



US005902556A

United States Patent [19]

[11] Patent Number: **5,902,556**

Van De Vyver et al.

[45] Date of Patent: **May 11, 1999**

[54] CATALYTIC GAS SENSOR

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[75] Inventors: **James Edward Van De Vyver**,
Lynnwood Manor; **Marysia Brodalka**,
Arcadia; **Michael George Howden**,
Lyttelton Manor; **Ian Robert Leith**,
Lynnwood; **Rosalyn Claire**
Pennefather, Lonchill; **Jeremy Rex**
Wallis, Moreleta Park, all of South
Africa

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[73] Assignee: **Microchip (Proprietary) Limited**,
South Africa

[21] Appl. No.: **08/624,450**

Primary Examiner—Ponnathapura Achutamurthy
Attorney, Agent, or Firm—Ladas & Parry

[22] PCT Filed: **Oct. 10, 1994**

[86] PCT No.: **PCT/GB94/02231**

[57] ABSTRACT

§ 371 Date: **Jun. 5, 1996**

A catalytic detector for a flammable gas comprises a substrate and a sensing structure suspended from the substrate. The sensing structure has a combined heating element and temperature sensing element in the form of a layer-deposited electrically conductive track terminating in at least two electrically conductive bridging leads. A catalytic bead is deposited over the temperature sensing element and that portion of the substrate which is directly beneath the sensing structure is etched away so as to isolate thermally the sensing structure with the temperature sensing structure being supported by the bridging leads. The electrically conductive track is sandwiched between a substrate adhesion layer for facilitating adhesion of the conductive track and a superstrate diffusion barrier layer. The invention extends to a method of manufacturing a gas detector and a sensing structure.

§ 102(e) Date: **Jun. 5, 1996**

[87] PCT Pub. No.: **WO95/10770**

PCT Pub. Date: **Apr. 20, 1995**

[30] Foreign Application Priority Data

Oct. 8, 1993 [ZA] South Africa 93/7479

[51] Int. Cl.⁶ **F01N 3/10**; G01N 25/16

[52] U.S. Cl. **422/174**; 422/82.12; 422/83;
422/94; 422/95; 422/96; 422/97; 422/98

[58] Field of Search 422/82.12, 83,
422/94, 95, 96, 97, 98, 174

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16 Claims, 5 Drawing Sheets

