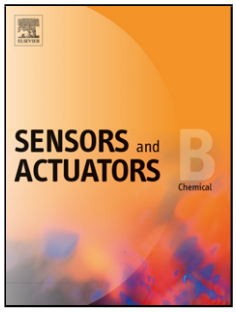

Title: Synchronous Synthesis and Sensing Performance of α-Fe_2O_3/SnO_2 Nanofiber Heterostructures for Conductometric C_2H_5OH Detection

Authors: Shuang Yan, Qingsheng Wu

PII: S0925-4005(18)31317-0
DOI: https://doi.org/10.1016/j.snb.2018.07.079
Reference: SNB 25048

To appear in: *Sensors and Actuators B*

Received date: 14-1-2018
Revised date: 1-7-2018
Accepted date: 14-7-2018

Please cite this article as: Yan S, Wu Q, Synchronous Synthesis and Sensing Performance of α-Fe_2O_3/SnO_2 Nanofiber Heterostructures for Conductometric C_2H_5OH Detection, *Sensors and Actuators: B. Chemical* (2018), https://doi.org/10.1016/j.snb.2018.07.079

Synchronous Synthesis and Sensing Performance of α-Fe_2O_3/SnO_2 Nanofiber Heterostructures for Conductometric C_2H_5OH Detection

AUTHORS

*Shuang Yan[1,2], Qingsheng Wu[1]**

ADDRESS

1. School of Chemical Science and Engineering, Tongji University, Shanghai 200092, China

2. School of Textile and Material Engineering, Dalian Polytechnic University, Dalian 116034, China

Corresponding Author:

Qingsheng Wu

E-mail: qswu@tongji.edu.cn

Tel: +86 21 65982620

Address: School of Chemical Science and Engineering, Tongji University, Siping Road 1239, Shanghai, 200092, China

Highlights:

- A facile synthesis method was provided to prepare α-Fe_2O_3/SnO_2 nanofibers heterostructures.
- Within the heterostructure, 0D α-Fe_2O_3 nanoparticles and 1D SnO_2 nanofibers were formed simultaneously.
- The Fe/Sn ratio can be adjusted by changing the diameter of SnO_2 backbone.
- The α-Fe_2O_3/SnO_2 nanofibers show superior ethanol sensing performance.