

## Supplementary Materials

# **Rationally design nanostructure features on superhydrophobic surfaces for enhancing the self-propelling dynamics of condensed droplets**

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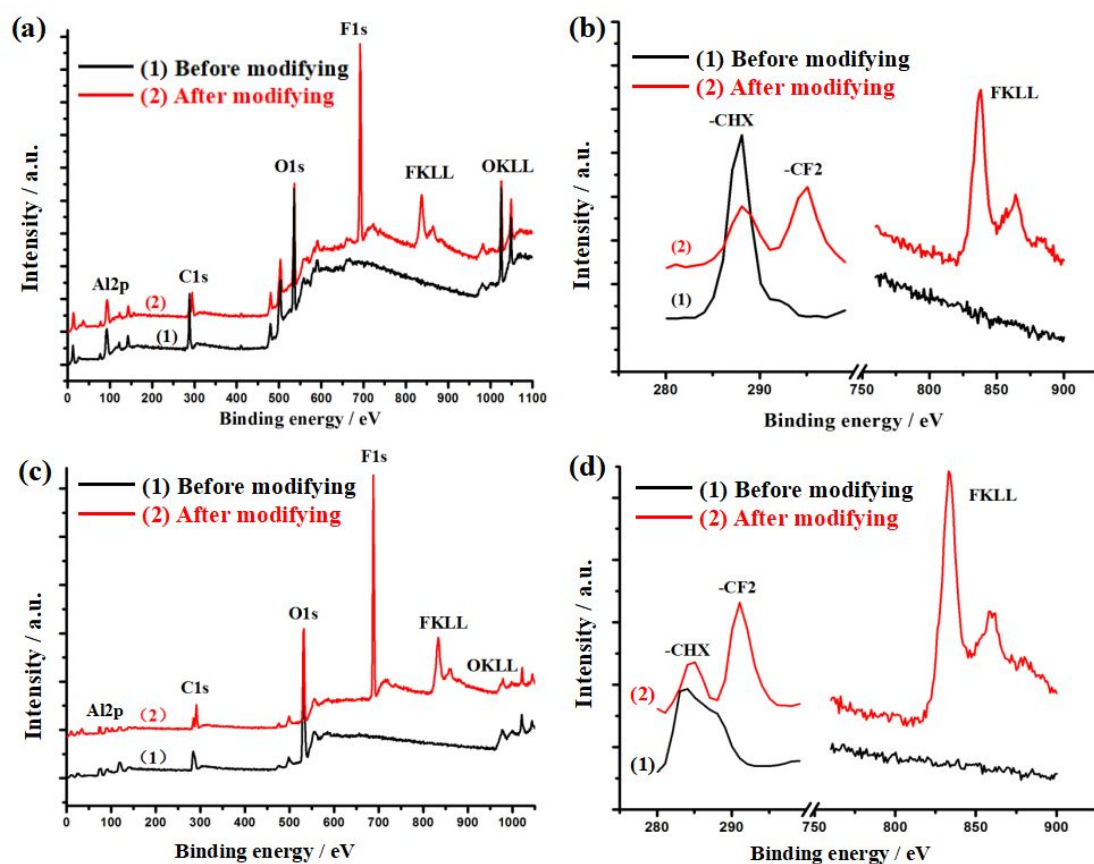
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## Supplementary Figures



**Figure. S1.** The XPS spectrum (1) before and (2) after self-assembling with the hydrophobic groups for (a-b) SLP-surface and (c-d) OC-surface.

### **Supplementary Videos**

**Video S1.** The process of spreading, contraction and rebounding when a droplet impacts on different surfaces.

**Video S2.** The condensed micro-droplets merging process on layered porous structural surface by a high-speed camera at side-view.

**Video S3** The self-propelling bouncing behavior of the coalesced droplets on open nanocone superhydrophobic surface by a high-speed camera at side-view during the condensing process.