Electronic Supplementary Material (ESI) for Soft Matter.

Supporting information

Rapid Fabrication of Dual-Scale Micro-nanostructured Superhydrophobic Aluminum Surface with Delayed Condensation and Ice Formation Properties

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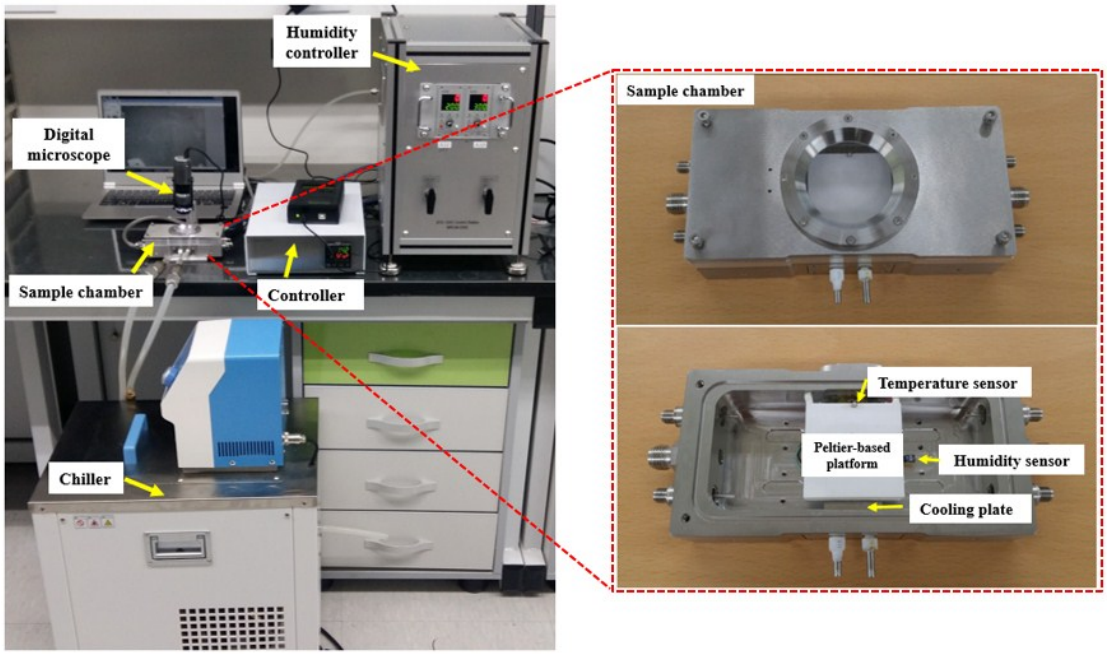

Fig. S1. The layout of the anti-icing set-up used in the present study.

Table S1. Comparison of WCA and SA of the different Al surfaces.

Al surfaces	WCA (°)	WSA (°)
Bare	75	-
Bare (PDMS coating)	113	-
MN-surface (Before coating)	0	-
MN-surface (SLIPS)	104	11
MN-surface (PDMS-SHS)	161	3

Supplementary Video clips (Movie S1 – S2)

Supplementary Video S1

This movie clip captures the coalescence and the self-propelled jumping behavior of the condensed water droplets on the PDMS coated superhydrophobic MN-structured (PDMS-SHS) Al surface at −5 °C, under a RH of 80% ± 5%.

Supplementary Video S2

The movie shows the slippery behavior motion of the condensed water droplets on the SLIPS surface at −5 °C, under a RH of 80% ± 5%. The condensed droplets merged with the neighboring water droplets and grow bigger.