

Supplementary information

Continuous and rapid fabrication of photochromic fibers by facile coating tungsten oxide/ polyvinyl alcohol composites

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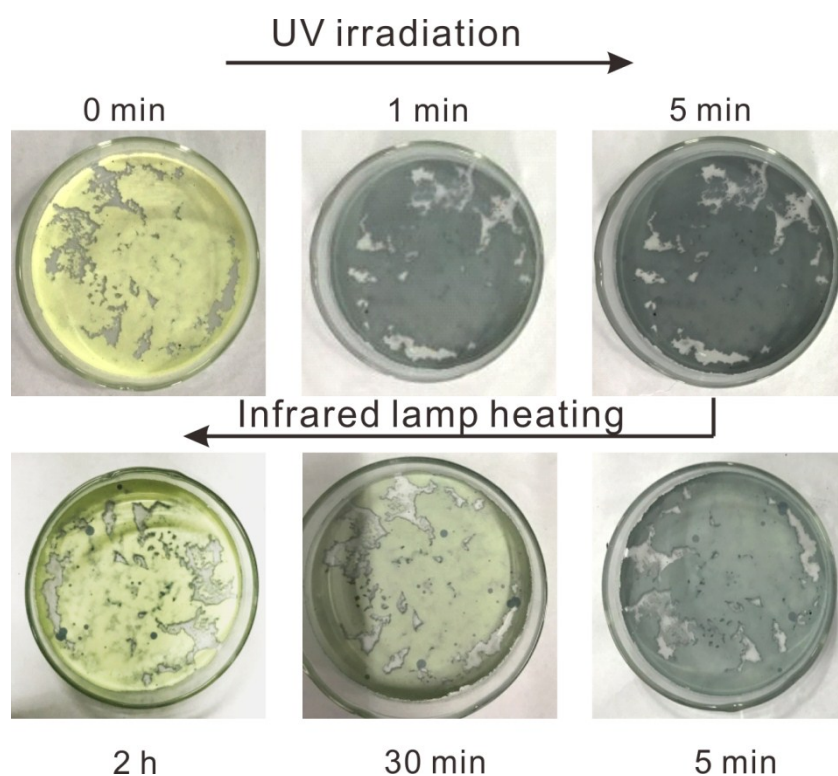


Figure S1. The original pictures of WO_3 nanorods powder under UV irradiation (coloration) and infrared heating (bleaching).

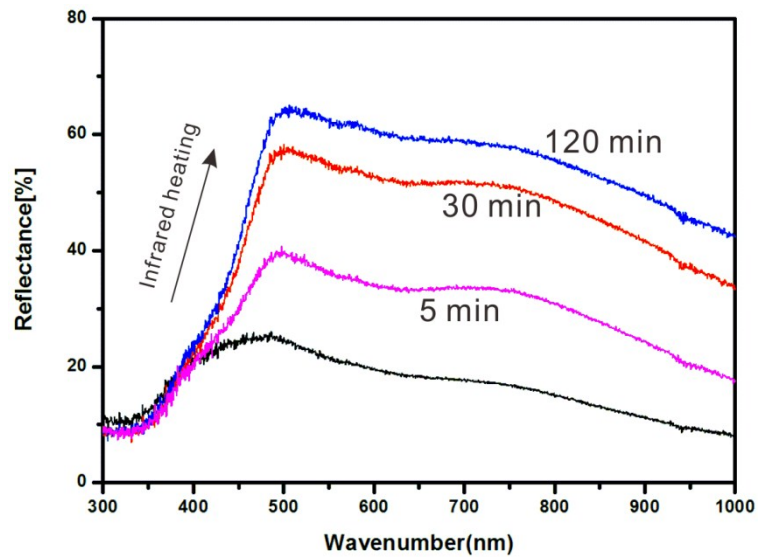


Figure S2. UV-vis diffuse reflectance spectra of the WO₃ nanorods powder (pre-treated with UV irradiation in 5 min) with different infrared heating time.

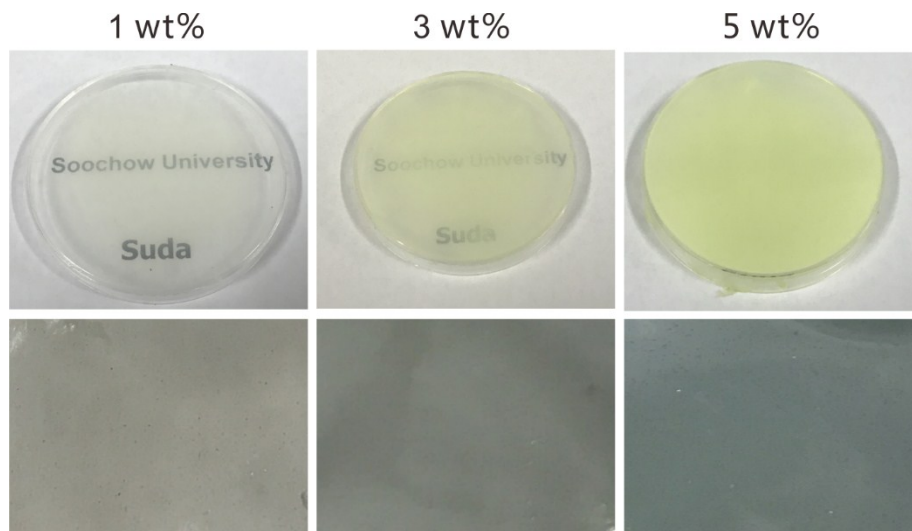


Figure S3. The pictures of WO₃/PVA composite films with different WO₃ nanorods contents before (upper) and after (below) UV irradiation

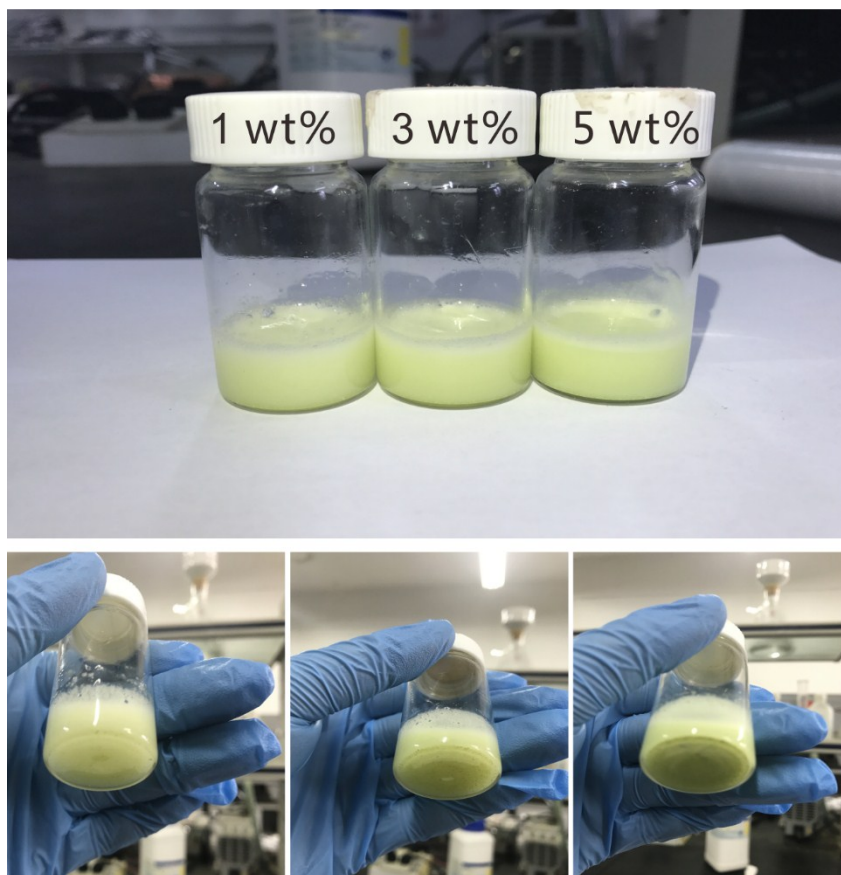


Figure S4. The pictures of three kinds of coating solutions with different WO_3 content after mixing and standing for 2 h at room temperature.

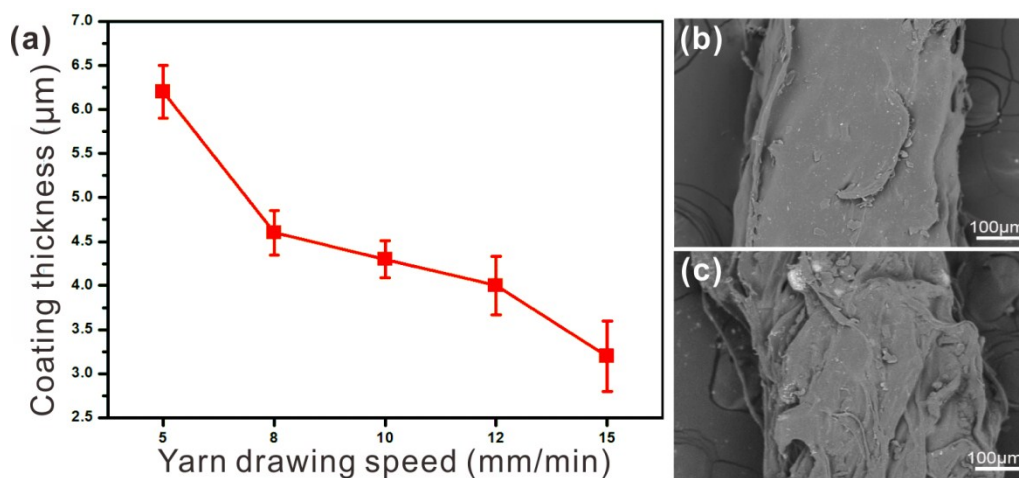


Figure S5. (a) The coating thickness as function of fiber drawing speed; SEM images of the surface of coated fiber with 10 (b) and 15 (c) mm/min drawing speed.

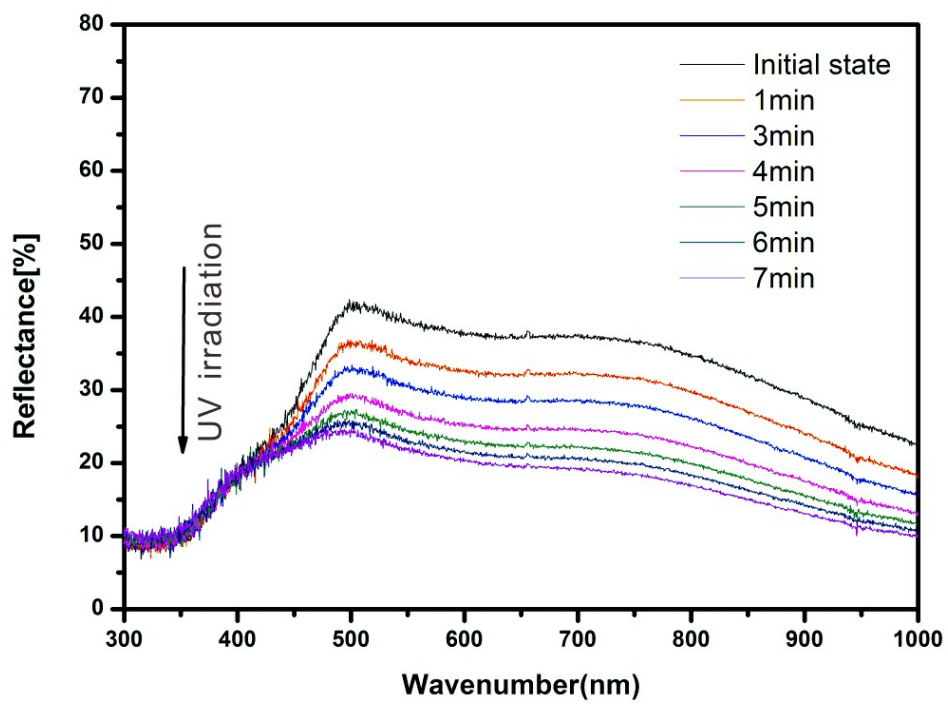


Figure S6. UV-vis diffuse reflectance spectra of one single photochromic fiber with different UV irradiation time (original data without smoothing).

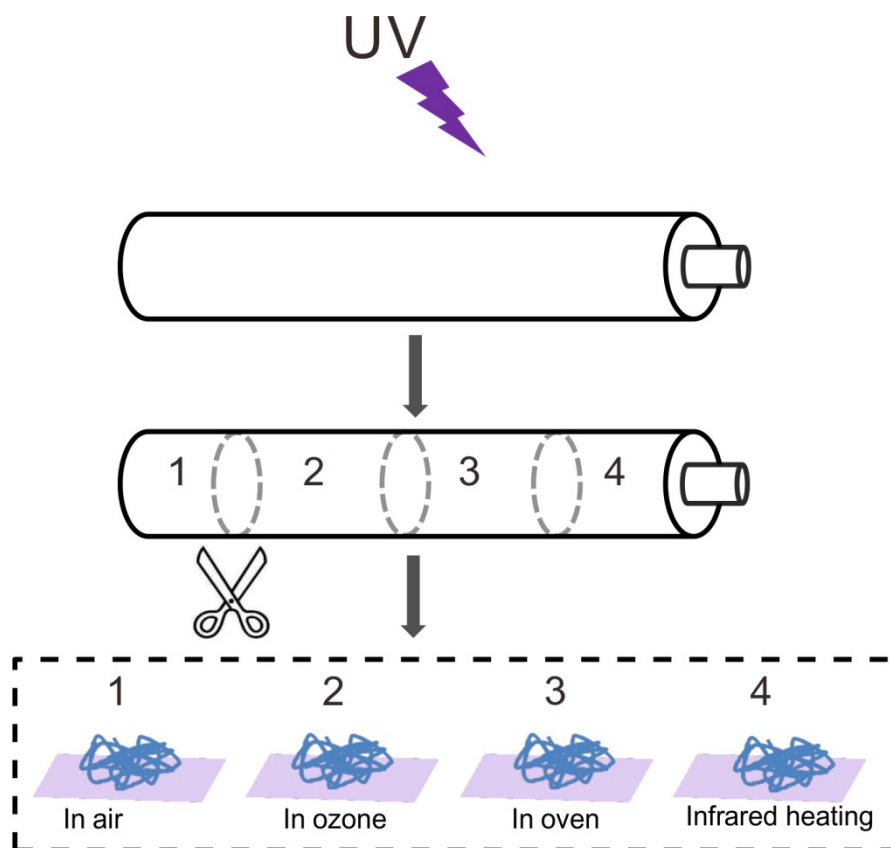


Figure S7. Schematic diagram of the experimental process for studying the discoloration process of composite fiber by using various oxidation methods.