

Supporting Information

One-step Transformation of Metal Meshes to Robust Superhydrophobic and Superoleophilic Meshes for Highly Efficient Oil Spill Cleanup and Oil/Water Separation

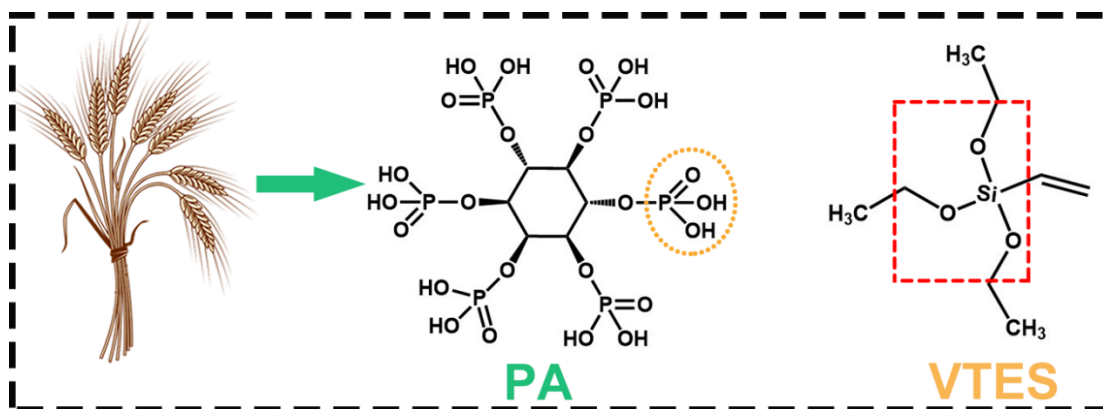
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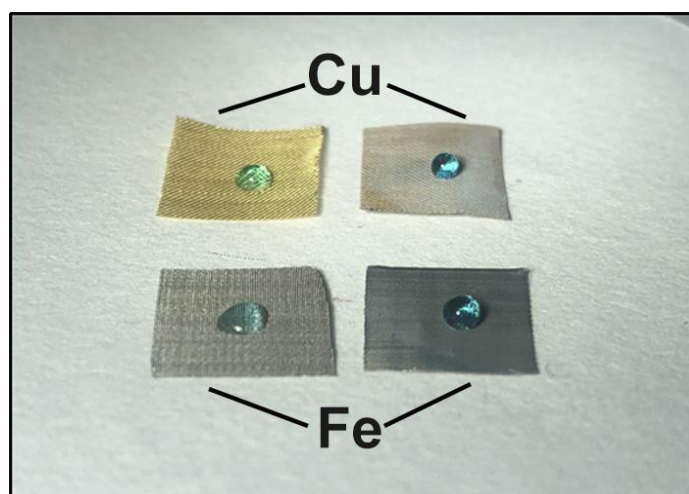
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Scheme S1. The structure of grains-derived PA and commercial VTES.



Scheme S2. Photos of original and PA/VTES treated Cu and Fe mesh.

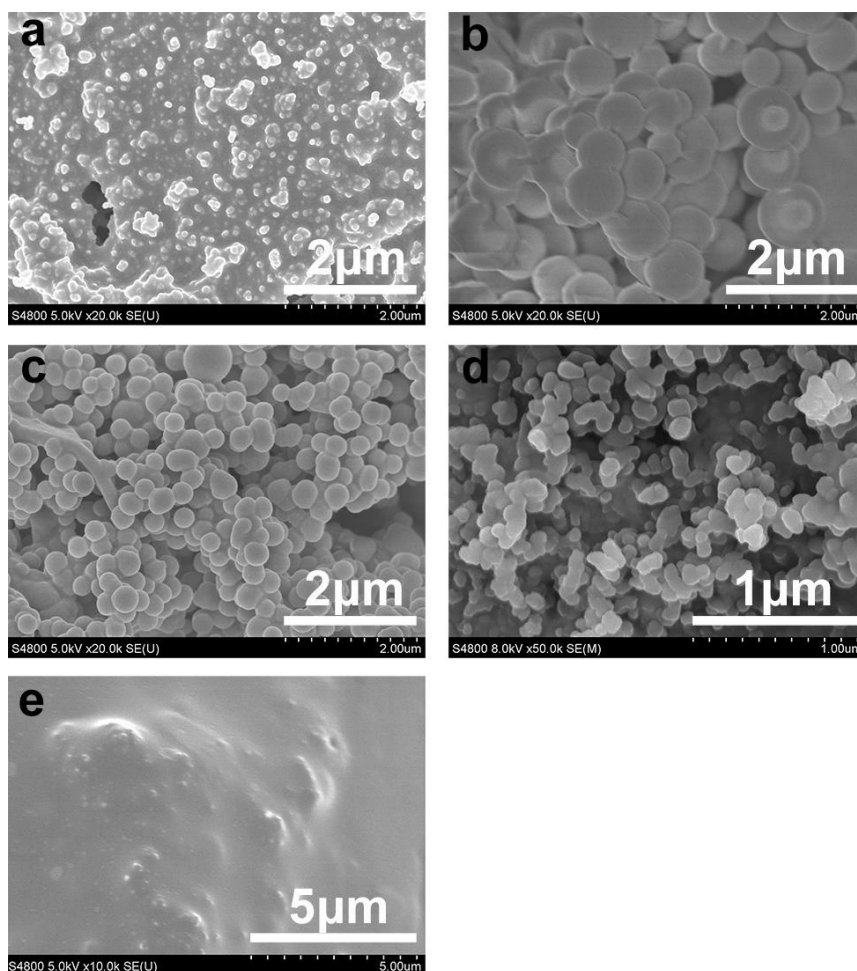


Figure S1. SEM images of the meshes with different mass ratio of PA and VTES. (a) PA/VTES=4:1 (b) PA:VTES=2:1 (c) PA:VTES=1:1 (d)PA:VTES=1:2 (e)PA:VTES=1:4

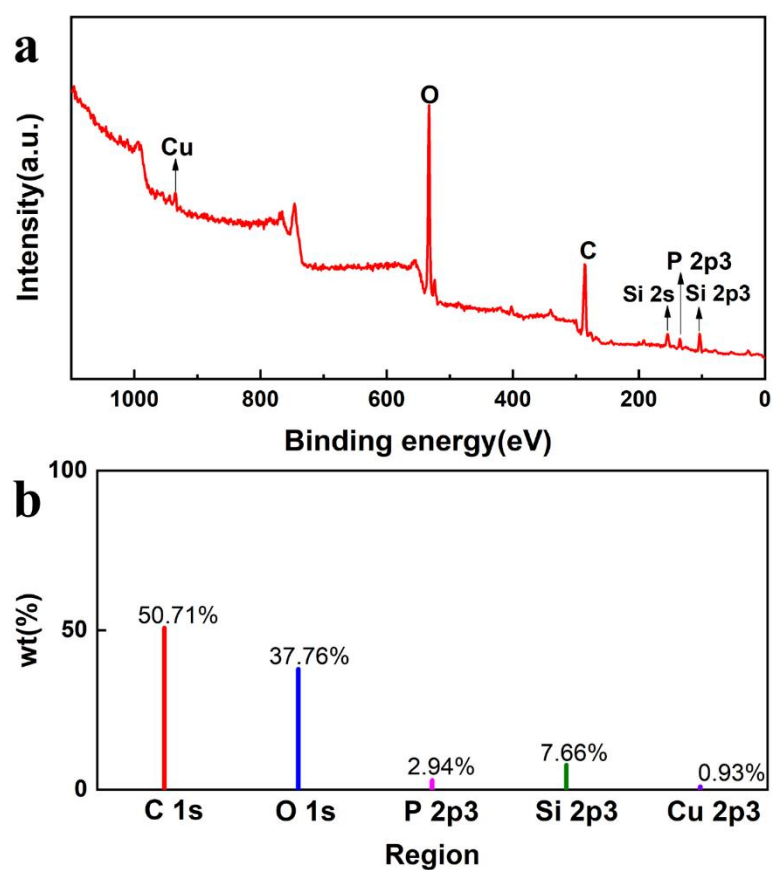


Figure S2. (a) XPS spectrum of the PA/VTES/Mesh (b) The detailed chemical composition of the PA/VTES/Mesh

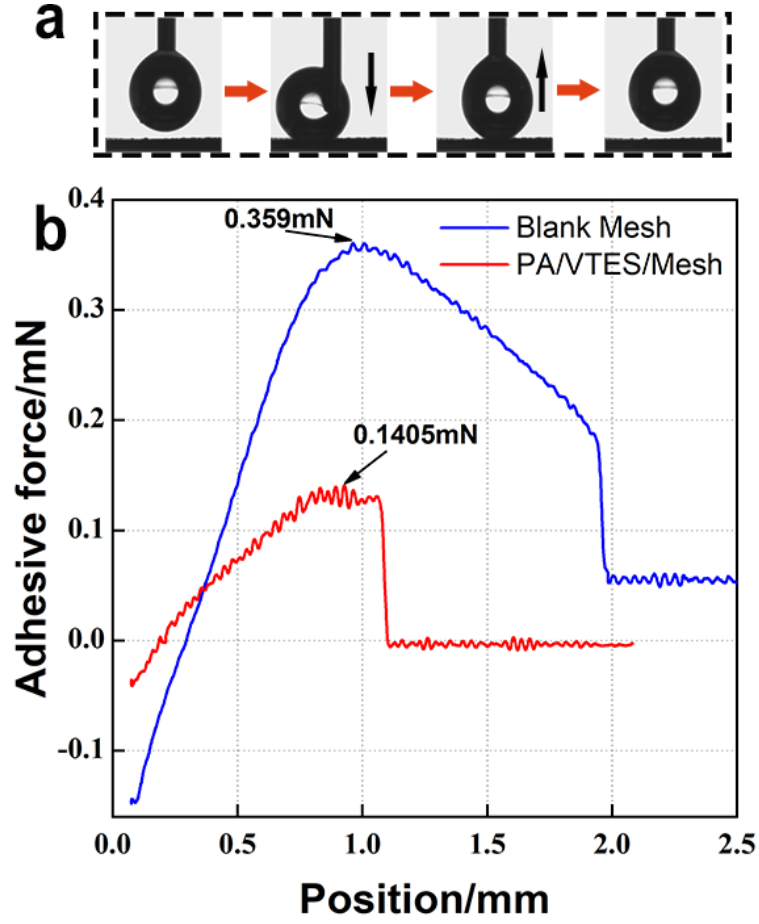


Figure S3. (a) Dynamic water-adhesion of PA/VTES/Mesh surface. (b) The adhesive forces of water on the Blank Mesh and PA/VTES/Mesh (PA:VTES=1:2).

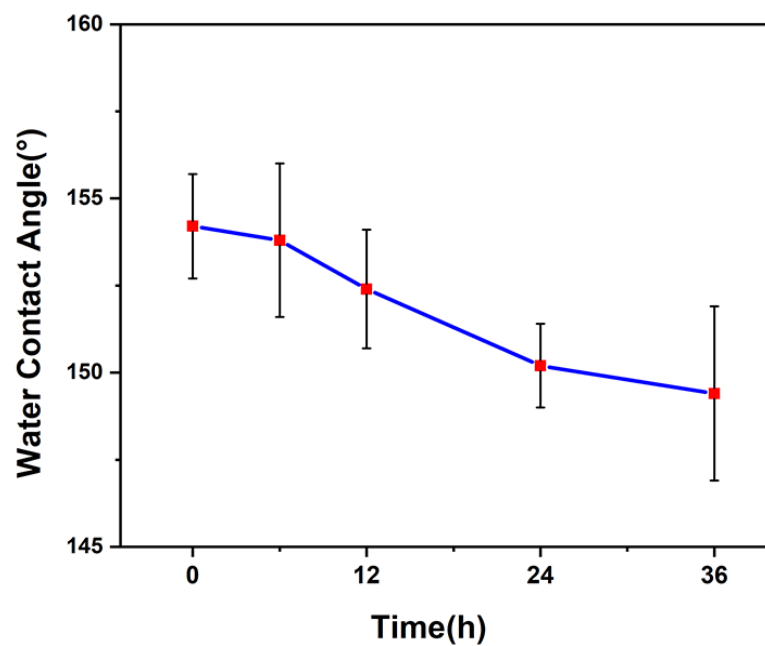


Figure S4. The water contact angle of PA/VTES/Mesh immersed in the artificial seawater at the different exposure time.

Movie S1. The interaction between water and PA/VTES/Mesh.(AVI)

Movie S2. The interaction between oil and PA/VTES/Mesh.(AVI)

Movie S3. Separation of oil/water mixtures using PA/VTES/Mesh.(AVI)