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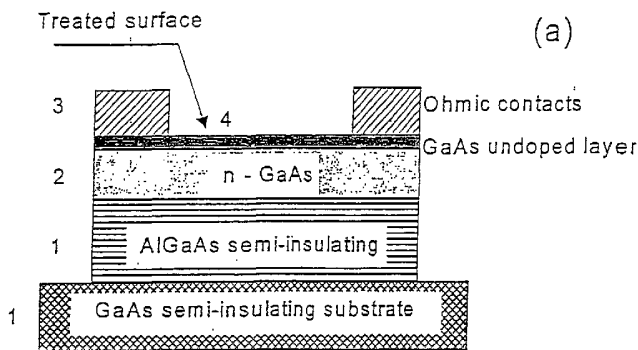
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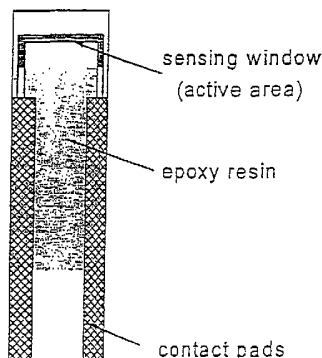
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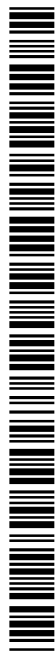
(54) Title: NITRIC OXIDE (NO) DETECTOR



(b)



(57) Abstract: A semiconductor device (Figure 1) is provided for the detection of nitric oxide (NO) molecules in gaseous mixtures, in biological fluids and in aqueous solutions. The device is a molecular controlled semiconductor resistor (MOCSER) of a multilayered GaAs structure to which top layer a layer of multifunctional NO-binding molecules are adsorbed. The sensitivity of the semiconductor device towards NO is independent of mixture composition. Nitric oxide concentrations of as low as 10 ppb NO were detected in mixtures containing various contaminants.



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INTERNATIONAL SEARCH REPORT

International application No.
PCT/IL02/00045

A. CLASSIFICATION OF SUBJECT MATTER		
IPC(7) : G01N 27/24 US CL : 422/98 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) U.S. : 422/98; 204/424,426,403.01; 205/780.5,781		
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 practicable, search terms used) Please See Extra Sheet.		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 98/19151 A1 (CAHEN et al.) 07 May 1998, the abstract; Claims 1, 9-13; and page 9, lines 26-28.	1-3, 7-9, 11-16, 18-25.
Y	US 5,603,820 A (MALINSKI et al.) 18 February 1997, the abstract; column 6, line 30 - col. 8, ln. 15; and Claim 7.	1-3, 7-9, 11-16, 18-25.
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
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"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		
Date of the actual completion of the international search 28 JULY 2002	Date of mailing of the international search report 22 AUG 2002	
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer ALEX NOGUEROLA <i>Alex Noguera</i> Telephone No. (703) 308-0661	

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B. FIELDS SEARCHED

Electronic data bases consulted (Name of data base and where practicable terms used):

EAST

search terms:diamine, metalloporphyrin or metallophthalocyanine, dithiocarbamate, (nitric near1 oxide), NO, sensor, detector, biosensor.