

Electronic Supplementary Information

**Underwater superoleophobic palygorskite coated mesh for the  
efficient oil/water separation**

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### **Supplementary figure and movie captions:**

**Figure S1.** FE-SEM images of the palygorskite.

**Figure S2.** Photographs of water (a) and (b) oil droplets on the palygorskite coated mesh in air with the contact angles close to zero.

**Figure S3.** Oil droplet (chloroform) on the palygorskite coated mesh underwater with a contact angle of  $158 \pm 1^\circ$  and a sliding angle of  $8^\circ$ .

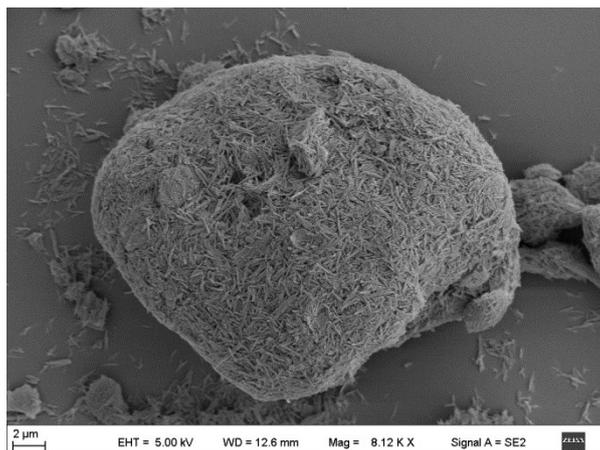
**Movie S1.** The separation process of oil (kerosene)/water mixture based on the underwater superoleophobic palygorskite coated meshes.

**Movie S2.** The separation process of kerosene/1M HCl solution mixture based on the underwater superoleophobic palygorskite coated meshes.

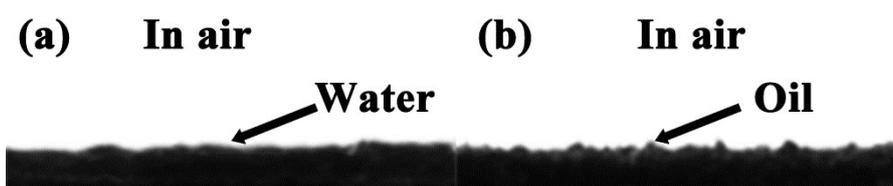
**Movie S3.** The separation process of kerosene/1M NaOH solution mixture based on the underwater superoleophobic palygorskite coated meshes.

**Movie S4.** The separation process of kerosene/1M NaCl solution mixture based on the underwater superoleophobic palygorskite coated meshes.

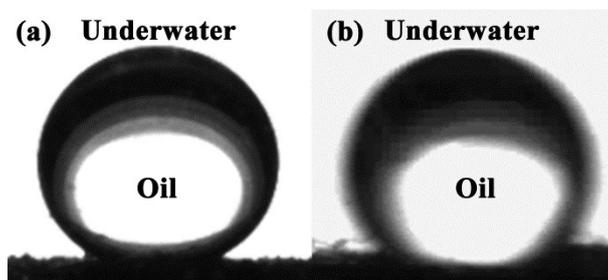
**Movie S5.** The separation process of kerosene/hot water mixture based on the underwater superoleophobic palygorskite coated meshes.



**Figure S1.** FE-SEM images of the palygorskite.



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**Figure S3.** Oil droplet (chloroform) on the palygorskite coated mesh underwater with a contact angle of  $158 \pm 1^\circ$  and a sliding angle of  $8^\circ$ .