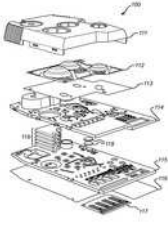
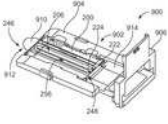
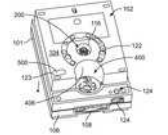
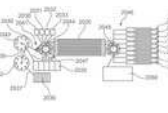
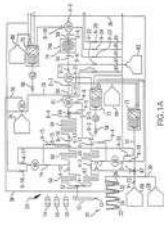
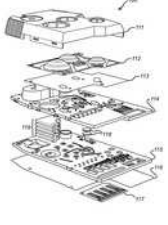
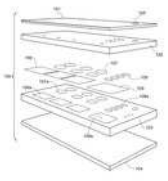
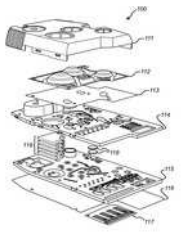
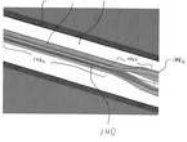
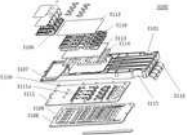
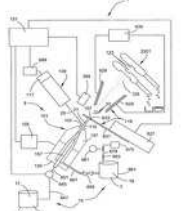
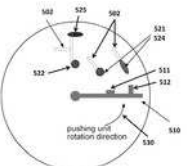
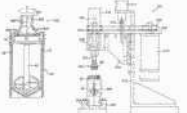
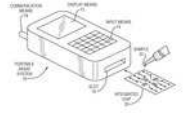
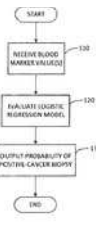
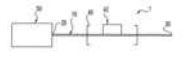
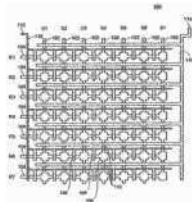
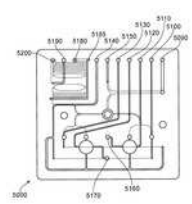
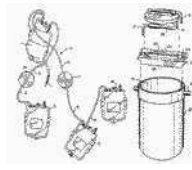
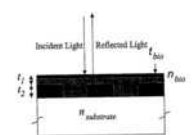
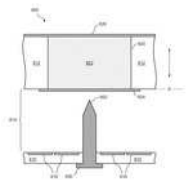
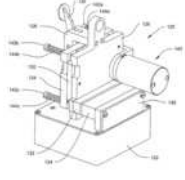
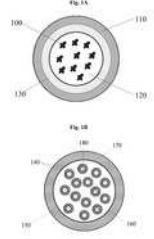
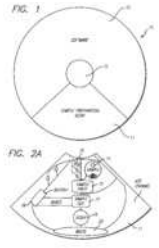
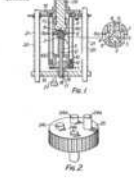


Patent families - 32 results

#	Title	Publication number	Publ. date	Applicant/Assignee	
1.	Instrument for performing a diagnostic test on a fluidic cartridge	EP3254118	2017-12-13	BINX HEALTH ATLAS GENETICS	100 %
Instrument for performing a diagnostic test on a fluidic cartridge A cartridge reader is for carrying out a diagnostic test on a sample contained in a fluidic cartridge inserted into the reader. The fluidic cartridge comprises a fluidic layer comprising at least one sample processing region, at least one collapsible blister containing a liquid reagent, a pneumatic interface, an electrical interface and at least one mechanical valve. The reader comprises a housing; an upper clamp occupying a fixed position relative to the reader, and a lower clamp, movable relative to the first clamp, wherein the upper clamp and the lower clamp define a cartridge receiving region therebetween. The reader comprises a thermal module comprised in the lower clamp, wherein the thermal module comprises at least one thermal stack for heating the at least one sample processing region of the cartridge inserted into the reader. The reader comprises at least one mechanical actuator for actuating the mechanical valve comprised in the cartridge inserted into the reader. 					
2.	Systems, methods, and apparatuses to image a sample for biological or chemical analysis	EP2663402	2013-11-20	ILLUMINA	80 %
A fluidic device (300) for analyzing samples. The fluidic device (300) includes a flow cell (200) having inlet (224) and outlet (222) ports and a flow channel extending there between. The flow cell (200) is configured to hold a sample-of-interest. The fluidic device (300) also includes a housing (302) having a reception space (308) that is configured to receive the flow cell (200). The reception space (308) is sized and shaped to permit the flow cell (200) to float relative to the housing (302). The fluidic device (300) also includes a gasket (342) that is coupled to the housing (302). The gasket (342) has inlet (346) and outlet (344) passages and comprises a compressible material. The gasket (342) is positioned relative to the reception space (308) so that the inlet (224) and outlet (222) ports of the flow cell (200) are approximately aligned with the inlet (346) and outlet (344) passages of the gasket (342), respectively. 					
3.	Cartridge assembly	EP3495044	2019-06-12	ILLUMINA ILLUMINA SINGAPORE PTE	80 %
A cartridge assembly that comprises a housing, including a flow cell chamber to receive a flow cell, and a well plate having liquid wells to receive desired amounts of liquids. The well plate includes a valve station, a pump station and a fluidics analysis station, and channels associated therewith. A pump assembly to manage fluid flow through the channels between the pump station and the fluidics analysis station. A rotary valve assembly that includes a rotor shaft and rotor valve positioned to rotate about a rotational axis and to selectively couple the wells to the pump station. The rotor shaft includes a dual spline configuration at the distal end thereof. The dual spline configuration has first and second sets of splines. The first set of splines forms a drive interface and the second set of splines forms a position encoding interface. 					
4.	Integrated optoelectronic read head and fluidic cartridge useful for nucleic acid sequencing	EP2834622	2015-02-11	ILLUMINA	79 %
A detection apparatus having a read head including a plurality of microfluorometers positioned to simultaneously acquire a plurality of the wide-field images in a common plane; and (b) a translation stage configured to move the read head along a substrate that is in the common plane. The substrate can be a flow cell that is included in a cartridge, the cartridge also including a housing for (i) a sample reservoir; (ii) a fluidic line between the sample reservoir and the flow cell; (iii) several reagent reservoirs in fluid communication with the flow cell, (iv) at least one valve configured to mediate fluid communication between the reservoirs and the flow cell; and (v) at least one pressure source configured to move liquids from the reservoirs to the flow cell. The detection apparatus and cartridge can be used together or independent of each other. 					
5.	Device and method for microfluidic control of a first fluid in contact with a second fluid, wherein the first and second fluids are immiscible	EP1928570	2008-06-11	LIFE TECHNOLOGIES APPLERA ATOM ACQUISITION	79 %
(EP1928571) Various embodiments described in the application relate to an apparatus, system, and method for fluidically controlling, within a conduit, discrete volumes of one or more fluids that are immiscible with a second fluid. The discrete volumes can be used for biochemical or molecular biology procedures involving small volumes, for example, microliter-sized volumes, nanoliter-sized volumes, or smaller. The system can comprise combinations of detectors, controllers, valves, and fluid supply units to control the spatial size, location and/or fluidic composition of discrete volumes separated from one another by a fluid that is immiscible with the fluid(s) of the discrete volumes, for example, aqueous immiscible-fluid-discrete volumes separated by an oil. 					
6.	Instrument for performing a diagnostic test on a fluidic cartridge	EP3254117	2017-12-13	BINX HEALTH ATLAS GENETICS	79 %
A cartridge reader is configured to carry out a diagnostic test on a fluid sample contained within a fluidic cartridge. The cartridge comprises first, second and third collapsible blisters containing at least one reagent for use in the diagnostic test. The cartridge reader comprises an upper clamp, occupying a fixed position relative to the reader and a lower clamp, movable relative to the upper clamp, and wherein the upper clamp and the lower clamp are configured to receive and hold a fluidic cartridge therebetween. First, second and third blister actuators are mounted on the upper clamp, for aligning with first, second and third collapsible blisters of a fluidic cartridge inserted into the reader. The first, second and third blister actuators are movable relative to the upper clamp, between a first position in which the blister actuators are spaced apart from the collapsible blisters comprised on the fluidic cartridge received between the upper and lower clamps, and a second position in which the blister actuators depress the collapsible blisters, thereby collapsing the blisters and ejecting the reagents contained therein into a channel in the microfluidic cartridge. 					
7.	Fluidic circuits and related manufacturing methods	EP2935908	2015-10-28	PERKINELMER MICRONICS	79 %
Fluidic cartridges, and manufacture thereof, having a plurality of circuit element subtypes containing pneumatically operated diaphragm members, where the diaphragm materials are selected for yield point, chemical resistance, breathability and other properties individually according to the fluidic element subtype are provided. A process of in-situ edge-bonded decoupage for forming diaphragm members inside a cartridge, and fluidic circuits having diaphragm members as active and passive circuit elements, including pumps, valves, vents, waste receptacles, reagent reservoirs, and cuvettes with optical windows, where the material composition of each individual diaphragm member may be selected from an assortment of materials during manufacture are also provided. 					

8.	Instrument for performing a diagnostic test on a fluidic cartridge	EP3254119	2017-12-13	BINX HEALTH ATLAS GENETICS	78 %	
9.	Flow-through high hydrostatic pressure microfluidic sample preparation device and related methods therefor	EP2608886	2013-07-03	PRESSURE BIOSCIENCES	74 %	
10.	Method of determining a sample component and immunoassay	EP2523004	2012-11-14	HARVARD COLLEGE	73 %	
11.	Sample preparation, processing and analysis systems	WO2013/059750	2013-04-25	INTEGENX	73 %	
12.	Apparatus and methods for providing sex-sorted animal sperm	EP2305171	2011-04-06	INGURAN INGALONG MONSANTO TECHNOLOGY	72 %	
13.	System and method for movement and timing control	EP3046663	2016-07-27	CALIFORNIA INSTITUTE OF TECHNOLOGY SLIPCHIP SLIP CHIP	72 %	
14.	Cartridge assembly	US20180117587	2018-05-03	ILLUMINA	72 %	
15.	Specimen vial sealing apparatus and method	EP1436199	2004-07-14	GENERAL PROBE PRODESSE HOLOGIC JEN MONO MONGEN MONOGEN	69 %	

16.	Systems and methods for mobile device analysis of nucleic acids and proteins	EP2969218	2016-01-20	NANOBIOSYM NANOBAIOSHIMU	69 %	
17.	Methods and apparatuses for predicting risk of prostate cancer and prostate gland volume	EP2823427	2015-01-14	ARCTIC CLAROS DIAGNOSTICS	69 %	This disclosure relates to methods and apparatuses for predicting risk of prostate cancer and/or prostate gland volume. More particularly this disclosure relates to methods and apparatuses for providing the models and employing the models for predicting risk of prostate cancer and/or predicting prostate gland volume. (From EP3312749 A1)  FIG. 1
18.	Flow-controlled magnetic particle manipulation	EP1463943	2004-10-06	BATTELLE MEMORIAL INSTITUTE BATTELLE MEMORIAL INSTITUTE	69 %	Inventive methods and apparatus (1, 2) are useful for collecting magnetic materials in one or more magnetic fields and resuspending the particles into a dispersion medium, and optionally repeating collection/resuspension one or more times in the same or different medium, by controlling the direction and rate of fluid flow through a fluid flow path (10). The methods provide for contacting derivatized particles with test samples and reagents, removal of excess reagent, washing of magnetic material, and resuspension for analysis, among other uses. The methods are applicable to a wide variety of chemical and biological materials that are susceptible to magnetic labeling, including, for example, cells, viruses, oligonucleotides, proteins, hormones, receptor-ligand complexes, environmental contaminants and the like. 
19.	Thermal reaction device and method for using the same	EP1796824	2007-06-20	FLUIDIGM	68 %	An M x N matrix microfluidic device for performing a matrix of reactions, the device (100) having a plurality of reaction cells (106) in communication with one of either a sample inlet (120) or a reagent inlet (124) through a via formed within an elastomeric block of the device. Methods provided include a method for forming vias in parallel in an elastomeric layer of an elastomeric block of a microfluidic device, the method includes using patterned photoresist masks and etching reagents to etch away regions or portions of an elastomeric layer of the elastomeric block. 
20.	Method and apparatus for the analysis of compounds	EP3209418	2017-08-30	UNIVERSITY OF HULL	66 %	Embodiments of the present invention relate to microfluidic devices and systems comprising such devices for use in the determination of sample characteristics. Certain embodiments relate to methods for determining one or more characteristics of a sample comprising a compound for in vivo use. Aply, certain embodiments of the present invention relate to devices and methods for assessing radiopharmaceuticals and their suitability for administration to a patient in need thereof. 
21.	System and method for processing biological fluids	EP1038541	2000-09-27	PALL	66 %	A system for collecting and processing donated blood comprises a first porous medium interposed between a blood collection bag and a satellite bag and a second porous medium interposed between the blood collection bag and another satellite bag. The porous media are leucocyte depletion media. The system may also include one or more of the following: a red cell barrier medium, a separation medium, a gas inlet, and a gas outlet. The system can be used to centrifuge whole blood into one or more components, and includes a means for protecting the system during centrifugation. <IMAGE> 
22.	A label-free high-throughput optical technique for detecting biomolecular interactions	EP1337847	2003-08-27	X BODY COHO HOLDINGS ES R U BIOSYSTEMS IGT - INTERNATIONAL GAME TECHNOLOGY LIN 1 more...	65 %	Methods and compositions are provided for detecting biomolecular interactions. The use of labels is not required and the methods can be performed in a high-throughput manner. The invention also provides optical devices useful as narrow band filters. 
23.	Barriers for facilitating biological reactions	EP2257802	2010-12-08	NORTHWESTERN UNIVERSITY NORTHWEST UNIVERSITY	65 %	The present invention relates to systems, devices, and methods for performing biological reactions. In particular, the present invention relates to the use of lipophilic, water immiscible, or hydrophobic barriers in sample separation, purification, modification, and analysis processes. 

24.	System and method of dispensing liquids in a microfluidic device	US20140161686	2014-06-12	ILLUMINA	62 %	
Microfluidic system including a droplet actuator having an interior cavity and a series of electrodes arranged along the interior cavity for forming a droplet-operation path therethrough. The droplet actuator has a module-engaging side including an opening that is in flow communication with the interior cavity. The microfluidic system also includes a reservoir module configured to be coupled to the droplet actuator. The reservoir module includes a plurality of liquid compartments having respective outlets and at least one seal positioned along the outlets to retain liquid within the liquid compartments. The reservoir module is movable along the module-engaging side of the droplet actuator to position the outlets relative to the opening. The microfluidic system also includes a piercer having a tip configured to penetrate the seal thereby permitting the liquid within the corresponding liquid compartment to flow into the opening.						
25.	Method and apparatus for receiving a removable media member	EP1556680	2005-07-27	HONEYWELL INTERNATIONAL	61 %	
The present invention is directed towards receiving removable media, and in some embodiments, providing tighter alignment tolerances between an inserted removable media member and a receiving device. The present invention is also directed towards providing one or more electrical or optical device on or in the removable media member itself, and for providing an electrical and/or optical link between the one or more electrical and/or optical devices on or in the removable media and the receiving device.						
26.	Microcapsule compositions and methods	EP2885418	2015-06-24	10X GENOMICS 10X TECHNOLOGIES	58 %	
This disclosure provides microwell capsule array devices. The microwell capsule array devices are generally capable of performing one or more sample preparation operations. Such sample preparation operations may be used as a prelude to one more or more analysis operations. For example, a device of this disclosure can achieve physical partitioning and discrete mixing of samples with unique molecular identifiers within a single unit in preparation for various analysis operations. The device may be useful in a variety of applications and most notably nucleic-acid-based sequencing, detection and quantification of gene expression and single-cell analysis.						
27.	Electrowetting droplet microactuator controlled via graphical user interface	EP2021103	2009-02-11	DUKE UNIVERSITY ILLUMINA NANOLYTICS	58 %	
The present invention relates to systems and methods for controlling droplet movements on a droplet microactuator and a droplet microactuator device, system and method for processing and/or analyzing samples. According to one aspect, a system is provided and includes a controller, a droplet microactuator electronically coupled to the controller, and a display device displaying a user interface electronically coupled to the controller, wherein the system is programmed and configured to permit a user to effect a droplet manipulation by interacting with the user interface. According to another aspect, a sample analyzer is provided and includes an analyzer unit comprising electronic or optical receiving means, a cartridge comprising self-contained droplet handling capabilities, and a means for coupling the cartridge to the analyzer unit which aligns electronic and/or optical outputs from the cartridge with electronic or optical receiving means on the analyzer unit.						
28.	Laboratory in a disk	EP0968434	2000-01-05	VINDUR TECHNOLOGIES BURSTEIN LAB BURSTEIN LABORATORIES BURSTEIN TECHNOLOGIES BURSTEIN TECHNOLOGY 1 more...	57 %	
An apparatus is described that includes an optical disk, adapted to be read by an optical reader, comprising a first sector having substantially self-contained assay means for localizing an analyte suspected of being in a sample to at least one, predetermined location in the first sector and a second sector containing control means for conducting the assay and analyte location information, with respect to one or more analytes suspected of being in a sample, accessible to the reader, wherein the presence or absence of the analyte at said location is determinable by the reader using the control means and the location information. Depending on the nature of the assay, the disk will include fluid storage means, fluid transfer means, such as one or more capillary ducts, valves, batteries, dialyzers, columns, filters, sources of electric fields, wires or other electrical conductive means such as metallic surface deposits and the like.						
29.	Pump assembly for fluid and transmission assembly	DE2800848	1978-07-13	HAYNES ELIZABETH ANN PENELOPE THETFORD NORFOLK EDM PICKER	57 %	
IMPROVEMENTS IN AND RELATING TO PUMP AND DRIVE ASSEMBLIES A pump assembly for use e.g. in analysis apparatus of the type described in U.S. Patent No. 3923463 comprises a cylinder and piston slidable in the cylinder and defining therewith a pump chamber. The chamber is defined between opposed corresponding conical surfaces of the end wall of the cylinder and a face of the piston and communicates with a passage opening into the chamber at the apex of the cone in the end wall. The end wall of the cylinder is provided by an end member separate from the cylindrical part of the cylinder and may be integral with the movable member of a valve assembly for connecting the passage to a selected one of a plurality of inlet/outlet passages. The drive for sample containers used in the apparatus of the above U.S. Patent may comprise a drive assembly comprising two motors each connected to drive a respective first bevel gear, which gears are coaxial and mesh with a freely rotatably mounted second bevel gear arranged with its axis perpendicular to the axis of the first gears and coupled to an annular member coaxial with the first gears, and means for preventing rotation of the respective first gears such that with one first gear stationary and the other first gear being rotated, the annular member will rotate in one direction and at a speed related to the speed of the motor driving the other first gear and with the other first gear stationary and the one first gear driven the annular member will be rotated in the opposite direction and at a speed related to the speed of the motor driving the one first gear. (From CA1076416 A)						

30. Apparatus for use in automated analyzer EP0984284

2000-03-08

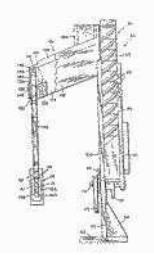
SIEMENS HEALTHCARE
DIAGNOSTICS

BAYER

CIBA CORNING DIAGNOSTICS

53 %

Inter alia, an apparatus for selectively dispensing reagent into first and second vertical reagent dispense axes, for use in an automated analyzer to assay a test **sample**, the said analyzer having an event conveyor for conveying a plurality of cuvettes along an event path which includes a vertical **sample** dispense axis, the said first vertical reagent dispense axis which is spaced from and downstream of the said **sample** dispense axis and the said second vertical reagent dispense axis which is spaced from and downstream of the said first reagent axis, the said apparatus being characterised in that it comprises: (a) a reagent transport and selection means for supporting a plurality of first reagent containers which contain labeled reagent and a plurality of second reagent containers which contain solid phase reagent, and for selectively positioning any one of the said first reagent containers at one of a first vertical reagent aspirating axis and a second vertical reagent aspirating axis, and for selectively positioning any one of the said second reagent containers at one of a third vertical reagent aspirating axis and a fourth vertical reagent aspirating axis; (b) a first reagent probe transport means for supporting a first reagent aspirating and dispense probe for selective vertical movement between an upper position and a lower aspirating and dispense position and for selective horizontal movement between the said first reagent dispense axis and either of the said first and third reagent dispense axes; (c) a second reagent probe transport means for supporting a second reagent aspirating and dispense probe for selective vertical movement between an upper position and a lower aspirating and dispense position and for selective horizontal movement between the said second reagent dispense axis and either of the said second and fourth reagent dispense axes; and (d) control means including a central processing unit operatively connected to the said reagent transport and selection means, the said first reagent probe transport means and the said second reagent transport means for selectively positioning a predetermined first reagent container at either of the said first and second reagent aspirating axes and a predetermined second reagent container at either of the said third and fourth reagent aspirating axes, for selectively positioning the said first reagent probe for aspirating reagent from a selected first reagent container at the said first reagent aspirating axis or a selected second reagent container at the said third reagent aspirating axis, or from both of the said selected first and second selected reagent containers and for dispensing aspirated reagent into a cuvette at the said first reagent dispense axis, and, for selectively positioning the said second reagent probe for aspirating reagent from a selected first reagent container at the said second reagent aspirating axis or a selected second reagent container at the said fourth reagent aspirating axis, or from both of the said selected first and second reagent containers and for dispensing aspirated reagent into a cuvette at the said second reagent dispense axis is disclosed.



31. Microstructure fabrication and microsystem integration

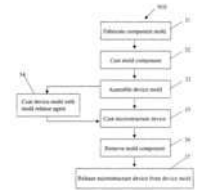
US20030214057

2003-11-20

HUANG ZHILI

51 %

Fabrication of a microstructure device includes assembling a mold component and a mold body to form a device mold for the microstructure device. The microstructure device is cast from the device mold, then the mold component is removed from the microstructure device. The microstructure device is then released from the mold body.



32. Substrate polishing apparatus and substrate polishing method

WO2004/113020

2004-12-29

EBARA

32 %

The present invention relates to a substrate polishing apparatus and a substrate polishing method for polishing a substrate such as a semiconductor wafer to a flat finish. The substrate polishing apparatus includes a polishing table (100) having a polishing surface (101), a substrate holder (1) for holding and pressing a substrate (W) against the polishing surface (101) of the polishing table (100), and a film thickness measuring device (200) for measuring a thickness of a film on the substrate (W). The substrate holder (1) has a plurality of pressure adjustable chambers (22 to 25), and pressures in the respective chambers (22 to 25) are adjusted based on the film thickness measured by the film thickness measuring device (200).

