

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL SEARCH REPORT**

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 2017P01606WO	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/EP2018/073908	International filing date ( <i>day/month/year</i> ) 5 September 2018 (05-09-2018)	(Earliest) Priority Date ( <i>day/month/year</i> ) 8 September 2017 (08-09-2017)
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 6 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:

DYNAMIC BOWTIE FILTER AND METHODS OF USING THE SAME

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

- 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

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP2018/073908

## 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.:

1-8, 17-20

### 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/EP2018/073908

A. CLASSIFICATION OF SUBJECT MATTER  
INV. A61B6/00 G21K1/10  
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)  
A61B G21K

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	WO 2012/174246 A2 (UNIV LELAND STANFORD JUNIOR [US]; PELC NORBERT J [US]; HSIEH SCOTT [US]) 20 December 2012 (2012-12-20) paragraph [0026] - paragraph [0071] -----	1-8, 17-20
X	US 2006/018435 A1 (TOTH THOMAS L [US] ET AL) 26 January 2006 (2006-01-26) paragraph [0016] - paragraph [0023]; figure 7 -----	1-8, 17-20
A	WO 2012/104751 A1 (KONINKL PHILIPS ELECTRONICS NV [NL]; PHILIPS INTELLECTUAL PROPERTY [DE]) 9 August 2012 (2012-08-09) page 7, line 26 - page 8, line 25 page 15, line 25 - page 16, line 16 ----- -/--	1-8, 17-20

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	"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
"E" earlier application or patent but published on or after the international filing date	"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
"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)	"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
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search <b>7 December 2018</b>	Date of mailing of the international search report <b>08/02/2019</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>Hooper, Martin</b>
--	---

## INTERNATIONAL SEARCH REPORT

International application No  
PCT/EP2018/073908

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2007/025520 A1 (THANDIACKAL LIJO J [US] ET AL) 1 February 2007 (2007-02-01) paragraph [0029] - paragraph [0046] -----	1-8, 17-20
A	EP 1 498 908 A2 (GE MED SYS GLOBAL TECH CO LLC [US]) 19 January 2005 (2005-01-19) paragraph [0022] - paragraph [0145] -----	1-8, 17-20

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2018/073908

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2012174246 A2	20-12-2012	US 2014192950 A1 WO 2012174246 A2	10-07-2014 20-12-2012
-----			
US 2006018435 A1	26-01-2006	CN 1736333 A DE 102005034518 A1 JP 4701029 B2 JP 2006026417 A NL 1029526 C2 US 2006018435 A1	22-02-2006 09-02-2006 15-06-2011 02-02-2006 07-08-2007 26-01-2006
-----			
WO 2012104751 A1	09-08-2012	CN 103339497 A EP 2671069 A1 JP 5869001 B2 JP 2014503828 A US 2013308848 A1 WO 2012104751 A1	02-10-2013 11-12-2013 24-02-2016 13-02-2014 21-11-2013 09-08-2012
-----			
US 2007025520 A1	01-02-2007	NONE	
-----			
EP 1498908 A2	19-01-2005	CN 1575766 A EP 1498908 A2 JP 4041025 B2 JP 2005034173 A KR 20050008512 A US 2005013411 A1	09-02-2005 19-01-2005 30-01-2008 10-02-2005 21-01-2005 20-01-2005
-----			

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

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

1. claims: 1-8, 17-20

Device and method with a dynamically adjustable bowtie filter

---

2. claims: 9-16

Computer readable storage medium with method for assessing acceptance of fluency levels.

---