Development of Superhydrophobic Polybenzoxazine Surface with Self-cleaning and Reversible Water Adhesion Properties

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SUPPORTING INFORMATION

Scheme S1. Synthetic procedures of P-da and P-am monomers and polymers.





Figure S1. FT-IR spectra of P-da and P-am monomers and polymers.



Figure S2. EDS spectrum. The insets images are mapping images of O, C and Ti on PPdaT80 surface.



Figure S3. ¹H and ¹³C NMR spectra of P-am in DMSO- d_6 .



Figure S4. TGA thermograms of PPda and PPdaT80. The monomer and composite were polymerized at 200 °C for 1h, respectively.



Figure S5. SEM images of PPdaT80 surface (a) before and after UV exposure for (b) 1 h, (c) 5 h and (d) 9 h at low and high magnifications.



Figure S6. AFM images of PPdaT80 surface (a) before and after UV exposure for (b) 1 h, (c) 5 h and (d) 9 h at low and high magnifications.

Table S1. Static WCA and WSA of PPamT80 before and after 5-hour UV exposure or heat treatment at 100 °C for 30min.

Sample	Condition	Static WCA (degree)	WSA (degree)
	Before UV exposure	~155±1	-
PPamT80	After UV exposure	~101±3	-
	After heat treatment	~148±1	-

Video S1. Self-cleaning performance of PPdaT80 surface.