

**SUPPLEMENTARY
EUROPEAN SEARCH REPORT**

Application Number
EP 15 74 3506

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	YEVGENY BEIDERMAN ET AL: "Remote estimation of blood pulse pressure via temporal tracking of reflected secondary speckles pattern", JOURNAL OF BIOMEDICAL OPTICS, vol. 15, no. 6, 22 November 2010 (2010-11-22), page 061707, XP055093274, ISSN: 1083-3668, DOI: 10.1117/1.3505008	1-5, 9-13,16	INV. A61B5/00 A61B5/145 A61B3/16 G01N33/483 G01B5/10 A61B5/02 A61B5/0205 A61B5/0215 A61B5/1455 A61B5/1459 A61B5/08 A61B3/00 A61B3/10 A61B5/01 A61B5/026
Y	* abstract * * 3 Experimental Setup and Test Planning; figures 1, 2 * * 4 Results; figures 3, 4 *	6	
X,D	WO 2009/013738 A1 (UNIV BAR ILAN [IL]; UNIVERSITAT DE VALENCIA [ES]; ZALEVSKY ZEEV [IL];) 29 January 2009 (2009-01-29) * page 11, line 9 - page 13, line 6 * * page 26, line 19 - page 28, line 6; figure 3 * * page 28, line 7 - page 30, line 20; figures 4,5 *	1-5, 9-13,16	ADD.
			TECHNICAL FIELDS SEARCHED (IPC)
			A61B
X	WO 2009/151610 A2 (UNIV EAST CAROLINA [US]; HU XIN-HUA [US]; JACOBS KENNETH M [US]; LU JU) 17 December 2009 (2009-12-17) * page 11, line 26 - page 13, line 12; figure 1 * * page 14, line 22 - page 15, line 8; figure 3 * * page 21, line 28 - page 23, line 10; figure 9 * * page 36, line 21 - page 37, line 3; claim 30 *	1,2,4,5, 16 3,9-12	
A			
<p>The supplementary search report has been based on the last set of claims valid and available at the start of the search.</p>			
Place of search The Hague		Date of completion of the search 2 January 2018	Examiner Weiss-Schaber, C
CATEGORY OF CITED DOCUMENTS		<p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document</p>	
<p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p>			

2

EPO FORM 1503 03.82 (P04C04)

SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application Number
EP 15 74 3506

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	ARUN ANAND ET AL: "Speckle-Based Optical Sensor for Low Field Faraday Rotation Measurement", IEEE SENSORS JOURNAL, IEEE SERVICE CENTER, NEW YORK, NY, US, vol. 13, no. 2, 1 February 2013 (2013-02-01), pages 723-727, XP011487796, ISSN: 1530-437X, DOI: 10.1109/JSEN.2012.2227310 * the whole document *	1,3,6	A61B5/021
Y	WO 00/60350 A2 (UNIV CONNECTICUT [US]) 12 October 2000 (2000-10-12) * page 4, line 15 - line 29; figure 1 * * page 4, line 30 - page 5, line 19; figures 2,3 * * page 5, line 20 - line 32 * * page 6, line 1 - line 24 *	6	
X	US 2002/183601 A1 (TEARNEY GUILLERMO J [US] ET AL) 5 December 2002 (2002-12-05) * paragraph [0009] * * paragraph [0011] * * paragraph [0012] * * paragraph [0014] * * paragraph [0033] - paragraph [0034] * * paragraph [0038] - paragraph [0048]; figure 1 * ----- -/--	1,7,8, 14,15	TECHNICAL FIELDS SEARCHED (IPC)
The supplementary search report has been based on the last set of claims valid and available at the start of the search.			
Place of search The Hague		Date of completion of the search 2 January 2018	Examiner Weiss-Schaber, C
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application Number
EP 15 74 3506

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2008/262359 A1 (TEARNEY GUILLERMO J [US] ET AL) 23 October 2008 (2008-10-23) * paragraph [0052] - paragraph [0059]; figure 3 * * paragraph [0078] - paragraph [0084]; figure 10 * * paragraph [0086] - paragraph [0089]; figures 11,12 * * paragraph [0090]; figure 13 * * paragraph [0091]; figure 14 * * paragraph [0093] - paragraph [0094]; figure 16 * * paragraph [0095] - paragraph [0096]; figure 17 * * paragraph [0108] - paragraph [0112]; figure 19 *	1,7,8	
X	----- PONTICORVO ADRIEN ET AL: "Laser speckle contrast imaging of blood flow in rat retinas using an endoscope", INTERNATIONAL SOCIETY FOR OPTICAL ENGINEERING, SPIE, PO BOX 10 BELLINGHAM WA 98227-0010 USA, vol. 18, no. 9, 1 September 2013 (2013-09-01), page 90501, XP060024318, ISSN: 1083-3668, DOI: 10.1117/1.JBO.18.9.090501 [retrieved on 2013-09-24] * the whole document * ----- -/-	1,7,8, 14,15	TECHNICAL FIELDS SEARCHED (IPC)
The supplementary search report has been based on the last set of claims valid and available at the start of the search.			
Place of search The Hague		Date of completion of the search 2 January 2018	Examiner Weiss-Schaber, C
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

2

EPO FORM 1503 03.82 (P04C04)

SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application Number
EP 15 74 3506

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	YOUNGWOON CHOI ET AL: "Scanner-Free and Wide-Field Endoscopic Imaging by Using a Single Multimode Optical Fiber", PHYSICAL REVIEW LETTERS, vol. 109, no. 20, 12 November 2012 (2012-11-12), pages 203901-1, XP055423438, US ISSN: 0031-9007, DOI: 10.1103/PhysRevLett.109.203901 * the whole document *	1,7,8, 14,15	
T	OZANA NISAN ET AL: "Demonstration of a Remote Optical Measurement Configuration That Correlates With Breathing, Heart Rate, Pulse Pressure, Blood Coagulation, and Blood Oxygenation", PROCEEDINGS OF THE IEEE, IEEE. NEW YORK, US, vol. 103, no. 2, 1 February 2015 (2015-02-01), pages 248-262, XP011576731, ISSN: 0018-9219, DOI: 10.1109/JPROC.2014.2385793 [retrieved on 2015-03-24]	1-6, 9-13,16	
			TECHNICAL FIELDS SEARCHED (IPC)
The supplementary search report has been based on the last set of claims valid and available at the start of the search.			
Place of search The Hague		Date of completion of the search 2 January 2018	Examiner Weiss-Schaber, C
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

2
EPO FORM 1503 03.82 (P04C04)

CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☒ All further search fees have been paid within the fixed time limit. The present (supplementary) European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present (supplementary) European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☐ None of the further search fees have been paid within the fixed time limit. The present (supplementary) European search report has been drawn up for those parts of the European patent application which relate to the first mentioned in the claims, namely claims:

**LACK OF UNITY OF INVENTION
SHEET B**

Application Number
EP 15 74 3506

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1, 2, 4, 5, 9-11, 13, 16(completely); 3, 12(partially)

Device and method for non-invasive monitoring blood pulse pressure performing speckle correlation analysis on defocused coherent imaging.

2. claims: 6(completely); 3(partially)

Device for non-invasive monitoring of other parameters performing speckle correlation analysis on defocused coherent imaging.

3. claims: 7, 8, 14, 15(completely); 12(partially)

Device for invasive monitoring of physiological parameters performing speckle correlation analysis on defocused coherent imaging.

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 15 74 3506

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

02-01-2018

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 2009013738	A1	29-01-2009	AU 2008278642 A1 CA 2697625 A1 EP 2183543 A1 IL 203262 A KR 20100076944 A US 2010226543 A1 WO 2009013738 A1	29-01-2009 29-01-2009 12-05-2010 30-06-2015 06-07-2010 09-09-2010 29-01-2009
WO 2009151610	A2	17-12-2009	CN 102037343 A EP 2300800 A2 US 2011090500 A1 WO 2009151610 A2	27-04-2011 30-03-2011 21-04-2011 17-12-2009
WO 0060350	A2	12-10-2000	AU 4063100 A WO 0060350 A2	23-10-2000 12-10-2000
US 2002183601	A1	05-12-2002	AT 454845 T AU 3084202 A EP 1434522 A1 JP 4241038 B2 JP 2004512538 A US 2002183601 A1 US 2007073162 A1 US 2012022381 A1 WO 0236015 A1	15-01-2010 15-05-2002 07-07-2004 18-03-2009 22-04-2004 05-12-2002 29-03-2007 26-01-2012 10-05-2002
US 2008262359	A1	23-10-2008	US 2008262359 A1 WO 2008121844 A1	23-10-2008 09-10-2008

专利名称(译)	用于非侵入性地监测个体的生物或生物化学参数的方法和系统		
公开(公告)号	EP3099223A4	公开(公告)日	2018-02-14
申请号	EP2015743506	申请日	2015-01-28
申请(专利权)人(译)	巴伊兰大学 Universität大学瓦伦西亚		
当前申请(专利权)人(译)	巴伊兰大学 Universität大学瓦伦西亚		
[标]发明人	ZALEVSKY ZEEV GARCIA JAVIER BEIDERMAN YEVGENY MARGALIT ISRAEL OZANA NISIM NISAN ARBEL NADAV MICO VICENTE SANZ SABATER MARTIN BISHITZ Yael SHAHMOON ASAF		
发明人	ZALEVSKY, ZEEV GARCIA, JAVIER BEIDERMAN, YEVGENY MARGALIT, ISRAEL OZANA, NISIM NISAN ARBEL, NADAV MICO, VICENTE SANZ SABATER, MARTIN BISHITZ, Yael SHAHMOON, ASAF		
IPC分类号	A61B5/00 A61B5/145 A61B3/16 G01N33/483 G01B5/10		
CPC分类号	A61B3/165 A61B5/0066 A61B5/0077 A61B5/0084 A61B5/01 A61B5/02028 A61B5/02035 A61B5/0205 A61B5/02133 A61B5/0215 A61B5/0261 A61B5/0816 A61B5/14532 A61B5/14546 A61B5/1455 A61B5/14551 A61B5/1459 A61B5/442 A61B5/4504 A61B5/4875 A61B5/72 A61B3/0008 A61B3/16 A61B5/02416 A61B5/0295 A61B5/083 A61B5/14542 A61B5/7278 A61B3/102 A61B5/0803 A61B5/14507		
优先权	14/168730 2014-01-30 US 61/457202 2011-01-28 US 61/457718 2011-05-18 US		
其他公开文献	EP3099223A1		
外部链接	Espacenet		

摘要(译)

提出了一种用于监测受试者身体的一种或多种状况的系统和方法。该系统包括控制单元，该控制单元包括用于接收图像数据的输入端口，存储器实用程序和处理器实用程序。图像数据指示由像素检测器阵列测量的数据，并且是由对象身体的一部分响应于根据某个采样时间模式通过相干光对其进行照射而产生的一系列散斑图案的形式。存储器实用程序存储一个或多个预定模型，该模型包括指示一个或多个可测量参数与受试者身体的一个或多个状况之间的关系的的数据。处理器实用程序被配置并可操作用于处理图像数据以确定一个或多个相应的身体状况;并产生指示相应身体状况的输出数据。



Application Number
EP 15 74 3506

[illegible]