

Supporting Information

Tube-like $\alpha\text{-Fe}_2\text{O}_3@Ag/AgCl$ Heterostructure: Controllable Synthesis and Enhanced Plasmonic Photocatalytic Activity

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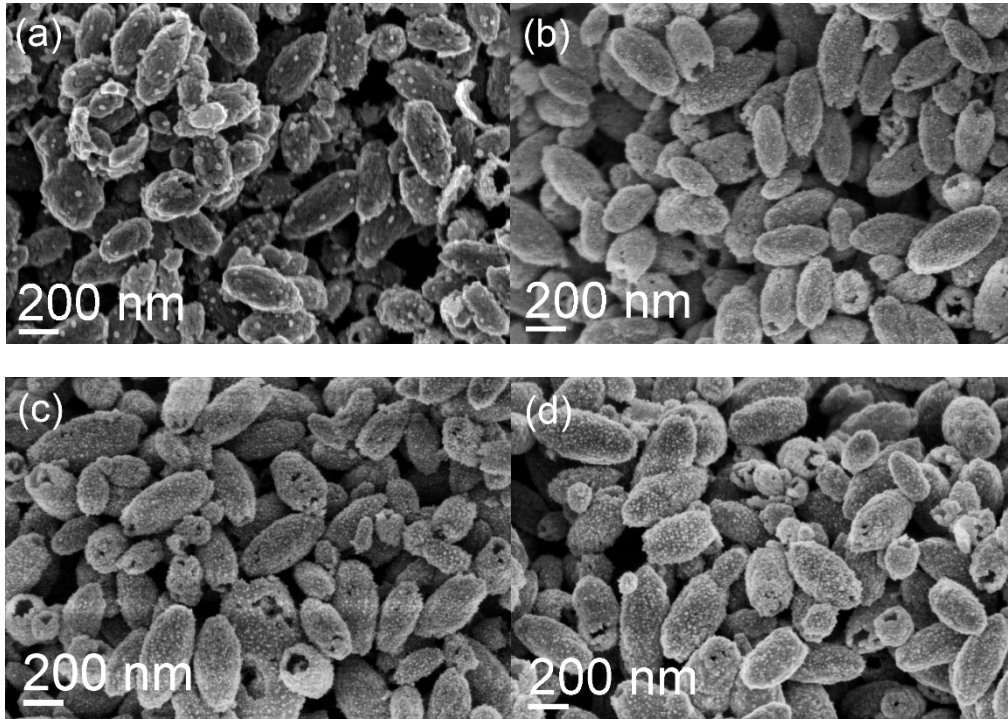


Figure S1. SEM images of $\alpha\text{-Fe}_2\text{O}_3\text{@Ag}$ SNTs with different Ag ions addition, (a) 0.1 mM, (b) 0.2 mM, (c) 0.4 mM and (d) 0.8 mM

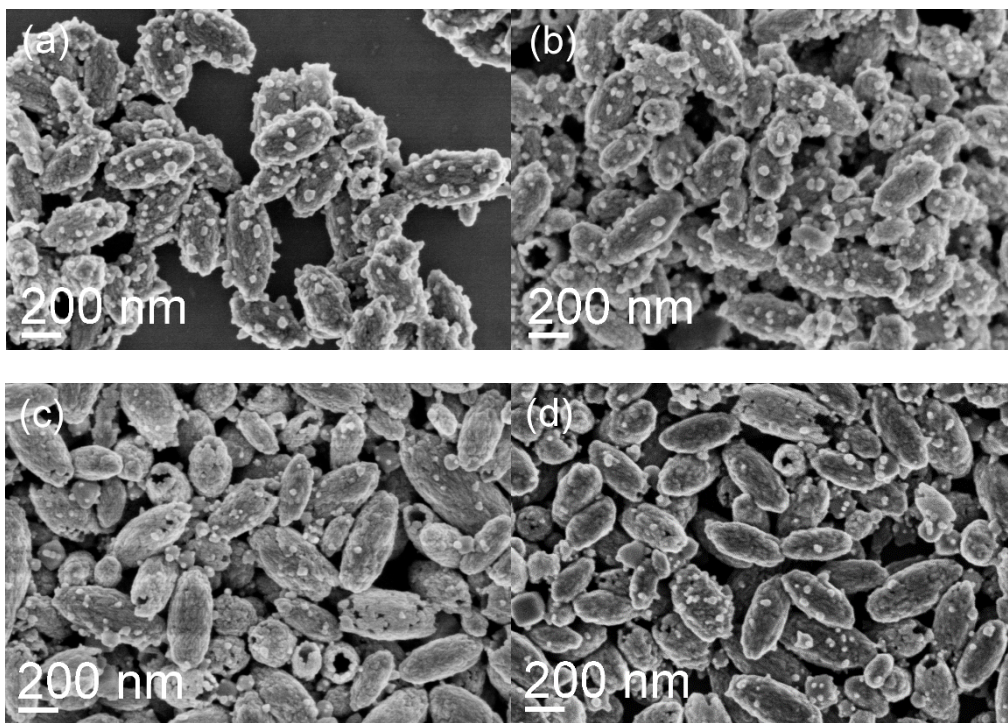


Figure S2. SEM images of $\alpha\text{-Fe}_2\text{O}_3\text{@Ag/AgCl}$ SNTs with different FeCl_3 oxidant addition. (a) 0.5 mL (sample S1), (b) 1.0 mL (sample S2), (c) 1.5 mL (sample S3), (d) 2.0 mL (sample S4)

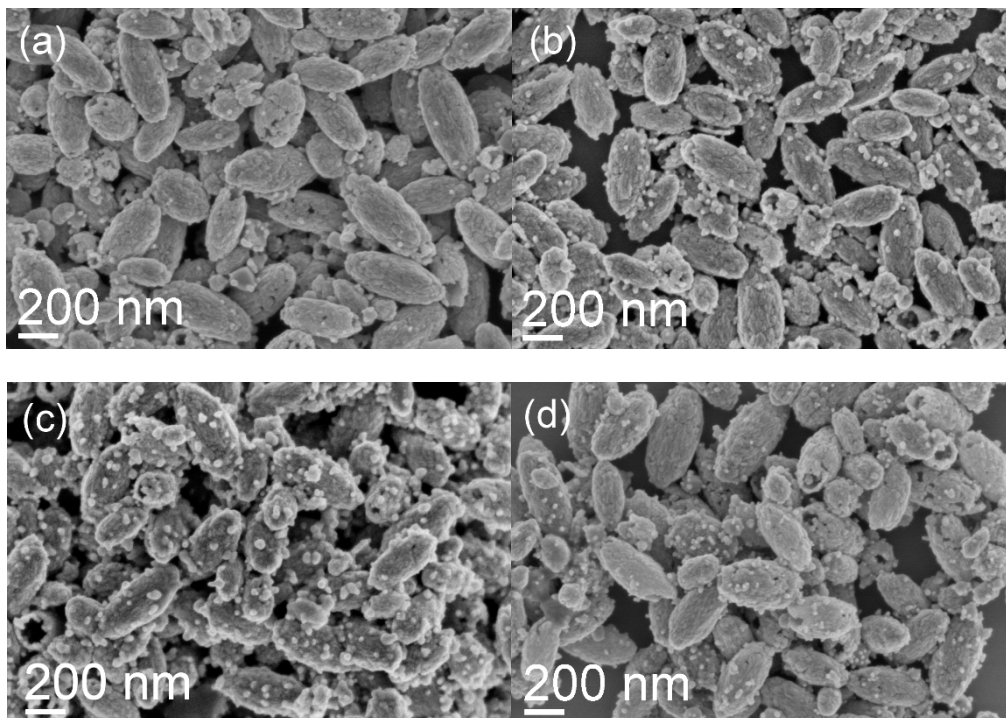


Figure S3. SEM images of $\alpha\text{-Fe}_2\text{O}_3\text{@Ag/AgCl}$ SNTs which are produced by oxidation of the corresponding $\alpha\text{-Fe}_2\text{O}_3\text{@Ag}$ SNTs with different Ag ions addition in Figure S1. (a) 0.1 mM (sample S5), (b) 0.2 mM (sample S6), (c) 0.4 mM (sample S2) and (d) 0.8 mM (sample S7)

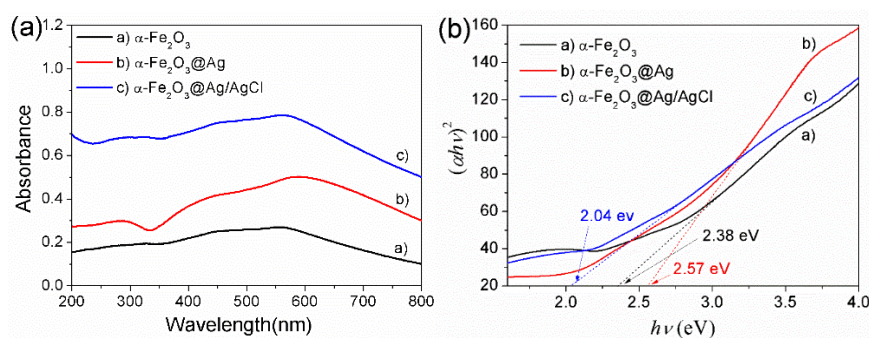


Figure S4. (a) UV-visible absorption spectra of $\alpha\text{-Fe}_2\text{O}_3$ a), $\alpha\text{-Fe}_2\text{O}_3\text{@Ag}$ b) and $\alpha\text{-Fe}_2\text{O}_3\text{@Ag/AgCl}$ c, sample 2); (b) The $(ah\nu)^2\text{-}h\nu$ curves of $\alpha\text{-Fe}_2\text{O}_3$ a), $\alpha\text{-Fe}_2\text{O}_3\text{@Ag}$ b) and $\alpha\text{-Fe}_2\text{O}_3\text{@Ag/AgCl}$ c).