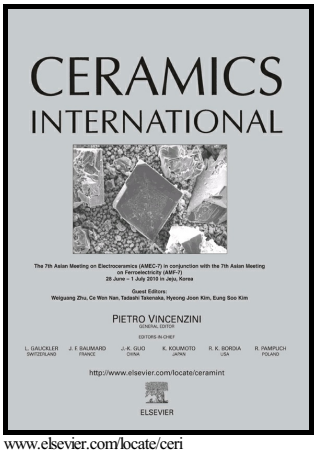

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Enhancing the photocatalytic oxidation of dibenzothiophene using visible light responsive Fe and N co-doped TiO_2 nanoparticles

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Abstract

Fe and N co-doped TiO_2 nanoparticles were synthesized by an ultrasonic assisted impregnation reaction method. The prepared samples were characterized using XRD, BET, FE-SEM, XPS, FT-IR, and UV-vis DRS techniques. Fe and N co-doping resulted in a decrease in the crystallite size and an increase in the specific surface area. Photocatalytic oxidation of dibenzothiophene (DBT) in diesel model