Supporting Information

# One-Step Fabrication of Recyclable and Robust Fluorine/Polymer-Free Superhydrophobic Fabrics

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**S1. XPS Survey Spectra of the P25 and P25-VH Samples.**

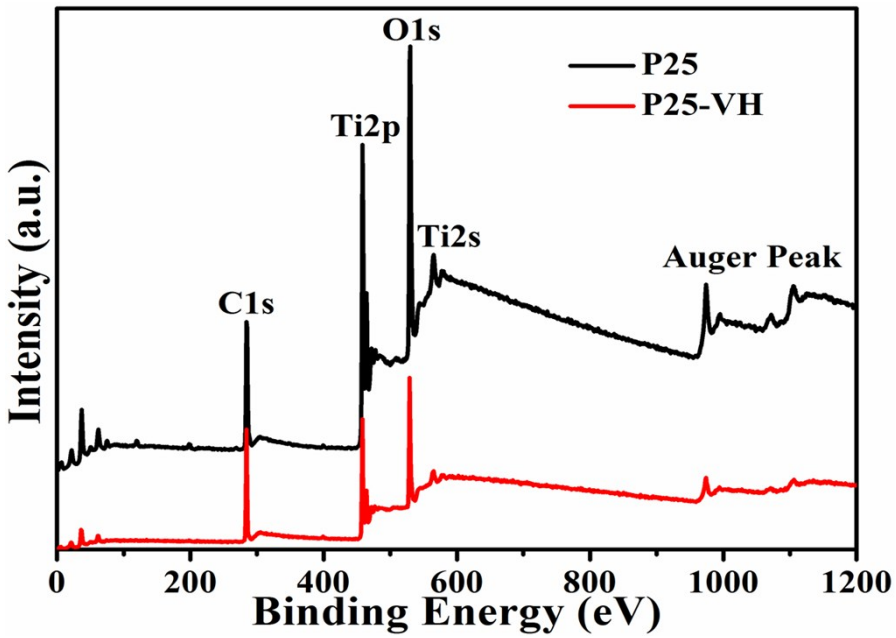


**Fig. S1** XPS survey spectra of P25 and P25-VH samples.

**S2. Digital Photograph of the $TiO_2$ Loaded Polyester Fabric at 230 °C.**

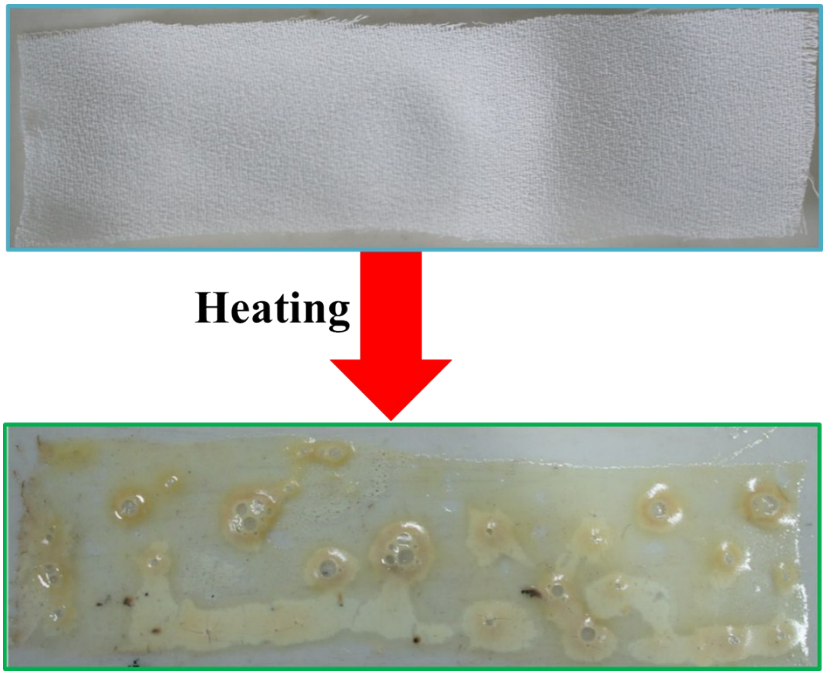


**Fig. S2** Digital photograph of the $TiO_2$-loaded polyester fabric at 230 °C for 3 h.

**S3. Chang of loading rate and CA of the P25-VH/polyester fabric with laundering cycles.**

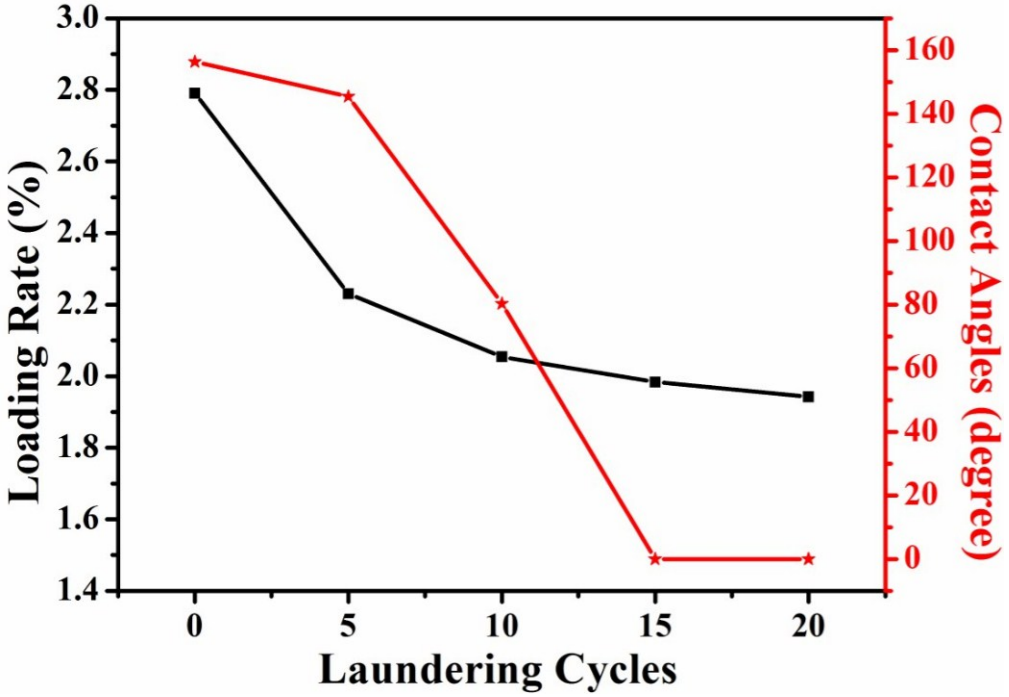


**Fig.S3** Chang of loading rate and CA of the P25-VH/polyester fabric with laundering cycles.

**S4. Water vapor transmissibility.**

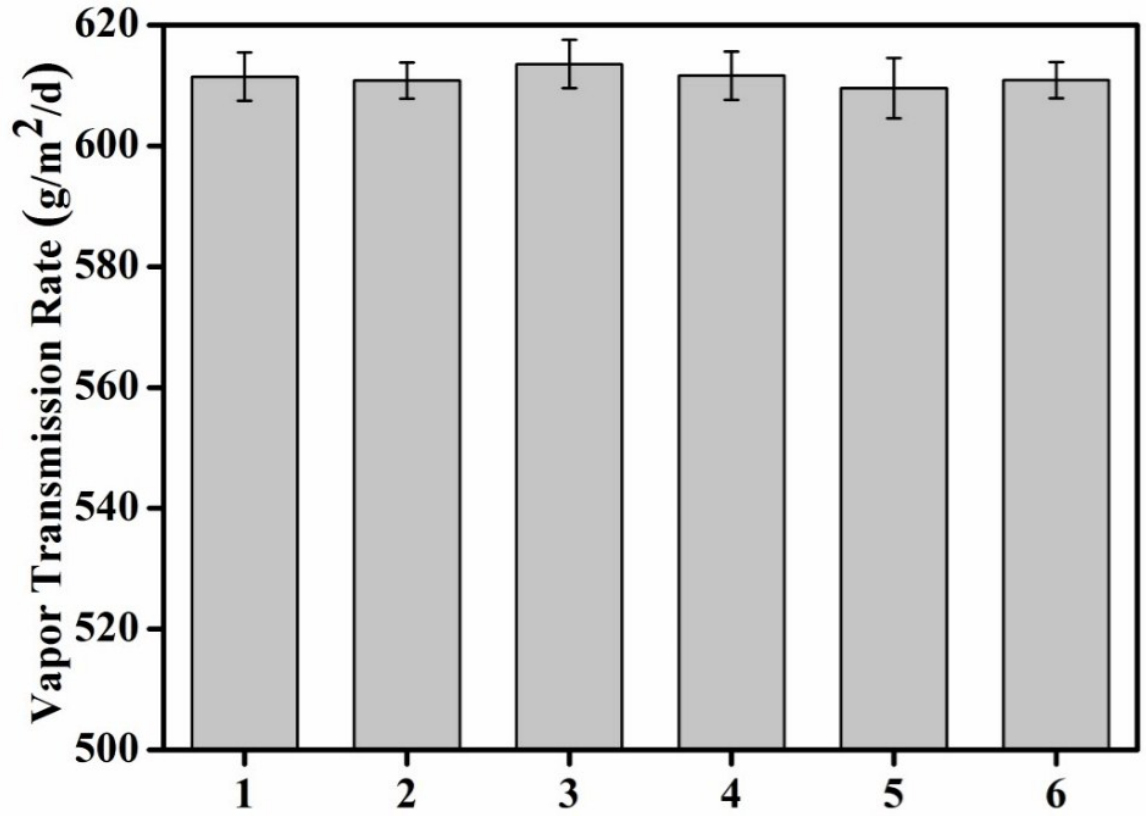


**Fig.S4** Water vapor transmission rate of pristine polyster fabric and the P25-VH/polyester fabric with different laundering cycles. The bars refer to the pristine polyester fabric (1), the P25-VH/polyester fabric with 0, 5, 10, 15, 20 laundering cycles (2-5), respctively.

**S5. CA of a Water Droplet for the P25-VH/Nylon 6 sample.**

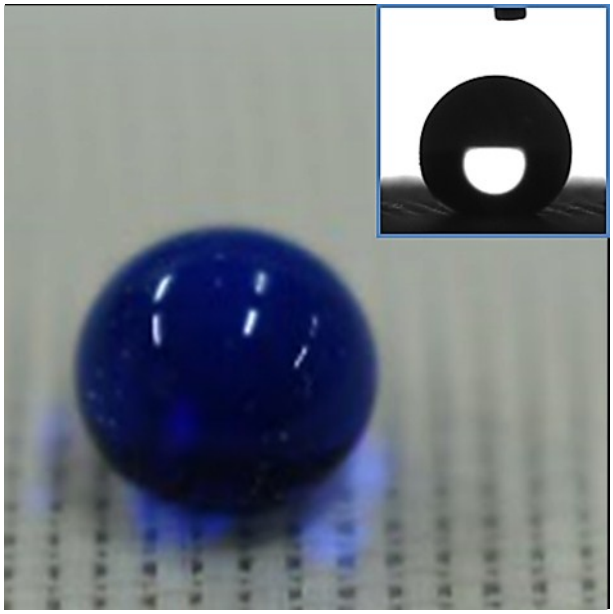

**Fig. S5** CA of a water droplet for P25-VH/nylon 6.

**Movie Legends**

**Movie S1.** This video illustrates the knife-scratch tests on the superhydrophobic fabric..

**Movie S2.** This video illustrates the sandpaper-abrasion tests on the superhydrophobic fabric.

**Movie S3.** This video illustrates the selective oil−water separation using superhydrophobic fabric.