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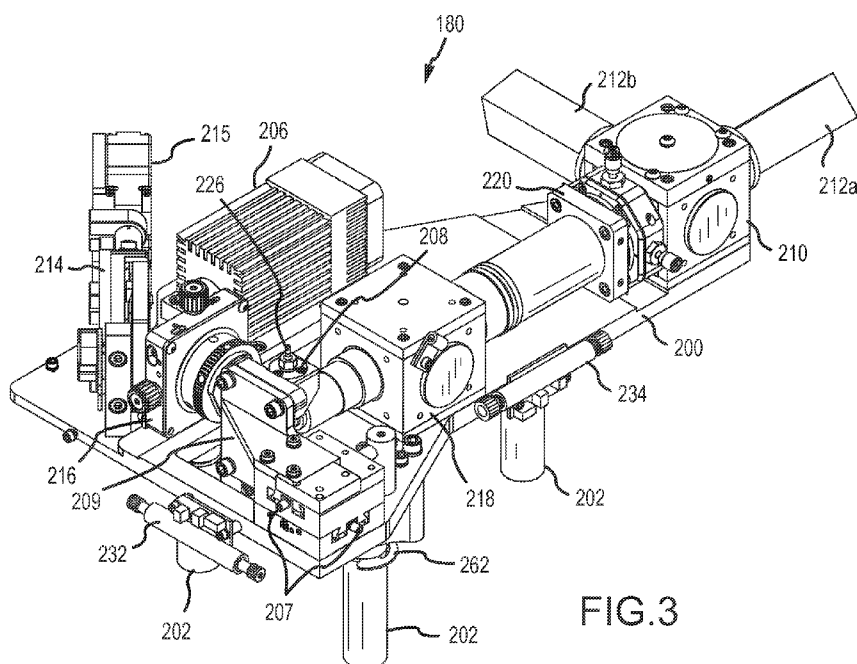
Declarations under Rule 4.17:

— of inventorship (Rule 4.17(iv))

Published:

— with international search report (Art. 21(3))

[Continued on next page]

(54) **Title:** FLOW CYTOMETER WITH OPTICAL SYSTEM ASSEMBLY**FIG.3**

(57) **Abstract:** A flow cytometer may include a vibration isolation structure on which a flow cytometer optical system assembly is supported when the flow cytometer is in an operational configuration. A shear protection structure may be positioned to protect a vibration isolation structure from damage during handling and shipping. A flow cytometer optical system assembly may include optical component units fixed in position on a support platform with adjustability of one or more optical features in the optical component units. A light-tight dichroic mirror unit may include a rotatably mounted dichroic mirror with a locking mechanism to permit re-setting angular positioning of a dichroic mirror.



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- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))* (88) **Date of publication of the international search report:**
11 February 2016

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2015/033795

A. CLASSIFICATION OF SUBJECT MATTER

INV. G01N15/14 F16F15/02
ADD.

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)

G01N F16F

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 practicable, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 822 404 A2 (BAYER AG [US]) 4 February 1998 (1998-02-04)	1-19, 28-31, 35,51-55
Y	page 15; figures 10,11,15,37 page 23, line 28 - line 29; figure 44 page 25, line 23 - line 24; figure 37 -----	23-27, 33,34
Y	WO 2009/093017 A1 (SECR DEFENCE [GB]; KAYE PAUL HENRY [GB]; STANLEY WARREN ROY [GB]) 30 July 2009 (2009-07-30) page 11 - page 12; figure 1 -----	1-19, 28-31, 35,51-55
Y	EP 1 176 412 A2 (SENSORS INC [US]) 30 January 2002 (2002-01-30) paragraphs [0005], [0010] ----- -/-	1-19, 28-31, 35,51-55



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

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"P" document published prior to the international filing date but later than the priority date claimed

"T" 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

"X" 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

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"&" document member of the same patent family

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INTERNATIONAL SEARCH REPORT

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 3 516 629 A (SAY ALAN W) 23 June 1970 (1970-06-23) column 1, line 24 - line 39; figures -----	17-19, 31,35, 51-55
A	US 3 758 058 A (NEUDECK H ET AL) 11 September 1973 (1973-09-11) column 2, line 38 - line 65; figures -----	17-19, 31,35, 51-55
A	US 5 386 962 A (ADRIANCE KYLE [US] ET AL) 7 February 1995 (1995-02-07) column 3, lines 10-34; figures 5,6 -----	17-19, 31,35
A	EP 1 002 968 A2 (CARRIER CORP [US]) 24 May 2000 (2000-05-24) paragraphs [0002], [0017] -----	17-19
X	US 2013/327957 A1 (AYLIFFE HAROLD E [US]) 12 December 2013 (2013-12-12) -----	36-50
Y	paragraphs [0001], [0009], [0013], [0035], [0038], [0043]; figures 1-5 -----	23-27, 33,34
X	US 2003/235919 A1 (CHANDLER VAN S [US]) 25 December 2003 (2003-12-25) paragraphs [0037], [0179], [0208], [0209]; figures 8-10,47,48 -----	36-50

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2015/033795

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-22, 28-32, 35, 51-55

flow cytometer characterised by details of its vibration isolation structure.

2. claims: 23-27, 33, 34, 36-50

flow cytometer characterised by the adjustment of the optical components.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2015/033795

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