

Electronic Supporting Information

**Harsh environmental-tolerant, superhydrophilic and
underwater superoleophobic cellulose hydrogel-coated
copper foam for efficient and repeatable oil/water
separation**

Yichun Zhang ^a, Qinhan Shi ^a, Zhiguang Guo ^{*a,b}

^a Ministry of Education Key Laboratory for the Green Preparation and Application of Functional Materials, Hubei University, Wuhan 430062, People's Republic of China.

^b State Key Laboratory of Solid Lubrication, Lanzhou Institute of Chemical Physics, Chinese Academy of Sciences, Lanzhou 730000, People's Republic of China.

E-mail: zguo@licp.cas.cn; Fax: +86-931-8277088; Tel.: +86-931-4968105

Electronic Supplementary Movies:

Movie S1: Water wetting process of copper foam in air.

Movie S2: Water wetting process of copper foam@cellulose in air.

Movie S3: Underwater oil resistance test of copper foam@cellulose.

Movie S4: Gravity-driven separation experiments of n-hexane/water mixtures.

Movie S5: Water wetting process of copper foam@cellulose after 15 wear cycles in air.

Movie S6: Water wetting process of copper foam@cellulose after 30 wear cycles in air.