

1) Family number: 59548262 (US2016356715A)

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Title: BIOSENSORS FOR BIOLOGICAL OR CHEMICAL ANALYSIS AND METHODS OF MANUFACTURING THE SAME

Abstract: Biosensor including a device base having a sensor array of light sensors and a guide array of light guides. The light guides have input regions that are configured to receive excitation light and light emissions generated by biological or chemical substances. The light guides extend into the device base toward corresponding light sensors and have a filter material. The device base includes device circuitry electrically coupled to the light sensors and configured to transmit data signals. The biosensor also includes a shield layer having apertures that are positioned relative to the input regions of corresponding light guides such that the light emissions propagate through the apertures into the corresponding input regions. The shield layer extends between adjacent apertures and is configured to block the excitation light and the light emissions incident on the shield layer between the adjacent apertures.

Classifications:**International (IPC 8-9):** B01L3/00 G01J1/02 G01J1/04 G01J1/06

G01J3/50 G01N G01N21/00 G01N21/05 G01N21/62 G01N21/63

G01N21/64 G01N33/483 G01N33/50 G01N33/543 (Advanced/Invention);

G01N21/05 (Advanced/Non-invention);

G01N21/00 (Core/Invention);

G01N (Subclass/Invention)

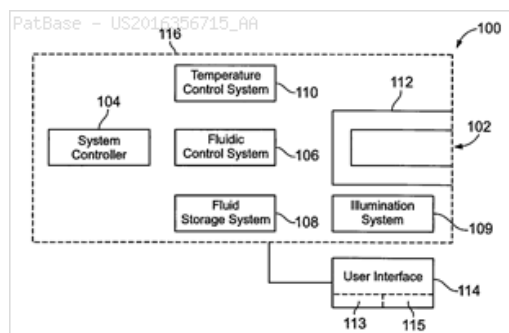
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B01L3/502707 B01L3/502715 G01N21/6428 G01N2201/061

US: 1/1 506/38

JP F-Term: 2G043 2G043/AA03 2G043/BA16 2G043/EA01 2G043/HA05
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 2G057/BB01 2G057/BB06 2G057/DB02 2G057/DB03 2G057/DC07
 2G057/HA01 2G065 2G065/AA04 2G065/AB11 2G065/BA09 2G065/BA33
 2G065/BB03 2G065/BB21 2G065/BB27 2G065/BE08 2G065/CA04
 2G065/DA08

JP F-Index: G01J1/02/Q G01J1/04/B G01J1/04/J G01J1/04/M G01J1/06/A G01N21/05 G01N21/64/Z**Family:**

Publication number	Publication date	Application number	Application date
AU2014364006 AA	20160623	AU20140364006	20141209
AU2014364006 BB	20190711	AU20140364006	20141209
AU2019246860 AA	20191031	AU20190246860	20191010
BR112016013353 A2	20170808	BR20161113353	20141209
CA2932916 AA	20160606	CA20142932916	20141209
CL2016001389 A1	20170428	CL20160001389	20160607
CN105980832 A	20160928	CN201480075153	20141209
CN105980832 B	20190816	CN201480075153	20141209
CN110411998 A	20191105	CN201910701199	20141209
CO16175112 A2	20170209	CO20160175112	20160630
EP3080585 A1	20161019	EP20140870463	20141209
EP3080585 A4	20170823	EP20140870463	20141209
HK1230715 A1	20171208	HK20170103979	20170419
IL246060 A0	20160731	IL20140246060	20141209
IN201617022931 A	20160831	IN201617022931	20160704
JP2017504789 T2	20170209	JP20160537021T	20141209
JP6672149 B2	20200325	JP20160537021T	20141209
KR102102934 B1	20200421	KR20167017939	20141209
KR20160096644 A	20160816	KR20167017939	20141209
KR20200042023 A	20200422	KR20207010895	20141209
MX2016007382 A1	20161220	MX20160007382	20141209
MX360883 B	20181121	MX20160007382	20141209
NZ720871 A	20200327	NZ20140720871	20141209
RU2016122443 A	20180123	RU20160122443	20141209
RU2675775 C1	20181224	RU20160122443	20141209
SG10201804913Y A1	20180730	SG20181004913	20141209
SG11201604622X A1	20160728	SG20161104622	20141209
US2016356715 AA	20161208	US20140175489	20141209
US2019204225 AA	20190704	US20190295973	20190307
US10254225 BB	20190409	US20140175489	20141209
WO15089092 A1	20150618	WO2014US69373	20141209
ZA201603872 A	20191127	ZA20160003872	20141209

Priority:

US20130914275P 20131210

CN201480075153 20141209

US20190295973 20190307

AU20140364006 20141209

WO2014US69373 20141209

AU20190246860 20191010

US20140175489 20141209

US20160175489 20160607

Probable Assignee: ILLUMINA INC

Assignee(s): (std): BOYANOV BOYAN ; DEHLINGER DIETRICH ; ILLUMINA INC ; SEGALE DARREN ; FINKELSTEIN HOD ; ILLUMINA INK ; ZHONG CHENG FRANK

Inventor(s): (std): DEHLINGER DIETRICH ; ZHONG CHENG FRANK ; FINKELSTEIN HOD ; BOYANOV BOYAN ; SEGALE DARREN ; CHENG FRANK ZHONG ; HOD FINKELSTEIN ; DARREN SEGALE ; BOYAN BOYANOV ; DIETRICH DEHLINGER ; ZHONG CHENG ; SIGEJL DARREN ; DELINGER DITRIKH ; FINKELSHTJEJN KHOD ; CHZHUN CHEN FRANK

Agent(s): WRAYS PTY LTD; ROBIC; JUAN ENRIQUE PUGA VALDEZ; JAIME EDUARDO DELGADO VILLEGAS; THOM RUSSELL; DEACONS; YURIDICHESKAYA GORODISSKIJ I PARTNERY OOO FA; DREW AND NAPIER LLC; ILLUMINA INC; SMALL DEAN D ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

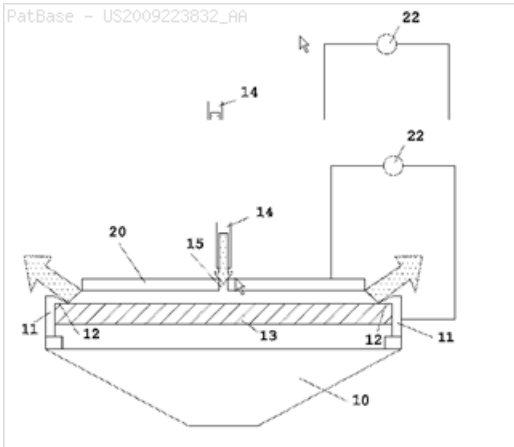
2) Family number: 43495272 (US2009223832A)

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Title: METHOD AND APPARATUS FOR PREVENTING GALVANIC CORROSION IN SEMICONDUCTOR PROCESSING

Abstract: The present invention is related to a method and apparatus for cleaning a semiconductor substrate including on a surface of the substrate at least one structure comprising a first conducting or semiconducting material, surrounded by a layer of a second conducting or semiconducting material, said layer essentially extending over the totality of said surface, the first and second material being in physical contact, the method comprising the steps of: providing the substrate, positioning a counter-electrode facing the substrate surface, and supplying an electrolytic fluid to the space between the surface and the electrode, the counter-electrode acting as an anode in the galvanic cell defined by the substrate surface, the cleaning fluid and the counter-electrode.

Classifications:
International (IPC 8-9): C25F1/00 C25F7/00 H01L21/02 H01L21/304 H01L21/67 (Advanced/Invention); C25F1/00 C25F7/00 H01L21/02 (Core/Invention)
CPC: H01L21/02071 H01L21/67023 H01L21/67051
European: H01L21/02F4D2 H01L21/67S2D2 H01L21/67S2D4W4
US: 204/275.1 204/275.100S 205/766
JP F-Term: 5F157 5F157/AA03 5F157/AA22 5F157/AA23 5F157/AA28 5F157/AA63 5F157/AA64 5F157/AA93 5F157/AB02 5F157/AB14 5F157/AB33 5F157/AB42 5F157/AB90 5F157/AC01 5F157/AC26 5F157/BB02 5F157/BB11 5F157/CE07 5F157/DB57
JP F-Index: H01L21/304/642/A H01L21/304/643/A H01L21/304/648/Z



Family:

Publication number	Publication date	Application number	Application date
DE602008040168 D1	20151022	DE200860040168T	20080111
EP2079099 A1	20090715	EP20080150201	20080111
EP2079099 B1	20150916	EP20080150201	20080111
JP2009218573 A2	20090924	JP20090002685	20090108
US2009223832 AA	20090910	US20090350095	20090107

Priority:
EP20080150201 20080111

Probable Assignee: INTERUNIVERSITAIR MICROELEKTRONICA CENTRUM IMEC

Assignee(s): (std): IMEC ; IMEC INTER UNI MICRO ELECTR ; UNIV LEUVEN KATH

Assignee(s): KATHOLIEKE UNIVERSITEIT LEUVEN KULEUVEN R AND D ; K U LEUVEN RESEARCH AND DEVELOPMENT ; KU LEUVEN RESEARCH and DEVELOPMENT ; KATHOLIEKE UNIV ; INTERUNIVERSITAIR MICROELEKTRONICA CENTRUM VZW IMEC ; INTERUNIVERSITAIR MICROELEKTRONICA CENTRUM VZW (IMEC) ; KATHOLIEKE UNIVERSITEIT LEUVEN ; INTERUNIV MICRO ELECTRONICA CENTRUM VZW ; INTERUNIVERSITAIR MICROELEKTRONICA CENTRUM ; INTERUNIVERSITAIR MICROELEKTRONICA CENTRUM (IMEC) ; INTERUNIVERSITAIR MICROELEKTRONICA CENTRUM IMEC ; KATHOLIEKE UNIVERSITEIT LEUVEN KU LEUVEN R AND D ; KATHOLIEKE UNIVERSITEIT LEUVEN K U LEUVEN R and D

Inventor(s): (std): GARAUD SYLVAIN ; VOS RITA ; MERTENS PAUL ; LEUNISSEN LEONARDUS ; PAUL MERTENS

Inventor(s): MERTENS PAUL B 2820 ; VOS RITA B 3128 ; LEUNISSEN LEONARDUS B 1320 ; GARAUD SYLVAIN B 3001

Agent(s): PRONOVEM; MCDONNELL BOEHNNEN HULBERT AND BERGHOFF LLP

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK TR

3) Family number: 42856452 (US2009032401A)

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Title: METHOD AND APPARATUS USING ELECTRIC FIELD FOR IMPROVED BIOLOGICAL ASSAYS

Abstract: Disclosed are a method and apparatus that use an electric field for improved biological assays. The electric field is applied across a device having wells, which receive reactants, which carry a charge. The device thus uses a controllable voltage

source between the first and second electrodes, which is controllable to provide a positive charge and a negative charge to a given electrode. By controlled use of the electric field charged species in a fluid in a fluid channel are directed into or out of the well by an electric field between the electrodes. The present method involves the transport of fluids, as in a microfluidic device, and the electric field-induced movement of reactive species according to various assay procedures, such as DNA sequencing, synthesis or the like.

Classifications:

International (IPC 8-9): B01D57/02 B01D59/42 B01J19/00 B01J19/08

B03C7/02 B81B1/00 C12M1/42 C12N15/10 C12P19/34 C12Q1/68

G01N21/05 G01N21/76 G01N27/00 G01N27/26

G01N33/543 (Advanced/Invention);

B01D57/00 B01D57/02 B01D59/00 B01J19/00 (Core/Invention)

CPC: B01J2219/00317 B01J2219/00459 B01J2219/00466 B01J2219/00596

B01J2219/00648 B01J2219/00653 B01J2219/00702 B01L3/502761

B01L2200/0668 B01L2300/0819 B01L2400/0415

European: B01L3/5027H L01J219/00C2B4D2B L01J219/00C2H2

L01J219/00C2H2D L01J219/00C4H L01J219/00C4L4B L01J219/00C4L6

L01J219/00C6P L01L200/06J8 L01L300/08B6 L01L400/04F6

US: 204/400 204/450 204/451 204/547 204/549 204/600 204/643

204/647 204/647S 422/68.1 422/82.01 422/82.02 435/287.1 435/288.7

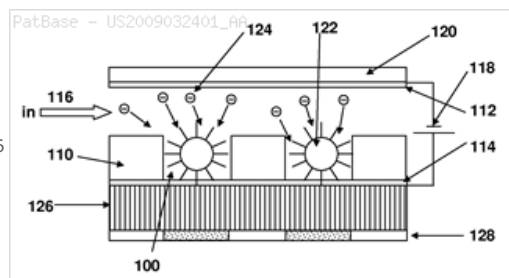
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2G057/HB01 2G057/HB03 2G060 2G060/AA05 2G060/AD06 2G060/AF02 2G060/AF03 2G060/AG08 2G060/AG15

JP F-Index: G01N21/05 G01N21/76 G01N27/00/Z G01N33/543/525/G G01N33/543/593



Family:

Publication number	Publication date	Application number	Application date
AU2008276308 AA	20090122	AU20080276308	20080710
BRPI0813718 A2	20141230	BR2008PI13718	20080710
CA2693059 AA	20090122	CA20082693059	20080710
CN101848757 A	20100929	CN200880024596	20080710
CN101848757 B	20131204	CN200880024596	20080710
DE602008044038 D1	20160616	DE200860044038T	20080710
EP2173467 A1	20100414	EP20080781608	20080710
EP2173467 A4	20130918	EP20080781608	20080710
EP2173467 B1	20160504	EP20080781608	20080710
JP2010533840 T2	20101028	JP20100516240T	20080710
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US8277628 BB	20121002	US20080170941	20080710
US8702948 BB	20140422	US20120618228	20120914
WO09012112 A1	20090122	WO2008US69638	20080710

Priority:

US20070959398P 20070713 EP20080781608 20080710 WO2008US69638 20080710

US20080170941 20080710 US20120618228 20120914

Probable Assignee: BOARD OF TRUSTEES OF LELAND STANFORD JUNIOR UNIV

Assignee(s): (std): KHURANA TARUN ; SANTIAGO JUAN G ; UNIV LELAND STANFORD JUNIOR ; RONAGHI MOSTAFA ; TRUSTEE OF THE LELAND STANFORD JUNIOR ; TRUSTEE OF THE LELAND STANFORD JUNIOR UNIVERSITY BOARD OF ; TRUSTEE OF LELAND STANFORD JUNIOR UNIV BOARD OF

Assignee(s): NATIONAL INSTITUTES OF HEALTH NIH US DEPT OF HEALTH AND HUMAN SERVICES DHHS US GOVERNMENT ; THE BOARD OF TRUSTEE OF THE LELAND STANFORD JUNIOR UNIVERSITY ; THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY ; BOARD OF TRUSTEES OF LELAND STANFORD JUNIOR UNIV ; BOARD OF TRUSTEES OF LELAND STANFORD JUNIOR UNIV STANFORD ; BOARD OF TRUSTEE OF LELAND STANFORD JUNIOR UNIV ; NATIONAL INSTITUTES OF HEALTH NIH US DEPT OF HEALT ; THE BOARD OF TRUSTEE OF THE LELAND STANFORD ; NATIONAL INST ; NATIONAL INSTITUTES OF HEALTH ; NATIONAL INSTITUTES OF HEALTH (NIH) US DEPT OF HEALTH AND HUMAN SERVICES (DHHS) US GOVERNMENT

Inventor(s): (std): KHURANA TARUN ; RONAGHI MOSTAFA ; TARUN KHURANA ; MOSTAFA RONAGHI ; SANTIAGO JUAN G

Inventor(s): KHURANA TARUN STANFORD ; RONAGHI MOSTAFA LOS ALTOS HILLS ; SANTIAGO JUAN G STANFORD ; JUAN G SANTIAGO

Agent(s): SPRUSON AND FERGUSON; GIBSON MARK; PETERS VERNY LLP; DAVID J; ASTON DAVID J ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

4) Family number: 62728678 (US2016177386A)

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Title: CALIBRATION PANELS AND METHODS FOR DESIGNING THE SAME

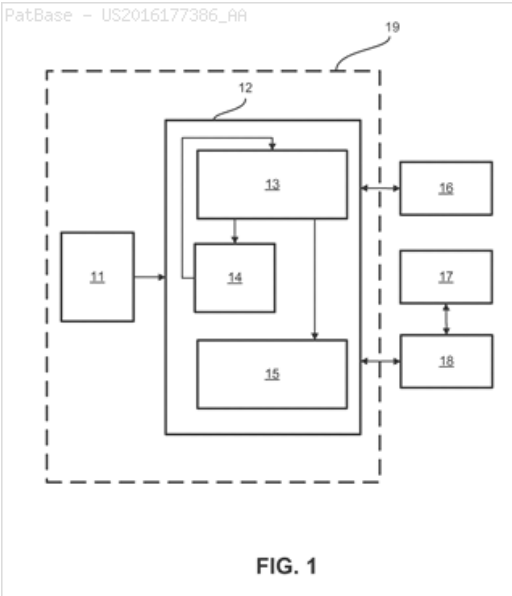
Abstract: A method for preparing a homopolymer recalibration panel includes: extracting, from a set of amplicons used in sequencing-by-synthesis, a set of candidate amplicons satisfying a first set of criteria, wherein the first set of criteria includes amplicons known to belong to high-confidence regions of a reference genome with no variants; and selecting, from the set of candidate amplicons, a reduced set of amplicons satisfying a second set of criteria, wherein the second set of criteria includes amplicons that together comprise at least a minimal threshold number of homopolymers of each homopolymer length between a predetermined minimal homopolymer length and a predetermined maximal homopolymer length for one or more of homopolymer types A, T, C, and G.

Classifications:

International (IPC 8-9): C12N15/10 C12Q1/68

C12Q1/6825 (Advanced/Invention)

CPC: C12Q1/6874 C12N15/1058 C12Q1/6825



Family:

Publication number	Publication date	Application number	Application date
EP3234198 A1	20171025	EP20150871217	20151218
EP3234198 A4	20180718	EP20150871217	20151218
US2016177386 AA	20160623	US20150975001	20151218
WO16100895 A1	20160623	WO2015US66836	20151218

Priority:

US20140093754P 20141218 US20150975001 20151218 WO2015US66836 20151218

Probable Assignee: LIFE TECHNOLOGIES CORP

Assignee(s): (std): LIFE TECHNOLOGIES CORP

Inventor(s): (std): HUBBELL EARL ; MOZHAYSKIY VADIM ; FU YUTAO

Agent(s): HOFFMANN EITLE; DAVIGNON AUBUT CHRISTIAN

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

5) Family number: 42230706 (US2008238449A)

PatBase

Title: FLUID SENSOR AND IMPEDANCE SENSOR

Abstract: A fluid sensor detects property of fluid by dipping the sensor in the fluid. The sensor includes: a semiconductor substrate; and a comb-teeth electrode made of a first diffusion layer and disposed on a first surface of the substrate. Although the comb-teeth electrode is capable of directly contacting the fluid without a protection film, corrosion resistance of the sensor against the fluid is improved. Further, since the sensor has no protection film, the sensor can detect the property accurately.

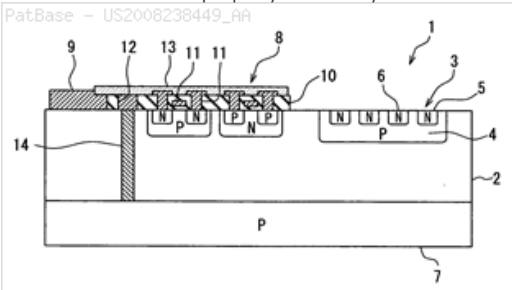
Classifications:

International (IPC 8-9): G01N27/02 G01N27/22 G01R27/02 G01R27/08 (Advanced/Invention); G01N27/02 G01N27/22 G01R27/02 G01R27/08 (Core/Invention)
CPC: G01N27/226 G01N33/2852

European: G01N27/22

US: 324/689 73/335.04

JP F-Term: 2G028 2G028/AA04 2G028/BC04 2G028/CG07 2G028/CG08 2G028/DH04 2G028/FK01 2G028/GL09 2G028/HN03 2G060 2G060/AA05 2G060/AA17 2G060/AB21 2G060/AE40 2G060/AF06 2G060/AF10 2G060/AG06 2G060/AG08 2G060/AG10 2G060/HC02
JP F-Index: G01N27/02/Z G01N27/22/B G01R27/02/A



Family:

Publication number	Publication date	Application number	Application date
JP2008268169 A2	20081106	JP20070229131	20070904
JP4458135 B2	20100428	JP20070229131	20070904
US2008238449 AA	20081002	US20080073816	20080311

Priority:

JP20070081494 20070327 JP20070229131 20070904

Probable Assignee: DENSO CORP

Assignee(s): (std): DENSO CORP

Inventor(s): (std): MAKINO YASUAKI ; SHIZU ATSUO ; YOSHIDA TAKAHIKO ; FUKUMURA KENJI ; YOSHIOKA TETSUO
Agent(s): POSZ LAW GROUP PLC

6) Family number: 59518987 (US2015171018A)

PatBase

Title: ION SENSITIVE FIELD EFFECT TRANSISTORS WITH PROTECTION DIODES AND METHODS OF THEIR FABRICATION

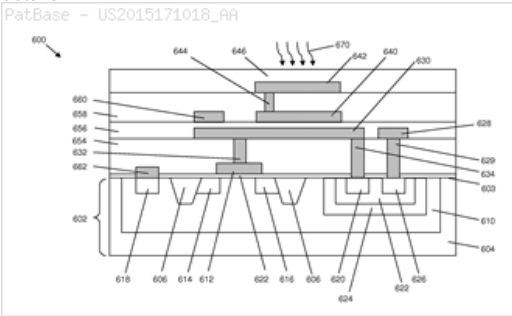
Abstract: An embodiment of an Ion Sensitive Field Effect Transistor (ISFET) structure includes a substrate, source and drain regions formed within the substrate and spatially separated by a channel region, a gate dielectric and a gate formed over the channel region, multiple conductive structures overlying the surface of the substrate, and one or more protection diode circuits coupled between one or more of the multiple conductive structures and the substrate. The multiple conductive structures include a floating gate structure and a sense plate structure. The floating gate structure is formed over the gate dielectric and includes the gate. The sense plate structure is electrically coupled to the floating gate structure and is configured to sense a concentration of a target ion or molecule in a fluid adjacent to a portion of the sense plate structure.

Classifications:

International (IPC 8-9): G01N27/403 G01N27/414 H01L23/552 H01L23/60 H01L29/66 (Advanced/Invention)

CPC: H01L23/552 G01N27/414 H01L23/60 H01L29/66825 H01L2924/0002 H01L2924/00 H01L23/522 H01L27/0248

US: 257/253 438/49



Family:

Publication number	Publication date	Application number	Application date
US2015171018 AA	20150618	US20130133217	20131218
US9978689 BB	20180522	US20130133217	20131218

Priority:

US20130133217 20131218

Probable Assignee: FREESCALE SEMICONDUCTOR INC

Assignee(s): (std): DE SOUZA RICHARD ; HOQUE MD M ; CHEN WEIZE ; NXP USA INC ; NXP SEMICONDUCTORS NV ; PARRIS PATRICE

Assignee(s): NXP BV ; NXP F K A FREESCALE SEMICONDUCTOR INC BV ; CITIBANK NA COLLATERAL AGENT ; CITIBANK NA NOTES COLLATERAL AGENT AS ; FREESCALE SEMICONDUCTOR INC ; MORGAN STANLEY SENIOR FUNDING INC ; MORGAN STANLEY SENIOR FUNDING INC

Inventor(s): (std): CHEN WEIZE ; HOQUE MD M ; PARRIS PATRICE ; DE SOUZA RICHARD

Agent(s): SHERRY W