PHOTOMINERALIZATION OF CARBOFURAN BY TiO_2-SUPPORTED CATALYST

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(Received January 1996; accepted in revised form January 1997)

Abstract—Purification of water using TiO_2 as a photocatalyst has attracted a great deal of attention. The technical limitation of using the powder form of TiO_2 is the separation of the catalyst. It has been found that TiO_2 microcrystallites can be firmly affixed to the glass plates without any deactivation. As an example, mineralization of carbofuran was tested. Results indicated that total mineralization can be achieved after 15 h of irradiation. This method is a low-cost process and plates can be reused without any deactivation. The major drawback is the requirement of UV irradiation for the water decontamination. © 1997 Elsevier Science Ltd

Key words—photocatalysts, carbofuran, microcrystallites, titanium dioxide, semiconductor photocatalysis