

Supplementary Information

Durable superhydrophobic/high-oleophobic coatings from multi-dome SiO₂ nanoparticles and fluoroacrylate block copolymers on flat substrates

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(Fig. S1) XPS spectra of the coating surfaces and (Fig. S2) video frames of water bouncing

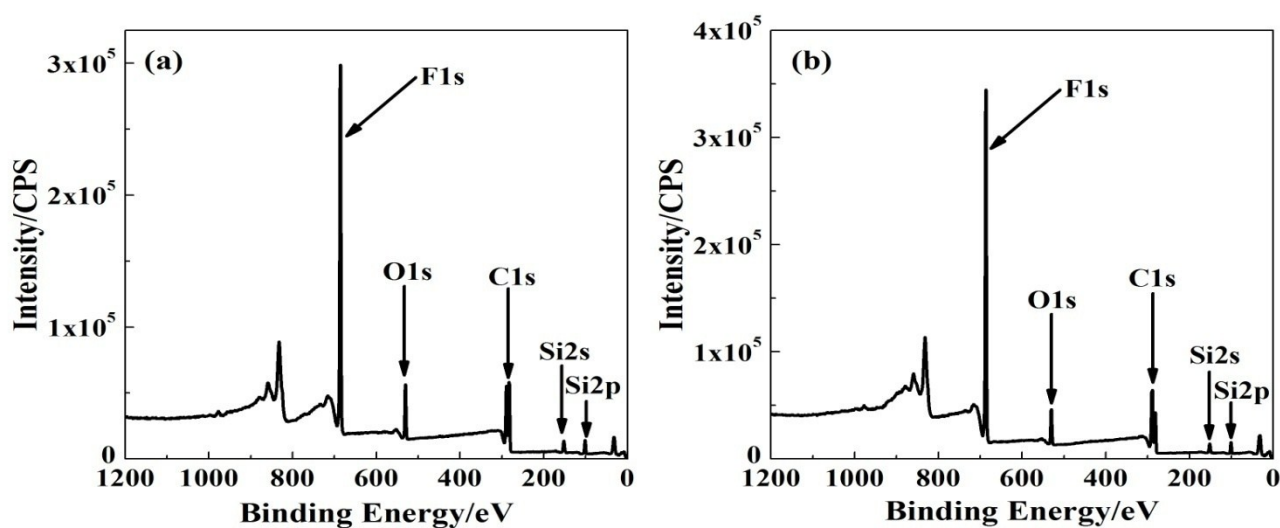


Fig. S1 The XPS spectra show that the surfaces of (fluoroalkylsilane-modified SiO₂ NPs)-based coatings (coatings A-D) and their corresponding (PMMA-b-PDFHM)-applied (fluoroalkylsilane-modified SiO₂ NPs)-based coatings have similar elemental compositions, containing carbon, oxygen, fluorine and silicon. Here, the XPS wide scanning spectra for the surfaces of Coating D (a) and (PMMA-b-PDFHM)-applied Coating D (b) along with corresponding peak assignments are presented as an example.

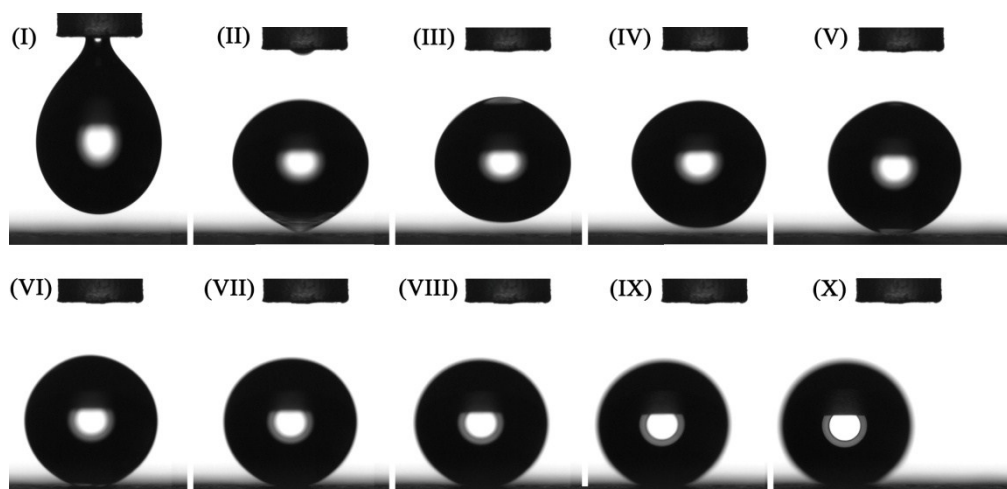


Fig. S2 Video frames (I, II, III, IV, V, VI, VII, VIII, IX, X) showing that a 9 μL water droplet dispensed from a 2 mm height could bounce and roll off within 0.2 s after touching the surface of (PMMA-b-PDFHM)-applied (fluoroalkylsilane-modified SiO_2 NPs)-based Coating D held horizontally without slanting; the time interval between two consecutive frames is 0.025s. Similarly, a 9 μL water droplet could bounce and roll off the (PMMA-b-PDFHM)-applied (fluoroalkylsilane-modified SiO_2 NPs)-based Coating C after touching the surface.