

عنوان مقاله:

Investigation of the Effect of Heat treatment on Particle Size, Crystal Structure and Photocatalytic Activity of TiO₂ Nanoparticle

محل انتشار:

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خلاصه مقاله:

The photocatalytic degradation of C.I. Acid Red 88 (AR88), an anionic monoazo dye of acid class, in aqueous solutions was investigated with heat treated TiO₂ powder. The results indicate that the heat treated photocatalist at 500 °C within 2 h shows the highest photocatalytic activity which can effectively degrade AR88 under UV-irradiation. An increase in calcinations temperature led to a reduction in TiO₂ activity, which may be related to the anatase-rutile phase transformation.

کلمات کلیدی:

TiO₂ nanoparticle; Heat treatment; Photocatalytic activity; C.I. Acid Red 88

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