Ultraflexible, Stretchable and Fast-switching Electrochromic Devices with Enhanced Cycling Stability

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Figure S1. Photographs (left) and the schematic illustration (right) of the electrode films after the adhesion test with a scotch tape, respectively.
Figure S2. Optical image of Ag NN on the PET substrate.
Figure S3. EDX elemental spectra analysis of magnetron sputtered WO$_3$. 
Figure S4. Photographs and light transmission spectra of commercial ITO, Ag NN, WO₃/Ag NN, Ag NN/PEDOT:PSS and the WO₃/Ag NN/PEDOT:PSS hybrid film.
Figure S5. SEM images of the hybrid film before and after stretching measurement (50% tensile strain). The scale bar is 10 μm.
**Figure S6.** Schematic representation of the electrochromic measurement installation integrated by an electrochemical workstation and a UV-vis-NIR spectrometer. A WO$_3$/Ag NN/PEDOT: PSS/ WO$_3$ hybrid film, a Pt foil, and a saturated calomel electrode (SCE) serve as working electrode, counter electrode, reference electrode, and the electrolyte, respectively. All the electrodes are placed in a quartz cuvette containing 1 M LiClO$_4$/PC solution at a wavelength of 623 nm. Chronoamperometry mode of the electrochemical workstation for electrochemical test.
Figure S7. The optical contrast as a function of the thickness of the external WO₃ film.
**Figure S8.** Optical images of bleached, colored and bending state in cycling.