## Accepted Manuscript

Title: Preparation and Photocatalytic Property of Porous  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> Nanoflowers

Authors: Yunan Wang, Jianmin Wang, Ruiping Deng, Shiwei Xv, Xin Lv, Jun Zhou, Song Li, Feng Cao, Gaowu Qin



 PII:
 S0025-5408(18)30708-6

 DOI:
 https://doi.org/10.1016/j.materresbull.2018.07.013

 Reference:
 MRB 10094

 To appear in:
 MRB

 Received date:
 9-3-2018

 Revised date:
 11-6-2018

 Accepted date:
 10-7-2018

Please cite this article as: Wang Y, Wang J, Deng R, Xv S, Lv X, Zhou J, Li S, Cao F, Qin G, Preparation and Photocatalytic Property of Porous  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> Nanoflowers, *Materials Research Bulletin* (2018), https://doi.org/10.1016/j.materresbull.2018.07.013

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.

## ACCEPTED MANUSCRIPT

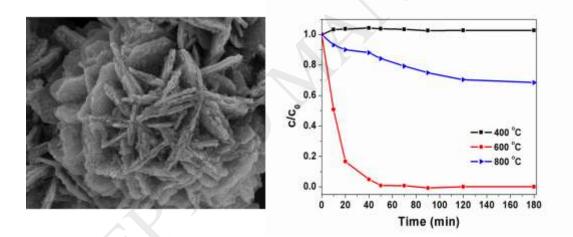
## **Preparation and Photocatalytic Property**

## of Porous a-Fe<sub>2</sub>O<sub>3</sub> Nanoflowers

Yunan Wang<sup>1</sup>, Jianmin Wang<sup>1</sup>, Ruiping Deng<sup>3</sup>, Shiwei Xv<sup>1</sup>, Xin Lv<sup>1</sup>, Jun Zhou<sup>1</sup>, Song Li<sup>1</sup>, Feng Cao<sup>\*1</sup>, Gaowu Qin<sup>\*12</sup>
<sup>1</sup>Key Laboratory for Anisotropy and Texture of Materials (Ministry of Education), School of Material Science and Engineering, Northeastern University, Shenyang 110819, P. R. China
<sup>2</sup>Northeastern Institute of Metal Materials Co. Ltd, Shenyang 110819, P. R. China
<sup>3</sup> State Key Laboratory of Rare Earth Resource Utilization, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun 130022, P. R. China

> <sup>†</sup>caof@atm.neu.edu.cn <sup>†</sup>qingw@smm.neu.edu.cn

#### **Graphical abstract**



### Highlights

- Porous  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> nanoflowers were successfully prepared by calcining Fe<sub>3</sub>S<sub>4</sub> precursor.
- The highest MO photocatalytic degradation efficiency could be up to more than 99% within 40 min.
- The formation mechanism of porous hierarchical structures and the reasons for achieving so brilliant photocatalytic performance are both elucidated clearly.

#### Abstract

Download English Version:

# https://daneshyari.com/en/article/7904328

Download Persian Version:

https://daneshyari.com/article/7904328

Daneshyari.com