

Accepted Manuscript

Title: Oxygen vacancy engineering for enhanced sensing performances: A case of SnO₂ nanoparticles-reduced graphene oxide hybrids for ultrasensitive ppb-level room-temperature NO₂ sensing

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PII: S0925-4005(18)30667-1
DOI: <https://doi.org/10.1016/j.snb.2018.03.169>
Reference: SNB 24454

To appear in: *Sensors and Actuators B*

Received date: 21-12-2017
Revised date: 8-3-2018
Accepted date: 27-3-2018

Please cite this article as: Ziyang Wang, Tong Zhang, Tianyi Han, Teng Fei, Sen Liu, Geyu Lu, Oxygen vacancy engineering for enhanced sensing performances: A case of SnO₂ nanoparticles-reduced graphene oxide hybrids for ultrasensitive ppb-level room-temperature NO₂ sensing, *Sensors and Actuators B: Chemical* <https://doi.org/10.1016/j.snb.2018.03.169>

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**Oxygen vacancy engineering for enhanced sensing performances:
A case of SnO₂ nanoparticles-reduced graphene oxide hybrids for
ultrasensitive ppb-level room-temperature NO₂ sensing**

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Highlights

- SnO₂ nanoparticles decorated reduced graphene oxide hybrids with abundant oxygen vacancies have been prepared by two-step synthesis method.
- Novel NO₂ sensors have been fabricated SnO₂-RGO-OVs hybrids as sensing materials.
- SnO₂-RGO-OVs-based NO₂ sensor exhibit excellent room-temperature NO₂ sensing properties, including high sensitivity, fast response and recovery rate, and low detection limit.

Abstract

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