

## Supporting Information for

# Formation of Copper Oxide Nanotextures on Porous Calcium Carbonate Templates for Water Treatment

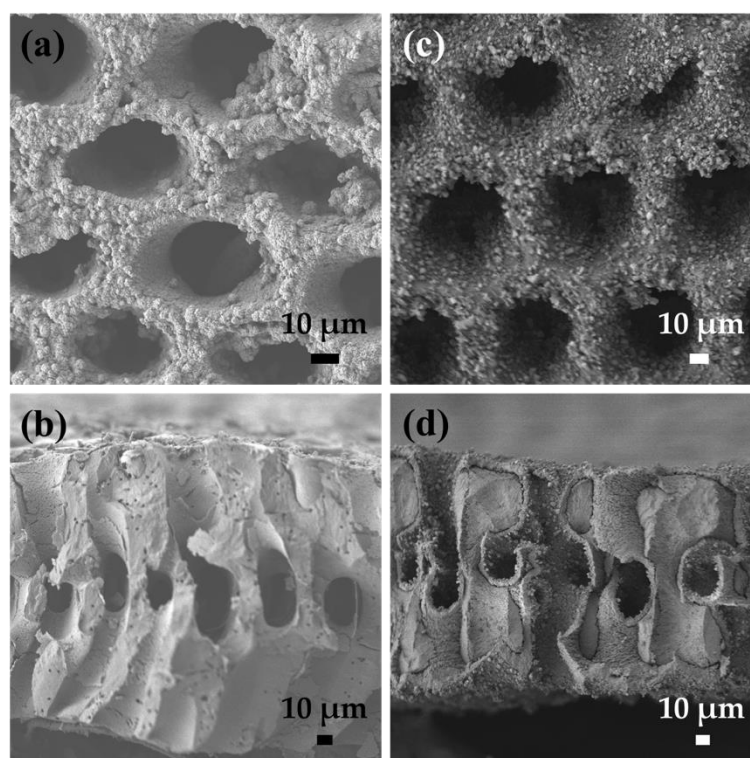
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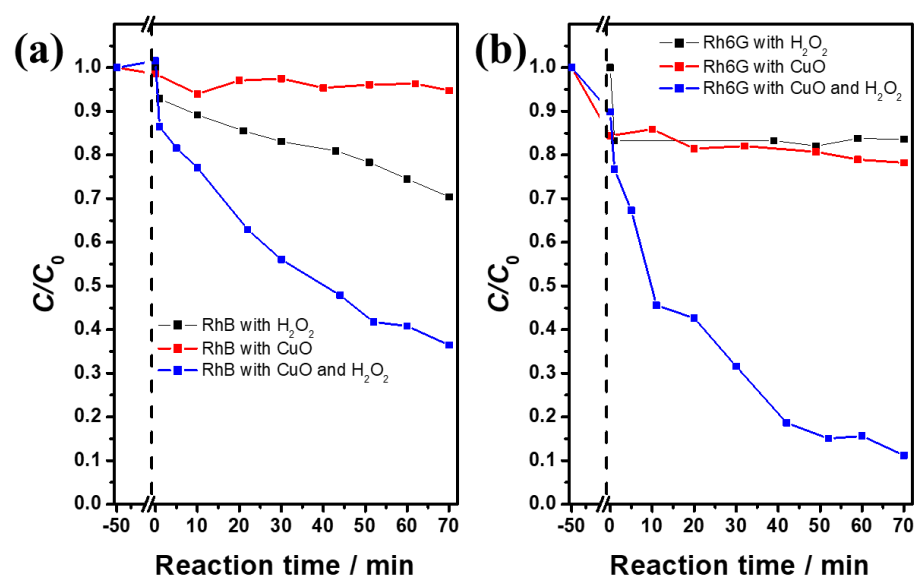
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**Figure S1.** SEM images of *Sorites*@Cu<sub>2</sub>Cl(OH)<sub>3</sub>, obtained after reacting the *Sorites* (a,b) with 25 mg of CuCl<sub>2</sub> at 120 °C for 45 min, and (c,d) with 200 mg of CuCl<sub>2</sub> at 120 °C for 7 h.

The measured thickness of the coating layer (Figure S1b) when using the standard reaction conditions but a smaller copper salt amount (25 mg instead of 200 mg) results in 0.5 μm thickness (compared to 1–2 μm, see Figure 2h).

The measured thickness of the coating layer (Figure S1d) when using the standard reaction conditions but a longer reaction time (7 h instead of 45 min) results in a thicker 5–10 μm layer (compared to 1–2 μm, see Figure 2h).



**Figure S2.** Degradation of (a) RhB and (b) Rh6G using different catalysts. The vertical black dashed lines show the time of degradation initiation ( $t = 0$ ). Black: the dyes were mixed with  $H_2O_2$  only; red: the dyes were mixed with the *Sorites*@CuO only; blue: the dyes were mixed with both  $H_2O_2$  and *Sorites*@CuO.