

Enhanced fog water harvesting on superhydrophobic steel meshes

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Table SI 1: The chemical composition of the samples extracted from EDS experiment.

Element	Steel mesh (wt%)	Cu-coated mesh (wt%)	Si/Cu-coated Mesh (wt%)
Fe	66.9	-	-
Ni	7.7	-	-
Cr	18.2	-	-
C	6.8	-	3.7
O	-	3.1	2.2
Cu	-	96.9	94
Si	0.4	-	0.1

Table SI 2: Details of the mass of dripping droplets (M), cycle of droplets dripping (C), and the fog harvesting efficiency (η) for each sample.

sample	When will the first drop drip? (s)	M (mg)	C (s)	M (mg)	C (s)	M (mg)	C (s)	η ($mg/(cm^2h)$)		
		During initial minutes of the test		After 1 hour		During the final minutes of the test		Minimum	Maximum	Average
Steel mesh	185 ± 9	73 ± 3	75 ± 6	63 ± 3	60 ± 4	64 ± 2	60 ± 3	356	447	418
Cu-coated mesh	280 ± 11	100 ± 6	120 ± 9	79 ± 3	110 ± 7	80 ± 4	108 ± 7	221	367	283
Si/Cu-coated mesh	150 ± 8	33 ± 1	18 ± 1	35 ± 1	20 ± 2	35 ± 2	20 ± 2	558	646	578

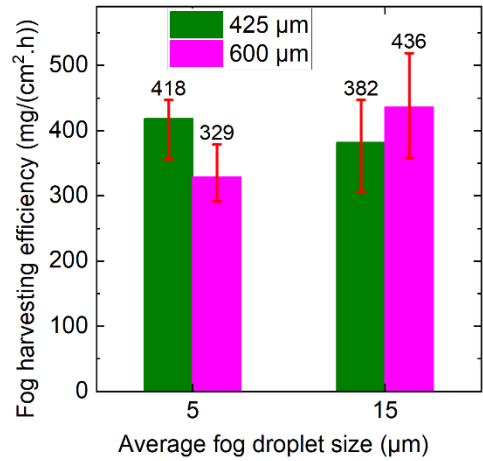


Figure SI 1: Fog water harvesting efficiency η of meshes at different fog droplet size in a wind speed of 0.3 m/s and a fog flow rate of 210 ml/h.

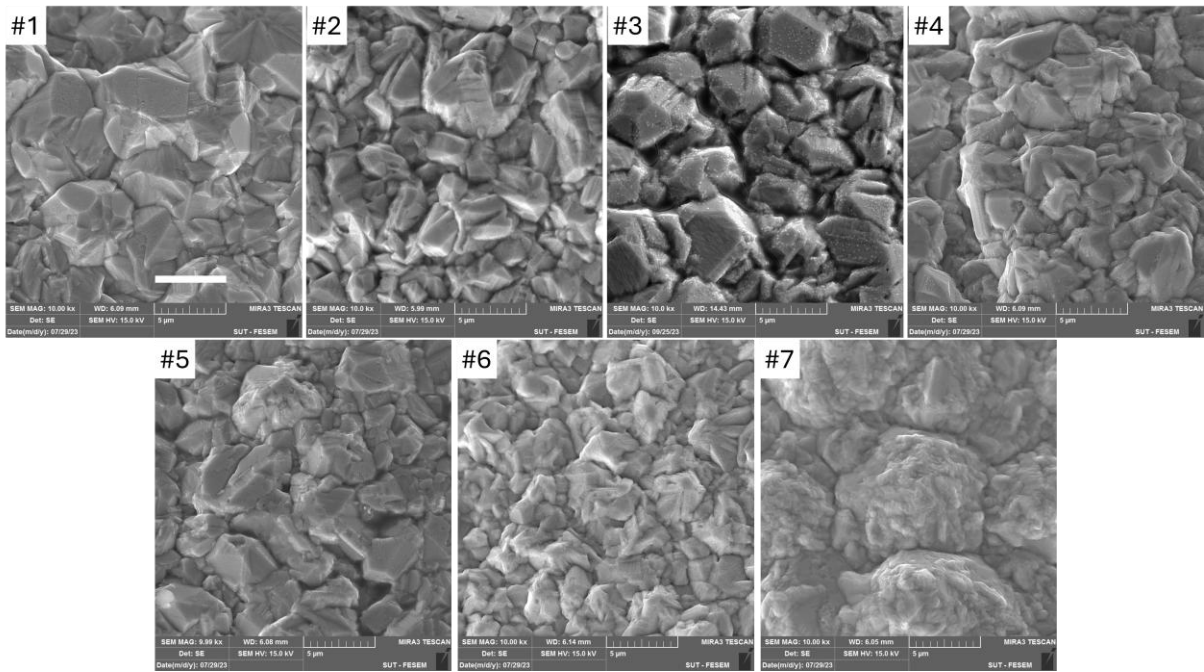


Figure SI 2: FESEM images of the sample sets prepared under seven different electrodeposition conditions, listed in Table 1. The white solid line on the first image indicates on 5 µm scale.

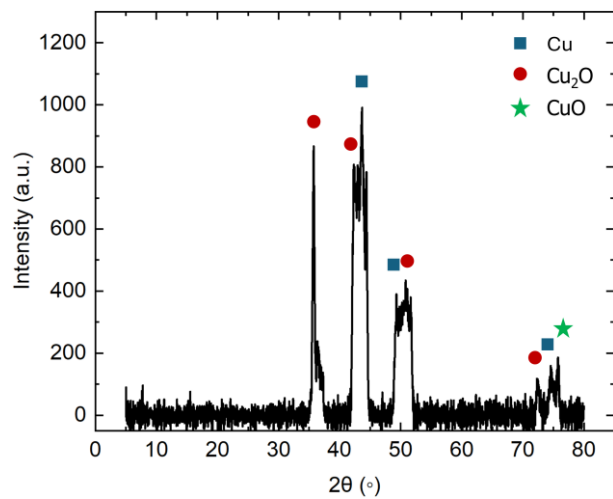


Figure SI 3: The chemical composition of the Cu-coated mesh was analyzed using XRD. Peak positions were identified by comparing the spectrum with standard JCPDS cards No.. 96-500-0217, 96-101-0964, and 48-1548.