(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
16 May 2013 (16.05.2013)

WIPO | PCT

(10) International Publication Number
WO 2013/071014 A2

(51) International Patent Classification:
A61B 5/1455 (2006.01) *A61B 5/024* (2006.01)
A61B 5/021 (2006.01)

(21) International Application Number:
PCT/US2012/064302

(22) International Filing Date:
9 November 2012 (09.11.2012)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
13/292,923 9 November 2011 (09.11.2011) US

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(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *without international search report and to be republished upon receipt of that report (Rule 48.2(g))*

(54) Title: OPTICAL SENSORS FOR USE IN VITAL SIGN MONITORING

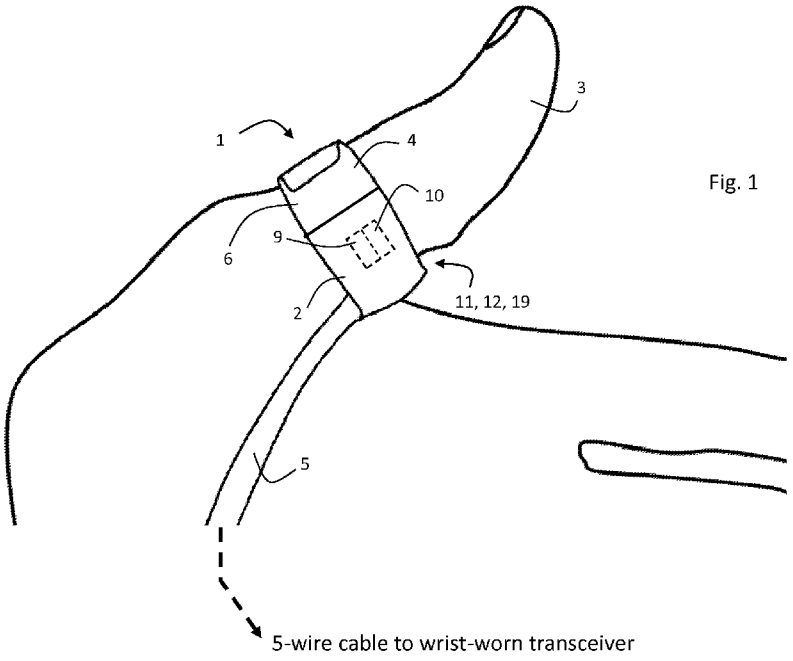


Fig. 1

(57) Abstract: The invention provides a body-worn system that continuously measures pulse oximetry and blood pressure, along with motion, posture, and activity level, from an ambulatory patient. The system features an oximetry probe that comfortably clips to the base of the patient's thumb, thereby freeing up their fingers for conventional activities in a hospital, such as reading and eating. The probe secures to the thumb and measures time-dependent signals corresponding to LEDs operating near 660 and 905 nm. Analog versions of these signals pass through a low-profile cable to a wrist- worn transceiver that encloses a processing unit. Also within the wrist- worn transceiver is an accelerometer, a wireless system that sends information through a network to a remote receiver, e.g. a computer located in a central nursing station.

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