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Fabrication and Anti-icing Property of Coral-like Superhydrophobic Aluminum Surface

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Highlight:

- (1) Coral-like superhydrophobic aluminum surface was fabricated by chemical etching and hot-water treatment.
- (2) The nano-petals structures can move the condensed water droplet out of the micro-nano textures.
- (3) The static water droplet will not freeze until the layer of frost grows closer.
- (4) The superhydrophobic aluminum surface exhibited evident static anti-icing property.
- (5) 71% of the whole surface remained unfrozen in glaze ice for 30 min.

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