

1) Family number: 49700046 (US2011240879A)

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Title: FLUORESCENCE DETECTING APPARATUS AND FLUORESCENCE DETECTING METHOD

**Abstract:** Excitation light beam is irradiated onto a test region while shifting the irradiation position thereof, when performing analysis of a target substance using an analysis chip having the test region within a flow channel through which a sample solution is caused to flow, for capturing the target substance within the sample solution. Fluorescence generated at the test region is detected as a plurality of adjustment fluorescence signals. The target substance is analyzed using fluorescence generated when the excitation light beam is irradiated at an irradiation position within the test region determined based on the plurality of adjustment fluorescence signals.

**Classifications:**

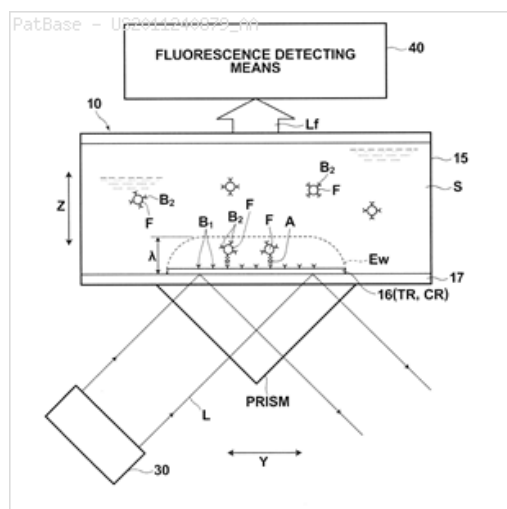
**International (IPC 8-9):** G01N21/00 G01N21/01

G01N21/64 (Advanced/Invention)

**CPC:** G01N21/6428 G01N21/648

**European:** G01N21/64H G01N21/64P8

**US:** 250/363.01 250/432.00RP 250/432R 356/432 356/445



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| JP2011215021 A2    | 20111027         | JP20100083897      | 20100331         |
| JP5574783 B2       | 20140820         | JP20100083897      | 20100331         |
| US2011240879 AA    | 20111006         | US20110045361      | 20110310         |
| US8749787 BB       | 20140610         | US20110045361      | 20110310         |

**Priority:**

JP20100083897 20100331

**Probable Assignee:** FUJIFILM HOLDINGS CORP

**Assignee(s):** (std): FUJIFILM CORP ; FUJIFILM HOLDINGS CORP ; HAKAMATA MASASHI ; SHIRAISHI JUNPEI

**Inventor(s):** (std): SHIRAISHI JUNPEI ; HAKAMATA MASASHI

**Agent(s):** MCGINN IP LAW GROUP PLLC

2) Family number: 49309130 (JP2011112410A)

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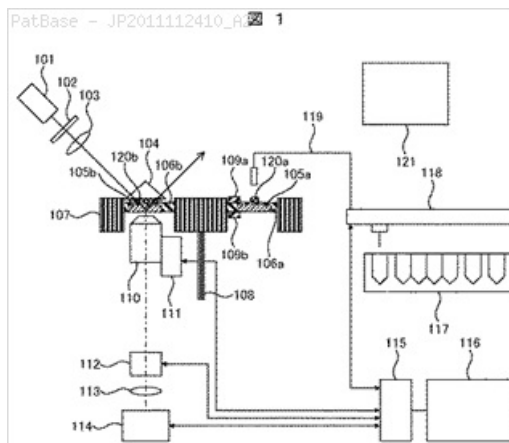
Title: MEASURING DEVICE AND TOTAL REFLECTION FLUORESCENCE MEASURING DEVICE

**Abstract:** PROBLEM TO BE SOLVED: To automate a device by automatically filling liquid such as matching oil without generating bubbles, and by exchanging a board in a short focusing time. SOLUTION: This automation device performs matching without generating bubbles by placing the board to be measured on which the liquid such as the matching oil is dripped on a base such as a turntable and by sliding with respect to a matching object such as a prism. By automating a liquid matching process performed in a total reflection microscope and a surface plasmon resonance device, a series of processes can be totally automated by placing the board to be measured, dividing reagents, matching the liquid, controlling a temperature, and reacting, detecting and changing the board to be measured. Thereby, the throughput of the device is improved.

**Classifications:**

**International (IPC 8-9):** G01N21/27 G01N21/41 G01N21/64

G01N21/78 (Advanced/Invention)



#### Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| JP2011112410 A2    | 20110609         | JP20090266920      | 20091125         |
| JP5470007 B2       | 20140416         | JP20090266920      | 20091125         |

#### Priority:

JP20090266920 20091125

#### Probable Assignee:

HITACHI HIGH TECH CORP

#### Assignee(s): (std):

HITACHI HIGH TECH CORP

#### Assignee(s):

HITACHI HIGH TECHNOLOGIES CORP

#### Inventor(s): (std):

TAKAHASHI SATOSHI ; MATSUI TAKUYA

#### Agent(s):

INOUE MANABU

### 3) Family number: 42970343 (US2009159812A)

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#### Title: SCANNING ANALYZER FOR SINGLE MOLECULE DETECTION AND METHODS OF USE

**Abstract:** The invention encompasses analyzers and analyzer systems that include a single molecule analyzer, methods of using the analyzer and analyzer systems to analyze samples, either for single molecules or for molecular complexes. The single molecule uses electromagnetic radiation that is translated through the sample to detect the presence or absence of a single molecule. The single molecule analyzer provided herein is useful for diagnostics because the analyzer detects single molecules with zero carryover between samples.

#### Classifications:

**International (IPC 8-9):** B01L3/00 G01N G01N15/00 G01N15/10

G01N15/14 G01N21/00 G01N21/01 G01N21/03 G01N21/63

G01N21/64 G01N21/75 G01N23/00 G01N27/00 G01N33/53

G01N35/00 G01N35/02 (Advanced/Invention);

G01N15/00 (Advanced/Non-invention);

B01L3/00 G01N23/00 G01N35/00 (Core/Invention);

G01N (Subclass/Invention)

**CPC:** G01N33/53 G01N21/6452 G01N21/6486 B01L3/00

G01N2201/06113 G01N2201/062 G01N2201/0697 G01N2201/02

G01N15/14 B01L3/5085 B01L2300/0654 B01L2300/0829

G01N15/1434 G01N15/1456 G01N21/64 G01N21/645

G01N2015/0038 G01N2015/1447 G01N2015/1452 G01N21/6428

G01N15/1429 G01N21/6458 G01N2015/1402 G01N15/1463

**European:** B01L3/5085 G01N15/14G G01N15/14G3 G01N21/64H

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L01L300/08B12 S01N15/00N

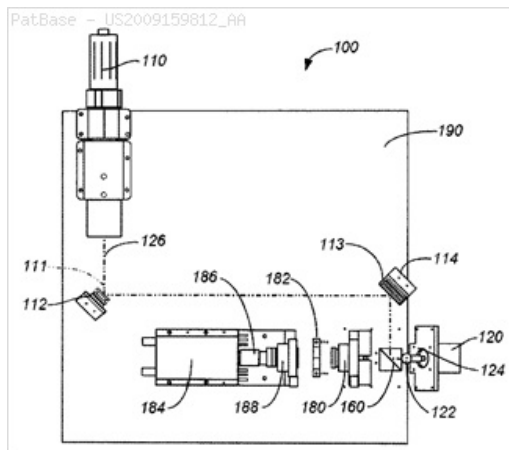
**US:** 1/1 250/216 250/428 250/428P 250/432R 250/453.11 250/458.1

250/459.1 250/472.1 250/472.100S 250/473.1 250/473.100S

356/337 356/36 422/50 422/63 422/69 422/82.05 422/82.050S

422/82.08 422/82.080S 435/287.2 436/501 436/501P 73/81 73/863

73/864.81



#### Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| AU2008352940 AA    | 20090924         | AU20080352940      | 20081218         |
| AU2008352940 BB    | 20140605         | AU20080352940      | 20081218         |
| CA2709217 AA       | 20100611         | CA20082709217      | 20081218         |
| CN101946180 A      | 20110112         | CN200880127122     | 20081218         |
| CN101946180 B      | 20131113         | CN200880127122     | 20081218         |
| CN103543094 A      | 20140129         | CN201310484661     | 20081218         |
| CN103543094 B      | 20170609         | CN201310484661     | 20081218         |
| EP2232271 A2       | 20100929         | EP20080873367      | 20081218         |
| EP2232271 A4       | 20141210         | EP20080873367      | 20081218         |
| GB200823245 A0     | 20090128         | GB20080023245      | 20081219         |
| GB201013697 A0     | 20100929         | GB20100013697      | 20081219         |
| GB201203865 A0     | 20120418         | GB20120003865      | 20081219         |
| GB2456063 A1       | 20090708         | GB20080023245      | 20081219         |
| GB2456063 B2       | 20101020         | GB20080023245      | 20081219         |
| GB2470847 A1       | 20101208         | GB20100013697      | 20081219         |
| GB2470847 B2       | 20120627         | GB20100013697      | 20081219         |
| GB2485729 A1       | 20120523         | GB20120003865      | 20081219         |

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| GB2485729 B2    | 20120725 | GB20120003865  | 20081219 |
| HK1152988 A1    | 20140627 | HK20110107106  | 20110711 |
| HK1152988 A1    | 20120316 | HK20110107106  | 20110711 |
| HK1152988 B     | 20140627 | HK20110107106  | 20110711 |
| HK1192318 A1    | 20140815 | HK20140105291  | 20110711 |
| HK1192318 B     | 20180601 | HK20140105291  | 20110711 |
| JP2011508219 T2 | 20110310 | JP20100539835T | 20081218 |
| JP2015043004 A2 | 20150305 | JP20140245762  | 20141204 |
| JP2017116555 A2 | 20170629 | JP20170030675  | 20170222 |
| JP6100229 B2    | 20170322 | JP20140245762  | 20141204 |
| JP6456990 B2    | 20190123 | JP20170030675  | 20170222 |
| US2009159812 AA | 20090625 | US20080338955  | 20081218 |
| US2011263043 AA | 20111027 | US20110031784  | 20110222 |
| US2013059400 AA | 20130307 | US20120608519  | 20120910 |
| US2013284942 AA | 20131031 | US20130791972  | 20130309 |
| US2013288347 AA | 20131031 | US20130791971  | 20130309 |
| US2015108367 AA | 20150423 | US20140579442  | 20141222 |
| US2016266041 AA | 20160915 | US20150929885  | 20151102 |
| US2019145895 AA | 20190516 | US20180159345  | 20181012 |
| US7914734 BB    | 20110329 | US20080338955  | 20081218 |
| US8264684 BB    | 20120911 | US20110031784  | 20110222 |
| US8462339 BB    | 20130611 | US20120608519  | 20120910 |
| US8634075 BB    | 20140121 | US20130791972  | 20130309 |
| US8917392 BB    | 20141223 | US20130791971  | 20130309 |
| US9239284 BB    | 20160119 | US20140579442  | 20141222 |
| US10107752 BB   | 20181023 | US20150929885  | 20151102 |
| WO09117033 A2   | 20090924 | WO2008US87544  | 20081218 |
| WO09117033 A3   | 20091230 | WO2008US87544  | 20081218 |

#### Priority:

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| US20070015142 | 20071219 | US20070015142P | 20071219 | CN200880127122 | 20081218 |
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| US20080338955 | 20081218 | WO2008US87544  | 20081218 | GB20080023245  | 20081219 |
| US20110031784 | 20110222 | HK20110107106  | 20110711 | US20120608519  | 20120910 |
| US20130791972 | 20130309 | US20130791971  | 20130309 | US20140579442  | 20141222 |
| US20150929885 | 20151102 | JP20170030675  | 20170222 | US20180159345  | 20181012 |

#### Probable Assignee: SINGULEX INC

**Assignee(s):** (std): LIVINGSTON RICHARD ; LIVINGSTON RICHARD A ; SINGULEX INC

**Assignee(s):** FISK VENTURES LLC ; N A ; OXFORD FINANCE LLC ; PERCEPTIVE CREDIT HOLDINGS LP

**Inventor(s):** (std): LIVINGSTONE RICHARD A ; RICHARD A LIVINGSTON ; LIVINGSTON RICHARDA ; LIVINGSTON RICHARD ; LIVINGSTON RICHARD A

**Inventor(s):** RICHARD A LIVINGSTONE

**Agent(s):** PIZZEYS; PIZZEYS PATENT AND TRADE MARK ATTORNEYS PTY LTD; SMART AND BIGGAR; WILKINSON MARC GEORGE; LIU SHEN AND ASSOCIATES; TAMURA YASUO; SAMEJIMA MUTSUMI; GENBA SANAE; YOSHIDA TAMAKI; EMA HARUHIKO; WILSON SONSINI GOODRICH AND ROSATI; MCDONNELL BOEHLEN HULBERT AND BERGHOFF LLP; CARLSON KURT W 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: 34115573 (US2008117421A)

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#### Title: OPTICAL MEASUREMENT APPARATUS

**Abstract:** An optical measurement apparatus which includes at least one each of a light source, an optical element, a photodetector, and a sample container, and which measures a physical property of a biological sample in a solution retained by the sample container according to a plurality of kinds of measurement items, wherein a combination of the light source, the optical element, and the photodetector is selected or changed according to the measurement item, and a position where the photodetector is located is adjusted according to the selection or change based on intensity of light accepted by the photodetector.

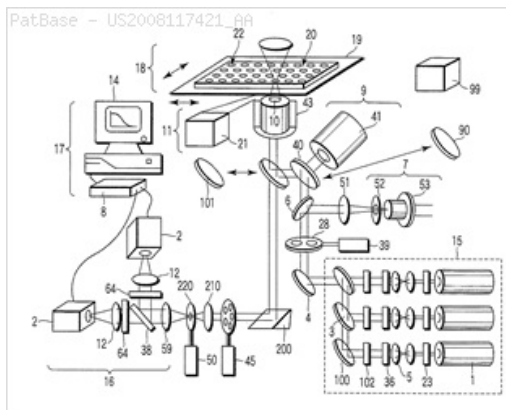
#### Classifications:

**International (IPC 8-9):** G01J3/02 G01J3/06 G01J3/08 G01J3/10 G01J3/12 G01J3/42 G01N21/64 G01N21/76 (Advanced/Invention); G01N21/64 G01N21/76 (Core/Invention)

**CPC:** G01N21/6452 G01J3/02 G01J3/021 G01J3/0229 G01J3/0235 G01J3/0289 G01J3/06 G01J3/08 G01J3/10 G01J3/42 G01J2003/123 G01N21/6428 G01N21/6445

**European:** G01J3/02 G01J3/02B10 G01J3/02B2 G01J3/02B8 G01J3/02Q G01J3/06 G01J3/08 G01J3/10 G01J3/42 G01N21/64H G01N21/64L G01N21/64P2 S01J3/12F2

**US:** 356/417 356/417P 435/288.7 435/288.700S 436/172 436/172S



#### Family:

| Publication number | Publication date | Application number | Application date |
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| EP1906172 A1    | 20080402 | EP20060768161  | 20060712 |
| EP1906172 A4    | 20140108 | EP20060768161  | 20060712 |
| JP2007010803 A1 | 20090129 | JP20070525963T | 20060712 |
| JP2012198236 A2 | 20121018 | JP20120130406  | 20120608 |
| JP5526191 B2    | 20140618 | JP20120130406  | 20120608 |
| US2008117421 AA | 20080522 | US20080014429  | 20080115 |
| WO07010803 A1   | 20070125 | WO2006JP313897 | 20060712 |

#### Priority:

JP20050207705 20050715 JP20070525963 20060712 JP20070525963T 20060712  
WO2006JP13897 20060712 WO2006JP313897 20060712 JP20120130406 20120608

**Probable Assignee:** OLYMPUS CORP

**Assignee(s):** (std): HARADA MITSUO ; OLYMPUS CORP ; OLYMPUS OPTICAL CO ; YAMAGUCHI MITSUSHIRO

**Inventor(s):** (std): YAMAGUCHI MITSUSHIRO ; HARADA MITSUO

**Agent(s):** VON HELLFELD AXEL; SCULLY SCOTT MURPHY AND PRESSER PC

**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR 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 MG MK ML MN MR MW MX 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 SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VN ZA ZM ZW

#### 5) Family number: 49470799 (US2012014837A)

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**Title:** ILLUMINATION OF INTEGRATED ANALYTICAL SYSTEMS

**Abstract:** An analytical device including an optically opaque cladding, a sequencing layer including a substrate disposed below the cladding, and a waveguide assembly for receiving optical illumination and introducing illumination into the device. The illumination may be received from a top, a side edge, and a bottom of the device. The waveguide assembly may include a nanoscale aperture disposed in the substrate and extending through the cladding. The aperture defines a reaction cell for receiving a set of reactants. In various aspects, the device includes a sensor element and the illumination pathway is through the sensor element. Waveguides and illumination devices, such as plasmonic illumination devices, are also disclosed. Methods for forming and operating the devices are also disclosed.

#### Classifications:

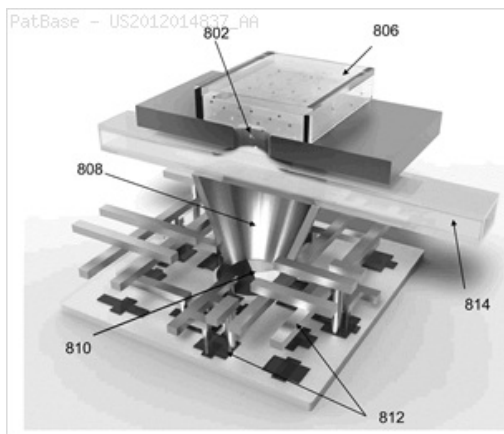
**International (ipc 8-9):** B01L3/00 B82Y15/00 B82Y20/00 C12Q1/68 C12Q1/6825 C12Q1/6869 C12Q1/6874 G01J3/02 G01J3/40 G01J3/50 G01N21/00 G01N21/01 G01N21/03 G01N21/05 G01N21/11 G01N21/63 G01N21/64 G01N21/75 G01N21/77 G01N33/543 G02B6/00 G02B6/02 G02B6/10 G02B6/122 G08C23/04 H01L27/144 H01R12/70 (Advanced/Invention); G01N21/77 H01L27/144 (Advanced/Non-invention)

**CPC:** C12Q1/6869 G01N21/75 G01N21/64 B82Y20/00 G01N21/0303 G01N21/05 G01N21/6454 G01N21/6456 G01N33/54373 G01N2021/0346 G02B6/1226 G01N2021/757 B01L2300/0654 B01L2300/168 G01N21/6452 G01N21/648 G01N2021/7786 C12Q1/6825 B01L3/502715 G01N2021/6434 G01N2021/6441 G01N2201/067 B01L2300/0663 B01L2300/0816 B01L3/502707 Y10T436/143333 G01N21/03 G01N21/645 G01N2021/6439 G01N2021/6463 G01N2201/08 G01N2201/068 G01N21/77 C12Q1/6874 G01N21/6428

**European:** B01L3/5027A G01N21/64P2 G01N21/64P8 L01L300/06B6 L01L300/16B

**US:** 1/1 250/214.1 250/214.100S 250/226 250/226S 250/458.1 250/458.100S 250/459.1 250/459.100S 250/491.1 250/492.1

356/246 356/318 356/319 356/432 356/432P 356/73.1 385/12 385/123 385/123S 385/129 385/129S 385/12S 385/14 385/39 385/43 422/69 422/82.05 422/82.07 422/82.08 422/82.080S 422/82.11 422/82.110P 435/287.2 435/6.1 435/6.12 436/172 436/172S 436/501 436/94 436/94P 439/55 439/55S 506/2 506/38 506/39 506/6



#### Family:

| Publication number | Publication date | Application number | Application date |
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| AU2011217862 AA    | 20110825         | AU20110217862      | 20110218         |
| AU2011217862 BB    | 20140522         | AU20110217862      | 20110218         |
| AU2011217862 BI    | 20140710         | AU20110217862      | 20110218         |
| AU2014202286 AA    | 20140522         | AU20140202286      | 20140428         |
| AU2014202286 BB    | 20150129         | AU20140202286      | 20140428         |
| CA2790393 AA       | 20120817         | CA20112790393      | 20110218         |
| CA2790393 C        | 20190312         | CA20112790393      | 20110218         |
| CN102985803 A      | 20130320         | CN201180019730     | 20110218         |
| CN104624258 A      | 20150520         | CN201410667643     | 20110218         |
| CN104624258 B      | 20161109         | CN201410667643     | 20110218         |
| DE602011030143 D1  | 20161020         | DE201160030143T    | 20110218         |
| DE602011031934 D1  | 20161215         | DE201160031934T    | 20110218         |
| EP2537010 A1       | 20121226         | EP20110745387      | 20110218         |
| EP2537010 A4       | 20131225         | EP20110745387      | 20110218         |
| EP2537019 A1       | 20121226         | EP20110745384      | 20110218         |
| EP2537019 A4       | 20140312         | EP20110745384      | 20110218         |
| EP2537019 B1       | 20160907         | EP20110745384      | 20110218         |
| EP2537053 A1       | 20121226         | EP20110745380      | 20110218         |
| EP2537053 A4       | 20131211         | EP20110745380      | 20110218         |
| EP2537053 B1       | 20161102         | EP20110745380      | 20110218         |
| EP2933629 A1       | 20151021         | EP20140191733      | 20110218         |
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| EP3460458 A1       | 20190327         | EP20180204689      | 20110218         |
| IN08047DN2012 A    | 20140321         | IN2012DN08047      | 20120914         |
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| US2012021525 AA | 20120126 | US20110031146 | 20110218 |
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| US2014171331 AA | 20140619 | US20130107888 | 20131216 |
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| US2015376694 AA | 20151231 | US20150730970 | 20150604 |
| US2016069806 AA | 20160310 | US20150844492 | 20150903 |
| US2017030834 AA | 20170202 | US20160195493 | 20160628 |
| US2017137877 AA | 20170518 | US20160272138 | 20160921 |
| US2018155781 AA | 20180607 | US20170786215 | 20171017 |
| US8465699 BB    | 20130618 | US20110031103 | 20110218 |
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| US8994946 BB    | 20150331 | US20120725085 | 20121221 |
| US9075019 BB    | 20150707 | US20140477323 | 20140904 |
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| US9410891 BB    | 20160809 | US20110031146 | 20110218 |
| US9488584 BB    | 20161108 | US20150730970 | 20150604 |
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| US10138515 BB   | 20181127 | US20150844492 | 20150903 |
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| WO11103504 A1   | 20110825 | WO2011US25537 | 20110218 |
| WO11103507 A1   | 20110825 | WO2011US25547 | 20110218 |

**Priority:**

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| US20100306235P | 20100219 | US20100387916P | 20100929 | US20100410189P | 20101104 |
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| US20110031122  | 20110218 | US20110031146  | 20110218 | WO2011US25537  | 20110218 |
| WO2011US25547  | 20110218 | WO2011US25525  | 20110218 | US20110579331P | 20111222 |
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**Probable Assignee:** PACIFIC BIOSCIENCES OF CALIFORNIA INC

**Assignee(s):** (std): FEHR ADRIAN ; HELGESEN SCOTT EDWARD ; MCCAFFREY NATHANIEL JOSEPH ; PACIFIC BIOSCIENCES OF CALIFORNIA INC ; PACIFIC BIOSCIENCES CALIFORNIA ; TURNER STEPHEN ; SAXENA RAVI ; PACIFIC BIOSCIENCE OF CALIFORNIA INC ; PACIFIC BIOSCIENCES CALIFORNIA INC

**Assignee(s):** PACIFIC BIOSCIENCES OF CALIFORNIA INC MENLO PARK

**Inventor(s):** (std): MCCAFFREY NATHANIEL JOSEPH ; TURNER STEPHEN ; HELGESEN SCOTT EDWARD ; SAXENA RAVI ; FEHR ADRIAN ; SAXENA JR RAVI ; SAXENA SR RAVI

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**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 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 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 PE PG PH PL PT RO RS RU 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

**6) Family number: 30456805 (US2004110206A)**

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**Title:** WAVEFORM MODULATED LIGHT EMITTING DIODE (LED) LIGHT SOURCE FOR USE IN A METHOD OF AND APPARATUS FOR SCREENING TO IDENTIFY DRUG CANDIDATES

**Abstract:** Two apparatuses are disclosed for screening a compound by monitoring its interactions with a specimen having fluorophore loaded target cells. The first apparatus comprises an optical illumination unit comprising a light source wherein light from the light source is directed to illuminate the specimen; a fluorescence discrimination unit which is coupled to receive emitted light from the specimen and separate at least three emitted wavelengths of light from said emitted light; and a fluorescence detection unit which is coupled to the fluorescence discrimination unit counts photons emitted by the wavelengths of emitted light. The second apparatus comprises a two-dimensional acousto-optical scanning system for use in the apparatus for screening drug candidates is also disclosed. The two dimensional acousto-optical scanning system is based on two perpendicular acousto-optical modulators, spaced so that each is within the range of deflection of the first order beams of the other modulator. A method of screening a compound by monitoring its interactions with a specimen having fluorophore loaded target cells is also described. The method comprises the steps of coupling a light source to the specimen to illuminate the specimen; separating at least three wavelengths of light emitted by the specimen, and detecting photon counts from the three emitted wavelengths of light. Also disclosed is a waveform modulated light emitting diode (LED) system for used as a light source for the apparatus for screening a compound by monitoring its interactions with a specimen having fluorophore loaded target cells.

**Classifications:**

**International (IPC 8-9):** G01N21/64 (Advanced/Invention)

**International (IPC 1-7):** C12M1/34 C12Q1/68 G01J3/30 G01N21/64

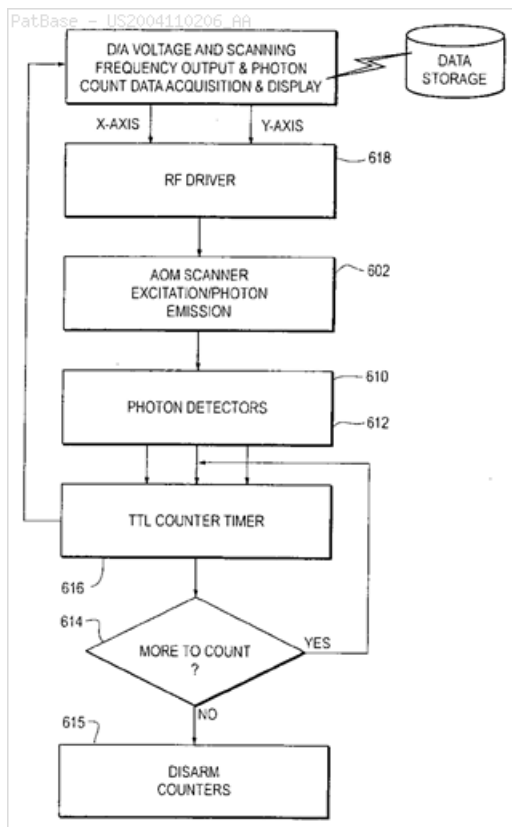
**CPC:** G01N21/6408 G01N21/6428 G01N21/6452 G01N21/6458

G01N2021/6419 G01N2021/6421 G01N2021/6441 G01N2021/6484

**European:** G01N21/64F G01N21/64H G01N21/64P2 G01N21/64P4C

S01N21/64G2 S01N21/64G3 S01N21/64H7A S01N21/64P12

**US:** 435/287.2 435/287.200S 435/6 435/6.14 435/6.140P 435/6P



#### Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| AU2003272667 AA    | 20040419         | AU20030272667      | 20030925         |
| US2004110206 AA    | 20040610         | US20030670871      | 20030925         |
| WO04029566 A1      | 20040408         | WO2003US30048      | 20030925         |

#### Priority:

US20020413874P 20020926      US20030670871 20030925      WO2003US30048 20030925

**Probable Assignee:** BIO TECHPLEX CORP

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**Inventor(s):** (std): WONG LID B ; KULSETH ROBERT C

**Inventor(s):** ROBERT C KULSETH ; LID B WONG

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

#### 7) Family number: 28165858 (US2002008211A)

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**Title:** Fluorescence intensity multiple distributions analysis: concurrent determination of diffusion times and molecular brightness

**Abstract:** The present invention relates to a method for characterizing samples having fluorescent particles, comprising the steps of: (a) monitoring intensity fluctuations of fluorescence emitted by the particles in at least one measurement volume by detecting sequences of photon counts by at least one photon detector, (b) determining from the sequences of photon counts intermediate statistical data comprising at least two probability functions,  $\{ \text{circumflex over (P)} \}^1(n_1), \{ \text{circumflex over (P)} \}^2(n_2), \dots$ , of the number of photon counts,  $n_1, n_2, \dots$ , detected in different sets of counting time intervals, (c) determining from said intermediate statistical data a distribution of particles as a function of at least two arguments, wherein one argument is a specific brightness of the particles, or a measure thereof, and another argument is a diffusion coefficient of the particles, or a measure thereof.

#### Classifications:

**International (IPC 8-9):** G01J3/28 G01J3/44 G01J3/443 G01J3/447

G01J3/457 G01N15/02 G01N21/64 (Advanced/Invention);

G01J3/28 G01J3/443 (Advanced/Non-invention);

G01J3/28 G01J3/44 G01J3/443 G01N15/02

G01N21/64 (Core/Invention);

G01J3/28 (Core/Non-invention)

**International (IPC 1-7):** G01J3/44 G01J3/443 G01J3/447 G01J3/457

G01N15/02 G01N21/64

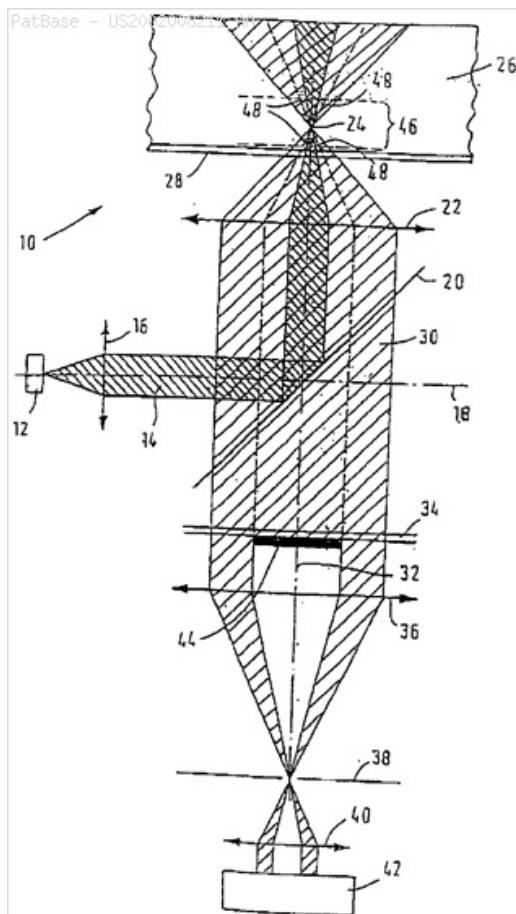
**CPC:** G01J3/457 G01N21/64 G01N21/6408 G01N2021/6421

G01N2021/6463 G01N21/6458 G01J3/4406 G01J2003/2866

**European:** G01J3/44B G01J3/457 G01N21/64 G01N21/64P4C

S01J3/28M S01N21/64F S01N21/64G3 S01N21/64P4C S01N21/64P6

**US:** 250/458.1 250/459.1 250/459.100P 702/28



#### Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
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| AT264499 E         | 20040415         | AT20010903729T     | 20010209         |
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| DE60001731 D1      | 20030424         | DE20006001731T     | 20000429         |
| DE60001731 T2      | 20040205         | DE20006001731T     | 20000429         |
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| DE60102797 D1      | 20040519         | DE20016002797T     | 20010209         |
| DE60102797 T2      | 20050908         | DE20016002797T     | 20010209         |
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| JP3559525 B2       | 20040902         | JP20000615574      | 20000429         |
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| US6376843 BA       | 20020423         | US19990338439      | 19990623         |
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| US6965113 BB       | 20051115         | US20010779461      | 20010209         |
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| WO0066985 C2       | 20020214         | WO2000EP03890      | 20000429         |
| WO0159416 A1       | 20010816         | WO2001EP01431      | 20010209         |

#### Priority:

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|----------------|----------|----------------|----------|---------------|----------|
| US19990131657P | 19990429 | EP19990112104  | 19990623 | US19990338439 | 19990623 |
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| EP20010903729  | 20010209 | US20010779461  | 20010209 | EP20010903729 | 20010209 |
| WO2001EP01431  | 20010209 | WO2001EP01431  | 20010209 | US20010869581 | 20011022 |

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**Inventor(s):** (std): KASK PEET ; PALO KAUKO ; GALL KARSTEN ; METS UELO ; JAEGER STEFAN ; KASK PETE ; PALO KAUKO

**Inventor(s):** PETE KASK ; KAUKO PALO ; PEET KASK

**Agent(s):** JACOBSON HOLMAN PLLC

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DZ EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK  
LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PL PT RO RU SD SE SG SI SK SL  
SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW