

Supporting Information

Facile Fabrication of Hybrid PA6-decorated TiO₂ Fabrics with Excellent Photocatalytic, Anti-bacterial, UV light-shielding, and Super hydrophobic Properties †

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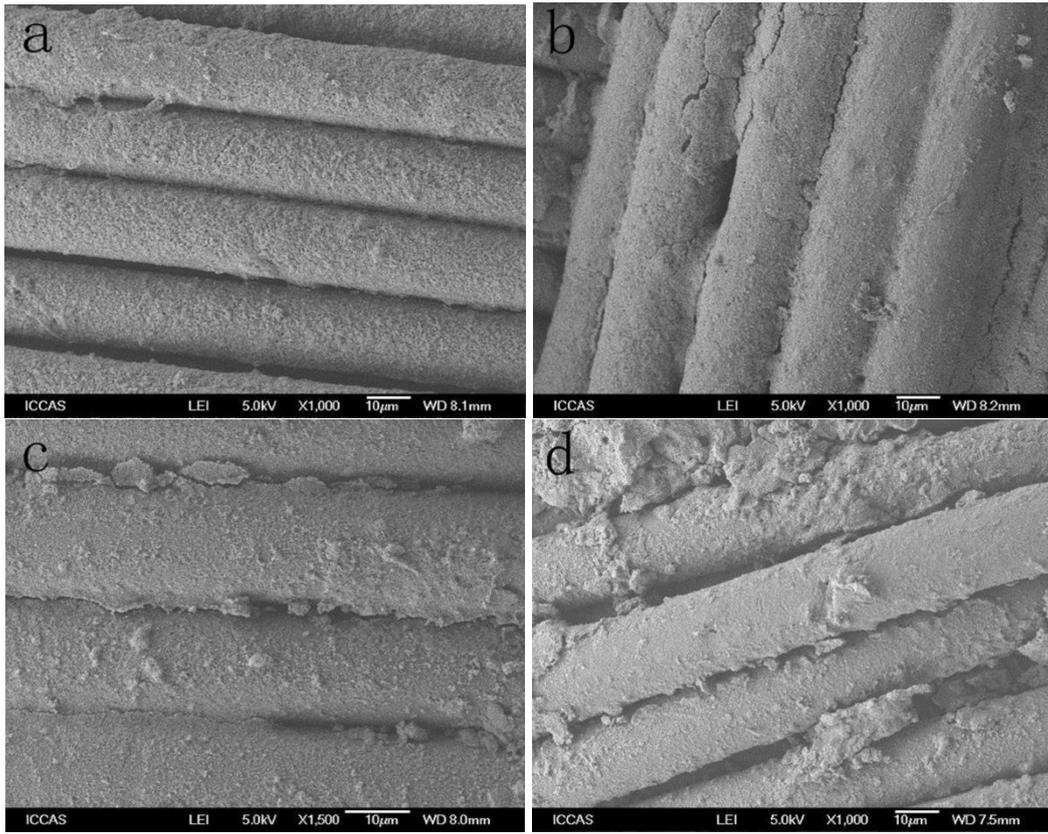


Figure S1. SEM of Samples: Surface morphology of (a) P25-PA6 sample before photocatalytic degradation cycle, (b)P25-PA6 sample After cycle, (c)PVA_D-PA6 sample before Photocatalytic degradation cycle, (d)PVA_D-PA6 sample after photocatalytic degradation cycle

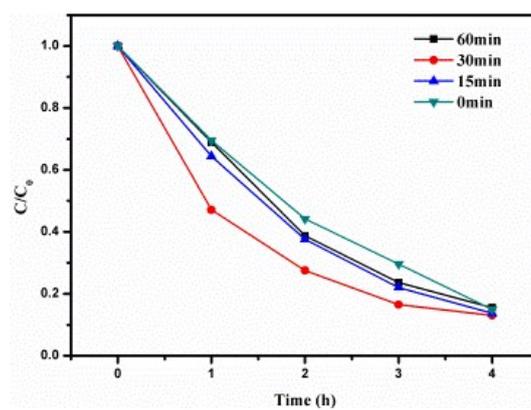


Figure S2. Influence of the different UV irradiation time to the photocatalytic efficiency of P25-PA6 sample

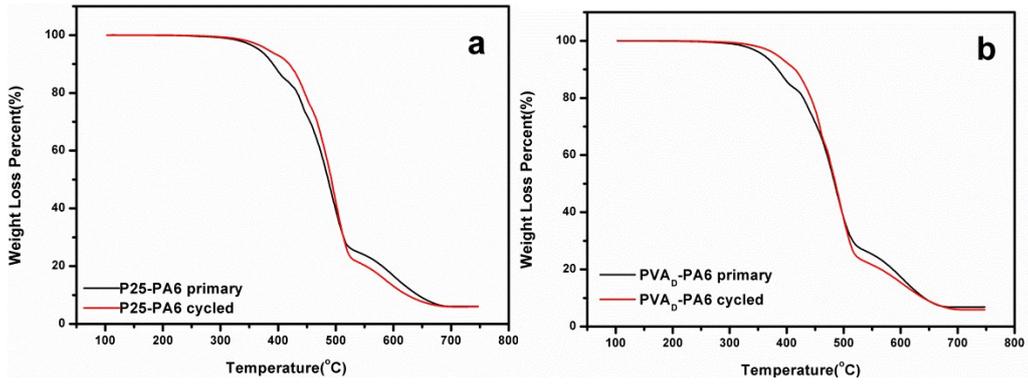


Figure S3. TGA curves before and after cycled of a) P25-PA6 sample and b) PVA_D-PA6 sample

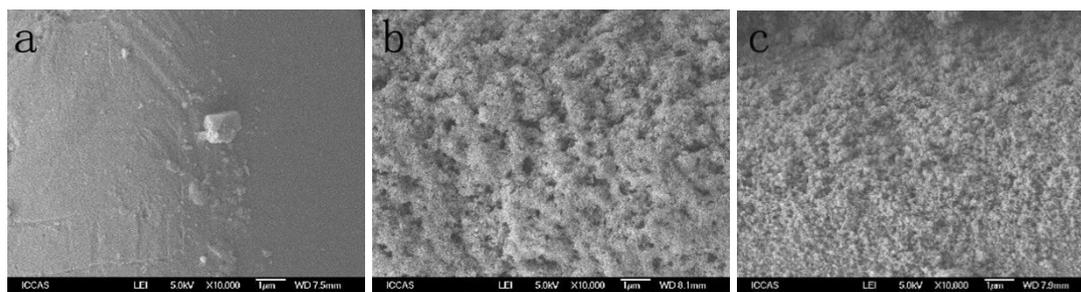


Figure S4. Surface morphology of a) pristine PA6 fabric. b) P25-PA6 sample. c) PVA_D-PA6 sample by SEM

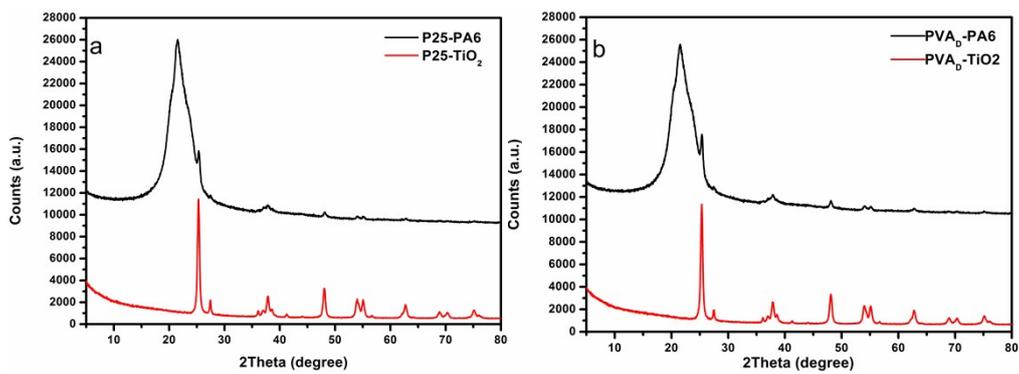


Figure S5. XRD patterns of a). P25-PA6 and P25 TiO₂ b). PVA₀-PA6 and PVA₀-TiO₂

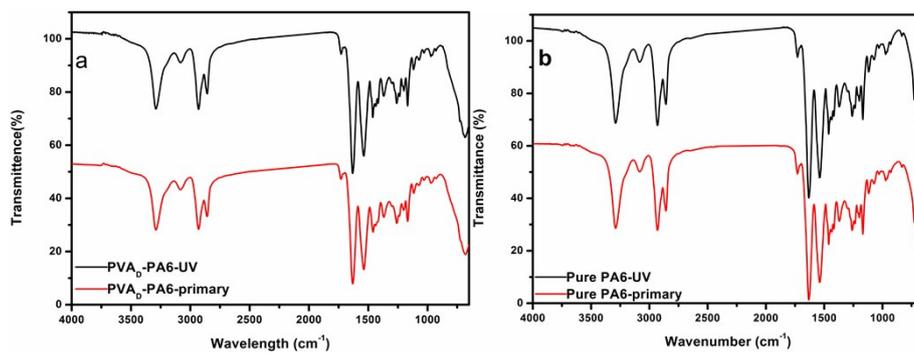


Figure S6. FT-IR spectroscopy images of a). PVA₅-PA6 and b). pure PA6 sample before and after UV irradiation.

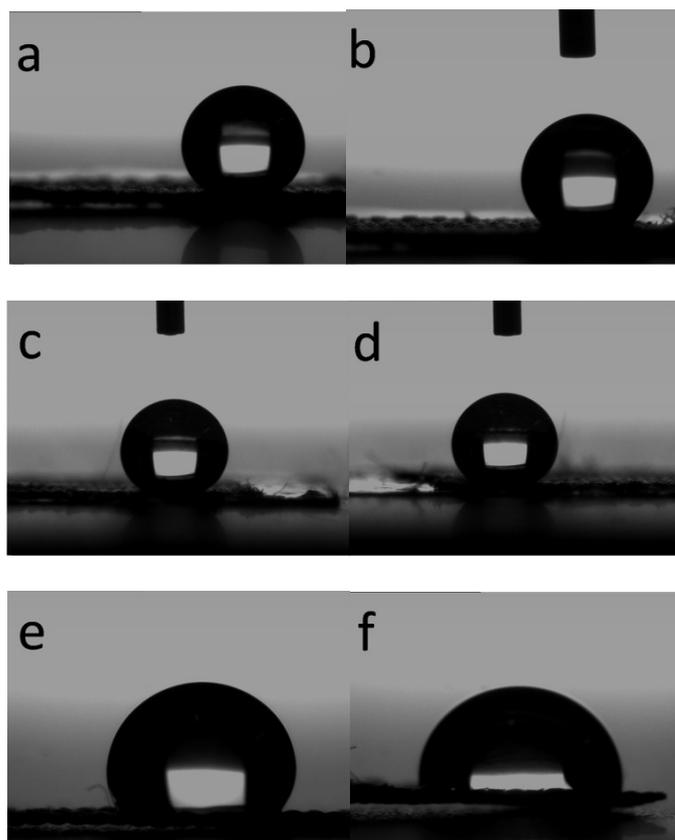


Figure S7 Water contact angle image of a)P25-PA6 after acidic condition, b)P25-PA6 after basic condition, c) PVA_D-PA6 after acidic condition, d)PVA_D-PA6 after basic condition, e) P25-PA6 after simulated laundry and f) PVA_D-PA6 after simulated laundry