

Silver Reduction by Photocatalysis on α -FeOOH Surface

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Under UV light irradiation ($\lambda \geq 320$ nm), the photoreduction of silver ions on the surface of α -FeOOH occurs in an aqueous solution. The adsorption isotherm of Ag^+ on α -FeOOH was of the Langmuir type. The Langmuir-Hinshelwood kinetic model was used to describe the photoreduction reaction. From the TEM image, the average size of the produced Ag particles was about 25 nm. The mechanism of the photoinduced reduction of silver ions is semiconductor photocatalysis.

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