

## *Supporting Information*

for

### **Superwetting Ag@Cu<sub>2</sub>O anchored copper mesh for efficient oil/water separation and visible-light driven removal of organic pollutants**

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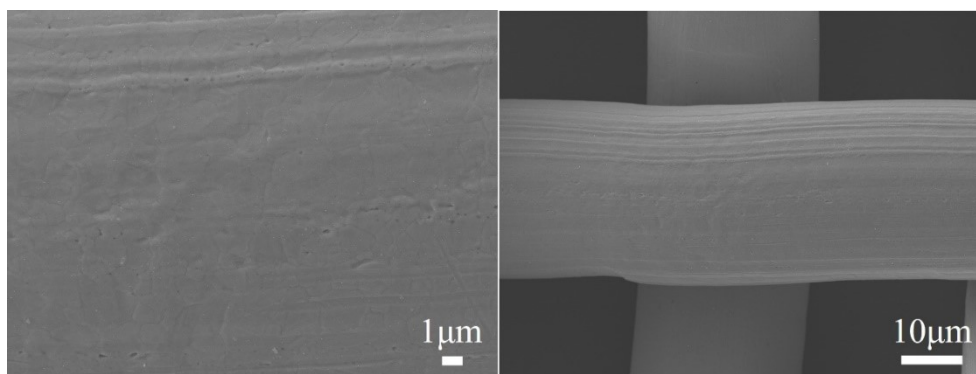
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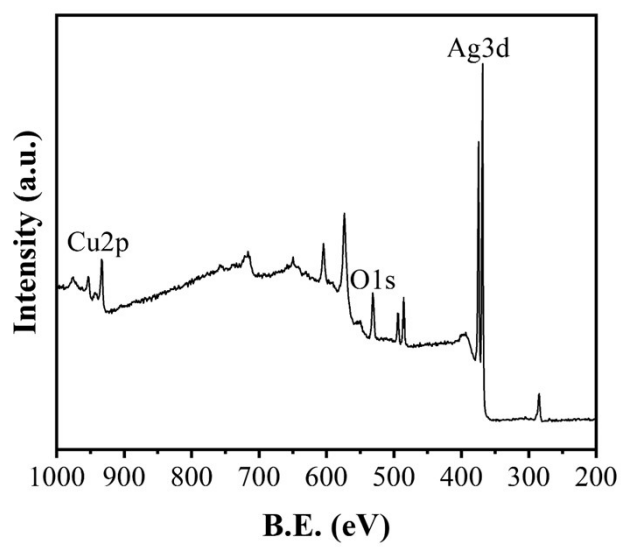
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\*Corresponding authors.

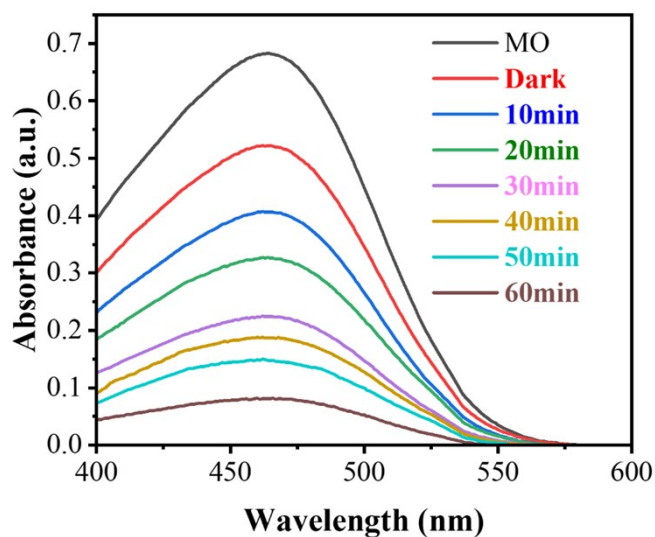
E-mail: caohj@qdu.edu.cn (H. Cao); liun12@tsinghua.org.cn (N. Liu).



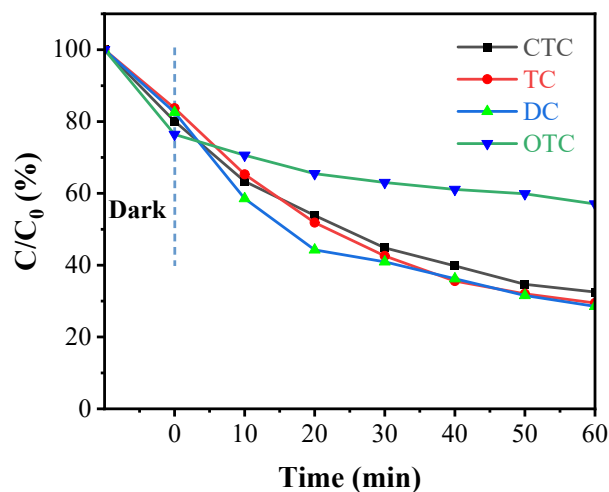
**Fig. S1.** SEM of commercial raw copper mesh.



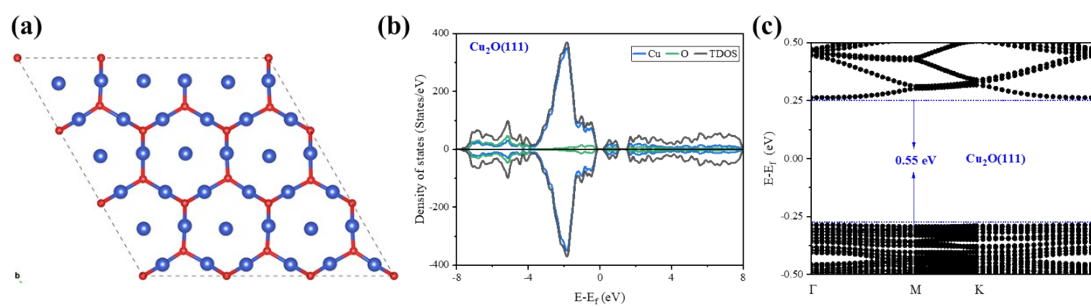
**Fig. S2.** XPS spectra of Ag@Cu<sub>2</sub>O mesh



**Fig. S3.** UV-VIS absorption spectrum of methyl orange solution.



**Fig. S4.** Catalytic degradation efficiency of  $\text{Cu}_2\text{O}$  mesh for four tetracycline antibiotics.



**Fig. S5.** Properties of  $\text{Cu}_2\text{O}(111)$ : (a) geometry structure, (b) partial and total density of states distribution, and (c) band structure.

