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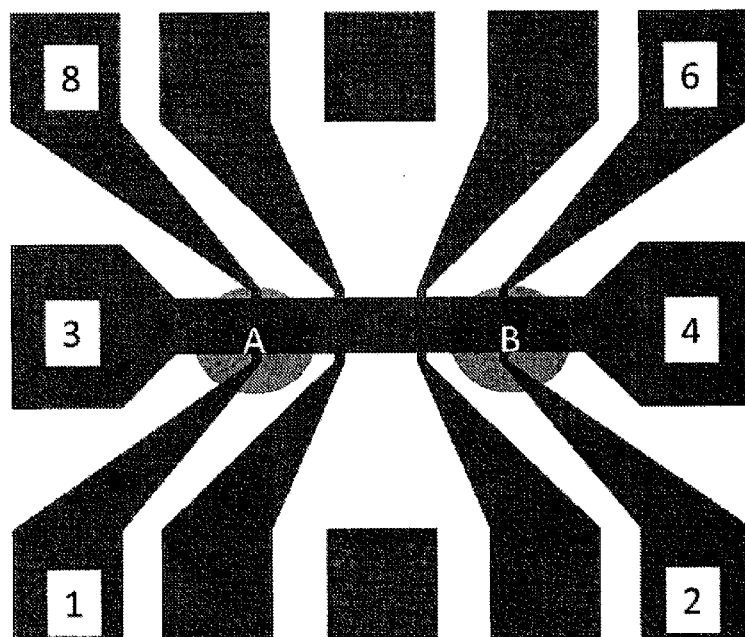


Figure 1A

(57) Abstract: A sensor comprising a semiconductor layer having a two dimensional electron gas (2DEG) and an oxide layer in electronic contact with the semiconductor layer is provided. A method of detecting an analyte molecule using such sensor is also provided.



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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
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C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1801886 A2 (PALO ALTO RESEARCH CENTER INCORPORATED) 27.06.2007, fig. 1, [0015], [0016], [0019], [0045]	1, 2, 10, 11
Y		3, 6-9, 12-14, 17-25
A		4-5, 15-16, 26-27
Y	US 2013/0288378 A1 (CARNEGIE MELLON UNIVERSITY) 31.10.2013, claims 1, 7, 27	3, 6-9, 12-14, 17-25
Y	US 2012/0058488 A1 (UNIVERSITY OF FLORIDA RESEARCH FOUNDATION INC.) 08.03.2012, [0023], [0024]	3, 14
Y	WO 2013/039819 A2 (NANOSELECT, INC. et al.) 21.03.2013, abstract	8, 9, 19-21
☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.		
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“A” document defining the general state of the art which is not considered to be of particular relevance	“X”	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

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A	WO 1993/008464 A1 (HOLM-KENNEDY JAMES) 29.04.1993	1-27
A	WO 2011/046858 A1 (UNIVERSITY OF FLORIDA RESEARCH FOUNDATION INC. et al.) 21.04.2011	1-27