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Supporting Information

Superhydrophobic Engineering Materials via a Rapid and Simple Route for Highly Efficient Self-driven Crude Oil Spill Cleanup

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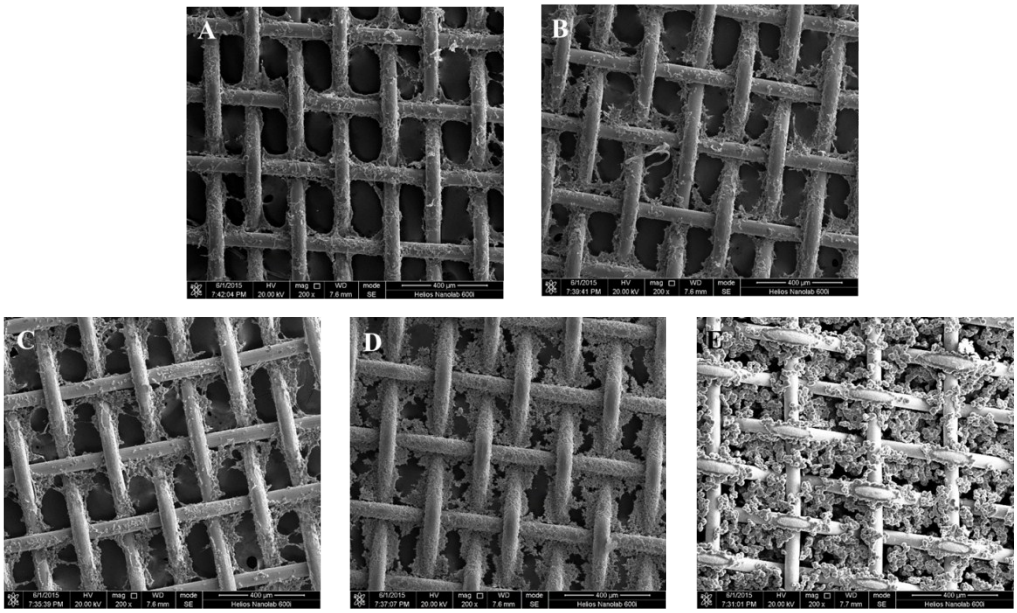


Figure S1. SEM images of PP decorated copper mesh with (A) 15 mg/ml, (B) 20 mg/ml, (C) 25mg/ml, (D) 30 mg/ml, (E) 35 mg/ml of PP, respectively.

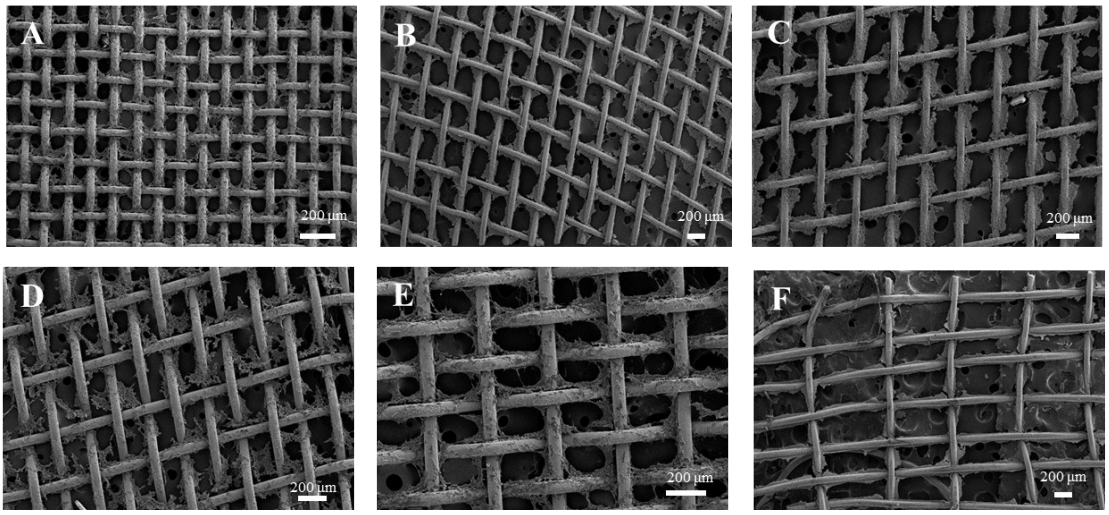


Figure S2. SEM images of PP decorated copper mesh with (A)350-copper mesh, (B)180-copper mesh, (C)120-copper mesh, (D)80-copper mesh, (E)60-copper mesh, (F)30-copper mesh at 25 mg/ml of PP.

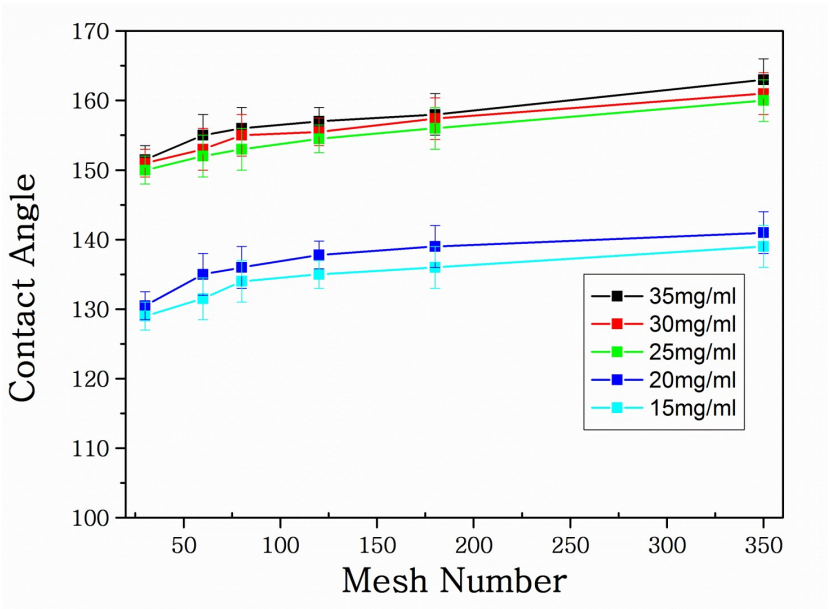


Figure S3. Water contact angles of PP decorated copper mesh.

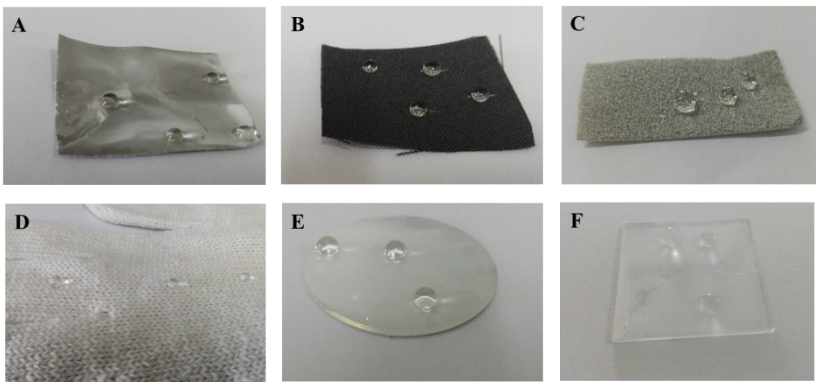


Figure S4. The photographs of the water droplets on different material (A) stainless steel mesh, (B) carbon fiber cloth, (C) nickel foam, (D) nylon gloves, (E) aluminum foil, (F) glass slide.

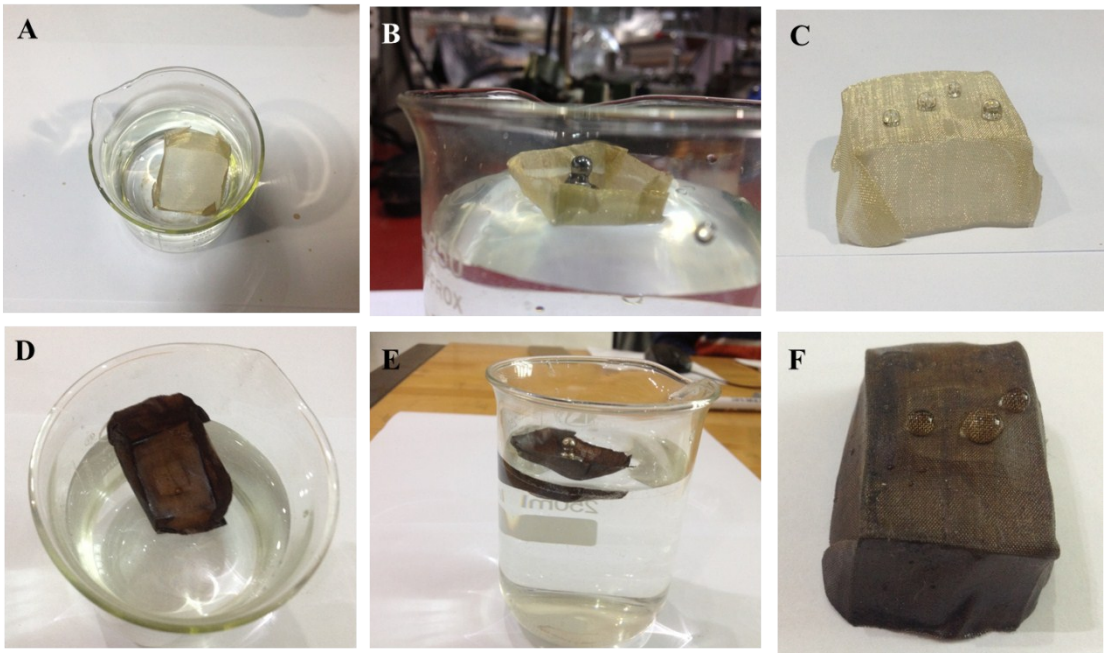
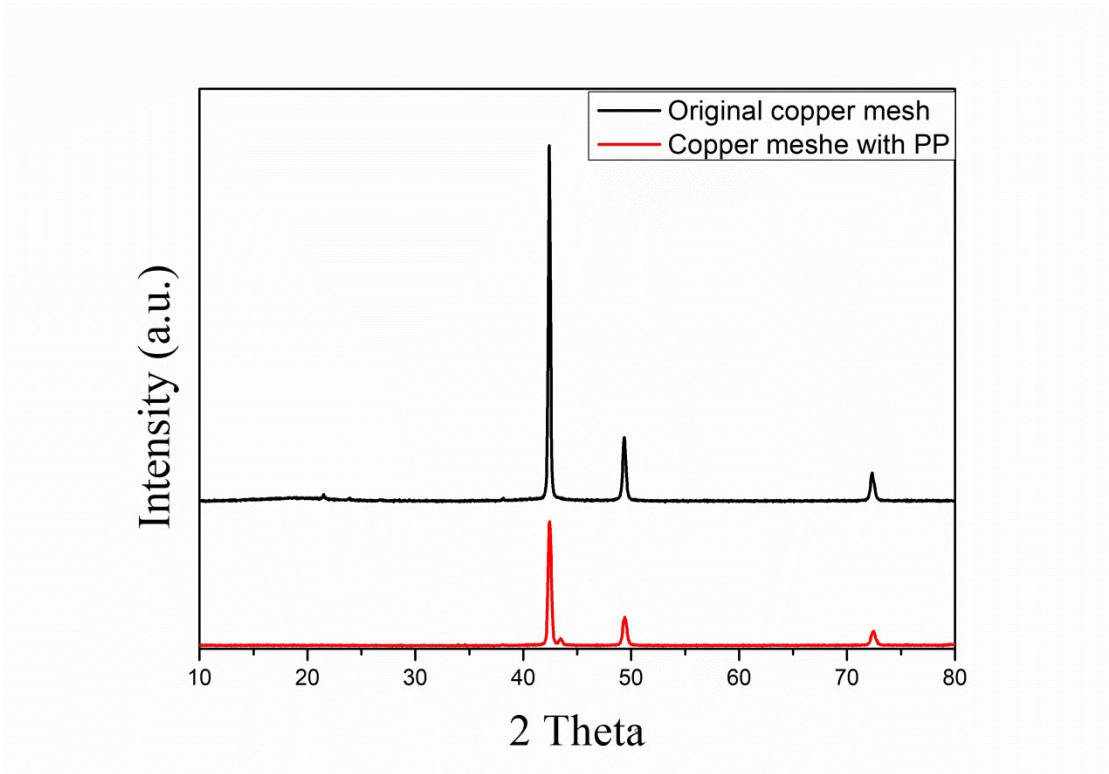


Figure S5. The photographs of the water droplets on unused miniature boat (A, B, C) and reused miniature boat (D, E, F).


Original copper mesh
Copper meshe with PP
Intensity (a.u.)
10
20
30
40
50
60
70
80
2 Theta

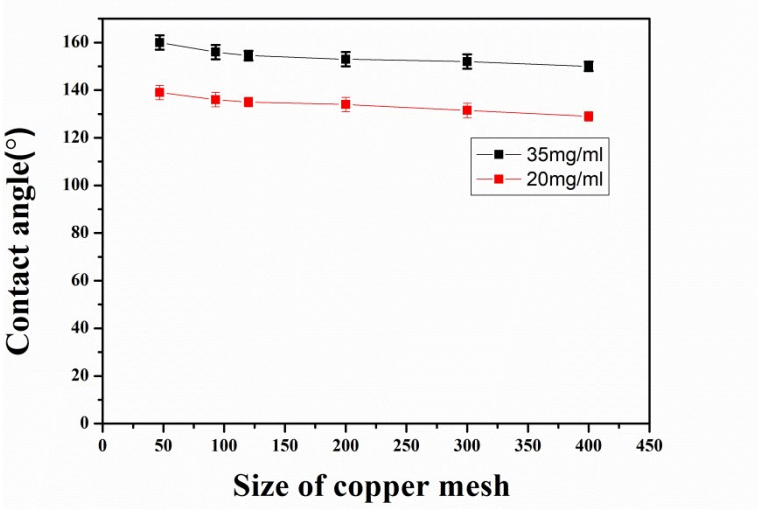


Figure S7 Water contact angles of different porous size copper mesh with PP

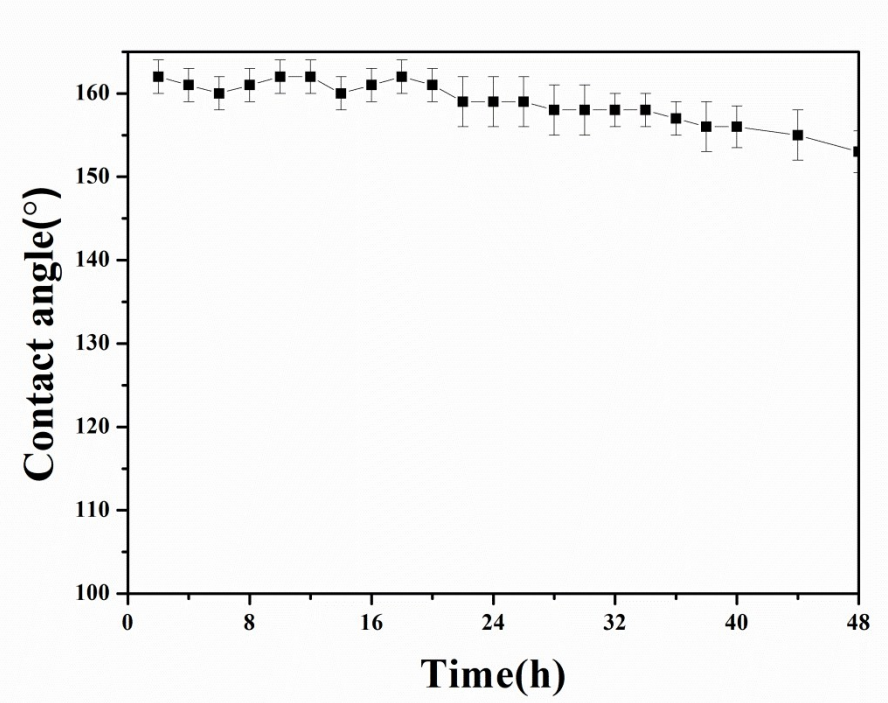


Figure S8. Water contact angles of superhydrophobic coper mesh by 1M HCl solution for different durations.