

### Supporting information

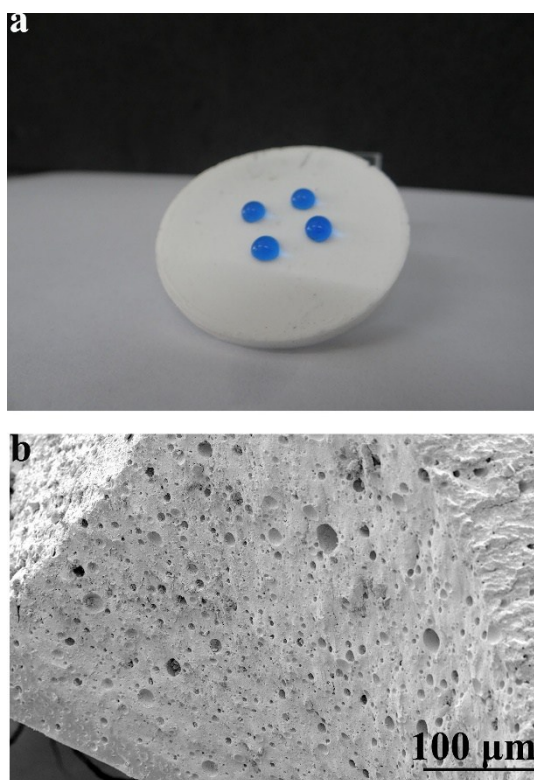


Fig. S1 (a) The water droplets were pinned on superhydrophobic surface without abrasion. (b) The section of superhydrophobic monomer.

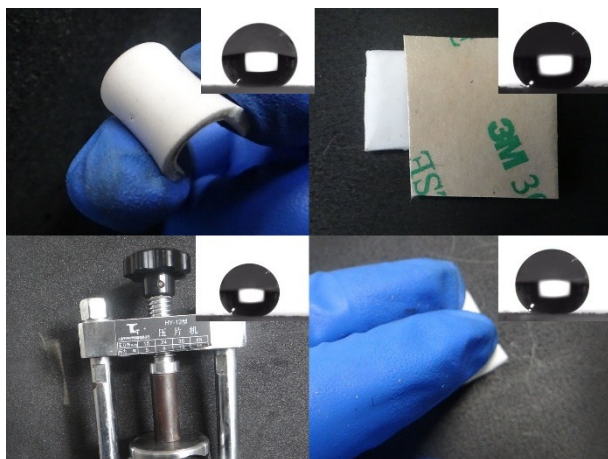


Fig. S2 the mechanical properties of superhydrophobic monomer.

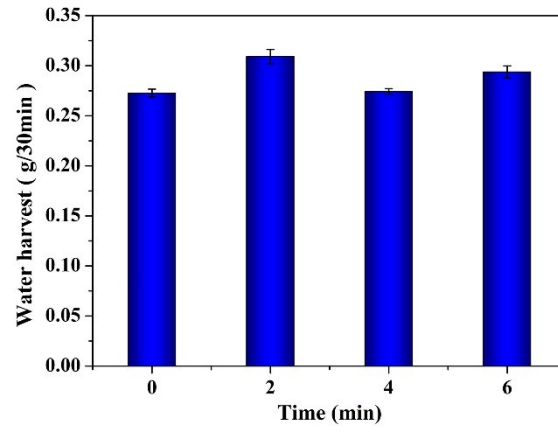


Fig. S3 water collection varies with compression frequency during 30 min. ( $S=5.7 \text{ mm}^2$ )