

## Electronic Supplementary Information

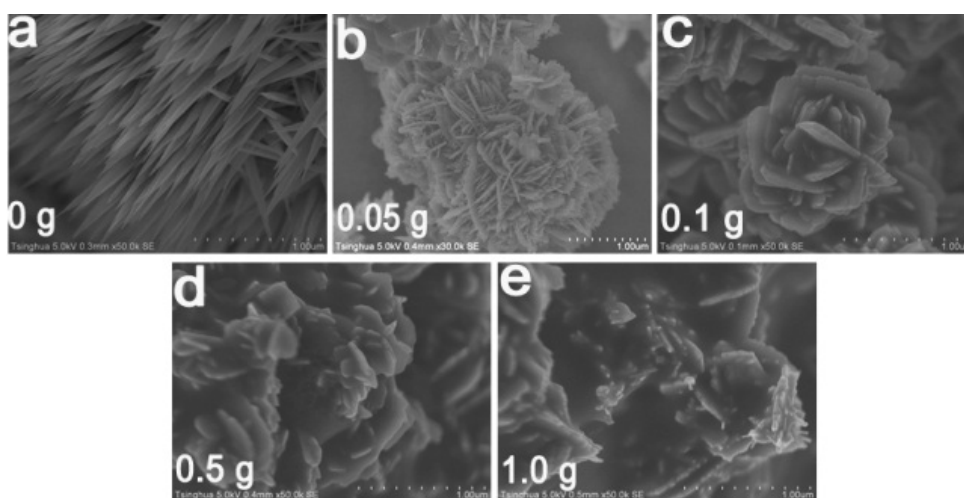
### Fine control over the morphology and photocatalytic activity of 3D ZnO hierarchical nanostructures: capping vs. etching

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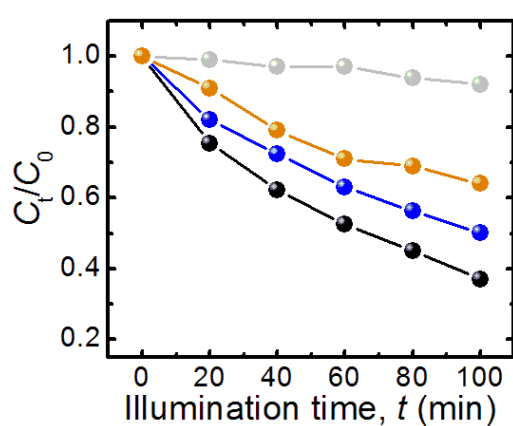
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**Fig. S1** FESEM images of the ZnO nanostructures with the addition of different amount of CA.



**Fig. S2** Degradation of RhB solutions in the presence of different ZnO photocatalysts, including N-SFs (blue curve), NFs (black curve), commercial ZnO powders (orange curve), and without any photocatalyst (gray curve) under visible light irradiation ( $\lambda > 420$  nm). It can be seen that all ZnO samples exhibit photocatalytic activities, and the photocatalytic degradation of RhB follows the order: NFs > N-SFs > commercial ZnO powders.