

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

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

To:

see form PCT/ISA/220

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/EP2018/076086

International filing date (day/month/year)
26.09.2018

Priority date (day/month/year)
28.09.2017

International Patent Classification (IPC) or both national classification and IPC
INV. A61Q5/02 A61Q5/12 A61Q13/00 A61K8/73 A61K8/84 A61Q19/10 A61K8/11

Applicant
UNILEVER PLC

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 usually 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.

<p>Name and mailing address of the ISA:</p> <div style="text-align: center;">  <p>European Patent Office</p> <p>D-80298 Munich Tel. +49 89 2399 - 0 Fax: +49 89 2399 - 4465</p> </div>	<p>Date of completion of this opinion</p> <p>see form PCT/ISA/210</p>	<p>Authorized Officer</p> <p>Ovens, Annabel</p> <p>Telephone No. +49 89 2399-0</p> <div style="text-align: right;">  </div>
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Box No. I Basis of the 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(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 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:

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)	Yes: Claims	<u>1-9</u>
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-9</u>
Industrial applicability (IA)	Yes: Claims	<u>1-9</u>
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VI Certain documents cited

1. Certain published documents (Rules 43bis.1 and 70.10)

and / or

2. Non-written disclosures (Rules 43bis.1 and 70.9)

see form 210

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:

see separate sheet

1 **Re Item V**

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1.1 Reference is made to the following documents:

- D1 WO 2017/167552 A1 (UNILEVER PLC [GB]; UNILEVER NV [NL]; CONOPCO INC D/B/A UNILEVER [US]) 5 October 2017 (2017-10-05)
- D2 WO 2017/071915 A1 (UNILEVER PLC [GB]; UNILEVER NV [NL]; CONOPCO INC D/B/A UNILEVER [US]) 4 May 2017 (2017-05-04)
- D3 WO 2015/055432 A1 (UNILEVER NV [NL]; UNILEVER PLC [GB]; CONOPCO INC DBA UNILEVER [US]) 23 April 2015 (2015-04-23)
- D4 WO 2004/043414 A1 (UNILEVER PLC [GB]; UNILEVER NV [NL]; LEVER HINDUSTAN LTD [IN]; AINGER) 27 May 2004 (2004-05-27)
- D5 WO 2007/065537 A1 (UNILEVER PLC [GB]; UNILEVER NV [NL]; LEVER HINDUSTAN LTD [IN]; AINGER) 14 June 2007 (2007-06-14)
- D6 WO 2013/068255 A1 (FIRMENICH & CIE [CH]) 16 May 2013 (2013-05-16)
- D7 WO 2011/161618 A1 (FIRMENICH & CIE [CH]; BERTHIER DAMIEN [CH]; LEON GERALDINE [CH]; PARET) 29 December 2011 (2011-12-29)
- D8 US 2013/330292 A1 (LEI YABIN [US] ET AL) 12 December 2013 (2013-12-12)cited in the application
- D9 US 2012/148644 A1 (POPPLEWELL LEWIS MICHAEL [US] ET AL) 14 June 2012 (2012-06-14)cited in the application
- D10 WO 2017/001672 A1 (GIVAUDAN SA [CH]) 5 January 2017 (2017-01-05)

D11 WO 2013/092375 A1 (FIRMENICH & CIE [CH]) 27 June 2013
(2013-06-27)

1.2 Inventive step (Article 33(3) PCT)

1.2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-9 does not involve an inventive step in the sense of Article 33(3) PCT.

1.2.2 The present application is concerned with providing increased deposition of encapsulated benefit agents on hair or skin without impairing e.g. rheology, sensory and conditioning performance (page 1 lines 27-30). This is exactly the same problem that is addressed by D2 (see page 1 lines 27-30).

Furthermore, D2 provides (Examples 2 and 4 with a single selection of preferred polymeric shell of the microcapsule from page 8 lines 24-27, the examples not identifying the nature of the shell) a personal cleansing composition in accordance with claim 1 of the present application (in an aqueous phase (i) 13.6 wt% sodium laureth sulfate (2EO) and cocamidopropyl betaine, (ii) encapsulated perfume with aminoplast resin shell and (iii) Jaguar C14S and Jaguar C17, which is the combination of cationic polygalactomannans exemplified in the present application) with the exception of the specified (iv) free fragrance.

D2 is therefore considered a valid starting point as closest prior art for any assessment of inventive step.

1.2.3 No particular technical effect associated with the inclusion of a free fragrance has been identified in the application. Therefore the objective technical problem to be solved over D2 can only be considered to be the provision of an alternative personal cleansing composition providing increased deposition of encapsulated benefit agents without impairing product attributes such as rheology, sensory and conditioning performance.

The application solves this problem by the inclusion of a free fragrance (see examples).

1.2.4 A free fragrance component is a standard ingredient of personal cleansing compositions, and indeed is explicitly suggested as an optional further ingredient of the compositions of D2 (see page 12 lines 8-10). Its inclusion

would therefore be an obvious modification for the skilled person to make to the exemplified compositions of D2 in order to solve the problem of providing an alternative composition as set out above.

The subject-matter of claim 1 is therefore considered to lack inventive step (Article 33(3) PCT) over D2.

- 1.2.5 The characterising features of dependent claims 2-9 also appear to be disclosed in Examples 2 and 4 of D2 and the passage defining the preferred microcapsule shell. Therefore the subject-matter of these claims also lacks inventive step (Article 33(3) PCT) over D2.

2 Re Item VI

Certain documents cited

Publication No	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (day/month/year)
WO 2017/167552 A1	5/10/2017	6/3/2017	1/4/2016

- 2.1 The above document D1 was published on 5 October 2017 and claims the priority date of 1 April 2016. It is further noted that its filing date of 6 March 2017 is also earlier than the claimed priority of the present application. Therefore, regardless of the validity of its claimed priority, it may be relevant to any assessment of novelty on entry of the present application into the regional phase before the EPO or on entry into the national phase.
- 2.2 The teaching of the examples disclosed in D1 may be combined with a single selection of microcapsules having the preferred aminoplast polymeric shell (the nature of the shell not being identified in the examples but aminoplast resins, most preferably selected from melamine glyoxal and polyurea, are identified as preferred polymeric shells of the microcapsules employed in D1, see page 9 lines 11-20) to arrive at the subject-matter of claim 1 of the present application. It is noted that Examples 1 and 2 of D1 are identical to those of the present application, including the presence of perfume (i.e. a free fragrance).

Furthermore, the subject-matter of dependent claims 2-9 of the present application equally appears to be disclosed in the examples.

3 Re Item VIII

Certain observations on the international application

- 3.1 Claim 1 specifies the inclusion of "a free fragrance". In accordance with the description (page 11 line 7) this has been interpreted as meaning a "free, non-encapsulated fragrance". The scope of the claim would be clearer (Article 6 PCT) if this clearer definition were employed in the claim.
- 3.2 Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in D2 is not mentioned in the description, nor is this document identified therein.