

عنوان مقاله:

Study of photocatalytic efficiency of immobilized TiO₂ nano particles on tile with white cement in a rectangular continuous photoreactor

محل انتشار:

چهاردهمین کنگره ملی مهندسی شیمی ایران (سال: 1391)

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خلاصه مقاله:

The novel rectangular continuous photoreactor equipped in ultraviolet (UV) light is studied for the degradation of Acid Red 14 as a model of organic pollutant in water. TiO₂ photocatalysts have been immobilized on the tile by white cement. The tile has been applied as a support for photocatalyst, because can be easily removed and replaced in a reactor, what facilitates the performance of the photocatalytic process. Removal efficiency of Acid red 14 depend on operational parameters such as TiO₂ content (TiO₂/cement, w/w ratio), pH, initial concentration of dye. Neutral pH and room temperature found to be optimum conditions

کلمات کلیدی:

Nano TiO₂, White cement, Rectangular Continuous Photoreactor

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