

Supporting Information

**Controllable wettability and adhesion on bioinspired multifunctional TiO₂
nanostructure surfaces for liquid manipulation**

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Supporting movie and figure captions:

Movie S1. Underwater robots fixed and worked at the water-oil interface.

Movie S2. Underwater oil droplet (1,2-dichloroethane dyed pink) separation and mixing.

Movie S3. Liquid self-assembling on invisible patterned superhydrophobic surface.

Movie S4. Hierarchical structure TiO₂ substrates with special wettability (low adhesive
superoleophobicity) as mechanical hand to manipulate oil drops underwater.

Movie S5. Underwater oil droplet transportation and targeted collection by taking advantage
of extremely high adhesion contrast.

Figure S1. The force-distance curves recorded by a droplet contact and move away the superhydrophobic surface anodized by different voltages in 0.01 M NH₄F solution for 1 h..

Figure S2. The force-distance curves recorded by a droplet contact and move away the superhydrophobic surface anodized at 50 V for 1 h with various concentration of NH₄F solution.

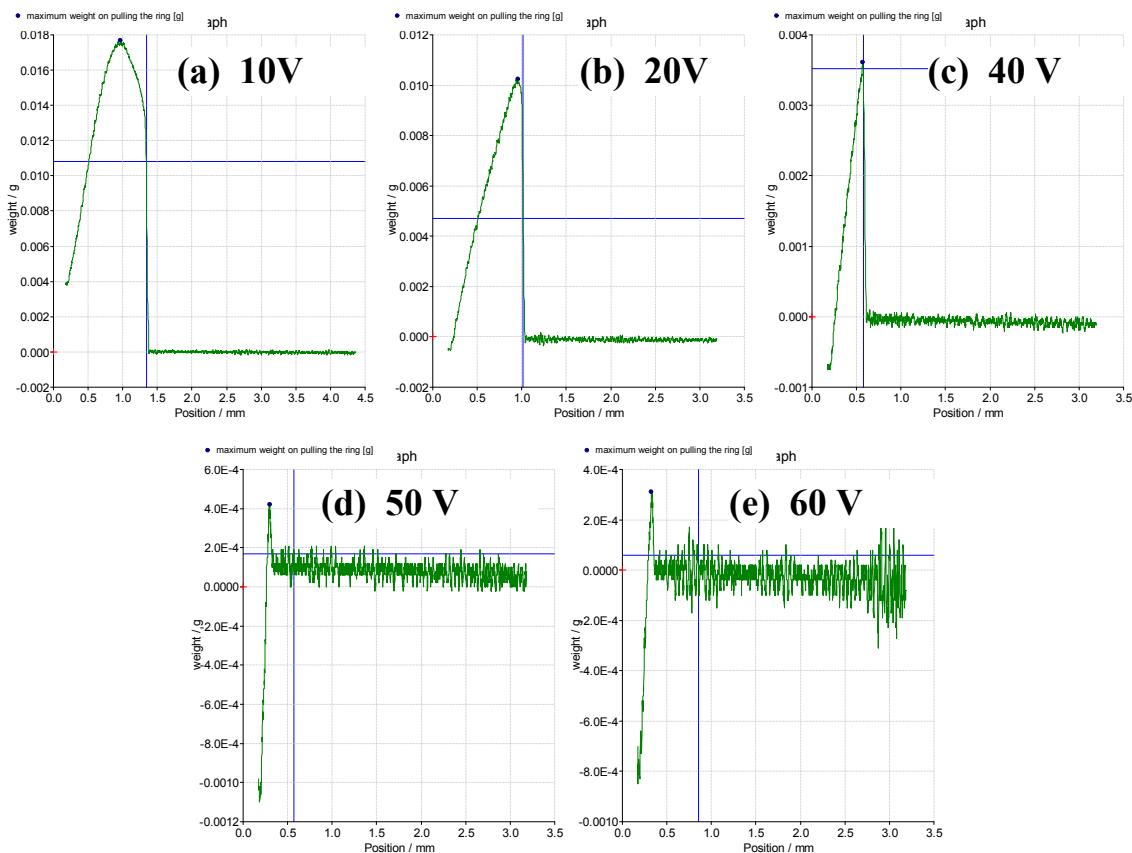


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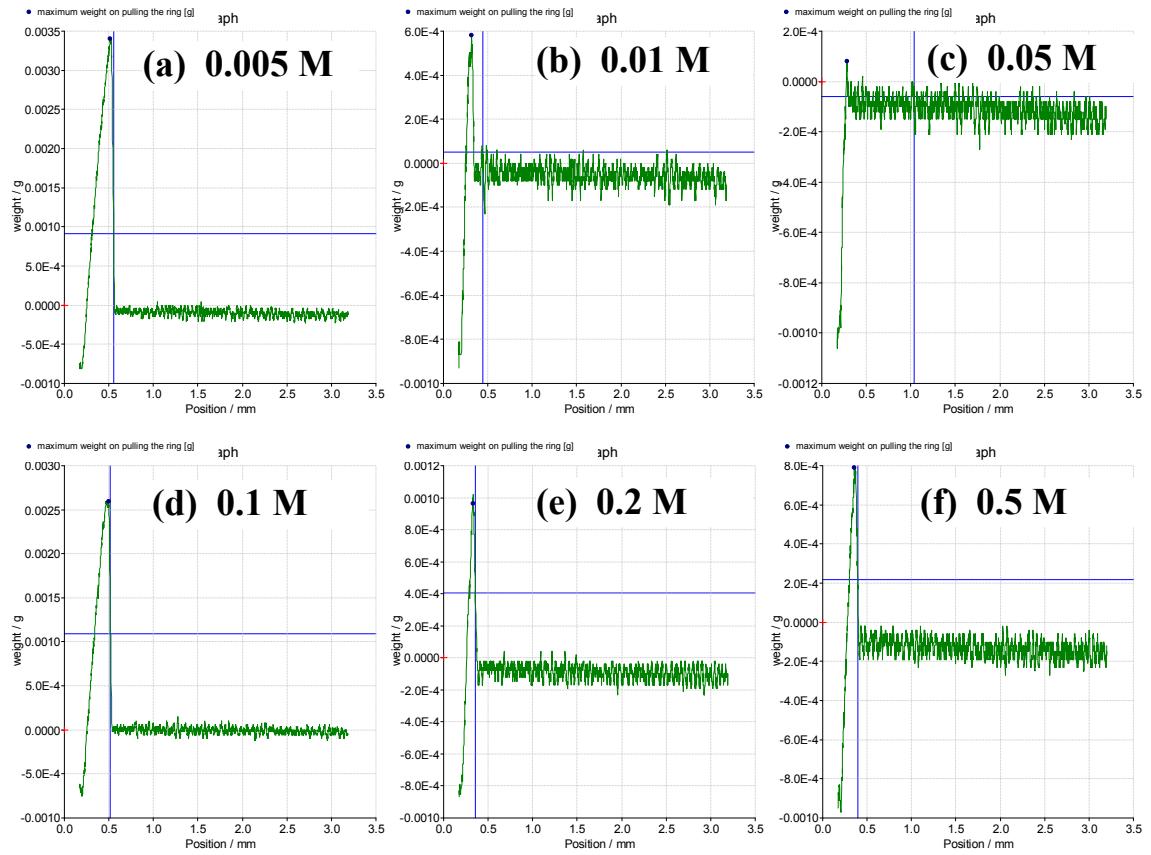


Figure S2. The force-distance curves recorded by a droplet contact and move away the superhydrophobic surface anodized at 50 V for 1 h with various concentration of NH₄F solution.