

Application of Magnetic-Nano Photocatalyst for Removal of Xenobiotic Compounds

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Abstract : In recent years, the photochemistry of nanomagnetic particles is being utilized for the removal of various pollutants. In the current era where large quantities of various xenobiotic compounds are released in the environment some of which are highly toxic are being used routinely by industries and consumers. Extensive use of these chemicals provides greater risk to plants, animals and human population which has been reviewed from time to time. Apart from the biological degradation, photochemical removal holds considerable promise for the abatement of these pesticides in wastewaters. This paper reviews the photochemical removal of xenobiotic compounds. It is evident from the review that removal depends on several factors such as pH of the solution, catalysts loading, initial concentration, light intensity and so on and so forth. Since the xenobiotics are ubiquitously present in the wastewaters, photochemical technology seems imperative to alleviate the pollution problems associated with the xenobiotics. However, commercial application of this technology has to be clearly assessed.

Keywords : magnetic, nanoparticles, photocatalayst, xenobiotic compounds

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