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Decoloration and Degradation of Erythrosine by Gamma Irradiation

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In this study, the decoloration and mineralisation of aqueous solution of the erythrosine dye irradiated under gamma rays from ^{60}Co are investigated. From the results of absorption UV visible spectra erythrosine solution as function of dose, the concentration of erythrosine decrease exponentially with increasing the gamma irradiation dose and the plot on a logarithmic scale against the dose shows a clear pseudo first order rate. The apparent pseudo first order constant was calculated. The change in decoloration percentage removal of chemical oxygen demand (COD) and total organic carbon (TOC) were investigated with respect to the applied dose influences of absorbed doses. Complete mineralization of erythrosine dye was achieved with gamma irradiation.

Country/Organization invited to participate

Tunisia

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