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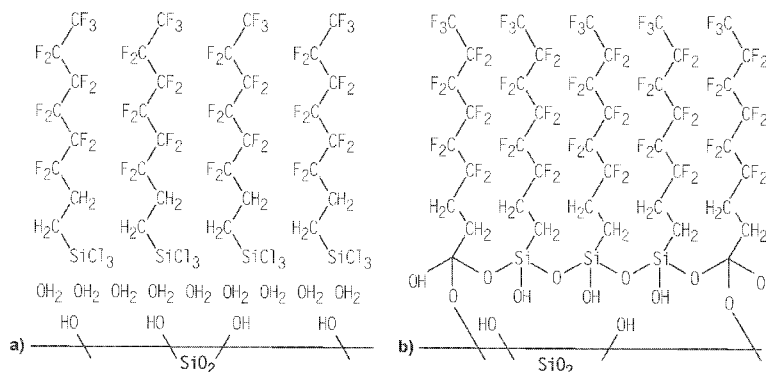


FIG. 2

(57) Abstract: Disclosed herein are a process for the manufacture of a biosensing device, comprising the steps of providing a substrate having an electrically conductive lead on a surface thereof; applying an insulating layer to the surface and the lead, said insulating layer comprising one or more silicon dioxide or silicon nitride; etching an aperture in the insulating layer to expose a portion of the lead onto which a nanostructured microelectrode is to be plated; oxidizing one or more of the silicon dioxide or silicon nitride to form oxidized silicon dioxide or silicon nitride; allowing one or more of the oxidized silicon dioxide or silicon nitride to react with a functionalized silane, for use in the electrochemical detection of a target on a sample.

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## INTERNATIONAL SEARCH REPORT

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**PCT/IB2014/002448**A. CLASSIFICATION OF SUBJECT MATTER  
IPC: **C09K 3/18** (2006.01), **G01N 27/327** (2006.01), **C03C 17/30** (2006.01)

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## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms used)  
Google, Total Patent, Intellect, Canadian Patent Database, USPTO, CAPlus [silicon, dioxide, nitride, biosensor, oxidation, biosensing, film]

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	CA2735735A1, 11 March 2010 (11-03-2010) Abstract, page 3-6, 30-35	1-27
A	EP0243278A1, 28 October 1987 (28-10-1987) Abstract	1-27
A	WO2011022173A1, 24 February 2011 (24-02-2011) abstract	1-27

 Further documents are listed in the continuation of Box C. See patent family annex.

* "A" "E" "L" "O" "P"	Special categories of cited documents: document defining the general state of the art which is not considered to be of particular relevance earlier application or patent but published on or after the international filing date document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) document referring to an oral disclosure, use, exhibition or other means document published prior to the international filing date but later than the priority date claimed	"T" "X" "Y" "&"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention 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 document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art document member of the same patent family
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Canadian Intellectual Property Office  
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Information on patent family members

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Patent Document Cited in Search Report	Publication Date	Patent Family Member(s)	Publication Date
CA2735735A1	11 March 2010 (11-03-2010)	CA2735735A1 CN102216762A EP2331950A1 EP2331950A4 EP2331950B1 EP2803988A1 ES2517919T3 JP2012501433A JP2014139587A US2011233075A1 US8888969B2 WO2010025547A1	11 March 2010 (11-03-2010) 12 October 2011 (12-10-2011) 15 June 2011 (15-06-2011) 08 February 2012 (08-02-2012) 23 July 2014 (23-07-2014) 19 November 2014 (19-11-2014) 04 November 2014 (04-11-2014) 19 January 2012 (19-01-2012) 31 July 2014 (31-07-2014) 29 September 2011 (29-09-2011) 18 November 2014 (18-11-2014) 11 March 2010 (11-03-2010)
EP0243278A1	28 October 1987 (28-10-1987)	EP0243278A1 EP0243278B1 AT60903T CA1303510C DE3768043D1 FR2597750A1 FR2597750B1 GR3001767T3 JPS62273918A US4966903A ZA8702877A	28 October 1987 (28-10-1987) 20 February 1991 (20-02-1991) 15 March 1991 (15-03-1991) 16 June 1992 (16-06-1992) 28 March 1991 (28-03-1991) 30 October 1987 (30-10-1987) 02 June 1989 (02-06-1989) 23 November 1992 (23-11-1992) 28 November 1987 (28-11-1987) 30 October 1990 (30-10-1990) 12 October 1987 (12-10-1987)
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