

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 DCD005	FOR FURTHER ACTION		See item 4 below
International application No. PCT/EP2016/064503	International filing date (<i>day/month/year</i>) 23 June 2016 (23.06.2016)	Priority date (<i>day/month/year</i>) 27 June 2015 (27.06.2015)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant DICODES GMBH			

<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 9 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 checked="" 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 checked="" 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 02 January 2018 (02.01.2018)
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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)	See form PCT/ISA/210
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Applicant's or agent's file reference DCD005	FOR FURTHER ACTION See paragraph 2 below
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International application No. PCT/EP2016/064503	International filing date (day/month/year) 23.06.2016	Priority date (day/month/year) 27.06.2015
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International Patent Classification (IPC) or both national classification and IPC
A61M 15/06 (2006.01)i; A61M 11/04 (2006.01)i; A24F 47/00 (2006.01)i; A61M 15/00 (2006.01)i; H05B 1/02 (2

Applicant
DICODES GMBH

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

<input checked="" type="checkbox"/>	Box No. I	Basis of the opinion
<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 Rule 43bis.1(a)(i) 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 checked="" type="checkbox"/>	Box No. VII	Certain defects in the international application
<input type="checkbox"/>	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/EP	Date of completion of this opinion	Authorized officer
Facsimile No.		Telephone No.

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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 43*bis*.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 13*ter*.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 13*ter*.1(a)).
 - on paper or in the form of an image file (Rule 13*ter*.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:

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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								
1. Statement	Novelty (N)	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 100px;">Claims</td> <td style="border-bottom: 1px solid black;">_____</td> <td style="text-align: right;">YES</td> </tr> <tr> <td>Claims</td> <td style="border-bottom: 1px solid black;">1-12</td> <td style="text-align: right;">NO</td> </tr> </table>	Claims	_____	YES	Claims	1-12	NO	
Claims	_____	YES							
Claims	1-12	NO							
	Inventive step (IS)	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 100px;">Claims</td> <td style="border-bottom: 1px solid black;">_____</td> <td style="text-align: right;">YES</td> </tr> <tr> <td>Claims</td> <td style="border-bottom: 1px solid black;">1-12</td> <td style="text-align: right;">NO</td> </tr> </table>	Claims	_____	YES	Claims	1-12	NO	
Claims	_____	YES							
Claims	1-12	NO							
	Industrial applicability (IA)	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 100px;">Claims</td> <td style="border-bottom: 1px solid black;">1-12</td> <td style="text-align: right;">YES</td> </tr> <tr> <td>Claims</td> <td style="border-bottom: 1px solid black;">_____</td> <td style="text-align: right;">NO</td> </tr> </table>	Claims	1-12	YES	Claims	_____	NO	
Claims	1-12	YES							
Claims	_____	NO							
2. Citations and explanations:									
<p>Reference is made to the following documents:</p> <p style="margin-left: 40px;">D1 WO 2015/026948 A1 (VMR PRODUCTS LLC [US]) 26 February 2015 (2015-02-26)</p> <p style="margin-left: 40px;">D2 US 2014/000638 A1 (SEBASTIAN ANDRIES DON [US] ET AL) 2 January 2014 (2014-01-02)</p> <p style="margin-left: 40px;">D3 DE 20 2014 101126 U1 (EWWK UG HAFTUNGSBESCHRÄNKT [DE]) 1 April 2014 (2014-04-01)</p> <p style="margin-left: 40px;">D4 WO 2014/166037 A1 (KIMREE HI TECH INC) 16 October 2014 (2014-10-16); & US 2015/296885 A1 (LIU QIUMING [CN]) 22 October 2015 (2015-10-22)</p> <p style="margin-left: 40px;">D5* CN 104 720 120 A (JOY CHANGZHOU ELECTRONIC TECHNOLOGY CO LTD) 24 June 2015 (2015-06-24)</p> <p style="margin-left: 40px;">* A legally non-binding machine translation of this document can be found in Espacenet under the above publication number (http://worldwide.espacenet.com).</p> <p style="margin-left: 40px;">1 Clarity (PCT Article 6)</p> <p style="margin-left: 40px;">1.1 Claim 1 is drafted as an independent claim and</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

claims a "Method for operating a (any) vapor inhalation device". However, the application only comprises a method relating to the operation with the associated vapor inhalation device (see **claims 7-12**; figure 1). For this reason, the subject matter of **claim 1** as originally filed is not supported by the description (PCT Article 6) since the scope of the claim goes beyond that justified by the description and the drawings.

1.2 **Claims 1 and 7** are not supported by the description (PCT Article 6) since the scope of the claims goes beyond that justified by the description and the drawings. This concerns the features of **claims 2 and 8**, namely that the "electrical information signal" and the determined "property of the vaporizer" concern the "temperature in an environment of the heating element" (**claim 2**), which is determined by means of a "temperature sensor (36)" (**claims 3 and 8**).

2 Setting aside the above-mentioned lack of clarity, the subject matter of **claims 1 and 7** is also not novel (PCT Article 33(2)), and therefore the requirements of PCT Article 33(1) are not met.

2.1 **D1** discloses all the features of **claim 1**, namely a method for operating a vapor inhalation device (200, (figure 6)), wherein the vapor inhalation device has at least one vaporizer (210, (figure 6)) with at least one heating element (240, (figure 6)), and at least one electrical energy

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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

supply unit (100, (figure 7)) which has at least one electrical energy storage unit (120, (figure 7)) and at least one electronics unit (150, (figure 7)), by means of which a release of electrical energy from the electrical energy storage unit to the heating element can be regulated when the vapor inhalation device is activated (paragraph [0031]), wherein the at least one electrical information signal, which contains at least one item of information regarding at least one property of the vaporizer, is transmitted from the vaporizer to the electronics unit via at least one electrical signal connection (220, (figure 6)), wherein the electrical information signal is taken into account by the electronics unit during an operation of the vapor inhalation device (paragraphs [0026], [0031]-[0033]).

- 2.2 **D1** discloses all the features of **claim 7**, namely a vapor inhalation device (200, (figure 6)) having at least one vaporizer (210, (figure 6)) with at least one heating element (240, (figure 6)), and at least one electrical energy supply unit (100, (figure 7)) which has at least one electrical energy storage unit (120, (figure 7)) and at least one electronics unit (150, (figure 7)), by means of which a release of electrical energy from the electrical energy storage unit to the heating element can be regulated when the vapor inhalation device is activated (paragraph [0031]), wherein at least one electrical signal connection (220,

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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

(figure 6)) is formed between the vaporizer and the electronics unit and is able to transmit at least one electrical information signal, which contains at least one item of information regarding at least one property of the vaporizer (paragraph [0026]), from the vaporizer to the electronics unit, wherein the electronics unit is designed to take into account the electrical information signal during an operation of the vapor inhalation device (paragraphs [0026], [0031]-[0033]).

2.3 **D2-D5** also disclose all the features of **claims 1 and 7** (see **D2**: figure 4; paragraph [0078]; **D3**: figures 1 and 2; paragraphs [0044]-[0051]; **D4**: figure 1; paragraph [0028]; **D5**: 134,

2.4 figures 4 and 5; and the cited passages in the search report).

2.5 **Observations:**

2.5.1 The use of expressions such as "particularly", etc., has no limiting effect on the scope of protection of the claim, i.e. the features following any such expression are regarded as entirely optional (see points 2.1 and 2.2).

3 Dependent **claims 2-6 and 8-12** do not appear to contain any additional features which, in combination with the features of a claim to which they refer back, meet the requirements of the PCT

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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
	in respect of novelty and/or inventive step (see also the cited passages in the search report).

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Box No. VII **Certain defects in the international application**

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

- 4 Independent **claims 1 and 7** have not been drafted in the two-part form (PCT Rule 6.3(b)). However, in the present case, the two-part form would seem to be appropriate. The features known in combination from the prior art should therefore be set out in the preamble (PCT Rule 6.3(b)(i)) and the remaining features specified in the characterizing part (PCT Rule 6.3(b)(ii)).

- 5 The features in **claims 1-12** are not followed by reference signs placed between parentheses (PCT Rule 6.2(b)).