## **Electronic Supplementary Information**

## Floatable Superhydrophobic Ag<sub>2</sub>O Photocatalyst without Modifier and Its Controllable Wettability by Particle Size Adjustment

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Figure S1. SEM results of superhydrophobic Ag<sub>2</sub>O pressed at 5 Kpa



Figure S2. XPS wide survey spectra Results of Superhydrophilic  $Ag_2O$  and Superhydrophobic  $Ag_2O$ 



Figure S3. TGA Results of Superhydrophobic  $Ag_2O$  and Superhydrophilic  $Ag_2O$