

s 2020 0001

The invention relates to gas-sensitive devices, in particular to sensors for toxic gases from chalcogenide materials based on tellurium or its alloys, and can be used for the rapid detection of toxic gases in low concentrations at room temperature.

The toxic gas sensor, according to the invention, comprises a substrate, on which is grown an insulating film, on which are applied metal electrodes at a distance of 10...500 μm , and a gas-sensitive layer, made of chalcogenide material based on tellurium or its alloys with a thickness less than the thickness of the metal electrodes, and grown between them. The work function of the metal electrodes is greater than the work function of the gas-sensitive chalcogenide material.

Claims: 1

Fig.: 5