Electrochromic Properties of MnO_2/WO_3 Bilayered Electrodes for Enhanced Charge Storage and Superior Stability

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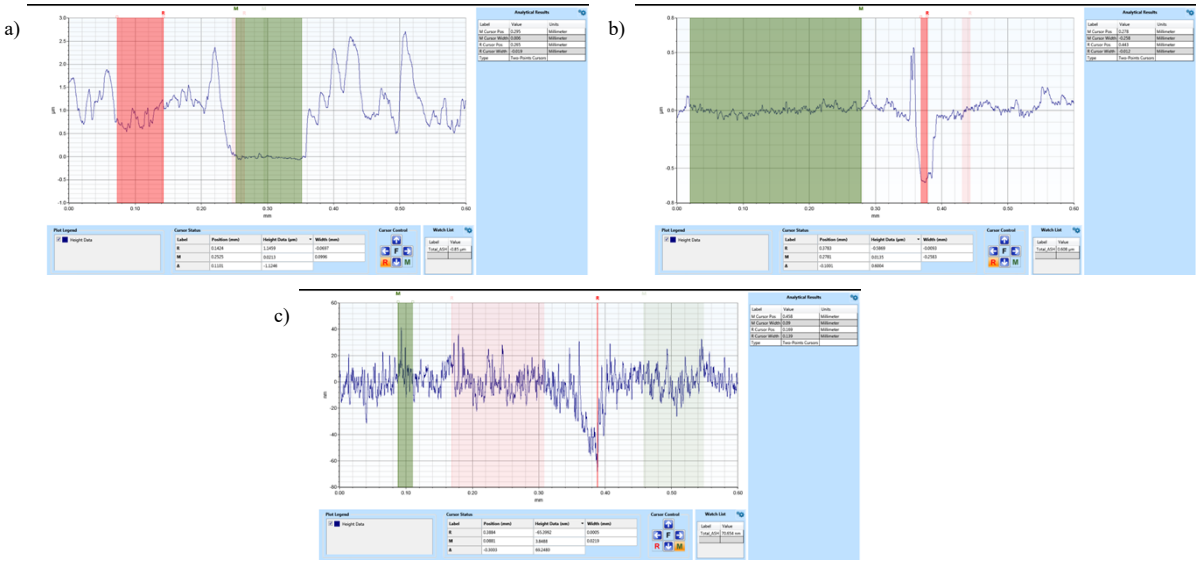

Fig. S1. Film thickness by stylus profilometry. The dip is originated from a scratched off portion. The red and green areas were used for the height averaging: a) AW, b) CW, and c) MnO_2

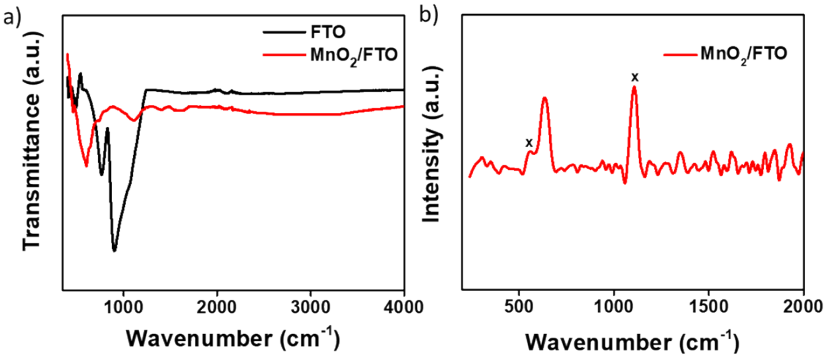

Fig S2. a) FTIR and b) Raman spectra of MnO2 grown on FTO surface

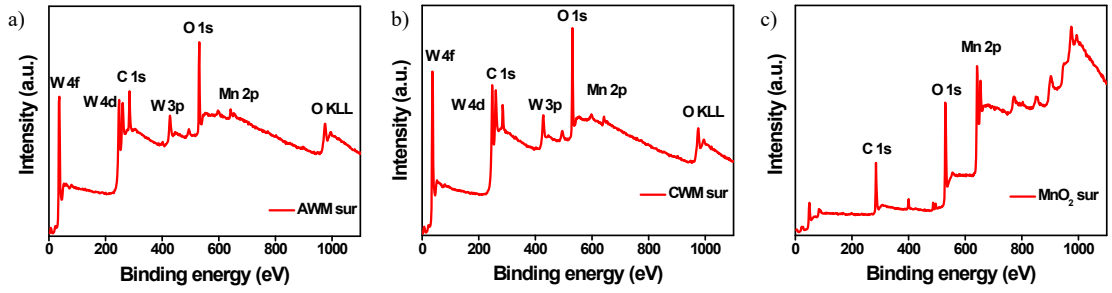

Fig. S3. Survey spectra of a) AWM, b) CWM, c) MnO_2

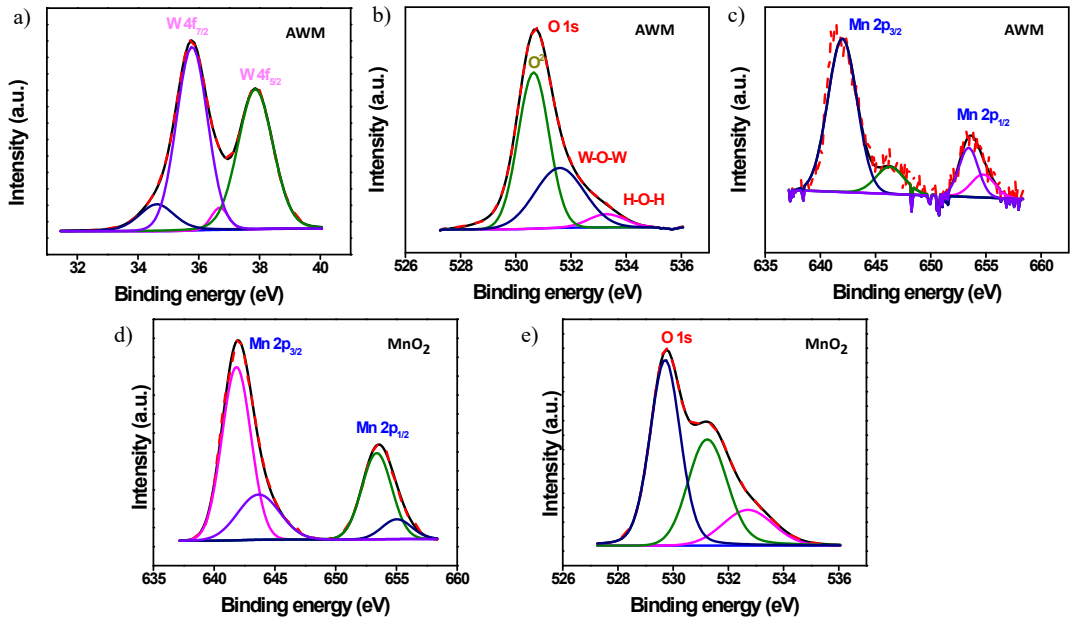

Fig. S4. High-resolution spectra of AWM: a) W 4f, b) O 1s, c) Mn 2p; High-resolution spectra of MnO2: d) Mn 2p, and e) O 1s

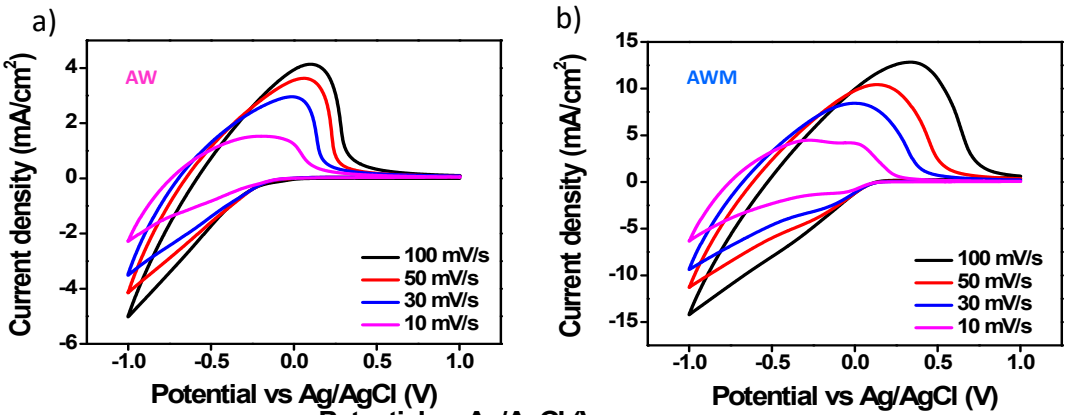

Fig. S5. Cyclic voltammetry plots at variable scan rates of a) AW film, b) AWM film

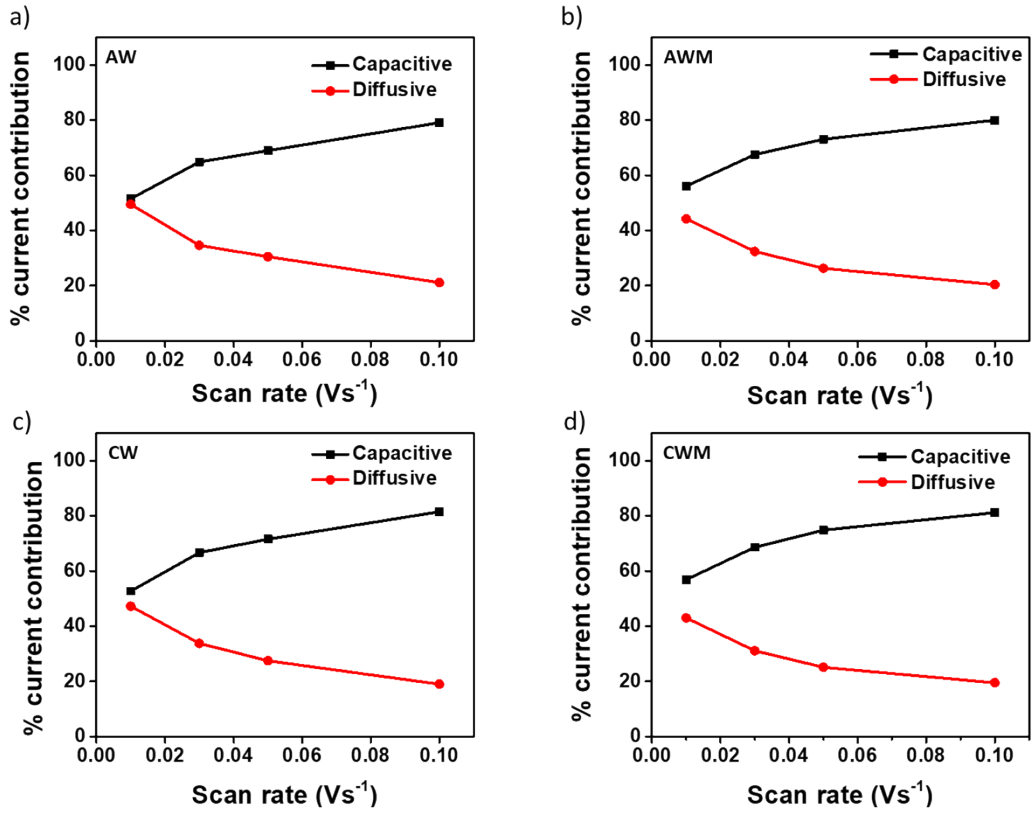

Fig. S6. Contribution from capacitive and diffusive current for a) AW film, b) AWM film, c) CW film, and d) CWM film

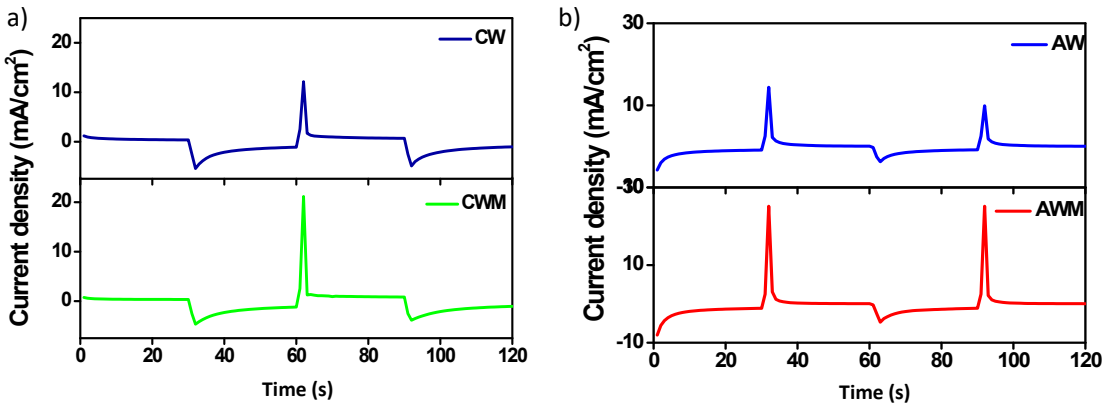

Fig. S7. Chronoamperometry plots of the devices: a) CW and CWM, b) AW and AWM

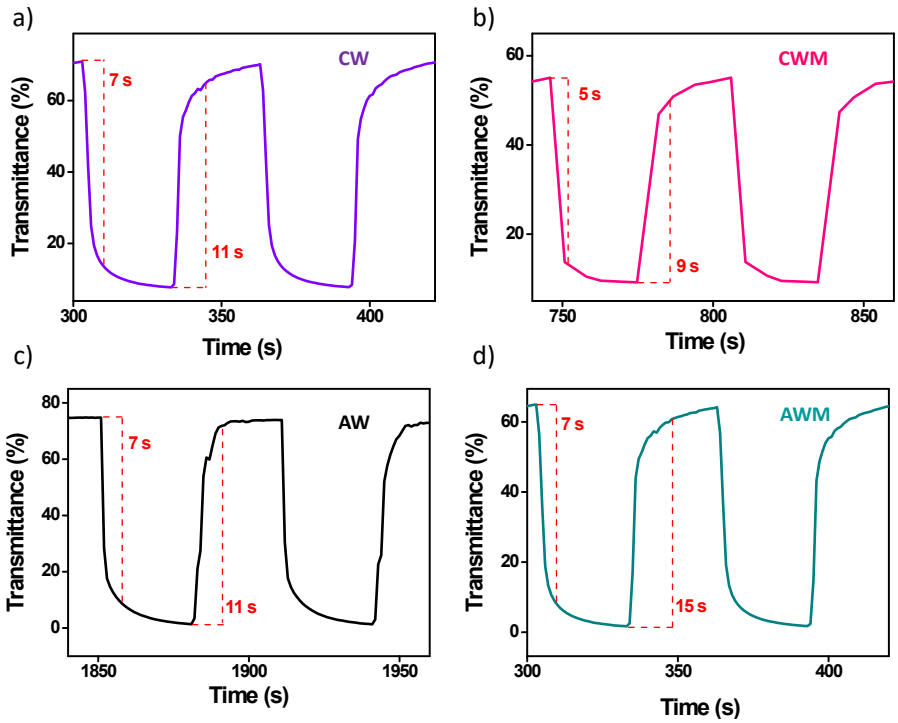

Fig S8. T90 response times of a) device CW, b) device CWM, c) device AW, d) device AWM at 650 nm

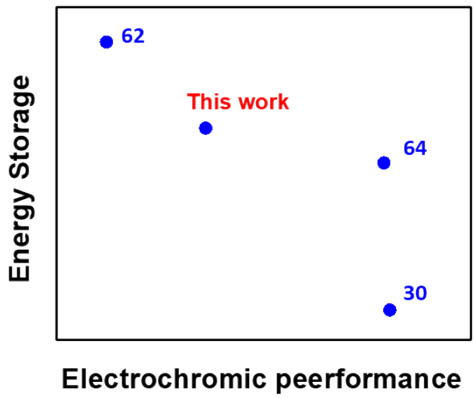

Fig S9. Comparison chart showing electrochromic and energy storage performance of the device with similar works over the last few years