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Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(U))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(Hi))

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(72) Inventor; and

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(75) Inventor/Applicant (for US only): AARTS, Ronald M. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

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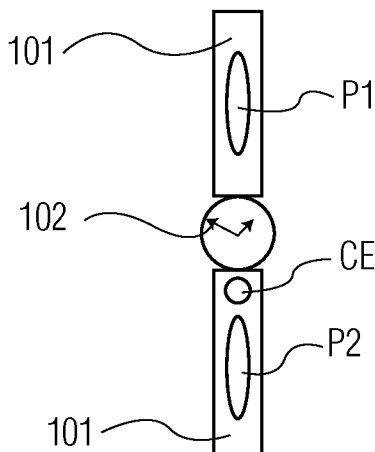
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DEVICE FOR DETECTING AND WARNING OF A MEDICAL CONDITION



(57) Abstract: A portable device detects a medical condition, such as an epileptic seizure. The device is implemented on a wrist band, possibly together with a watch, or in a helmet. The device may use heart rate detection to identify characteristic patterns associated with epileptic seizure. The device optionally combines more than one measurement to eliminate false positives. In the case of epileptic seizures, heart rate related measurements may be combined with body motion related measurements to ensure greater accuracy.

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INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2006/054952

A. CLASSIFICATION OF SUBJECT MATTER
 INV. A61B5/024 A61B5/0245 A61B5/0476 A61B5/11

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

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 practical, 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	US 2004/267152 A1 (PINEDA JAIME A [US]) 30 December 2004 (2004-12-30) paragraphs [0002] - [0027] figure 2 <p style="text-align: center;">-----</p>	1-18
X	WO 03/063684 A (INTELLIPATCH INC [US]; GEATZ MICHAEL W [US]; ROIGER RICHARD J [US]) 7 August 2003 (2003-08-07) page 2, line 14 - page 9, line 2 figure 1 <p style="text-align: center;">-----</p> <p style="text-align: center;">-/--</p>	1-18

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 document 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
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Date of the actual completion of the international search <p style="text-align: center;">30 May 2007</p>	Date of mailing of the international search report <p style="text-align: center;">03/09/2007</p>
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Name and mailing address of the ISA/ European Patent Office, P B 5816 Patentlaan 2 NL - 2280 HV Rijswijk Tel (+31-70) 340-2040, Tx 31 651 epo nl Fax (+31-70) 340-3016	Authorized officer <p style="text-align: center;">Dherve, Gwenael I e</p>
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INTERNATIONAL SEARCH REPORT

International application No

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
A	ZIJLMANS MAEIKE ET AL: "HEART RATE CHANGES AND ECG ABNORMALITIES DURING EPILEPTIC SEIZURES: PREVALENCE AND DEFINITION OF AN OBJECTIVE CLINICAL SIGN" NEUROLOGY, LIPPINCOTT WILLIAMS & WILKINS, PHILADELPHIA, US, vol . 58, no. 7 SUPPLEMENT 3, 9 April 2002 (2002-04-09) , page A336, XP008079300 ISSN: 0028-3878 Item "Conclusions" . -----	4-6 , 15-17
A	US 2004/236233 AI (KOSUDA TSUKASA [JP] ET AL) 25 November 2004 (2004-11-25) abstract paragraph [0004] -----	5,9,17
X	WO 97/26823 A (UNIV KANSAS [US]) 31 July 1997 (1997-07-31) page 1, lines 7-10 page 4, lines 6-41 page 18, line 10 - page 21, line 14 page 7, line 39 - page 9, line 11; figure 1 -----	1,3,7, 12-14, 18
A	-----	4-6
X	GB 2 284 060 A (HORTON NIGEL EDGAR [GB]) 24 May 1995 (1995-05-24) the whole document -----	1-3,7, 12-14,18
A	-----	4-6
A	US 2003/236474 AI (SINGH BALBIR [US]) 25 December 2003 (2003-12-25) paragraph [0024] paragraphs [0068] - [0073]; figures 12, 13 -----	1-3 ,6, 10, 16
A	US 5 523 742 A (SIMKINS THOMAS E [US] ET AL) 4 June 1996 (1996-06-04) the whole document -----	1,2,6, 10,16
A	US 4 129 125 A (LESTER ROBERT W ET AL) 12 December 1978 (1978-12-12) abstract -----	1

Box 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 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 fee, this Authority did not invite payment of any additional fee.
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.:

1-18

Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONT(NUED FROM PCT/ISA/ 210

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

1. claims: 1-18

Method and apparatuses for predicting epileptic seizure on the basis of a sensed physical phenomenon.

2. claims : 19,20

Device for detecting a medical condition on the basis of two physical properties of the patient's body.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2006/054952

Patent document cited in search report	Publication date	Publication date	Patent family member(s)	Publication date
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