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Green and Facile Fabrication and Characterization of Fe/ZnO Hollow Spheres and Photodegradation of Azo Dyes

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Abstract : In this work, Fe/ZnO hollow spherical structures with high surface area using the template glucose was prepared by the hydrothermal method using an ultrasonic bath at room temperature was produced and were identified by FT-IR, XRD, FE-SEM and BET. The photocatalytic activity of synthesized spherical Fe/ZnO hollow sphere were studied in the destruction of Congo Red and Methylene Blue as Azo dyes. The results showed that the photocatalytic activity of Fe/ZnO hollow spherical structures is improved compared with ZnO hollow sphere and other morphologys.

Keywords : azo dyes, Fe/ZnO hollow sphere, hollow sphere nanostructures, photocatalyst
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