

(19) World Intellectual Property
Organization
International Bureau



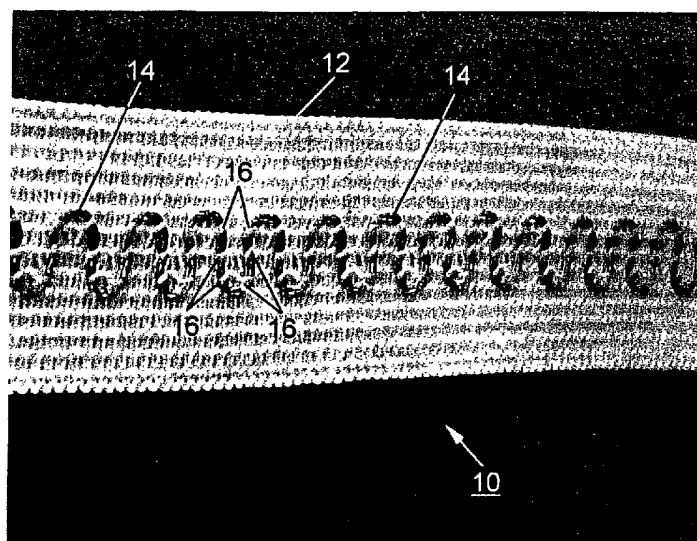
(43) International Publication Date
8 August 2002 (08.08.2002)

PCT

(10) International Publication Number
WO 2002/060370 A3

- (51) International Patent Classification⁷: **A61B 5/04**, D04B 1/00
- (21) International Application Number: PCT/US2002/002636
- (22) International Filing Date: 30 January 2002 (30.01.2002)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 09/774,333 31 January 2001 (31.01.2001) US
- (71) Applicant: **VIVOMETRICS, INC.** [US/US]; 121 North Fir Street, Suite E, Ventura, CA 93001 (US).
- (72) Inventor: **ISTOOK, Cynthia, L.**; 5232 Fairmead Drive, Raleigh, NC 27613 (US).
- (74) Agents: **CORUZZI, Laura, A.** et al.; Pennie & Edmonds LLP, 1155 Avenue of the Americas, New York, NY 10036 (US).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report
- (88) Date of publication of the international search report:
12 February 2004
- 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: COMPOSITE ELASTIC AND WIRE FABRIC FOR PHYSIOLOGICAL MONITORING APPAREL

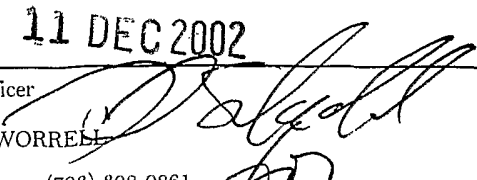


(57) Abstract: A fabric (10) for use in apparel of the type used for physiological monitoring of prescribed body functions has one or more elongated bands of elastic material (12) which is stretchable in the longitudinal direction. Each such elastic band includes at least one conductive wire (14) affixed to or formed therein in a curved pattern. A garment (300) and a system of the type used for physiological monitoring of prescribed body functions includes such a fabric and a monitoring unit (340) monitoring electrical parameters of the included conductive wires.

WO 2002/060370 A3

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US02/02636

A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : A61B 5/04; D04B 1/00 US CL : 66/172E, 171, 202; 2/69; 600/388 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) U.S. : 66/172E, 169R, 170, 171, 190, 191, 192, 193, 202; 2/69, 76, 167, 902, 901; 600/388, 386, 390, 391 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)		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4,753,088 A (HARRISON et al) 28 June 1988, See entire document.	1-9
A	US 5,074,129 A (MATTHEW) 24 December 1991, See entire document.	1-9
A	US 5,416,961 A (VINAY) 23 May 1995, See entire document.	1-9
A	US 5,991,922 A (BANKS) 30 November 1999, See entire document.	1-9
A	US 6,047,203 A (SACKNER et al) 04 April 2000, See entire document.	1-9
A	US 6,066,093 A (KELLY et al) 23 May 2000, See entire document.	1-9
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> 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 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	
Date of the actual completion of the international search 24 AUGUST 2002		Date of mailing of the international search report 11 DEC 2002
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230		Authorized officer DANNY WORRELL  Telephone No. (703) 308-0861

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US02/02636**Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)**

This international 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 II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

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.:

Remark on Protest

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

No protest accompanied the payment of additional search fees.