Supporting Information

Efficiently texturing hierarchical superhydrophobic fluoride-free tra nslucent films by AACVD with excellent durability and self-cleaning ability

Shuhui Li,^{a,b} Kristopher Page,^b Sanjayan Sathasivam,^b Frances L. Heale,^b Guanjie He,^b Yao Lu,^c Yuekun Lai,^{a,d*} Guoqiang Chen,^a Claire J. Carmalt^b and Ivan P. Parkin^{b*}

^aNational Engineering Laboratory for Modern Silk, College of Textile and Clothing Engineering, Soochow University, Suzhou 215123, China ^bDepartment of Chemistry, University College London, London, WC1H 0AJ, United Kingdom ^cDepartment of Mechanical Engineering, University College London, Torrington Place, London, WC1E 7JE, United Kingdom ^dCollege of Chemical Engineering, Fuzhou University, Fuzhou 350116, China *Corresponding author, E-mail:yklai@suda.edu.cn; E-mail:i.p.parkin@ucl.ac.uk.

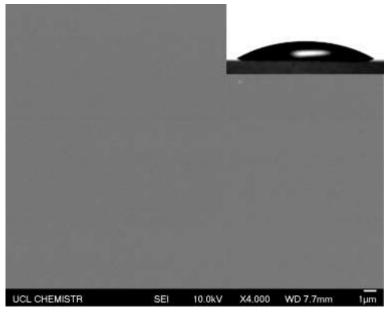


Fig. S1 The SEM surface morphology of blank glass and the water contact angle.

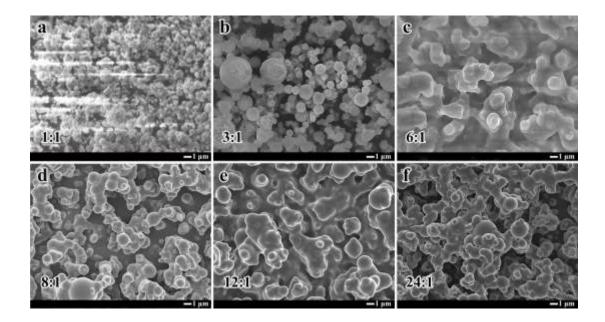


Fig. S2 The SEM images of as-prepared superhydrophobic PDMS/TEOS@glass surfaces with different volume ratios of precursor PDMS and TEOS: (a) 1:1, (b) 3:1, (c) 6:1, (d) 8:1, (e) 12:1, (f) 24:1.

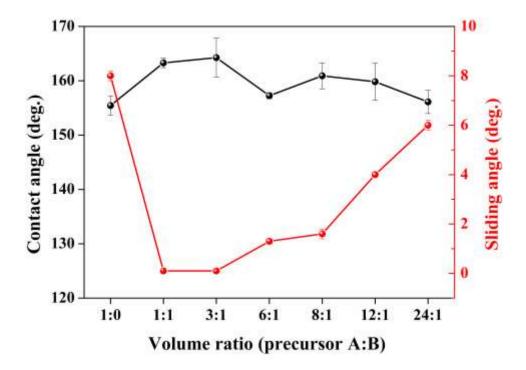


Fig. S3 The relationship of contact angle and sliding angle for as-prepared superhydrophobic PDMS/TEOS@glass surfaces with different volume ratios of precursor PDMS and TEOS.

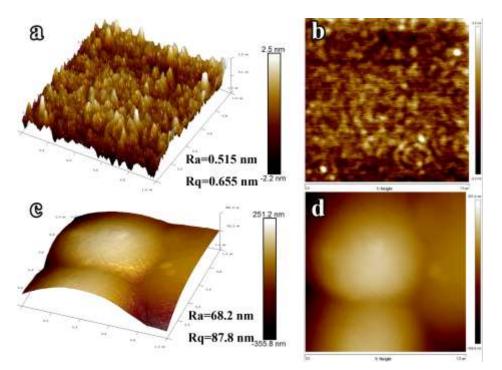


Fig. S4 The AFM surface morphology of blank glass and PDMS/TEOS@glass prepared for 5 min.

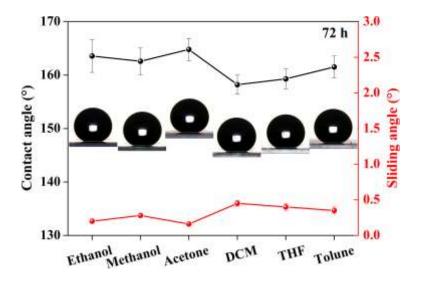


Fig. S5 The organic solvent-resistance property of as-prepared PDMS/TEOS@glass superhydrophobic surfaces.

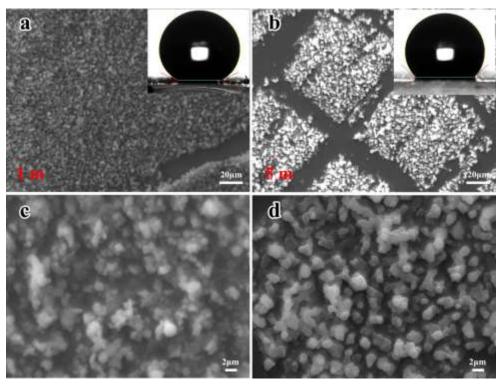


Fig. S6 The top-down SEM and contact angles on superhydrophobic glass film fabricated at 330° C after sandpaper abrasion for 1 m (a, c) and 5 m (b, d).