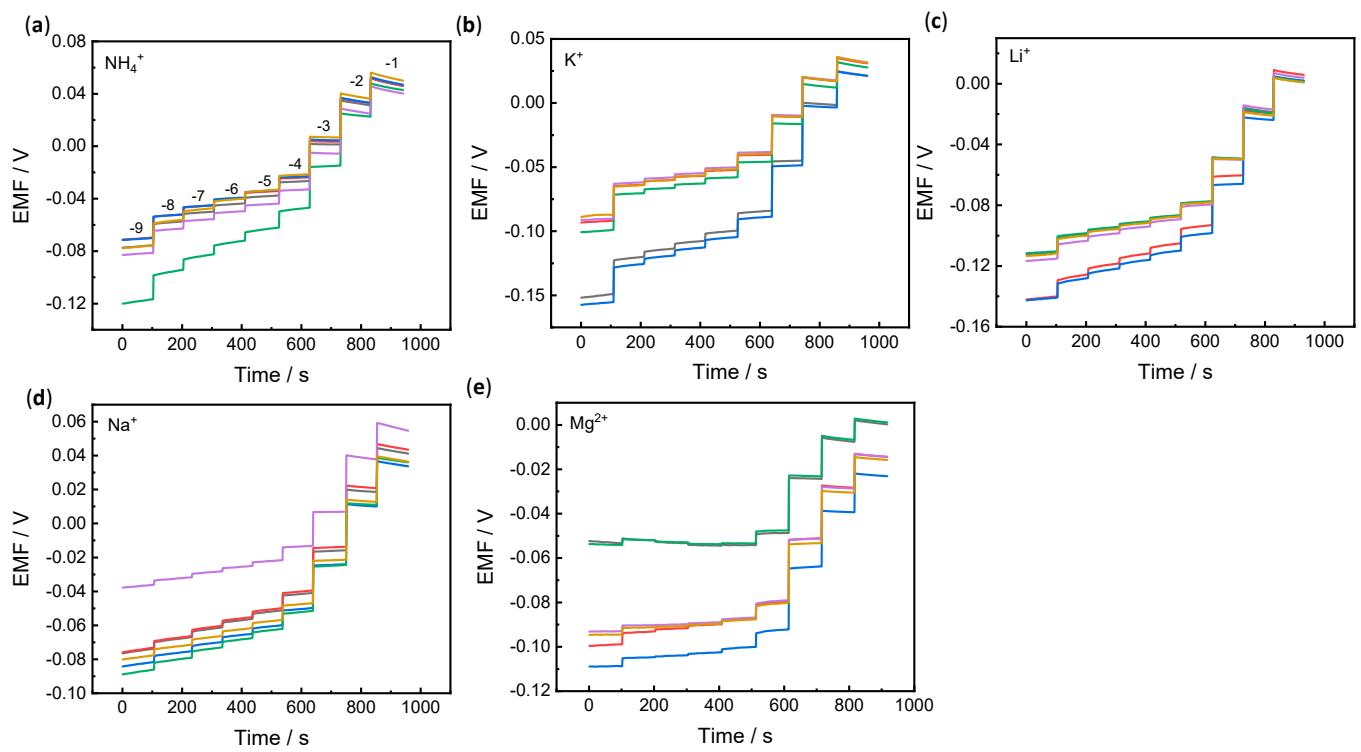


Figure S3. Potentiometric responses of MILD-Ti₃C₂T_x electrodes toward a series of interfering ions (a) NH₄⁺, (b) K⁺, (c) Li⁺, (d) Na⁺, (e) Mg²⁺ with the concentration from 10⁻⁹ to 10⁻¹ M. The six curves represent tests on six individual electrodes.

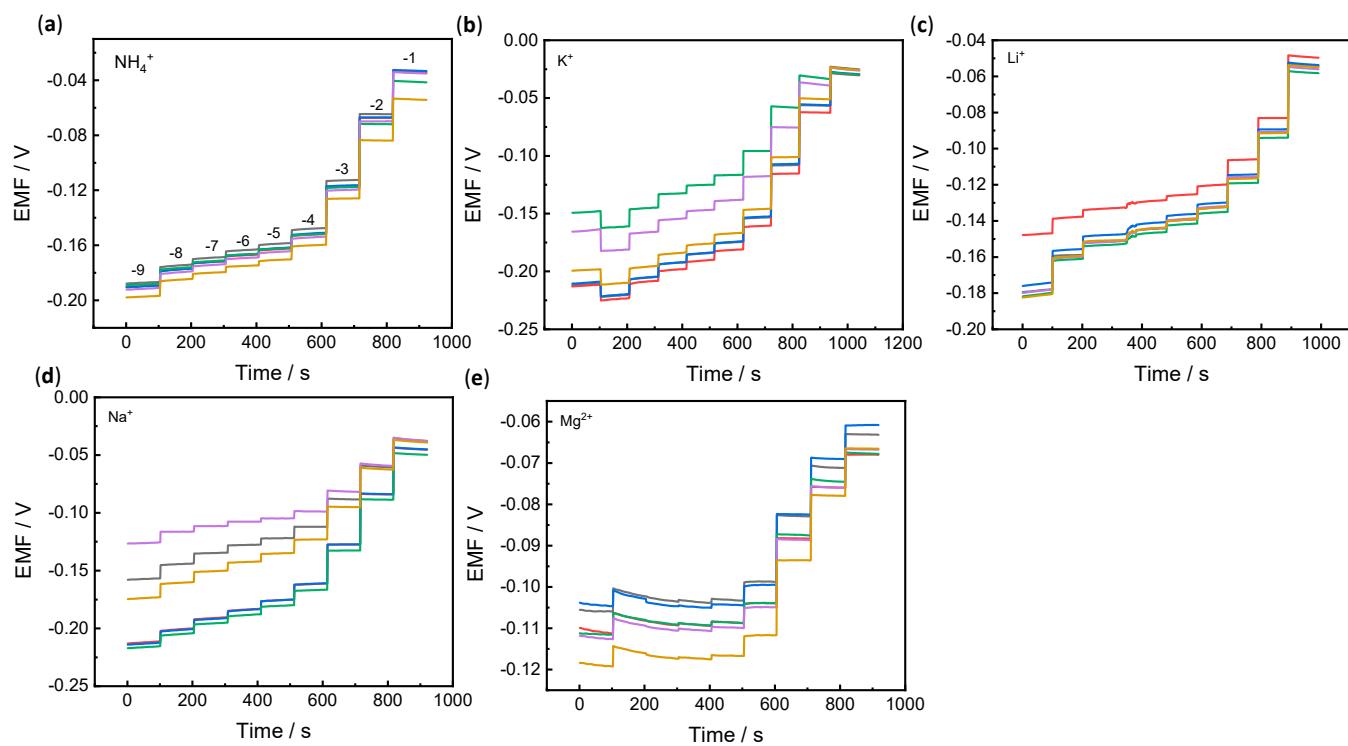


Figure S4. Potentiometric responses of HF-Ti₃C₂T_x electrodes toward a series of interfering ions (a) NH₄⁺, (b) K⁺, (c) Li⁺, (d) Na⁺, (e) Mg²⁺ with the concentration from 10⁻⁹ to 10⁻¹ M. The six curves represent tests on six individual electrodes.

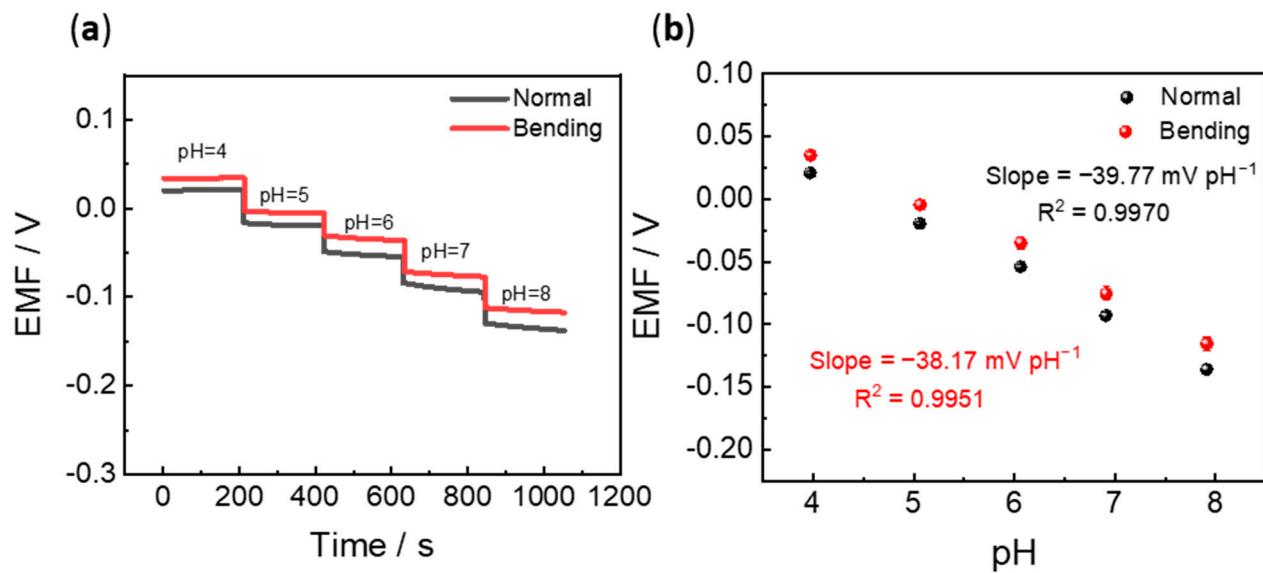


Figure S5. (a) Potential response curves of HF- $\text{Ti}_3\text{C}_2\text{T}_x$ based pH sensor under normal and bending state (over 60°). (b) Corresponding calibration curves under normal and bending states.

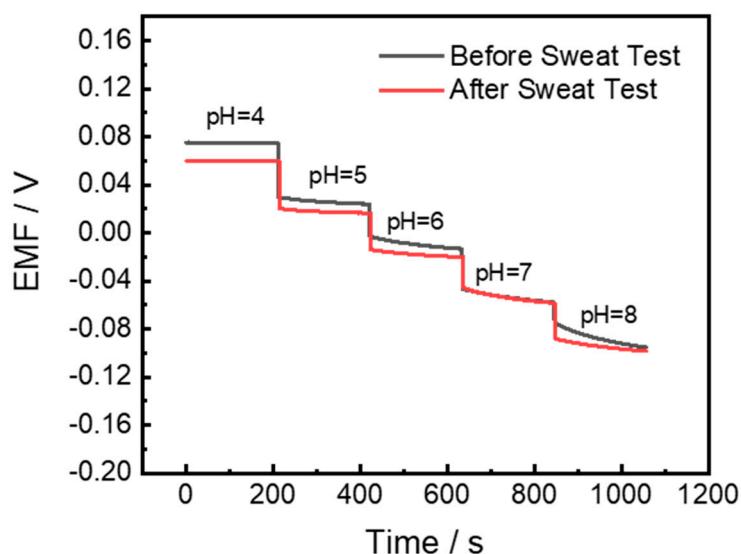


Figure S6. Potential response of HF- $\text{Ti}_3\text{C}_2\text{T}_x$ based pH sensor before and after sweat test.

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