Supporting Information

Bioinspired Nanoscale Hierarchical Pillars for Extreme Superhydrophobicity and Wide Angular Transmittance

Cheonji Lee,^{*a,b,†*} Seungmuk Ji,^{*c,†*} Sunjong Oh,^{*a*} Seungchul Park,^{*a*} Youngdo Jung,^{*a*} Jinkee Lee,^{*b,**} and Hyuneui Lim^{*a,d,**}

^aDepartment of Nature-Inspired Nanoconvergence Systems, Korea Institute of Machinery and Materials, 156 Gajeongbuk-Ro, Yuseong-Gu, Daejeon, 34103, Republic of Korea

^bSchool of Mechanical Engineering, Sungkyunkwan University, 2066, Seobu-Ro, Jangan-Gu, Suwon, Gyeonggi-Do, 16419, Republic of Korea

°Yonsei Institute of Convergence Technology, Yonsei University, 85 Songdogwahak-ro, Yeonsugu, Incheon 21983, South Korea

^dDepartment of Nano-mechatronics, University of Science and Technology, 217 Gajeongbuk-Ro, Yuseong-Gu, Daejeon, 34113, Republic of Korea

Surface	S ₁₂₀	S ₃₅₀	S _{NH1}	S _{NH2}
Minimum Capillary pressure (P_c) (MPa)	3.57	0.88	0.63 (L) 5.88 (S)	0.17 (L) 7.76 (S)
Maximum Capillary pressure (P_c) (MPa)	23.97	8.08	23.97	23.97
Effective slip length $({}^{b_{eff}})$ (nm)	31.7 ± 2.2	108.5 ± 7.0	524.8 ± 15.3	807 ± 24.0

Table S1. Minimum and maximum Capillary pressure $({}^{P_{c}})$ and the effective slip length $({}^{b_{eff}})$ of samples. The ${}^{P_{c}}$ of long pillars are marked with L and that of short pillars are marked with S.

Movie S1. Contact angle measurement. Attaching a water droplet on samples; S_{120} , S_{350} , S_{NH1} , and S_{NH2} . Volume of droplet is 10.3 μ l.

Movie S2. Droplet impact motion. Droplets impact on S_{NH2} with different dropped height; 80, 230, and 450 mm (Weber number; 48, 140, and 290). The volume of droplet is 8.6 μ l. The process is recorded at 3000 frames per second (fps) and shown at 30 fps.

Movie S3. Number of bouncing. Droplets bounce on samples; S_{120} , S_{350} , S_{NH1} , and S_{NH2} . The dropped height is 10 mm and volume of droplet is 8.6 μ l. The process is recorded at 3000 frames per second (fps) and shown at 30 fps.