

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P176		FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/JP2023/021153	International filing date <i>(day/month/year)</i> 07.06.2023	Priority date <i>(day/month/year)</i>	
International Patent Classification (IPC) or national classification and IPC G01N 21/03(2006.01) i; G01N 21/59(2006.01)i FI: G01N21/03 Z; G01N21/59 Z			
Applicant AMANO Co., Ltd.			

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. 2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet. 3. This report is also accompanied by ANNEXES, comprising: a. ☒ a total of <u>3</u> sheets, as follows: ☒ sheets of the description, claims and/or drawings which have been amended and/or sheets containing rectifications authorized by this Authority, unless those sheets were superseded or cancelled, and any accompanying letters (see Rules 46.5, 66.8, 70.16, 91.2, and Section 607 of the Administrative Instructions). ☐ sheets containing rectifications, where the decision was made by this Authority not to take them into account because they were not authorized by or notified to this Authority at the time when this Authority began to draw up this report, and any accompanying letters (Rules 66.4bis, 70.2(e), 70.16 and 91.2). ☐ superseded sheets and any accompanying letters, where this Authority either considers that the superseding sheets contain an amendment that goes beyond the disclosure in the international application as filed, or the superseding sheets were not accompanied by a letter indicating the basis for the amendments in the application as filed, as indicated in item 4 of Box No. I and the Supplemental Box (see Rule 70.16(b)). b. ☐ a separate electronic file containing a sequence listing <i>(sent to the International Bureau only)</i>. 4. This report contains indications relating to the following items: ☒ Box No. I Basis of the report ☐ Box No. II Priority ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability ☐ Box No. IV Lack of unity of invention ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement ☐ Box No. VI Certain documents cited ☐ Box No. VII Certain defects in the international application ☐ Box No. VIII Certain observations on the international application

Date of submission of the demand 27.10.2023	Date of completion of this report 23.01.2024
Name and mailing address of the IPEA/ Japan Patent Office (IPEA/JP) 3-4-3 Kasumigaseki, Chiyoda-ku, Tokyo 100-8915 Japan	Authorized officer ONODERA Mamiko 2W 9505 Telephone No. 03-3581-1101 extension line 3258

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2023/021153

Box No. I Basis of the report

1. With regard to the **language**, this report is based on:

the international application in the language in which it was filed.



a translation of the international application into _____ which is the language of a translation furnished for the purposes of:



international search (Rules 12.3(a) and 23.1(b)).



publication of the international application (Rule 12.4(a)).



international preliminary examination (Rules 55.2(a) and/or 55.3(a) and (b)).

2. With regard to the **elements** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

the international application as originally filed/furnished, or



the description: pages 1-18 as originally filed/furnished.

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____



the claims: Nos. _____ as originally filed/furnished.

Nos.* _____ as amended (together with any statement) under Article 19

Nos.* 7-15 received by this Authority on 05.01.2024



the drawings: pages 1-8 as originally filed/furnished.

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____



a sequence listing - see Supplemental Box Relating to Sequence Listing.

3. ☒ The amendments have resulted in the cancellation of:

the description, pages _____



the claims, Nos. 1-6



the drawings, sheets/figs _____

the sequence listing (*specify*): _____4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since either they are considered to go beyond the disclosure as filed, or they were not accompanied by a letter indicating the basis for the amendments in the application as filed, as indicated in the Supplemental Box (Rules 70.2(c) and (c-bis)):

the description, pages _____



the claims, Nos. _____



the drawings, sheets/figs _____

the sequence listing (*specify*): _____5. ☐ This report has been established:taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rules 66.1(d-bis) and 70.2(e)).without taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91(Rules 66.4bis and 70.2(e)).

6. With regard to top-up searches (Rules 66.1ter and 70.2(f)):



A top-up search was carried out by this Authority on 24.11.2023



Additional relevant documents have been discovered during the top-up search.



No top-up search was carried out by this Authority because it would serve no useful purpose.

7. ☐ Supplementary international search report(s) from Authority(ies) _____ has/have been received and taken into account in establishing this report (Rule 45bis.8(b) and (c)).

* If item 4 applies, some or all of those sheets may be marked "superseded."

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	7-15	YES
	Claims		NO
Inventive step (IS)	Claims	7-15	YES
	Claims		NO
Industrial applicability (IA)	Claims	7-15	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

Document 1: JP 2001-503851 A (DIESSE DIAGNOSTICA SENESE S.R.L.) 21.03.2001 (2001-03-21), Claim 3, Pages 4-6, FIGs. 1-4 & US 2001/0002241 A1, Claim 3, [0001]-[0021], FIGs. 1-4 & US 6190615 B1 & WO 1997/043622 A1

Document 2: Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No.53-145341 (Laid-open No. 54-68679) (Compur-Electronic Gesellschaft mit beschränkter Haftung) 16.05.1979 (1979-05-16) Pages 1, 3-4, Figs. 1-3 & US 4240749 A, Columns 1-2, Figs.1-3 & GB 2008273 A & FR 2407646 A7

Document 3: US 4021124 A (KUNSTSTOFF-SPRITZGUSSWERK) 03.05.1977 (1977-05-03), Colum 4, Figs.1-4 & GB 1545881 A & GB 1545882 A & FR 2302517 A1 & CH 591693 A5

Document 4: JP 2008-26158 A (MATSUSHITA ELECTRIC IND CO LTD) 07.02.2008 (2008-02-07) (Family: none)

Document 5: WO 00/75632 A1 (BIOCHROM LIMITED) 14.12.2000 (2000-12-14) (Family: none)

<On claims 7-13>

The inventions of claims 7-13 are not described in any document cited in the International Search Report, nor are they obvious for a person skilled in the art.

None of the documents describe "comprises a receiving portion for receiving the optical cell and including a recess for receiving the projection only in a predetermined direction" in the inventions of claims 7-13, and the inventions of claims 7-13 thereby exhibit the advantageous effects of "the optical cell 2 can always be installed in a constant direction" and also "The constant insertion direction of the optical cell improves the stability of measurement accuracy".

<On claims 14-15>

The inventions of claims 14-15 are not described in any document cited in the International Search Report, nor are they obvious for a person skilled in the art.

None of the documents describe "An optical cell" including "a housing portion having a longitudinal direction and a short direction in horizontal cross-section and having a substantially rectangular shape" and "a projection extending outward from a side along a longitudinal direction of the housing portion along a short direction", in which "a side of the housing portion and the introducing portion opposite to a side on which the projection is formed is formed as a continuous plane" in the inventions of claims 14-15, and the inventions of claims 14-15 thereby exhibit the advantageous effects of "One side (right side) of the housing portion 21 and the introducing portion 22 is formed as a continuous plane without unevenness, and the degree of freedom of installation of the radiation temperature sensor 103 in a position facing this side is increased" and "the problem of increase in unevenness of sample temperature" hardly occurs.

- On Industrial Applicability

It is clear that the inventions of claims 7-15 have industrial applicability.