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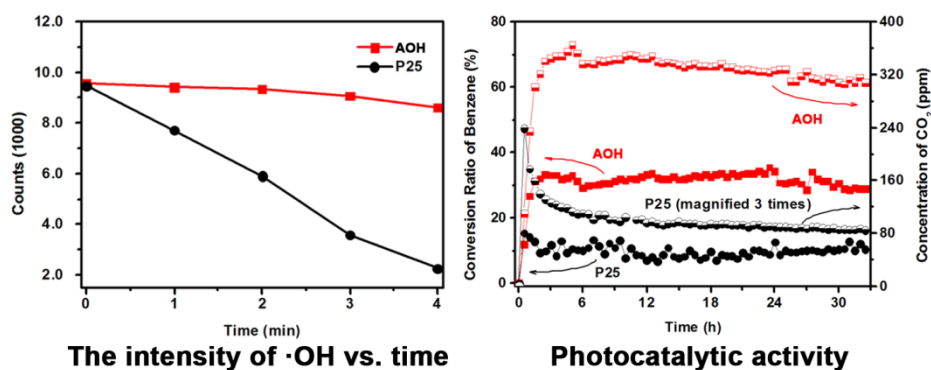
Antimony Oxide Hydrate ($\text{Sb}_2\text{O}_5 \cdot 3\text{H}_2\text{O}$) as a Simple and High Efficient Photocatalyst for Oxidation of Benzene

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Graphical Abstracts



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Highlights

- 1. $\text{Sb}_2\text{O}_5 \cdot 3\text{H}_2\text{O}$ is used for photocatalytic oxidation of benzene for the first time;
- 2. $\text{Sb}_2\text{O}_5 \cdot 3\text{H}_2\text{O}$ is stable and high efficient;
- 3. Large amount of $\text{O}_2^{\bullet-}$ and long lifetime of $\cdot\text{OH}$ are detected over $\text{Sb}_2\text{O}_5 \cdot 3\text{H}_2\text{O}$;
- 4. $\text{Sb}_2\text{O}_5 \cdot 3\text{H}_2\text{O}$ is prepared by facile method containing only one metal element;
- 5. The inexpensive and high efficient photocatalyst has industrial application value.

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