

## **Supporting Information**

### **Robust and Thermally Stable Butterfly-Like $\text{Co}(\text{OH})_2$ / Hexadecyltrimethoxysilane Superhydrophobic Mesh Filters Prepared by Electrodeposition for Highly Efficient Oil/Water Separation**

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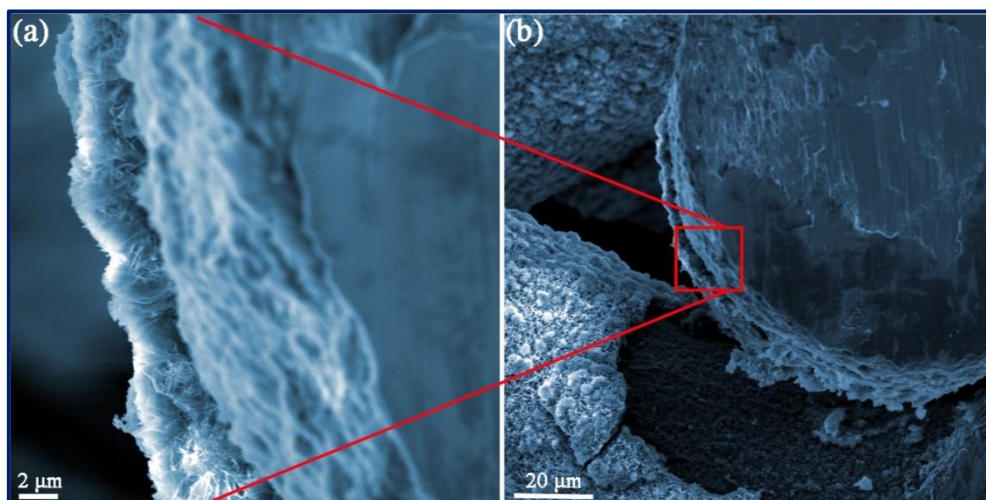
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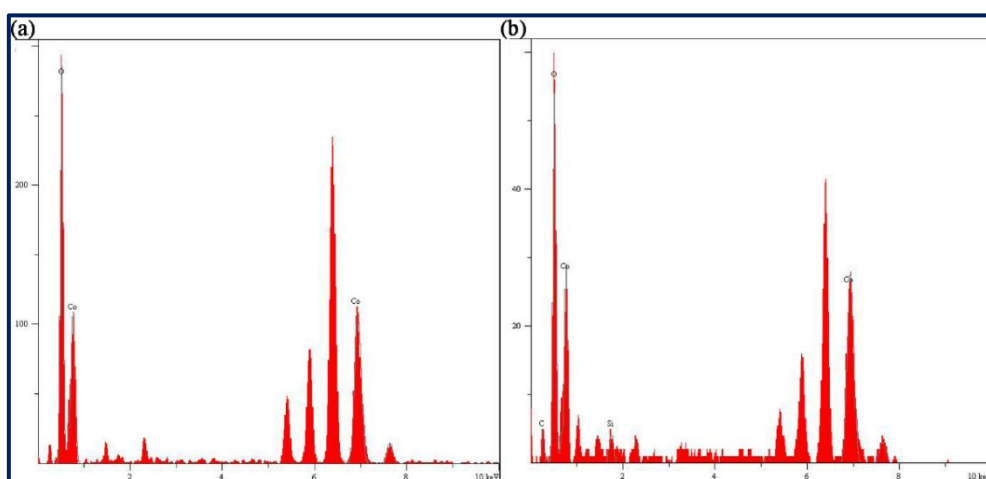
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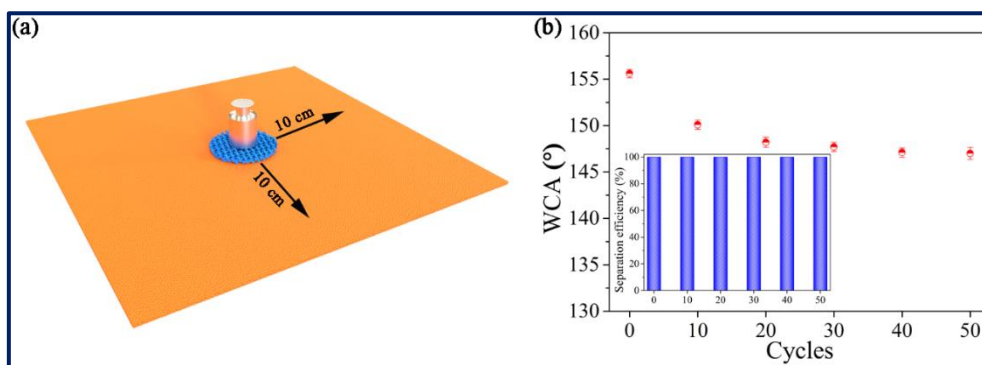
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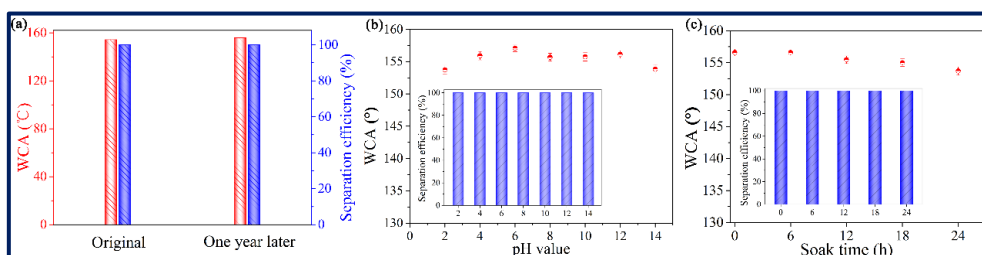
**Figure S1.** (a,b) Cross-sectional SEM images of the superhydrophobic and superoleophilic mesh filter.



**Figure S2.** EDS spectrum of the materials on the SS mesh surfaces after (a) electrodeposition and (b) modification.



**Figure S3.** (a) Illustration of the experiment process for the mesh filter. (b) Influence of abrasion cycles on WCA and separation efficiency (for hexane/water mixtures) of the superhydrophobic and superoleophilic mesh filter.



**Figure S4.** Influence of (a) storage time at room temperature, (b) pH value, and (c) soaking in simulated sea water (3.5 wt % NaCl solution), respectively, on WCA and separation efficiency (for hexane/water mixtures) of the superhydrophobic and superoleophilic mesh filter.