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(71) Applicant: **Valencell, Inc.**
Raleigh, NC 27606-5219 (US)

(72) Inventors:
• **LeBoeuf, Steven Francis**
Raleigh, NC 27603 (US)
• **Tucker, Jesse Berkley**
Knightdale, NC North Carolina 27545 (US)
• **Aumer, Michael Edward**
Raleigh, NC 27608 (US)

(74) Representative: **Yeadon, Mark**
Yeadon IP Limited
Leeds Innovation Centre
103 Clarendon Road
Leeds LS2 9DF (GB)

(54) **Telemetric apparatus for health and environmental monitoring**

(57) Wearable apparatus for monitoring various physiological and environmental factors are provided. Real-time, noninvasive health and environmental monitors include a plurality of compact sensors integrated

within small, low-profile devices, such as earpiece modules. Physiological and environmental data is collected and wirelessly transmitted into a wireless network, where the data is stored and/or processed.

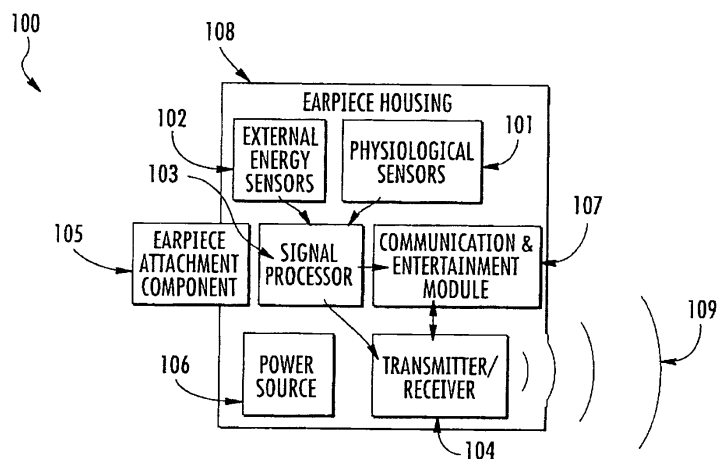


FIG. 1

**PARTIAL EUROPEAN SEARCH REPORT**

Application Number

under Rule 62a and/or 63 of the European Patent Convention.
This report shall be considered, for the purposes of
subsequent proceedings, as the European search report

EP 14 19 0369

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	US 2004/186390 A1 (ROSS ET AL) 23 September 2004 (2004-09-23) * paragraphs [0160] - [0162] * -----	1-15	INV. A61B5/00 A61B5/22
A	US 2003/233051 A1 (VERJUS ET AL) 18 December 2003 (2003-12-18) * paragraphs [0026] - [0027] * -----	1-15	
A	US 2006/064037 A1 (SHALON ET AL) 23 March 2006 (2006-03-23) * paragraphs [0231] - [0233], [0238], [0260], [0283], [0284], [0299], [0328], [0340], [0429] * -----	1-15	
			TECHNICAL FIELDS SEARCHED (IPC)
			A61B
INCOMPLETE SEARCH			
<p>The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPC so that only a partial search (R.62a, 63) has been carried out.</p> <p>Claims searched completely :</p> <p>Claims searched incompletely :</p> <p>Claims not searched :</p> <p>Reason for the limitation of the search:</p> <p>see sheet C</p>			
Place of search		Date of completion of the search	Examiner
Munich		12 May 2015	Martelli, Luca
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>			

EPO FORM 1503 03.02 (P04E07)



INCOMPLETE SEARCH SHEET C

Application Number

EP 14 19 0369

Claim(s) completely searchable:

-

Claim(s) searched incompletely:

1-15

Reason for the limitation of the search:

The claims as filed do not meet the requirements of the EPC (see the communication of 9/2/2015).

On the basis of the Applicant's request of 9/4/2015, the following subject-matter has been searched as independent apparatus claim :

An apparatus, adapted to be worn near an ear of a person, comprising:

- a housing configured to be attached to the body of said person;
- at least one optical emitter supported by the housing and configured to direct optical energy towards the tympanic membrane ;
- at least one optical detector supported by the housing and configured to sense optical energy absorbed, scattered, and/or reflected by the tympanic membrane; and to produce a physiological signal in response to the sensed optical energy;
- at least one footstep sensor supported by the housing and configured sense footsteps of the person and to produce a footstep signal in response to the sensed footsteps; and
- one or more signal processors configured to:
 - receive said physiological signal and said footstep signal,
 - process the physiological signal to produce at least one processed physiological signal containing cleaner physiological information from the person using the footstep signal, and
 - process the footstep signal to produce at least one processed footstep signal containing cleaner information about footsteps of the person.

**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.

12-05-2015

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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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)	用于健康和环境监测的遥测设备		
公开(公告)号	EP2862504A3	公开(公告)日	2015-06-24
申请号	EP2014190369	申请日	2007-12-07
[标]申请(专利权)人(译)	瓦倫賽爾公司		
申请(专利权)人(译)	VALENCELL INC.		
当前申请(专利权)人(译)	VALENCELL INC.		
[标]发明人	LEBOEUF STEVEN FRANCIS TUCKER JESSE BERKLEY AUMER MICHAEL EDWARD		
发明人	LEBOEUF, STEVEN FRANCIS TUCKER, JESSE BERKLEY AUMER, MICHAEL EDWARD		
IPC分类号	A61B5/00 A61B5/22		
CPC分类号	A61B5/0059 A61B5/0205 A61B5/021 A61B5/02438 A61B5/0816 A61B5/087 A61B5/11 A61B5/14546 A61B5/1455 A61B5/4064 A61B5/411 A61B5/415 A61B5/418 A61B5/6817 A61B5/6887 A61B2560 /0242 A61B5/222 G16H40/63 G16H40/67 G16H50/20 G16H50/30 A61B5/0002 A61B5/0013 A61B5 /0015 A61B5/0022 A61B5/0071 A61B5/0084 A61B5/01 A61B5/02055 A61B5/024 A61B5/02427 A61B5 /026 A61B5/029 A61B5/031 A61B5/04 A61B5/04001 A61B5/0476 A61B5/0496 A61B5/0533 A61B5 /1032 A61B5/1112 A61B5/1118 A61B5/112 A61B5/1126 A61B5/12 A61B5/14539 A61B5/14542 A61B5 /14551 A61B5/14552 A61B5/14556 A61B5/1477 A61B5/224 A61B5/4205 A61B5/4227 A61B5/4266 A61B5/4542 A61B5/4806 A61B5/4812 A61B5/4839 A61B5/4845 A61B5/4848 A61B5/486 A61B5/4866 A61B5/4872 A61B5/4875 A61B5/6803 A61B5/6815 A61B5/6816 A61B5/7203 A61B5/721 A61B5/7405 A61B5/742 A61B7/00 A61B7/04 A61M37/00 A61M2037/0007 A61N1/325 G01D11/00 G01N21/47 G01N21/59 G01N2201/021 G01N2201/0612 G01N2201/062		
优先权	60/875606 2006-12-19 US 60/876128 2006-12-21 US 60/905761 2007-03-08 US 11/811844 2007-06-12 US		
其他公开文献	EP2862504B1 EP2862504A2		
外部链接	Espacenet		

摘要(译)

提供了用于监视各种生理和环境因素的可穿戴设备。实时，无创的健康和环境监测器包括集成在小型，薄型设备（例如耳机模块）内的多个紧凑型传感器。收集生理和环境数据并将其无线传输到无线网络中，在无线网络中存储和/或处理数据。

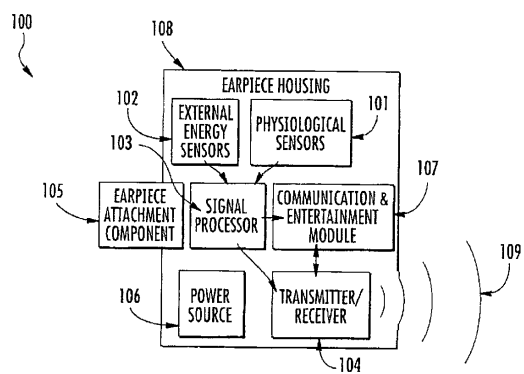


FIG. 1