

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/JP2011/060731

**A. CLASSIFICATION OF SUBJECT MATTER**

A61B6/03(2006.01) i, A61B6/02(2006.01) i, A61B6/14(2006.01) i

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)

A61B6/00

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

Jitsuyo Shinan Koho	1922-1996	Jitsuyo Shinan Toroku Koho	1996-2011
Kokai Jitsuyo Shinan Koho	1971-2011	Toroku Jitsuyo Shinan Koho	1994-2011

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

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 2007-136163 A (Axion Japan Co., Ltd.), 07 June 2007 (07.06.2007), entire text; all drawings & US 2009/0310845 A1 & EP 1961383 A1 & WO 2007/046458 A1	1-21
A	JP 3023633 U (J. Morita Manufacturing Corp.), 23 April 1996 (23.04.1996), entire text; all drawings (Family: none)	21
A	JP 2005-21675 A (Shimadzu Corp.), 27 January 2005 (27.01.2005), entire text; all drawings & US 2004/0252811 A1 & KR 10-2004-0111005 A & CN 1573321 A	1-21

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

“L” document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

“O” document referring to an oral disclosure, use, exhibition or other means

“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

“Y” document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

“&” document member of the same patent family

Date of the actual completion of the international search  
03 June, 2011 (03.06.11)

Date of mailing of the international search report  
14 June, 2011 (14.06.11)

Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

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**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:

The matter common among the inventions of claims 1-21 is a "phantom having a marker". However, this common matter cannot be any special technical feature, since the common matter is disclosed in document JP 2007-136163 A (Axion Japan Co., Ltd.), 7 June 2007 (07.06.2007) listed in the international search report so that the common matter makes no contribution over the prior art. Moreover, those inventions do not have the same or corresponding special technical feature any more. (continued to extra 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 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.

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Continuation of Box No.III of continuation of first sheet (2)

Hence, these inventions cannot be considered so relative as to form a single general inventive concept, since the inventions are not so technically related as to involve one or two or more of the same or corresponding special technical features.

On claim 1

Claim 1 has a definition of a moving means for moving any of said radiation source, said detector, "said radiation source", or said object, and a definition of moving said radiation source and said detector, "said detector" or said object by said moving means. Because of incoincidence between the disclosures of the two, however, it is indefinite whether the moving means moves the radiation source or the detector.

Thus, the disclosure of claim 1 lacks clearness within the meaning of PCT Article 6, second sentence.

Hence, this international search has been conducted by construing that the moving means moves the radiation source and the detector or the object.

On claim 2

Claim 2 defines "said second operation means". Since no definition on the "second operation means" is made in the portion before said disclosure of claim 2, however, it is indefinite what "said second operation means" is.

Thus, the disclosure of claim 2 lacks clearness within the meaning of PCT Article 6, second sentence.

Here, claim 2 has not defined the numbers of dependent claims. Moreover, claim 1 has a disclosure concerning the "second operation means".

Hence, this international search has been made by construing that claim 2 is dependent on claim 1.

On claim 3

Claim 3 defines "said calibration data" and "said storage means". In the portions before said description of claim 3, however, no disclosure is made on "said calibration data" and "said storage means". It is, therefore, indefinite what "said calibration data" and "said storage means" are.

Thus, the disclosure of claim 3 lacks clearness within the meaning of PCT Article 6, second sentence.

Here, claim 3 has not defined the numbers of dependent claims. Moreover, claim 2 has a disclosure concerning the "calibration data" and the "storage means".

Hence, this international search has been made by construing that claim 3 is dependent on claim 2.

On claim 12

Claim 12 defines "said position", but it is indefinite what position is meant.

Thus, the disclosure of claim 12 lacks clearness within the meaning of PCT Article 6, second sentence.

In consideration of the description, this international search has been made by construing that "said position" is the position of a rotation center.