
Electrospun tin oxide nanofibers for low-temperature detection of ozone

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Abstract

This work explores the feasibility of nanostructured layers of tin oxide nanofibers as sensitive material for the detection of low levels of ozone (below 100 ppb) at low temperature (below 200 °C). Resistive gas sensors consisting of electrospun tin oxide nanofibers onto microhotplates have been prepared and their detection performance towards ozone characterized by using controlled gas mixtures. The effect on sensor detection properties of the sensor working temperature has been assessed.

Keywords: chemiresistive sensors, tin oxide nanofibers, electrospinning, ozone

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