

Title (en)  
GAS SENSOR AND METHOD FOR THE PRODUCTION THEREOF

Title (de)  
GASSENSOR UND VERFAHREN ZU DESSEN HERSTELLUNG

Title (fr)  
CAPTEUR DE GAZ ET PROCEDE DE FABRICATION

Publication  
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Application  
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Abstract (en)  
[origin: WO2005012892A1] The invention relates to a gas sensor comprising a membrane layer (3) formed on a semiconductor substrate (2), an evaluation structure (7) being arranged on said substrate in an evaluation area (8) and a heating structure (9) outside the evaluation area (8), in addition to a gas-sensitive layer (10) arranged above the evaluation structure (7) and the heating structure (9), wherein said gas-sensitive layer (10) can be heated by the heating structure (9) and the electrical resistance of the gas-sensitive layer (10) can be evaluated by the evaluation structure (7). The heating structure (9) is arranged on an adhesion-promoting oxide layer (6) on the top surface of the membrane layer (3) and is separated from the gas-sensitive layer by a cover oxide layer (11). In order to enable reliable functionality of the gas sensor, that in the evaluation area (8), an adhesion-promoting layer (13) insensitive to oxide etching is arranged between the membrane layer (3) and the evaluation structure (7) or the evaluation structure (7) in the evaluation area (8) corresponding to the heating structure (9) is separated from the gas-sensitive layer (10) by the cover oxide layer (11), wherein the cover oxide layer (11) has contact holes (12) which uncover a central area of the surface of the evaluation structure (7) in order to produce a direct contact between the evaluation structure (7) and the gas-sensitive layer (10).

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