

Supplementary Information

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Durable Superhydrophilic/phobic Surfaces Based on Green Patina with Corrosion Resistance

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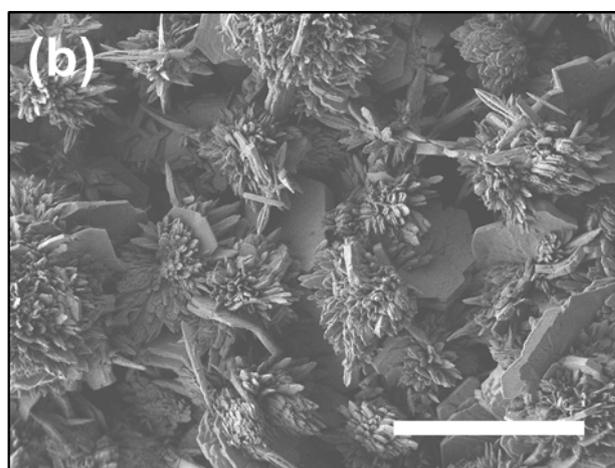
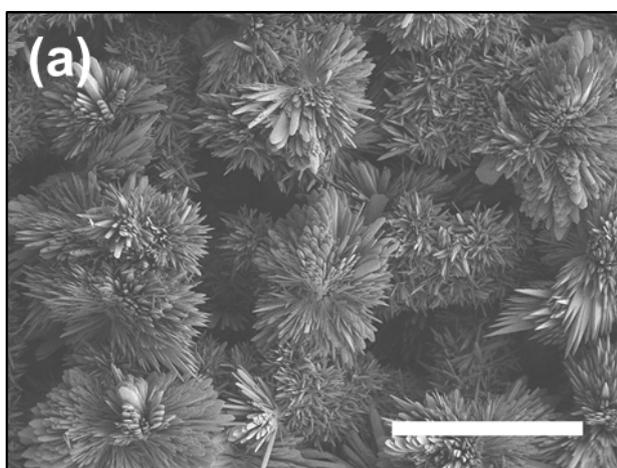
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Nickel strike		Copper plating	
HCl	125 g/L	CuSO ₄ ·5H ₂ O	70 g/L
NiSO ₄ ·6H ₂ O	240 g/L	NaCl	0.6 g/L
current	0.1 A/cm ²	H ₂ SO ₄	50 g/L
time	30 sec.	PEG	0.02 g/L
		current	0.3 A/cm ²
		time	5 min.

1 **Table S1.** The composition of the plating bath and process parameters for electroplating copper
2 film on stainless steel mesh.

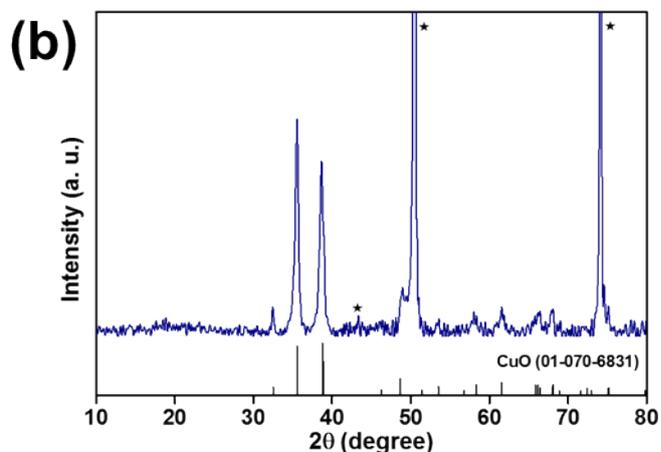
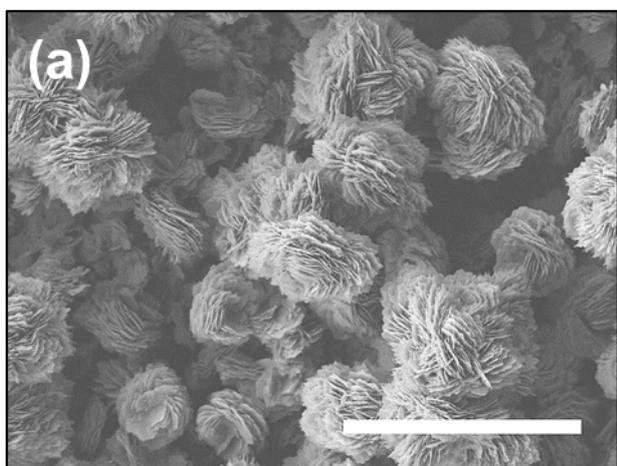
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5 **Fig. S1** FE-SEM images of the fabricated mesh covered with (a) brochantite structure, (b) copper
6 thiolate structure. Scale bars indicate 50 μm .

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9 **Fig. S2** FE-SEM images and XRD patterns of CuO structure. (a) CuO film grown on the copper
10 plate by chemical oxidation. Scale bar indicates 5 μm . (b) XRD Patterns of CuO and copper
11 substrate. The solid lines indicate the XRD pattern of powder diffraction file for CuO and the ★
12 represents peaks from the copper plate.