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(71) Applicant *(for all designated States except US)*: **CENTRAL RESEARCH LABORATORIES LTD.** [GB/GB]; Dawley Road, Hayes, Middlesex UB3 1HH (GB).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **DODGSON, John, Robert** [GB/GB]; 71 Ballards Way, Croydon Surrey, CR2 7JP (GB). **AUSTIN, Malcolm, Trayton** [GB/GB]; 6 Moray Avenue, Hayes, Middlesex UB3 2AU (GB). **SHAW, John, Edward, Andrew** [GB/GB]; 45 Colne Avenue, West Drayton, Middlesex UB7 7AL (GB).

(74) Agent: **WALKER, Neville, Daniel, Alan**; QED I.P. Services Limited, Dawley Road, Hayes, Middlesex UB3 1HH (GB).

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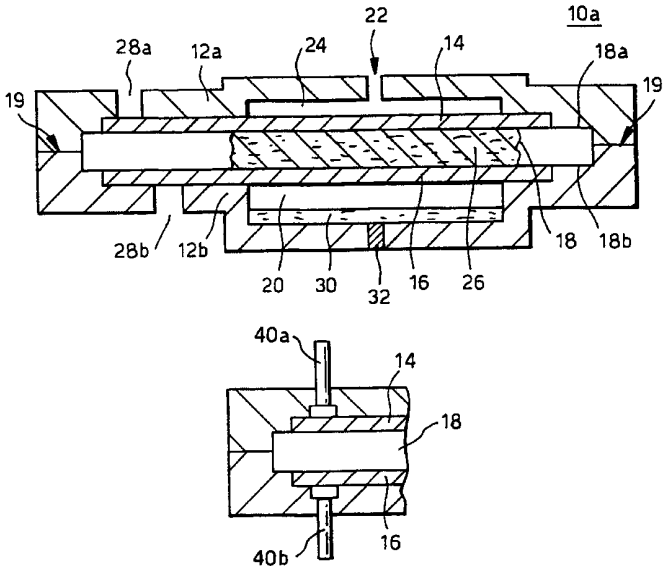
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(54) Title: A GAS SENSOR AND ITS METHOD OF MANUFACTURE



(57) Abstract: The invention relates to a gas sensor and its method of manufacture. Previously gas sensors required a wick in order to maintain an electrode in a wetted state. This entailed complex structures and fabrication techniques. In a preferred embodiment a gas sensor has at least first and second sensing electrodes formed on a gas permeable substrate, at least one of the electrodes contacts a liquid electrolyte. There is also provided two self test electrodes, at least one of which is formed on the same surface of the substrate on which the sensing electrode is formed. A hydrophobic envelope surrounds a volume of solid polymer electrolyte, which defines an electrical pathway between the first and second self test electrodes thereby defining a self test gas generator. The invention thereby removes the need for wicks simultaneously in contact with an electrode and a liquid electrolyte.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G01N27/49

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	SCHIAVON G: "ELECTROCHEMICAL DETECTION OF TRACE HYDROGEN SULFIDE IN GASEOUS SAMPLESS BY POROUS SILVER ELECTRODES SUPPORTED ON ION-EXCHANGE MEMBRANES (SOLID POLYMER ELECTROLYTES)" ANALYTICAL CHEMISTRY,US,AMERICAN CHEMICAL SOCIETY. COLUMBUS, vol. 67, no. 2, 15 January 1995 (1995-01-15), pages 318-323, XP000482606 ISSN: 0003-2700 abstract; figure 1 ---	1,12
Y	GB 2 180 653 A (LICENTIA GMBH) 1 April 1987 (1987-04-01) page 1, line 18 - line 23; figure 2 ---	1,12
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[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

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Date of the actual completion of the international search	Date of mailing of the international search report
13 February 2001	20/02/2001

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Duchatellier, M

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication,where appropriate, of the relevant passages	Relevant to claim No.
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A	EP 0 762 117 A (ATWOOD IND INC) 12 March 1997 (1997-03-12) abstract; figure 2	1
A	WO 98 25139 A (DODGSON JOHN ROBERT ;ROBINS IAN (GB); AUSTEN MALCOLM TRAYTON (GB);) 11 June 1998 (1998-06-11) cited in the application abstract	12

INTERNATIONAL SEARCH REPORT

Information on patent family members

Inter ional Application No
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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