

Accepted Manuscript

Title: Synthesis and Characterization of MnFe_2O_4
Nanoparticles for Impedometric Ammonia Gas Sensor

Author: Ramasamy Hari Vignesh Kalimuthu Vijaya Sankar
Samuthirapandian Amaresh Yun Sung Lee Ramakrishnan
Kalai Selvan



PII: S0925-4005(15)00591-2
DOI: <http://dx.doi.org/doi:10.1016/j.snb.2015.04.115>
Reference: SNB 18434

To appear in: *Sensors and Actuators B*

Received date: 28-10-2014
Revised date: 1-4-2015
Accepted date: 10-4-2015

Please cite this article as: R.H. Vignesh, K.V. Sankar, S. Amaresh, Y.S. Lee, R.K. Selvan, Synthesis and Characterization of MnFe_2O_4 Nanoparticles for Impedometric Ammonia Gas Sensor, *Sensors and Actuators B: Chemical* (2015), <http://dx.doi.org/10.1016/j.snb.2015.04.115>

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.

Highlights:

- For the first time MnFe_2O_4 is being used as the gas sensing material, particularly for ammonia gas sensing.
- The material detects as low as 10 ppm of ammonia which is lower than recommended level of 25 ppm
- The conductivity is found to increase in the order of 10^2 magnitudes with increasing concentration of ammonia.
- The sensitivity reaches 100% for ammonia.
- Shows specific selectivity to Ammonia gas than other toxic gases like chloroform, etc.

Download English Version:

<https://daneshyari.com/en/article/7145361>

Download Persian Version:

<https://daneshyari.com/article/7145361>

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