

Superoleophobic textured copper surfaces fabricated by chemical etching / oxidation and surface fluorination

Junfei Ou, Weihua Hu, Mingshan Xue,^{*} Fajun Wang, Wen Li,^{*}

*School of Materials Science and Engineering, Nanchang Hangkong University,
Nanchang 330063, People's Republic of China*

^{*} To whom correspondence should be addressed. Tel.: +86-791-6453210; fax: +86-791-6453210
E-mail: wenl@ualberta.ca or xuems04@mails.gucas.ac.cn

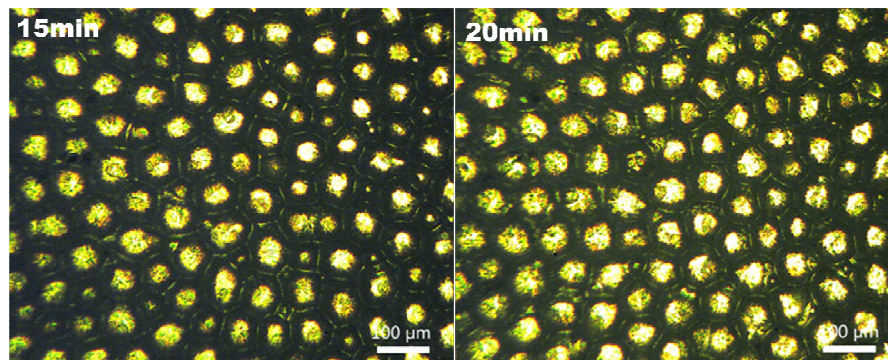


Figure 1s. Surface morphologies for copper treated by step 1 for 15 and 20 min

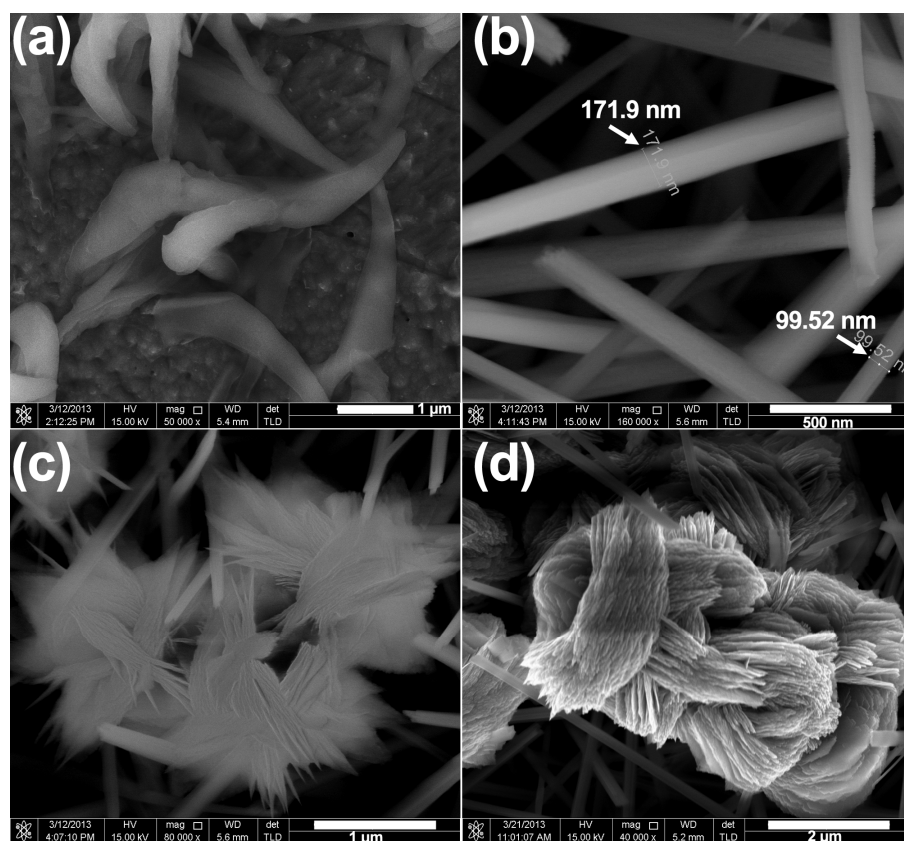


Figure 2s. Surface morphology variation as treating time of step 2: (a) 5 min, (b) 10 min, (c) 15 min, and (d) 30 min. Compared with Figure 1 (c), the magnification is much larger, so that the nanostructures can be seen more clearly

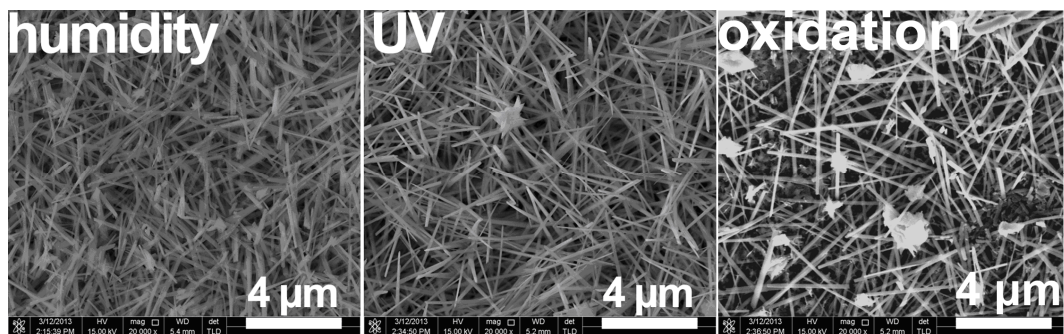


Figure 3s. Surface morphologies for the sample fabricated by step 1 (10 min) / step 2 (10 min) after humidity / UV / oxidation resistance test for 168 hours, 10 days, 10 days, respectively