



# High sensitive tellurium based NO<sub>2</sub> gas sensor

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## Abstract

For the first time it is shown, that tellurium based thin films exhibit high sensitivity to nitrogen dioxide at room temperature. The resistance of the tellurium films decreases reversibly in the presence of NO<sub>2</sub>. The sensitivity of this device depends on the gas concentration and it increases to lower concentrations less than 3ppm. The response time is considerably short and in the range of 2–3min.