Supporting Information

One-step hydrothermal fabrication of CuO/TiO_2@SA superhydrophobic composite coating for efficient oil–water separation and anti-icing

Jiajia Luo[a†], Xinyu Pei[a†], Hongying Shi[a], Jia Su[a], Yi Chen[a], Qin Yang[a], Jiwei Huang[c], Wenzhai Cao[c]*, Jianwen Zhang[b]*, Junying Chen[a]*.

a. Key Laboratory of Advanced Technology of Materials, Ministry of Education, School of Materials Science and Engineering, Southwest Jiaotong University, Chengdu 610031, China.

b. School of Materials and Chemistry, Southwest University of Science and Technology, Mianyang, 621010, PR China.

c. Cardiology Department, Zigong first people's hospital, Zigong 643000, China.

* Corresponding author.

†These authors contributed equally to do this work and should be considered co-first authors.

E-mail address: 3371670265@qq.com, xinyupei@my.swjtu.edu.cn, 3458687903@qq.com, 907806752@qq.com, 528521048@qq.com, 3242274288@qq.com, huanqjiwei1982@126.com, caowenzhai@163.com, chenjunying@swjtu.edu.cn, zhangjianwen@swust.edu.cn

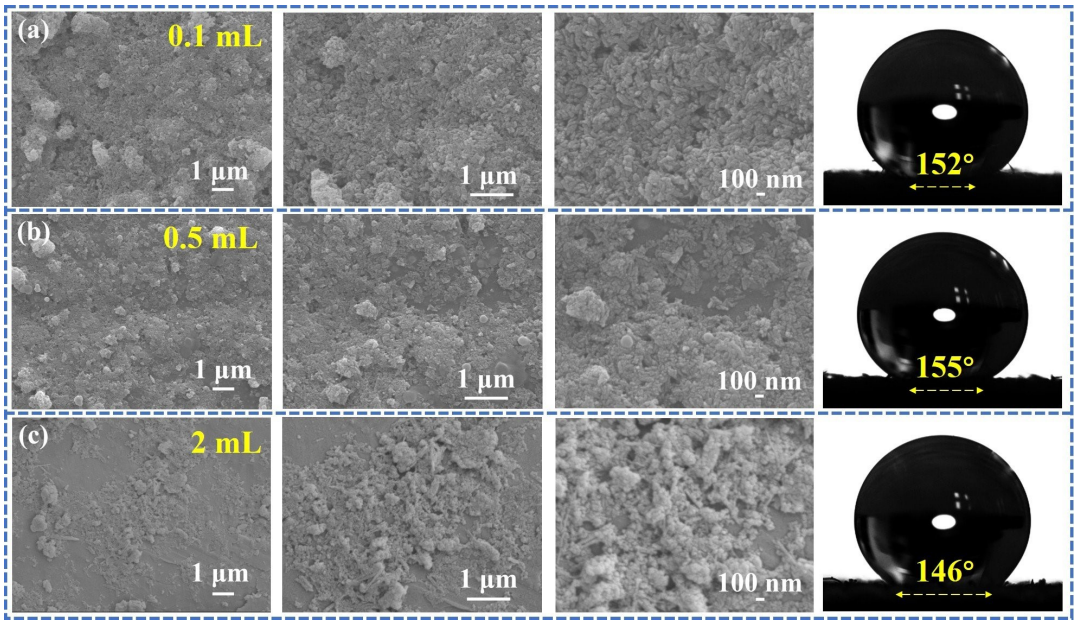

Figure S1. Figure S1. (a–c) SEM images of CuO/TiO_2 composite particles synthesized using 0.1 mL, 0.5 mL, and 2 mL of butyl titanate.

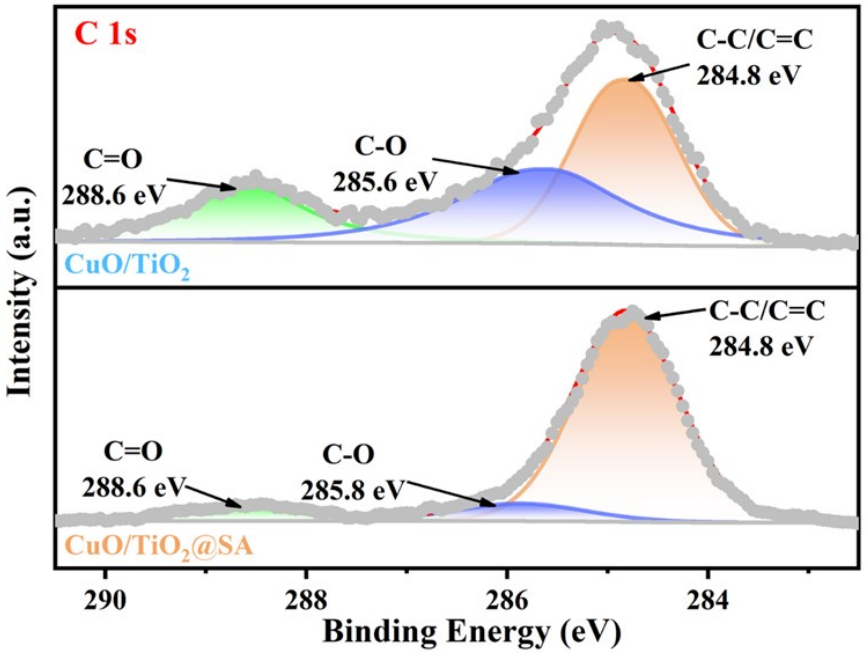

Figure S2. High-resolution C 1s spectra of CuO/TiO_2 composite particles and CuO/TiO_2@SA.

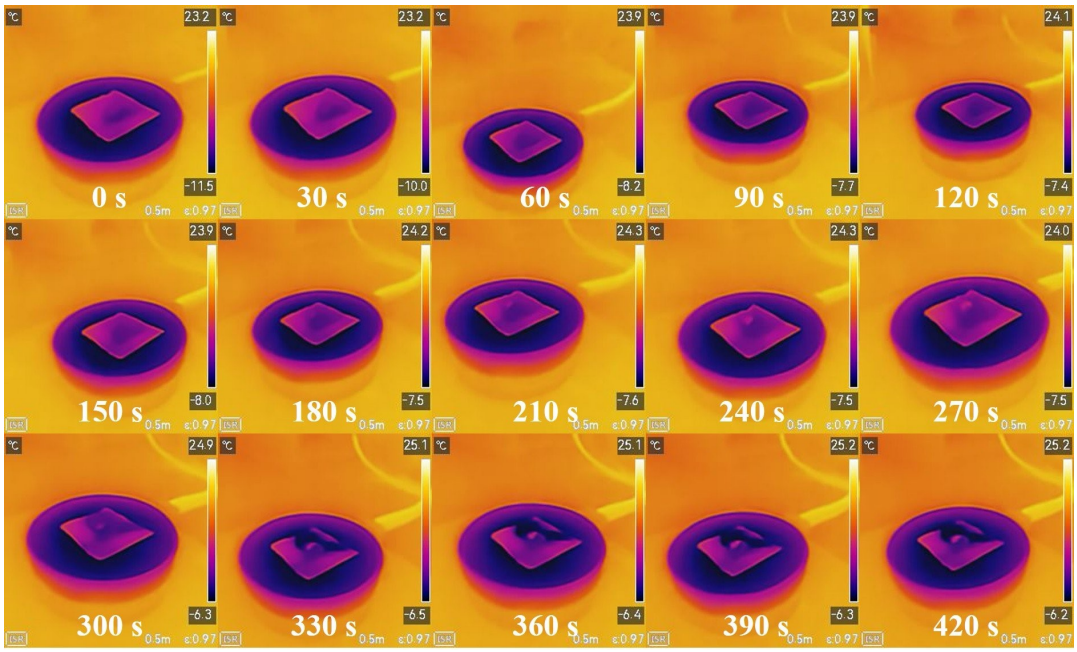

Figure S3. Infrared thermal imaging of pure fabric during 808 nm near-infrared irradiation.

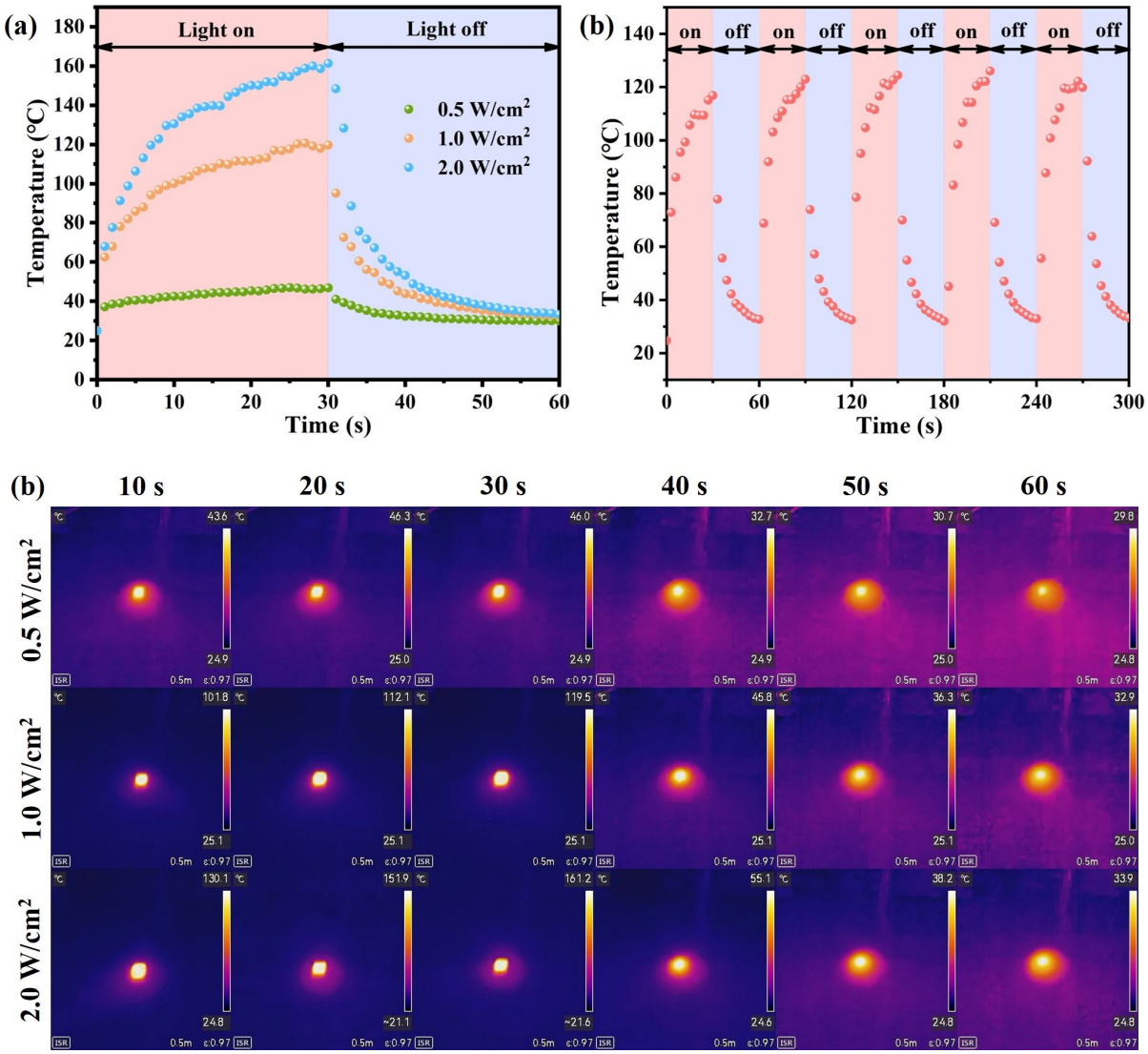

Figure S4. Photothermal reaction. (a) Temperature rise curves under different light intensities. (b) Stability after five times of photothermal cooling under 1.0 W/cm^2 808 nm near-infrared light. (c) Infrared thermal images under different light intensities.