Electronic Supplementary Material (ESI) for New Journal of Chemistry.

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## Two-dimensional ReSe<sub>2</sub> nanosheets as a high-performance photocatalyst

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## Synthesis of ReSe<sub>2</sub> nanosheets

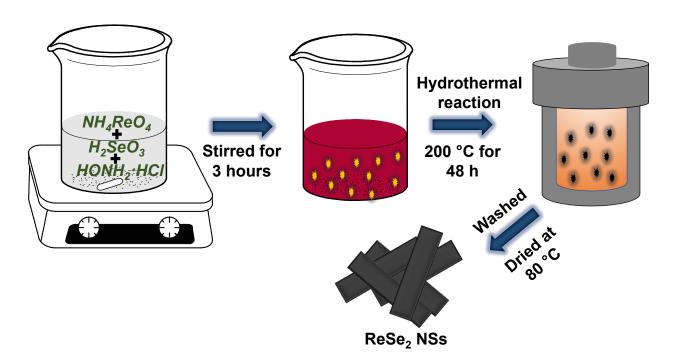


Figure S1: Schematic illustration for the synthesis of ReSe<sub>2</sub> nanosheets *via* hydrothermal method.

## SEM images of ReSe<sub>2</sub> nanosheets

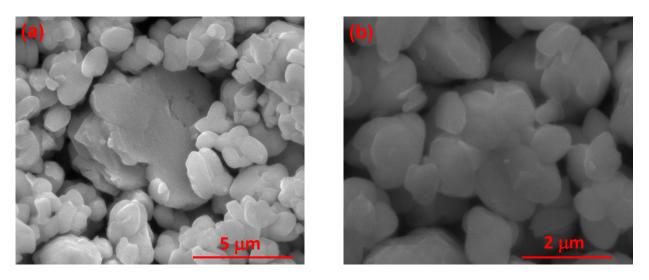
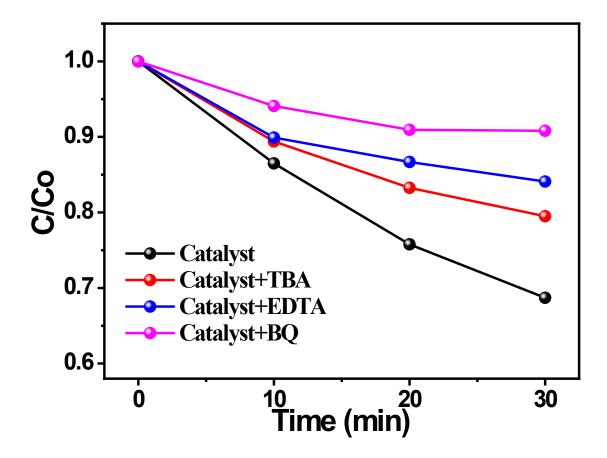


Figure S2: SEM images of ReSe<sub>2</sub> nanosheets at different magnifications.

## Trapping experiment of active species



**Figure S3:** Photocatalytic activity of ReSe<sub>2</sub> nanosheets with TBA, EDTA, and BQ scavengers for degradation of Rh.B. under visible light.