

Accepted Manuscript

Title: Preparation of magnetite-based catalysts and their application in heterogeneous Fenton oxidation –A review

Author: Macarena Munoz Zahara M.de Pedro Jose A. Casas
Juan J. Rodriguez



PII: S0926-3373(15)00184-8
DOI: <http://dx.doi.org/doi:10.1016/j.apcatb.2015.04.003>
Reference: APCATB 13968

To appear in: *Applied Catalysis B: Environmental*

Received date: 2-2-2015
Revised date: 27-3-2015
Accepted date: 3-4-2015

Please cite this article as: Macarena Munoz, Zahara M.de Pedro, Jose A.Casas, Juan J.Rodriguez, Preparation of magnetite-based catalysts and their application in heterogeneous Fenton oxidation ndashA review, Applied Catalysis B, Environmental <http://dx.doi.org/10.1016/j.apcatb.2015.04.003>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final 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.

Preparation of magnetite-based catalysts and their application in heterogeneous Fenton oxidation –A review

Macarena Munoz*, Zahara M. de Pedro, Jose A. Casas and Juan J. Rodriguez

Seccion Departamental Ingenieria Quimica, Universidad Autonoma de Madrid, Ctra. Colmenar km 15, 28049 Madrid, Spain

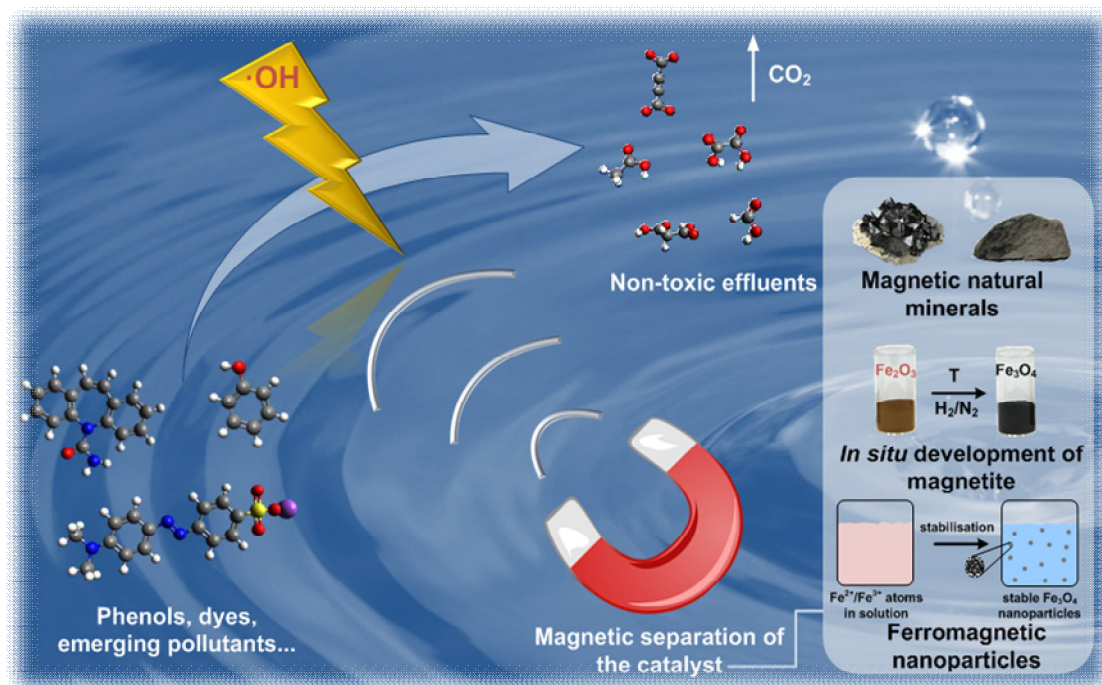
*Corresponding author phone: +34 91 497 3991; fax: +34 91497 3516; e-mail: <ABS-
Highlights ►

HEAD>macarena.munnoz@uam.es

Highlights

- The state of the art on the application of magnetic catalysts in CWPO has been studied.
- Magnetic natural minerals present high availability and low cost but low stability.
- *In-situ* produced magnetic catalysts show higher activity than conventional CWPO ones.
- Magnetic nanoparticles present high activity but suffer from iron leaching and aggregation.
- Magnetic catalysts represent a promising alternative to the conventional CWPO catalysts.

Graphical abstract



Abstract

This study presents a critical review on the application of magnetite-based catalysts to industrial wastewater decontamination by heterogeneous Fenton

Download English Version:

<https://daneshyari.com/en/article/6499883>

Download Persian Version:

<https://daneshyari.com/article/6499883>

[Daneshyari.com](https://daneshyari.com)