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The Fabrication and Photocatalytic Performances of Flower-like Ag nanoparticles/ZnO nanosheets-assembled Microspheres

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Abstract: A new micro/nanostructure photocatalyst, Ag nanoparticles decorated ZnO nanosheets-assembled microspheres (Ag-NPs/ZnOs), was synthesised by a two-step method. The flower-like micron-sized ZnO spheres assembled with ~25 nm thick ZnO nanosheets were initially fabricated via a facile solvothermal method. Then, highly dispersed Ag nanoparticles (Ag-NPs) with dimension ranging from 15 to 50 nm were anchored onto the surface of the each ZnO nanosheet by the Sn(II) ion activation method. The as-prepared Ag-NPs/ZnOs demonstrated enhanced photocatalytic performance in eliminating methylene blue and methyl orange aqueous solutions

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