

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
24 April 2003 (24.04.2003)

PCT

(10) International Publication Number
WO 03/034044 A3

- (51) International Patent Classification⁷: G01N 27/447
- (21) International Application Number: PCT/US02/33684
- (22) International Filing Date: 21 October 2002 (21.10.2002)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/348,034 19 October 2001 (19.10.2001) US
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(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.

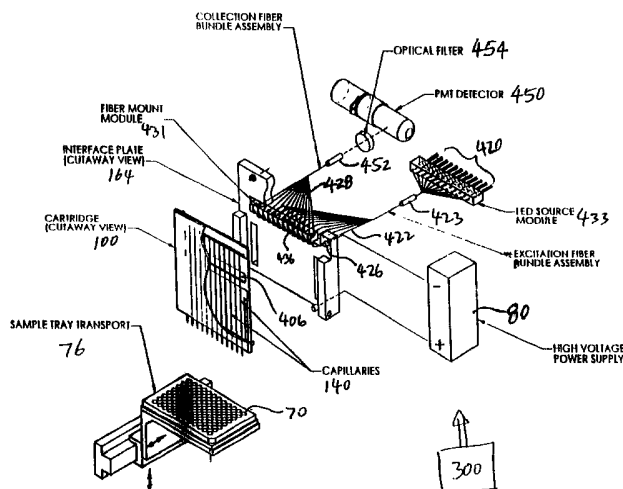
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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Published:
— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

(54) Title: MULTI-COLOR MULTIPLEXED ANALYSIS IN A BIO-SEPARATION SYSTEM



(57) Abstract: A multi-channel and multi-color bio-separation detection method and apparatus in which a single detector (450) is coupled to a plurality of radiation sources (420,433), in a one detector/many radiation sources configuration. Each radiation source directs radiation at a detection zone (406) of a single separation channel (140), and a single detector is applied to detect light emissions from the detection zones associated with several radiation sources. The radiation sources are activated to direct radiation at the detection zone in a predetermined sequence and further in a cyclic manner, with the detector output synchronized to the radiation sources by a controller (300). Bio-separation may be conducted simultaneously in all the channels in parallel, with detection time-staggered and/or time multiplexed with respect to the light sources. In one embodiment, low cost light emitting diodes may be used as radiation sources. In another aspect, the detection scheme is configured for radiation induced fluorescence detection in an capillary electrophoresis instrument.



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(88) Date of publication of the international search report:
14 August 2003

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 02/33684

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 GO1N27/447

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 GO1N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01 02846 A (CORNING INC) 11 January 2001 (2001-01-11) page 10, line 28 -page 11, line 17 page 13, line 16-29; figures 11,15 ---	1-13
X	EP 0 723 149 A (HITACHI LTD) 24 July 1996 (1996-07-24) column 7, line 7-54; figures 2,3 ---	1,3,8-13
X	US 5 324 401 A (YEUNG EDWARD S ET AL) 28 June 1994 (1994-06-28) column 3, line 28 -column 4, line 12 column 13, line 11-25 -----	1,9,10

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Patent family members are listed in annex.

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Date of the actual completion of the international search

5 June 2003

Date of mailing of the international search report

17/06/2003

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Information on patent family members

International Application No

PCT/US 02/33684

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