

## Electronic Supplementary Information

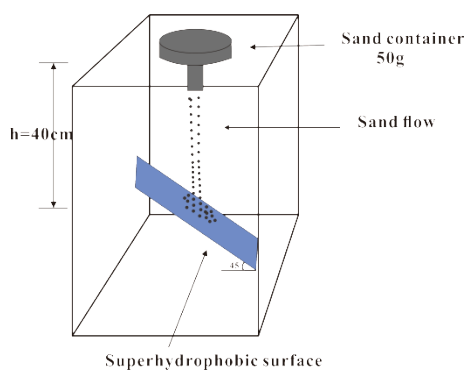
### Lasting and Self-Healing Superhydrophobic Surfaces by Coating of Polystyrene/SiO<sub>2</sub> Nanoparticles and Polydimethylsiloxane

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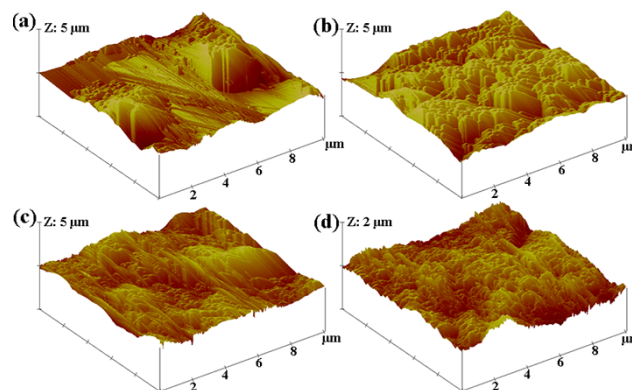
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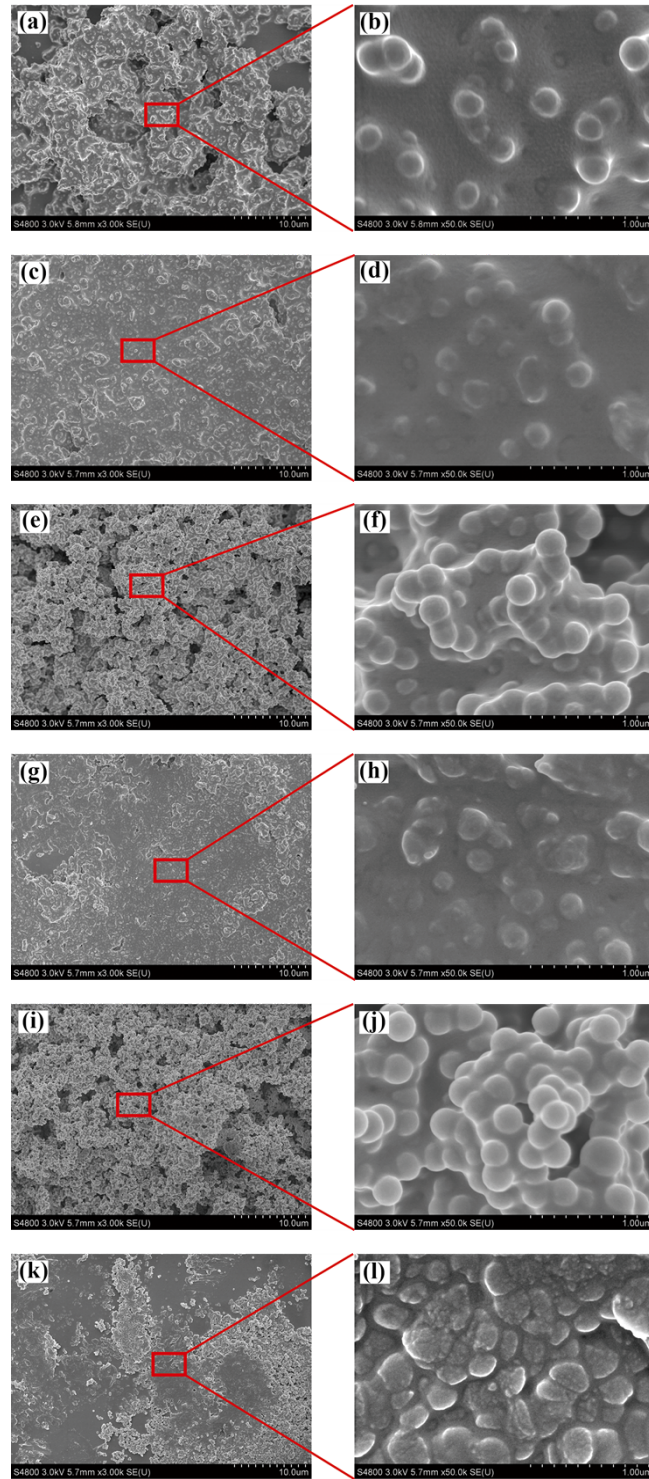
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**Fig. S1.** Illustration of sand abrasion



**Fig. S2.** AFM 3D topography images of S-15 coatings after different sand impact times: (a) original, (b) impact 1 time, (c) impact 10 times, and (d) impact 20 times.



**Fig. S3.** SEM images of S-5: (a) original; (b) higher magnification of (a); (c) impacted 3 times; (d) higher magnification of (c); S-10: (e) original; (f) higher magnification of (e); (g) impacted 10 times; (h) higher magnification of (g); S-20: (i) original; (j) higher magnification of (i); (k) impacted 10 times; (l) higher magnification of (k).