

# Supporting Information

## Cauliflower-like nickel with polar Ni(OH)<sub>2</sub>/NiO<sub>x</sub>F<sub>y</sub> shell to decorate copper meshes for efficient oil/water separation

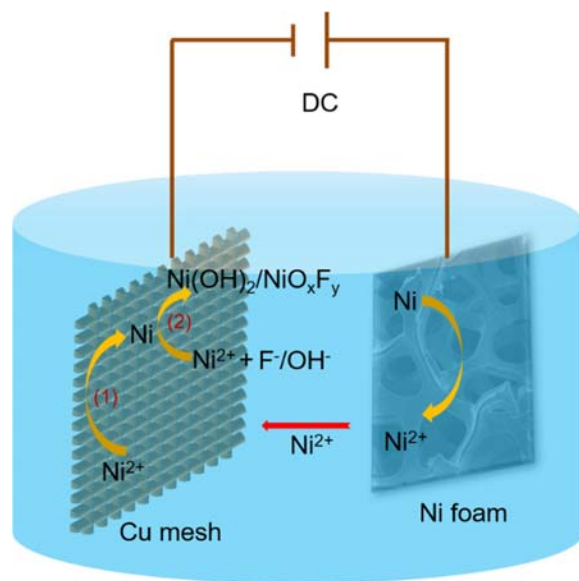
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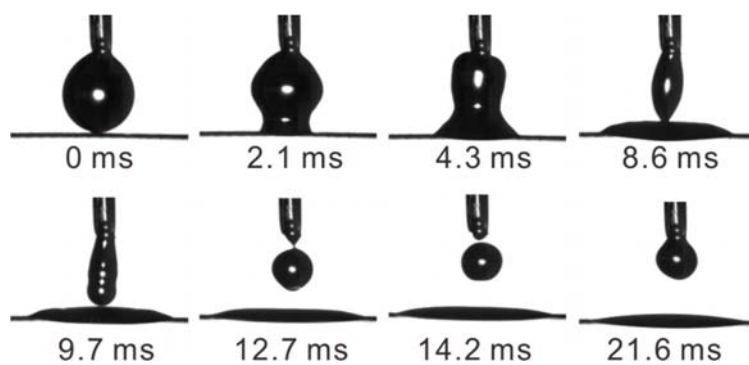
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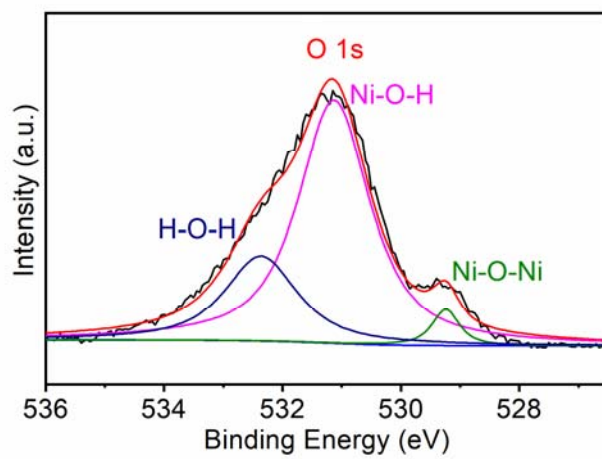
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**Figure S1** Schematic illustration of the preparation of Cu mesh@CF-Ni via electrodeposition



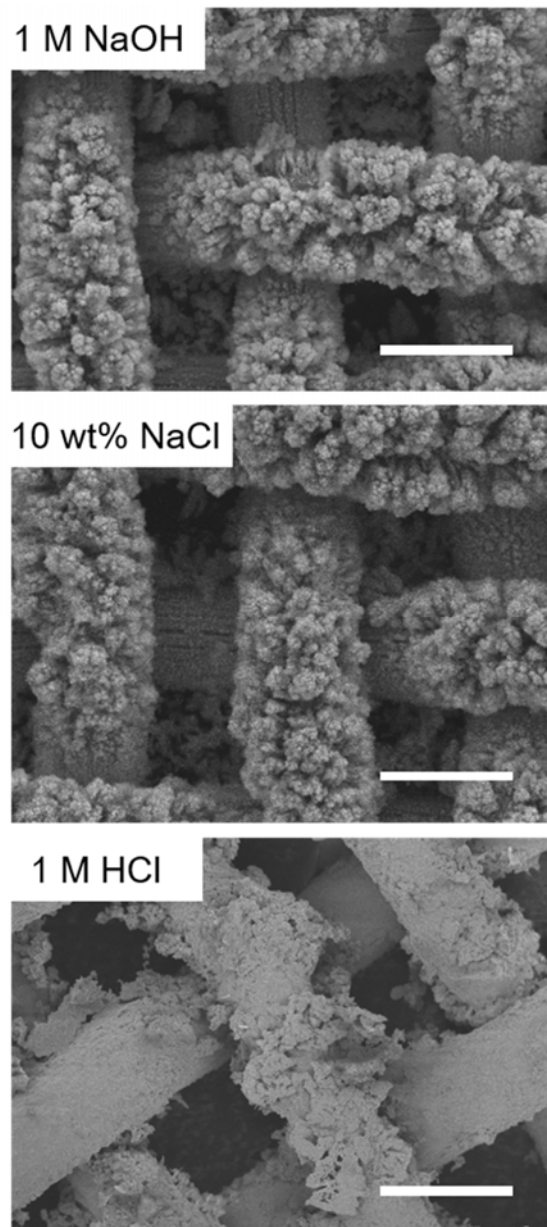
**Figure S2** Water droplet spread out on the superhydrophilic Cu mesh@CF-Ni



**Figure S3** O 1s spectra of Cu mesh@CF-Ni

**Table S1** Electrochemical corrosion measurements of Cu mesh@CF-Ni in solutions.

| <b>Solution</b>  | <b>Corrosion current density<br/>(<math>\mu\text{A cm}^{-2}</math>)</b> |
|------------------|---|
| H <sub>2</sub> O | 1.6   |
| 10 wt% NaCl      | 25.1  |
| 1 M NaOH         | 31.6  |
| 1 M HCl          | 501.2   |



**Figure S4** SEM images of Cu mesh@CF-Ni immersed in solutions for 1 h. The bar is 50 μm

**Movie S1** The visual oil/water separation experiment