Electronic Supplementary Information

Evolution map of the memristor: from pure capacitive state to resistive switching state†

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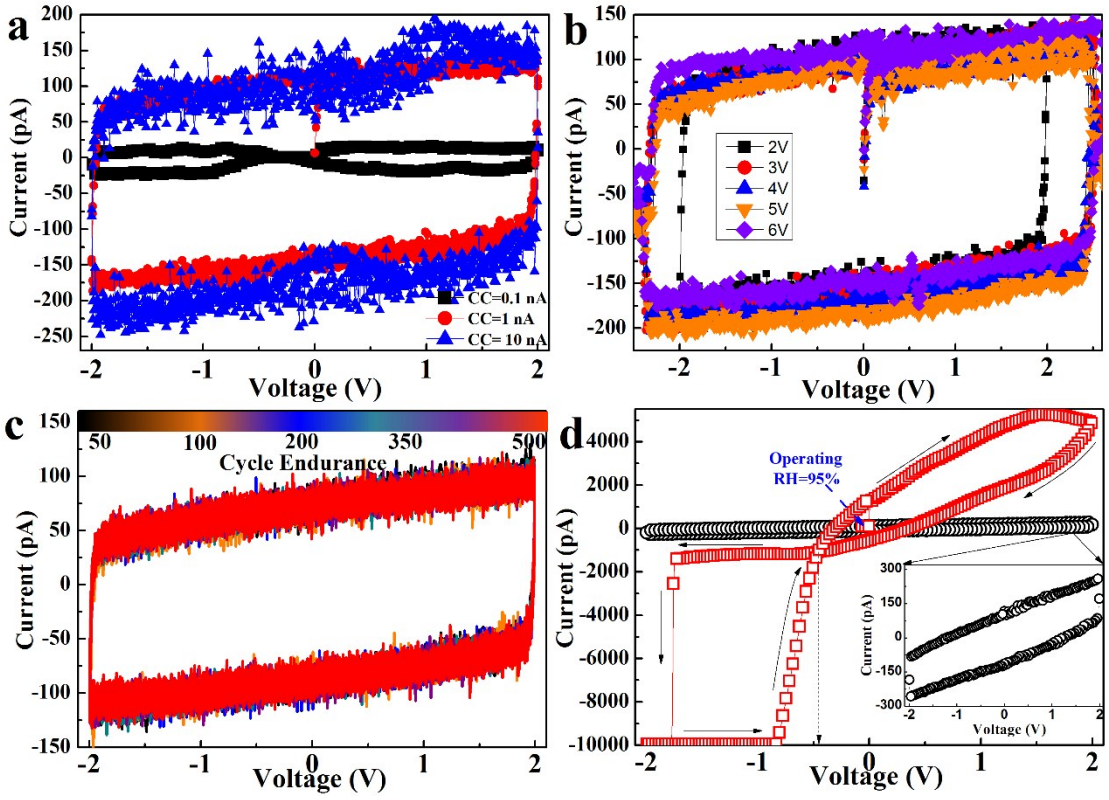

Fig. S1 Transfer of the PCS to the RS state under high RH level. (a) Compliance current dependency of the PCS. (b) Bias voltage magnitude dependency of the PCS. (c) Cycling endurance of the PCS. (d) The PCS sharply transfers to the RS sate when the RH sharply elevates from RH of 0% to 95%.

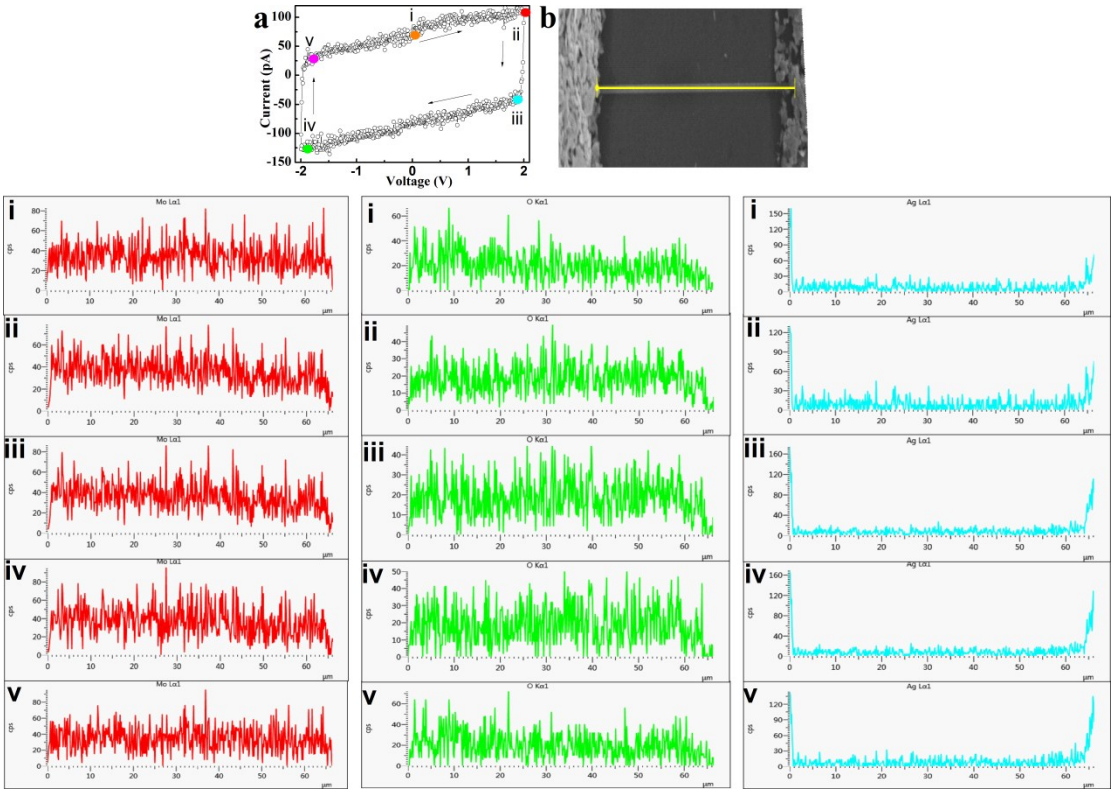

Fig. S2 EDX linear scan results of the ultralong MoO_3 nanobelt device under different states. (a) Different states of PCS after operating a sweep bias, where the state of i, ii, iii, iv and v is studied. (b) The FE-SEM image of the Ag|MoO_3|Ag device. The EDX spectra of the Ag, Mo and O at the i, ii, iii, iv and v states are measured.