

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

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

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/EP2021/080812

International filing date (day/month/year)
05.11.2021

Priority date (day/month/year)

International Patent Classification (IPC) or both national classification and IPC
INV. A61H11

Applicant
ESSITY HYGIENE AND HEALTH AKTIEBOLAG

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.

Name and mailing address of the ISA:



European Patent Office
D-80298 Munich
Tel. +49 89 2399 - 0
Fax: +49 89 2399 - 4465

Date of completion of
this opinion

see form
PCT/ISA/210

Authorized Officer

Brumme, Ion

Telephone No. +49 89 2399-0



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	
	No: Claims	<u>1-19</u>
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-19</u>
Industrial applicability (IA)	Yes: Claims	<u>1-19</u>
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

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

Re Item V

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

- 1 Reference is made to the following documents:
- D1 WO 2019/173436 A1 (RECOVERY FORCE LLC [US]) 12 September 2019 (2019-09-12)
- D2 US 10 617 593 B2 (RECOVERY FORCE LLC [US]) 14 April 2020 (2020-04-14)
- D3 WO 2020/262802 A1 (KOREA INST MACH & MATERIALS [KR]) 30 December 2020 (2020-12-30)
- 2 The present application does not meet the criteria of Article 33(2) PCT, because the subject-matter of claim 1 is not new.
- D1 discloses:
- A massage garment (100), comprising at least one band (Nitinol wire 245), provided for being placed around a limb of a user and comprising at least one artificial muscle arranged for surrounding at least a portion of the limb and applying a compression force to the limb (see fig. 1), wherein each artificial muscle comprises a coiled element which contracts when heated (see §0051 Nitinol wires contract in response to being heated), and means for applying energy (battery 220) to cause the artificial muscles to be heated, wherein each band comprises a textile fabric and the at least one coiled element is provided in or on the textile fabric (fabric textile wrap 110 See § 0056)(see § 0042- 0056) .
- 3 The present application does not meet the criteria of Article 33(2) PCT, because the subject-matter of claim 1 is not new.
- D2 discloses:
- A massage garment (12), comprising at least one band, provided for being placed around a limb of a user and comprising at least one artificial muscle arranged for surrounding at least a portion of the limb and applying a compression force to the limb, wherein each artificial muscle comprises a coiled element which contracts when heated (memory wires 14a contract or shrink), and means for applying energy (power supply 30) to cause the artificial muscles

to be heated, wherein each band comprises a textile fabric and the at least one coiled element is provided in or on the textile fabric (see col. 7 ln. 40- col. 8, ln. 58 and Fig. 1, 3).

- 4 The present application does not meet the criteria of Article 33(2) PCT, because the subject-matter of claim 1 is not new.

D3 discloses:

A massage garment (10) (see §0007), comprising at least one band (100), provided for being placed around a limb of a user and comprising at least one artificial muscle arranged for surrounding at least a portion of the limb and applying a compression force to the limb (see § 0063), wherein each artificial muscle comprises a coiled element which contracts when heated, and means for applying energy to cause the artificial muscles to be heated (see heat reaction member 11 may be formed of shape memory alloy § 0064), wherein each band comprises a textile fabric and the at least one coiled element is provided in or on the textile fabric (see fabric material in §0071) also (see § 0014-0021 and fig. 1-10).

- 5 Dependent claims 2-19 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, see

- 6 D1 -D3 for any features defined in claims 2-16 and 18-19. All cited documents disclose identical features such as garment and heat contracting wire and a control unit controlling the electrical impulses and therefore the contracting or expanding of the garment.

Claim 17 is regarded as a result to be achieved, merely a wish. The applicant wishes that preferably *the temperature of the at least one artificial muscle stays below a predetermined temperature, and / or the applied pressure stays below a predetermined pressure* without giving any information on how this is to be achieved. As such this claim not only not new but also is unclear.

The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of all the filed claims 1-19 is not new in the sense of Article 33(2) PCT.

Re Item VII

Certain defects in the international application

Independent claim 1, is not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art being placed in the preamble (Rule 6.3(b)(i) PCT) and the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).

The features of all the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in D1- D3 is not mentioned in the description, nor are these documents identified therein.

Re Item VIII

Certain observations on the international application

The application does not meet the requirements of Article 6 PCT, because claim 17 is not clear as the claim is considered to be a result to be achieved.