

Supplementary Material

Bioinspired Hierarchical Copper Oxide Surfaces for Rapid Dropwise Condensation

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Supplementary figures

Figure S1. Microscopic photographs of different photoresist micropillar arrays on the substrate. The diameters of different photoresist micropillars increased gradually.

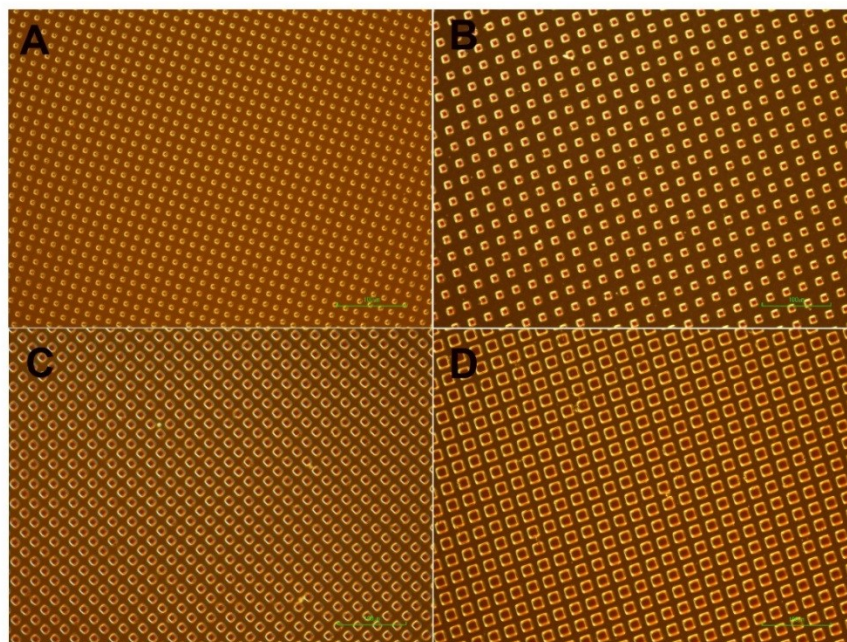


Figure S2. SEM image of hierarchical surface obtained by using lower concentration oxidization agents (0.5x) for 7min. The original sample used for treatment is same as Sample G and H.

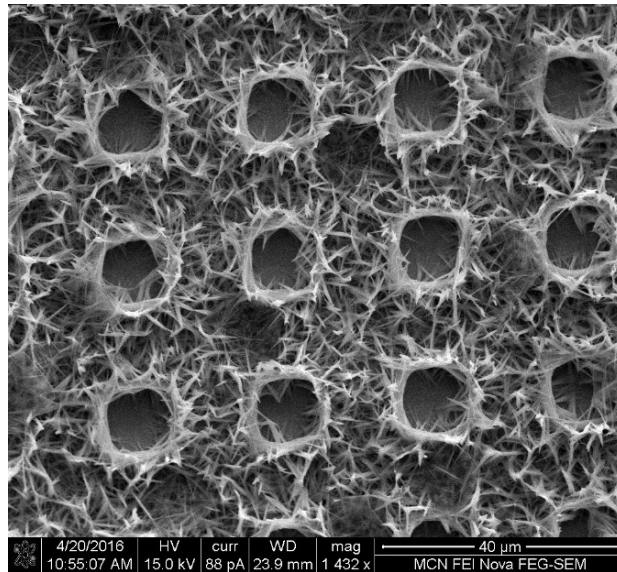


Figure S3. XPS spectra of hierarchical surfaces with and without fluorosilane treatment: full spectra (a), and core-level spectra of Cu 2p (b) and C 1s (c).

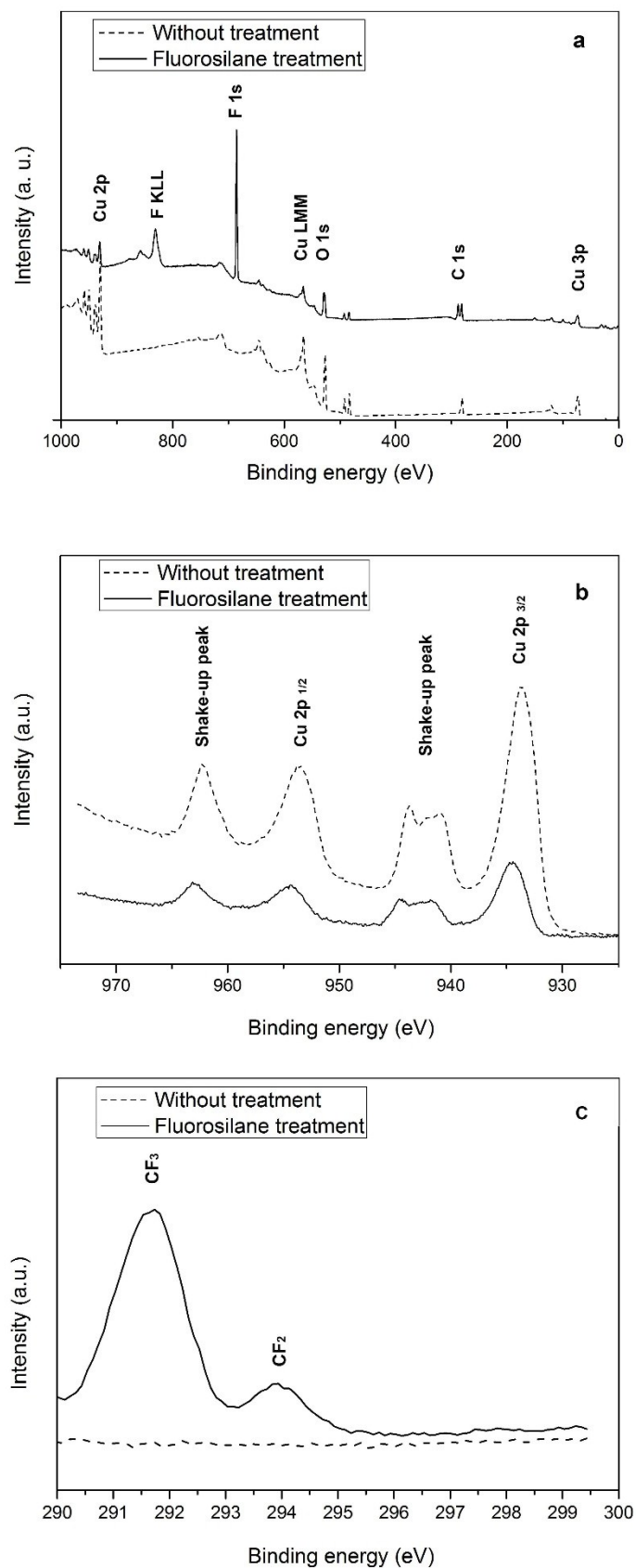


Fig. S4 Microscopic photographs of the droplets condensed on the nanostructured surface at temperatures of about 2°C.



Figure S5 A water drop falls on the surface due to the gravitation and instantaneously rolls off. In top left each images show the time sequence.

