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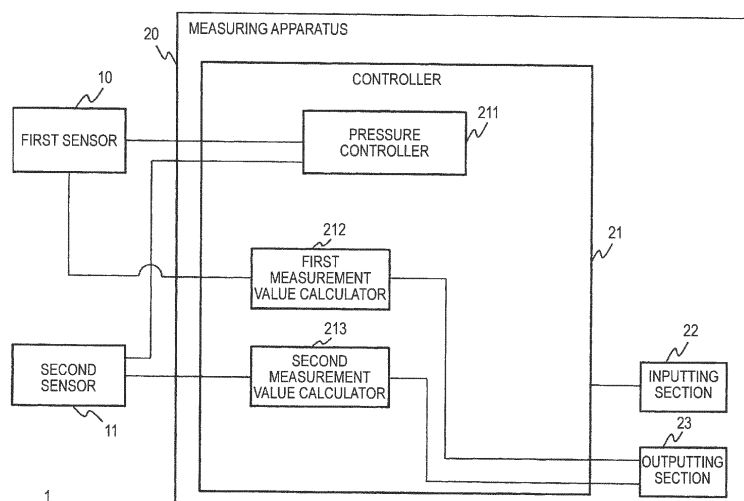
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(54) **MEASURING SYSTEM AND METHOD FOR EVALUATING CONDITION OF PATIENT**

(57) A measuring system includes a first sensor, a second sensor, a first measurement value calculator that, based on a change of an amount of received light that is measured by the first sensor, calculates a first measurement value indicating an index related to a blood oxygen saturation or a blood refill time, a second measurement value calculator that, based on a change of an amount of received light that is measured by the second sensor,

calculates a second measurement value indicating an index related to a blood oxygen saturation or a blood refill time, and a pressure controller that controls the first sensor and the second sensor so that a time difference between a start of compression release by the first sensor and a start of compression release by the second sensor is within a predetermined time period.

FIG. 1





EUROPEAN SEARCH REPORT

Application Number
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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 2014/114152 A1 (FOURNIER DONALD [US]) 24 April 2014 (2014-04-24) * paragraphs [0006] - [0007], [0018] - [0020], [0023], [0027], [0035] - [0036], [0039], [0048], [0053] - [0054] * * figures 1, 3 * * paragraph [0028] * -----	1-14	INV. A61B5/026 A61B5/00 ADD. A61B5/1455
A	US 2014/213865 A1 (KOBAYASHI NAOKI [JP] ET AL) 31 July 2014 (2014-07-31) * the whole document * * paragraph [0061] - paragraph [0062] * -----	1-14	
A	US 5 050 613 A (NEWMAN DENNIS [US] ET AL) 24 September 1991 (1991-09-24) * the whole document * -----	1-14	
			TECHNICAL FIELDS SEARCHED (IPC)
			A61B
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 22 August 2016	Examiner Faymann, Juan
CATEGORY OF CITED DOCUMENTS 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 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			

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Application Number

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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 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 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 European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



LACK OF UNITY OF INVENTION
SHEET B

Application Number

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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: 2-12(completely); 1, 13, 14(partially)

A measuring system comprising two sensors that respectively emit light to a first and second portion of a subject, compress the first and second portion, and measure reflected light or transmitted light from the first and second portion;

a first measurement value calculator that, based on a change of an amount of received light that is measured by the first sensor, calculates a first measurement value indicating an index related to a blood oxygen saturation ;

a second measurement value calculator that, based on a change of an amount of received light that is measured by the second sensor, calculates a second measurement value indicating an index related to a blood oxygen saturation ; and

a pressure controller that controls the first sensor and the second sensor so that a time difference between a start of compression release by the first sensor and a start of compression release by the second sensor is within a predetermined time period.

2. claims: 2-12(completely); 1, 13, 14(partially)

A measuring system comprising two sensors that respectively emit light to a first and second portion of a subject, compress the first and second portion, and measure reflected light or transmitted light from the first and second portion;

a first measurement value calculator that, based on a change of an amount of received light that is measured by the first sensor, calculates a first measurement value indicating an index related to a blood refill time ;

a second measurement value calculator that, based on a change of an amount of received light that is measured by the second sensor, calculates a second measurement value indicating an index related to a blood refill time ; and

a pressure controller that controls the first sensor and the second sensor so that a time difference between a start of compression release by the first sensor and a start of compression release by the second sensor is within a predetermined time period.

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

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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.

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EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

专利名称(译)	用于评估患者状况的测量系统和方法		
公开(公告)号	EP3028630A3	公开(公告)日	2016-09-28
申请号	EP2015192715	申请日	2015-11-03
[标]申请(专利权)人(译)	日本光电工业株式会社		
申请(专利权)人(译)	日本光电公司		
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IPC分类号	A61B5/026 A61B5/00 A61B5/1455		
CPC分类号	A61B5/0053 A61B5/0261 A61B5/14551 A61B5/6814 A61B5/6826 A61B2505/01 A61B5/14552 A61B5/6843 A61B5/7246 A61B5/7282		
优先权	2014228550 2014-11-11 JP		
其他公开文献	EP3028630A2		
外部链接	Espacenet		

摘要(译)

一种测量系统，包括：第一传感器，第二传感器，第一测量值计算器，其基于由第一传感器测量的接收光量的变化，计算表示与血氧相关的指标的第一测量值饱和度或血液再填充时间；第二测量值计算器，其基于由第二传感器测量的接收光量的变化，计算指示与血氧饱和度或血液再填充相关的指标的第二测量值时间；以及压力控制器，其控制第一传感器和第二传感器，使得由第一传感器开始压缩释放和由第二传感器开始压缩释放之间的时间差在预定时间段内。

FIG. 1

