## **Supporting Information**

## Noninjection Ultralarge-Scaled Synthesis of Shape-Tunable CdS

## Nanocrystals as Photocatalysts

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**Fig. S1** TEM images of CdS NCs with spheres (A), branches (B) and flowers (C) after the reaction was scaled up.



**Fig. S2** TEM images of CdS NCs obtained under different amounts of OA: 3.0 mL (A), 5.0 mL (B), 10.0 mL (C), and 20.0 mL (D).



**Fig. S3** Temporal evolution of the absorption spectra of RhB aqueous solution without the presence of CdS NCs under UV light irradiation.



**Fig. S4** Temporal evolution of the absorption spectra of RhB in the presence of CdS NCs with different shapes of (A) Tetrahedrons (B) Branches (C) Flowers (D) Spheres.