

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 64957413PC01	FOR FURTHER ACTION	See item 4 below
International application No. PCT/US2014/063224	International filing date (<i>day/month/year</i>) 30 October 2014 (30.10.2014)	Priority date (<i>day/month/year</i>)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant KIMBERLY-CLARK WORLDWIDE, INC.		

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).																								
2.	This REPORT consists of a total of 7 sheets, including this cover sheet.																								
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.																									
3.	This report contains indications relating to the following items: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%; text-align: center;">☒</td> <td style="width: 25%;">Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td style="text-align: center;">☐</td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td style="text-align: center;">☐</td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center;">☐</td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td style="text-align: center;">☒</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 style="text-align: center;">☐</td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td style="text-align: center;">☐</td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td style="text-align: center;">☒</td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>	☒	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 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
☒	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 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																							
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).																								

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 338 82 70	Date of issuance of this report 02 May 2017 (02.05.2017) Authorized officer Agnès Wittmann-Regis e-mail: pct.team6@wipo.int
--	---

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To: ARTEMAN, DAVID J. 2300 WINCHESTER ROAD NEENAH WI 54956 USA
--

Date of mailing (day/month/year)	01 July 2015 (01.07.2015)
-------------------------------------	----------------------------------

Applicant's or agent's file reference 64957413PC01	FOR FURTHER ACTION See paragraph 2 below
---	--

International application No. PCT/US2014/063224	International filing date (day/month/year) 30 October 2014 (30.10.2014)	Priority date(day/month/year)
---	---	-------------------------------

International Patent Classification (IPC) or both national classification and IPC A61F 13/535(2006.01)i, A61F 13/511(2006.01)i, A61F 13/472(2006.01)i, A61F 13/56(2006.01)i

Applicant KIMBERLY-CLARK WORLDWIDE, INC.
--

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 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 |

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.

Name and mailing address of the ISA/KR International Application Division Korean Intellectual Property Office 189 Cheongsu-ro, Seo-gu, Daejeon Metropolitan City, 302-701, Republic of Korea Facsimile No. +82-42-472-7140	Date of completion of this opinion 30 June 2015 (30.06.2015)	Authorized officer Han, Inho Telephone No. +82-42-481-3362
---	---	--



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US2014/063224

Box No. 1 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 43*bis*. I(a))

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 13*ter*. I(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 13*ter*. I(a)).
☐ on paper or in the form of an image file (Rule 13*ter*. I(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/US2014/063224

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	1-20	YES
	Claims	NONE	NO
Inventive step (IS)	Claims	1-20	YES
	Claims	NONE	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	NONE	NO

2. Citations and explanations :

2.1 Reference is made to the following documents:

D1: US 2012-0296303 A1 (NG, M. et al.) 22 November 2012

D2: US 2005-0148967 A1 (BARATIAN, S. et al.) 7 July 2005

D3: US 5439458 A (NOEL, J. R. et al.) 8 August 1995

D4: US 2003-0208176 A1 (WAKSMUNDZKI, A. et al.) 6 November 2003

D5: US 2004-0018366 A1 (GEORGE, R. P. et al.) 29 January 2004

2.2 Novelty and Inventive Step

D1 discloses an absorbent article that generally extends in a plane defined by a longitudinal direction and transverse direction, wherein the article comprises: a base pad that contains a baffle and an absorbent core; a topsheet that overlies the base pad so that the absorbent core is positioned between the topsheet and the baffle, a liquid-permeable intake layer, wherein the liquid-permeable intake layer is positioned between a cover and the absorbent core, a fluid-shrinkable member that extends in the longitudinal direction so that at least a portion of the fluid-shrinkable member is located adjacent to the proximal end of the topsheet (see figures 1-8; paragraphs [0025]-[0053]; claim 1).

The subject-matter of claim 1 relates to an absorbent article, comprising a top sheet, a back sheet, an absorbent assembly positioned between the back sheet and the top sheet, and a fluid intake layer positioned between the absorbent assembly and the top sheet, the fluid intake layer defining a fluid intake length in a longitudinal direction and the absorbent article defining an absorbent article length in the longitudinal direction, the fluid intake layer length being 30-60% the absorbent article length, the fluid intake layer also defining an outer perimeter, the outer perimeter having a rearward-facing arch located in a back portion of the fluid intake layer.

Continued on Supplemental Box

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US2014/063224

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

The phrase “An absorbent article defining comprising” of claim 16 is considered to be a typo for “An absorbent article comprising”. Therefore, claim 16 does not meet the requirements of PCT Article 6.

Supplemental Box

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

Continuation of : Box No. V

None of the prior art documents disclose or suggest the fluid intake layer comprising the outer perimeter having the rearward-facing arch of the present invention. Accordingly, the subject-matter of claim 1 is neither anticipated nor obvious to a person skilled in the art by the prior art documents, taken alone or in combination. Therefore, claim 1 is novel under PCT Article 33(2) and inventive under PCT Article 33(3).

Claims 2-9 are dependent on claim 1 and therefore meet the requirements of PCT Article 33(2) and (3).

The subject-matter of claim 10 relates to an absorbent article comprising, a top sheet, a back sheet, an absorbent assembly positioned between the back sheet and the top sheet, the absorbent assembly comprising an upper absorbent layer and a lower absorbent layer, the lower absorbent layer positioned between the upper absorbent layer and the back sheet, a fluid intake layer positioned between the upper absorbent layer and the top sheet, the fluid intake layer defining an outer perimeter, the outer perimeter having a rearward-facing arch located in a back portion of the fluid intake layer, the fluid intake layer having an opening, the opening defining a length in a longitudinal direction and the fluid intake layer defining a length in the longitudinal direction, wherein the opening length is 25-75% the fluid intake layer length, a first lateral stiffener, a second lateral stiffener, and a first flexure. None of the prior art documents disclose or suggest the fluid intake layer having the rearward-facing arch, the lateral stiffeners, and the first flexure of the present invention. Accordingly, the subject-matter of claim 10 is neither anticipated nor obvious to a person skilled in the art by the prior art documents, taken alone or in combination. Therefore, claim 10 is novel under PCT Article 33(2) and inventive under PCT Article 33(3).

Claims 11-15 are dependent on claim 10 and therefore meet the requirements of PCT Article 33(2) and (3).

The subject-matter of claim 16 relates to an absorbent article comprising, a top sheet, a back sheet, an absorbent assembly positioned between the top sheet and the back sheet, the absorbent assembly comprising an upper absorbent layer and a lower absorbent layer, the lower absorbent layer positioned between the upper absorbent layer and the back sheet, a fluid intake layer positioned between the upper absorbent layer and the top sheet, the fluid intake layer being positioned in a central portion of the absorbent article and defining an outer perimeter,

Continued on The Next Page

Supplemental Box

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

Continuation of : Previous Page

the outer perimeter having a rearward-facing arch located in a back portion of the fluid intake layer, the rearward-facing arch defining a length in a longitudinal direction of 7-10 mm, the fluid intake layer having an opening, the opening defining a length in the longitudinal direction and the fluid intake layer defining a length in the longitudinal direction, wherein the opening length is 25-75% the fluid intake layer length, a first embossment, a second embossment, a first flexure, a second flexure, a third flexure, and a fastening system comprising a first fastener and a second fastener. None of the prior art documents disclose or suggest the fluid intake layer having the rearward-facing arch, the embossments, the flexures, and the fastening system of the present invention. Accordingly, the subject-matter of claim 16 is neither anticipated nor obvious to a person skilled in the art by the prior art documents, taken alone or in combination. Therefore, claim 16 is novel under PCT Article 33(2) and inventive under PCT Article 33(3).

Claims 17-20 are dependent on claim 16 and therefore meet the requirements of PCT Article 33(2) and (3).

2.3 Industrial Applicability

Claims 1-20 are industrially applicable under PCT Article 33(4).