Title (en)

GAS SENSOR

Title (de)

GASSENSOR

Title (fr)

DETECTEUR DE GAZ

Publication

EP 0938667 A1 19990901 (DE)

Application

EP 98950029 A 19980914

Priority

- DE 19740500 A 19970915
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- EP 9805823 W 19980914

Abstract (en)

[origin: US6342151B1] A method of measuring oxygen and/or the air-to-fuel lambda ratio and hydrocarbons and/or carbon monoxide in gas mixtures using a gas sensor is provided. To reliably measure a plurality of gaseous components, the sensor is provided with a reference electrode representing a constant oxygen partial pressure, an oxygen ion-conducting solid electrolyte, and at least two measuring electrodes, the measuring electrodes and the reference electrode being mounted directly on the solid electrolyte and having electrical leads for connection and for take-away of electrical measurement signals. The solid electrolyte is constructed with a measurement gas side exposed to the gas mixture and a reference gas side separated from the gas mixture. The system of electrodes has the reference electrodes on the reference gas side and at least two measuring electrodes on the measurement gas side, and is so constructed that one of the reference electrodes is assigned to at least one measuring electrode, which forms the anode of this electrode pair. The pair of electrodes is adapted for the application pumping oxygen, and the system simultaneously transmits at least two measurement signals, which correspond to different gaseous components of the gas mixture.

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G01N 27/407

IPC 8 full level

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CPC (source: EP US)

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DE FR IT

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US 6342151 B1 20020129; BR 9806176 A 19991019; BR 9806177 A 19991019; BR 9806178 A 19991019; EP 0938666 A1 19990901; EP 0938667 A1 19990901; EP 0938668 A1 19990901; JP 2001505311 A 20010417; JP 2001505315 A 20010417; JP 2001505316 A 20010417; US 6355151 B1 20020312; WO 9914584 A1 19990325; WO 9914585 A1 19990325; WO 9914586 A1 19990325

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US 58423800 A 20000531; BR 9806176 A 19980914; BR 9806177 A 19980911; BR 9806178 A 19980914; EP 9805792 W 19980911; EP 9805823 W 19980914; EP 9806036 W 19980914; EP 98946449 A 19980911; EP 98950029 A 19980914; EP 98951451 A 19980914; JP 51025299 A 19980911; JP 51739199 A 19980914; JP 51742699 A 19980914; US 31218499 A 19990514