

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 2017P02335WO	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/EP2018/076197	International filing date ( <i>day/month/year</i> ) 26 September 2018 (26-09-2018)	(Earliest) Priority Date ( <i>day/month/year</i> ) 28 September 2017 (28-09-2017)
Applicant  KONINKLIJKE PHILIPS N.V.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 7 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out 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))

b.  This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c.  With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2.  **Certain claims were found unsearchable** (See Box No. II)

3.  **Unity of invention is lacking** (see Box No III)

4. With regard to the **title**,

- the text is approved as submitted by the applicant  
 the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

- the text is approved as submitted by the applicant  
 the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 1, 6  
 as suggested by the applicant  
 as selected by this Authority, because the applicant failed to suggest a figure  
 as selected by this Authority, because this figure better characterizes the invention
- b.  none of the figures is to be published with the abstract

## Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

A conduit (6) for conveying a flow of a gas therethrough includes an inner wall (42) having a first end and an opposite second end. The inner wall is disposed around, and defines a central passage (44) extending between the first end and the second end. The central passage is structured to convey the flow of the gas therethrough between the first end and the second end. The conduit also includes an outer wall (50) disposed about the inner wall and a sealed compartment defined between the inner wall and the outer wall, the sealed compartment being structured to house a fixed quantity of a gas therein.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP2018/076197

## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-11

### Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

**INTERNATIONAL SEARCH REPORT**

International application No  
PCT/EP2018/076197

**A. CLASSIFICATION OF SUBJECT MATTER**  
 INV. A61M16/06 A61M16/08  
 ADD.  
 According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**  
 Minimum documentation searched (classification system followed by classification symbols)  
 A61M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 EPO-Internal, WPI Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 2016/279374 A1 (GRAHAM PETER KENNETH [NZ] ET AL) 29 September 2016 (2016-09-29) paragraphs [0003], [0016], [0017], [0031], [0044], [0078] - [0095]; figures 1-6 paragraphs [0103], [0116], [0117]	1,2,4, 10,11 3,5-9
X	GB 2 465 358 A (SLE LTD [GB]) 19 May 2010 (2010-05-19) page 3, line 30 - page 4, line 16; figures 1-5 page 4, line 29 - page 7, line 33; figure 5	1-4,10, 11
X A	US 2 875 757 A (GALLEHER JR ELLIS A) 3 March 1959 (1959-03-03) column 4, lines 25-27; figures 1-3 column 3, lines 34-38	1-5,9,10 11
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Further documents are listed in the continuation of Box C.

See patent family annex.

\* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search <b>10 December 2018</b>	Date of mailing of the international search report <b>12/02/2019</b>
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer <b>Loughman, John</b>

## INTERNATIONAL SEARCH REPORT

International application No  
PCT/EP2018/076197

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 463 755 A (SUZUKI TATSUO [JP]) 7 August 1984 (1984-08-07) column 11, line 65 - column 13, line 32; figures 1-621,22	1,5,9,11
X	----- US 2002/036019 A1 (WOELFEL MARK E [US] ET AL) 28 March 2002 (2002-03-28) paragraphs [0001], [0012], [0026] - [0047]; figures 1-14	1,2,4, 10,11
X	----- US 2014/236083 A1 (SIMS DAVID JOHN [NZ]) 21 August 2014 (2014-08-21) paragraphs [0152], [0154]; figures 2a, 2b paragraphs [0143] - [0180]	1-4,10, 11
A	----- US 2015/101607 A1 (VIRR ALEXANDER [AU] ET AL) 16 April 2015 (2015-04-16) paragraphs [0003], [0016] - [0023]; figures 1,2,5	1-11
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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2018/076197

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2016279374	A1	29-09-2016	DE 112011101780 T5
			GB 2492736 A
			JP 6005631 B2
			JP 2013526976 A
			US 2013112201 A1
			US 2016279374 A1
			WO 2011149362 A1
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GB 2465358	A	19-05-2010	NONE
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US 2875757	A	03-03-1959	NONE
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US 4463755	A	07-08-1984	DE 3218771 A1
			DK 221582 A
			FR 2505658 A1
			IT 1151571 B
			US 4463755 A
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US 2002036019	A1	28-03-2002	US 6431218 B1
			US 2002036019 A1
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US 2014236083	A1	21-08-2014	CN 103857434 A
			EP 2726133 A2
			US 2014236083 A1
			US 2018280652 A1
			WO 2013002655 A2
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US 2015101607	A1	16-04-2015	US 2010083965 A1
			US 2015101607 A1
			US 2018243525 A1
			WO 2008095245 A1
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**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-11

A conduit with a dual walls

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2. claims: 12-14

A head gear with arm comprising an inner and outer wall

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