**Supporting Information** 

## Ultralow Density, Hollow Silica Foams Through Interfacial Reaction and Their Exceptional Properties for Environmental and Energy Applications

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Figure S2. XRD patterns of the synthesized silica foam.



Figure S1. Size distribution of the synthesized silica foam.



45 Figure S3. N<sub>2</sub> adsorption-desorption isotherms (a) and BJH desorption pore size distribution (b) of the silica foam.

150

100

0

50

200

Pore size  $(A^0)$ 

250

300 350

20

25

30

35





<sup>5</sup> Figure S4. SEM image (a) and size distribution (b) of the synthesized silica foam by adding 0.01 wt% of octyl phenol polyethylene oxide.