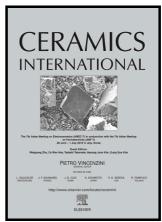
Author's Accepted Manuscript

Enhancing the photocatalytic oxidation of dibenzothiophene using visible light responsive Fe and N co-doped TiO₂ nanoparticles

Kaveh Kalantari, Mansour Kalbasi, Morteza Sohrabi, Sayed Javid Royaee



www.elsevier.com/locate/ceri

PII: S0272-8842(16)31778-3

DOI: http://dx.doi.org/10.1016/j.ceramint.2016.10.028

Reference: CERI13907

To appear in: Ceramics International

Received date: 13 August 2016 Revised date: 3 October 2016 Accepted date: 4 October 2016

Cite this article as: Kaveh Kalantari, Mansour Kalbasi, Morteza Sohrabi an Sayed Javid Royaee, Enhancing the photocatalytic oxidation of dibenzothiophen using visible light responsive Fe and N co-doped TiO₂ nanoparticles, *Ceramic International*, http://dx.doi.org/10.1016/j.ceramint.2016.10.028

This is a PDF file of an unedited manuscript that has been accepted fo publication. As a service to our customers we are providing this early version o the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain

ACCEPTED MANUSCRIPT

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

Kaveh Kalantari^a, Mansour Kalbasi^{a*}, Morteza Sohrabi^{a,b}, Sayed Javid Royaee^c

^aDepartment of Chemical Engineering, Amirkabir University of Technology, P.O. Box 15875-4413, Tehran, Iran.

^bIran Academy of Science, Tehran, Iran

^cPetroleum Refining Technology Development Division, Research Institute of Petroleum Industry, Tehran, Iran

*Corresponding author: Tel.: +98 21 64543154; fax: +98 21 66405847. mkalbasi@aut.ac.ir

Abstract

Fe and N co-doped TiO₂ 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

Download English Version:

https://daneshyari.com/en/article/5439156

Download Persian Version:

https://daneshyari.com/article/5439156

<u>Daneshyari.com</u>