Electronic Supplementary Material (ESI) for CrystEngComm.

Supporting Information

Catalyst-Free Synthesis of Tungsten Oxide Nanowires via Thermal Evaporation for Fast-Response Electrochromic Devices

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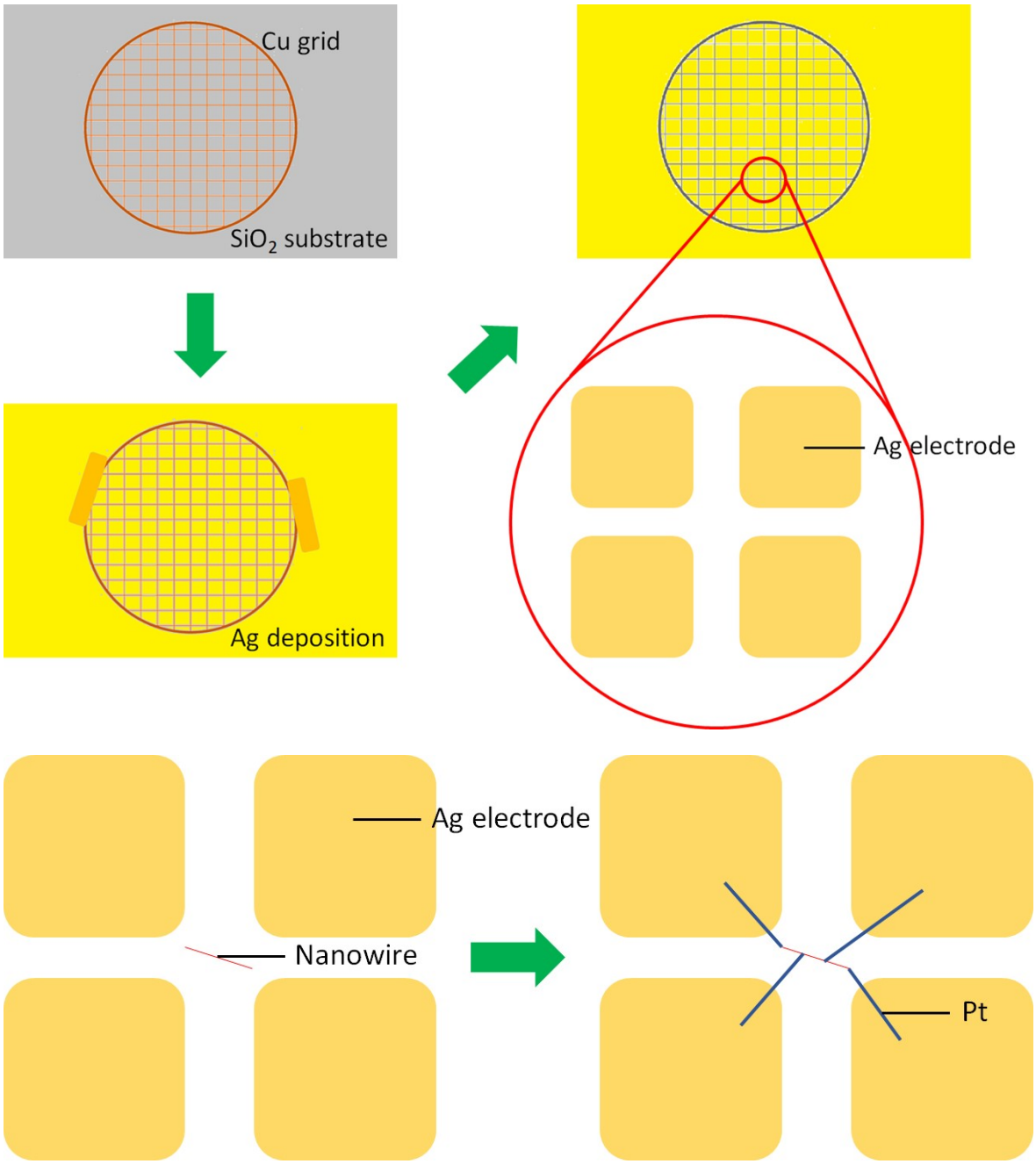

Fig. S1. Schematic illustration of the microdevice for nanowire resistivity measurements. First, we put a Cu grid on a Si wafer covered with 100 nm SiO_2. Then, we deposited Ag on the wafer by e-beam evaporator. Removing the Cu grid obtained separate Ag electrodes. Following dropping nanowires on the wafer, we used FIB to deposit Pt for connecting nanowire and four electrodes nearby.

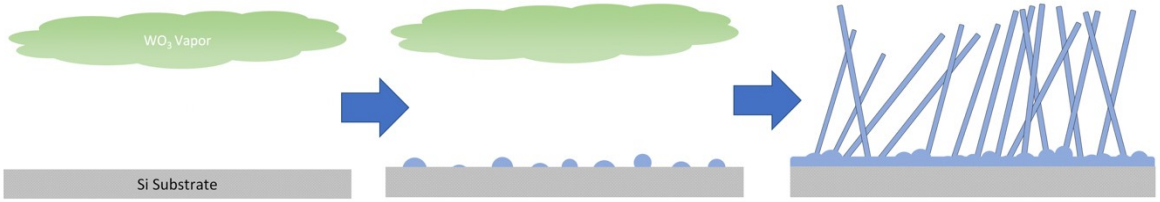

Fig. S2. Schematic illustration for growth steps of WO_{3-x} nanowires.

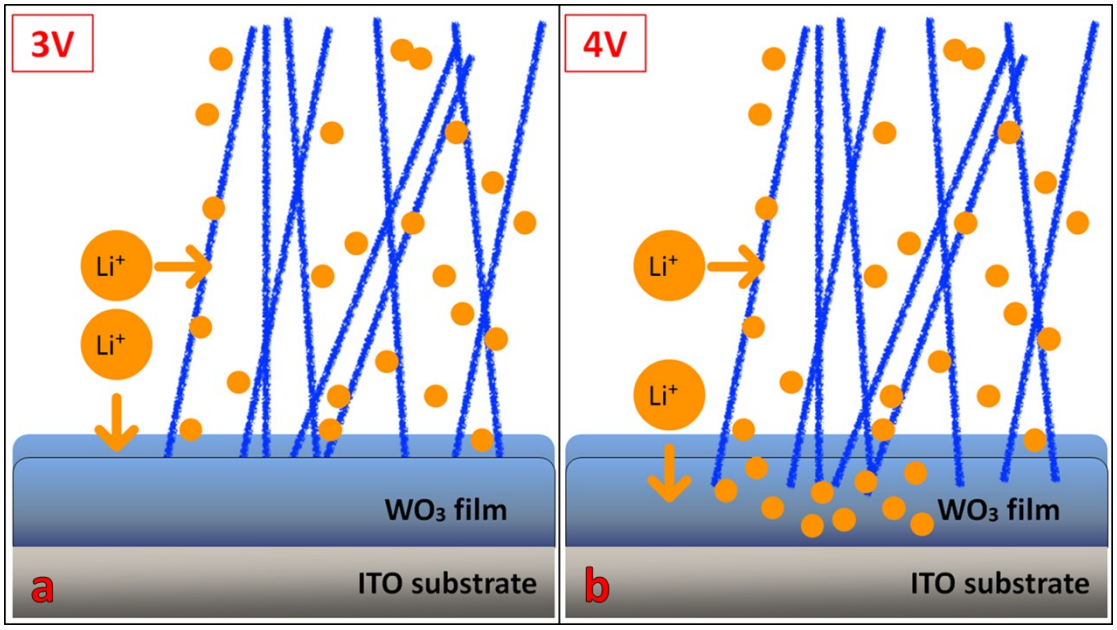

Fig. S3. Schematic illustration for electrochromism mechanism of lithium ions diffusion at different applied voltages. (a) At a low voltage, Li^+ ions only reacted with WO_3 nanowires and the surface of WO_3 thin film on the ITO substrate. (b) At 4V, Li^+ ions diffused deeper and reacted with the whole WO_3 thin film.