Supplementary Information

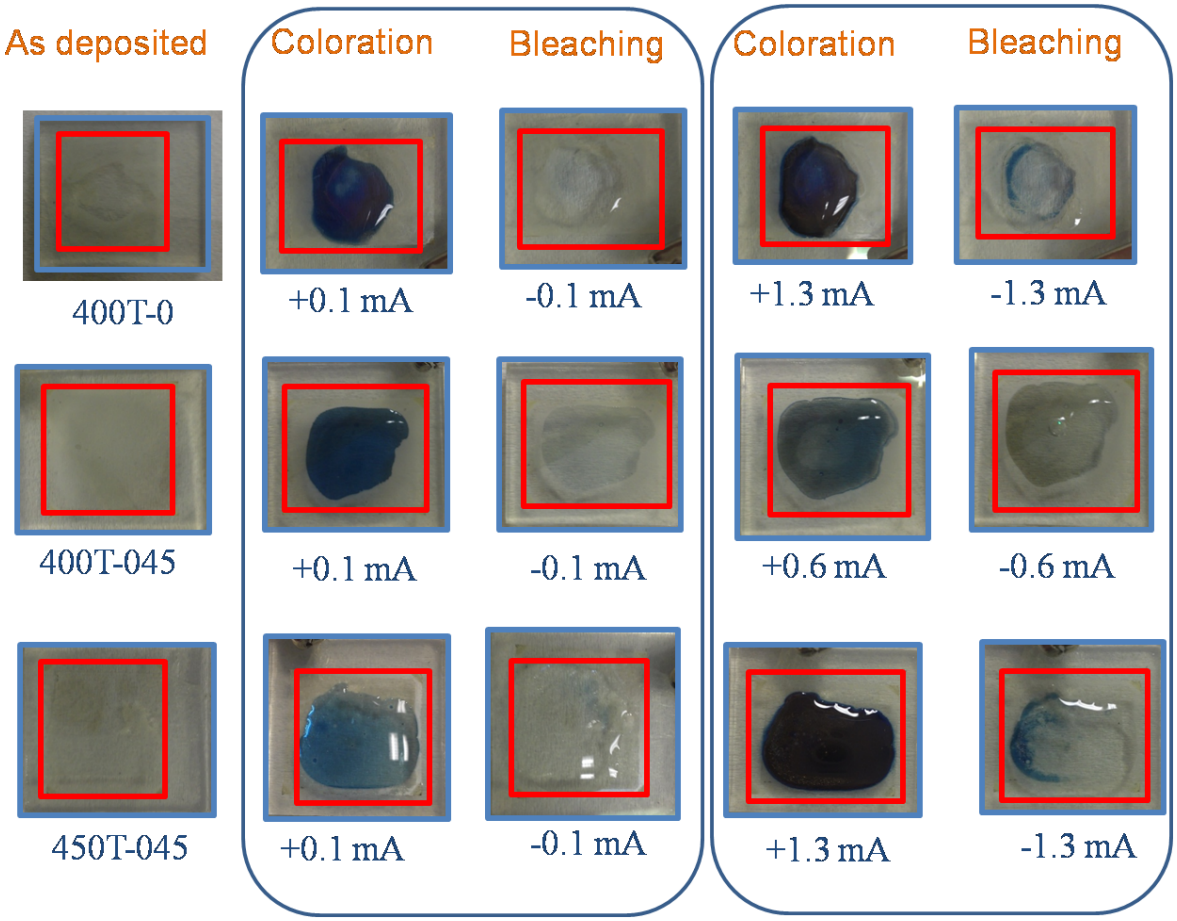

Fig. S1 Photographs of the as deposited (bare) tungsten oxide (400T-0, 400T-045 and 450T-045) films and colored and bleached films under application of external bias, taken outside the electrolytic cell (not to the scale). For 0.1mA current the recovery of the EC properties is superior compared to other higher current values.

Samples	Recovery time for first cycle (x 3min.)				
	Current applied 0.1 mA	Current applied 0.3 mA	Current applied 0.6 mA	Current applied 1.0 mA	Current applied 1.3 mA
400T-0	3	3	4	2	No recovery
400T-045	1	1	No recovery	-	-
450T-045	1	3	4	4	No recovery

Table S1 It shows the EC response of the tungsten oxide (400T-0, 400T-045 and 450T-045) films under application of different external bias. Recovery time of the samples from colored to bleach state is less when 0. 1 mA current is applied.

Sample	Coloration efficiency (cm^2C^{-1})	Transmittance modulation at 632 nm after 30 cycles	Diffusion Coefficient (cm^2S^{-1})
400T-0	7	~10%	10^{-14}~10^{-12}
400T-045	37	~40%	10^{-11}~10^{-10}
450T-045	6	~10%	10^{-14}~10^{-12}

Table S2. Electrochromic properties like coloration efficiency, transmittance modulation at wavelength 632 nm after 30 cycles and diffusion coefficient of tungsten oxide thin films when ~20 mC cm^{-2} Li^+ ions are injected.[13]