

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference <b>10145327WO01</b>	<b>FOR FURTHER ACTION</b>		See item 4 below
International application No. <b>PCT/JP2016/003118</b>	International filing date ( <i>day/month/year</i> ) <b>29 June 2016 (29.06.2016)</b>	Priority date ( <i>day/month/year</i> ) <b>02 July 2015 (02.07.2015)</b>	
International Patent Classification (8th edition unless older edition indicated) <b>See relevant information in Form PCT/ISA/237</b>			
Applicant <b>CANON KABUSHIKI KAISHA</b>			

<p>1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.</p>																								
<p>3. This report contains indications relating to the following items:</p> <table border="0"> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table> <p>4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).</p>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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	Date of issuance of this report <b>02 January 2018 (02.01.2018)</b>
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer  <b>Yukari Nakamura</b>
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# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To: ABE, Takuma  C/O CANON KABUSHIKI KAISHA, 30-2, Shimomaruko 3-chome, Ohta-ku, Tokyo 1468501 Japan
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## PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY  
(PCT Rule 43bis.1)

Date of mailing <i>(day/month/year)</i>	06.12.2016
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Applicant's or agent's file reference 10145327W001
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<b>FOR FURTHER ACTION</b> See paragraph 2 below
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International application No. PCT/JP2016/003118
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International filing date <i>(day/month/year)</i> 29.06.2016
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Priority date <i>(day/month/year)</i> 02.07.2015
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International Patent Classification (IPC) or both national classification and IPC Int.Cl. H01J35/08 (2006.01) i, H05G1/06 (2006.01) i
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Applicant CANON KABUSHIKI KAISHA
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<p>1. This opinion contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Box No. I Basis of the opinion</li> <li><input type="checkbox"/> Box No. II Priority</li> <li><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li><input type="checkbox"/> Box No. IV Lack of unity of invention</li> <li><input checked="" type="checkbox"/> Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li><input type="checkbox"/> Box No. VI Certain documents cited</li> <li><input type="checkbox"/> Box No. VII Certain defects in the international application</li> <li><input type="checkbox"/> Box No. VIII Certain observations on the international application</li> </ul> <p>2. <b>FURTHER ACTION</b></p> <p>If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.</p> <p>If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.</p> <p>For further options, see Form PCT/ISA/220.</p>
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Date of completion of this opinion	25.11.2016
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Name and mailing address of the ISA/JP  <p style="text-align: center;"><b>Japan Patent Office</b></p> 3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan	Authorized officer  TORII, Yuki Telephone No. +81-3-3581-1101 Ext. 3226
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**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/JP2016/003118

**Box No. I      Basis of this opinion**

1. With regard to the **language**, this opinion has been established on the basis of:
  - 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)).
2.  This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(b)).
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing:
  - a.  forming part of the international application as filed:
    - in the form of an Annex C/ST.25 text file.
    - on paper or in the form of an image file.
  - b.  furnished together with the international application under PCT Rule 13ter.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
  - c.  furnished subsequent to the international filing date for the purposes of international search only:
    - in the form of an Annex C/ST.25 text file (Rule 13ter.1(a)).
    - on paper or in the form of an image file (Rule 13ter.1(b) and Administrative Instructions, Section 713).
4.  In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/JP2016/003118

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	1-12	YES
	Claims	_____	NO
Inventive step (IS)	Claims	10	YES
	Claims	1-9, 11-12	NO
Industrial applicability (IA)	Claims	1-12	YES
	Claims	_____	NO

2. Citations and explanations:

D1:US 2005/0207537 A1 (UKITA, Masaaki) 2005.09.22, [0098], [0176]-[0177],  
Figure 18 & JP 2004-55325 A & WO 2004/010744 A1 & EP 1551209 A1 & CN  
1480978 A

D2:US 2005/0141669 A1 (SHIMONO, Takashi et al.) 2005.06.30, [0017] & JP  
2004-265602 A & WO 2004/064106 A1 & EP 1596417 A1 & CN 1698175 A

D3:JP 7-253499 A (NIKON CORPORATION) 1995.10.03, [0073] (No Family)

D4:US 2014/0037055 A1 (OGURA, Takao et al.) 2014.02.06, [0042]-[0044],  
Figure 4 & JP 2014-32903 A

Claims 1-8:

The subject matter of claims 1-8 does not involve an inventive step over document D1 in view of document D2 for the following reason.

D1 discloses an X-ray generating apparatus comprising: a holder 11A being sandwiched together with an O-ring 15 between an end block 5 and a mount ring 17 ([0098], [0176]-[0177], Figure 18). O-rings are well-known elastic members. The subject matter of claims 1-8 differs from the invention disclosed in D1 in that a container accommodates an X-ray generating tube and that an anode member is connecting the X-ray generating tube to the container.

However, D2 discloses an X-ray apparatus comprising: a container accommodating an X-ray tube, and a cylinder portion 3 connected to a target holding body 24 and mounted to the container ([0017]). Therefore, a person skilled in the art would easily conceive the idea of substituting the feature disclosed in D2 for the feature disclosed in D1.

Claim 9:

The subject matter of claim 9 does not involve an inventive step over document D1 in view of documents D2 and D3 for the following reason.

D3 discloses a deformable member comprises nitrile rubber for sealing ([0073]).

(See the Supplemental Box)

**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.

Continuation of: V.2

Claim 10:

The subject matter of claim 10 involves an inventive step over the documents cited in the International Search Report (ISR) for the following reason.

None of the prior art documents cited in the ISR describes a container with a lower Young's modulus than a retaining member and an anode member.

Claims 11-12:

The subject matter of claims 11-12 does not involve an inventive step over document D1 in view of document D2 and D4 for the following reason.

D4 discloses a radiography system([0042]-[0044], figure 4) and a package 11 involving X-ray tube 1 and insulating oil([0021], figure 1).