

**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 FP-10090	<b>FOR FURTHER ACTION</b>		See item 4 below
International application No. PCT/JP2008/055859	International filing date ( <i>day/month/year</i> ) 27 March 2008 (27.03.2008)	Priority date ( <i>day/month/year</i> ) 30 March 2007 (30.03.2007)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant KURITA WATER INDUSTRIES LTD.			

<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> <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 13 October 2009 (13.10.2009)
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer  <b>Masashi Honda</b>
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**PATENT COOPERATION TREATY**

**TRANSLATION**

From the  
INTERNATIONAL SEARCHING AUTHORITY

**PCT**

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing  
(day/month/year)

Applicant's or agent's file reference  
**FP-10090**

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
**PCT/JP2008/055859**

International filing date (day/month/year)  
**27.03.2008**

Priority date (day/month/year)  
**30.03.2007**

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

Applicant  
**KURITA WATER INDUSTRIES LTD.**

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- 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 Rule 43bis.1(a)(i) with regard to novelty, inventive step or 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

2. **FURTHER ACTION**

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.

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.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP	Date of completion of this opinion	Authorized officer
Facsimile No.		Telephone No.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2008/055859

Box No. I	Basis of this opinion
1.	<p>With regard to the <b>language</b>, this opinion has been established on the basis of:</p> <p><input checked="" type="checkbox"/> the international application in the language in which it was filed</p> <p><input type="checkbox"/> 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)).</p>
2.	<p><input type="checkbox"/> This opinion has been established taking into account the <b>rectification of an obvious mistake</b> authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))</p>
3.	<p>With regard to any <b>nucleotide and/or amino acid sequence</b> disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:</p> <p>a. type of material</p> <p><input type="checkbox"/> a sequence listing</p> <p><input type="checkbox"/> table(s) related to the sequence listing</p> <p>b. format of material</p> <p><input type="checkbox"/> on paper</p> <p><input type="checkbox"/> in electronic form</p> <p>c. time of filing/furnishing</p> <p><input type="checkbox"/> contained in the international application as filed</p> <p><input type="checkbox"/> filed together with the international application in electronic form</p> <p><input type="checkbox"/> furnished subsequently to this Authority for the purposes of search</p>
4.	<p><input type="checkbox"/> In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.</p>
5.	<p>Additional comments:</p>

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/JP2008/055859
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<b>Box No. V</b>	<b>Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</b>																								
1. Statement	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; padding: 2px;">Novelty (N)</td> <td style="width: 60%; padding: 2px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 2px;">Claims</td> <td style="width: 50%; padding: 2px;"><u>1-13</u></td> <td style="width: 40%; padding: 2px;">YES</td> </tr> <tr> <td style="padding: 2px;">Claims</td> <td style="padding: 2px;">_____</td> <td style="padding: 2px;">NO</td> </tr> </table> </td> </tr> <tr> <td style="padding: 2px;">Inventive step (IS)</td> <td style="padding: 2px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 2px;">Claims</td> <td style="width: 50%; padding: 2px;"><u>1-13</u></td> <td style="width: 40%; padding: 2px;">YES</td> </tr> <tr> <td style="padding: 2px;">Claims</td> <td style="padding: 2px;">_____</td> <td style="padding: 2px;">NO</td> </tr> </table> </td> </tr> <tr> <td style="padding: 2px;">Industrial applicability (IA)</td> <td style="padding: 2px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 2px;">Claims</td> <td style="width: 50%; padding: 2px;"><u>1-13</u></td> <td style="width: 40%; padding: 2px;">YES</td> </tr> <tr> <td style="padding: 2px;">Claims</td> <td style="padding: 2px;">_____</td> <td style="padding: 2px;">NO</td> </tr> </table> </td> </tr> </table>	Novelty (N)	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 2px;">Claims</td> <td style="width: 50%; padding: 2px;"><u>1-13</u></td> <td style="width: 40%; padding: 2px;">YES</td> </tr> <tr> <td style="padding: 2px;">Claims</td> <td style="padding: 2px;">_____</td> <td style="padding: 2px;">NO</td> </tr> </table>	Claims	<u>1-13</u>	YES	Claims	_____	NO	Inventive step (IS)	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 2px;">Claims</td> <td style="width: 50%; padding: 2px;"><u>1-13</u></td> <td style="width: 40%; padding: 2px;">YES</td> </tr> <tr> <td style="padding: 2px;">Claims</td> <td style="padding: 2px;">_____</td> <td style="padding: 2px;">NO</td> </tr> </table>	Claims	<u>1-13</u>	YES	Claims	_____	NO	Industrial applicability (IA)	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 2px;">Claims</td> <td style="width: 50%; padding: 2px;"><u>1-13</u></td> <td style="width: 40%; padding: 2px;">YES</td> </tr> <tr> <td style="padding: 2px;">Claims</td> <td style="padding: 2px;">_____</td> <td style="padding: 2px;">NO</td> </tr> </table>	Claims	<u>1-13</u>	YES	Claims	_____	NO
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2. Citations and explanations:	<p>Documents 1-6 below are cited in the ISR.</p> <p>Document 1: JP 2002-192162 A (Kurita Water Industries Ltd.)</p> <p>Document 2: JP 2004-267864 A (Organo Corp.)</p> <p>Document 3: JP 2000-317413 A (Kurita Water Industries Ltd.)</p> <p>Document 4: JP 2002-166283 A (Kurita Water Industries Ltd.)</p> <p>Document 5: JP 2004-275881 A (Kurita Water Industries Ltd.)</p> <p>Document 6: JP 7-299126 A (Hoshizaki Electric Co., Ltd.)</p> <p style="margin-top: 20px;">While document 1 discloses a step of washing and sterilizing an ultrapure water production system wherein the interior of the ultrapure water production system is washed with an alkaline solution, then washed with a hydrogen peroxide solution, it does not mention carrying out the washing and sterilizing step "at least twice".</p> <p style="margin-top: 20px;">Document 2 describes, as a washing method for an ultrapure water production supply device, "carrying out the washing using a medical liquid at least twice";</p>																								

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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

however, what the "medical liquid" refers to is merely "hydrogen peroxide solution" or "basic aqueous solution".

Therefore, repeating "a step of washing and sterilizing which comprises washing with an alkaline solution, and then washing with a hydrogen peroxide solution" "at least twice" is neither described nor suggested.

All of documents 3-6 merely indicate the prior art.

By combing the matter described in document 2 to the matter described in document 1, it appears that the configuration of "carrying out at least twice" the specific washing and sterilizing step of the present application is presumed to be obvious. However, this configuration is not obvious because it exhibits the particularly outstanding effect of drastically shortening the period of time from the start of ultrapure water production after washing and sterilizing until meeting the required water quality by the repetition of said washing and sterilizing step. Therefore, the repetition of said washing and sterilizing step is not an obvious configuration.

Such being the case, none of the documents deprives the invention as in claims 1-13 of novelty and an inventive step.