Electronic Supplementary Material (ESI) for Nanoscale.

Supporting Information

Inkjet-printed all solid state electrochromic devices based on NiO/WO_3 nanoparticles complementary electrodes

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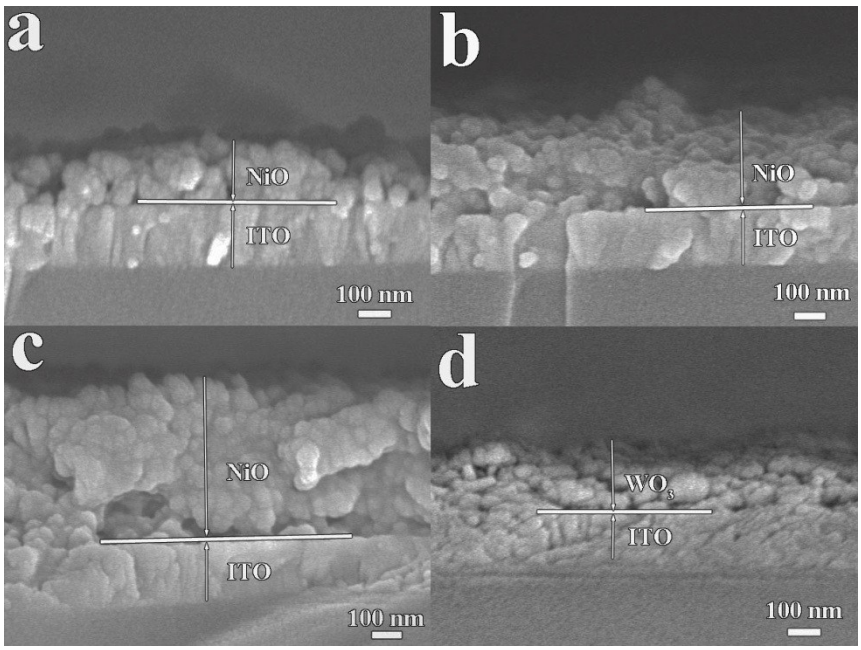

Fig. S1 The cross-section morphologies of printed films with (a) 1 NiO layer, (b) 2 NiO layers, (c) 3 NiO layers and (d) 1 WO_3 layer.

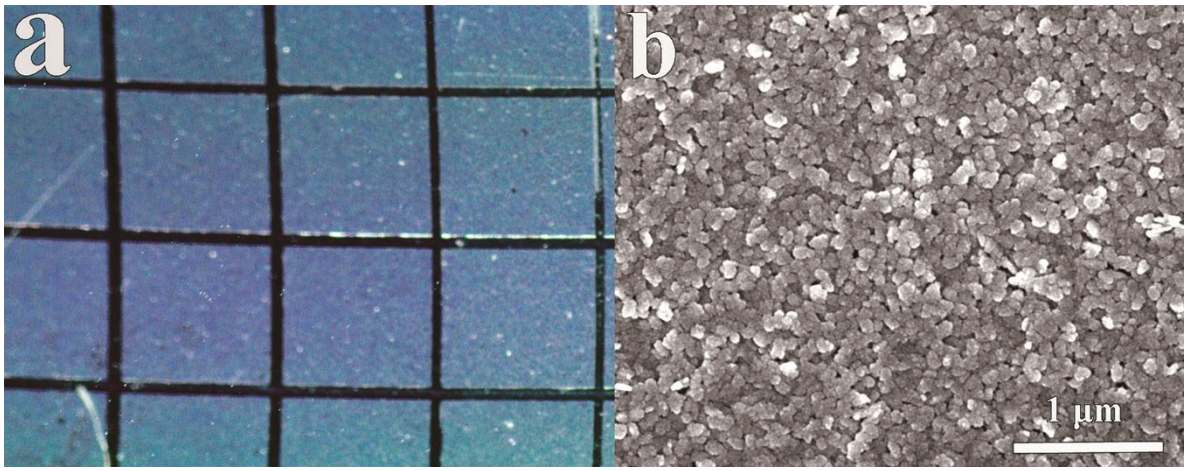

Fig. S2 (a) Optical microscope and (b) SEM images after tape test of the printed WO_3 film.

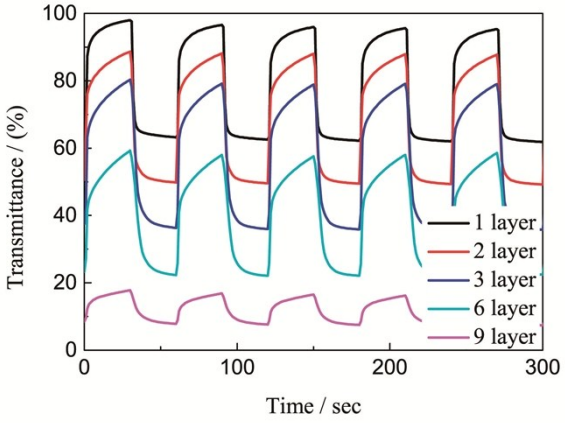

Fig. S3 In situ transmittance response between the colored and bleached states for the printed films with different NiO layers measured at 550 nm.

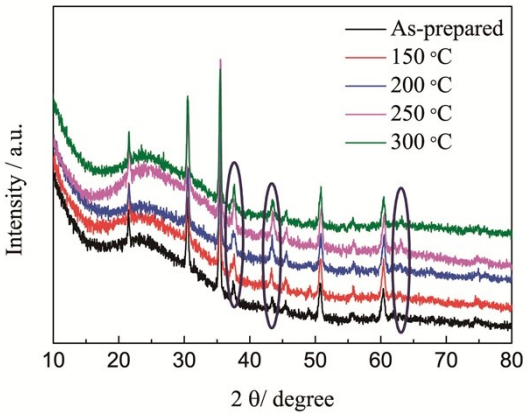

Fig. S4 XRD patterns of the printed NiO films undergone annealing at different temperature for 2 h.

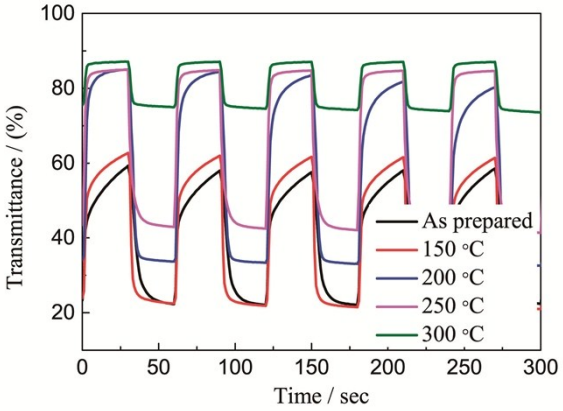

Fig. S5 In situ transmittance response between the colored and bleached states for the printed films undergone annealing at different temperature for 2 h measured at 550 nm.

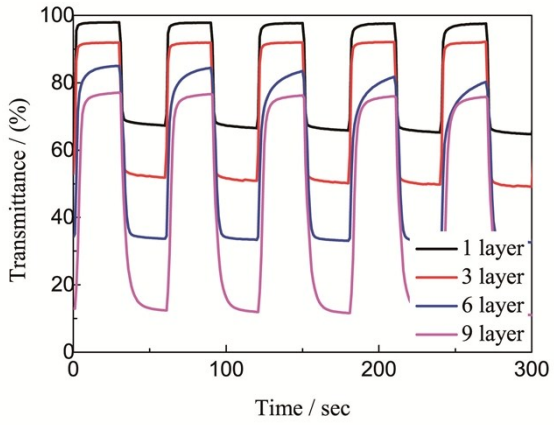

Fig. S6 In situ transmittance response between the colored and bleached states for the printed films with different layers undergone annealing at 200 °C for 2 h measured at 550 nm.

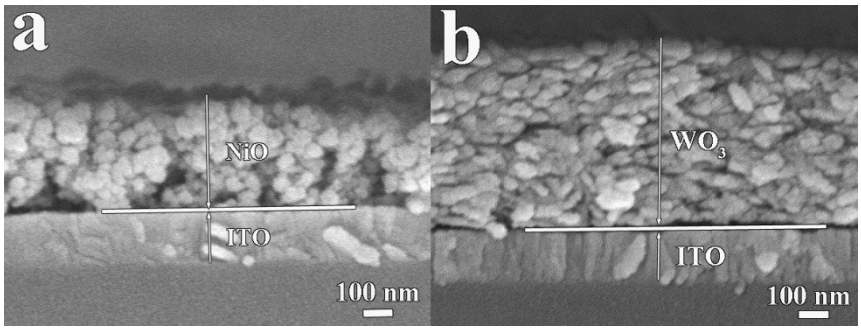

Fig. S7 The cross-section morphologies of printed (a) NiO film and (b) WO_3 film with 3 layer undergone annealing at 200 °C for 2 h.

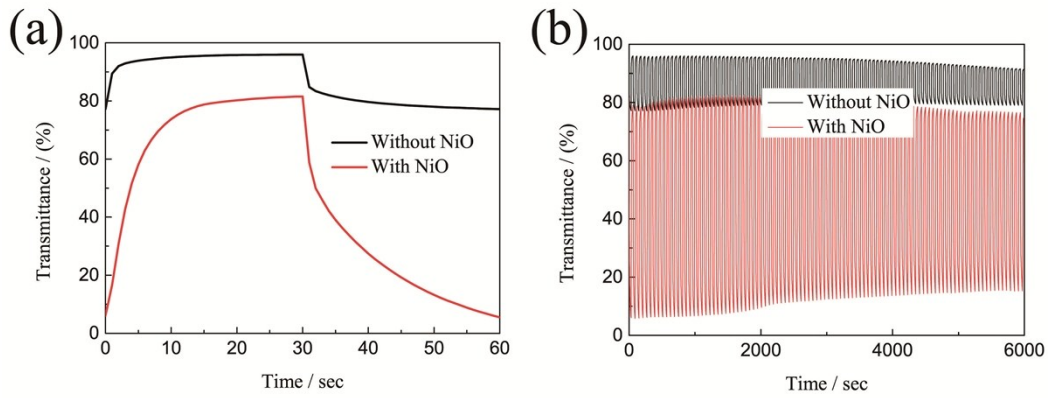

Fig. S8 (a) In situ transmittance responses at the colored and bleached states and (b) Cycle performance for the solid electrochromic devices with and without NiO as the ion storage layer measured at 633 nm.