

Accepted Manuscript

Title: Commercial aluminum oxides with different crystalline structures efficient for the mineralization of phenolic pollutants

Authors: Yanet Piña-Pérez, Octavio Aguilar-Martínez, Socorro Oros-Ruíz, Ricardo Gómez, Francisco Tzompantzi



PII: S1010-6030(17)31435-1
DOI: <https://doi.org/10.1016/j.jphotochem.2017.11.051>
Reference: JPC 11035

To appear in: *Journal of Photochemistry and Photobiology A: Chemistry*

Received date: 2-10-2017
Revised date: 28-11-2017
Accepted date: 29-11-2017

Please cite this article as: Yanet Piña-Pérez, Octavio Aguilar-Martínez, Socorro Oros-Ruíz, Ricardo Gómez, Francisco Tzompantzi, Commercial aluminum oxides with different crystalline structures efficient for the mineralization of phenolic pollutants, *Journal of Photochemistry and Photobiology A: Chemistry* <https://doi.org/10.1016/j.jphotochem.2017.11.051>

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.

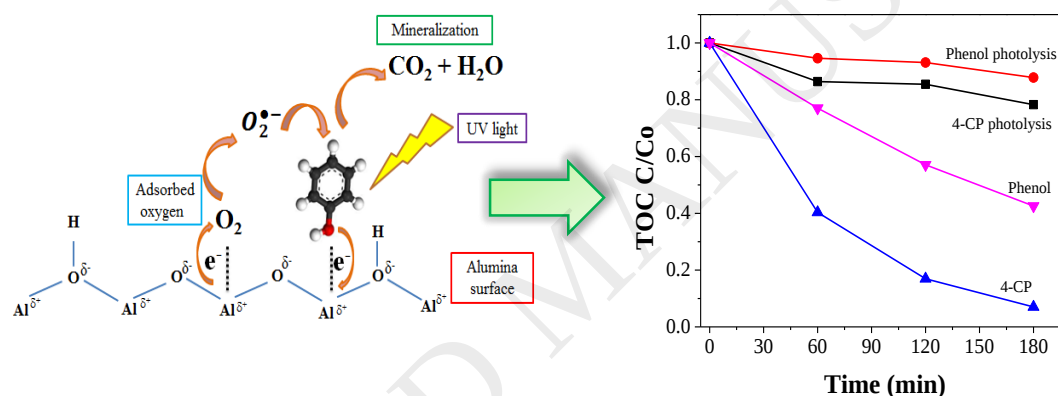
Commercial aluminum oxides with different crystalline structures efficient for the mineralization of phenolic pollutants

Yanet Piña-Pérez^{a,*}, Octavio Aguilar-Martínez^a, Socorro Oros-Ruiz^a, Ricardo Gómez^a and Francisco Tzompantzi^a

^aDepto. de Química, Área de catálisis, División de CBI, Universidad Autónoma Metropolitana-Iztapalapa, Av. San Rafael Atlixco 186, 09310 Iztapalapa, CDMX.

*Corresponding author. E-mail address: yanet_25@live.com.mx (Yanet Piña-Pérez)

Graphical Abstract



Highlights

- Commercial alumina is an innovative material for the mineralization of organic pollutants.
- The phenol mineralization is possible by using boehmite, γ -Al₂O₃, and α -Al₂O₃ phases.
- The sensitization process in commercial aluminum oxides is studied in the present work for the mineralization of phenol and 4-Chlorophenol.

1. Introduction

Phenol and phenolic substances are harmful organic compounds present in industrial wastewaters [1]. Aromatic compounds are common pollutants in waste effluents from many industrial sectors, such as petroleum refineries, synthetic chemical plants, plastics,

Download English Version:

<https://daneshyari.com/en/article/6492862>

Download Persian Version:

<https://daneshyari.com/article/6492862>

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