

Supporting Information for

Promoting Electrons and Ions Transport by Self-assembled WO₃/Mxene
Composite Structure for Improved Electrochromic Performance

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Supplementary Figures(Fig.S1-S8)

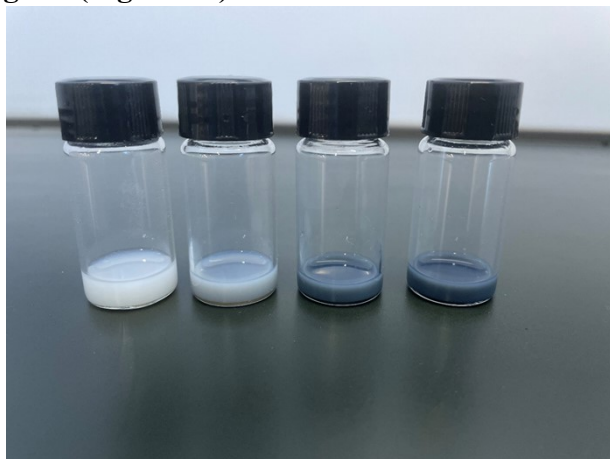


Fig. S1 Precursor solutions of WO_3 and WO_3/MXene (progressively increasing content of MXene 0 mg/mL, 0.25 mg/mL, 0.5 mg/mL, 1 mg/mL).

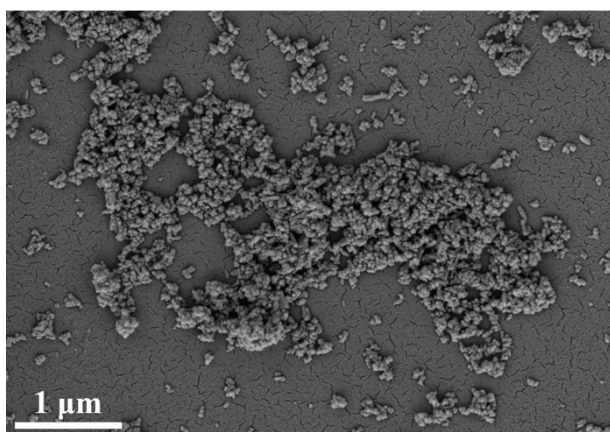


Fig. S2 SEM images WO_3 nanoparticle at low magnifications.

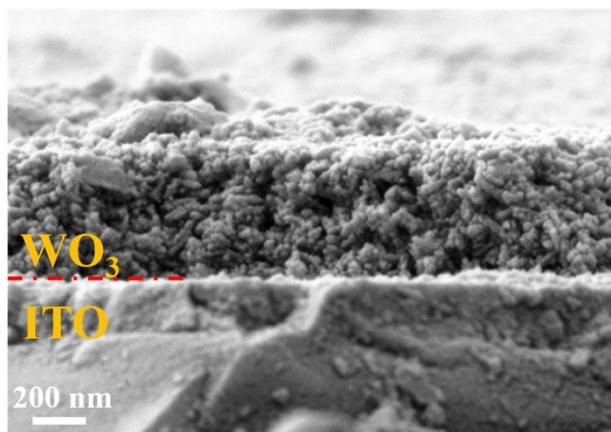


Fig. S3 Surface SEM image of WO_3 film.

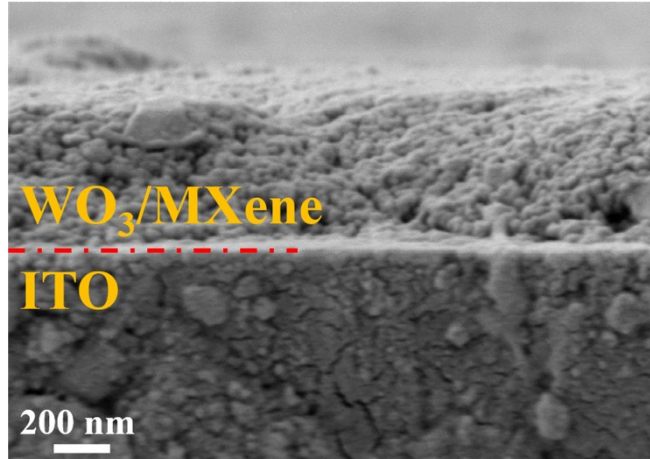


Fig. S4 Surface SEM image of WO_3/MXene composite film.

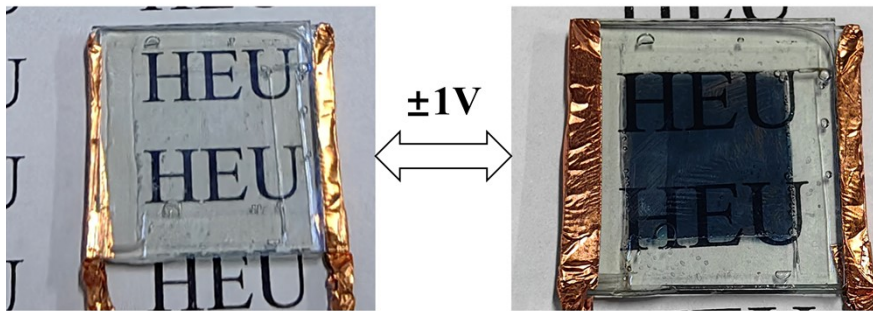


Fig. S5 Optical photograph of the electrochromic device assembled from $\text{WM}_{0.5}$.

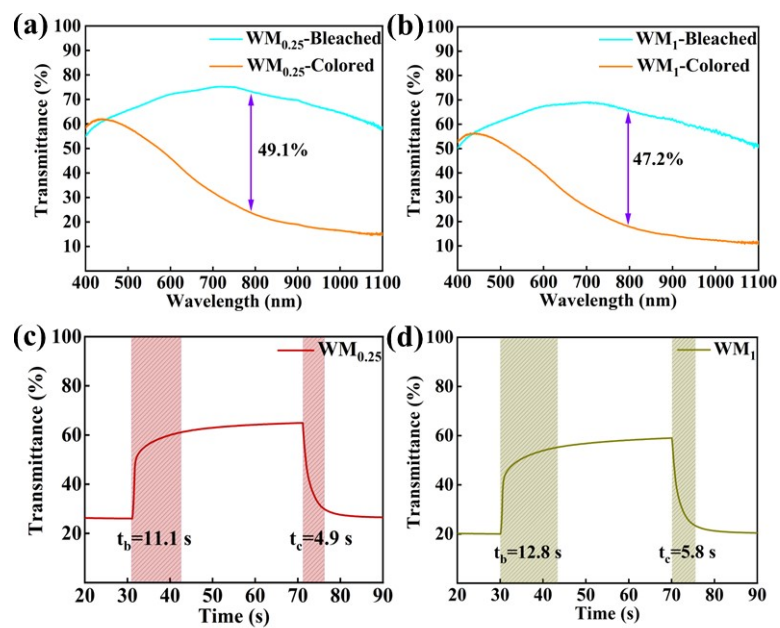


Fig. S6 (a, b) Transmittance spectra of WO_3/MXene (0.25 mg/mL) and WO_3/MXene (1 mg/mL) electrochromic film in colored and bleached states; (c, d) In situ EC

switching kinetics at 780 nm wavelength of WO_3 /MXene (0.25 mg/mL) and WO_3 /MXene (1 mg/mL) electrochromic film.

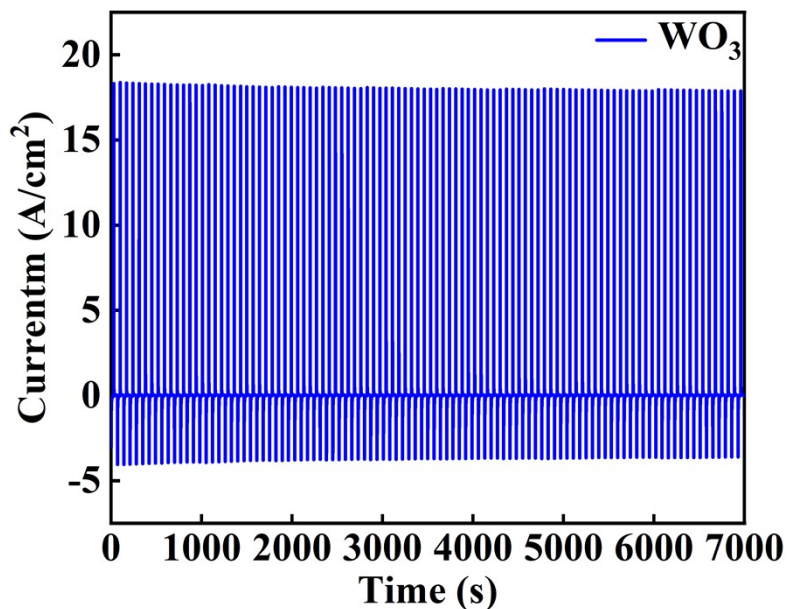


Fig. S7 Cyclic stability test of WO_3 film.

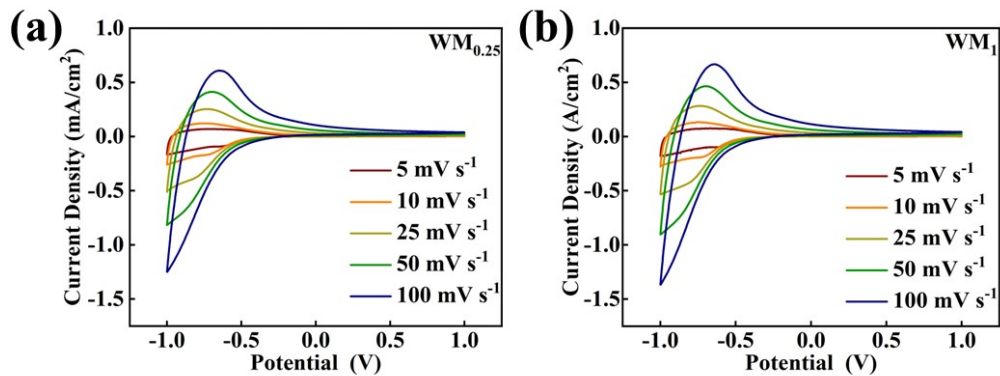


Fig. S8 CV curves of (a) WO_3 /MXene (0.25 mg/mL) and WO_3 /MXene (1 mg/mL) at different scan rates.