

Title (en)
HYBRID FILM TYPE SENSOR

Title (de)
SENSOR VOM HYBRIDSCHICHTTYP

Title (fr)
CAPTEUR DE TYPE FILM HYBRIDE

Publication
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Application
EP 00978779 A 20001120

Priority
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• US 44433499 A 19991119

Abstract (en)
[origin: WO0136956A1] A miniaturized gas sensor comprises a thick-or-thin type electrodes, on a non-conductive supportive susbtrate (1), and in contact with a solid ionomer electrolyte (8), for the detection of toxic gases, i.e., carbon monoxide, and other oxidizable or reducible gases and vapors is described. The all-solid planar sensor cell has two or more film type electrodes (4, 5, 7) arranged on a non-conductive planar surface of a supportive substrate. The electrodes are discret and in intimate contact with the same solid polymer ionomer membrane. The sensor cell contains no liquid electrolyte and is operated in a constant-voltage, potentiostatic or potentiodynamic mode. A high sensitivity to a select gas or vapor is achieved by a novel three-phase contact area design for a sensing electrode which provides contact with the solid ionomer electrolyte, as well as the gas sample via diffusion openings or holes (2) that penetrate through the supportive substrate.

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IPC 8 full level
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