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Title: SYSTEMS AND **APPARATUS** FOR MEASURING A BIOACTIVE AGENT EFFECT

Abstract: **Apparatus** and systems are described that include physical media related to accepting at least one attribute associated with an individual from a licensed health care provider and/or presenting an output of an artificial sensory experience associated with a request to measure at least one effect of a bioactive agent on the attribute associated with individual.

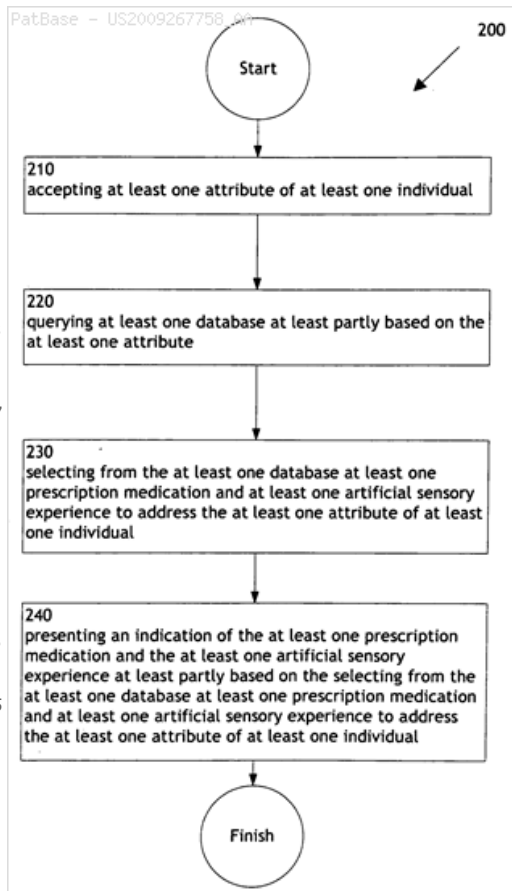
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Inventor(s): WOOD VICTORIA YH

Agent(s): IV SUITER SWANTZ PC LLO; SEARETE LLC CLARENCE T TEGREENE; IV - SUITER SWANTZ PC LLO; KELLER LAPUMA WOODARD PC

Title: Microprocessor system for the simplified diagnosis of sleep **apnea**

Abstract: A **method** of evaluating a patient with sleep **apnea** includes monitoring a patient to produce at least one timed waveform of at least one physiologic parameter, identifying along the waveform a first waveform variation indicative of an **apnea**, identifying along the waveform a second waveform variation indicative of another **apnea**, determining the interval intermediate at least one portion of the first waveform variation and at least one portion of the second waveform, and assessing the severity of sleep **apnea** based on at least the determining. A **device** for determining the severity of sleep **apnea** comprises a monitor capable of generating a signal indicative of at least one physiologic parameter and a **processor** capable of **processing** the signal, the **processor** operating to generate a timed waveform of the parameter and to identify a plurality of sequential waveform variations indicative of a corresponding plurality of sequential **apneas**, the sequential waveform variations having temporal and spatial relationships between the waveform variations and along the waveform, the **processor** further operating to determine at least one of the temporal and the spatial relationships and displaying the determining so that the determining can be used to assess the severity of sleep **apnea**.

Classifications:

International (IPC 8-9): A61B17/15 A61B5/00 A61B5/02

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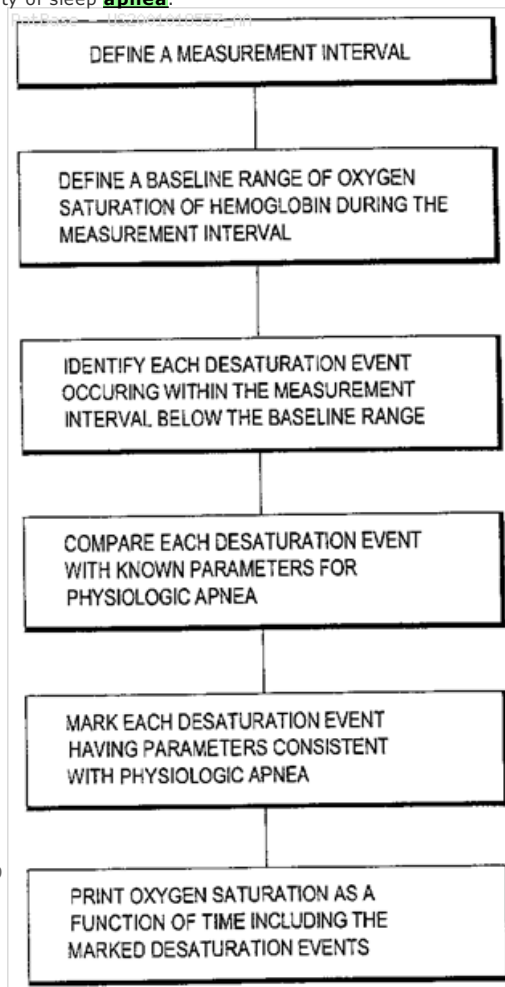
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Probable Assignee: LYNN LAWRENCE ALLAN

Assignee(s): (std): LAWRENCE A LYNN ; CRODA INC ; LYNN ERIC N ; LYNN LAWRENCE A

Assignee(s): LYNN LAWRENCE ALLAN ; DZWONCZYK RODGER ; LAWRENCE A LYNN SUITE ; LYNN DR LAWRENCE A

Inventor(s): (std): DZWONCZYK RODGER ; NIKOLOPOULOS KOSTAS ; PEREIRA ABEL G ; LYNN LAWRENCE A ; LYNN ERIC N

Inventor(s): LYNN ERIC ; KOSTAS NIKOLOPOULOS ; ABEL G PEREIRA ; LYNN LAWRENCE

Agent(s): STANDLEY LAW GROUP LLP; BANNER AND WITCOFF; MICHAEL G FLETCHER FLETCHER YODER; FLETCHER YODER TYCO INT LTD; NELLCOR PURITAN BENNETT LLC, C/O FLETCHER YODER PC; NELLCOR PURITAN BENNETT LLC C O FLETCHER YODER PC; NELLCOR PURITAN BENNETT LLC, ATTN: IP LEGAL; NELLCOR PURITAN BENNETT LLC ATTN IP LEGAL; NELLCOR PURITAN BENNETT LLC,ATTN: IP LEGAL; FLETCHER; FLETCHER YODER; SHERIDAN ROSS PC; INT IP LAW GROUP PLLC; INT IP GROUP PLLC; BANNER AND WITCOFF LTD

Designated states: AE AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CR CU CY CZ DE DK DM EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Title: TECHNIQUES FOR PREDICTION AND MONITORING OF RESPIRATION-MANIFESTED CLINICAL EPISODES

Abstract: A **method** is provided for predicting an onset of a clinical episode, the **method** including sensing breathing of a subject, determining at least one breathing pattern of the subject responsively to the sensed breathing, comparing the breathing pattern with a baseline breathing pattern, and predicting the onset of the episode at least in part responsively to the comparison. Other embodiments are also described.

Classifications:

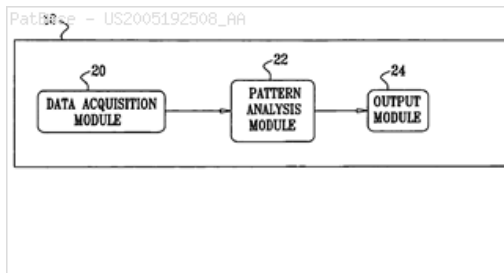
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Probable Assignee: EARLYSENSE LTD

Assignee(s): (std): AVERBOUKH ARKADI ; EARLYSENS LTD ; EARLYSENSE LTD ; GROSS YOSEF ; HALPERIN AVNER ; LANGE DANIEL ; LANGE DANIEL H ; PINHAS ITZHAK ; YOSEF GROSS ; MEGER GUY ; SHINAR ZVIKA ; EARLY SENSE LTD

Assignee(s): DANIEL H LANGE ; EARLYSENSE LTD LANGE DANIEL H GROSS ; ITZHAK PINHAS ; KREOS CAPITAL V EXPERT FUND LP ; DANIEL LANGE ; AVNER HALPERIN

Inventor(s): (std): GROSS YOSEF ; HALPERIN AVNER ; LANGE DANIEL H ; PINHAS ITZHAK ; YOSEF GROSS ; SHINAR ZVIKA ; MEGER GUY ; KARASIK ROMAN ; ITZHAK PINHAS ; AVNER HALPERIN ; AVERBOUKH ARKADI ; LANGE DANIEL ; GROSS YOSSI

Inventor(s): DANIEL LANGE ; DANIEL H LANGE

Agent(s): JANET STEAD AND ASSOCIATES PATENT AND TRADE MARKS ATTORNEYS; WRAYS; INTEGRAL IP; SARPI MAURIZIO ET AL; WAECHTER JOCHEN ET AL; FRANKS BARRY GERARD; DR EYAL BRESSLER; WEBB AND CO; OHTSUKA SUMIE; CHIBA AKIO; ONO SHINJIRO; SHAMOTO ICHIO; TOMITA HIROYUKI; KOBAYASHI YASUSHI; DARBY AND DARBY PC; HESLIN ROTHENBERG FARLEY AND MESITI PC; DARBY AND DARBY; BOOTH UDALL FULLER PLC; RODNEY J; ROACH BROWN MCCARTHY AND GRUBER PC; KEVIN D; SANFORD T COLB AND CO

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: HEART FAILURE PATIENT TREATMENT AND MANAGEMENT **DEVICE**

Abstract: A **device** and **method** to **detect** and manage heart failure patient symptoms is provided. Respiration and/or cardiac parameters may be sensed or observed to determine the status of a patient's condition. These symptoms may be classified for appropriate patient disease management. A patient's activity level may be monitored in conjunction with respiration and/or cardiac parameters to provide additional patient status information. These symptoms may be classified for appropriate patient disease management. Pulmonary edema is one condition that may be determined to exist when a respiration parameter is out of range for a given sensed activity level. If edema is determined to be present, the **device** may be configured to respond to treat the edema.

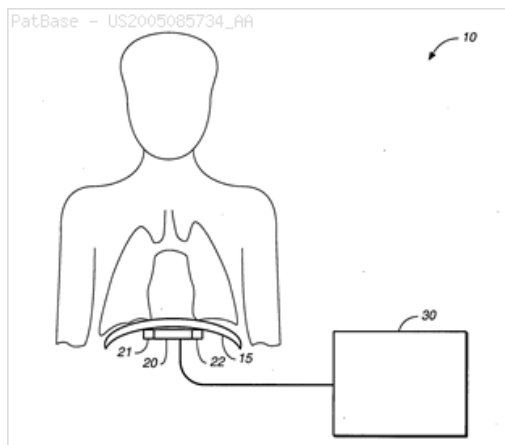
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Family:

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Probable Assignee: RMX LLC

Assignee(s): (std): EASTWOOD PETER ; GOODMAN AMY ; GOODMAN AMY M ; GOODMAN AMY MICHELLE ; HILLMAN DAVID ; HOFFMAN DREW ; INSPIRATION MEDICAL INC ; LEE CHANG ; LIGON DAVID ; MO ANTHONY ; MELTZER MARK ; PROVINCE ROSE ; HOFFMANN DREW ; SCHWARTZ ALAN ; RMX LLC ; LEE CHANG YEUL ; LEE CHANG Y ; TEHRANI AMIR J ; SOWB YASSER A ; SPIRIDIGLIOZZI JOHN

Inventor(s): (std): GOODMAN AMY M ; LEE CHANG ; LIGON DAVID ; MELTZER MARK ; MO ANTHONY ; PROVINCE ROSE ; TEHRANI AMIR J ; TLEE CHANG ; SPIRIDIGLIOZZI JOHN ; SOWB YASSER A ; SCHWARTZ ALAN ; LEE CHANG YEUL ; LEE CHANG Y ; HOFFMAN DREW ; HILLMAN DAVID ; GOODMAN AMY MICHELLE ; EASTWOOD PETER ; HOFFMANN DREW ; GOODMAN AMY

Inventor(s): TEHRANI AMIR

Agent(s): PETERS VERNY JONES AND SCHMITT LLP; SUSAN M SCHMITT PETERS VERNY JONES SCHMITT AND ASTON LLP; RMX LLC; LEVINE BAGADE HAN LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: SYSTEMS AND METHODS FOR A WAVELET TRANSFORM VIEWER

Abstract: Techniques for the display of a signal with a wavelet transform of that signal in a wavelet transform viewer are disclosed, according to embodiments. According to embodiments, the wavelet transform viewer can display a plot of physiological signals such as a photoplethysmograph (PPG) signal. A portion of the plot of the signal can be selected. A wavelet transform of the selected portion of the signal can be calculated and a wavelet plot of the transformed signal can be displayed simultaneously with that signal. A plot of the selected portion of the signal can also be simultaneously displayed with both the plot of the signal and the wavelet plot.

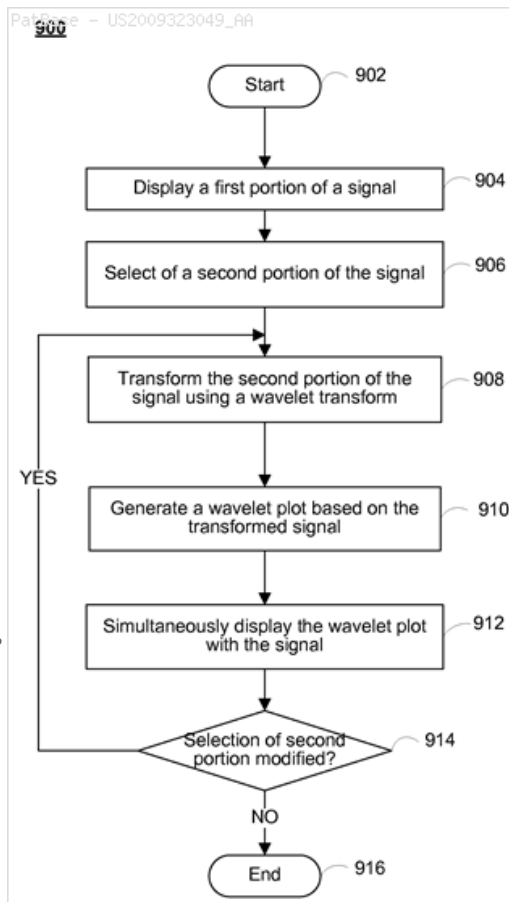
Classifications:

International (IPC 8-9): A61B1/00 A61B5/00 A61B5/02 A61B5/0205 A61B5/021 A61B5/022 A61B5/024 A61B5/0245 A61B5/0295 A61B5/04 A61B5/08 A61B5/145 A61B5/1455 A61B5/1495 A61B5/16 G01D3/032 G01J3/433 G01N31/00 G01N33/48 G01N33/50 G06F15/00 G06F17/00 G06F17/10 G06F17/18 G06F19/00 G06F19/12 G06F19/24 G06F19/26 G06F7/00 G06F7/60 G06G7/48 G06K9/00 G06K9/36 G06K9/46 G11C17/00 (Advanced/Invention); A61B5/00 A61B5/02 A61B5/021 A61B5/08 A61B5/145 G01N33/48 G06F17/18 G06F19/00 G06K9/00 G06K9/46 (Core/Invention)

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Probable Assignee: NELLCOR PURITAN BENNETT IRELAND

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Assignee(s): NELLCOR PURITAN BENNETT IRELAND MERVUE

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Inventor(s): PAUL STANLEY ADDISON ; RAKESH SETHI ; SCOTT MCGONIGLE ; DAVID CLIFTON ; JAMES NICHOLAS WATSON

Agent(s): PIZZEYS; PIZZEYS PATENT AND TRADE MARK ATTORNEYS PTY LTD; SMART AND BIGGAR; MARKS AND CLERK LUXEMBOURG LLP; HARGREAVES TIMOTHY EDWARD; KINSLER MAUREEN CATHERINE; KAWAGUTI AND PARTNERS; NELLCOR PURITAN BENNETT LLC,ATTN: IP LEGAL; NELLCOR PURITAN BENNETT LLC ATTN IP LEGAL; SHVARTS AND LEIZ LLP; SHUATS AND LEIZ LLP; NAISMITH ROBERT STEWART; NAISMITH ROBERT STEWART ET AL; KINSLER MAUREEN CATHERINE ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: BREATHING GAS DELIVERY **METHOD** AND **APPARATUS**

Abstract: An improved methodology and systems for delivery of breathing gas such as for the treatment of obstructive sleep arena through application of alternating high and low level positive airway pressure within the airway of the patient with the high and low airway pressure being coordinated with the spontaneous respiration of the patient, and improved **methods** and **apparatus** for triggering and for leak management in such systems.

Classifications:

International (ipc 8-9): A61B5/08 A61B5/087 A61F5/56 A61M16/00 A61M16/06 A61M16/20 A62B7/00 G01M3/26 (Advanced/Invention); A61B5/08 A61M16/06 A61M16/20 (Advanced/Non-invention); A61B5/08 A61F5/56 A61M16/00 G01M3/26 (Core/Invention); A61M16/20 (Core/Non-invention)

International (ipc 1-7): A61B5/08 A61B5/087 A61F5/56 A61M16/00 A62B7/00 A62B7/04 F16K31/02 F16K31/26 G01M3/26

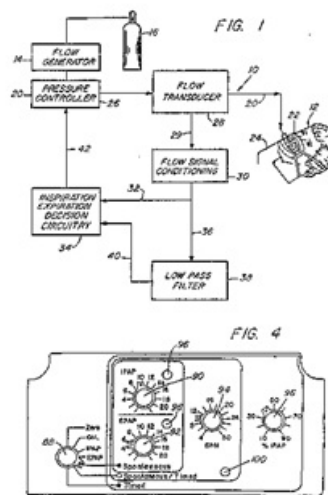
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European: A61M16/00 A61M16/00K K61M16/00A11 K61M16/00A14B2 K61M16/00A14B4 K61M16/00A19 K61M16/00A20 K61M16/00A8B2 K61M16/00M6 K61M16/00M6P K61M16/06 K61M16/20A2P2 K61M16/20A2P4 K61M205/15 K61M205/35R2 K61M230/60

US: 12/820.418 128/201.18 128/202.22 128/204.18 128/204.180P 128/204.180S 128/204.21 128/204.210P 128/204.210S 128/204.22 128/204.220S 128/204.23 128/204.230P 128/204.230S 128/204.26 128/205.23 128/206.24 128/725

PatBase - US2002023645_AA

Patent Application Publication Feb. 28, 2002 Sheet 1 of 10 US 2002/003645 A1

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Probable Assignee: RIC INVESTMENTS LLC

Assignee(s): (std): RESPIRONICS INC ; RIC INVESTMENTS INC ; RIC INVESTMENTS LLC

Assignee(s): RIC I NV ; ZDROJKOWSKI RONALD J ; SANDERS MARK H ; RESPIRONICS INC 530 SECO ROAD
MONROEVILLE PA 15146 A CORP OF PA ; RESPIRONICS INC MURRYSVILLE PA US ; RESUPIRONIKUSU

INC ; CATTANO JANICE M ; ESTES MARK ; ESTES MARK C

Inventor(s): (std): CATTANO JANICE M ; ESTES MARK ; ESTES MARK C ; MAAKU ESUTESU ; MAAKU ETSUCHI SANDAASU ; MECHLENBURG DOUGLAS M ; RONARUDO JEI ZUDOROIKOSUKII ; RONARUDO JIEI ZUDOROIKOUSUKII ; SANDERS MARK ; RONALD J ZDROJKOWSKI ; RONALD J ZDROJKOWSKI ; MARK H SANDERS ; MARK ESTES ; MARK C ESTES ; JANICE M CATTANO ; ESTES C ; CATTANO M ; ZDROJKOWSKI RONALD J ; ZDROJKOWSKI RONALD J ; ZDROJKOW RONALD ; SANDERS MARK H

Inventor(s): RONALD ZDROJKOW ; CATTANO JANICE ; ESTES MARK PITTSBURGH PENNSYLVANIA 15085 US ; ZDROJKOWSKI RONALD

Agent(s): FB RICE; FB RICE PTY LTD; MALLESONS STEPHEN JAQUES; KING AND WOOD MALLESONS; SMART AND BIGGAR; BORDEN LADNER GERVAIS LLP; SERJEANTS; MICHAEL W HAAS INTELLECTUAL PROPERTY COUNSEL RESPIRONICS INC; MICHAEL W HAAS RESPIRONICS INC; HAAS MICHAEL W; MICHAEL W

Designated states: AT AU BE CA CH DE DK ES FI FR GB GR IE IT JP LI LU MC NL SE

Title: MEASUREMENT **DEVICE**, INSULIN INFUSION **DEVICE**, MEASUREMENT **METHOD**, **METHOD** FOR **CONTROLLING** INSULIN INFUSION **DEVICE**, AND PROGRAM

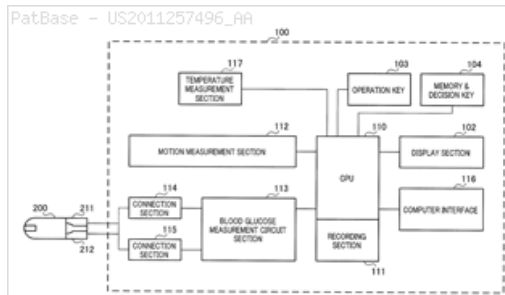
Abstract: Provided are a measurement **device** by which the blood-sugar level or the like associated with the living activity of a diabetic patient can be measured easily and precisely and the measured value associated with the living activity can be clinically applied easily, and an insulin infusion **device**, a measurement **method**, a **method** for **controlling** an insulin fusion **device**, and a program. A blood-sugar level measurement **device** (100) is provided with a blood-sugar level sensor (200) and an acceleration sensor (112) for measuring movement information associated with human body activity, wherein a CPU (110) **controls**, on the basis of the measured movement information, whether or not the measurement operation of a blood-sugar measurement circuit (113) can be executed. The CPU (110) further associates and records in a recording unit (111) the measured blood-sugar level and the movement information measured by the acceleration sensor (112), and displays the associated blood-sugar level and movement information on a display unit (102). The CPU (110) further combines the blood-sugar level measured by the blood-sugar level sensor (200) and the data **detected** by the acceleration sensor (112) and executes each mode **processing**.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/11 A61B5/145 A61B5/1473 A61B5/1486 A61B5/151 A61B5/157 A61M1/36 A61M5/142 A61M5/172 G01N15/06 G01N27/28 G01N27/327 G01N27/416 G01N33/48 (Advanced/Invention); A61B5/11 A61M1/14 A61M5/142 A61M5/172 G01N27/327 G01N27/416 (Advanced/Non-invention); A61B5/11 A61B5/145 A61M5/142 G01N27/327 G01N27/416 (Core/Invention)
CPC: A61B5/1486 A61B5/416 A61B5/4839 A61B5/4866 A61B2560/0406 A61B2562/0219 A61B2562/0295 A61M5/14244 A61M5/1723 A61M2005/1726 A61M2205/3368 A61M2205/502 A61M2230/201 A61M2230/50 A61M2230/63 G01N27/3273 A61B5/721 A61B5/74 A61B5/14865 A61B5/681 A61B5/0004 A61M2205/582 A61B5/14532 A61B5/11 G06F19/00

European: A61B5/145G A61B5/1486 A61B5/41J4 A61B5/48V A61M5/142P A61M5/172B G01N27/327B K61B5/11 K61B560/04B K61B562/02C K61B562/02S K61M205/33T K61M205/50A K61M230/20B K61M230/50 K61M230/63 K61M5/172B2

US: 422/68.1 600/309 600/309S 600/316 600/319 600/345 600/345S 600/347 600/347P 600/365 600/365S 702/141 702/145 702/151 702/154



Family:

Publication number	Publication date	Application number	Application date
CN102197304 A	20110921	CN200980142857	20091027
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WO10052849 A1	20100514	WO2009JP05673	20091027

Priority:

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US20170813467	20171115				

Probable Assignee: PANASONIC HEALTHCARE HOLDINGS CO LTD

Assignee(s): (std): MATSUSHITA ELECTRIC INDUSTRIAL CO LTD ; NADAOKA MASATAKA ; PANASONIC CORP ; TERASHIMA NORIYOSHI ; MATSUSHITA ELECTRIC IND CO LTD ; PANASONIC HEALTHCARE HOLDINGS CO LTD

Assignee(s): PANASONIC HEALTHCARE HOLDINGS CO ; MATSUSHITA ELECTRIC INDUSTRIAL CO ; PANASONIC HEALTHCARE CO LTD ; PANASONIC HEALTHCARE HOLDINGS CO LTD

Inventor(s): (std): NADAOKA MASATAKA ; NADAOKA MASATAKE ; TERAJIMA NORIYOSHI ; TERASHIMA NORIYOSHI ; NORIYOSHI TERASHIMA ; MASATAKA NADAOKA

Agent(s): GRUENECKER PATENT U RECHTSANWAELTE PARTG MBB; GRUENECKER KINKELDEY STOCKMAIR AND SCHWANHAUESSER ANWALTSSOZIALTET; GRUENECKER PATENT U RECHTSANWAELTE PARTG MBB; GREENBLUM AND BERNSTEIN PLC; GREENBLUM AND BERNSTEIN PLC; WASHIDA KIMIHIITO

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL

IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT
MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST
SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: SMART WATCH AND FOOD-IMAGING MEMBER FOR MONITORING FOOD CONSUMPTION

Abstract: This invention is a **device** and system for monitoring a person's food consumption comprising: a wearable sensor that automatically collects data to **detect** probable eating events; an imaging member that is used by the person to take pictures of food wherein the person is prompted to take pictures of food when an eating event is **detected** by the wearable sensor; and a data analysis component that analyzes these food pictures to estimate the types and amounts of foods, ingredients, nutrients, and/or calories that are consumed by the person. In an example, the wearable sensor can be part of a smart watch or smart bracelet. In an example, the imaging member can be part of a smart phone. The integrated operation of the wearable sensor and the imaging member disclosed in this invention offers accurate measurement of food consumption with low intrusion into the person's privacy.

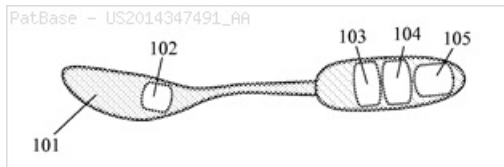
Classifications:

International (IPC 8-9): A41B7/00 A41D27/10 A44C5/00 A44C9/00 A47G21/02 A61B5/00 A61B5/053 A61B5/11 A61B5/145 A61B5/1455 A61B5/1477 A61N1/365 A61N1/372 G01B11/25 G01J3/02 G01J3/28 G01N21/25 G01N21/27 G01N33/02 G06F1/16 G06F17/00 G06F19/00 G06F3/01 G06K9/00 G06K9/22 G06T1/00 G06T7/00 G09B19/00 G09B5/02 H04N7/18 (Advanced/Invention); A61B5/0205 G06F1/16 (Advanced/Non-invention)

CPC: G01N33/02 G01J3/0202 G01J3/0272 A61B2560/0214

G01N21/27 G01B11/25 G01N21/255 G09B5/02 G01N2201/06113 G01N2201/02 A47G21/02 G06F1/1637 G06F1/1694 G06F3/014 G06F3/017 A61B5/0531 A61B5/6826 A61B5/4866 A61B5/4875 A61B5/14532 A61B5/14551 A61B5/0537 A61B5/1477 A41D27/10 A41B7/00 A44C5/0023 A44C9/0053 A61B5/6831 A61B5/6838 A41D2300/326 A61B2562/046 G01N27/02 A61B5/6824 A61B5/0507 A61B5/4836 A61B5/6816 A61B5/14552 A61B5/14546 A61N1/36557 A61N1/37217 G06K9/00771 G06K9/228 G06K2209/17 G06T7/0004 G06T2207/30128 A61B5/0476 A61B5/053 A61B5/11 A61B5/1123 A61B5/1455 A61B5/4839 A61B5/6843 A61B5/7285 A61F5/0003 A61M31/002 G09B19/0092 G01J3/0294 G01J2003/102 G01J2003/1239 A61B5/0205 A61B5/1114 A61B5/681 G01J3/28 G06F1/163 G06F19/3475 G06T1/0007 G01J3/0291

US: 1/1 348/158 356/402 356/51 356/72 361/679.03 434/127 600/344 600/407 600/475 600/477 600/547



Family:

Publication number	Publication date	Application number	Application date
US2014347491 AA	20141127	US20130901099	20130523
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Priority:

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Probable Assignee:

MEDIBOTICS LLC

Assignee(s): (std):

CONNOR ROBERT A ; MEDIBOTICS LLC

Inventor(s): (std):

CONNOR ROBERT A

Title: **DETECTING**, QUANTIFYING, AND/OR CLASSIFYING SEIZURES USING MULTIMODAL DATA

Abstract: **Methods**, systems, and **apparatus** for **detecting** an epileptic event, for example, a seizure in a patient using a medical **device**. The determination is performed by providing an autonomic signal indicative of the patient's autonomic activity; providing a neurologic signal indicative of the patient's neurologic activity; and **detecting** an epileptic event based upon the autonomic signal and the neurologic signal.

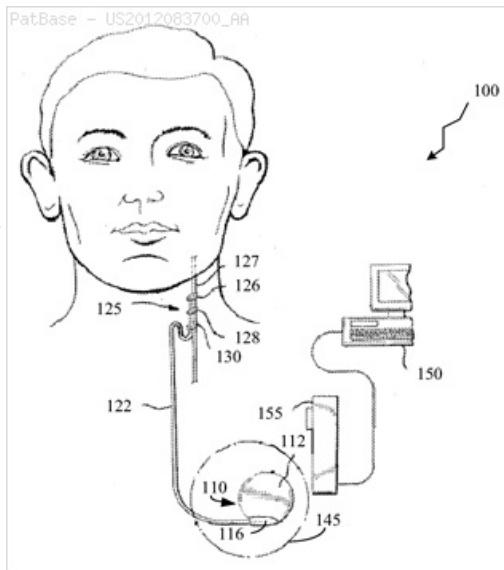
Classifications:

International (IPC 8-9): A61B10/00 A61B3/113 A61B5/00 A61B5/01 A61B5/02 A61B5/0205 A61B5/024 A61B5/0245 A61B5/025 A61B5/04 A61B5/0402 A61B5/042 A61B5/0452 A61B5/0468 A61B5/0472 A61B5/0476 A61B5/0488 A61B5/08 A61B5/11 A61B5/113 A61B5/145 A61B5/16 A61B7/00 A61F7/00 A61M16/04 A61M16/10 A61M31/00 A61M5/00 A61N1/08 A61N1/36 A61N1/365 (Advanced/Invention); A61B5/0205 A61B5/021 A61B5/024 A61B5/0245 A61B5/026 A61B5/0452 A61B5/0488 A61B5/053 A61B5/08 A61B5/11 A61B5/145 A61B7/04 A61B8/08 A61N1/36 A61N1/365 (Advanced/Non-invention)

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European: A61B5/0205 A61B5/0476 A61B5/40F6 A61B5/48K A61B5/68D1J A61B5/72K12 K61B5/01 K61B5/021 K61B5/024 K61B5/0245 K61B5/024A K61B5/0402 K61B5/0476 K61B5/08 K61B5/08R K61B5/11 K61B5/11T K61B5/16H K61B5/40D4 K61B5/68D1J K61B5/72K12 K61F7/10 K61N1/365 K61N1/365C K61N1/36Z3A K61N1/36Z5G

US: 1/1 128/207.14 600/300 600/300S 600/301 600/301P 600/309 600/309S 600/407 600/437 600/483 600/483P 600/484 600/485 600/508 600/509 600/515 600/529 600/532 600/544 600/549 600/595 600/595S 604/503 604/890.1 607/17 607/45 607/45S 607/96



Family:

Publication number	Publication date	Application number	Application date
AU2011308647 AA	20120405	AU20110308647	20110930
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Priority:

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Probable Assignee: FLINT HILLS SCIENTIFIC LLC

Assignee(s): (std): FLINT HILLS SCIENT L L C ; FLINT HILLS SCIENT LLC ; FLUNT HILLS SCIENT LLC ; OSORIO IVAN

Assignee(s): FINISAR CORP ; FLUNT HILLS SCIENTIFIC LLC ; FLINT HILLS SCIENTIFIC L L C ; FLINT HILLS SCIENTIFIC LLC

Inventor(s): (std): OSORIO IVAN ; IVAN OSORIO

Agent(s): PIZZEYS; PIZZEYS PATENT AND TRADE MARK ATTORNEYS PTY LTD; BERESKIN AND PARR LLP SENCRL SRL; GRUENECKER KINKELDEY STOCKMAIR AND SCHWANHAEUSSER; WILLIAMS MORGAN AND AMERSON; WILLIAMS MORGAN PC; CF3; STEPHEN; SCOTT TIMOTHY L; SCOTT TIMOTHY L ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

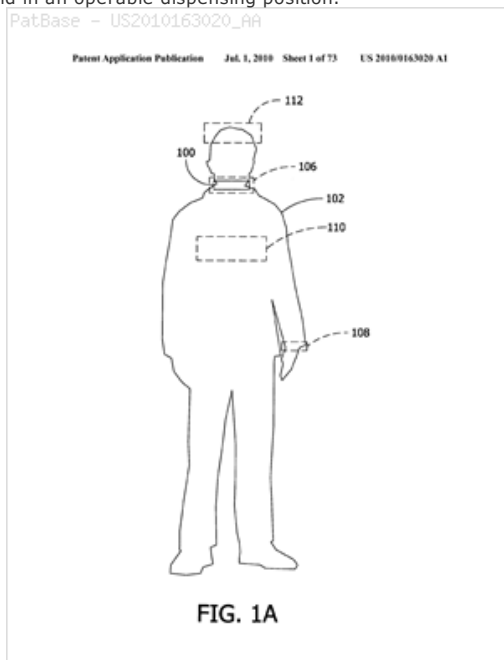
Title: **METHOD** FOR ADMINISTERING AN INHALABLE COMPOUND

Abstract: A **method** may include dispensing a dose of an inhalable compound according to a dosing instruction set; and maintaining a hands-free article for dispensing the inhalable compound in an operable dispensing position.

Classifications:

International (ipc 8-9): A61B5/00 A61B5/04 A61B5/08 A61D7/04 A61M11/00 A61M15/00 A61M15/02 A61M15/08 A61M16/00 A61M16/10 A62B7/00 A63F13/00 B05D7/14 B65D83/06 G01N1/22 G01N33/497 G05B13/02 G06F17/00 G06F19/00 G06N5/02 G06Q10/00 G07D5/00 G07D5/02 G07D5/10 G08B21/00 G08B23/00 (Advanced/Invention); A61B5/08 G05B19/042 G06F12/00 G06F15/16 G06F17/30 G06F17/40 G06N5/02 (Advanced/Non-invention); A61B5/00 A61B5/04 A61M11/00 A61M15/00 A61M16/10 A62B7/00 A63F13/00 G01N1/22 G01N33/483 G05B13/02 G06F17/00 G06N5/00 G07D5/00 G08B21/00 G08B23/00 (Core/Invention); G05B19/04 G06F12/00 G06F15/16 G06F17/30 G06F17/40 G06N5/00 (Core/Non-invention)

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Family:

Publication number	Publication date	Application number	Application date
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Priority:

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Probable Assignee: GEARBOX LLC

Assignee(s): (std): GEARBOX LLC ; HYDE RODERICK A ; INVENTION SCIENCE FUND I LLC ; ISHIKAWA MURIEL Y ; LORD ROBERT W ; LEUTHARDT ERIC C ; LANGER ROBERT ; KARE JORDIN T ; WOOD JR LOWELL L ; TEGREENE CLARENCE T ; SWEENEY ELIZABETH A ; WOOD VICTORIA Y H ; SEARETE LLC

Assignee(s): SEARETE LLC A LIABILITY OF STATE OF DELAWARE CORP LTD ; SEARETE LLC A LIABILITY OF STATE OF DELWARE CORP LTD ; SEARETE LLC A LIABILITY CORP LTD

Inventor(s): (std): HYDE RODERICK A ; ISHIKAWA MURIEL Y ; KARE JORDIN T ; LANGER ROBERT ; LEUTHARDT ERIC C ; LORD ROBERT W ; SWEENEY ELIZABETH A ; TEGREENE CLARENCE T ; WOOD JR LOWELL L ; WOOD VICTORIA Y H

Inventor(s): WOOD VICTORIA YH

Agent(s): IV SUITER SWANTZ PC LLO; IV - SUITER SWANTZ PC LLO; SUITER SWANTZ PC LLO

Title: DRUG DOSE CARTRIDGE FOR AN INHALER **DEVICE**

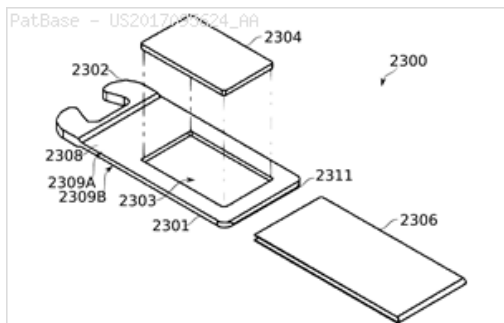
Abstract: **Devices** and **methods** are described for preparing, managing, and/or administering metered doses of substances for vaporized administration. In some embodiments, dose cartridges comprising at least one botanical substance include a heating element integrated into the cartridge in close contact with the botanical substance. In some embodiments, cartridge-mounted doses are stored in a magazine, optionally in carousel form, before use. Transport of a cartridge from a magazine to an electrically operated vaporizing chamber which activates the heating element is provided by a mechanical pickup means.

Classifications:

International (IPC 8-9): A24F47/00 A61J1/03 A61K A61K31/05 A61K31/09 A61K31/122 A61K31/137 A61K31/343 A61K31/352 A61K31/36 A61K31/366 A61K31/465 A61K31/473 A61K31/48 A61K31/55 A61K36/185 A61K36/81 A61K45/00 A61K9/00 A61K9/72 A61M A61M11/04 A61M13/00 A61M15/00 A61M15/06 A61M16/00 A61M16/10 A61M16/14 A61M16/20 A61N65/00 A61P1/00 A61P1/04 A61P1/08 A61P1/14 A61P11/00 A61P11/06 A61P13/10 A61P15/00 A61P17/02 A61P17/04 A61P19/02 A61P21/00 A61P25/00 A61P25/04 A61P25/08 A61P25/14 A61P25/16 A61P25/18 A61P25/20 A61P25/22 A61P25/24 A61P25/30 A61P25/32 A61P27/06 A61P29/00 A61P31/04 A61P31/14 A61P31/18 A61P35/00 A61P35/02 A61P9/10 A61P9/12 G06F19/00 H05B1/02 (Advanced/Invention); A24F47/00 A61J1/03 A61M11/04 (Advanced/Non-invention); A24F47/00 A61M15/00 (Core/Invention); A24F47/00 (Core/Non-invention)

CPC: A61M15/0065 A61K36/185 A61K9/007 H05B1/025 A61M15/0028 A61M15/0045 A61K31/352 A61K9/0073 A61M2205/36 A61M2205/3334 A61M2205/3368 A61M15/0051 A61M2205/0216 A61M2205/52 A61K36/81 A61K31/465 A61M2205/3331 A61M15/0003 A61M16/14 A61M15/06 A61M2205/3303 A61M2205/502 A61M11/041 A61M15/005 A61M16/20 A61K31/05 A61M2205/3569 A61M2205/3592 A61M15/0021 A61M16/0066 A61M15/002 A61M15/0066 A61M11/042 A24F47/008 A61M11/02 A61M15/0001 A61M15/0013 A61M15/0015 A61M15/0091

US: 128/203.14 128/203.27



Family:

Publication number	Publication date	Application number	Application date
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Priority:

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Probable Assignee: SYQE MEDICAL LTD

Assignee(s): (std): SYQE MEDICAL LTD

Assignee(s): SHLOMO ALMOG ; SETH KINDLER ; AARON SCHORR ; ALMOG SHLOMO ; ASAF KROLL ; BINYAMIN SCHWARTZ ; SCHORR AARON ; KROLL ASAF ; SCHWARTZ BINYAMIN ; DAVIDSON PERRY ; KINDLER SETH ; LIFSHITZ ROEE ; PERRY DAVIDSON ; ROEE LIFSHITZ

Inventor(s): (std): ALMOG SHLOMO ; ASAF KROLL ; BINYAMIN SCHWARTZ ; DAVIDSON PERRY ; KINDLER SETH ; KROLL ASAF ; LIFSHITZ ROEE ; PERRY DAVIDSON ; ROEE LIFSHITZ ; SCHORR AARON ; SCHWARTZ BENNY ; SCHWARTZ BINYAMIN ; AARON SCHORR

Inventor(s): AARON SCRORR ; SETH KINDLER ; SHLOMO ALMOG

Agent(s): IP SENTINELS PATENT AND TRADEMARK ATTORNEYS; INTEGRAL IP; VOGEL ANDREAS; EHRLICH GAL ET AL

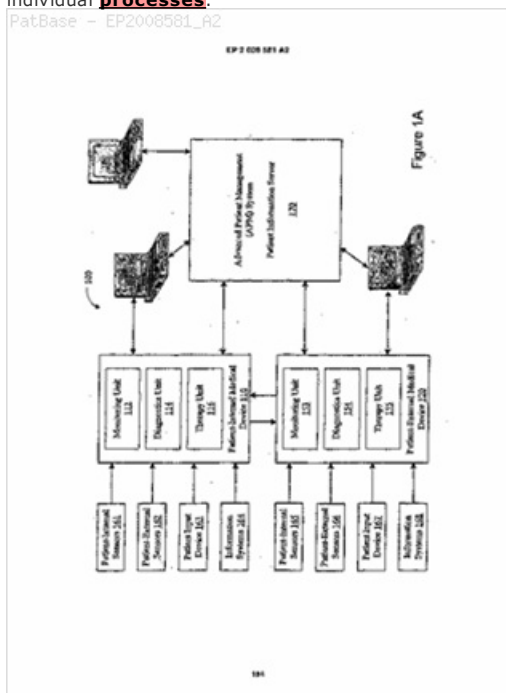
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Abstract: Systems and **methods** for monitoring, diagnosing, and/or treating a patient are provided. One or more individual medical procedures may be utilized to monitor, diagnose and/or treat the patient. Two or more of the individual medical procedures or may be used in combination to provide more comprehensive patient monitoring, diagnosis and/or therapy. One or more functions of two or more individual medical procedures may be used in combination to enhance patient monitoring, diagnosis and/or therapy. The medical procedures may be coordinated. Coordinated medical procedures may involve cooperative operation of two or more of the individual **processes**. Coordinated medical procedures may also involve cooperative operation of one or more functions of two or more of the individual **processes**.

International (IPC 8-9): A61B5/00 A61B5/0205 A61B5/04
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A61B5/113 A61N1/37 (Advanced/Non-invention)

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Publication number	Publication date	Application number	Application date
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Inventor(s): (std): HARTLEY JESSE W ; HATLESTAD JOHN D ; LEE KENT ; NI QUAN ; SIEJKO KRZYSZTOF J ; STAHMANN JEFFREY E ; ZHU QINGSHENG

Designated states: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

Title: MONITORING, PREDICTING AND TREATING CLINICAL EPISODES

Abstract: **Apparatus** (10) is provided that includes at least one sensor (30), configured to sense a physiological parameter of a subject (12) and to sense large body movement of the subject (12), an output unit (24), and a **control** unit (14). The **control** unit (14) is configured to monitor a condition of the subject (12) by analyzing the physiological parameter and the sensed large body movement, and to drive the output unit (24) to generate an alert upon **detecting** a deterioration of the monitored condition. Other embodiments are also described.

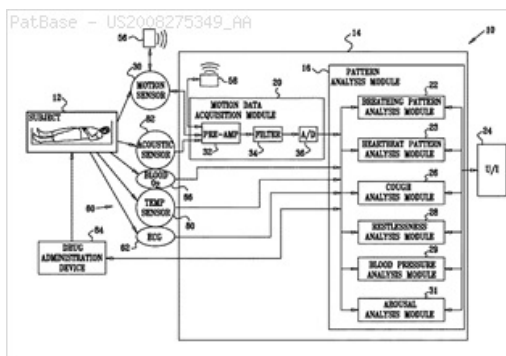
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Probable Assignee: EARLYSENSE LTD

Assignee(s): (std): EARLYSENSE LTD ; KARASIK ROMAN ; GROSS YOSEF ; LANGE DANIEL H ; MEGER GUY ; HALPERIN AVNER ; Klap TAL ; HERBST EFRAT ; SHINAR ZVI ; AVERBOUKH ARKADI ; BEN ARI JOSEF H ; DAIKIN IND LTD ; TODROS Koby ; TSOREF LIAT ; ZIEHERMAN YEHUDA

Assignee(s): DAIKIN INDUSTRIES LTD ; KREOS CAPITAL V EXPERT FUND LP

Inventor(s): (std): EFRAT HERBST ; GUY MEGER ; HERBST EFRAT ; HOFFERT SMADAR ; ISHIKAWA TAKUJI ; KAPON SHLOMI ; Klap TAL ; LEVKOVICH SHIRAZ ; ROMAN KARASIK ; SHINAR ZVI ; TAL Klap ; TSUDA

NOBUHIKO ; YAMAMOTO SADAHIRO ; ZVI SHINAR ; ZIEHERMAN YEHUDA ; TSOREF LIAT ; TODROS
KOBY ; SHINAR ZVIKA ; MEGER GUY ; MARCO ROTEM ; LANGE DANIEL H ; KARASIK ROMAN ;
HALPERIN AVNER ; GROSS YOSEF ; DAVIDOVICH MAAYAN ; BEN ARI JOSEF H ; AVERBOUKH ARKADI ;
GOLDMAN TZVI D

Agent(s): PIPERS; LECOMTE DIDIER; BRANN AB; FLEIT GIBBONS GUTMAN BONGINI AND BIANCO PL; ROACH
BROWN MCCARTHY AND GRUBER PC; KEVIN D; DR EYAL BRESSLER LTD; WEBB AND CO ET AL;
BURSTEIN TAL ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR
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SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: PATIENT MONITORING, DIAGNOSIS, AND/OR THERAPY SYSTEMS AND **METHODS**

Abstract: Systems and **methods** involve an implantable **device** configured to perform at least one cardiac-related function, a patient-external respiratory therapy **device**, and a communication channel configured to facilitate communication between the implantable **device** and the respiratory therapy **device**. The implantable and respiratory therapy **devices** operate cooperatively via the communication channel to provide one or more of patient monitoring, diagnosis, and therapy. The communication channel may be configured to facilitate communication between an external **processing** system and at least one of the implantable **device** and the respiratory therapy **device**. The **processing** system is communicatively coupled to at least one of the implantable and respiratory therapy **devices** via the communication channel to provide one or more of patient monitoring, diagnosis, and therapy.

Classifications:

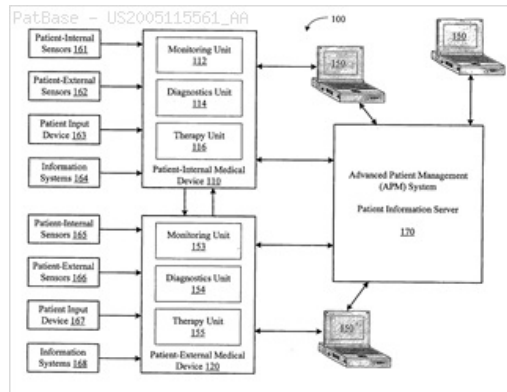
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International (IPC 1-7): A61M16/00

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US: 128/200.24 128/200.240P 128/204.18 128/204.180S 128/204.23 128/204.230S 607/3



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Probable Assignee: CARDIAC PACEMAKERS INC

Assignee(s): (std): CARDIAC PACEMAKERS INC

Assignee(s): HARTLEY JESSE W ; HATLESTAD JOHN D ; LEE KENT ; SIEJKO KRZYSZTOF Z ; NI QUAN ; STAHMANN JEFFREY E ; ZHU QINGSHENG

Inventor(s): (std): HATLESTAD JOHN D ; LEE KENT ; NI QUAN ; HARTLEY JESSE W ; SIEJKO KRZYSZTOF Z ; STAHMANN JEFFREY E ; ZHU QINGSHENG

Inventor(s): HARTLEY JESSE ; STAHMANN JEFFREY ; HATLESTAD JOHN ; SIEJKO KRZYSZTOF

Agent(s): CRAWFORD MAUNU PLLC; HOLLINGSWORTH AND FUNK LLC

Title: SYSTEM AND **METHOD** FOR INTERFACING CELLULAR MATTER WITH A MACHINE

Abstract: A system for interfacing cellular matter with a machine comprising a transponder implantable in cellular matter and configured to **detect** a first signal. The system also includes a receiver external to the cellular matter and configured to receive a second signal in response to the transponder **detection** of the first signal. A transmitter is also included in the system to transmit a third signal to a machine in response to the receiver receipt of the second signal.

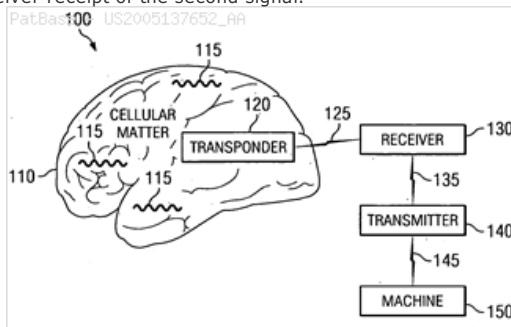
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Priority:

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Probable Assignee: BOARD OF REGENTS UNIV OF TEXAS SYSTEM

Assignee(s): (std): ARMSTRONG SCOTT ; BOARD OF REGEBTS UNIV OF TEXAS SYSTEM ; BOARD OF REGENTS UNIV OF TEXAS SYSTEM ; CAULLER LAWRENCE ; ENGINEER NAZER ; CAULLER LARRY ; ZYVEX CORP ; MICROTRANSPONDER INC ; WEINER RICHARD ; UNIV TEXAS ; MICRO TRANSPONDER INC ; KILGARD MICHAEL ; MCINTYRE CHRISTA ; ROSELLINI WILL ; ENGINEER NAVZER ; ENGINEER NAVZER DARA ; CAULLER LAWRENCE J ; CAULLER LAWRENCE JAMES ; RENNAKER ROBERT L ; PIERCE DAVID MICHAEL ; KILGARD MICHAEL P ; RODRIGUEZ CHRISTA MCINTYRE ; JAIN RAVI ; LEHMAN GUENTER H ; LEHMAN GUNTER

Assignee(s): THE BOARD OF REGENTS THE UNIVERSITY OF TEXAS SYSTEM ; THE BOARD OF REGENTS OF THE UNIVERSITY OF TEXAS SYSTEM ; NATIONAL INSTITUTES OF HEALTH NIH US DEPT OF HEALTH AND HUMAN SERVICES DHHS US GOVERNMENT ; BOARD OF UNIV OF TEXAS SYSTEM ; ZYVEX LABS LLC ; SILICON VALLEY BANK ; OF TEXAS SYSTEM UNIV ; MICRO TRANSPONDER ; BOARD OF UNIV ; BOARD OF UNIV OF TEXAS AT DALLAS ; BOARD OF REGENTS ; BOARD OF REGENTS UNIV ; BOARD OF REGENTS UNIV OF TEXAS SY ; BOARD OF UNIV TEXAS AT DALLAS

Inventor(s): (std): WEINER RICHARD ; ROSELLINI WILL ; ROSELLINI WILL ; RODRIGUEZ CHRISTA MCINTYRE ; RENNAKER ROBERT L ; MCLNTYRE CHRISTA ; MCINTYRE CHRISTA ; LAWRENCE CAULLER ; KILGARD MICHAEL P ; KILGARD MICHAEL ; ENGINEER NAZER ; ENGINEER NAVZER DARA ; ENGINEER NAVZER ; CAULLER LAWRENCE JAMES ; CAULLER LAWRENCE ; CAULLER LAWRECE JAMES ; LEHMAN GUNTER ; MCINTYRE RODRIGUEZ CHRISTA ; CAULLER LAWRENCE J ; NILSEN ERIK ; PIERCE DAVID MICHAEL ; LEHMAN GUENTER H ; JAIN RAVI ; CAULLER LARRY ; ARMSTRONG SCOTT

Inventor(s): WILL ROSELLINI ; CHRISTA MCINTYRE ; LARRY CAULLER ; MICHAEL KILGARD ; NAZER ENGINEER ; RICHARD WEINER

Agent(s): FREEHILLS PATENT AND TRADE MARK ATTORNEYS; FREEHILLS PATENT ATTORNEYS; HERBERT SMITH FREEHILLS; FREEHILLS PATENT ATTORNEY S; FPA PATENT ATTORNEYS PTY LTD; SCHOHE STEFAN; HAYNES AND BOONE LLP; GROOVER AND ASSOCIATES; DAVID C CAIN; CONLEY ROSE P C; GRANT; CONLEY ROSE PC; LOWE HAUPTMAN HAM AND BERNER LLP; LOWE HAUPTMAN AND HAM LLP; HAUPTMAN HAM LLP; GROOVER ROBERT O; CAIN DAVID C; CONLEY ROSE P C ET AL; CONLEY ROSE PC ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: **METHODS** AND **APPARATUS** FOR MONITORING CONSCIOUSNESS

Abstract: The systems of the present invention provide improved accuracy in monitoring, analysing, **detecting**, predicting and/or providing alerts and alarms associated with depth of anaesthesia, depth of consciousness, hypnotic state, sedation depth, fatigue or vigilance of a subject, with as few as 3 surface electrodes. The systems incorporate real-time phase, amplitude and frequency analysis of a subject's electro-encephalogram. The systems weight outputs of various types of analyses to produce an integrated analysis or display for precise indication or alert to users of the systems including anaesthetists, nurses and other medical personnel, transport drivers and machine workers. The systems weight the outputs of one or more analysis algorithms including combinations of simultaneous, real-time R and K analysis, AEP spectral analysis-SEF-MF, Bi-coherence analysis, initial wave analysis, auditory response, arousal analysis, body movement analysis, 95 percent spectral edge analysis and anaesthetic phase and spectral energy variance measurement in association with a subject's state of consciousness.

Classifications:

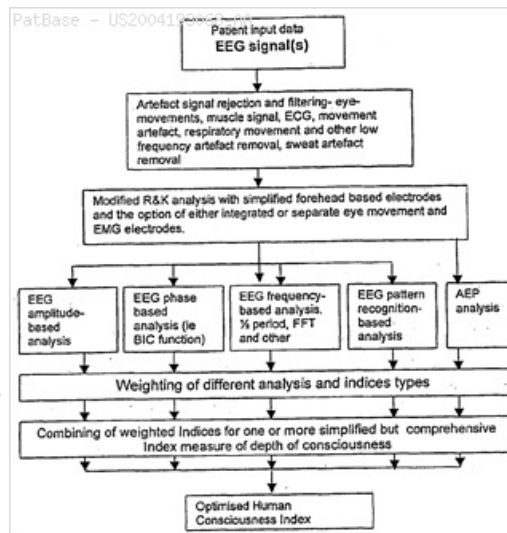
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US: 128/92 128/920 128/920S 600/544 600/544P 600/545 600/595 600/595S



Family:

Publication number	Publication date	Application number	Application date
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US2011125046 AA	20110526	US20100853259	20100809
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Priority:

US20010298011P 20010613	EP20020729654 20020613	EP20080163209 20020613
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Probable Assignee: COMPUMEDICS LTD

Assignee(s): (std): COMPUMEDICS LTD ; COMPUMEDICS MEDICAL INNOVATION PTY LTD ; BURTON DAVID ; ZILBERG EUGENE ; KOMP JUMEDIKS LTD

Assignee(s): COMPUMEDICS LIMITED ; DAVID BURTON ; EUGENE ZILBERG ; KOMP JUMEDIKS LIMITED

Inventor(s): (std): ZILBERG JUDZHIN ; ZILBERG EUGENE ; BURTON DAVID ; BERTON DEHVID ; EUGENE ZILBERG ; DAVID BURTON

Inventor(s): BURTON DAVID CAMBERWELL ; ZILBERG EUGENE SANDRINGHAM

Agent(s): COMPUMEDICS LTD; MACPHERSON LESLIE AND TYERMAN LLP; HANDSOME IP LTD; LAWRENCE JOHN ET AL; LAWRENCE JOHN; WOLFF BREGMAN AND GOLLER; DR MARK FRIEDMAN LTD; SUGHRUE MION PLLC

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

Title: WILLPOWER WATCH (TM) -- A WEARABLE FOOD CONSUMPTION MONITOR

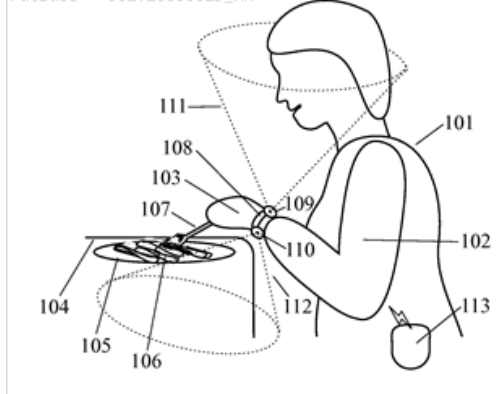
Abstract: This invention is a wearable, automatic, and tamper-resistant **device** and **method** for monitoring and measuring food consumption and caloric intake. It can help people to manage their energy balance and weight. It can be embodied as: (a) one or more automatic-imaging members that are worn on a person from which these members collectively and automatically take pictures of the person's mouth and pictures of a reachable food source when the person eats; (b) a tamper-resisting mechanism which **detects** and responds if the operation of the one or more automatic-imaging members is impaired; and (c) an image-analyzing member which automatically analyzes pictures of the person's mouth and pictures of the reachable food source in order to estimate the types and quantities of food that are consumed by the person.

Classifications:

International (IPC 8-9): A61B19/00 A61B5/00 A61B5/0205 A61B5/04 A61B5/0476 A61B5/0478 A61B5/0488 A61B5/11 A61B5/117 A61B7/00 A61B7/04 G06F3/01 G06K9/00 G06K9/22 (Advanced/Invention); A61B5/021 A61B5/024 A61B5/0404 A61B5/0488 A61B5/053 A61B5/08 A61B5/11 A61B5/1455 (Advanced/Non-invention) **CPC:** G06K9/00771 G06K9/228 G06K2209/17 A61B5/7285 A61B5/1111 A61B5/1123 A61B5/1128 A61B5/681 A61B5/6822 A61B5/6823 A61B5/6824 A61B5/6825 A61B5/6826 A61B5/7282 A61B5/7289 G06F19/3475 A61B5/0075 A61B2560/0214 A61B7/008 A61B19/44 A61B2562/0219 A61B2562/0261 A61B2576/00 A61B2019/442 A61B2019/446 A61B5/7405 A61B2562/0204 A61B5/0013 A61B5/1176 A61B5/4542 A61B5/6815 A61B2562/0271 A61B5/0006 G06K9/00355 A61B5/04008 A61B5/0476 A61B5/4205 A61B90/361 G06F3/015 A61B5/02055 A61B5/021 A61B5/02438 A61B5/0404 A61B5/0488 A61B5/0533 A61B5/0816 A61B5/1112 A61B5/14551 A61B5/0478 A61B5/1118 A61B5/6803 A61B2560/0468 A61B5/4866 A61B2562/0209 A61B5/6814 Y02A90/26 G16H40/63 A61B5/6817 A61B5/6816 A61B7/04

US: 348/158 382/100 434/127 600/300 600/301 600/383 600/409 600/544 600/546 600/586 600/587 600/590 600/595

PatBase - US2013336519_AA



Family:

Publication number	Publication date	Application number	Application date
US2013336519 AA	20131219	US20120523739	20120614
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Priority:

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Probable Assignee:

MEDIBOTICS LLC

Assignee(s): (std):

CONNOR ROBERT A ; MEDIBOTICS LLC

Inventor(s): (std):

CONNOR ROBERT A

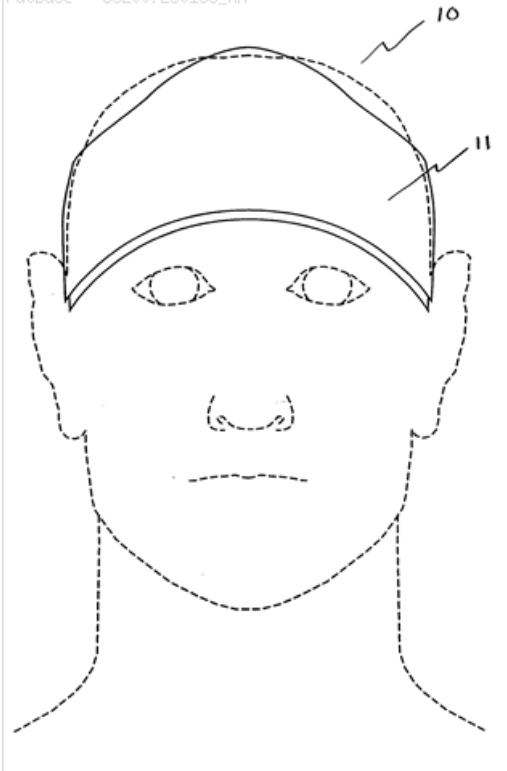
Title: **METHOD** AND **APPARATUS** OF NONINVASIVE, REGIONAL BRAIN THERMAL STIMULI FOR THE TREATMENT OF NEUROLOGICAL DISORDERS

Abstract: A **method** and **device** for treating neurological disorders involving the application of noninvasive, regional brain thermal stimulation to a region of a patient's head associated with a subject neurological disorder. The brain thermal stimulation **method** and **device** alters the brain function in the region of the brain underlying the region of the patient's head to which the brain cooling is applied. The **method** can also include the steps of adjusting the temperature and timing of the thermal stimulation **process** to optimize the impact on the subject disorder. The brain thermal stimulation **device** is comprised of a localized means for cooling or warming a desired region of a patient's brain.

Classifications:

International (IPC 8-9): A61B18/00 A61B18/02 A61B5/01 A61B5/0205 A61F7/00 A61F7/02 A61F7/03 A61F7/08 A61F7/10 A61F7/12 A61F9/04 A61H39/06 A61M19/00 A61M21/00 A61M21/02 (Advanced/Invention); A61B17/00 A61M21/00 (Advanced/Non-invention); A61F7/00 A61F7/02 A61F7/08 A61M21/00 (Core/Invention)
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PatBase - US2007250138_AA



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Probable Assignee: EBB THERAPEUTICS INC

Assignee(s): (std): EBB THERAPEUTICS INC ; NOFZINGER ERIC A ; CER VE INC ; CEREEVE INC ; NOFZINGER ERIC ALLAN ; SCHIRM JEFFREY J ; REYNOLDS CRAIG B ; TUCKER ROBERT E ; RIPPOLE DAMIAN F ; UNIV PITTSBURGH ; UNIV PITTSBURGH OF COMMW SYSTEM OF HIGHER EDUCATION ; UNIV OF PITTSBURGH OF COMMW SYSTEM OF HIGHER EDUCATION

Assignee(s): PITTSBURGH UNIV OF ; UNIVERSITY OF PITTSBURGH OF THE COMMONWEALTH SYSTEM OF HIGHER EDUCATION ; BELTON JASON A ; WALKER RICK W ; PITTSBURGH UNIV ; UNIVERSITY OF PITTSBURGH ; DOUGHERTRY EDWARD P G ; OF PITTSBURGH OF COMMW UNIV ; OF PITTSBURGH OF COMMW SYSTEM OF HIGHER EDUCATION ; OF PITTSBURGH UNIV ; PITTSBURGH OF COMMW SYSTEM OF HIGHER EDUCATION UNI ; OF PITTSBURGH OF COMMW SYSTEM OF HIGHER EDUCATION UNIV ; PITTSBURGH OF COMMW SYSTEM OF HIGHER EDUCATION UNIV OF ; OF PITTSBURGH UNIV200 GARDNER STEEL CONFERENCE CENTERTHACKERAY AND O'HARA STREETSPITTSBURGH15260US

Inventor(s): (std): BELTON JASON A ; DOUGHERTRY EDWARD P G ; NOFZINGER ERIC A ; WALKER RICK W ; TUCKER ROBERT E ; SCHIRM JEFFREY J ; RIPPOLE DAMIAN F ; REYNOLDS CRAIG B ; NOFZINGER ERIC ALLAN

Inventor(s): ERIC A NOFZINGER ; NOFZINGER ERIC AUS ; DOUGHERTRY EDWARD PG

Agent(s): FB RICE; FB RICE PTY LTD; PIZZEYS PATENT AND TRADE MARK ATTORNEYS; PIZZEYS PATENT AND TRADE MARK ATTORNEYS PTY LTD; BORDEN LADNER GERVAIS LLP; HOARTON LLOYD DOUGLAS CHARLES ET AL; PRICE NIGEL JOHN KING; MARUYAMA TOSHIYUKI; YAMASAKI KAZUO; HAKODA ATSUSHI; ICHIKAWA SATSUKI; KUMAKURA YOSHIO; ASAI KENJI; INO SARI; KURASAWA ICHIRO; MATSUSHITA MITSURU; DESHIMARU TAKESHI; NISHIJIMA TAKAKI; MEYER UNKOVIC AND SCOTT LLP; SHAY GLENN LLP; OBERDICK DAVID G ET AL; SHOOP RICHARD D ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: PATIENT MONITORING, DIAGNOSIS, AND/OR THERAPY SYSTEMS AND **METHODS**

Abstract: Systems and **methods** for monitoring, diagnosing, and/or treating a patient are provided. One or more individual medical procedures may be utilized to monitor, diagnose and/or treat the patient. Two or more of the individual medical procedures or may be used in combination to provide more comprehensive patient monitoring, diagnosis and/or therapy. One or more functions of two or more individual medical procedures may be used in combination to enhance patient monitoring, diagnosis and/or therapy. The medical procedures may be coordinated. Coordinated medical procedures may involve cooperative operation of two or more of the individual **processes**. Coordinated medical procedures may also involve cooperative operation of one or more functions of two or more of the individual **processes**.

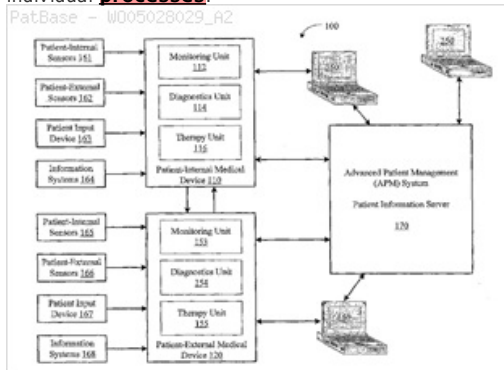
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International (IPC 1-7): A61N1/362

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Family:

Publication number	Publication date	Application number	Application date
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Probable Assignee: CARDIAC PACEMAKERS INC

Assignee(s): (std): CARDIAC PACEMAKERS INC

Inventor(s): (std): HARTLEY JESSE ; HARTLEY JESSE W ; HATLESTAD JOHN ; HATLESTAD JOHN D ; LEE KENT ; NI QUAN ; SIEJKO KRZYSZTOF ; SIEJKO KRZYSZTOF J ; STAHMANN JEFFREY ; STAHMANN JEFFREY E ; ZHU QINGSHENG

Agent(s): CHARIG RAYMOND JULIAN

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: DYNAMICALLY VARIABLE FILTER

Abstract: A **method** of **processing** a signal pertaining to at least one electrical property of an organ of a subject is disclosed. The **method** comprises determining a physiological condition of the subject, selecting a frequency band, filtering the signal according to the frequency band, and dynamically adapting the frequency band in response to a change in the physiological condition.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/02 A61B5/0205
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G06F19/00 (Advanced/Invention);
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A61B (Subclass/Invention)

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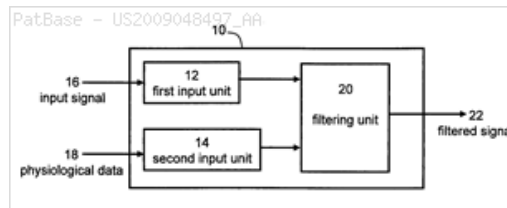
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**Family:**

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Probable Assignee: CHEETAH MEDICAL INC

Assignee(s): (std): CHEETAH MEDICAL INC ; KEREN HANAN ; CHEETAH MEDICAL LTD ; SQUARA PIERRE ; LEVY BARUCH ;

Assignee(s): HANAN KEREN ; CHEETAH MMEDICAL LTD ; AVIDOR YOAV ; BURKHOFF DANIEL ; YOAV AVIDOR
Inventor(s): (std): PIERRE SQUARA ; DANIEL BURKHOFF ; CHEETAH MEDICAL INC WILMINGTON ; STENHAM GLOBAL SERVICES LTD ; CHEETAH MEDICAL HOLDINGS INC ; BARUCH LEVY ; SILICON VALLEY BANK
Inventor(s): BURKHOFF DANIEL ; AVIDOR YOAV ; KEREN HANAN ; LEVY BARUCH ; SQUARA PIERRE
Inventor(s): YOAV AVIDOR ; PIERRE SQUARA ; BARUCH LEVY ; BURKHOFF DANIEL WEST HARRISON ; DANIEL BURKHOFF ; HANAN KEREN
Agent(s): CULLENS PATENT AND TRADE MARK ATTORNEYS; CULLENS PTY LTD; INTEGRAL IP; BECKER KURIG STRAUS; VOSSIUS AND PARTNER; FICHTER ROBERT ARNO; VOSSIUS AND PARTNER
PATENTANWAELTE RECHTSANWAELTE MBB; GE EHRLICH 1995 LTD; MARTIN D MOYNIHAN D B A PRISI
INC; G E EHRLICH 1995 LTD ET AL; GE EHRLICH 1995 LTD ET AL
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IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT
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SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: SYSTEMS AND **METHODS** FOR TISSUE STIMULATION IN MEDICAL TREATMENT

Abstract: Stimulation treatments for various medical disorders, such as neurological disorders, comprise novel systems, strategies, and **methods** for providing TMS, electrical, magnetic, optical and other stimulation. Some stimulation **methods** comprise varying the stimulation parameters to improve the therapeutic efficacy of stimulation, and decrease risk of habituation and side-effects such as interference with normal brain, sensory, motor, and cognitive **processes**. The creation, and subsequent variation, of stimulation parameters can use sensed data in order to match, adjust, or avoid matching characteristics of the stimulation therapy relative to certain endogenous brain activities. Novel **methods** are described for choosing, creating and subsequently stimulating with partial signals which summate to produce therapeutic vector fields having unique temporal patterns and low- or high-frequency spectral content.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/05 A61K9/22 A61M5/142 A61M5/172 A61N1/00 A61N1/05 A61N1/08 A61N1/18 A61N1/36 A61N1/372 A61N2/00 A61N2/02 A61N5/00 G06F19/00 G08B1/08 (Advanced/Invention);

A61B5/00 G06F19/00 (Advanced/Non-invention);

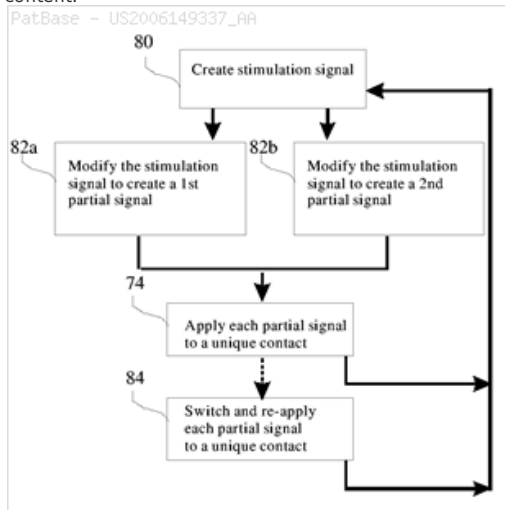
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US: 1/1 128/899 128/899S 340/539.12 340/539.120P 600/13

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Family:

Publication number	Publication date	Application number	Application date
US2006149337 AA	20060706	US20060307050	20060120
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Probable Assignee: JOHN MICHAEL SASHA

Assignee(s): (std): JOHN JOHN SASHA ; JOHN MICHAEL S ; JOHN MICHAEL SASHA

Inventor(s): (std): JOHN JOHN SASHA ; JOHN MICHAEL S ; JOHN MICHAEL SASHA

Inventor(s): JOHN MICHAEL

Agent(s): JOHN MICHAEL SASHA; ROSENBERG KLEIN AND LEE

Title: MESH NETWORK MONITORING APPLIANCE

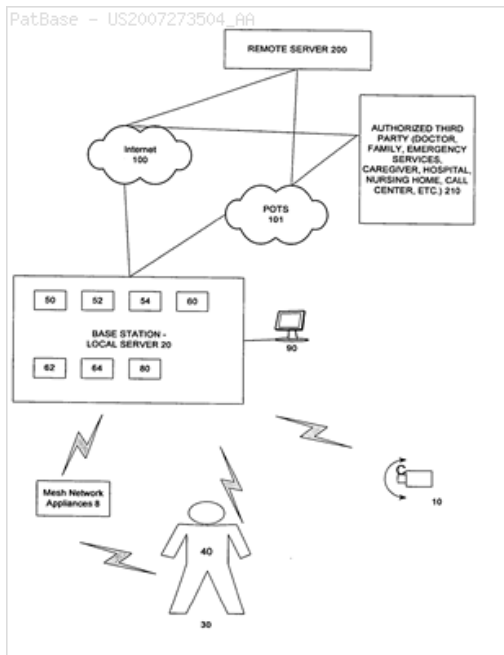
Abstract: A health care monitoring system for a person includes one or more wireless nodes forming a wireless mesh network; a wearable appliance having a sound transducer coupled to the wireless transceiver; and a bioelectric impedance (BI) sensor coupled to the wireless mesh network to communicate BI data over the wireless mesh network to **detect** a heart attack or a stroke attack.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/01 A61B5/02 A61B5/0205 A61B5/021 A61B5/022 A61B5/026 A61B5/04 A61B5/0402 A61B5/0408 A61B5/044 A61B5/0476 A61B5/0478 A61B5/107 A61B5/11 A61B5/145 A61B5/1455 A61B5/16 A61B8/00 A61B8/08 G06F17/30 G06F19/00 G06Q30/02 G08B1/08 G09B19/00 (Advanced/Invention); A61B5/024 A61B5/0265 A61B5/029 A61B5/0402 A61B5/0484 A61B5/0488 A61B5/0496 A61B5/053 A61B5/08 A61B5/113 A61B5/1455 A61B7/00 A61B8/06 A61B8/08 G08B21/04 (Advanced/Non-invention); A61B5/0205 A61B5/04 G08B1/00 (Core/Invention)
CPC: G09B19/00 A61B5/021 A61B5/0408 G06F19/3475 G06F19/3481 A61B5/02028 A61B5/026 A61B5/04005 A61B5/04012 A61B5/0476 A61B5/14542 A61B5/742 A61B8/00 A61B5/01 A61B5/0059 A61B5/02042 A61B5/044 A61B5/1075 A61B5/1116 A61B5/14532 A61B5/4866 A61B5/4875 A61B5/6826 A61B5/6831 A61B5/7225 A61B5/746 A61B5/112 A61B2560/0233 A61B5/0456 A61B8/0816 A61B8/488 A61B8/58 G08B21/043 G08B21/0476 G08B21/0492 A61B5/04085 A61B5/0008 A61B5/14551 A61B5/165 A61B5/0478 A61B8/565 A61B5/6803 A61B5/747 A61B8/52 A61B5/72 A61B5/4806 A61B5/4833 A61B5/7405 G06Q30/0269 G06F17/30386 A61B5/02416 A61B5/002 A61B5/1117 A61B5/681 A61B5/0265 A61B5/029 A61B5/0402 A61B5/0484 A61B5/0488 A61B5/0496 A61B5/0536 A61B5/0537 A61B5/0809 A61B5/113 A61B5/1455 A61B5/411 A61B5/4519 A61B5/4528 A61B5/6814 A61B5/6816 A61B5/6887 A61B5/7257 A61B5/726 A61B5/7267 A61B7/00 A61B8/06 A61B8/0808 A61B8/4472 A61B2560/0412 G06F19/3418 G06F19/3462 G08B21/0453 A61B8/56 A61B8/582 A61B5/4023 A61B5/02108 A61B5/0295 A61B5/7465 A61B5/0006 A61B5/0022 A61B5/02055 A61B5/0002 G16H50/20 G16H50/70 G16H40/40 G16H50/50

European: A61B5/00B A61B5/00B5F A61B5/0205B A61B5/053J A61B5/11P2 A61B5/41B A61B5/68B1H A61B5/68B2B A61B5/68B2B1B A61B5/68F A61B8/44N8 A61B8/56 G06F19/34C G06F19/34K K61B5/0265 K61B5/029 K61B5/0402 K61B5/0484 K61B5/0488 K61B5/0496 K61B5/053H K61B5/08J K61B5/113 K61B5/1455 K61B5/45F K61B5/45K K61B5/72K10B K61B5/72K10D K61B560/04B2 K61B7/00 K61B8/06 S06F19/34L1 S08B21/04S2

US: 340/539.12 340/539.120P 434/247 600/3 600/300 600/301 600/372 600/393 600/483 600/483P 600/490 600/490P 600/508 600/508S 600/509 600/509S 600/513 600/595 705/14.66 707/705

**Family:**

Publication number	Publication date	Application number	Application date
US2007273504 AA	20071129	US20060435068	20060516
US2009227876 AA	20090910	US20090426228	20090418
US2012095352 AA	20120419	US20110337218	20111226
US2013095459 AA	20130418	US20120707682	20121207
US2013172691 AA	20130704	US20120688242	20121129
US2014143064 AA	20140522	US20140164172	20140125
US7539533 BB	20090526	US20060435068	20060516
US8103333 BB	20120124	US20090426228	20090418
US8323188 BB	20121204	US20110337218	20111226
US8684900 BB	20140401	US20120688242	20121129
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Priority:

US20060433900 20060512	US20060435068 20060516	US20090426228 20090418
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Probable Assignee: PHILIPS KONINKLL NV

Assignee(s): (std): TRAN BAO

Assignee(s): WEST 74TH STREET SERIES 75 OF ALLIED SECURITY TRUST I ; EMPIRE IP LLC ; PHILIPS KONINKLL NV

Inventor(s): (std): TRAN BAO

Agent(s): TRAN AND ASSOCIATES

Title: SYSTEM AND **METHOD** FOR **SPO2** INSTABILITY **DETECTION** AND QUANTIFICATION

Abstract: The disclosed embodiments relate to a system and **method** for analyzing data. An exemplary **method** comprises the acts of receiving data corresponding to at least one time series, and computing a plurality of sequential instability index values of the data. An exemplary system comprises a source of data indicative of at least one time series of data, and a **processor** that is adapted to compute at least one of a plurality of sequential instability index values of the data.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/0205 A61B5/08

A61B5/087 A61B5/1455 A61B6/00 G01N33/48 G06F19/00

G06K9/00 (Advanced/Invention);

A61B5/00 A61B5/083 (Advanced/Non-invention);

A61B5/00 A61B5/08 G06F19/00 (Core/Invention)

CPC: A61B5/14552 A61B5/7235 A61B5/0205 A61B5/08 A61B5/082

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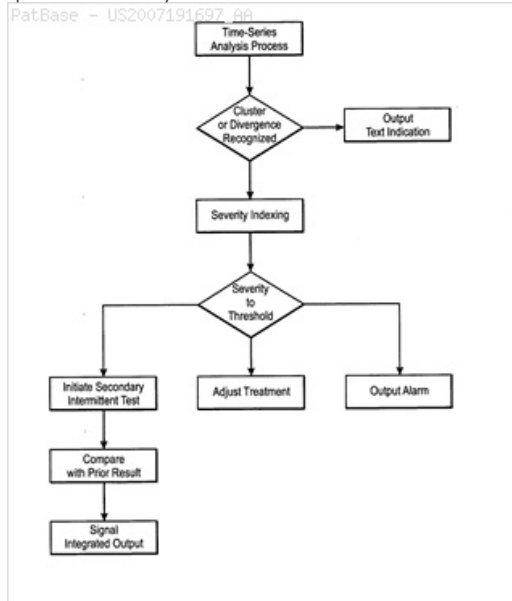
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US: 600/300 600/300S 600/310 600/323 600/323P 600/364 600/476

600/529 600/529S 702/19 702/19S



Family:

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US2007191697 AA	20070816	US20060351449	20060210
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Priority:

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US20060351449	20060210	US20060351961	20060210	US20110291687P	20110517
US20120495717	20120613	US20120714159	20121213	US20140167584	20140129

Probable Assignee: LYNN LAWRENCE A

Assignee(s): (std): LAWRENCE A LYNN ; LYNN ERIC N ; LYNN LAWRENCE A

Assignee(s): LYNN LAWRENCE ALLAN

Inventor(s): (std): LYNN ERIC N ; LYNN LAWRENCE A

Inventor(s): LYNN ERIC ; LYNN LAWRENCE

Agent(s): NELLCOR PURITAN BENNETT LLC, C/O FLETCHER YODER PC; NELLCOR PURITAN BENNETT LLC C O FLETCHER YODER PC; INT IP LAW GROUP PLLC; BANNER AND WITCOFF LTD

Title: **METHODS** AND **APPARATUS** FOR MONITORING AND TREATING RESPIRATORY INSUFFICIENCY

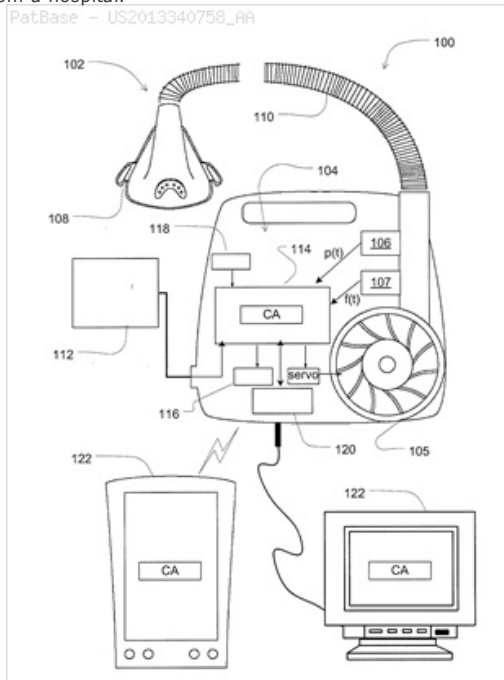
Abstract: An **apparatus**, such as a pressure support ventilator or respiratory monitor, provides operations for a patient, such as a patient with heart failure, Chronic Obstructive Pulmonary Disease or other respiratory insufficiency. In some embodiments, the **apparatus** may **detect** a respiratory condition, such as a decompensation event and/or exacerbation event, from respiratory parameters. A clinical alert message may be transmitted or displayed for a physician based on the results of query presented to the patient in response to an analysis of the one or more respiratory parameters. In some embodiments, the **apparatus** generates a potential relapse indicator that may provide a prediction of a risk of an oncoming clinical event such as for evaluating whether to release the patient from a hospital.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/0205 A61B5/0488 A61B5/08 A61B5/103 A61B5/11 A61B5/113 A61B5/1455 A61M16/00 A61M16/10 A61M16/16 G08B21/02 (Advanced/Invention); A61B5/024 A61B5/08 A61B5/085 A61B5/087 A61M16/10 A61M16/16 (Advanced/Non-invention)

CPC: A61M16/0057 A61B5/103 G08B21/02 A61B5/0507 A61B5/0816 A61B5/087 A61B5/097 A61B5/1115 A61B5/1118 A61B5/1126 A61B5/4809 A61B5/7246 A61M16/0066 A61M2205/3569 A61M2205/3584 A61M2205/3592 A61B5/0245 A61B5/0826 A61B5/083 A61B5/14551 A61B5/0488 A61B5/4836 A61B5/4866 A61B5/0205 A61M16/0006 A61M2016/0033 A61M2016/0018 A61B5/024 A61B5/085 A61M16/0069 A61M2016/0027 A61B5/113 A61B5/7221 A61B5/7264 A61B5/742 A61B5/746 A61B5/08 A61B5/4818 A61B5/7275 A61M16/107 A61M16/1075 A61M16/16 A61M2016/0036 A61M2016/0039 A61M2205/502 A61M2230/205 A61M16/024 A61M16/026 A61M16/0051 G06F19/00

US: 128/204.23 600/529 600/534



Family:

Publication number	Publication date	Application number	Application date
AU2013270443 AA	20131205	AU20130270443	20130530
AU2013270443 BB	20161013	AU20130270443	20130530
AU2017200083 AA	20170202	AU20170200083	20170106
CN104736055 A	20150624	CN201380040871	20130530
EP2776101 A1	20140917	EP20120846933	20121107
EP2776101 A4	20150826	EP20120846933	20121107
EP2776101 B1	20170517	EP20120846933	20121107
EP2854636 A1	20150408	EP20130796432	20130530
EP2854636 A4	20160224	EP20130796432	20130530
EP3245945 A2	20171122	EP20170171378	20121107
EP3245945 A3	20180228	EP20170171378	20121107
JP2015522314 T2	20150806	JP20150514289T	20130530
US2013340758 AA	20131226	US20130907099	20130531
US2014290658 AA	20141002	US20120356471	20121107
US2015164375 AA	20150618	US20130403398	20130530
US2017333652 AA	20171123	US20170430742	20170213
US9597468 BB	20170321	US20120356471	20121107
WO13067580 A1	20130516	WO2012AU01367	20121107
WO13177621 A1	20131205	WO2013AU00564	20130530
WO13177621 A9	20140213	WO2013AU00564	20130530

Priority:

AU20110904599	20111107	IE20120000254	20120530	AU20120902501	20120615
AU20120902693	20120626	WO2012AU01367	20121107	EP20120846933	20121107
AU20120905221	20121130	AU20130901482	20130429	AU20130270443	20130530
WO2013AU00564	20130530	US20140356471	20140506	AU20170200083	20170106
US20170430742	20170213				

Probable Assignee: RESMED LTD

Assignee(s): (std): REDMED LTD ; RESMED LTD ; RESMED SENSOR TECH LTD ; RESMED SENSOR TECHNOLOGIES LTD

Assignee(s): RESMED LIMITED ; OF ESSEN UNIV

Inventor(s): (std): BASSIN DAVID JOHN ; BERTHON JONES MICHAEL ; CELKA PATRICK ; COLEFAX MICHAEL WACLAW ; DE CHAZAL PHILIP ; DENNIS CLANCY JOHN ; FARRUGIA STEVEN PAUL ; FOX NIAL ; HENEGHAN CONOR ; JAVED FAIZAN ; KHUSHABA RAMI ; MALOUF GORDON JOSEPH ; O HARE EMER ; REDMOND STEPHEN JAMES ; SCHINDELM KLAUS HENRY ; SCHINDHELM KLAUS HENRY ; TESCHLER HELMUT ; ZAFFARONI ALBERTO

Agent(s): HALFORDS IP; VOSSIUS AND PARTNER; VOSSIUS AND PARTNER PATENTANWAELTE RECHTSANWAELTE MBB; LERNER DAVID LITTENBERG KRUMHOLZ AND MENTLIK LLP; BORG KEITH JOSEPH ET AL; DAVIDSON GEOFFREY ROBERT ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR

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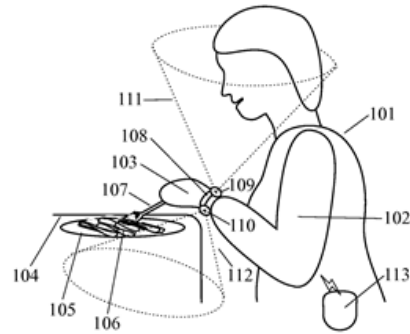
Title: EYEWEAR SYSTEM FOR MONITORING AND MODIFYING NUTRITIONAL INTAKE

Abstract: This invention is an eyewear-based system and **device** for monitoring and modifying a person's nutritional intake. This invention can comprise eyewear with an imaging member which automatically records images of food when the person consumes food. These food images are automatically analyzed to estimate the type and quantity of food. This invention can also comprise a nutritional intake modification component which modifies the person's nutritional intake based on the type and quantity of food. This invention can reduce a person's nutritional intake of unhealthy types and/or quantities of food without reducing their nutritional intake of healthy types and/or quantities of food. It can serve as part of an overall system for better nutrition, weight management, and improved health.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/04 A61B5/0476 A61B5/053 A61B5/11 A61B5/145 A61B5/1455 A61F5/00 A61M21/00 A61M31/00 A61N2/00 A61N2/02 G01J3/02 G01J3/10 G01N21/27 G01N21/3554 G09B19/00 G09B5/00 (Advanced/Invention)
CPC: A61B5/7285 A61F5/0003 A61B5/1123 G06F19/3475 A61B5/4866 A61B5/14532 A61B5/6826 A61B5/6824 A61B5/681 A61B5/1455 A61B5/0476 A61B5/6817 G09B19/0092 A61M21/00 A61M2021/0016 A61M2021/005 G09B19/00 G09B23/28 A61B5/11 A61B5/4839 A61B5/6815 A61B5/6843 A61B5/0537 G01N21/27 G01J3/0264 G01J3/108 G01N21/3554 A61B5/0075 A61B5/4875 A61B5/6831 A61B2562/04 A61B5/00 A61B5/053 A61B5/04 A61B5/486 A61M31/002 A61N2/006 A61N2/02 G06F19/00 G09B5/00
US: 434/127 600/13 600/27

PatBase - US2016012749_AA

**Family:**

Publication number	Publication date	Application number	Application date
US2016012749 AA	20160114	US20140330649	20140714
US2016232811 A9	20160811	US20140330649	20140714
US2017164878 AA	20170615	US20170431769	20170214
US2018042513 AA	20180215	US20170725330	20171005

Priority:

US20120523739	20120614	US20130797955	20130312	US20140330649	20140714
US20150599522	20150118	US20150623337	20150216	US20150160172P	20150512
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US20160311462P	20160322	US20160322594P	20160414	US20160136948	20160424
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US20160294746	20161016	US20160439147P	20161226	US20170431769	20170214
US20170549587P	20170824	US20170725330	20171005		

Probable Assignee:

MEDIBOTICS LLC

Assignee(s): (std):

CONNOR ROBERT A ; MEDIBOTICS LLC

Inventor(s): (std):

CONNOR ROBERT A

Title: MULTIMODAL **METHOD** AND SYSTEM FOR TRANSMITTING INFORMATION ABOUT A SUBJECT

Abstract: The present invention is directed to multimodal communications means for transmitting signals representing physiological, performance, and contextual information associated with a subject. In an exemplary embodiment, the multimodal communications means includes multiple radio subsystems (or modes) that enable connection to an external monitoring **device** to be acquired in a wide range of settings where a single radio mode would be ineffective. Additionally, combining the multimodal communications means of the invention with real-time data-**processing** allows the communications functionality to be engaged only when data determined to be relevant to the user is identified.

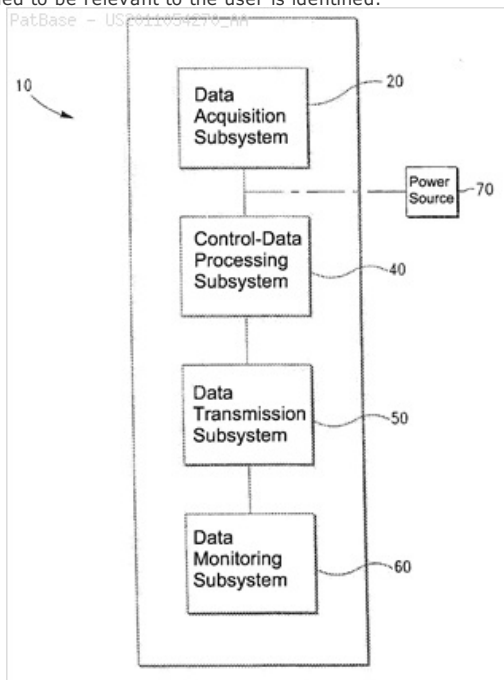
Classifications:

International (IPC 8-9): A41B1/00 A41C1/00 A41C3/00 A41D1/00 A41D13/00 A41D13/12 A61B5/00 A61B5/01 A61B5/0205 A61B5/024 A61B5/026 A61B5/0295 A61B5/04 A61B5/0402 A61B5/0404 A61B5/0476 A61B5/0488 A61B5/05 A61B5/07 A61B5/08 A61B5/087 A61B5/091 A61B5/103 A61B5/107 A61B5/11 A61B5/113 A61B5/145 A61B5/1455 A61B5/16 A61B5/22 A61B7/04 A63B24/00 A63B69/00 A63B71/06 D04B1/14 G01B21/00 G01B21/22 G01B7/00 G06F17/30 G06F19/00 G08C17/02 G08C19/00 G16H50/20 H04B1/00 H04B1/38 H04B15/00 H04B7/00 H04L12/16 (Advanced/Invention); A61B5/0205 A61B5/024 A61B5/026 A61B5/0295 A61B5/0402 A61B5/0476 A61B5/0488 A61B5/08 A61B5/11 A61B5/145 A61B5/1455 A61B5/22 A61B7/00 A63B69/00 G06F19/00 H04L29/08 (Advanced/Non-invention)

CPC: G06F19/325 A61B5/01 A61B5/0006 A61B5/0008 A61B5/04005 H01L23/4985 H01L2924/3011 H05K1/165 A63B2024/0068 A63B2220/40 A63B2225/50 A63B2230/00 A63B2230/30 A63B2230/40 A63B2230/50 H01L2924/0002 A61B7/00 A61B5/6804 A61B5/4875 A61B5/4866 A61B5/1112 A61B5/1118 A63B24/0003 G06F19/34 A61B5/02438 A61B5/11 A61B5/14551 A61B7/003 A61B2562/0219 A61B5/6832 A61B5/742 A61B5/024 A61B5/026 A61B5/0295 A61B5/0402 A61B5/0488 A61B5/14542 A61B5/222 A61B5/411 A61B5/681 A61B5/6831 A63B24/0062 A63B2230/06 A63B2230/42 G06F19/3418 A61B5/7465 Y10T442/109 A61B5/0205 A61B5/0816 A61B5/0823 A61B2503/10 A61B2562/0223 A61B5/0404 A61B5/486 A61B7/04 A61B5/05 A61B5/021 A61B5/08 A61B5/0002 A61B5/02055 A61B5/0476 G06F19/3481 A61B5/0015 A61B5/6805 A61B5/1135 A61B2560/0209 H04L67/12 G16H50/50 G16H50/70

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US: 1/1 324/207.15 324/257 327/100 336/200 455/500 455/66.1 455/90.1 600/300 600/300P 600/301 600/301P 600/323 600/372 600/388 600/388P 600/391 600/391S 600/409 600/409P 600/484 600/484S 600/500 600/504 600/529 600/534 600/534S 600/549 600/595 600/595S 707/737 707/737S



Family:

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Probable Assignee: VIVOMETRICS INC

Assignee(s): (std): ADIDAS AG ; ADIDAS AG WORLD OF SPORTS ; ADIDAS WORLD OF SPORTS AG ; CZAPLA LARRY ; CZAPLA LARRY JAMES ; DERCHAK P ALEXANDER ; MCLEAN GEORGE ; ROGAN CATHERINE ANNE

Assignee(s): MITCHNICK MARK ; TEXTRONICS INC D B A ADIDAS WEARABLE SPORTS ELECTRONICS ; TEXTRONICS INC D B A ADIDAS WEARABLE SPORTS ELECTR ; VIVOMETRICS INC

Inventor(s): (std): CZAPLA LARRY ; CZAPLA LARRY JAMES ; DERCHAK ALEXANDER P ; DERCHAK P ALEXANDER ; MCLEAN GEORGE ; MITCHNICK MARK ; ROGAN CATHERINE ANNE

Inventor(s): MCLEAN GEORGE SUNNYVALE ; DERCHAK ALEXANDER P OXNARD ; CZAPLA LARRY COTO DE CAZA

Agent(s): GOWLING LAFLEUR HENDERSON LLP; GOWLING WLG CANADA LLP; BARDEHLE PAGENBERG PARTNERSCHAFT MBB PATENTANWAELTE RECHTSANWAELTE; WEGNER HANS; BARDEHLE HEINZ; KATAYAMA EIJI; OHMORI NORIO; KOBAYASHI HIROSHI; FURUHASHI NOBUSHIGE; STERNE KESSLER GOLDSTEIN AND FOX PLLC

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Title: MODULAR PHYSIOLOGIC MONITORING SYSTEMS, KITS, AND **METHODS**

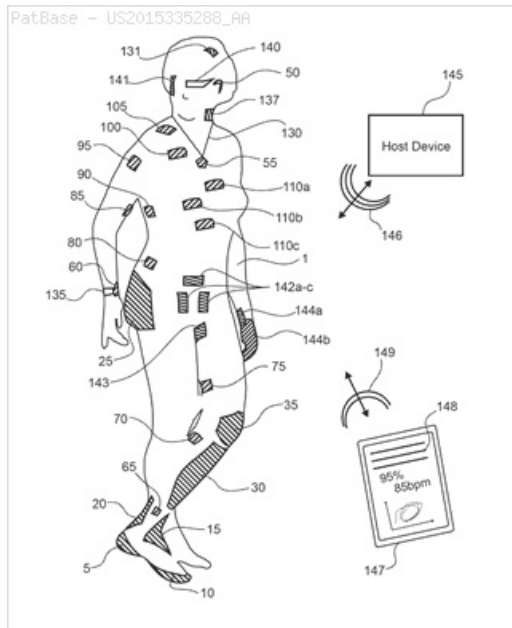
Abstract: Systems, **devices**, **methods**, and kits for monitoring one or more physiologic and/or physical signals from a subject are disclosed. A system including patches and corresponding modules for wirelessly monitoring physiologic and/or physical signals is disclosed. A service system for managing the collection of physiologic data from a customer is disclosed. An isolating patch for providing a barrier between a handheld monitoring **device** with a plurality of contact pads and a subject is disclosed.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/01 A61B5/02 A61B5/022 A61B5/04 A61B5/0408 A61B5/0478 A61B5/0488 A61B5/0492 A61B5/103 A61B5/145 (Advanced/Invention)

CPC: A61B5/0024 A61B5/022 A61B5/04087 A61B5/0478 A61B5/0492 A61B5/0533 A61B5/067 A61B5/112 A61B5/14551 A61B5/224 A61B5/4812 A61B5/4818 A61B5/4875 A61B2560/0223 A61B2560/0242 A61B5/0496 A61B2562/18 A61B5/14542 A61B2562/0271 A61B2562/0247 A61B2562/0219 A61B2562/029 A61B5/14517 A61B5/6833 A61B2562/0204 A61B2562/0223 A61B2562/164 A61B2562/166 A61B5/01 A61B5/6839 A61B5/6843 A61B5/6844 A61B2560/04 A61B2560/0443 A61B5/0015 A61B5/04 A61B5/04085 A61B5/685

US: 600/373 600/391



Family:

Publication number	Publication date	Application number	Application date
AU2014274726 AA	20141211	AU20140274726	20140606
AU2015296139 AA	20160204	AU20150296139	20150731
CA2913786 AA	20151126	CA20142913786	20140606
CA2956945 AA	20170131	CA20152956945	20150731
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EP3171768 A1	20170531	EP20150828184	20150731
EP3171768 A4	20180328	EP20150828184	20150731
IN08034CN2015 A	20160826	IN2015CN08034	20151229
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Probable Assignee: LIFELENS TECHNOLOGIES LLC

Assignee(s): (std): TRICORD HOLDINGS LLC ; TRICORD HOLDINGS L L C

Assignee(s): TOTH LANDY ; TRICORD HOLDINGS II LLC ; LIFELENS TECHNOLOGIES LLC ; MARTIN ROY ; PULLING CHRIS ; SCHWARTZ ROBERT

Inventor(s): (std): MARTIN ROY ; PULLING CHRIS ; SCHWARTZ ROBERT ; TOTH LANDY

Agent(s): SPRUSON AND FERGUSON; KIRBY EADES GALE BAKER; WILLIAMS DAVID JOHN; USUI SHINICHI; OKABE YUZURU; TAKANASHI NORIMICHI; LEWIS WILLIAM E

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: **METHOD** AND **APPARATUS** FOR TREATING SLEEP **APNEA**

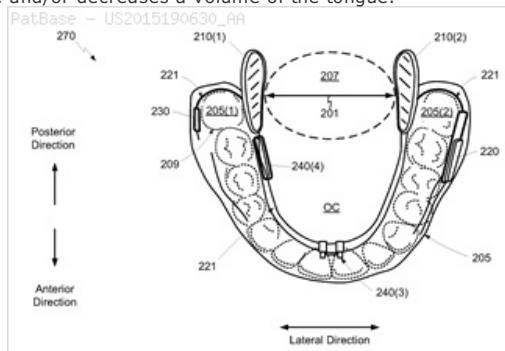
Abstract: An oral appliance is disclosed that provides electrical stimulation to a patient's tongue in a manner that prevents collapse of the tongue and/or soft palate during sleep. More specifically, the appliance may induce a reversible current or currents in a lateral direction across the tongue in a manner that shortens the patient's Palatoglossus muscle, which in turn pulls the patient's soft palate downward towards a base of the tongue and/or decreases a volume of the tongue.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/0205 A61B5/0488 A61B5/08 A61B5/087 A61B5/113 A61B5/145 A61B7/00 A61F5/56 A61N1/04 A61N1/05 A61N1/08 A61N1/36 (Advanced/Invention)

CPC: A61F5/566 A61N1/36078 A61N1/08 A61B5/0816 A61B5/682 A61B5/4818 A61B5/4812 A61B5/4833 A61B5/087 A61B5/7282 A61B5/4836 A61B5/1135 A61B5/14542 A61B5/0205 A61B5/0826 A61B5/0878 A61N1/3611 A61N1/36139 A61B5/7246 A61B5/7275 A61N1/36003 A61N1/3615 A61B7/003 A61B5/0488 A61N1/3601 A61B5/04886 A61B5/113 A61B5/0803 A61N1/0548 A61B2560/0209 A61F5/56 A61B5/08

US: 128/848 607/42



Family:

Publication number	Publication date	Application number	Application date
CN106102825 A	20161109	CN201580012330	20150106
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EP3092033 A4	20171025	EP20150734842	20150106
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KR20160106669 A	20160912	KR20167021433	20150106
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WO15105811 A1	20150716	WO2015US10367	20150106
WO17112960 A1	20170629	WO2016US68599	20161223
WO17112960 A8	20170727	WO2016US68599	20161223

Priority:

US20140149689	20140107	WO2015US10367	20150106	US20150387428P	20151223
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US20160390450	20161223	US20160390452	20161223	US20160390455	20161223
US20160390461	20161223	US20170498342	20170426		

Probable Assignee: INVICTA MEDICAL INC

Assignee(s): (std): INVICTA MEDICAL INC

Inventor(s): (std): FISHER CHRISTOPHER ; HARTER LAURENCE WYLIE ; KENT HAROLD BYRON ; KENT ROBERT DOUGLAS ; KENT STEVEN THOMAS ; PULDON KARENA YADIRA ; YOUNG RONALD W

Agent(s): BOULT WADE TENNANT; PARADICE III WILLIAM L

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: SYSTEMS APPROACH TO COMORBIDITY ASSESSMENT

Abstract: **Methods**, systems, and **apparatus** for assessing a state of a comorbidity associated with a primary disease are provided. The **methods** comprise receiving at least one autonomic index, neurologic index, stress marker index, psychiatric index, endocrine index, adverse effect of therapy index, physical fitness index, or quality of life index of a patient; comparing the at least one index to at least one reference value; and assessing a state of a body system of the patient that is a site of the comorbidity, based on the comparison. A computer readable program storage **device** encoded with instructions that, when executed by a computer, perform the **method** described above is also provided. A medical **device** system capable of implementing the **method** described above is also provided.

Classifications:**International (IPC 8-9):** A61B5/00 A61B5/01 A61B5/0205

A61B5/0488 A61B5/11 A61B5/16 G06F19/00

G16H50/20 (Advanced/Invention);

A61B5/0402 A61B5/0476 A61B5/0488 A61B5/11 (Advanced/Non-invention)

CPC: A61B5/7275 A61B5/4884 A61B5/4866 A61B5/165 A61B5/746

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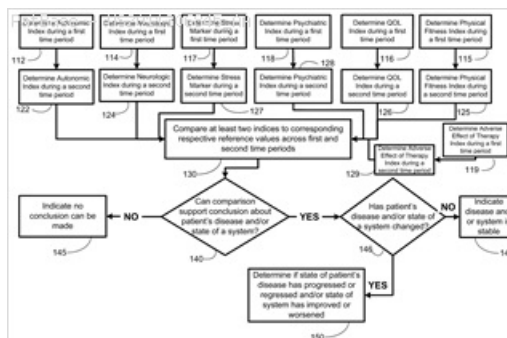
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K61B5/42

US: 600/300 600/300P 600/301 600/301P 600/481 600/483 600/484

600/529 600/547 600/549 702/19

**Family:**

Publication number	Publication date	Application number	Application date
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Priority:

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AU20150200007	20150102	AU20160228187	20160914		

Probable Assignee: FLINT HILLS SCIENTIFIC LLC**Assignee(s):** (std): FLINT HILLS SCIENT L L C ; FLINT HILLS SCIENT LLC ; FLINT HILLS SCIENTIFIC LLC ; FLINTS HILLS SCIENT LLC ; OSORIO IVAN**Assignee(s):** FLINTS HILLS SCIENTIFIC LLC**Inventor(s):** (std): OSORIO IVAN**Agent(s):** PIZZEYS; PIZZEYS PATENT AND TRADE MARK ATTORNEYS PTY LTD; BERESKIN AND PARR LLP SENCRL SRL; SCOTT TIMOTHY L**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: PATIENT MONITORING, DIAGNOSIS, AND/OR THERAPY SYSTEMS AND **METHODS**

Abstract: Systems and **methods** involve an implantable **device** configured to perform at least one cardiac-related function, a patient-external respiratory therapy **device**, and a communication channel configured to facilitate communication between the implantable **device** and the respiratory therapy **device**. The implantable and respiratory therapy **devices** operate cooperatively via the communication channel to provide one or more of patient monitoring, diagnosis, and therapy. The communication channel may be configured to facilitate communication between an external **processing** system and at least one of the implantable **device** and the respiratory therapy **device**. The **processing** system is communicatively coupled to at least one of the implantable and respiratory therapy **devices** via the communication channel to provide one or more of patient monitoring, diagnosis, and therapy.

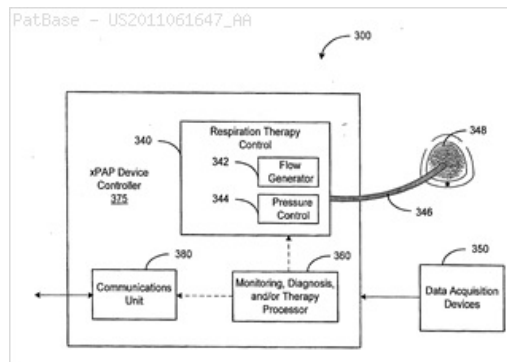
Classifications:

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A61N1/362 A61N1/365 (Advanced/Invention);
A61B5/0215 A61B5/042 A61B5/0464 A61B5/0476 A61B5/0488
A61B5/0496 A61B5/053 A61B5/08 A61B5/083 A61B5/087
A61B5/113 A61N1/37 (Advanced/Non-invention)

CPC: A61B5/7275 A61B5/4818 A61B5/0031 A61B5/02055
A61B5/0215 A61B5/02405 A61B5/0421 A61B5/0422 A61B5/0464
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A61M16/026 G06F19/00

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US: 128/202.16 128/202.160P



Family:

Publication number	Publication date	Application number	Application date
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Priority:

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Probable Assignee: HARTLEY JESSE W

Assignee(s): (std): HARTLEY JESSE W ; HATLESTAD JOHN D ; LEE KENT ; NI QUAN ; SIEJKO KRZYSZTOF Z ; STAHMANN JEFFREY E ; ZHU QINGSHENG

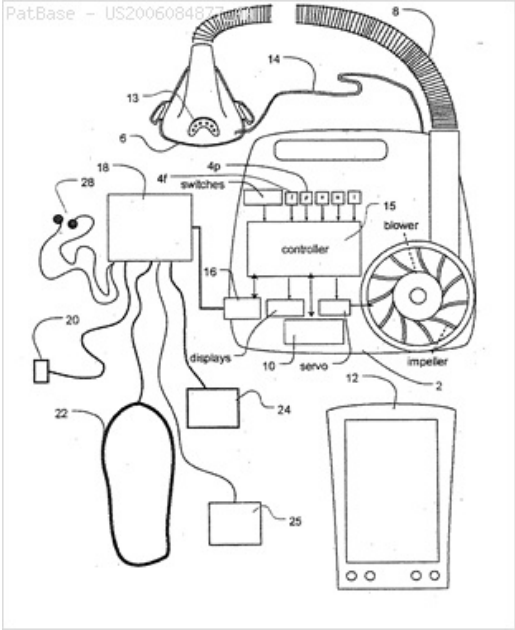
Inventor(s): (std): ZHU QINGSHENG ; STAHMANN JEFFREY E ; SIEJKO KRZYSZTOF Z ; NI QUAN ; LEE KENT ; HATLESTAD JOHN D ; HARTLEY JESSE W

Title: **METHODS** AND **APPARATUS** FOR HEART FAILURE TREATMENT

Abstract: **Methods** and **apparatus** for assessing the condition of and treating patients for heart failure by the delivery of continuous positive airway pressure are disclosed. Airflow of the patient is measured to determine occurrences of central **apneas**. A heart failure index is calculated from a count of the number of central **apneas** that have occurred. The present heart failure index can be compared with a previously calculated heart failure index to determine how the patient's heart failure disease has changed and how it should be treated.

Classifications:

International (IPC 8-9): A61B10/00 A61B5/00 A61B5/02 A61B5/08 A61B5/087 A61B5/145 A61B5/1455 A61B5/16 A61M16/00 A61M16/06 A62B9/00 G06F7/08 G06F7/20 (Advanced/Invention); A61B5/08 A61M16/00 G06F7/06 (Core/Invention)
International (IPC 1-7): A61M16/00
CPC: A61B5/087 A61B5/7232 A61B5/726 A61B5/7267 A61M2230/40 A61M16/06 A61M16/0051 A61M16/0069 A61M2016/0021 A61M2016/0036 A61M2230/04 A61M2230/10 A61M2230/18 A61M2230/435 A61M2230/63 A61B5/7278 A61B5/4818 A61B5/4836 A61B5/746 A61B5/0826 A61B5/7282 A61M16/0057 A61M2230/005 A61M2205/3344 A61B5/6819 A61B5/6823 A61B5/7207 A61B5/7221 A61M16/0066 A61B5/145 G06K9/0053 G06K9/6262 G06K9/6269 A61B5/7239 A61B5/7257 A61B5/7264 A61M16/021 A61M16/024 A61M16/026 A61B5/14551 G16H50/70 G06F19/00
European: A61B5/087 A61B5/48C8 A61B5/72K12B A61M16/00K K61B5/145 K61B5/72J K61B5/72K10D K61M16/00 K61M16/00A11 K61M16/00A14B2 K61M16/00A19 K61M16/00A8B2 K61M16/00M6P K61M230/04 K61M230/10 K61M230/18 K61M230/40 K61M230/43D K61M230/63
US: 1/1 128/204.18 128/204.180S 128/204.23 128/204.230P 600/323 600/323P 600/324 600/364 600/483 600/483P 600/529 600/529P 600/538 600/538S



Family:

Publication number	Publication date	Application number	Application date
AU2005318949 AA	20060629	AU20050318949	20051221
AU2005318949 BB	20120510	AU20050318949	20051221
CN101087559 A	20071212	CN200580044321	20051221
CN101087559 B	20110330	CN200580044321	20051221
CN102172328 A	20110907	CN201110064713	20051221
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DE602004048367 D1	20160121	DE200460048367T	20041015
EP1680166 A1	20060719	EP20040789586	20041015
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EP2172153 A1	20100407	EP20100150057	20051221
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JP2008525060 T2	20080717	JP20070547093T	20051221
JP2012161641 A2	20120830	JP20120098897	20120424
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NZ554108 A	20120427	NZ20050554108	20051221
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US2008177195 AA	20080724	US20050576210	20051221
US2010043795 AA	20100225	US20090613035	20091105
US2010258126 AA	20101014	US20100757130	20100409
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Priority:

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EP20120153548	20041015	WO2004AU01420	20041015	US20040638169P	20041223
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Probable Assignee: RESMED R AND D LTD**Assignee(s):** (std): RESMED LTD ; UJHAZY ANTHONY JOHN ; WRIGHT JONATHAN CALDWELL ; UJHAZY ANTHONY J ; WRIGHT JONATHAN C ; RICHARDS GLENN ; ARMITSTEAD JEFFREY ; BASSIN DAVID J ; BASSIN DAVID JOHN ; BERTHON JONES MICHAEL**Assignee(s):** RESMED LIMITED ; RESMED R AND D LTD ; RESMED LTD BELLA VISTA**Inventor(s):** (std): BASSIN DAVID J ; BERTHON JONES MICHAEL ; LAU CHUN YUI ; RICHARDS GLENN ; ARMITSTEAD JEFFREY ; ARMITSTEAD JEFFREY PETER ; UJHAZY ANTHONY J ; WRIGHT JONATHAN C ; JEFFREY ARMITSTEAD ; WRIGHT JONATHAN CALDWELL ; UJHAZY ANTHONY JOHN ; BASSIN DAVID JOHN**Inventor(s):** BERTHON JONES MICHAEL NEW SOUTH WALES ; BASSIN DAVID JOHN NEW SOUTH WALES ; WRIGHT JONATHAN CADWELL ; WRIGHT JONATHAN CALDWELL NEW SOUTH WALES ; UJHAZY ANTHONY JOHN NEW SOUTH WALES ; RICHARDS GLENN NEW SOUTH WALES ; WRIGHT JONATHAN ; BASSIN DAVID ; THE DESIGNATION OF THE INVENTOR HAS NOT YET... ; UJHAZY ANTHONY**Agent(s):** HALFORDS IP; VOSSIUS AND PARTNER PATENTANWAELTE RECHTSANWAELTE MBB; HAGMANN SMITH MARTIN P; VOSSIUS AND PARTNER; VOSSIUS AND PARTNER PATENTANWAELTE RECHTSANWAELTE MBB; GOTTLIEB RACKMAN AND REISMAN PC; LERNER DAVID LITTENBERG KRUMHOLZ AND MENTLIK LLP**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: **APPARATUS**, SYSTEM, AND **METHOD** FOR MODULATING CONSOLIDATION OF **MEMORY** DURING SLEEP

Abstract: **Devices**, systems and **methods** to modify **memory** and/or cognitive function by delivering a sensory stimulus paired with learned material at opportune physiological periods during sleep. For example, described herein are systems, **methods** and **devices** to enhance a user's cognitive function in such areas as **memorization** and learning. A machine (e.g., a system or **device**) may be used to identify opportune periods of the sleep cycle and to deliver a stimulus during specific phases of the sleep cycle to facilitate or interrupt **memory** consolidation. In some variations the machine records ambient sensory inputs during awake acquisition or reinforcement/relearning and replays all or an extracted form of the ambient sensory stimuli a specified portion of the user's sleep.

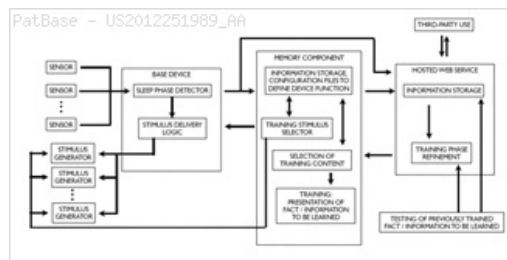
Classifications:

International (IPC 8-9): A61M21/00 A61M21/02 G06F19/00

G09B19/00 G09B9/00 (Advanced/Invention)

CPC: G09B19/00 A61M21/00 A61M2021/0016 A61M2021/0022
A61M2021/0027 A61M2021/0044 A61M2021/0072 A61M2021/0077
A61M2205/3553 A61M2205/3569 A61M2205/3584 A61M2205/3592
A61M2205/502 A61M2205/52 A61M2205/581 A61M2205/582
A61M2205/583 A61M2205/609 A61M2209/086 A61M2230/04
A61M2230/10 A61M2230/14 A61M2230/205 A61M2230/42
A61M2230/50 A61M2230/60 A61M2230/62 A61M2230/63
A61M2230/65 A61B5/4812 A61B5/4836 A61B2560/0431
A61N1/36025

US: 434/236 434/238 600/27 600/28



Family:

Publication number	Publication date	Application number	Application date
US2012251989 AA	20121004	US20120439715	20120404
US2013190556 AA	20130725	US20130770826	20130219
US2014057232 AA	20140227	US20130070410	20131101
US8382484 BB	20130226	US20120439715	20120404
US8573980 BB	20131105	US20130770826	20130219
WO12138761 A1	20121011	WO2012US32173	20120404

Priority:

US20110471526P 20110404 US20120439715 20120404 US20120744826P 20121003
US20130770826 20130219 US20130070410 20131101

Probable Assignee: SHEEPDOG SCIENCES INC

Assignee(s): (std): ANDERSON TODD O ; BARRETTO ROBERT J ; BUTTERWICK ALEXANDER F A ; WETMORE DANIEL Z ; SHEEPDOG SCIENCES INC ; SIEBERT LIA

Assignee(s): BUTTERWICK ALEXANDER FA

Inventor(s): (std): ANDERSON TODD O ; BARRETTO ROBERT J ; BUTTERWICK ALEXANDER F A ; SIEBERT LIA ; WETMORE DANIEL Z

Inventor(s): BUTTERWICK ALEXANDER FA

Agent(s): SHAY GLENN LLP; SHOOP RICHARD D ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LR LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: TREATMENT OF AMYOTROPHIC LATERAL SCLEROSIS

Abstract: The present invention relates to the identification of compounds and pharmaceutical compositions thereof for treating subjects with amyotrophic lateral sclerosis (ALS) and other neurodegenerative diseases. The invention also provides **methods** of preparing the provided compounds.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/01 A61B5/02 A61B5/0205 A61B5/021 A61B5/024 A61B5/0402 A61B5/0476 A61B5/0488 A61B5/0496 A61B5/053 A61B5/08 A61B5/085 A61B5/103 A61B5/11 A61B5/145 A61B5/1455 A61B5/1468 A61B6/00 A61K31/4152 A61P25/00 C07D C07D231/06 C07D231/44

C07D413/12 (Advanced/Invention);
A61B5/00 A61B5/02 A61B5/0205 A61K31/4152 A61P25/00
C07D231/00 C07D413/00 (Core/Invention);
A61B C07D (Subclass/Invention)

CPC: C07D231/22 C07D401/12 C07D403/04 C07D403/12 C07D405/06 C07D409/04 C07D417/04 C07D417/12 C07D417/14 A61B5/7267 A61B5/412 A61B5/413 A61B5/4519 A61B5/721

A61N1/37252 A61B5/0205 A61B5/002 A61B5/0022 A61B5/7207

European: A61B5/00B A61B5/0205 A61B5/41D A61B5/41F

A61B5/72B2 C07D231/22 C07D401/12 C07D403/04 C07D403/12

C07D405/06 C07D409/04 C07D417/04 C07D417/12 C07D417/14

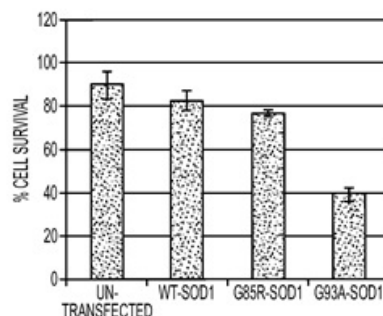
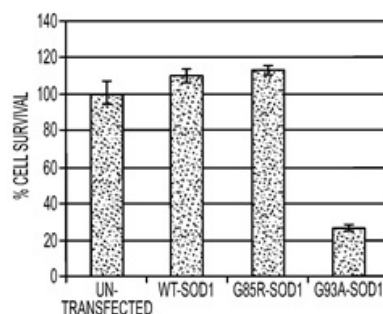
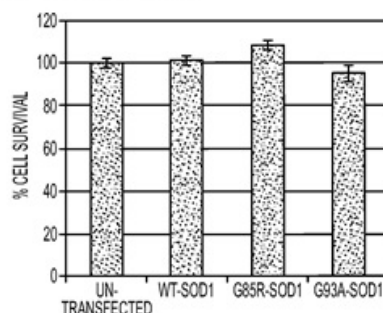
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US: 600/300 600/301 600/301P 600/310 600/345 600/364 600/365

600/407 600/476 600/485 600/508 600/509 600/529 600/538

600/544 600/546 600/547 600/549 600/558 600/587 600/595

PatBase - US2011237907_AA

**Family:**

Publication number	Publication date	Application number	Application date
AU2009318098 AA	20100527	AU20090318098	20091120
AU2009318098 BB	20150716	AU20090318098	20091120
CA2744016 AA	20110517	CA20092744016	20091120
CN102281816 A	20111214	CN200980154809	20091120
CN102281816 B	20150107	CN200980154809	20091120
EP2358266 A1	20110824	EP20090830687	20091120
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EP2367798 B1	20180228	EP20090827890	20091120
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IL212992 A0	20110731	IL20090212992	20091120
IL213004 A0	20110731	IL20090213004	20091120
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IL231968 A0	20140528	IL20140231968	20140406
IN02508KN2011 A	20111202	IN2011KN02508	20110617
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US2012245439 AA	20120927	US20090130282	20091120
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WO10059241 A3	20100916	WO2009US06237	20091120
WO10065067 A1	20100610	WO2009US06234	20091120

Priority:

US20080116364P 20081120
WO2009US06234 20091120
WO2009US06237 20091120

US20080116571P 20081120
US20090129854 20091120

EP20090827890 20091120
US20090130282 20091120

Probable Assignee: CAMBRIA PHARMACEUTICALS DISTRIBUTING TRUST

Assignee(s): (std): ANDRE DAVID ; ARVANITES ANTHONY C ; BENMOHAMED RADHIA ; CAMBRIA PHARMACEUTICALS INC ; CHEN TIAN ; BODYMEDIA INC ; FARRINGDON JONATHAN ; GASBARRO JAMES ; BOEHMKE SCOTT K ; SAFIER SCOTT ; PACIONE CHRISTOPHER ; KOVACS GREGORY ; ROSS KEVIN ; KASABACH CHRISTOPHER ; PELLETIER RAYMOND ; SILVERMAN RICHARD B ; KIRSCH DONALD R ; MORIMOTO RICHARD I ; NORTH WESTERN UNIVERSITY ; NORTH WESTERN UNIV ; UNIV NORTHWESTERN ; TELLER ERIC ; VYAS NISANG ; STIVORIC JOHN M ; VISHNUBHATLA SURESH ; WARD KEVIN ; UNIV VIRGINIA COMMW ; UNIV NORTH WESTERN ; UNIV VIRGINIA COMMONWEALTH

Assignee(s): VIRGINIA COMMONWEALTH UNIVERSITY ; WELLS FARGO BANK NATIONAL ASSOCIATION AGENT AS ; SPRING CAPITAL PARTNERS II LP ; VIRGINIA COMMW UNIV ; ALIPH INC ; ALIPHCOM ; SILVER LAKE WATERMAN FUND LP SUCCESSOR AGENT AS ; MACGYVER ACQUISITION LLC ; PROJECT PARIS ACQUISITION LLC ; NORTHWESTERN UNIV ; NATIONAL INSTITUTES OF HEALTH ; NATIONAL INSTITUTES OF HEALTH NIH US DEPT OF HEALT ; NATIONAL INSTITUTES OF HEALTH (NIH) US DEPT OF HEALTH AND HUMAN SERVICES (DHHS) US GOVERNMENT ; NATIONAL INSTITUTES OF HEALTH NIH US DEPT OF HEALTH AND HUMAN SERVICES DHHS US GOVERNMENT ; DBD CREDIT FUNDING LLC ADMINISTRATIVE AGENT AS ; BLACKROCK ADVISORS LLC ; CAMBRIA PHARMACEUTICALS DISTRIBUTING TRUST ; NORTHWESTERN UNIVERSITY

Inventor(s): (std): BOEHMKE SCOTT K ; FARRINGDON JONATHAN ; GASBARRO JAMES ; HANLON JAMES ; HSIUNG ERIC ; KASABACH CHRISTOPHER ; KIRSCH DONALD ; KOVACS GREGORY ; MENKE STEVE ; MORIMOTO RICHARD ; PACIONE CHRISTOPHER ; PELLETIER RAYMOND ; RADHIA BENMOHAMED ; ROSS KEVIN ; SAFIER SCOTT ; SILVERMAN RICHARD ; STIVORIC JOHN M ; TARCHICK DANIEL ; TELLER ERIC ; TIAN CHEN ; VISHNUBHATLA SURESH ; VYAS NISANG ; WARD KEVIN ; VYAS NISARG ; SILVERMAN RICHARD B ; MORIMOTO RICHARD I ; KIRSCH DONALD R ; CHEN TIAN ; BENMOHAMED RADHIA ; ARVANITES ANTHONY C ; ANDRE DAVID ; ARVANITES ANTHONY

Inventor(s): BOEHMKE SCOTT

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; ROBIC; FINDLAY ALICE ROSEMARY; TOSTMANN HOLGER CARL; ARIAS JUAN; REINHOLD COHN AND PARTNERS; JARRELL BRENDA HERSCHBACH; MONOCELLO JOHN A

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: A LIFE MAINTENANCE MODE, A BRAIN INHIBITION THERAPY AND A PERSONAL HEALTH INFORMATION PLATFORM

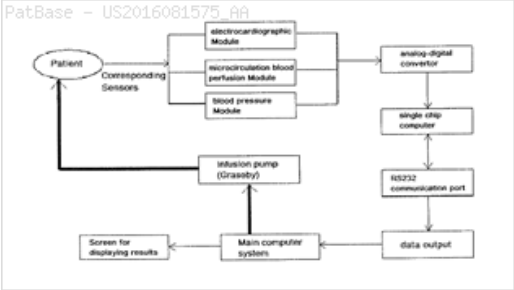
Abstract: A life maintenance mode named as the third type of life maintenance mode, includes decomposing inspection items of clinical diagnosis into a series of individual automatically measured and computed indicators of life condition data, popularized into people's daily life and work to be practiced continuously producing continuous diagnosis and inspection analysis report and trend; performing active **control** of the change of the life condition data by senior independent consciousness of cerebral cortex with the automatically measured and computed life condition data to serve as a quantitative traction **device** for treatment, rehabilitation, and health and longevity; predict and prevent the occurrence and development of diseases on the basis of the produced inspection analysis report and trend; automatically sending messages to remind a patient to check the treatment behaviors on the basis of doctor's advises and prescriptions in the track record of medical treatment, and providing an automatic no-response alarming service.

Classifications:

International (IPC 8-9): A61B19/00 A61B5/00 A61B5/01 A61B5/02 A61B5/0205 A61B5/026 A61B5/0402 A61B5/0476 A61B5/0478 A61B5/11 A61B5/145 A61B5/1455 A61B5/16 A61B90/00 A61M19/00 A61M21/02 A61M5/142 A61M5/172 A63F13/212 A63F13/332 G06F19/00 G16H50/30 G16H80/00 (Advanced/Invention)

CPC: A61B5/026 A61B5/4815 A61M5/1723 A61B5/4854 A61B5/4812 A61B5/4809 A61B5/14552 A61B5/1116 A61B5/4818 A61B5/02007 A61B5/14532 A61B5/0205 A61B5/02055 A61B5/01 A61B5/168 A61B5/4393 A61M5/142 A61M19/00 A61M21/02 G06F19/325 G06F19/3468 G06F19/322 A61B5/021 A61B5/024 A61M2021/0077 A61M2205/3303 A61M2205/3569 A61M2205/3584 A61M2205/3592 A61M2205/50 A61M2205/502 A61M2205/52 A61M2230/04 A61M2230/08 A61M2230/10 A61M2230/201 A61M2230/30 A61M2230/42 A61M2230/50 A61B5/0022 A61B5/0261 A61B5/726 A61B5/7264 A63F13/212 A63F13/332 A61B5/0402 A61B5/7225 A61B5/746 A61B5/7203 A61B5/742 A61B5/0002 A61B5/0476 A61B5/0478 G06F19/3431 G06F19/3487 G16H10/60 G16H15/00 G16H50/30

US: 600/301 604/66



Family:

Publication number	Publication date	Application number	Application date
CN103793593 A	20140514	CN201310566688	20131115
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EP2918222 A4	20161102	EP20140862597	20140718
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US2017112392 AA	20170427	US20160254541	20160901
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Priority:

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Probable Assignee: WU YIBING

Assignee(s): (std): WU YIBING

Inventor(s): (std): WU YIBING

Agent(s): TISCHNER OLIVER; HARAKENZO WORLD PATENT AND TRADEMARK; SUNSHINE INTELLECTUAL PROPERTY INT CO LTD

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: SYSTEM AND **METHOD** FOR THE **DETECTION** OF PHYSIOLOGIC RESPONSE TO STIMULATION

Abstract: The disclosed embodiments relate to a system and **method** for **detecting** a response of a patient to an external stimulus. An exemplary **method** comprises the acts of generating at least one time series of at least one physiologic parameter, **detecting** the external stimulus, **detecting** at least one response associated with the stimulus, the response comprising at least one of a pattern and a value, and outputting an indication of the response.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/08 A61B5/1455

G06F19/00 (Advanced/Invention);

A61B5/00 A61B5/145 G06F19/00 (Core/Invention)

CPC: A61B5/002 A61B5/02416 A61B5/028 A61B5/0452 A61B5/0456

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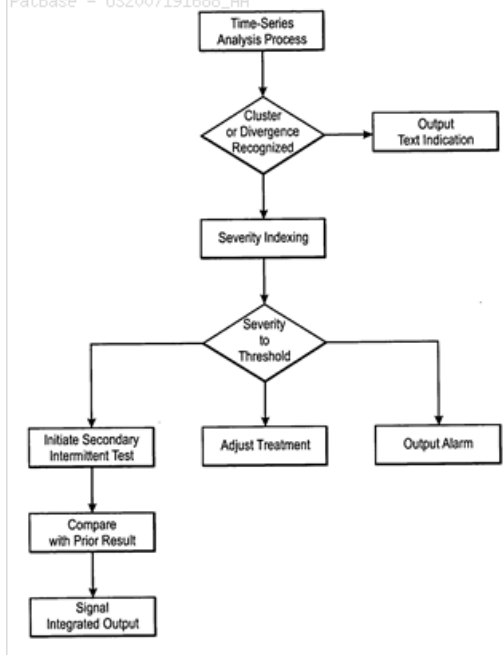
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600/529 600/532 600/554 600/559 600/559S 702/19 702/19S

PatBase - US2007191688_AA



Family:

Publication number	Publication date	Application number	Application date
US2007191688 AA	20070816	US20060351690	20060210
US2010174161 AA	20100708	US20100683741	20100107
US7668579 BB	20100223	US20060351690	20060210
US8728001 BB	20140520	US20100683741	20100107

Priority:

US20060351690 20060210 US20100683741 20100107

Probable Assignee: LYNN LAWRENCE A

Assignee(s): (std): LYNN LAWRENCE A

Inventor(s): (std): LYNN LAWRENCE A

Inventor(s): LYNN LAWRENCE

Agent(s): NELLCOR PURITAN BENNETT LLC, C/O FLETCHER YODER PC; NELLCOR PURITAN BENNETT LLC C O FLETCHER YODER PC; NELLCOR PURITAN BENNETT LLC,ATTN: IP LEGAL; NELLCOR PURITAN BENNETT LLC ATTN IP LEGAL; INT IP LAW GROUP PLLC

Title: SYSTEM FOR ADJUSTABLE TISSUE ANCHORS

Abstract: **Methods** and **devices** are disclosed for manipulating the tongue. An implant is positioned within at least a portion of the tongue and may be secured to other surrounding structures such as the mandible and/or hyoid bone. In general, the implant is manipulated to displace at least a portion of the posterior tongue in an anterior or lateral direction, or to alter the tissue tension or compliance of the tongue. **Methods** and **devices** are also disclosed for manipulating other soft tissue structures, including the soft palate and pharyngeal airway.

Classifications:

International (IPC 8-9): A61B1/24 A61B17/00 A61B17/04

A61B17/06 A61B17/24 A61B17/56 A61B17/60 A61B17/84

A61B19/00 A61C3/00 A61C5/14 A61F2/02 A61F2/06

A61F5/56 (Advanced/Invention);

A61B17/00 A61B17/06 A61B17/064 A61B19/00

A61F5/56 (Advanced/Non-invention);

A61B1/24 A61B17/00 A61B17/04 A61B17/06 A61B17/24 A61B17/60

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A61F5/56 (Core/Invention);

A61B17/06 (Core/Non-invention)

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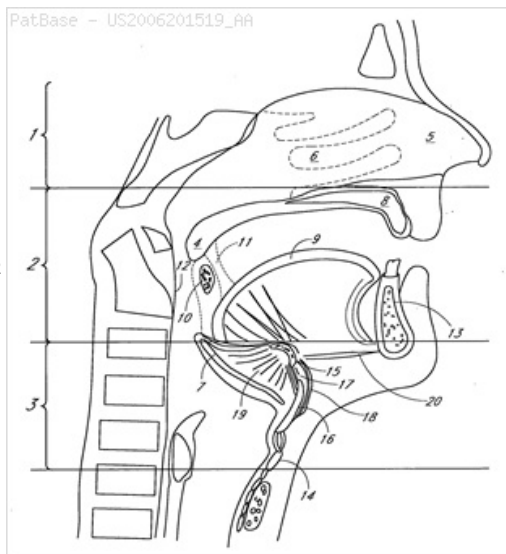
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623/23.64 623/23.640P 623/23.76 623/23.760S



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Probable Assignee: PHILIPS ELECTRONICS KONINKLL NV

Assignee(s): (std): ASPIRE MEDICAL INC ; BURG ERIK V D ; BURG ERIK VAN D ; FRAZIER ANDREW ; HIROTSUKA MARK ; JACKSON JASPER ; DINEEN MICHAEL ; DINEEN MICHEAL ; KESSLER ADAM ; BURG ERIK VAN DER ; KONINKL PHILIPS ELECTRONICS NV ; KONINKL PHILIPS NV ; ROUE CHAD C ; VAN DER BURG ERIK ; ROUE CHAD ; SHULOCK DAMIEN ; ROUE CHAR ; PHILIPS KONINKLL NV

Assignee(s): PHILIPS ELECTRONICS KONINKLL NV ; KONINKLIJKE PHILIPS ELECTRONICS N V

Inventor(s): (std): BURG ERIK V D ; BURG ERIK VAN D ; DINEEN MICHAEL ; DINEEN MICHEAL ; FRAZIER ANDREW ; HIROTSUKA MARK ; JACKSON JASPER ; KESSLER ADAM ; ROUE CHAD ; VAN DER BURG ERIK ; SHULOCK DAMIEN ; ROUE CHAD C ; BURG ERIK VAN DER ; BURG ERIK KURT WITT VAN D ; ROUE CHAR

Inventor(s): BURG ERIK 5600 AE VAN D ; ROUE CHAD SAN JOSE ; ROUE CHAD C 5600 AE ; KESSLER ADAM 5600 AE ; JACKSON JASPER 5600 AE ; HIROTSUKA MARK 5600 AE ; FRAZIER ANDREW 5600 AE ; DINEEN MICHAEL 5600 AE ; ROUE CHAD 5600 AE ; JACKSON JASPER NEWARK ; HIROTSUKA MARK SAN JOSE ; FRAZIER ANDREW SUNNYVALE ; DINEEN MICHAEL PORTOLA VALLEY ; BURG ERIK ; BURG ERIK LOS GATOS VAN D ; BURG ERIK VD

Agent(s): MEISSNER BOLTE AND PARTNER GBR; MEISSNER BOLTE PATENTANWALTE RECHTSANWALTE PARTNERSCHAFT MBB; DAMEN DANIEL MARTIJN; KARY PIERRE ET AL; VAN VELZEN MAAIKE MATHILDE; KNOBBE MARTENS OLSON AND BEAR LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: SYSTEM AND **METHOD** FOR DETERMINING SLEEP STAGE

Abstract: **Methods** and **apparatus** monitor health by **detection** of sleep stage. For example, a sleep stage monitor may access sensor data signals related to bodily movement and respiration movements. At least a portion of the **detected** signals may be analyzed to calculate respiration variability. The respiration variability may include variability of respiration rate or variability of respiration amplitude. A **processor** may then determine a sleep stage based on a combination bodily movement and respiration variability. The determination of sleep stages may distinguish between deep sleep and other stages of sleep, or may differentiate between deep sleep, light sleep and REM sleep. The bodily movement and respiration movement signals may be derived from one or more sensors, such as **non-invasive** sensor (e.g., a non-contact radio-frequency motion sensor or a pressure sensitive mattress).

Classifications:

International (IPC 8-9): A61B5/00 A61B5/05 A61B5/08 A61B5/11 A61B5/113 A61B5/16 A61M16/00 A61M16/06 G06F17/14 (Advanced/Invention)
CPC: A61B5/4812 A61B5/0816 A61B5/1118 A61B5/113 A61B2562/0228 A61B5/4842 A61B5/7278 A61B5/7264 A61B5/05 A61M16/0069 A61B5/726 A61M2205/3303 A61M2230/63 A61B5/0507
US: 128/204.23 600/301 600/407 600/534



Family:

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Priority:

IE20120000409 20120919 AU20130318046 20130919 WO2013US60652 20130919
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Probable Assignee: RESMED SENSOR TECHNOLOGIES LTD

Assignee(s): (std): HENEGHAN CONOR ; RESMED SENSOR TECHNOLOGIES LTD ; RESMED SENSOR TECH LTD

Assignee(s): BIANCAMED LTD ; O HARE EMER ; PHILLIPS PAUL ; MCDARBY GARETH ; MURRAY TREVOR

Inventor(s): (std): HENEGHAN CONOR ; MCDARBY GARETH ; MURRAY TREVOR ; O HARE EMER ; PHILLIPS PAUL

Agent(s): HALFORDS IP; GOUDREAU GAGE DUBUC; VOSSIUS AND PARTNER PATENTANWALTE
 RECHTSANWALTE MBB; CHURCHILL RAYMOND

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: PERSONAL COMPUTER CARD FOR COLLECTION OF REAL-TIME BIOLOGICAL DATA

Abstract: A real-time biological data **processing** PC card is lightweight, cost effective, and portable. The real-time biological data **processing** PC card is capable of converting a host personal computer system into a powerful diagnostic instrument. Each real-time biological data **processing** PC card is adapted to input and **process** biological data from one or more biological data sensors, and is interchangeable with other real-time biological data **processing** PC cards. A practitioner having three different real-time biological data **processing** PC cards, for example, each one corresponding to a different biological data collection **device**, effectively carries three full-sized, powerful diagnostic instruments. The full resources of a host personal computer can be utilized and converted into a powerful diagnostic instrument, for each biological data collection **device**, by the insertion of one of the real-time biological data **processing** PC cards.

Classifications:

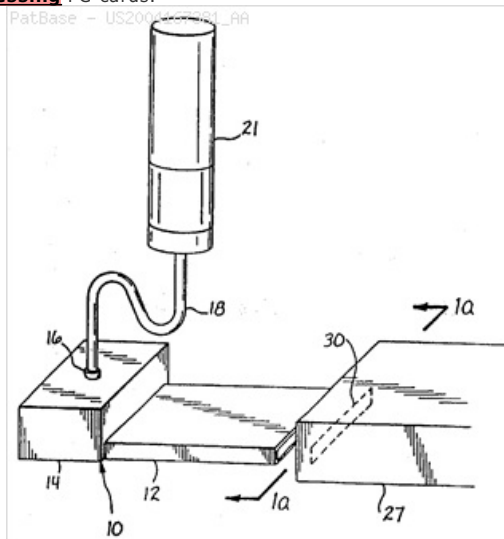
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US: 128/92 128/920 128/920S 600/300 600/300P 600/301 600/323 600/323S 600/481 600/481S 600/509 600/538 600/538S 600/544 600/544S 600/546 600/546S



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Priority:

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Probable Assignee: VECTRACOR INC

Assignee(s): (std): ORS DIAGNOSTIC LLC ; QRS DIAGNOSTIC LLC ; QRS DIAGNOSTICS LLC ; QRS DIAGNOSTIC LLC

Assignee(s): VARSITY GOLD INC ; QRS DIAGNOSTIC INC ; VECTRACOR INC ; PRIMARY CARE PHYSICIAN PLATFORM LLC ; NATIONAL BIOMEDICAL LLC ; LIEN SPENCER J ; ASSOCIATED BANK NATIONAL

ASSOCIATION ; LICHTER PATRICK A

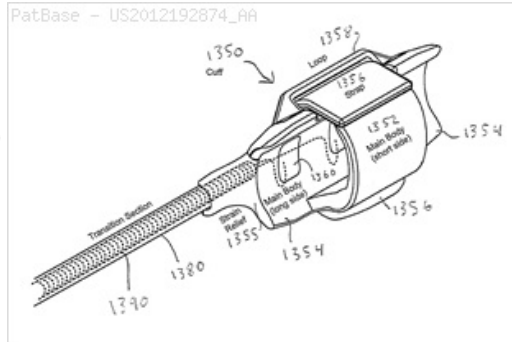
Inventor(s): (std): LICHTER A ; LICHTER PATRICK A ; LIEN J ; LIEN SPENCER J ; P A LICHTER ; PA LICHTER ; PATRICK A LICHTER ; S J LIEN ; SJ LIEN ; SPENCER J LIEN ; LIEN S J ; LICHTER P A

Agent(s): SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD; BORDEN LADNER GERVAIS LLP; SELIGSOHN GABRIELI AND CO

Designated states: AE AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CR CU CY CZ DE DK DM EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Abstract: **Devices**, systems and **methods** of neurostimulation for treating obstructive sleep **apnea**. The system is adapted to send an electrical signal from an implanted neurostimulator through a stimulation lead to a patient's nerve at an appropriate phase of the respiratory cycle based on input from a respiration sensing lead. External components are adapted for wireless communication with the neurostimulator. The neurostimulator is adapted to deliver therapeutic stimulation based on inputs.

International (IPC 8-9): A61B1/233 A61B1/267 A61B5/00 A61B5/08 A61F5/56 A61M16/00 A61N1/00 A61N1/05 A61N1/36 A61N1/372 A61N1/39 (Advanced/Invention); A61B17/24 A61B5/00 A61B5/08 A61F5/56 A61N1/05 A61N1/36 A61N1/372 A61N1/375 (Advanced/Non-invention)
CPC: A61B1/233 A61N1/0519 A61B2017/248 A61F5/56 A61N1/37229 A61N1/3758 A61N1/0551 A61B1/267 A61B5/08 A61B5/053 A61B5/0816 A61F5/566 A61B5/4552 A61N1/36132 A61N1/3601 A61B5/0809 A61B5/0826 A61B5/4818 A61N1/0556 A61N1/3611 A61N1/36139 A61N1/3615 A61N1/37235
US: 1/1 128/202.16 128/202.160S 128/848 600/476 607/134 607/42 607/42P 607/42S 607/48 607/62 607/62S



Publication number	Publication date	Application number	Application date
DE602012016241 D1	20160512	DE201260016241T	20120125
EP2667933 A2	20131204	EP20120702144	20120125
EP2667933 B1	20160330	EP20120702144	20120125
EP3061493 A1	20160831	EP20160162666	20120125
US2012192874 AA	20120802	US20110106460	20110512
US2012197340 AA	20120802	US20110251856	20111003
US2013085546 AA	20130404	US20120633670	20121002
US2014188185 AA	20140703	US20110205315	20110808
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US2016059011 AA	20160303	US20150937482	20151110
US2016089540 AA	20160331	US20150884021	20151015
US2017202482 AA	20170720	US20170418467	20170127
US2017368341 AA	20171228	US20170701253	20170911
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US20060851386P	20061013	US20070918257P	20070314	US20070907532	20071012
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US20150937482	20151110	US20170148467	201710127	US20170701253	20170911

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Inventor(s): (std): ATKINSON ROBERT E ; BECK JOHN P ; BOLEA STEPHEN L ; BOSSHARD MARK R ; EASTWOOD PETER R ; HAUSCHILD SIDNEY F ; HILLMAN DAVID R ; HOEGH THOMAS B ; KUHNLEY BRIAN D ; PARRISH DANIEL A ; PERSSON BRUCE J ; SKUBITZ JASON J ; SUILMANN DALE G ; TESFAYESUS WONDIMENEH ; HOEGH THOMAS ; HAUSCHILD SIDNEY ; BOLEA STEPHEN ; BECK JOHN ; ATKINSON ROBERT

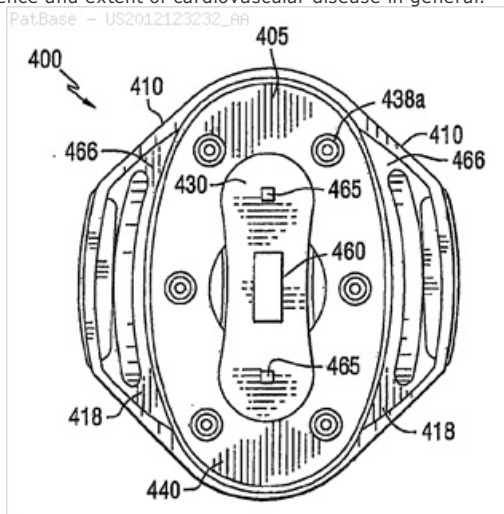
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IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT
MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM
SN ST SV SY SZ TD TG TH TI TM TN TR TT UA UG US UZ VN VC VJ ZM ZW

Title: **METHOD** AND **APPARATUS** FOR DETERMINING **HEART RATE** VARIABILITY USING WAVELET TRANSFORMATION

Abstract: The present invention relates to advanced signal **processing methods** including digital wavelet transformation to analyze heart-related electronic signals and extract features that can accurately identify various states of the cardiovascular system. The invention may be utilized to estimate the extent of blood volume loss, distinguish blood volume loss from physiological activities associated with exercise, and predict the presence and extent of cardiovascular disease in general.

Classifications:

International (IPC 8-9): A61B3/113 A61B5/00 A61B5/01 A61B5/02 A61B5/0205 A61B5/021 A61B5/0402 A61B5/044 A61B5/0452 A61B5/0472 A61B5/0476 A61B5/0488 A61B5/053 A61B5/08 A61B5/107 A61B5/11 A61B5/145 A61B5/1468 A61B5/22 A61B6/00 (Advanced/Invention); A61B5/0402 A61B5/0452 (Core/Invention)
CPC: A61B5/7239 A61B5/0205 A61B5/02208 A61B5/0472 A61B5/22 A61B5/412 A61B5/6824 A61B5/7207 A61B5/721 A61B5/7225 A61B5/726 A61B5/7267 A61B5/0022 A61B5/02055 A61B5/02125 A61B5/024 A61B5/02405 A61B5/0402 A61B5/0476 A61B5/0488 A61B5/0496 A61B5/053 A61B5/0816 A61B5/0833 A61B5/1116 A61B5/1118 A61B5/14532 A61B5/4872 A61B5/4875 A61B5/7203
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US: 600/309 600/309S 600/345 600/345P 600/364 600/364S 600/365 600/365S 600/407 600/407S 600/476 600/476S 600/483 600/483S 600/484 600/484S 600/513 600/513S 600/523 600/523S



Family:

Publication number	Publication date	Application number	Application date
CA2744215 AA	20110519	CA20092744215	20091120
CA2747057 AA	20100708	CA20092747057	20091216
EP2375973 A2	20111019	EP20090836926	20091216
EP2375973 A4	20140212	EP20090836926	20091216
US2012123232 AA	20120517	US20090140165	20091216
WO10077997 A2	20100708	WO2009US68336	20091216
WO10077997 A3	20101014	WO2009US68336	20091216

Priority:

US20080122804P 20081216 US20090167287P 20090407 WO2009US06234 20091120
 US2009US90062 20091120 US20090140165 20091216 WO2009US68336 20091216

Probable Assignee: BODYMEDIA INC

Assignee(s): (std): ANDRE DAVID ; BODYMEDIA INC ; BOEHMKE SCOTT ; JI SOO YEON ; GASBARRO JAMES ; FARRINGDON JONATHAN ; BOEHMKE SCOTT K ; GABARRO JAMES ; KASABACH CHRISTOPHER ; RAOOF ABED AL ; STIVORIC JOHN M ; UNIV VIRGINIA COMMONWEALTH ; TELLER ERIC ; NAJARIAN KAYVAN ; PELLETIER RAYMOND ; RAOFF ABEL AL ; KOVACS GREGORY ; UNIV VIRGINIA COMMW ; WARD KEVIN ; VYAS NISARG ; VIRGINIA COMMONWEALTH UNIVERSITY ; VIRGINIA COMMW UNIVERSITY

Assignee(s): VISHNUBHATLA SURESH ; VIRGINIA COMMW UNIV ; WELLS FARGO BANK NATIONAL ASSOCIATION AGENT AS ; SILVER LAKE WATERMAN FUND LP SUCCESSOR AGENT AS ; MACGYVER ACQUISITION LLC ; PROJECT PARIS ACQUISITION LLC ; ALIPH INC ; ALIPHCOM ; ROSS KEVIN ; PACIONE CHRISTOPHER ; SAFIER SCOTT ; DBD CREDIT FUNDING LLC ADMINISTRATIVE AGENT AS ; VIRGINIA COMMONWEALTH UNIVERSITY

Inventor(s): (std): BOEHMKE SCOTT K ; GABARRO JAMES ; KASABACH CHRISTOPHER ; KOVACS GREGORY ; PACIONE CHRISTOPHER ; RAOFF ABEL AL ; ROSS KEVIN ; SAFIER SCOTT ; VISHNUBHATLA SURESH ; WARD KEVIN ; VYAS NISARG ; TELLER ERIC ; STIVORIC JOHN M ; RAOOF ABED AL ; PELLETIER RAYMOND ; NAJARIAN KAYVAN ; JI SOO YEON ; GASBARRO JAMES ; FARRINGDON JONATHAN ; BOEHMKE SCOTT ; ANDRE DAVID

Agent(s): BORDEN LADNER GERVAIS LLP; FINDLAY ALICE ROSEMARY; MONOCELLO JOHN A

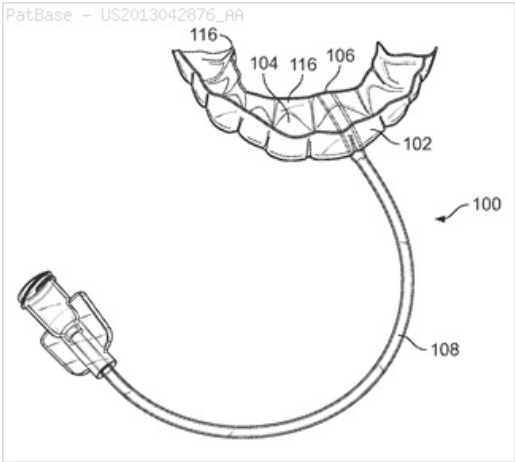
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Title: SYSTEM AND METHOD FOR DELIVERING A THERAPY AND SENSING A BIOLOGICAL ACTIVITY IN THE MOUTH

Abstract: Methods, devices, and systems are disclosed for controlled delivery of a therapy, such as a stimulant, to a mouth of a subject via an oral device positioned in a secured configuration in the mouth. At least one of a tongue position stimulator (TST) and tongue position sensor (TSE) is provided, according to certain aspects. According to another aspect, a stimulus is delivered to the mouth and/or tongue via a mouthpiece secured to the subject's teeth. In another regard, a stimulus is delivered that generates a natural response to eliminate or reduce sleep disorders, such as for example at least one of snoring and obstructive sleep apnea.

Classifications:

International (IPC 8-9): A61B1/32 A61B18/02 A61B18/08
A61B19/00 A61B5/103 A61C19/06 A61C3/00 A61C5/00 A61C5/14
A61F11/00 A61F5/00 A61F5/37 A61F5/56 A61M15/00 A61M16/00
A61M16/04 A61M31/00 (Advanced/Invention)
CPC: A61F5/566 A61F5/00 A61F5/56 A61M15/00 A61M16/00
A61M16/0488 A61M16/049 A61M31/00 A61M2205/3331
A61M2205/3306 A61M2205/3375 A61M2205/3317 A61M16/024
US: 128/848



Family:

Publication number	Publication date	Application number	Application date
US2013042876 AA	20130221	US20120649967	20121011
US2013118504 AA	20130516	US20120668155	20121102
US2017231807 AA	20170817	US20160396237	20161230
US9549841 BB	20170124	US20120649967	20121011
WO13062785 A1	20130502	WO2012US59796	20121011

Priority:

US20110484520P 20110510	US20110551927P 20111027	US20120603671P 20120227
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Probable Assignee: SPLIT ROCK SCIENTIFIC INC

Assignee(s): (std): SCIENT PARTNERS LLC ; SPLIT ROCK SCIENT INC

Assignee(s): SPLIT ROCK SCIENTIFIC INC ; SCIENTIFIC PARTNERS ; SCIENTIFIC PARTNERS LLC

Inventor(s): (std): HERMANSON CHRISTOPHER ; RAJGURU AMIT

Agent(s): MAHAMEDI IP LAW LLP; OBANION JOHN

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: SLEEP **APNEA** RISK EVALUATION

Abstract: In a technique for collecting and analyzing physiological signals to **detect** sleep **apnea**, a small light-weight physiological monitoring system, affixed to a patient's forehead, **detects** and records the pulse, oximetry, snoring sounds, and head position of a patient to **detect** a respiratory event, such as sleep **apnea**. The physiological monitoring system may contain several sensors including a pulse oximeter to **detect** oximetry and pulse rate, a microphone to **detect** snoring sounds, and a position sensor to **detect** head position. The physiological monitoring system also can contain a **memory** to store or record the signals monitored by the mentioned sensors and a power source. The physiological monitoring system may be held in place by a single elastic strap, thereby enabling a patient to use the system without the assistance of trained technicians.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/0205 A61B5/08

A61B5/103 A61B7/00 (Advanced/Invention);

A61B5/103 A61B7/00 (Advanced/Non-invention);

A61B5/00 A61B5/0205 A61B5/08 A61B5/103

A61B7/00 (Core/Invention);

A61B5/103 A61B7/00 (Core/Non-invention)

International (IPC 1-7): A61B5/00 A61B5/0205 A61B5/08

A61M16/00

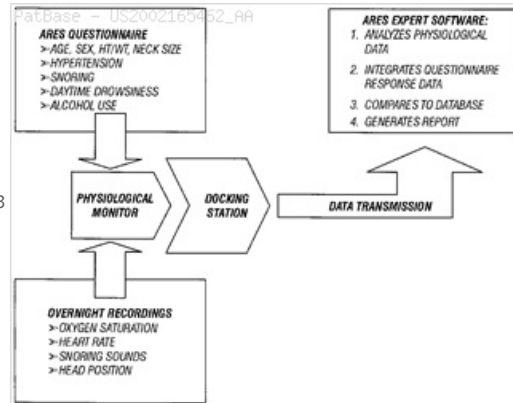
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European: A61B5/0205 A61B5/1455N2 A61B5/48C8 K61B5/00B

K61B5/103 K61B5/1455N4 K61B7/00D

US: 128/923 600/300 600/301 600/323 600/529 600/529P



Family:

Publication number	Publication date	Application number	Application date
AT412366 E	20081115	AT20010994489T	20011228
AU2002246880 AA	20020904	AU20020246880	20011228
AU2002246880 AB	20040722	AU20020246880	20011228
AU2002246880 BB	20061207	AU20020246880	20011228
DE60136387 D1	20081211	DE20016036387	20011228
EP1353594 A2	20031022	EP20010994489	20011228
EP1353594 B1	20081029	EP20010994489	20011228
US2002165462 AA	20021107	US20010040937	20011228
US2005027207 AA	20050203	US20040925723	20040825
US6811538 BB	20041102	US20010040937	20011228
US7297119 BB	20071120	US20040925723	20040825
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Priority:

US20000259397P 20001229 US20010304391P 20010709 US20010040937 20011228
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Probable Assignee: WATERMARK MEDICAL INC

Assignee(s): (std): ARES MEDICAL INC ; BERKA CHRISTINE ; CVETINOVIC MILENKO ; LEVENDOWSKI DANIEL J ; FURMAN YURY ; WESTBROOK PHILIP R

Assignee(s): WATERMARK MEDICAL INC ; NATIONAL INSTITUTES OF HEALTH NIH US DEPT OF HEALTH ; NATIONAL INSTITUTES OF HEALTH (NIH) US DEPT OF HEALTH AND HUMAN SERVICES (DHHS) US GOVERNMENT ; NATIONAL INSTITUTES OF HEALTH NIH US DEPT OF HEALTH AND HUMAN SERVICES DHHS US GOVERNMENT ; NATIONAL INST ; NATIONAL INSTITUTES OF HEALTH ; COMERICA BANK ; ARES MEDICAL LLC ; BERKA CHRIS

Inventor(s): (std): BERKA CHRIS ; CVETINOVIC MILENKO ; FURMAN YURY ; LEVENDOWSKI DANIEL J ; WESTBROOK PHILIP R ; WESTBROOK PHILIP ; LEVENDOWSKI DANIEL ; BERKA CHRISTINE

Inventor(s): YURY FURMAN ; MILENKO CVETINOVIC ; PHILIP R WESTBROOK ; DANIEL J LEVENDOWSKI ; CHRISTINE BERKA

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; MCLEISH NICHOLAS ALISTAIR MAXWELL ET AL; FULWIDER PATTON LEE AND UTECHT LLP HOWARD HUGHES CENTER; FULWIDER PATTON LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

Title: SYSTEMS AND **METHODS** FOR USING PHOTOPLETHYSMOGRAPHY IN THE ADMINISTRATION OF NARCOTIC REVERSAL AGENTS

Abstract: Provided according to embodiments of the present invention are **methods** of monitoring and treating respiratory depression that include securing a photoplethysmography (PPG) sensor to a central source site of an individual; administering a central nervous system (CNS) depressant to the individual; **processing** PPG signals from the PPG sensor with a computer in communication with the PPG sensor; and administering a narcotic reversal agent to the individual if the PPG signals or a physiological parameter derived therefrom are outside a preset value range. Related systems are also described.

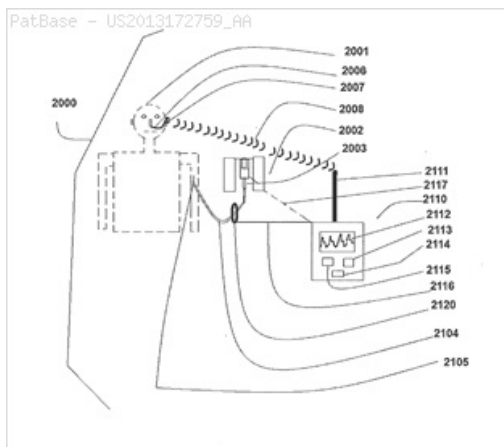
Classifications:

International (IPC 8-9): A61B5/00 A61B5/01 A61B5/02 A61B5/0205 A61B5/0464 A61B5/0476 A61B5/0496 A61B5/08 A61B5/083 A61B5/087 A61B5/11 A61B5/113 A61B5/145 A61B5/1455 A61B5/20 A61M15/00 A61M16/00 A61M16/12 A61M16/14 A61M31/00 A61M5/168 A61M5/172 G06F19/00 (Advanced/Invention)

CPC: A61B5/082 A61B5/0002 A61B5/01 A61B5/02007 A61B5/02055 A61B5/0464 A61B5/0476 A61B5/0496 A61B5/1106 A61B5/1135 A61B5/14517 A61B5/14546 A61B5/20 A61B5/4806 A61B5/4848 A61B5/6817 A61B5/6819 A61B5/682 A61B5/746 A61M5/168 A61M16/0057 A61M16/12 A61M16/14 A61M31/007 A61M15/0065 A61M16/0683 A61M19/00 A61M2016/0036 A61M2202/0208 A61M2205/3569 A61M2205/3592 A61M2205/502 A61M2230/06 A61M2230/42 A61M16/00 A61B5/002 A61B5/0205 A61B5/024 A61B5/0402 A61B5/0816 A61B5/0826 A61B5/0836 A61B5/14551 A61B5/4818 A61B5/4821 A61B5/4839 A61B5/6803 A61B5/7246 A61M16/0666 A61M16/10 A61M2016/0027 A61M2205/3368 A61M2230/04 A61M2230/205 A61M2230/432 A61M16/0677 A61M16/161 A61M16/0672 A61M5/1723 A61M39/281 G06F19/3456 G06F19/3468 A61M15/0066 A61M16/0051 A61M16/026

European: A61B5/0205 A61B5/1455N A61B5/48J2 A61B5/68B1B A61M16/06L A61M16/10 K61B5/00B5D K61B5/024 K61B5/0402 K61B5/083D K61B5/08R K61B5/08U K61B5/48C8 K61B5/48D K61B5/72K6 K61M16/00A10 K61M16/06L2B K61M16/16B K61M205/33T K61M230/04 K61M230/20D K61M230/43C

US: 128/204.23 600/476 604/503 604/66



Family:

Publication number	Publication date	Application number	Application date
CA2808379 AA	20130214	CA20112808379	20110808
EP2605698 A2	20130626	EP20110818556	20110808
EP2605698 A4	20170510	EP20110818556	20110808
US2013172759 AA	20130704	US20120713666	20121213
US2013276785 AA	20131024	US20110817156	20110808
WO12024106 A2	20120223	WO2011US46943	20110808
WO12024106 A3	20120614	WO2011US46943	20110808
WO13090705 A1	20130620	WO2012US69724	20121214

Priority:

US20100374597P 20100817	US20110438620P 20110201	US20110441621P 20110210
US20110817156 20110808	WO2011US46943 20110808	US20110570501P 20111214
US20120713666 20121213		

Probable Assignee: XHALE INC

Assignee(s): (std): ALLEN RICHARD ; DENNIS DONN M ; GOLD MARK ; HURLEY ROBERT ; MELKER JEREMY ; MELKER RICHARD J ; UNIV FLORIDA ; RICE MARK ; XHALE INC

Assignee(s): OF FLORIDA RESEARCH FOUNDATION INC UNIV ; UNIVERSITY OF FLORIDA RESEARCH FOUNDATION INC

Inventor(s): (std): ALLEN RICHARD ; DENNIS DONN M ; GOLD MARK ; HURLEY ROBERT ; MELKER JEREMY ; MELKER RICHARD J ; RICE MARK

Agent(s): NORTON ROSE CANADA SENCRL SRL LLP; TOLLETT IAN; VAN DYKE TIMOTHY H ET AL; RISLEY DAVID R

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: VESSEL PULSE WAVE MEASUREMENT SYSTEM CONDUCTING VESSEL PULSE WAVE MEASUREMENT BY OBTAINING PULSATION WAVEFORM OF BLOOD VESSEL

Abstract: A vessel pulse wave measurement system performs vessel pulse wave measurement using an optical probe circuit provided with an optical probe including a light emitting element and a light receiving element, a drive circuit, and a **detection** circuit. A measurement **device** directly and synchronously feeds back an electrical signal from the optical probe to the drive circuit as a drive signal to generate a self-oscillation signal from the **detection** circuit, and measures the self-oscillation signal as a vessel pulse wave signal. A **controller controls** an operating point of at least one of the **detection** circuit and the drive circuit such that the self-oscillation signal substantially reaches a maximum level thereof.

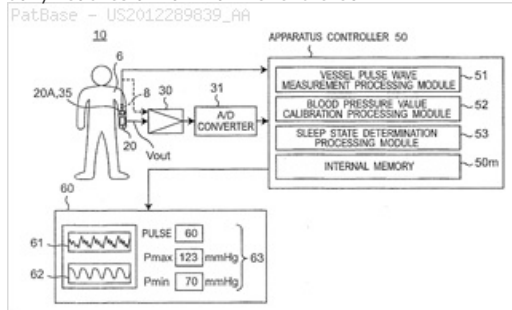
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International (IPC 8-9): A61B5/00 A61B5/02 A61B5/021 A61B5/022 A61B5/0225 A61B5/024 A61B5/0245 A61B5/0285 A61B5/08 A61B5/16 A61B6/00 G01L27/00 G01L9/00 G01L9/02 G01L9/12 (Advanced/Invention)

CPC: A61B5/02108 A61B5/0082 A61B5/7278 A61B5/02125 A61B5/02225 A61B5/02438 A61B5/4809 A61B5/4812 A61B5/4818 A61B5/6824 A61B5/6826 A61B5/7203 G01L9/0007 A61B5/7221

European: A61B5/021B4

US: 600/407 600/473 600/474 600/475 600/476 600/479 600/480



Family:

Publication number	Publication date	Application number	Application date
CN103354729 A	20131016	CN201180065803	20111227
CN103354729 B	20150624	CN201180065803	20111227
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DE602011042040 D1	20171109	DE201160042040T	20111227
EP2668896 A1	20131204	EP20110857016	20111227
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KR101354429 B1	20140122	KR20137019595	20111227
KR20130094858 A	20130826	KR20137019595	20111227
US2012289839 AA	20121115	US20120562655	20120731
US2013296717 AA	20131107	US20130853487	20130329
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WO12101951 A1	20120802	WO2011JP80339	20111227

Priority:

JP20110012106	20110124	EP20110857016	20111227	EP20140160835	20111227
JP20120519812	20111227	WO2011JP80339	20111227	US20120562655	20120731
US20130853487	20130329				

Probable Assignee: ACT MEDICAL SERVICE CO LTD

Assignee(s): (std): ANNOH HIROMICHI ; CHIBA SHINTARO ; HANDA FUKUTO ; YAJIMA TOSHIKUNI ; HATA YUTAKA ; TAKAHASHI SHINICHI ; WIEDEMANN TOKUKO SAITO ; YAGI ASAKO ; TAKENOSHITA SEIICHI ; WIEDEMANN TOKUKO ; ACT MEDICAL SERVICE CO LTD

Assignee(s): ACT MEDICAL SERVICE CO LTD FUKUSHIMA SHI ; ACT MEDICAL SERVICE CO

Inventor(s): (std): ANNOH HIROMICHI ; CHIBA SHINTARO ; HANDA FUKUTO ; HATA YUTAKA ; TAKAHASHI SHINICHI ; TAKENOSHITA SEIICHI ; WIEDEMANN TOKUKO ; WIEDEMANN TOKUKO SAITO ; YAGI ASAKO ; YAJIMA TOSHIKUNI

Inventor(s): YAJIMA TOSHIKUNI FUKUSHIMA SHI ; YAGI ASAKO KAWASAKI SHI ; WIEDEMANN TOKUKO SAITO EL CERRITO ; TAKENOSHITA SEIICHI FUKUSHIMA SHI ; TAKAHASHI SHINICHI FUKUSHIMA SHI ; HATA YUTAKA HIMEJI SHI ; HANDA FUKUTO FUKUSHIMA SHI ; CHIBA SHINTARO MINATO KU ; ANNOH HIROMICHI FUKUSHIMA SHI ; ANNOH HIROMICHI FUKUSHIMA SHIFUKUSHIMA

Agent(s): EISENFUEHR SPEISER PATENTANWALTE RECHTSANWALTE PARTGMBB ; EISENFUEHR SPEISER ; YAMADA TAKUJI ; TANAKA MITSUO ; KAWABATA JUNICHI ; WENDEROTH LIND AND PONACK LLP ; TANAKA MITSUO ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: **APPARATUS** AND **METHODS** FOR VENTILATORY TREATMENT

Abstract: Disclosed is an **apparatus** for treating a respiratory disorder, configured to compute a measure of typical recent ventilation such that a rate of adjustment of the measure of typical recent ventilation is reduced as a measure of recent uncompensated leak increases. Also disclosed is an **apparatus** for treating a respiratory disorder, configured to compute a target ventilation from a product of a measure of typical recent ventilation and a target fraction, wherein the target fraction is dependent on the recent pressure support.

Classifications:

International (IPC 8-9): A61B5/08 A61B5/087 A61B5/113
A61B5/145 A61M16/00 A61M16/06 A61M16/10

A61M16/20 (Advanced/Invention);

A61B5/08 (Advanced/Non-invention)

CPC: A61M16/0683 A61M2016/0036 A61M2202/0208 A61M2205/18
A61M2205/3365 A61M2205/3553 A61M2205/3584 A61M2205/3592
A61M2230/432 A61M2230/435 A61M2230/63 A61B5/087
A61B5/14542 A61M16/0069 A61M16/0003 A61M16/0666
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A61M16/0633 A61M16/0051 A61M16/026 G06F19/00

US: 128/204.18 128/204.21 128/204.23



Family:

Publication number	Publication date	Application number	Application date
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WO13152403 A1	20131017	WO2013AU00382	20130412

Priority:

US20120623643P 20120413 AU20130247403 20130412 US20130391910 20130412
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AU20150238920 20151009

Probable Assignee: RESMED LTD

Assignee(s): (std): RESMED LTD

Inventor(s): (std): BASSIN DAVID JOHN

Agent(s): HALFORDS IP; VOSSIUS AND PARTNER; DAVIDSON GEOFFREY ROBERT ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR
CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID
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Title: **Method** and **apparatus** for the **non-invasive detection** of medical conditions by monitoring peripheral arterial tone

Abstract: A **method** and an **apparatus** for **non-invasive detection** of a physiological state or medical condition are disclosed. The **method** provides an indication of such state or condition such as myocardial ischemia or sleep **apnea**, by **detecting** the peripheral arterial tone's response to such state or condition, based on monitoring changes in peripheral arterial tone and determining that a change in the condition of the patient has occurred when a specific change in the peripheral arterial tone has been **detected**. A static pressure field is applied around the distal part of a digit of the subject. Peripheral arterial tone changes and related volume changes in the distal part of the digit are **detected** to thereby **detect** or monitor a physiological state or medical condition. The **apparatus** includes a finger probe (20), in the form of a tube (3) accommodating the patient's finger, which is designed to apply pressure, and a contiguous pressure cuff (40) which extends the boundary of the pressure field. The finger probe (2) either includes or is associated with a signal sensor/transducer (100, 101).

Classifications:

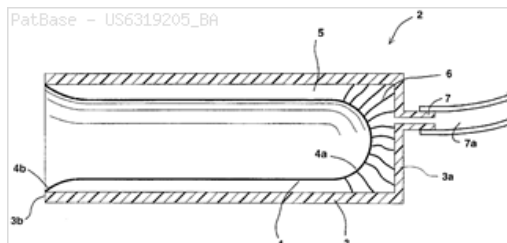
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US: 600/481 600/483 600/485 600/500 600/504 600/507



Family:

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Probable Assignee: ITAMAR MEDICAL

Assignee(s): (std): IT M R MEDIC L CM 1997 LTD ; ITAMAR MEDICAL ; ITAMAR MEDICAL C M 1997 LTD ; ITAMAR MEDICAL CM 1997 LTD ; SCHNALL ROBERT P ; SHEFFY JACOB ; LAVIE PERETZ ; ITAMAR MEDICAL 1997 LTD ; SLEEP MEDICINE CENTER ; GOOR DANIEL A

Assignee(s): IT M R MEDIC L 1997 LTD ; DANIEL GOOR ; ITAMAR MEDICAL LTD ; ROBERT SCHNALL ; JACOB SHEFFY ; PERETZ LAVIE ; ITAMAR MEDICAL PO BOX

Inventor(s): (std): GUR DEHNIEHL A ; J SHEFFY ; JACOB SHEFFY ; LAVIE PERETZ ; LEHVI PERETTS ; PERETZ LAVIE ; ROBERT P SCHNALL ; RP SCHNALL ; SCHNALL ROBERT ; SCHNALL ROBERT P ; DA GOOR ; DANIEL A GOOR ; GOOR DANIEL ; GOOR DANIEL A ; SHEFFI DZHEHKOB ; SHEFFY JACOB ; SHNEHL ROBERT P ; SHEFFY J ; SCHNALL R P ; PERETTS LEHVI ; LEHVI PERETTS GUR DEHNIEHL A S ; GOOR D A ; DZHEHKOB SHEFFI

Inventor(s): DANIEL GOOR ; D A GOOR ; LEHVI PERETTS GUR DEHNIEHL A SHEFFI DZHEHKOB SHNEH ; LEHVI PERETTS GUR DEHNIEHL A ; ROBERT SCHNALL ; R P SCHNALL ; GOOR DANIELA ; SCHNALL ROBERTP

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; CULLENS PATENT AND TRADE MARK ATTORNEYS; CULLENS PTY LTD; GOWLING LAFLEUR HENDERSON LLP; OGILVY RENAULT LLP SENCRL SRL; GRONER MANFRED ET AL; GE EHRLICH 1995 LTD

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Title: SYSTEMS AND METHODS FOR CONTROLLING ACQUISITION OF SENSOR INFORMATION

Abstract: Systems and methods are described for controlling acquisition of sensor information, including: one or more condition sensors, one or more physiological sensors, and a computing device including a processor programmed to query the condition sensors to initiate measurement of one or more conditions of an individual relative to the one or more physiological sensors; receive a set of condition sensor values from the condition sensors; assign a predictive value to the set of condition sensors values; query at least one of the one or more physiological sensors to measure one or more physiological parameters of the individual if the assigned predictive value of the set of condition sensor values meets or exceeds a minimum predictive value threshold; and re-query at least one of the one or more condition sensors if the assigned predictive value of the set of condition sensors fails to meet or exceed the minimum predictive value threshold.

Classifications:

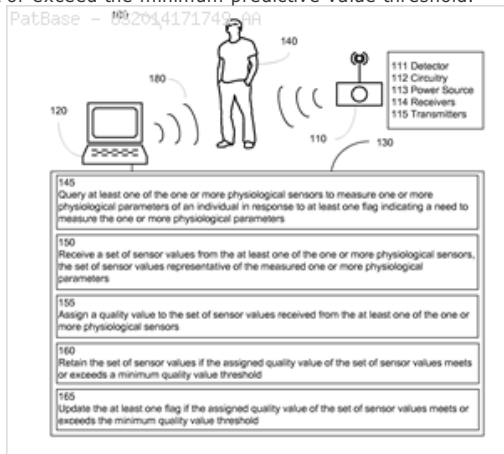
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G06F19/10 (Advanced/Invention)

CPC: A61B5/0015 A61B5/002 A61B5/0022 A61B5/02055

A61B5/7221 A61B5/7275 G16H40/63 G06F19/00

US: 1/1 600/300 702/19



Family:

Publication number	Publication date	Application number	Application date
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EP2934301 A4	20160817	EP20130864582	20131217
US2014171749 AA	20140619	US20120720635	20121219
US2014172310 AA	20140619	US20120720593	20121219
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WO14099969 A1	20140626	WO2013US75745	20131217

Priority:

US20120720593 20121219

US20120720635 20121219

WO2013US75745 20131217

Probable Assignee: ELWHA LLC

Assignee(s): (std): ELWHA LLC

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Inventor(s): WOOD LOWELL L

Agent(s): D YOUNG AND CO LLP; MALASKA STEPHEN L ET AL

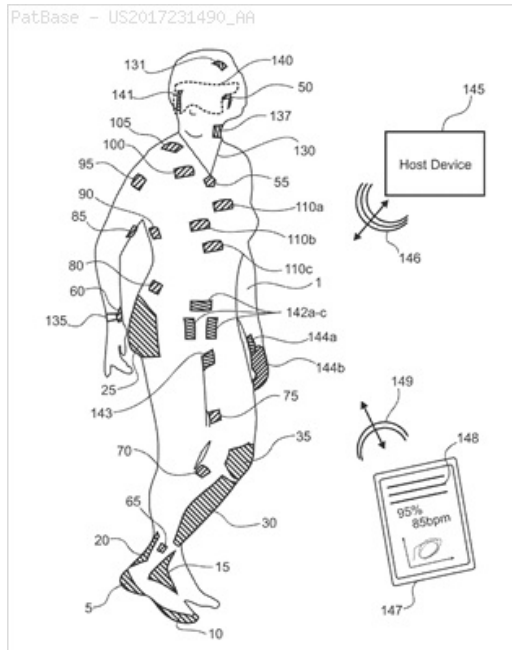
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Title: ANS ASSESSMENT SYSTEMS, KITS, AND **METHODS**

Abstract: Systems, **devices**, **methods**, and kits for monitoring one or more physiologic and/or physical signals from a subject are disclosed. A system including a head mounted display to monitor one or more physiologic signals from the face or head of the subject is disclosed. A **method** for analyzing an ocular parameter of the subject to determine a sympathetic and a parasympathetic outflow thereto is disclosed.

Classifications:

International (IPC 8-9): A61B18/02 A61B18/06 A61B18/14
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A61B5/0205 A61B5/0488 A61B5/11 A61B5/145 A61B5/16
A61B90/00 A61F7/00 A61M5/00 A61N1/36
A61N7/02 (Advanced/Invention)
CPC: A61B5/40 A61B5/0051 A61B5/01 A61B5/021 A61B5/0261
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Family:

Publication number	Publication date	Application number	Application date
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Priority:

US20140035444P 20140810 US20140060302P 20141006 WO2015US44235 20150807
US20150503180 20150807

Probable Assignee: AUTONOMIX MEDICAL INC

Assignee(s): (std): AUTONOMIX MEDICAL INC

Assignee(s): SCHWARTZ ROBERT ; TOTH LANDY

Inventor(s): (std): SCHWARTZ ROBERT ; SCHWARTZ ROBERT S ; TOTH LANDY

Agent(s): SPRUSON AND FERGUSON; KIRBY EADES GALE BAKER; WILLIAMS DAVID JOHN; LEWIS WILLIAM E

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR
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Title: DISORDERED BREATHING MANAGEMENT SYSTEM AND **METHODS**

Abstract: An approach to providing disordered breathing therapy includes sensing conditions affecting the patient and adapting a therapy to mitigate the disordered breathing based on the sensed conditions. The therapy may be adapted to enhance therapy effectiveness, to provide therapy that reduces an impact of the therapy on the patient, or to achieve other therapeutic goals. Cardiac electrical therapy to mitigate the disordered breathing may include various cardiac pacing regimens and/or delivery of non-excitatory electrical stimulation to the heart.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/0205 A61B5/04 A61B5/08 A61B5/085 A61B5/103 A61B5/11 A61K9/22 A61L9/04 A61M15/00 A61M16/00 A61M16/10 A61M31/00 A61N1/18 A61N1/20 A61N1/36 A61N1/362 A61N1/365 G06F19/00 (Advanced/Invention); A61B5/0215 A61B5/024 A61B5/042 A61B5/0464 A61B5/0476 A61B5/0488 A61B5/0496 A61B5/053 A61B5/083 A61B5/087 A61B5/113 A61N1/37 (Advanced/Non-invention)

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A61M2230/10 A61M2230/202 A61M2230/205 A61M2230/30

A61M2230/432 A61M2230/435 A61M2230/50 A61M2230/60 A61M2230/63 A61M2230/65 A61N1/3601 A61N1/362 A61N1/3627

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A61M16/026

European: A61B5/00B8 A61B5/00B9 A61B5/0205B A61B5/024A A61B5/042B A61B5/08J A61B5/103 A61B5/113B

A61B5/11Q A61B5/145 A61B5/40D4 A61B5/48C4 A61B5/48C6 A61B5/48C8 A61M16/00K A61M16/06L A61M16/10

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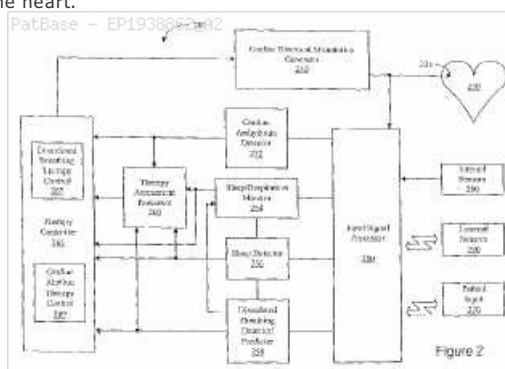
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K61M230/20D K61M230/30 K61M230/43C K61M230/43D K61M230/50 K61M230/60 K61M230/63 K61M230/65 K61N1/362

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**Family:**

Publication number	Publication date	Application number	Application date
EP1938862 A2	20080702	EP20080006191	20040818
EP1938862 A3	20100825	EP20080006191	20040818
EP1938862 B1	20111019	EP20080006191	20040818

Priority:

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US20030643154 20030818	US20030643203 20030818	US20030504229P 20030918
US20040798794 20040311	US20040824776 20040415	US20040920675 20040817
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EP20040781543 20040818		

Probable Assignee: CARDIAC PACEMAKERS INC

Assignee(s): (std): CARDIAC PACEMAKERS INC

Inventor(s): (std): HARTLEY JESSE W ; HATLESTAD JOHN D ; KENKNIGHT BRUCE H ; LEE KENT ; LOVETT ERIC G ; NI QUAN ; STAHMANN JEFFREY E

Inventor(s): QUAN NI

Agent(s): CHARIG RAYMOND JULIAN ET AL; CHARIG RAYMOND JULIAN

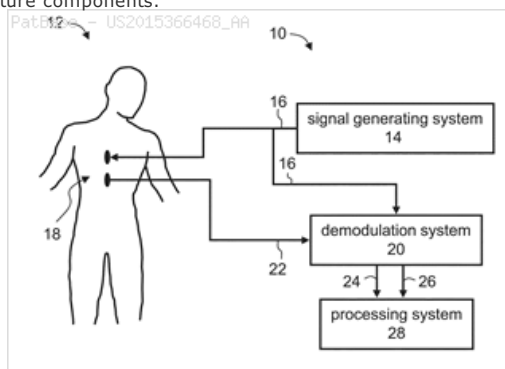
Designated states: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR

Title: **METHOD** AND SYSTEM FOR MONITORING HEMODYNAMICS

Abstract: A system for monitoring hemodynamics of a subject is disclosed. The system comprises: a signal generating system configured for providing at least an output electric signal and transmitting the output signal to an organ of the subject. The system also comprises a demodulation system configured for receiving an input electrical signal sensed from the organ responsively to the output electric signal, and for modulating the input signal using the output signal to provide an in-phase component and a quadrature component of the input signal. The system also comprises a **processing** system configured for monitoring the hemodynamics based on the in-phase and the quadrature components.

Classifications:

International (IPC 8-9): A61B A61B10/00 A61B5/00 A61B5/02 A61B5/0205 A61B5/026 A61B5/029 A61B5/0295 A61B5/0402 A61B5/0452 A61B5/05 A61B5/053 A61B5/08 A61B5/145 A61B5/1477 A61B8/06 (Advanced/Invention); A61B5/024 (Advanced/Non-invention); A61B (Subclass/Invention)
CPC: A61B5/053 A61B5/412 A61B5/029 A61B5/4818 A61B5/7228 A61B5/024 A61B5/0402 A61B5/4836 A61B5/7239 A61B5/0205 A61B5/14535 A61B8/065 A61B5/0452 A61B5/02028 A61B5/02007 A61B5/4875 A61B5/026
US: 1/1 600/481 600/483 600/526



Family:

Publication number	Publication date	Application number	Application date
AU2012288416 AA	20130131	AU20120288416	20120725
AU2012288416 BB	20161222	AU20120288416	20120725
AU2017201920 AA	20170413	AU20170201920	20170321
BR112013028102 A2	20170627	BR20131128102	20120725
CA2876431 AA	20141211	CA20122876431	20120725
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CN103796576 B	20160330	CN201280044422	20120725
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JP2014521433 T2	20140828	JP20140522213T	20120725
JP2017148534 A2	20170831	JP20170074554	20170404
JP6124886 B2	20170510	JP20140522213T	20120725
KR20140058570 A	20140514	KR20147004462	20120725
US2015366468 AA	20151224	US20120235101	20120725
US2016310013 AA	20161027	US20160201456	20160703
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US9380947 BB	20160705	US20120235101	20120725
WO13014671 A1	20130131	WO20121L50271	20120725
WO13014671 A8	20130411	WO20121L50271	20120725

Priority:

US20110511163P	20110725	AU20120288416	20120725	JP20140522213T	20120725
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Probable Assignee: CHEETAH MEDICAL INC

Assignee(s): (std): AVIDOR YOAV ; BARUCH LEVY ; MARCOVITCH SHMUEL ; CHEETAH MEDICAL INC ; LEVY BARUCH ; ROTENBERG DAVID ; DAN AVIDOR ; ELIEZER SHUSMAN ; DAVID ROTENBERG ; SHUSMAN ELIEZER ; SHMUEL MARCOVITCH ; YOAV AVIDOR ; AVIDOR DAN

Assignee(s): AVIDOR DAN DECEASED ; SILICON VALLEY BANK ; CHEETAH MEDICAL INC400 - 2711 CENTERVILLE ROADWILMINGTONDE19808US

Inventor(s): (std): BARUCH LEVY ; DAN AVIDOR ; DAVID ROTENBERG ; DINUR MORDECHAI ; ELIEZER SHUSMAN ; LEVY BARUCH ; AVIDOR DAN ; AVIDOR YOAV ; MARCOVITCH SHMUEL ; ROTENBERG DAVID ; SARFATI OMRI ; SCHUSMAN ELIEZER ; SHMUEL MARCOVITCH ; SHUSMAN ELIEZER ; YOAV AVIDOR

Inventor(s): SHUSMAN ELIEZERIL ; ROTENBERG DAVIDIL ; MARCOVITCH SHMUELIL ; AVIDOR YOAVIL ; AVIDOR DAN DECEASED ; AVIDOR DAN DECEASEDIL ; LEVY BARUCHIL

Agent(s): GRIFFITH HACK ; INTEGRAL IP ; DENNEMEYER AND ASSOCIATES SA ; GE EHRICH 1995 LTD ; GE EHRICH 1995 LTD ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: DISORDERED BREATHING MANAGEMENT SYSTEMS AND **METHODS**

Abstract: An approach to providing disordered breathing therapy includes sensing conditions affecting the patient and adapting a therapy to mitigate the disordered breathing based on the sensed conditions. The therapy may be adapted to enhance therapy effectiveness, to provide therapy that reduces an impact of the therapy on the patient, or to achieve other therapeutic goals. Cardiac electrical therapy to mitigate the disordered breathing may include various cardiac pacing regimens and/or delivery of non-excitatory electrical stimulation to the heart.

Classifications:

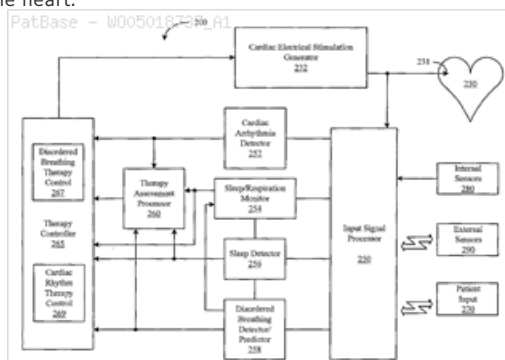
International (IPC 8-9): A61B5/00 A61B5/0205 A61B5/04 A61B5/08 A61B5/085 A61B5/103 A61B5/11 A61B5/16 A61L9/04 A61M15/00 A61M16/00 A61M16/10 A61N1/18 A61N1/20 A61N1/36 A61N1/362 A61N1/365 G06F19/00 (Advanced/Invention); A61B5/0215 A61B5/024 A61B5/042 A61B5/0464 A61B5/0476 A61B5/0488 A61B5/0496 A61B5/053 A61B5/083 A61B5/087 A61B5/113 A61N1/37 (Advanced/Non-invention)

International (IPC 1-7): A61N1/362

CPC: A61B5/1116 A61B5/1118 A61B5/1135 A61B5/4812

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**Family:**

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Priority:

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WO2004US26883	20040818				

Probable Assignee: CARDIAC PACEMAKERS INC

Assignee(s): (std): CARDIAC PACEMAKERS INC

Inventor(s): (std): HARTLEY JESSE ; HARTLEY JESSE W ; HATLESTAD JOHN ; HATLESTAD JOHN D ; KENKNIGHT BRUCE ; KENKNIGHT BRUCE H ; LEE KENT ; LOVETT ERIC ; LOVETT ERIC G ; NI QUAN ; STAHMANN JEFFREY ; STAHMANN JEFFREY E

Agent(s): CHARIG RAYMOND JULIAN

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: **METHOD** AND **APPARATUS** FOR DIAGNOSING RESPIRATORY DISORDERS AND DETERMINING THE DEGREE OF EXACERBATIONS

Abstract: Disclosed herein are **apparatuses** and **methods** to monitor respiration and abnormal respiration events utilizing plethysmography. The **apparatuses** and **methods** provide an alternative to conventional respiration monitoring **methods** while enabling accurate yet minimally interruptive and invasive monitoring of respiration. The **methods** and **apparatuses** may be employed in the context of sleep studies to determine respiratory related sleep disorders.

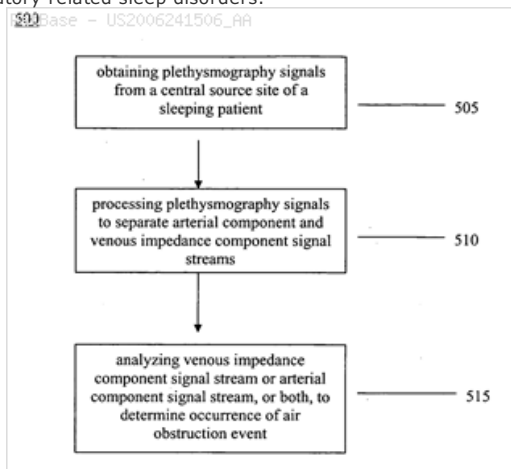
Classifications:

International (IPC 8-9): A61B5/00 A61B5/02 A61B5/0205 A61B5/08 A61B5/1455 A61M16/00 A61M16/10 (Advanced/Invention); A61B5/024 A61B5/085 A61B5/107 (Advanced/Non-invention); A61B5/00 A61B5/02 A61B5/08 A61B5/145 A61M16/00 (Core/Invention)

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European: A61B5/08 A61B5/41B K61B5/107C

US: 1/1 128/204.23 128/204.230P 600/301 600/484 600/500 600/529 600/529P 600/529S



Family:

Publication number	Publication date	Application number	Application date
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WO06116469 A2	20061102	WO2006US15763	20060425
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Priority:

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Probable Assignee: CONVERGENT ENGINEERING INC

Assignee(s): (std): EULIANO NEIL R ; CONVERGENT ENGINEERING INC ; MELKER RICHARD J ; UNIV FLORIDA

Assignee(s): OF FLORIDA RESEARCH FOUNDATION INC UNIV223 GRINTER HALLGAINESVILLEFL32611US ; OF FLORIDA RESEARCH FOUNDATION UNIV ; EULIANO NEIL ; EULIANO NEIL R4 - 4817 S.W. 34TH STREETGAINESVILLEFL32801US ; FLORIDA RESEARCH FOUNDATION INC UNIV ; OF FLORIDA RESEARCH FOUNDATION INC UNIV

Inventor(s): (std): EULIANO NEIL R ; MELKER RICHARD J

Inventor(s): MELKER RICHARD JUS ; EULIANO NEIL R4 - 4817 S.W. 34TH STREETGAINESVILLEFL32801US ; MELKER RICHARD ; EULIANO NEIL

Agent(s): GOWLING LAFLEUR HENDERSON LLP; PAPA ELISABETTA ET AL; BEUSSE BROWNLEE WOLTER MORA AND MAIRE; BEUSSE WOLTER SANKS MORA AND MAIRE; TIMOTHY H; THOMAS HORSTEMEYER LLP

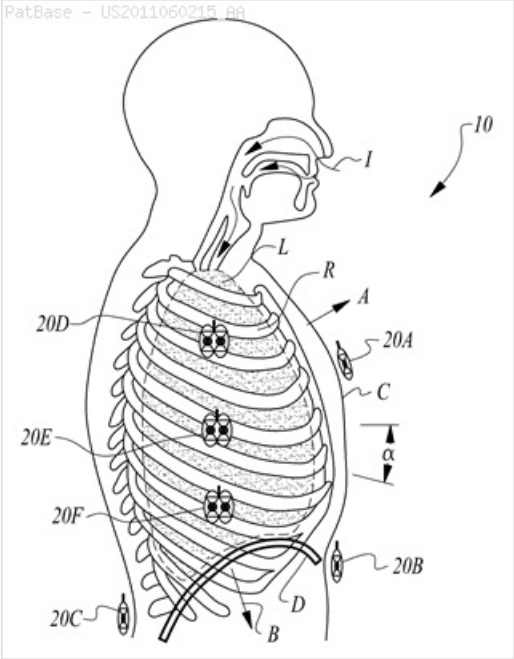
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Title: APPARATUS AND METHOD FOR CONTINUOUS NONINVASIVE MEASUREMENT OF RESPIRATORY FUNCTION AND EVENTS

Abstract: An apparatus and method for non-invasive and continuous measurement of respiratory chamber volume and associated parameters including respiratory rate, respiratory rhythm, tidal volume, dielectric variability and respiratory congestion. In particular, a non-invasive apparatus and method for determining dynamic and structural physiologic data from a living subject including a change in the spatial configuration of a respiratory chamber, a lung or a lobe of a lung to determine overall respiratory health comprising an ultra wide-band radar system having at least one transmitting and receiving antenna for applying ultra wide-band radio signals to a target area of the subject's anatomy wherein the receiving antenna collects and transmits signal returns from the target area.

Classifications:

International (IPC 8-9): A61B1/32 A61B17/00 A61B17/02 A61B5/00 A61B5/05 A61B5/08 A61B5/087 A61B5/091 A61B5/107 A61B5/113 (Advanced/Invention); A61B5/00 (Advanced/Non-invention)
CPC: A61B5/0002 A61B5/0507 A61B5/087 A61B5/091 A61B5/1135 A61B5/6804 A61B5/6805 A61B5/6831 A61B5/6833 A61B2560/0412 A61B5/1075 A61B5/0816 A61B5/0803 A61B17/02
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US: 600/407 600/407S 600/425 600/425P 600/430 600/430S



Family:

Publication number	Publication date	Application number	Application date
US2011060215 AA	20110310	US20100749861	20100330
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WO16160397 A1	20161006	WO2016US23409	20160321

Priority:

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Probable Assignee: LIFEWAVE BIOMEDICAL INC

Assignee(s): (std): MURRAY JR KENNETH ARLAN ; TUPIN JOE PAUL ; TUPIN JOHN DAVID ; TUPIN JR JOE PAUL ; TUPIN JOE P ; TUPIN JR JOE P ; TEDAN SURGICAL INNOVATIONS LLC ; LIFEWAVE BIOMEDICAL INC

Assignee(s): LIFEWAVE INC ; CALIFORNIA HEALTHCARE FOUNDATION

Inventor(s): (std): MURRAY JR KENNETH ARLAN ; TUPIN JOE P ; TUPIN JOE PAUL ; TUPIN JOHN DAVID ; TUPIN JR JOE P ; TUPIN JR JOE PAUL ; YOUNG ADAM B ; TERRAMANI THOMAS T ; BASS DANIEL

Agent(s): SHAY GLENN LLP; KRAMER TERRY W

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: SMART WATCH AND HUMAN-TO-COMPUTER INTERFACE FOR MONITORING FOOD CONSUMPTION

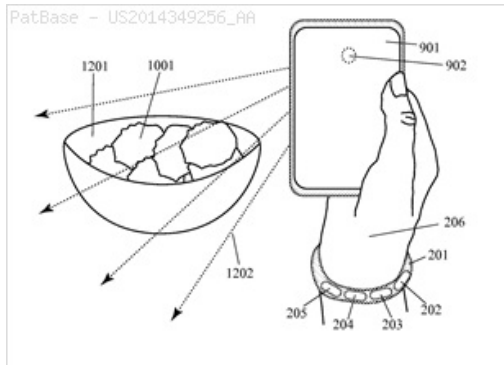
Abstract: This invention is a **device** and system for monitoring a person's food consumption comprising: a wearable sensor that automatically collects data to **detect** probable eating events; a voluntary human-to-computer interface that is used by the person to enter food consumption data wherein the person is prompted to enter food consumption data when an eating event is **detected** by the wearable sensor; and a data analysis component that analyzes food consumption data to estimate the types and amounts of ingredients, nutrients, and/or calories that are consumed by the person. In an example, the wearable sensor can be part of a smart watch or smart bracelet. In an example, the voluntary human-to-computer interface can be part of a smart phone. The integrated operation of the wearable sensor and the voluntary human-to-computer interface disclosed in this invention offers accurate measurement of food consumption with low intrusion into the person's privacy.

Classifications:

International (IPC 8-9): A47G21/02 G06F1/16 G06F17/00 G06F19/00 G09B19/00 (Advanced/Invention)

CPC: G06F1/163 A47G21/02 G06F19/3475 G09B19/0092

US: 434/127

**Family:**

Publication number	Publication date	Application number	Application date
US2014349256 AA	20141127	US20130901113	20130523
US9529385 BB	20161227	US20130901113	20130523

Priority:

US20130901113 20130523

Probable Assignee: MEDIBOTICS LLC

Assignee(s): (std): CONNOR ROBERT A ; MEDIBOTICS LLC

Inventor(s): (std): CONNOR ROBERT A

Title: CALORIC INTAKE MEASURING SYSTEM USING SPECTROSCOPIC AND 3D IMAGING ANALYSIS

Abstract: This invention is a caloric intake measuring system comprising: a spectroscopic sensor that collects data concerning light that is absorbed by or reflected from food, wherein this food is to be consumed by a person, and wherein this data is used to estimate the composition of this food; and an imaging **device** that takes images of this food from different angles, wherein these images from different angles are used to estimate the quantity of this food. Information concerning the estimated composition of the food and information concerning the estimated quantity of the food can be combined to estimate the person's caloric intake.

Classifications:

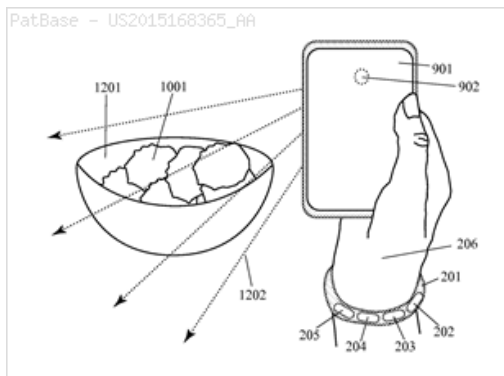
International (IPC 8-9): G01N21/27 G01N21/33 G01N21/35

G01N33/02 (Advanced/Invention);

G01N21/31 (Advanced/Non-invention)

CPC: G01N33/02 G01N21/31 G01G19/4146 G01G19/56 G06F19/321
G06F19/3475 G16H50/20

US: 1/1 250/339.01 250/372 356/402 356/51



Family:

Publication number	Publication date	Application number	Application date
US2015168365 AA	20150618	US20130132292	20131218
US9442100 BB	20160913	US20130132292	20131218

Priority:

US20130132292 20131218

Probable Assignee:

MEDIBOTICS LLC

Assignee(s): (std):

CONNOR ROBERT A ; MEDIBOTICS LLC

Inventor(s): (std):

CONNOR ROBERT A

Title: **METHOD** AND **APPARATUS** FOR THE **NON-INVASIVE DETECTION** OF PARTICULAR SLEEP-STATE CONDITIONS BY MONITORING THE PERIPHERAL VASCULAR SYSTEM

Abstract: **Method** and **apparatus** for monitoring the sleep state condition of an individual by using an external probe applied to a peripheral body location, such as the individual's finger or toe, for **detecting** changes in the peripheral vascular bed volume of the individual. A predetermined pressure field is applied to the distal end of the peripheral body location, including its distal-most extremity, to prevent the occurrence of venous pooling within and distal to the peripheral body location. The probe produces an output corresponding to changes in the peripheral arterial bed volume at the peripheral body location, which output provides an indication of the sleep state condition of the individual. Such information is useful in diagnosing and/or in treating, a number of sleep disorders as well as other conditions, such as impotence, diabetes, and various disorders in children.

Classifications:

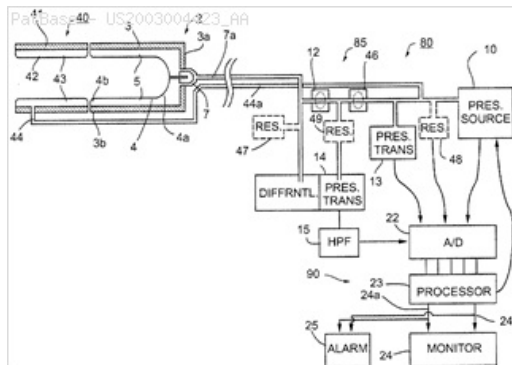
International (IPC 8-9): A61B5/02 A61B5/0205 A61B5/022 A61B5/0476 A61B5/08 A61B5/083 A61B5/087 A61B5/103 A61B5/16 (Advanced/Invention); A61B5/00 A61B5/0205 A61B5/0215 A61B5/022 A61B5/087 (Advanced/Non-invention); A61B5/0205 A61B5/0476 A61B5/08 A61B5/103 A61B5/16 (Core/Invention); A61B5/00 A61B5/0205 A61B5/0215 A61B5/022 A61B5/08 (Core/Non-invention)

International (IPC 1-7): A61B5/02 A61B5/0205 A61B5/022 A61B5/08 A61B5/103 A61B5/16

CPC: A61B5/02007 A61B5/0205 A61B5/0476 A61B5/0878 A61B5/1455 A61B5/4818 A61B5/6826 A61B5/6838 A61B5/415 A61B5/1073 A61B5/02154 A61B5/02241 A61B5/4393 A61B5/4809 A61B5/4812

European: A61B5/02D A61B5/0476 A61B5/107C A61B5/43M4 A61B5/48C4 A61B5/48C8 A61B5/68B2J1 A61B5/68B3L K61B5/0205 K61B5/0215D K61B5/022D2 K61B5/087J K61B5/1455 K61B5/48C2 K61B5/48C4

US: 600/481 600/483 600/500 600/500P 600/504 600/507



Family:

Publication number	Publication date	Application number	Application date
AT397888 E	20080715	AT20010910113T	20010301
AU2001237695 AA	20010912	AU20010237695	20010301
AU2001237695 BB	20041104	AU20010237695	20010301
AU200137695 A1	20010912	AU20010037695	20010301
AU200137695 A5	20010912	AU20010037695	20010301
BRPI0109026 A	20030603	BR2001PI09026	20010301
CA2401285 AA	20020827	CA20012401285	20010301
CA2401285 C	20091117	CA20012401285	20010301
CN1430484 A	20030716	CN20018008958	20010301
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NZ521115 A	20040528	NZ20010521115	20010301
US2003004423 AA	20030102	US20020195464	20020716
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Priority:

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WO2001IL00199 20010301	US20010305917P 20010716	US20010305197P 20010716
US20020368136P 20020329	US20020195464 20020716	IL20020151437 20020822

Probable Assignee: ITAMAR MEDICAL LTD

Assignee(s): (std): ITAMAR MEDICAL LTD ; LAVIE PERETZ ; SCHNALL ROBERT P ; SHEFFY JACOB

Inventor(s): (std): LAVIE P ; LAVIE PERETZ ; PILLAR GIORA ; SCHNALL R P ; SCHNALL ROBERT P ; SHEFFY J ; SHEFFY JACOB ; SCHNALL ROBERT ; RP SCHNALL ; ROBERT P SCHNALL ; PERETZ LAVIE ; P LAVIE ; JACOB SHEFFY ; J SHEFFY

Inventor(s): R P SCHNALL

Agent(s): CULLENS PATENT AND TRADE MARK ATTORNEYS; CULLENS PTY LTD; OGILVY RENAULT LLP SENCRL SRL; SCHMITZ JEAN MARIE ET AL; GE EHRICH 1995 LTD

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Title: NASAL CANNULA

Abstract: A nasal cannula comprising: a base portion defining a gas passageway and one or more nozzles defining a second gas passageway in gaseous communication with the first gas passageway for directing a therapeutic flow of gas to a user's nares. The nasal cannula may include one or more sensors for measuring the properties of gas within a user's nares. The nozzle may be a nasal insert that is inserted into the user's nares; recesses or grooves are provided for preventing sealing of the nasal insert with the nare. The nozzle may be shaped to avoid insertion into the user's nares, thus preventing sealing with the nares. A stop may be positioned between two nozzles to engage a user's columella and prevent the nozzles from inserting into the user's nares. Elongate extensions are provided for inserting into the user's nares and supporting sensors for measuring gas properties therein.

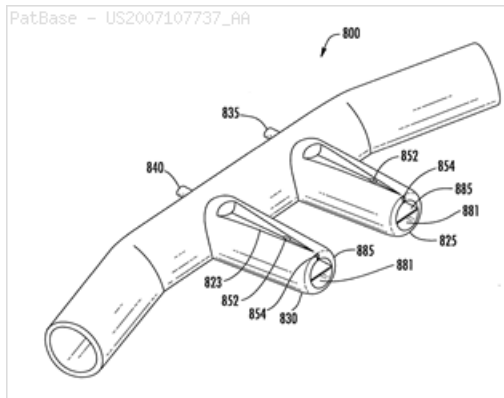
Classifications:

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CPC: A61M16/0057 A61M16/0488 A61M2016/0021 A61M2016/0039 A61M2205/502 A61M16/049 A61M16/0858 A61M16/161 A61M2205/3331 A61M2205/3379 A61M2230/42 A61M16/0672 A61M16/0003 A61M16/0666 A61M16/1075 A61M16/12 A61M2016/0027 A61M2210/0618 A61M2210/0625 A61J11/0005 A61M16/0066 A61M16/0493 A61M16/0677 A61M16/085 A61M16/107 A61M16/125 A61M16/142 A61M16/18 A61M16/203 A61M2016/0024 A61M2016/1025 A61M2016/103 A61M2202/0208 A61M2205/18 A61M2205/3368 A61M2205/3653 A61M2205/50 A61M2230/432 A61M2230/435 A61M2230/50 A61J7/0053 A61J17/001 A61J17/006 A61M16/0096 A61M16/0875 A61M16/0605 A61M2016/0661 A61M16/0069 A61M16/1095 A61M16/0051 A61M16/20 A61M2205/3334 A61M16/16 A61M16/0816 A61M16/105 A61M16/109 A61M16/101 A61M2230/005 A61B5/0816 A61B5/087 A61B5/14551 A61M16/122 A61M16/024 A61B5/0205 G06F19/00

European: A61J11/00C A61M16/04M A61M16/06L A61M16/10H A61M16/12 A61M16/16 K61J17/00Z4 K61M16/00A10 K61M16/00A14B4 K61M16/00A8B2 K61M16/00A8B4 K61M16/00M6 K61M16/04M1 K61M16/04M1B K61M16/06L2B K61M16/08D6G K61M16/08D6P K61M16/10A10C K61M16/10A10D K61M16/10F2B K61M16/10H K61M16/10H4 K61M16/12 K61M16/12A K61M16/12A6 K61M16/14B K61M16/16 K61M16/16B K61M16/18 K61M16/20A2P K61M202/02A K61M205/18 K61M205/33P K61M205/33T K61M205/33V K61M205/36J K61M205/50 K61M205/50A K61M210/06C K61M210/06D K61M230/42 K61M230/43C K61M230/43D K61M230/50

US: 1/1 128/200.24 128/200.26 128/202.27 128/203.12 128/203.14 128/203.26 128/204.17 128/204.18 128/204.180P 128/204.21 128/204.23 128/205.25 128/206.11 128/206.29 128/206.290S 128/207.13 128/207.18 128/207.180P 128/207.180S



Family:

Publication number	Publication date	Application number	Application date
AU2006290202 AA	20070322	AU20060290202	20060912
AU2006348403 AA	20080522	AU20060348403	20061214
AU2006348403 AH	20081218	AU20060348403	20061214
AU2007334506 AA	20080626	AU20070334506	20071207
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CA2688535 AA	20070322	CA20062688535	20060912
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CN101365509 A	20090211	CN200680041684	20061214
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EP1979030 A2	20081015	EP20060845376	20061214
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JP2009507615 T2	20090226	JP20080531342T	20060912
JP2009519759 T2	20090521	JP20080545789T	20061214
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US8522782 BB	20130903	US20070999675	20071206
US9381317 BB	20160705	US20120717572	20121217
US9427547 BB	20160830	US20120717442	20121217
WO07033347 A2	20070322	WO2006US35947	20060912
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WO08060295 A2	20080522	WO2006US47640	20061214
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Priority:

US20050716776P	20050912	US20050750063P	20051214	US20060792711P	20060418
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Probable Assignee: MERGENET MEDICAL INC

Assignee(s): (std): COLLAZO LOUIS JAVIER ; LANDIS ROBERT ; LANDIS ROBERT M ; LEWIS CHARLES ; LEWIS CHARLES A ; MERGENET MEDICAL INC ; MERGENET MEDICIAL INC

Inventor(s): (std): COLLAZO LOUIS JAVIER ; LANDIS ROBERT ; LANDIS ROBERT M ; LEWIS CHARLES ; LEWIS CHARLES A ; ROBERT LANDIS ; AGAMI CHRIS

Inventor(s): CHARLES A LEWIS ; CHARLES LEWIS

Agent(s): CULLENS PATENT AND TRADE MARK ATTORNEYS; CULLENS PTY LTD; GOWLING LAFLEUR HENDERSON LLP; MCFADDEN FINCHAM; GREY IAN MICHAEL ET AL; PRICE NIGEL JOHN KING; ALSTON AND BIRD LLP; CARTER DELUCA FARRELL AND SCHMIDT LLP; CAREY RODRIGUEZ GREENBERG AND PAUL LLP ATTN STEVEN M GREENBERG ESQ; ADAM; CAREY RODRIGUEZ GREENBERG OKEEFE; ADAM C; NATOF PAUL ET AL

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: **METHOD** AND SYSTEM FOR COMBINING PHYSIOLOGICAL AND MACHINE INFORMATION TO ENHANCE FUNCTION

Abstract: The present invention relates generally and specifically to combining biological sensors with external machines using machine learning to form computerized representations that can **control** effectors to deliver therapy or enhance performance.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/01 A61B5/0205

A61B5/024 A61B5/04 A61B5/0402 A61B5/0408 A61B5/0476

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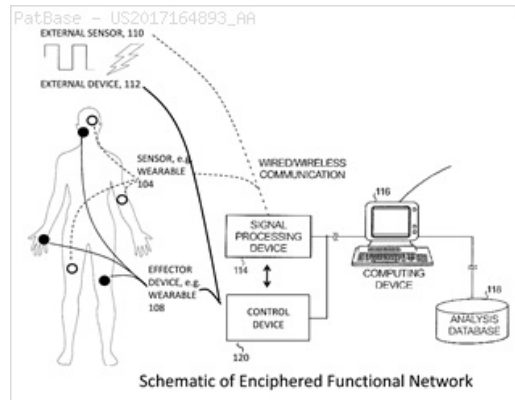
A61B5/145 A61N1/36 G06F3/01 (Advanced/Invention)

CPC: A61B5/4836 A61B5/04888 A61B5/0205 A61B5/0408

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A61B5/0476 A61B5/0488 A61B5/0531 A61B5/01 A61B5/14539

A61B5/024 A61B5/0816 A61B2560/0242 A61B5/40



Family:

Publication number	Publication date	Application number	Application date
CN106922125 A	20170704	CN201580058620	20150831
CN107205641 A	20170926	CN201580058515	20150825
EP3185751 A1	20170705	EP20150757627	20150825
EP3185755 A1	20170705	EP20150766279	20150831
JP2017529209 T2	20171005	JP20170531456T	20150831
JP2017534411 T2	20171124	JP20170530961T	20150825
US2017164893 AA	20170615	US20170443956	20170227
US2017196503 AA	20170713	US20170443888	20170227
WO16033118 A1	20160303	WO2015US46819	20150825
WO16033609 A1	20160303	WO2015US47820	20150831

Priority:

US20140043760P 20140829 WO2015US46819 20150825 WO2015US47820 20150831
 US20170443888 20170227 US20170443956 20170227

Probable Assignee: INCYPHAE INC

Assignee(s): (std): INCYPHAE INC

Inventor(s): (std): NARAYAN SANJIV M ; SEHRA RUCHIR

Agent(s): VOSSIUS AND PARTNER PATENTANWALTE RECHTSANWALTE MBB; DESHIMARU TAKESHI; MATSUSHITA MITSURU; KURASAWA ICHIRO; SCOLA DANIEL A JR ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: **APPARATUS** FOR **DETECTING** SLEEP **APNEA** USING **ELECTROCARDIOGRAM** SIGNALS

Abstract: There is provided a **method** of determining a diagnostic measure of sleep **apnea** including the following steps: acquiring an **electrocardiogram** signal, calculating a set of RR intervals and **electrocardiogram**-derived respiratory signal from said **electrocardiogram**, and hence calculating a set of spectral and time-domain measurements over time periods including power spectral density, mean, and standard deviation. These measurements are **processed** by a classifier model which has been trained on a pre-existing data base of **electrocardiogram** signals to provide a probability of a specific time period containing apneic episodes or otherwise. These probabilities can be combined to form an overall diagnostic measure. The system also provides a system and **apparatus** for providing a diagnostic measure of sleep **apnea**.

Classifications:

International (IPC 8-9): A61B5/04 A61B5/0402 A61B5/0432

A61B5/0456 G06F19/00 (Advanced/Invention);

A61B5/04 A61B5/0402 A61B5/0432 A61B5/0452

G06F19/00 (Core/Invention)

International (IPC 1-7): A61B5/04

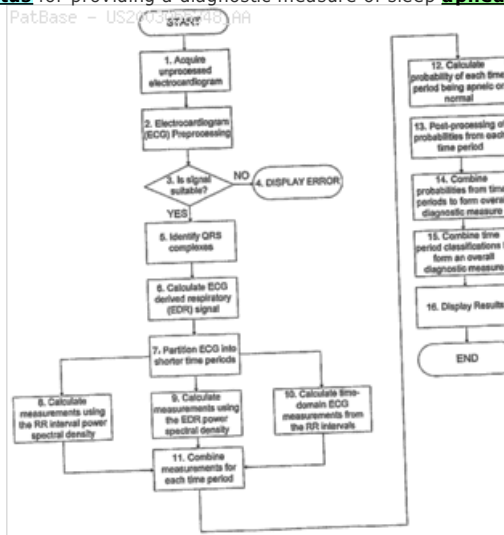
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European: A61B5/0432B A61B5/0456 A61B5/48C8 A61B5/72B

A61B5/72K12 G06F19/34K K61B5/72B2 K61B5/72K12B

US: 600/508 600/509 600/509P 600/513



Family:

Publication number	Publication date	Application number	Application date
US2003055348 AA	20030320	US20010952688	20010914
US2006184056 AA	20060817	US20060308429	20060324
US7025729 BB	20060411	US20010952688	20010914
US7862515 BB	20110104	US20060308429	20060324

Priority:

US20010952688 20010914 US20060308429 20060324

Probable Assignee: RESMED SENSOR TECHNOLOGIES LTD

Assignee(s): (std): BIANCAMED LTD ; UNIV DUBLIN

Assignee(s): UNIVERSITY COLLEGE DUBLIN ; BIANCAMED LIMITED ; COLLEGE DUBLIN BELFIELD NATIONAL UNIV ; COLLEGE DUBLIN UNIV ; RESMED SENSOR TECHNOLOGIES LTD

Inventor(s): (std): CHAZAL PHILLIP DE ; DE CHAZAL PHILIP ; HENEGHAN CONOR ; SHERIDAN ELAINE

Agent(s): CONNOLLY BOVE LODGE AND HUTZ LLP; CONNOLLY BOVE LODGE AND HUNTZ LLP; LARRY J; PILLSBURY WINTHROP SHAW PITTMAN LLP

Title: ADAPTIVE TEMPERATURE SENSOR FOR BREATH MONITORING **DEVICE**

Abstract: A system and **method** for sleep monitoring, diagnosing and sensing temperature and pressure for a breathing cycle of a patient including a sensing **device** suitable for both nasal and oral breath monitoring for measuring respiratory air wave and airflow information during a sleep **apnea** diagnostic session and **processing** the acquired air wave and airflow breathing information for input to conventional polysomnography equipment.

Classifications:**International (IPC 8-9):** A61B19/00 A61B5/00 A61B5/08 A61B5/087

A61B5/097 A61M16/00 (Advanced/Invention);

A61B19/00 A61B5/00 A61B5/08 A61M16/00 (Core/Invention)

CPC: A61M16/0841 A61M16/0858 A61M16/0833 A61B5/087

A61M2205/3368 A61B5/0878 A61B5/4818 A61M16/0666

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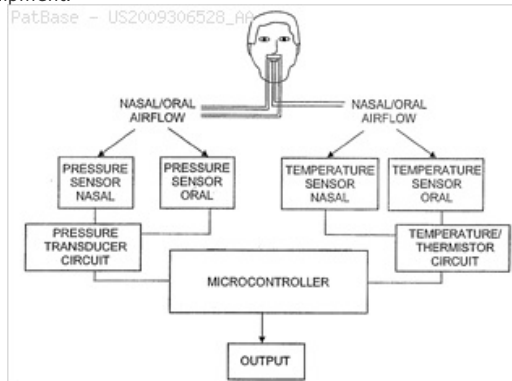
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US: 128/204.18 128/204.180S 128/204.23 128/204.230S 128/898

128/898S 600/529 600/529S 600/537 600/537P 600/538 600/538S

**Family:**

Publication number	Publication date	Application number	Application date
AU2009256038 AA	20091210	AU20090256038	20090605
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MX2010013391 A1	20110621	MX20100013391	20090605
MX339200 B	20160516	MX20100013391	20090605
US2009306528 AA	20091210	US20080134787	20080606
US2009306529 AA	20091210	US20090348599	20090105
US2010168600 AA	20100701	US20090647066	20091224
US2010168601 AA	20100701	US20090647070	20091224
US2011301484 AA	20111208	US20090996511	20090605
US8740808 BB	20140603	US20090996511	20090605
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WO09149336 A3	20100304	WO2009US46388	20090605
WO11079262 A2	20110630	WO2010US62000	20101223
WO11079262 A3	20111117	WO2010US62000	20101223

Priority:

US20080134787 20080606	US20090348599 20090105	US20090174704P 20090501
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Probable Assignee: SALTER LABS**Assignee(s):** (std): CHUA JAMES ; CURTI JAMES N ; SALTER LABS ; LAND ERIC C ; ADRIANCE KYLE L**Assignee(s):** HEALTHCARE FINANCIAL SOLUTIONS LLC SUCCESSOR AGENT AS ; CAPITAL ONE NATIONAL ASSOCIATION ADMINISTRATIVE AGENT AS ; GENERAL ELECTRIC CAPITAL CORP**Inventor(s):** (std): ADRIANCE KYLE ; ADRIANCE KYLE L ; CHUA JAMES ; CURTI JAMES N ; LAND ERIC C**Inventor(s):** ERIC C LAND ; JAMES N CURTI ; KYLE L ADRIANCE**Agent(s):** GRIFFITH HACK ; WOODRUFF NATHAN V ; WATTS PETER GRAHAM ; DAVIS AND BUJOLD PLLC ; MICHAEL J ; BUJOLD MICHAEL J ; BUJOLD MICHAEL J ET AL**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: SELF-ADAPTIVE SYSTEM FOR THE ANALYSIS OF BIOMEDICAL SIGNALS OF A PATIENT

Abstract: **Methods** and systems that (a) adaptively segment a raw data stream(s) of different type biomedical signals; (b) assign attribute values to each segment; (c) determine an attribute domain based on a point corresponding to said segment attribute value; (d) generate a cluster set(s) in said attribute domain that includes a combination of points; (e) obtain a probability of order of appearance of each cluster point, according to its property value; (f) use said probability to update each point's property value; (g) repeat (d) through (f) while varying combinations of points in clusters according to their most updated property values and points derived from additional raw data stream adaptive segmentations; (h) associate at least one updated cluster with a normal/abnormal physiological state based on reference clusters in said domain; and (i) obtain the change probability between normal/abnormal physiological states using said probability of the order of appearance.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/04 A61B5/0452

A61B5/103 A61M16/00 (Advanced/Invention);

A61B5/00 A61B5/04 A61B5/0452 A61B5/103

A61M16/00 (Core/Invention)

International (IPC 1-7): A61B A61B5/00 A61B5/04 A61B5/0452

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CPC: A61B5/00 A61B5/04 A61B5/0452 A61B5/103 A61B5/7207

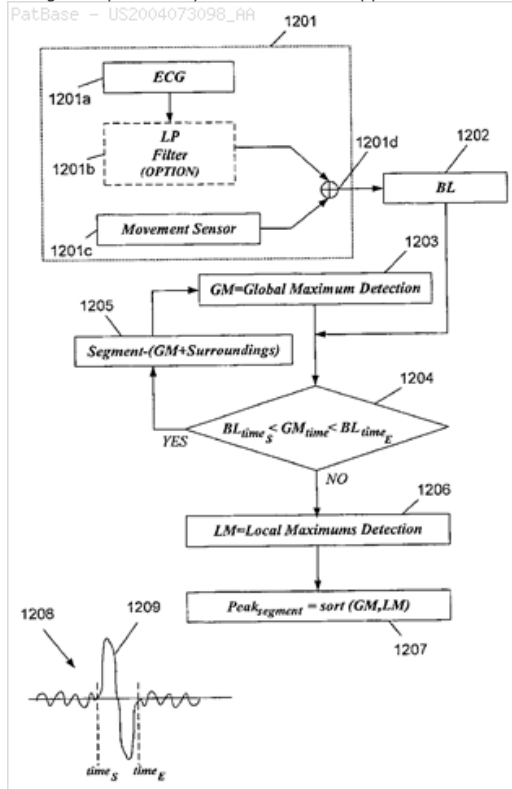
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European: A61B5/00 A61B5/04 A61B5/0452 A61B5/103 A61B5/72B

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US: 600/300 600/300P 600/544

**Family:**

Publication number	Publication date	Application number	Application date
AU2003208561 AA	20030724	AU20030208561	20030102
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Priority:

IL20020147502 20020107 WO2003IL00005 20030102

Probable Assignee: WIDEMED TECHNOLOGIES LTD

Assignee(s): (std): LEVI BARUCH ; TODROS KOBI ; PRESSMAN ASSAF ; MERGI ARYEH ; WIDEMED LTD ; GEVA AMIR

Assignee(s): KOBI TODROS ; WIDEMED TECHNOLOGIES LTD ; AMIR B GEVA ; ARYEH MERGI ; ASSAF PRESSMAN ; BARUCH LEVI

Inventor(s): (std): AMIR GEVA ; GEVA AMIR ; ASSAF PRESSMAN ; ARYEH MERGI ; BARUCH LEVI ; TODROS KOBI ; PRESSMAN ASSAF ; LEVI BARUCH ; MERGI ARYEH ; LEVI BARUCH ; MERGI ARYEH ; KOBI TODROS ; MERGI ARYE ; TODROS KOBY

Inventor(s): AMIR B GEVA

Agent(s): SANFORD TCOLB AND CO; LUZZATTO AND LUZZATTO; GE EHRLICH 1995 LTD

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SC SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: **CONTROLLING** GAS OR DRUG DELIVERY TO PATIENT

Abstract: An **apparatus** is provided for **controlling** gas delivery to a patient, to maintain effective respiratory function. The **apparatus** includes sensors for monitoring one or more physiological variables such as breathing airflow sound, EEG, EOG, ENG, and/or patient position. The **apparatus** includes a determining component for deriving, from the sensed variables, data representing a respiratory event and a component for determining from the data a gas pressure or modulated gas pressure to counteract tissue vibration associated with the respiratory event, thereby tending to cancel the respiratory event. The determining component may include an algorithm adapted to generate a gas pressure signal substantially 180 degrees out of phase relative to the tissue vibration. The **apparatus** may include a drug delivery module operable to deliver a drug in accordance with the sensed physiological variable and the determining component.

Classifications:

International (IPC 8-9): A61M15/00 A61M16/00 (Advanced/Invention);
A61M16/00 (Advanced/Non-invention);
A61M15/00 A61M16/00 (Core/Invention)

International (IPC 1-7): A61M16/00 A62B7/00

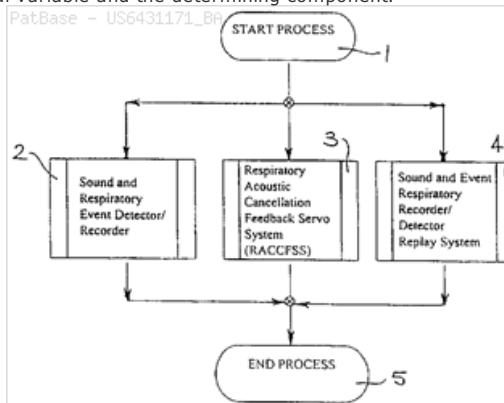
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A61M2230/10 A61M2230/18 A61M2230/205 A61M2230/60

European: A61M15/00 A61M16/00 K61M230/04 K61M230/08

K61M230/10 K61M230/18 K61M230/20D K61M230/60

US: 128/204.18 128/204.21 128/204.22 128/204.23 128/848 381/71



Family:

Publication number	Publication date	Application number	Application date
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AU199726269 A1	19981127	AU19970026269	19970507
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CN1154521 C	20040623	CN19971082153	19970507
CN1254297 A	20000524	CN19971082153	19970507
DE69730748 D1	20041021	DE19976030748	19970507
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Priority:

CN19971082153 19970507 WO1997AU00278 19970507

Probable Assignee: COMPUMEDICS LTD

Assignee(s): (std): BURTON DAVID ; COMPUMEDICS LTD ; COMPUMEDICS SLEEP PTY LTD ; KOMP JUMEDIKS SLIP PTI LTD ; COMPUMEDICS SLEEP PTY LTD

Assignee(s): COMPUMEDICS SLEEP PTY LTD ABBOTSFORD ; KOMP JUMEDIKS SLIP PTI. LTD. ; COMPUMEDICS MEDICAL INNOVATION PTY LTD ; COMPUMEDICS SLEEP PTY

Inventor(s): (std): BURTON DAVID ; DAVID BURTON ; D BURTON ; BERTON DEHVID ; BURTON D

Agent(s): COMPUMEDICS LTD; DR MARK FRIEDMAN LTD; GE EHRlich 1995 LTD; WOLFF BREGMAN AND GOLLER

Designated states: AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CU CZ DE DK EE ES FI FR GA GB GE GH GN GR HU IE IL IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SN SZ TD TG TJ TM TR TT UA UG US UZ VN YU

Title: ADAPTIVE PREDICTION OF CHANGES OF PHYSIOLOGICAL/PATHOLOGICAL STATES USING **PROCESSING** OF BIOMEDICAL SIGNALS

Abstract: A **method** and system predicts changes of physiological/pathological states in a patient, based on sampling, **processing** and analyzing a plurality of aggregated noisy biomedical signals. A reference database of raw data streams or features is generated by aggregating one or more raw data streams. The features are derived from the raw data streams and represent physiological/pathological states. Each feature consists of biomedical signals of a plurality of patients, wherein several patients have one or more of the physiological/pathological states. A path, which is an individual dynamics, between physiological/pathological states is obtained according to their order of appearance. Then, a prediction of being in physiological/pathological states, or transitions to physiological/pathological states in the patient, is obtained by comparing the individual dynamics with known dynamics, obtained from prior knowledge.

Classifications:

International (IPC 8-9): A61B5/0205 A61B5/04 A61B5/08

G06F19/00 (Advanced/Invention)

International (IPC 1-7): A61B5/04 G06F19/00

CPC: G16H50/50 A61B5/7275 A61B5/04012 A61B5/04525

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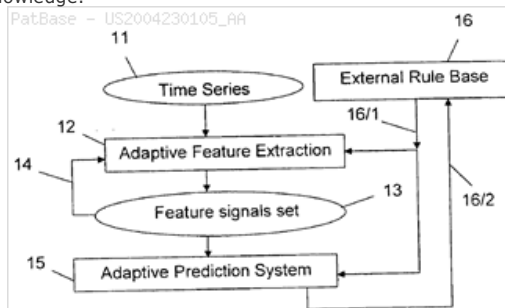
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US: 600/301 600/301P 600/481 600/484 600/484P 600/508 600/509

600/509S 600/513 600/513S 600/529 600/529S 600/544 600/544S



Family:

Publication number	Publication date	Application number	Application date
IL155955 A0	20031223	IL20030155955	20030515
US2004230105 AA	20041118	US20030678773	20031003
US2009292215 AA	20091126	US20050572481	20050721
US7225013 BB	20070529	US20030678773	20031003
WO04114193 A2	20041229	WO2004IL00412	20040513
WO04114193 A3	20050929	WO2004IL00412	20040513

Priority:

IL20030155955 20030515 WO2005IL00776 20050721

Probable Assignee: WIDEMED TECHNOLOGIES LTD

Assignee(s): (std): TODROS KOBY ; LEVY BARUCH ; SOLOMON DAVID ; WIDEMED LTD ; GEVA AMIR ; KEREM DANI

Assignee(s): KOBİ TODROS ; WIDEMED TECHNOLOGIES LTD ; AMIR B GEVA ; BARUCH LEVI ; DANI KEREM ; DAVID SOLOMON

Inventor(s): (std): GEVA AMIR ; GEVA AMIR B ; KEREM DAN ; KEREM DANI ; LEVI BARUCH ; LEVY BARUCH ; NOVODVORETS ALEX ; SOLOMON DAVID ; TODROS KOBİ ; TODROS KOBY

Inventor(s): KOBİ TODROS ; DAVID SOLOMON ; DANI KEREM ; BARUCH LEVI ; AMIR B GEVA

Agent(s): DARBY AND DARBY PC; MARSTELLER AND ASSOCIATES PC

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: **METHODS** AND **APPARATUS** FOR PRESSURE TREATMENT MODULATION

Abstract: Respiratory pressure treatment **apparatus** include automated methodologies for **controlling** modulation of pressure during an inspiratory phase or an expiratory phase of patient respiration. The changes in pressure result in various pressure waveforms that may be suitable for treating patients suffering from respiratory insufficiency such as Chronic Obstructive Pulmonary Disease. In example embodiments, a pressure rise or pressure increase may be **controlled** during a period of patient expiration by implementation of linear, cubic and/or quartic functions that serve as **control** parameters in a **processor** that **controls** a flow generator. One or more of the functions may optionally serve as a **control** parameter to **control** the pressure increase during an expiration period and a following decrease during the period of expiration. In some embodiments, such functions may further **control** a decrease in pressure during a period of patient inspiration, such as a decrease prior to mid-inspiration.

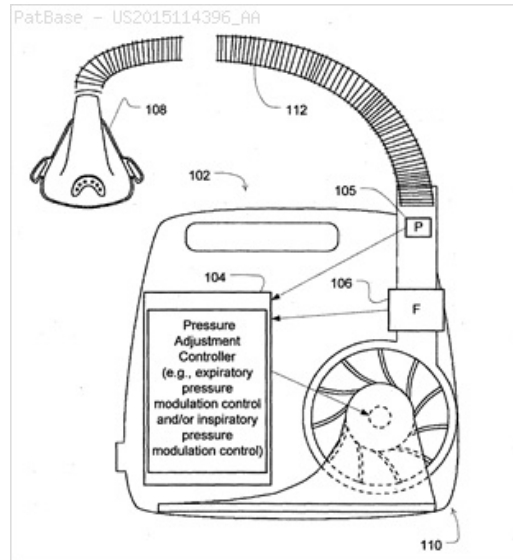
Classifications:

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A61M16/20 (Advanced/Invention)

CPC: A61M16/1055 A61M16/16 A61M2016/0039 A61M2205/3365
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US: 128/204.21 128/204.23



Family:

Publication number	Publication date	Application number	Application date
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AU2013255083 BB	20160310	AU20130255083	20130501
CN104507522 A	20150408	CN201380023191	20130501
CN104507522 B	20170620	CN201380023191	20130501
CN107308530 A	20171103	CN201710408715	20130501
EP2844323 A1	20150311	EP20130784504	20130501
EP2844323 A4	20151125	EP20130784504	20130501
JP2015515868 T2	20150604	JP20150509260T	20130501
NZ630525 A	20160624	NZ20130630525	20130501
NZ720382 A	20171124	NZ20130720382	20130501
US2015114396 AA	20150430	US20130398266	20130501
WO13163687 A1	20131107	WO2013AU00448	20130501

Priority:

US20120641504P 20120502 CN201380023191 20130501 NZ20130630525 20130501
WO2013AU00448 20130501 US20130398266 20130501

Probable Assignee: RESMED LTD

Assignee(s): (std): RESMED LTD

Inventor(s): (std): ARMITSTEAD JEFFREY PETER ; RAMANAN DINESH

Agent(s): HALFORDS IP; VOSSIUS AND PARTNER; DAVIDSON GEOFFREY ROBERT ET AL

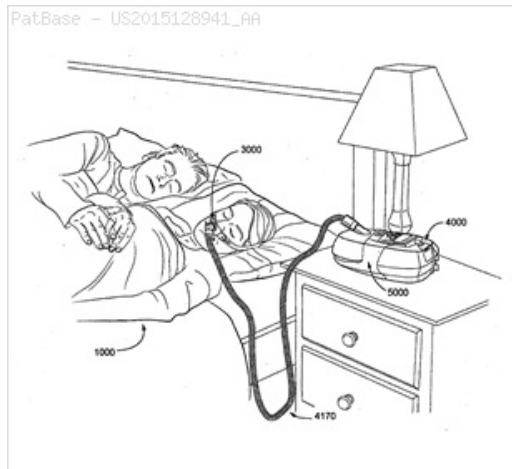
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Title: **METHOD** AND **APPARATUS** FOR ORAL FLOW THERAPY

Abstract: A therapy system configured to wash out or flush out the oral and/or nasal cavity to reduce the effective dead space and reduce the work of breathing. The system may displace the expired air in the oral and/or nasal cavity with atmospheric air, or air with altered concentrations, for example, increased humidity, or oxygen levels. A sealed oral interface is provided to the mouth of a patient to supply a volume of pressurized gas. A **control** system to synchronize the supply of pressurized gas with the patients respiratory cycle. The supply of respiratory gas may be provided during only a portion of the respiratory cycle.

Classifications:

International (IPC 8-9): A61M16/00 A61M16/04 A61M16/06
A61M16/08 A61M16/10 A61M16/12 A61M16/16 A61M16/20
A61M16/22 A62B7/02 A62B9/06 (Advanced/Invention)
CPC: A61M16/0683 A61M16/1055 A61M16/12 A61M2016/0039
A61M2205/3365 A61M2210/0625 A61M16/1065 A61M16/107
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A61M2205/36 A61M2205/52 A61M2205/82 A61M2230/00
A61M16/0069 A61M16/0666 A61M16/16 A61M2016/0027
A61M2202/0208 A61M16/0488 A61M16/049 A61M16/1045
A61M2202/0014 A61M16/024
US: 128/203.14 128/203.26 128/204.18 128/204.21 128/204.23
128/205.25



Family:

Publication number	Publication date	Application number	Application date
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Priority:

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NZ20130629335 20130430

Probable Assignee: RESMED LTD

Assignee(s): (std): RESMED LTD

Assignee(s): RESMED NZ LTD

Inventor(s): (std): WLODARCZYK PETER ; WANG NING ; RICHARDS GLENN ; HOLLEY LIAM

Agent(s): HALFORDS IP; VOSSIUS AND PARTNER; DAVIDSON GEOFFREY ROBERT ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR
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Title: SESSION BY-SESSION ADJUSTMENTS OF A **DEVICE** FOR TREATING SLEEP DISORDERED BREATHING

Abstract: A **method** is disclosed for operating a **device** that treats sleep disordered breathing (SDB) during successive treatment sessions; where the **device** provides continuous positive airway pressure during sleep. The **method** comprises the steps of applying a constant treatment pressure during a first session (20) and deriving a sleep disorder index (SDI) (22) representative of the number of SDB episodes that occurred during the first session. If the treatment pressure should be increased based on the SDI, it is increased during a second, subsequent session (24).

Classifications:

International (IPC 8-9): A61F5/56 A61M16/00

F16K31/02 (Advanced/Invention);

A61M16/00 (Core/Invention)

International (IPC 1-7): A61M16/00

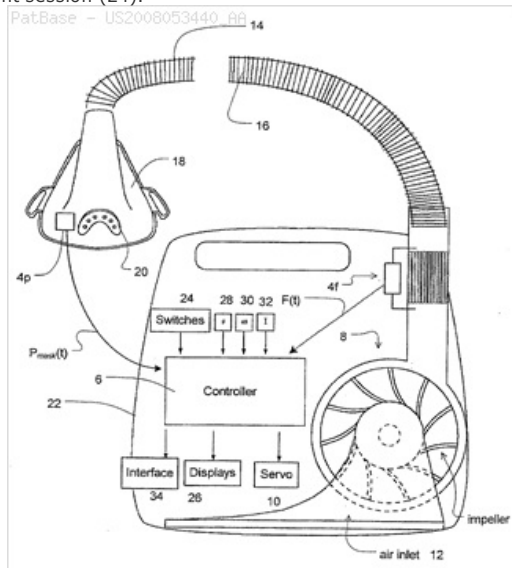
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European: A61M16/00 K61M16/00A11 K61M16/00A14B4

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US: 128/204.21 128/204.23 128/204.230P



Family:

Publication number	Publication date	Application number	Application date
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Probable Assignee: RESMED LTD

Assignee(s): (std): FARRUGIA STEVEN PAUL ; RESMED LIMITED ; RESMED LTD

Inventor(s): (std): FARRUGIA STEVEN PAUL ; PAUL FARRUGIA STEVEN ; STEVEN PAUL FARRUGIA

Agent(s): HALFORDS IP; GOTTlieb RACKMAN AND REISMAN PC

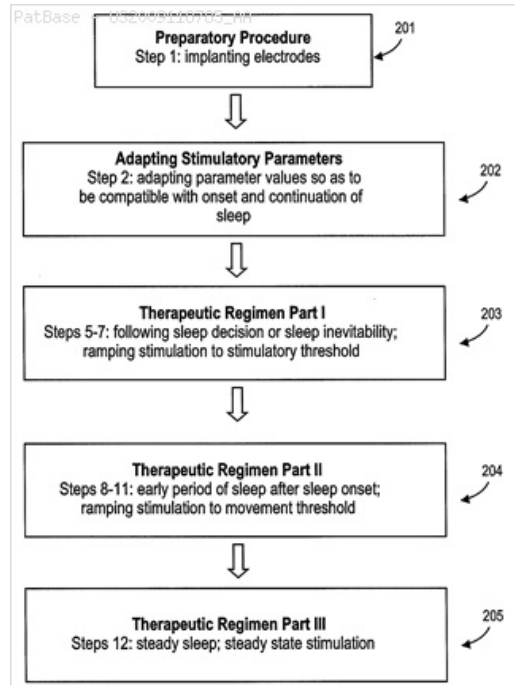
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Title: **METHOD** OF IMPROVING SLEEP DISORDERED BREATHING

Abstract: A diaphragm pacing stimulatory **method** and a system to implement the **method** are provided to improve respiratory function and the quality of sleep in patients whose sleep is compromised by poor respiration. The diaphragm pacing **method** includes adaptations that make it particularly compatible with the onset of sleep and sustaining sleep. Embodiments of the **method** are operated independently of breathing effort the patient may make during sleep. Patients for whom the invention is appropriate include those with a neuromuscular disease, such as amyotrophic lateral sclerosis (ALS). System elements include an external electrical stimulator coupled to one or more implanted electrodes that stimulate diaphragm contraction. The system and **method** provide for a pacing of the diaphragm, improved breathing, and improved sleep. Features of improved sleep include longer sleep time, an increased amount of REM sleep, and fewer episodes of wakefulness and restlessness.

Classifications:

International (IPC 8-9): A61B19/00 A61B5/00 A61B5/04 A61B5/0488 A61B5/08 A61N1/00 A61N1/05 A61N1/18 A61N1/36 (Advanced/Invention); A61B5/00 (Advanced/Non-invention); A61B19/00 A61B5/04 A61N1/00 A61N1/05 A61N1/36 (Core/Invention)
CPC: A61N1/05 A61N1/3601 A61B5/0488 A61B5/08 A61B5/4812 A61B5/4818
European: A61B5/0488 A61B5/08 A61B5/48C4 A61B5/48C8 A61N1/36C K61B5/48C8
US: 1/1 128/898 128/898S 600/546 600/546S 607/115 607/118 607/118S 607/42 607/42P



Family:

Publication number	Publication date	Application number	Application date
US2009118785 AA	20090507	US20080261979	20081030
US2010198296 AA	20100805	US20100690410	20100120
US2013238053 AA	20130912	US20130868848	20130423
US8428726 BB	20130423	US20100690410	20100120
US8478412 BB	20130702	US20080261979	20081030
US9138580 BB	20150922	US20130868848	20130423
WO09059033 A1	20090507	WO2008US81833	20081030

Priority:

US20070983915P 20071030 US20080261979 20081030 US20090145935P 20090120
 US20100690410 20100120 US20130868848 20130423

Probable Assignee: SYNAPSE BIOMEDICAL INC

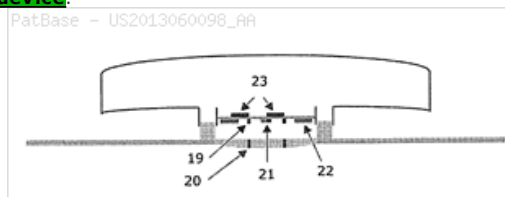
Assignee(s): (std): IGNAGNI ANTHONY R ; ONDERS RAYMOND P ; SYNAPSE BIOMEDICAL INC

Assignee(s): DIRECTOR OF OHIO DEVELOPMENT SERVICES AGENCY

Inventor(s): (std): IGNAGNI ANTHONY R ; ONDERS RAYMOND P

Agent(s): SHAY GLENN LLP; COHEN DAVID C ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: MONITORING **DEVICE****Abstract:** The present invention relates to a novel monitoring **device** suitable for attachment to a surface of a subject and for monitoring specific physiological signals of a subject wearing the **device**.**Classifications:****International (IPC 8-9):** A61B5/00 A61B5/01 A61B5/0205
A61B5/024 A61B5/0245 A61B5/04 A61B5/0402 A61B5/0476
A61B5/0488 A61B5/053 A61B5/08 A61B5/11 A61B5/1455 A61B6/00
A61B7/00 (Advanced/Invention)**CPC:** A61B5/0816 A61B5/02028 A61B5/0205 A61B5/02416
A61B5/02438 A61B5/0402 A61B5/0488 A61B5/11 A61B5/14551
A61B5/412 A61B5/4806 A61B2560/0242 A61B2560/0412
A61B2562/0233 A61B2562/046**European:** A61B5/02F A61B5/08R A61B5/1455N A61B5/41D
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K61B562/02G K61B562/04D**US:** 600/301 600/324 600/476 600/479**Family:**

Publication number	Publication date	Application number	Application date
AU2010334812 AA	20110630	AU20100334812	20101222
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BR112012017166 A2	20160315	BR20121117166	20101222
CA2785354 AA	20110630	CA20102785354	20101222
CN102811657 A	20121205	CN201080064281	20101222
EP2515744 A2	20121031	EP20100795397	20101222
JP2013515528 T2	20130509	JP20120545335T	20101222
US2013060098 AA	20130307	US20100518316	20101222
WO11076886 A2	20110630	WO2010EP70571	20101222
WO11076886 A3	20110922	WO2010EP70571	20101222

Priority:

EP20090180617 20091223 EP20100795397 20101222 WO2010EP70571 20101222

Probable Assignee: DELTA DANSK ELEKTRONIK LYS OG AKUSTIK**Assignee(s):** (std): DELTA DANSK ELEKTRONIK ; DELTA DANSK ELEKTRONIK LYS AND AKUSTIK ; DUUN SUNE ; HAAHR RASMUS GROENBEK ; DELTA DANSK ELEKTRONIK LYS OG AKUSTIK ; THOMSEN ERIK V**Inventor(s):** (std): HAAHR RASMUS GROENBEK ; HAAHR RASMUS GRONBEK ; DUUN SUNE ; THOMSEN ERIK V**Inventor(s):** ERIK V THOMSEN ; SUNE DUUN ; RASMUS GRONBEK HAAHR**Agent(s):** FB RICE; FB RICE PTY LTD; SIM AND MCBURNEY; INSPICOS A S; HANSEN CARSTEN ET AL**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: **METHOD** AND **APPARATUS** FOR ANALYSIS OF PSYCHIATRIC AND PHYSICAL CONDITIONS

Abstract: A **method**, **apparatus** and software for diagnosing the state or condition of a human, animal or other living thing, which always generates physiological modulating signals having temporal-spatial organization, the organization having dynamic patterns whose structure is fractal, involving the monitoring of at least one physiological modulating signal and obtaining a set of temporal-spatial values of each of said physiological modulating signals, and **processing** the respective temporal-spatial values using linear and nonlinear tools to determine the linear and nonlinear characteristics established for known criteria to determine the state or condition of the person, being or living things, and to use this data for diagnosis, tracking, and treatment and developmental issues.

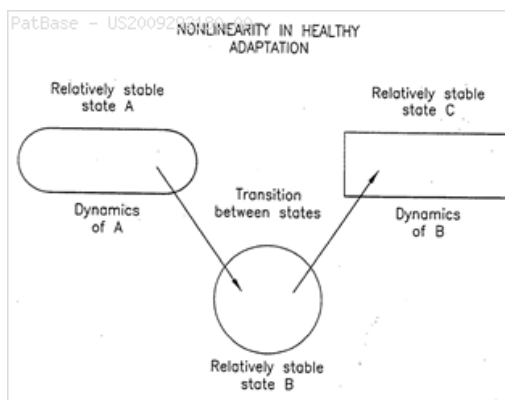
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International (IPC 8-9): A61B5/00 A61B5/0402 (Advanced/Invention); A61B5/00 A61B5/0402 (Core/Invention)

CPC: A61B5/4094 A61B5/00 A61B5/726 G16H10/20 Y02A90/26

European: G06F19/36A K61B5/00 K61B5/72K10D

US: 600/300 600/300S 600/301 600/301P 600/509 600/518 600/518S 600/519 600/519S



Family:

Publication number	Publication date	Application number	Application date
EP2007277 A2	20081231	EP20070755624	20070418
EP2007277 A4	20100602	EP20070755624	20070418
US2009292180 AA	20091126	US20070226285	20070418
US8306610 BB	20121106	US20070226285	20070418
WO07123923 A2	20071101	WO2007US09420	20070418
WO07123923 A3	20080619	WO2007US09420	20070418

Priority:

US20060792766P 20060418

US20070226285 20070418

WO2007US09420 20070418

Probable Assignee: MIROW SUSAN

Assignee(s): (std): MIROW SUSAN

Inventor(s): (std): MIROW SUSAN

Agent(s): FLACCUS ROLF DIETER; D PETER HOCHBERG CO LPA; ANGUS C

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

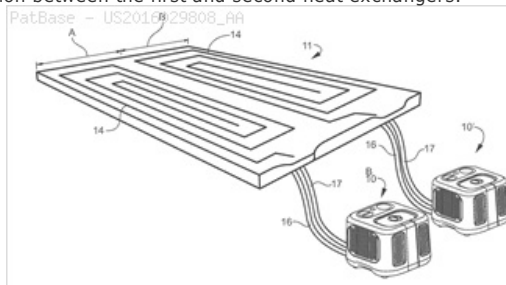
Title: ARTICLE COMPRISING A TEMPERATURE-CONDITIONED SURFACE, THERMOELECTRIC **CONTROL** UNIT, AND **METHOD** FOR TEMPERATURE-CONDITIONING THE SURFACE OF AN ARTICLE

Abstract: A thermoelectric **control** unit is adapted for regulating liquid temperature in a hydraulic circuit. The **control** unit comprises a housing, and a liquid reservoir for containing a liquid inside the housing. The reservoir has a fill opening, a liquid outlet, and a liquid return. A conduit assembly extends from the liquid outlet to the liquid return. A pump is operatively connected to the reservoir, and is adapted for moving the liquid through the conduit assembly within the hydraulic circuit. A first heat exchanger communicates with the liquid reservoir. A second heat exchanger resides adjacent the first heat exchanger, and communicates with an environment outside of the liquid reservoir and inside of the housing. A substantially planar thermoelectric cooling module is located at an electrified junction between the first and second heat exchangers.

Classifications:

International (IPC 8-9): A47C21/02 A47C21/04 A47C27/14
A47C31/00 A47C31/10 A47C31/11 A47G9/02 A61B5/00 A61B5/0205
A61B5/11 A61M21/02 B61D27/00 F25B21/04 F25D17/02
F25D29/00 (Advanced/Invention);
A61B5/021 A61B5/024 A61B5/0476 A61B5/0488 A61B5/0496
A61B5/053 A61B5/08 A61B5/11 A61B5/145
A61B5/1455 (Advanced/Non-invention)

CPC: A47C7/744 F25B21/04 F25D17/02 F25D29/00 A47C31/105
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A47G9/0246 A61B5/0496 A61B5/0488 A61B5/0476 A61B5/02438
A61B5/14551 A61B5/0531 A61B5/0816 A61B5/11 A61B5/14532
A61B5/021 A61B5/02055 A61B5/1114 A61B2560/0247 A47C21/048
A61M21/02 A61B5/4815 A61B5/024 A61B5/4818 A61B5/1103
A61B5/1106 A61B5/1113 A61B5/4809 A61B5/4821 A61B5/4884 A47C27/22 A47C31/006
US: 5/421 62/3.2 62/3.7



Family:

Publication number	Publication date	Application number	Application date
US2016029808 AA	20160204	US20140777050	20140317
US2018000255 AA	20180104	US20170705829	20170915
US2018110960 AA	20180426	US20170848816	20171220
WO14145436 A1	20140918	WO2014US30202	20140317
WO18057462 A1	20180329	WO2017US52070	20170918
WO18057462 A4	20180426	WO2017US52070	20170918

Priority:

US20130800768P	20130315	US20140777050	20140317	WO2014US30202	20140317
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Probable Assignee: YOUNGBLOOD IP HOLDINGS LLC

Assignee(s): (std): YOUNGBLOOD IP HOLDINGS LLC ; YOUNGBLOOD TARA ; YOUNGBLOOD TODD

Assignee(s): AUTOLIV DEVELOPMENT AB

Inventor(s): (std): YOUNGBLOOD TARA ; YOUNGBLOOD TODD

Agent(s): SCHWARTZ JEFFREY J; GEORGE JINAN GLASGOW

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: **METHODS** AND SYSTEMS FOR ANALYSIS OF PHYSIOLOGICAL SIGNALS

Abstract: Systems and **methods** are provided for **processing** and analyzing signals reflecting, physiologic **processes** and events in a monitored subject, especially cardio-pulmonary signals. The input signals are analyzed by in a physiological domain by creating structured data representing the physiological events reflected in the signals. Preferably, first, primitive event objects are created representing physiologically-significant portions of these input signals; second, the primitive event objects are grouped into primary event objects representing actual physiologic **processes** and events. Next, all objects are stored in databases, and organized in containers for efficient searching. Information may be retrieved by creating view objects which associate physiologic event objects having selected properties specified directly in physiological terms. This invention includes **methods** for performing the above analysis, systems and program products for carrying out these **methods**, and databases configured with the stored objects and views.

Classifications:

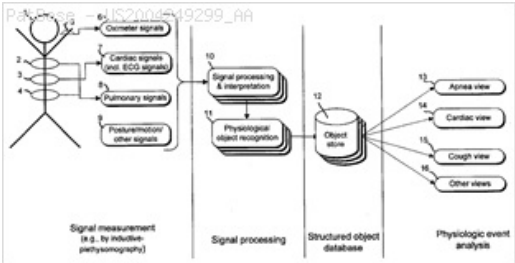
International (IPC 8-9): A61B5/00 A61B5/02 A61B5/0205 A61B5/04 A61B5/0452 A61B5/08 G06F19/00 (Advanced/Invention); A61B5/00 A61B5/02 A61B5/04 A61B5/0452 A61B5/08 A61B5/11 (Advanced/Non-invention); A61B5/00 A61B5/0205 A61B5/0452 (Core/Invention); A61B5/00 A61B5/02 A61B5/04 A61B5/0452 A61B5/08 A61B5/11 (Core/Non-invention)

International (IPC 1-7): A61B1/00 A61B5/00 A61B5/02 A61B5/04 A61B5/08

CPC: A61B5/0205 A61B5/0452 A61B5/0809 A61B5/11 A61B5/1455 A61B5/4818

European: A61B5/0205 A61B5/48C8 K61B5/0452 K61B5/08J K61B5/11 K61B5/1455

US: 600/323 600/323S 600/509 600/509S 600/529 600/529P



Family:

Publication number	Publication date	Application number	Application date
AU2004245085 AA	20041216	AU20040245085	20040604
CA2523549 AA	20051024	CA20042523549	20040604
EP1631184 A2	20060308	EP20040754497	20040604
US2004249299 AA	20041209	US20030457097	20030606
WO04107962 A2	20041216	WO2004US17899	20040604
WO04107962 A3	20061228	WO2004US17899	20040604

Priority:

US20030457097 20030606 WO2004US17899 20040604

Probable Assignee: VIVOMETRICS INC

Assignee(s): (std): COBB JEFFREY LANE ; VIVOMETRICS INC

Inventor(s): (std): COBB JEFFREY LANE

Inventor(s): JEFFREY LANE COBB

Agent(s): CULLENS PATENT AND TRADE MARK ATTORNEYS; CULLENS PTY LTD; GOWLING LAFLEUR HENDERSON LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: HEALTH MONITORING SYSTEM

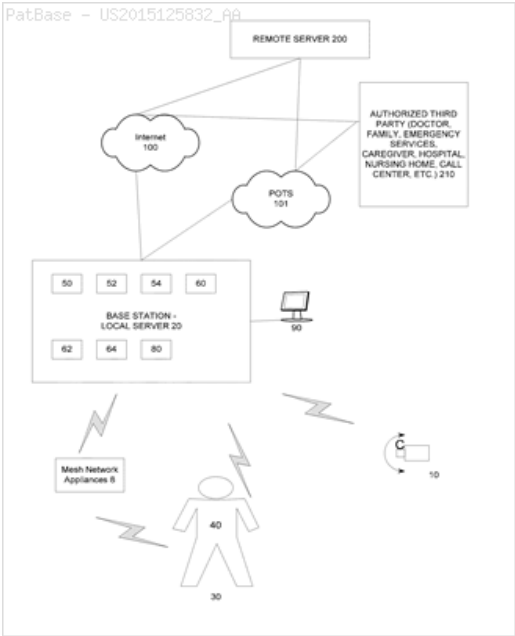
Abstract: Systems and **methods** provide automatic messaging to a client on behalf of a healthcare treatment professional by setting up one or more computer implemented agents, each specializing in a disease state, with rules to respond to a client condition; during run-time, receiving a communication from the client and in response selecting one or more computer implemented agents to respond to the communication; and automatically generating a response to be rendered on a client mobile **device** to encourage healthy behavior.

Classifications:

International (IPC 8-9): G09B19/00 G09B5/00 (Advanced/Invention)

CPC: G09B19/0092 G09B5/00

US: 434/127



Family:

Publication number	Publication date	Application number	Application date
US2015125832 AA	20150507	US20130071623	20131104
US9865176 BB	20180109	US20130071623	20131104

Priority:

US20120707682 20121207 US20130071623 20131104

Probable Assignee: PHILIPS KONINKLL NV

Assignee(s): (std): PHILIPS KONINKLL NV ; TRAN BAO

Assignee(s): WEST 74TH STREET SERIES 75 OF ALLIED SECURITY TRUST I ; EMPIRE IP LLC

Inventor(s): (std): TRAN BAO

Title: SERVICE CENTER SYSTEM AND **METHOD** AS A COMPONENT OF A POPULATION DIAGNOSTIC FOR SLEEP DISORDERS

Abstract: A **method** for evaluating sleep disorders in mammals and distributing **control** information related to the sleep disorders through electronic communication networks. The **method** includes acquiring analog information related to physiological signals through a mobile **device** from a mammal user. The mammal user is at a geographic location outside of a sleep laboratory staffed by trained technicians. The mobile **device** is coupled to a sensing **device**, which is coupled to monitoring region(s) of the mammal. The **method** includes converting the analog information into a digital format using a signal **processing device** and transmitting information related to the physiological signals in the digital format to one or more service computers through an electronic communications network. Each of the service computers is operably coupled to a health information service facility. The **method** determines if the mammal user has related **control** information at one of the health information service facilities. The related **control** information is received through the communication network. The **method processes** the information related to the physiological signals at one or more of the service computers to provide a report associated with the information related to the physiological signals and the mammal user. The **method** communicates report information in the report associated with the information related to the physiological signals upon indication of receipt of at least **control** account information of the mammal user based upon the determining the related account information.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/08 A61B5/11 A61B7/00 G06T11/20 (Advanced/Invention); A61B5/0402 A61B5/0476 A61B5/0488 A61B5/0496 A61B5/103 A61B5/11 G06F19/00 (Advanced/Non-invention); A61B5/00 A61B5/08 A61B5/11 A61B7/00 (Core/Invention); A61B5/0402 A61B5/0476 A61B5/0488 A61B5/0496 A61B5/103 A61B5/11 G06F19/00 (Core/Non-invention)

International (IPC 1-7): A61B5/00

CPC: A61B5/4818 A61B5/1126 A61B5/6824 A61B5/726 A61B5/0816 A61B5/0836 A61B7/00 A61B5/145 A61B5/4519 A61B5/048 A61B5/4815 Y10S128/92 A61B5/743 A61B5/0002 A61B5/0008 A61B5/0402 A61B5/0476 A61B5/0488 A61B5/0496 A61B5/11 A61B5/1455 A61B5/4393 A61B5/4806 G06F19/3418 A61B7/003 A61B5/04 A61B5/08 A61B5/4809 A61B5/4812 A61B5/7445 G16H10/60 G16H15/00

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US: 128/920 128/920S 345/440 345/440P 600/300 600/300P 600/301 600/301P 600/529 600/529P 600/529S 600/586 600/586S

PatBase - US2004030224_AA

Patent Application Publication Feb. 12, 2004 Sheet 1 of 12 US 2004/0030224 A1

FIG. 1

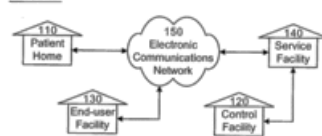
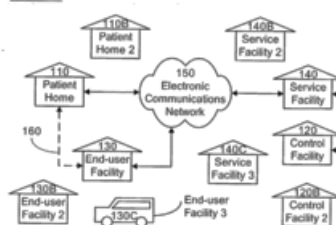


FIG. 2



Family:

Publication number	Publication date	Application number	Application date
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US2005113646 AA	20050526	US20030721115	20031124
US2006020178 AA	20060126	US20050230942	20050919
US2006063981 AA	20060323	US20050095154	20050331
US2006155205 AA	20060713	US20050094911	20050330
US2007179395 AA	20070802	US20070652956	20070112
US2011090226 AA	20110421	US20100894151	20100930
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Priority:

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Probable Assignee: APNEOS CORP

Assignee(s): (std): APNEOS CORP ; BRANSCUM JOHN L JR ; BRANSCUM JR JOHN LEYON ; SOTOS JOHN G ; SOTOS JOHN GEORGE

Assignee(s): BRANSCUM JOHN LJR

Inventor(s): (std): BRANSCUM JOHN L ; BRANSCUM JOHN L JR ; BRANSCUM JR JOHN L ; BRANSCUM JR JOHN LEYON ; BRANSCUM PATRICIA H ; SOTOS JOHN G ; SOTOS JOHN GEORGE

Inventor(s): SOTOS JOHN ; BRANSCUM PATRICIA ; BRANSCUM JOHN LJR ; BRANSCUM JOHN

Agent(s): KENNETH M KASLOW C O APNEOS CORP; APNEOS CORP; JOHN SOTOS; TOWNSEND AND TOWNSEND AND CREW LLP

Title: AUTOMATIC AND AMBULATORY MONITORING OF CONGESTIVE HEART FAILURE PATIENTS

Abstract: This invention provides **methods** for **non-invasively** monitoring patients with congestive heart failure (CHF) and for reporting and/or warning of changes in the patients' status. The **methods** gather physiological data and combine the data into parameters by which the severity of CHF can be judged. Preferred parameters include periodic breathing and **heart rate** variability. This invention also provides systems for carrying out these **methods** which permit patients to engage in their normal daily activities. Preferably, physiological data analysis is performed by a portable electronic unit carried by the patients.

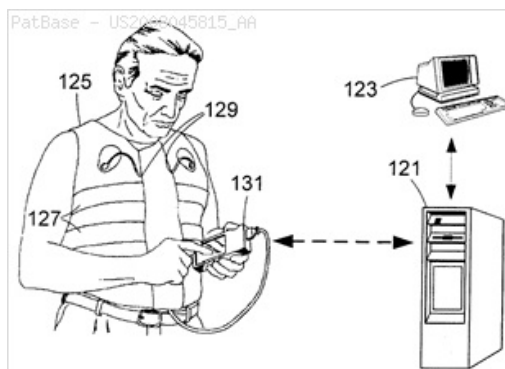
Classifications:

International (IPC 8-9): A61B10/00 A61B5/00 A61B5/02
A61B5/0205 A61B5/024 A61B5/0245 A61B5/08 (Advanced/Invention);
A61B5/00 A61B5/11 A61B5/145 (Advanced/Non-invention);
A61B5/00 A61B5/02 A61B5/024 (Core/Invention)

CPC: A61B5/0205 A61B5/02405 A61B5/11 A61B5/145 A61B5/7257
A61B2562/0219 G06F19/00

European: A61B5/0205 A61B5/024A K61B5/11 K61B5/145
K61B5/72K10B K61B562/02C

US: 600/301 600/301P 600/481 600/481S 600/509 600/509S
600/529 600/534 600/534S 607/6



Family:

Publication number	Publication date	Application number	Application date
AU2007261061 AA	20071227	AU20070261061	20070619
CA2656062 AA	20081217	CA20072656062	20070619
CA2656062 C	20160531	CA20072656062	20070619
EP2034882 A2	20090318	EP20070798754	20070619
EP2034882 A4	20110420	EP20070798754	20070619
EP2034882 B1	20171220	EP20070798754	20070619
JP2009540953 T2	20091126	JP20090516681T	20070619
JP5281002 B2	20130904	JP20090516681T	20070619
US2008045815 AA	20080221	US20070764527	20070618
US8475387 BB	20130702	US20070764527	20070618
WO07149856 A2	20071227	WO2007US71562	20070619
WO07149856 A3	20081127	WO2007US71562	20070619

Priority:

US20060815367P 20060620 US20070764527 20070618 WO2007US71562 20070619

Probable Assignee: ADIDAS AG

Assignee(s): (std): DERCHAK P A ; DERCHAK P ALEXANDER ; LUCIA GARY M ; VIVOMETRICS INC ; MYERS LANCE ; LUCIA GARY MICHAEL ; MYERS LANCE J ; ADIDAS AG ; MYERS LANCE JONATHAN

Assignee(s): TEXTRONICS INC D B A ADIDAS WEARABLE SPORTS ELECTRONICS ; DERCHAK P ; TEXTRONICS INC ; TEXTRONICS INC D B A ADIDAS WEARABLE SPORTS ELECTR

Inventor(s): (std): DERCHAK P A ; DERCHAK P ALEXANDER ; LUCIA GARY M ; LUCIA GARY MICHAEL ; MYERS LANCE ; MYERS LANCE J ; MYERS LANCE JONATHAN

Inventor(s): P ALEXANDER DERCHAK ; GARY MICHAEL LUCIA ; LANCE MYERS ; LUCIA GARY ; DERCHAK P

Agent(s): LESICAR PERRIN; LESICAR MURRAY TRENTO; LESICAR MAYNARD ANDREWS PTY LTD; GOWLING LAFLEUR HENDERSON LLP; GOWLING WLG CANADA LLP; HOLME PATENT A/S; WEGNER HANS; WINSTON AND STRAWN LLP, PATENT DEPARTMENT; WINSTON AND STRAWN LLP PATENT DEPARTMENT; STERNE KESSLER GOLDSTEIN AND FOX PLLC

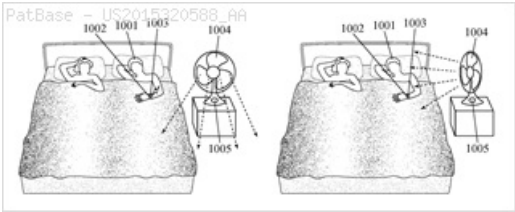
Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: WHIPFLASH [TM]: WEARABLE ENVIRONMENTAL **CONTROL** SYSTEM FOR PREDICTING AND COOLING HOT FLASHES

Abstract: This invention is a sleep environment **control** system which uses wearable technology with physiological sensors to predict when a person will have a hot flash and to proactively provide localized cooling or accelerated airflow for that person for a limited time to alleviate the adverse effects of that hot flash. In an example, a physiological sensor can be a body temperature sensor, skin conductance sensor, or EEG sensor. This system can reduce interruptions of a person's sleep due to hot flashes and improve their quality of life.

Classifications:

International (IPC 8-9): A61F7/00 F24F11/00 (Advanced/Invention)
CPC: A61F7/0097 F24F11/0001 A61F2007/0056 A61F2007/0055
A61F2007/0093 A61B5/01 A61B5/4806 A61F7/0085 A61F2007/0054
A61F2007/0057 A61F2007/006 A61F2007/0069 A61F2007/0094
A61F2007/0096
US: 165/247 607/104 607/107



Family:

Publication number	Publication date	Application number	Application date
US2015320588 AA	20151112	US20150703916	20150505

Priority:

US20140991172P 20140509 US20150703916 20150505

Probable Assignee: SLEEPNEA LLC

Assignee(s): (std): CONNOR ROBERT A ; SLEEPNEA LLC

Inventor(s): (std): CONNOR ROBERT A

Title: WEARABLE SPECTROSCOPY SENSOR TO MEASURE FOOD CONSUMPTION

Abstract: This invention is a wearable **device** to measure a person's consumption of selected types of food, ingredients, or nutrients comprising: a housing that is configured to be worn on the person's wrist, arm, hand, or finger; a spectroscopy sensor that collects data concerning light energy reflected from the person's body and/or absorbed by the person's body, wherein this data is used to measure the person's consumption of selected types of food, ingredients, or nutrients; a data **processing** unit; and a power source. The selected types of food, ingredients, or nutrients can be selected from the group consisting of: food that is high in simple carbohydrates; food that is high in simple sugars; food that is high in saturated or trans fat; fried food; food that is high in Low Density Lipoprotein (LDL); and food that is high in sodium.

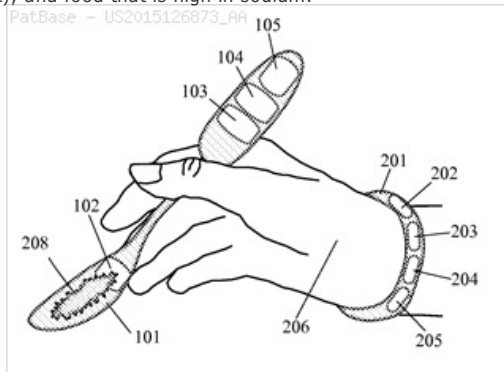
Classifications:

International (IPC 8-9): A61B5/00 (Advanced/Invention)

CPC: A61B5/4866 A61B5/0075 A61B5/6824 A61B2576/00

A61B5/1123 A61B5/6887

US: 600/407 600/475 600/477

**Family:**

Publication number	Publication date	Application number	Application date
US2015126873 AA	20150507	US20130071112	20131104

Priority:

US20130071112 20131104

Probable Assignee:

CONNOR ROBERT A

Assignee(s): (std):

CONNOR ROBERT A

Inventor(s): (std):

CONNOR ROBERT A

Title: REAL-TIME **DETECTION** OF PERIODIC BREATHING

Abstract: A **method** for a **device** **detects** periodic breathing in a patient. The **method** may include receiving a series of event intervals bounded by **apnea** or hypopnea events **detected** in respiration of the patient, and **processing**, upon closure of an event interval, the event interval to determine a character of the event interval, such as any of: probably a periodic breathing cycle; probably not a periodic breathing cycle; and uninformative. The **method** may further include determining whether to change a current periodic breathing state that indicates whether a periodic breathing episode is in progress, based on a history of event interval characters that is long compared to the typical length of a periodic breathing cycle real-time **detection** of periodic breathing

Classifications:

International (IPC 8-9): A61B5/00 A61B5/08 A61B5/087 A61B5/091 A61B5/093 A61M16/00 A61M16/10 G06F17/40 G06F19/00 (Advanced/Invention)
CPC: A61M2016/0018 A61M2230/40 A61M16/1055 A61M16/107 A61B5/7282 A61M16/0057 A61B5/087 A61B5/4818 A61B5/4836 A61M2205/502 G06F19/3481 A61M16/0051 A61M16/024 A61B5/0816 G06F19/3406 G16H40/63



Family:

Publication number	Publication date	Application number	Application date
CN106659426 A	20170510	CN201580018840	20150213
EP3104775 A1	20161221	EP20150748505	20150213
EP3104775 A4	20170913	EP20150748505	20150213
JP2017512080 T2	20170518	JP20160551719T	20150213
NZ630749 A	20160331	NZ20140630749	20140911
TW201534273 A	20150916	TW20150104655	20150212
US2017164906 AA	20170615	US20150117040	20150213
WO15120521 A1	20150820	WO2015AU50055	20150213

Priority:

AU20140900435 20140213 WO2015AU50055 20150213

Probable Assignee: RESMED LTD

Assignee(s): (std): RESMED LTD

Inventor(s): (std): RAMANAN DINESH

Agent(s): VOSSIUS AND PARTNER PATENTANWALTE RECHTSANWALTE MBB; DAVIDSON GEOFFREY ROBERT ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: SESSION-BY-SESSION ADJUSTMENT OF A **DEVICE** FOR TREATING SLEEP DISORDERED BREATHING

Abstract: A **method** is disclosed for operating a **device** that treats sleep disordered breathing (SDB) during successive treatment sessions, where the **device** provides continuous positive airway pressure during sleep. The **method** comprises the steps of applying a constant treatment pressure during a first session and deriving a sleep disorder index (SDI) representative of the number of SDB episodes that occurred during the first session. If the treatment pressure should be increased based upon the derived SDI, it is increased during a second, subsequent session.

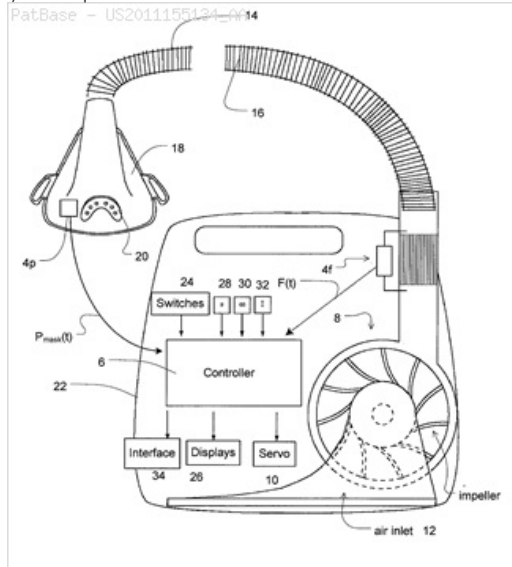
Classifications:

International (IPC 8-9): A61M16/00 A61M16/06 A62B7/00 F16K31/02 (Advanced/Invention)

CPC: A61M16/0003 A61M2016/0018 A61M16/00 A61M16/0069 A61M2016/0021 A61M2016/0039 A61M16/024

European: A61M16/00 K61M16/00A14B4 K61M16/00A8B2 K61M16/00M6P

US: 128/204.21 128/204.23 128/204.230P



Family:

Publication number	Publication date	Application number	Application date
US2011155134 AA	20110630	US20110039548	20110303
US2013037028 AA	20130214	US20120653831	20121017
US2014318543 AA	20141030	US20140331399	20140715
US8297281 BB	20121030	US20110039548	20110303
US8800558 BB	20140812	US20120653831	20121017
US9682206 BB	20170620	US20140331399	20140715

Priority:

US20040543491P	20040211	US20050597291	20050210	WO2005AU00174	20050210
US20060597291	20060719	US20110039548	20110303	US20120653831	20121017
US20140331399	20140715				

Probable Assignee: RESMED LTD

Assignee(s): (std): FARRUGIA STEVEN PAUL ; RESMED LTD

Assignee(s): RESMED LIMITED

Inventor(s): (std): FARRUGIA STEVEN PAUL

Agent(s): LERNER DAVID LITTENBERG KRUMHOLTZ AND MENTLIK LLP; LERNER DAVID LITTENBERG KRUMHOLTZ AND MENTLIK LLP

Title: MOTOR DRIVE SYSTEM FOR RESPIRATORY APPARATUS

Abstract: A respiratory apparatus includes components to protect operations of the apparatus. For example, in some versions, the apparatus may include a power supply, a motor powered by the power supply, and a transient absorption diode circuit between the motor and the power supply. The transient absorption diode circuit may be configured to absorb energy generated by the motor from rotational kinetic energy. Such absorption may serve to protect the components of the apparatus. In some examples, the apparatus may include a fault mitigation integrated circuit (IC). The IC circuit may be included in the respiratory apparatus to detect one or more faults based on physical and system parameters of the apparatus. The fault mitigation integrated circuit may generate a signal to stop the motor based on the detected fault, and may digitally communicate with a processor information about the detected fault.

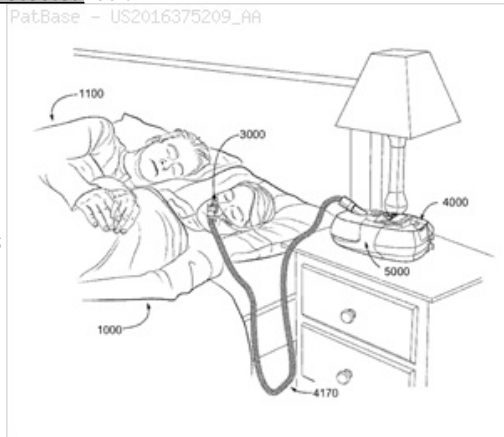
Classifications:

International (IPC 8-9): A61B7/00 A61M16/00 A61M16/06
A61M16/10 A61M16/16 A61M16/20 A61M39/00 A62B18/00
F04D27/00 G05D7/06 H02M3/155 H02P27/06 H02P6/14
H02P6/24 (Advanced/Invention)

CPC: A61M16/0683 A61M2016/0033 A61M2202/0208 A61M2205/15
A61M2205/17 A61M2205/21 A61M2205/3365 A61M2205/3368
A61M2205/3553 A61M2205/3561 A61M2205/3584 A61M2205/3592
A61M2205/42 A61M2205/7545 A61M2205/8237 H02P6/00
A61M16/0066 A61M16/105 A61M16/20 H02P27/06 H02P6/14
H02P6/24 A61M2205/50 A61M2016/003 A61M16/0069 A61M16/06
A61M16/16 A61M2016/0027 A61M2205/82 F04D27/004 A61M16/1055
A61M16/107 A61M16/0051 A61M16/024

US: 128/204.21

PatBase - US2016375209_AA

**Family:**

Publication number	Publication date	Application number	Application date
CN105579923 A	20160511	CN201480038473	20140620
EP3017345 A1	20160511	EP20140819384	20140620
EP3017345 A4	20170322	EP20140819384	20140620
JP2016529949 T2	20160929	JP20160522135T	20140620
NZ631134 A	20170825	NZ20140631134	20140620
US2016375209 AA	20161229	US20140900899	20140620
WO15000025 A1	20150108	WO2014AU50085	20140620

Priority:

US20130841650P 20130701 US20140900899 20140620 WO2014AU50085 20140620

Probable Assignee: RESMED LTD

Assignee(s): (std): RESMED LTD

Inventor(s): (std): BENCKE JAMES MCKENSEY ; SHADIE TIMOTHY NICHOLAS

Agent(s): VOSSIUS AND PARTNER PATENTANWALTE RECHTSANWALTE MBB; DAVIDSON GEOFFREY ROBERT ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: **METHOD** AND **APPARATUS** FOR TREATING HYPERAROUSAL DISORDERS

Abstract: **Methods** and **apparatus** provide automated **controls** for a respiratory pressure therapy **device**, such as a servo-ventilator. For example, a **controller** of a respiratory pressure therapy **device** may **control** application of pressure support ventilation therapy to an airway of a patient. The **controller** may **control** the respiratory pressure therapy **device** to auto-titrate an expiratory positive airway pressure (EPAP) of a pressure support ventilation therapy so as to maintain airway patency of the patient. The EPAP may be bounded below by a floor pressure limit. The **controller** may **control** the respiratory pressure therapy **device** to repeatedly adjust the floor pressure limit depending on events of interest during the auto-titration of the EPAP. Such methodologies may improve treatment for patients such as those suffering from sleep disordered breathing-comorbid hyperarousal disorders.

Classifications:

International (IPC 8-9): A61B5/087 A61M16/00 A61M16/06 A61M16/10 A61M16/16 A61M21/02 (Advanced/Invention)
CPC: A61M16/107 A61M16/125 A61M2016/0036 A61M2205/18 A61M2205/3365 A61M2205/3584 A61M2205/42 A61M2230/205 A61M2230/63 A61M21/02 A61M16/06 A61M16/105 A61M2205/3331 A61M2230/005 A61M2205/3561 A61M2021/0088 A61M16/0069 A61M16/16 A61M2016/0027 A61M2016/003 A61M2202/0208 A61M2205/15 A61M2205/3375 A61M2205/502 A61M2205/581 A61M2205/583 A61M16/0051 A61M16/026



Family:

Publication number	Publication date	Application number	Application date
CN107106800 A	20170829	CN201580069232	20151026
EP3212262 A1	20170906	EP20150855453	20151026
JP2017532154 T2	20171102	JP20170522669T	20151026
US2017239433 AA	20170824	US20150519667	20151026
WO16065411 A1	20160506	WO2015AU50663	20151026

Priority:

AU20140904281 20141027 WO2015AU50663 20151026

Probable Assignee: RESMED LTD

Assignee(s): (std): RESMED LTD

Inventor(s): (std): RAMANAN DINESH ; MARTIN DION CHARLES CHEWE ; ARMITSTEAD JEFFREY PETER

Agent(s): VOSSIUS AND PARTNER PATENTANWALTE RECHTSANWALTE MBB; DAVIDSON GEOFFREY ROBERT ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: **DEVICE** TO **DETECT**, ASSESS AND TREAT SNORING, SLEEP **APNEAS** AND HYPOPNEAS

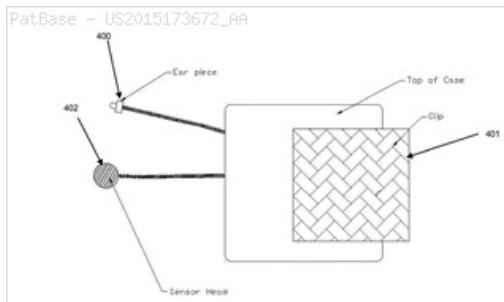
Abstract: The present invention (the "invention") relates to an **apparatus** to **detect**, assess and end occurrences of snoring, sleep **apnea** events and hypopnea episodes, in a manner that will decrease or eliminate hypoxia, hypercapnia and the disturbance of cardiac and pulmonary hemodynamics, and give users of the **apparatus** a report of their critical sleep data each morning

Classifications:

International (IPC 8-9): A61B5/00 A61B5/0205 A61B5/08 A61B5/11 A61B5/113 A61B5/1455 A61B5/1495 A61B7/00 A61B7/04 A61F5/56 (Advanced/Invention)

CPC: A61B5/4818 A61B5/0205 A61B5/11 A61B5/002 A61B5/7455 A61B5/7405 A61B5/6898 A61B5/4836 A61B5/1116 A61B5/14542 A61B5/1495 A61B5/486 A61B2560/0223

US: 600/301



Family:

Publication number	Publication date	Application number	Application date
CA3004536 AA	20180507	CA20153004536	20151107
CN107205693 A	20170926	CN201580072604	20151107
EP3215010 A1	20170913	EP20150856295	20151107
US2015173672 AA	20150625	US20140535561	20141107
WO16073965 A1	20160512	WO2015US59632	20151107

Priority:

US20130901668P 20131108 US20140535561 20141107 WO2015US59632 20151107

Probable Assignee: WHISPERSOM CORP

Assignee(s): (std): GOLDSTEIN DAVID BRIAN ; WHISPERSOME CORP

Assignee(s): GOLDSTEIN DAVID ; WHISPERSOM CORP

Inventor(s): (std): GOLDSTEIN DAVID ; GOLDSTEIN DAVID BRIAN

Agent(s): DLA PIPER CANADA LLP; LEMAN CONSULTING SA; KLICPERA MICHAEL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: **APPARATUS** FOR GAS DELIVERY

Abstract: An **apparatus** for **controlling** gas delivery to a patient is disclosed, wherein delivery is adapted to maintain a physiological sleep state. The **apparatus** includes a monitoring **device** that monitors EEG, EOG, **EMG**, patient position and patient breathing. The **apparatus** also contains a microprocessor, which is programmed to derive sleep state specific indicators from the data received by the monitoring **device** and to determine if the sleep state is in a stable or deteriorating phase, where upon gas pressure will be automatically adjusted to maintain the sleep state if desired. The microprocessor is programmed with a unique automatic sleep staging algorithm and a gas pressure seek algorithm which work together to automatically adjust delivered respiratory gas pressure to a user based upon the determined sleep state and the sleep states condition.

Classifications:

International (IPC 8-9): A61B5/0205 A61H31/02 A61M16/00

A61M21/00 (Advanced/Invention);

A61F5/56 (Advanced/Non-invention);

A61B5/0205 A61H31/00 A61M16/00 (Core/Invention);

A61F5/56 (Core/Non-invention)

International (IPC 1-7): A61H31/02 A61M16/00 A62B7/00 F16K31/02

CPC: A61M16/024 A61M16/0051 A61F5/56 A61M2016/0021

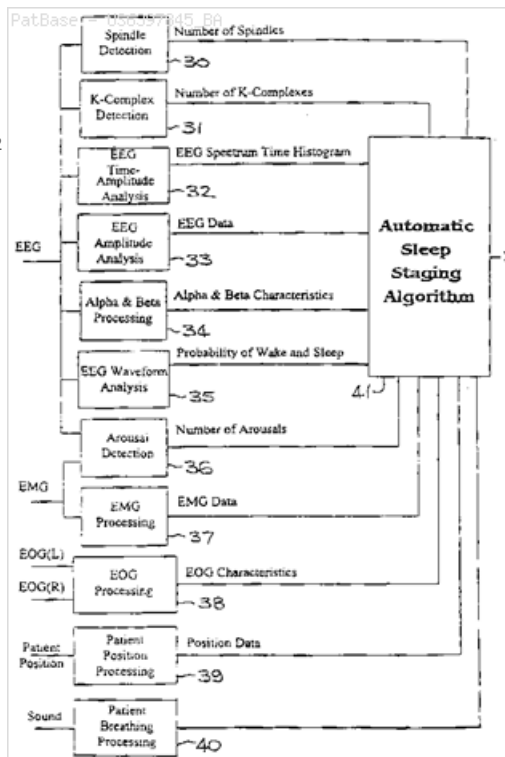
A61M2230/04 A61M2230/10 A61M2230/18 A61M2230/43

A61M2230/60

European: A61M16/00 K61F5/56 K61M16/00A11 K61M16/00A8B2

K61M230/04 K61M230/10 K61M230/18 K61M230/43 K61M230/60

US: 128/204.18 128/204.21 128/204.23 128/204.26



Family:

Publication number	Publication date	Application number	Application date
AT287743 E	20050215	AT19960934203T	19961031
AU199672679 A1	19970522	AU19960072679	19961031
AU627395 A0	19951123	AU1995PN06273	19951031
AU707148 B2	19990701	AU19960072679	19961031
CN1187105 C	20050202	CN19961097921	19961031
CN1202832 A	19981223	CN19961097921	19961031
DE69634262 D1	20050303	DE19966034262	19961031
DE69634262 T2	20060330	DE19966034262T	19961031
EP0862475 A1	19980909	EP19960934203	19961031
EP0862475 A4	19991208	EP19960934203	19961031
EP0862475 B1	20050126	EP19960934203	19961031
JP11514279 T2	19991207	JP19970516920T	19961031
JP3798023 B2	20060719	JP19970516920T	19961031
KR100446133 B1	20050113	KR19980703167	19961031
KR19990067210 A	19990816	KR19980703167	19961031
RU2198689 C2	20030220	RU19980110639	19961031
RU98110639 A	20000620	RU19980110639	19980601
US6397845 BA	20020604	US19980066421	19981208
VN3306 A1	20030325	VN19980000469	19980530
WO9716216 A1	19970509	WO1996AU00679	19961031

Priority:

AU1995PN06273 19951031

AU19960072679 19961031

WO1996AU00679 19961031

Probable Assignee: COMPUMEDICS LTD

Assignee(s): (std): BURTON D ; BURTON DAVID ; COMPUMEDICS LTD ; COMPUMEDICS SLEEP PTY ; KOMPAMEDIKS SLIP PTI LTD ; COMPUMEDICS SLEEP PTY LTD

Assignee(s): COMPUMEDICS SLEEP PTY LTD ABBOTSFORD ; COMPUMEDICS SLEEP PTY ABBOTSFORD

Inventor(s): (std): BARTON DEVID ; BURTON DAVID ; DAVID BURTON

Agent(s): COMPUMEDICS LTD

Designated states: AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CN CU CZ DE DK EE ES FI FR GB GE GR HU IE IL IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MC MD MG MK MN MW MX NL NO NZ PL PT RO RU SD SE SG SI SK SZ TJ TM TR TT UA UG US UZ VN

Title: **DEVICES** AND **METHODS** FOR AIRFLOW DIAGNOSIS AND RESTORATION

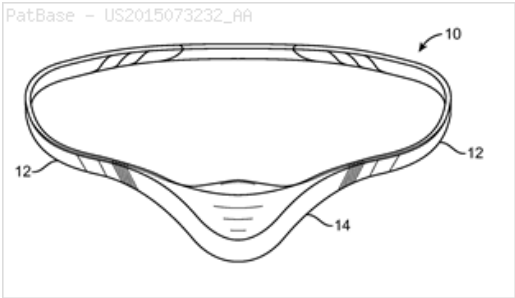
Abstract: **Devices** for monitoring patient breaching comprise a collar having a microprocessor and **memory** which is connectable to a plurality of sensors. Therapeutic **devices** comprise similar diagnostic capabilities and further provide energy delivery elements for stimulating a patient's upper respiratory muscles in order to terminate and an apneic or snoring event.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/0402 A61B5/08 A61B5/085 A61B5/11 A61B5/1455 A61B7/00 A61F5/56 A61N1/04 A61N1/36 (Advanced/Invention); A61B5/024 A61B5/0402 A61B5/0488 A61B5/087 A61B5/11 A61B5/113 A61B5/1455 G06F19/00 (Advanced/Non-invention)

CPC: A61F5/56 A61B7/003 A61B5/085 A61B5/11 A61B5/4818 A61N1/3601 A61N1/0452 A61N1/36014 A61B5/002 A61B5/024 A61B5/0402 A61B5/0488 A61B5/087 A61B5/1116 A61B5/1135 A61B5/14551 A61B5/4812 A61B5/6822 G06F19/3481 A61B5/4836 A61B5/4848 A61B2505/07 A61B2560/0242 G16H10/60

US: 128/848 600/301 607/42



Family:

Publication number	Publication date	Application number	Application date
CN105283219 A	20160127	CN201480030998	20140404
EP2981330 A1	20160210	EP20140780193	20140404
EP2981330 A4	20170104	EP20140780193	20140404
JP2016515904 T2	20160602	JP20160506674T	20140404
US2015073232 AA	20150312	US20140245414	20140404
WO14165834 A1	20141009	WO2014US33098	20140404

Priority:

US20130808937P 20130405	US20130808952P 20130405	US20130809060P 20130405
US20130808990P 20130405	US20130808958P 20130405	US20130827744P 20130527
US20130827745P 20130527	US20140245414 20140404	WO2014US33098 20140404

Probable Assignee: INTELLIGENT WIDGETS INC

Assignee(s): (std): AHMAD WASEEM ; FARAQUI AAMIR A ; INTELLIGENT WIDGETS INC ; ISRAR ALI ; SHAIKH SOHAIB ; KHATRI ABDUL RAHIM ; SHAIKH WASEEM A

Inventor(s): (std): AHMAD WASEEM ; FARAQUI AAMIR A ; FARUQUI AAMIR A ; ISRAR ALI ; KHATRI ABDUL RAHIM ; SHAIKH SOHAIB ; SHAIKH WASEEM A

Agent(s): BOULT WADE TENNANT; HESLIN JAMES ET AL

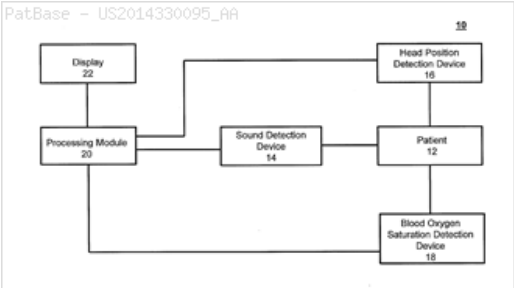
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Title: SYSTEM AND METHODS FOR ESTIMATING RESPIRATORY AIRFLOW

Abstract: A system and methods for screening patients suspected of obstructive sleep apnea. The system includes a sound detection device configured for detecting tracheal respiratory sound signals of a patient and a Sao2 detection device for detecting SaO2 signals of the patient. The system also has a head position detection device for detecting the head positions of the patient during testing, and a processing module for receiving and analyzing the tracheal respiratory sound signals to extract sound data and the Sao2 signals to extract blood oxygen saturation data. The processing module further receives and analyzes the head position signals captured by the head position detection device to generate head position data. The system may further include a display for displaying information about the various data generated by the processing module.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/08 A61B5/087 A61B5/113 A61B5/145 A61B7/00 A61B7/04 (Advanced/Invention)
CPC: A61B5/6823 A61B5/7282 A61B7/04 A61B5/742 A61B5/4818 A61B5/087 A61B5/14542 A61B7/003 A61B5/1114 G06F19/00
US: 600/301



Family:

Publication number	Publication date	Application number	Application date
CA2847412 AA	20140303	CA20122847412	20120907
US2014330095 AA	20141106	US20120342010	20120907
WO13033845 A1	20130314	WO2012CA50621	20120907

Priority:

US20110531772P 20110907 US20120342010 20120907 WO2012CA50621 20120907

Probable Assignee: OF MANITOBA UNIV

Assignee(s): (std): KAZEM MOUSSAVI ZAHRA ; YADOLLAHI AZADEH ; UNIV MANITOBA

Assignee(s): UNIVERSITY OF MANITOBA ; OF MANITOBA UNIV

Inventor(s): (std): KAZEM MOUSSAVI ZAHRA ; YADOLLAHI AZADEH

Agent(s): CASSAN MACLEAN; CASSAN MACLEAN IP AGENCY INC

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: SUTURE PASSER SYSTEMS AND **METHODS** FOR TONGUE OR OTHER TISSUE SUSPENSION AND COMPRESSION

Abstract: Suture passer systems for tissue suspension and tissue compression, and more particularly for tongue suspension, are described. The system can include at least a first elongate tubular body or shaft, a needle having a lateral bias carried by the elongate body, and a retrieval element operably connected to the elongate tubular body. The needle can have a substantially straight configuration when located within the elongate tubular body, and be configured to exit an opening at or near a distal end of the elongate tubular body and assume a laterally biased or curved shape to form a path through tissue. The needle is configured to carry a suture. The retrieval element can be configured to retrieve the suture carried by the needle after the needle has formed a curved or otherwise angled path through tissue. The system can also include one or more bone anchors to secure the suture loops. **Methods** of placing one or more suture loops into tissue, such as the base of the tongue, are also described.

Classifications:

International (IPC 8-9): A61B17/04 A61B17/06

A61B90/00 (Advanced/Invention);

A61B17/00 A61B17/06 A61B17/24 (Advanced/Non-invention)

CPC: A61B17/0483 A61B17/0401 A61B17/0469 A61B17/0485

A61B17/0487 A61B2017/00814 A61B2017/0414 A61B2017/044

A61B2017/0448 A61B2017/0454 A61B2017/0461 A61B2017/0472

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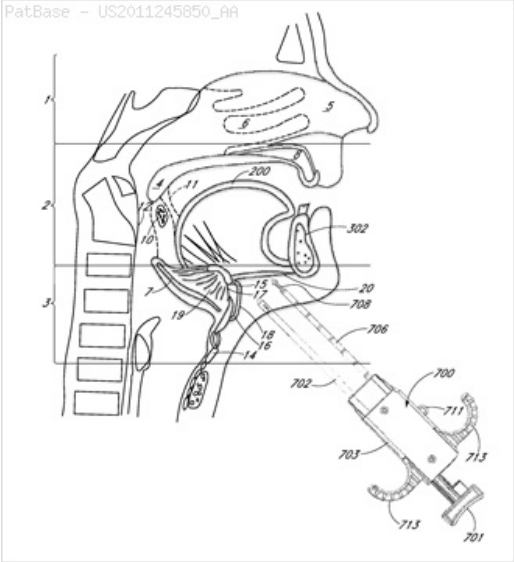
European: A61B17/04A A61B17/04E A61B17/04J K61B17/00R11

K61B17/04A30 K61B17/04A40A K61B17/04A40C K61B17/04A40P

K61B17/04A8 K61B17/04E3 K61B17/04H K61B17/04K K61B17/06B

K61B17/24S K61B19/52B8 K61B19/54

US: 1/1 606/144 606/145 606/145P 606/148



Family:

Publication number	Publication date	Application number	Application date
EP2552325 A1	20130206	EP20110763477	20110331
EP2552325 A4	20150527	EP20110763477	20110331
US2011245850 AA	20111006	US20110077813	20110331
US2013345724 AA	20131226	US20130913123	20130607
US2017000477 AA	20170105	US20160201234	20160701
US8460322 BB	20130611	US20110077813	20110331
US9386981 BB	20160712	US20130913123	20130607
WO11123714 A1	20111006	WO2011US30829	20110331

Priority:

US20100319822P 20100331	US20100363618P 20100712	US20110435230P 20110121
US20110077813 20110331	WO2011US30829 20110331	US20130913123 20130607
US20160201234 20160701		

Probable Assignee: SIESTA MEDICAL INC

Assignee(s): (std): BURG ERIK VAN D ; CHENG CHRISTOPHER T ; FEEZOR CHRIS ; HIROTSUKA MARK ; JACKSON JASPER ; SIESTA MEDICAL INC ; KOLBER MICHAEL ; MARTIN PETER ; VAN DER BURG ERIK ; LISTON ADAM H

Inventor(s): (std): BURG ERIK VAN D ; CHENG CHRISTOPHER T ; CHENG CHRISTOPHER T ; FEEZOR CHRIS ; HIROTSUKA MARK ; JACKSON JASPER ; KOLBER MICHAEL ; LISTON ADAM H ; MARTIN PETER ; VAN DER BURG ERIK

Agent(s): KIPA AB; KNOBBE MARTENS OLSON AND BEAR LLP; ALTMAN DANIEL E

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: MONITORING SYSTEM

Abstract: The present invention relates to a novel monitoring system suitable for attachment to a surface of a subject and for monitoring physiological signals of a subject wearing the system.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/024 A61B5/0245

A61B5/0488 A61B5/053 A61B5/08 A61B6/00 A61B7/00

A61B8/08 (Advanced/Invention)

CPC: A61B5/02028 A61B5/002 A61B5/0205 A61B5/02438

A61B5/0245 A61B5/0402 A61B5/0476 A61B5/0488 A61B5/0533

A61B5/0816 A61B5/1112 A61B5/113 A61B5/14552 A61B5/4094

A61B5/412 A61B5/4266 A61B5/4818 A61B5/4824 A61B5/6833

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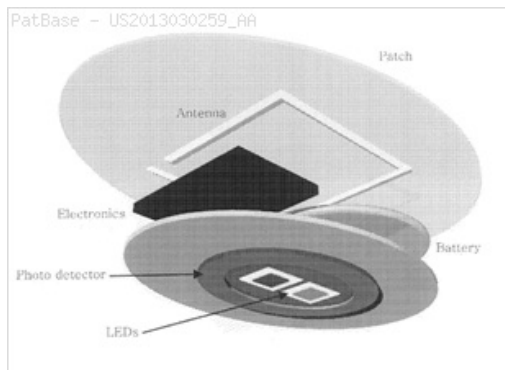
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A61B5/48E A61B5/68B3D1 K61B5/0245 K61B5/024F K61B5/0402

K61B5/0476 K61B5/0488 K61B5/053B4 K61B5/08R K61B5/113

K61B5/11M K61B560/04B2 K61B7/00

US: 600/301



Family:

Publication number	Publication date	Application number	Application date
EP2338409 A1	20110629	EP20090180610	20091223
EP2515747 A2	20121031	EP20100798336	20101222
EP2896356 A1	20150722	EP20140195630	20101222
US2013030259 AA	20130131	US20100518757	20101222
WO11076884 A2	20110630	WO2010EP70569	20101222
WO11076884 A3	20110909	WO2010EP70569	20101222

Priority:

EP20090180610 20091223 EP20100798336 20101222 WO2010EP70569 20101222
EP20140195630 20101222

Probable Assignee: DELTA DANSK ELEKTRONIK LYS OG AKUSTIK

Assignee(s): (std): BRANEBJERG JENS ; DELTA DANSK ELEKTRONIK LYS AND AKUSTIK ; DUUN SUNE ; HAAHR RASMUS GROENBEK ; HOPPE KARSTEN ; DELTA DANSK ELEKTRONIK LYS OG AKUSTIK ; THOMSEN ERIK V ; THOMSEN ERIK

Inventor(s): (std): BRANEBJERG JENS ; DUUN SUNE ; HAAHR RASMUS GROENBEK ; HOPPE KARSTEN ; THOMSEN ERIK ; HAAHR RASMUS GROENBEK ; THOMSEN ERIK V

Agent(s): INSPICOS A S ; NIELSEN LEIF ; HANSEN CARSTEN ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: DELTA FLOW PRESSURE REGULATION

Abstract: A **method**, system, **apparatus**, and computer program for **detecting** breathing pattern changes and **controlling** a mechanical ventilator in accordance to changes of breathing air flow thus reducing the work of breathing for the patient.

Classifications:

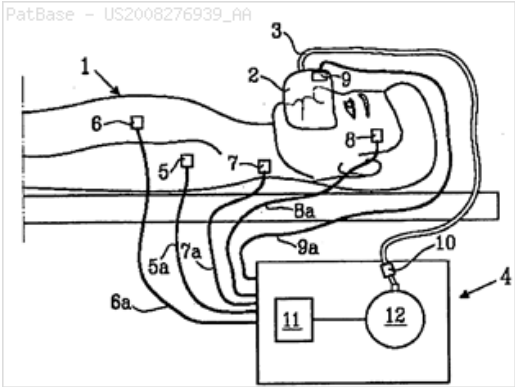
International (IPC 8-9): A61B5/087 A61B7/00 A61M16/00 G05D7/06 (Advanced/Invention); A61B5/08 A61B7/00 A61M16/00 G05D7/06 (Core/Invention); A61M (Subclass/Invention)

International (IPC 1-7): A61B5/087 A61M16/00

CPC: A61M2016/0027 A61M2016/0036 A61M2205/3375 A61M2205/3561 A61M2205/50 A61M2230/04 A61M2230/10 A61M2230/18 A61M2230/205 A61M2230/30 A61M2230/432 A61M2230/435 A61M2230/50 A61M2230/60 A61M16/024 A61M16/0069 A61M16/0051

European: A61M16/00K K61M16/00A10 K61M16/00A14B2 K61M16/00M6P K61M205/33U K61M205/35R2 K61M205/50 K61M230/04 K61M230/10 K61M230/18 K61M230/20D K61M230/30 K61M230/43C K61M230/43D K61M230/50 K61M230/60

US: 128/204.18 128/204.21 128/204.23 128/204.230P 700/282



Family:

Publication number	Publication date	Application number	Application date
AT475443 E	20100815	AT20050758800T	20050627
AT510576 E	20110615	AT20050759864T	20050627
DE602005022591 D1	20100909	DE200560022591T	20050627
DE602005028251 D1	20110707	DE200560028251T	20050627
EP1778325 A1	20070502	EP20050758800	20050627
EP1778325 B1	20100728	EP20050758800	20050627
EP1778326 A1	20070502	EP20050759864	20050627
EP1778326 B1	20110525	EP20050759864	20050627
ES2367119 T3	20111028	ES20050759864T	20050627
SE200401809 A0	20040708	SE20040001809	20040708
SE200401810 A0	20040708	SE20040001810	20040708
US2008276939 AA	20081113	US20050570936	20050627
US2008283061 AA	20081120	US20050570943	20050627
US8910632 BB	20141216	US20050570943	20050627
WO06005432 A1	20060119	WO2005EP06880	20050627
WO06005433 A1	20060119	WO2005EP06881	20050627

Priority:

SE20040001809	20040708	SE20040018107	20040708	SE20040001810	20040708
US20040610137P	20040915	EP20050759864	20050627	US20050570936	20050627
US20050570943	20050627	WO2005EP06880	20050627	WO2005EP06881	20050627

Probable Assignee: BREAS MEDICAL AB

Assignee(s): (std): BREAS MEDICAL AB ; TIEDJE MIKAEL

Assignee(s): GENERAL ELECTRIC CO

Inventor(s): (std): TIEDJE MIKAEL

Inventor(s): MIKAEL TIEDJE

Agent(s): RGTH RICHTER GERBAULET THIELEMAN HOFMANN PATENTANWAELTE PARTGMBB; VALEA AB; RAYMOND R MOSER JR ESQ MOSER IP LAW GROUP; MOSER TABOADA; ALAN

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: SYSTEM AND **METHODS** OF ACOUSTICAL SCREENING FOR OBSTRUCTIVE SLEEP **APNEA** DURING WAKEFULNESS

Abstract: A system and **methods** using tracheal sound intensity variations to screen patients suspected of obstructive sleep **apnea** during wakefulness. The system includes a mechanism positioning the patient and a sound input **device** attached to a recording **device** to receive breathing sound signals. A signal conditioning component amplifies and filters the breathing sound signals, and an analog to digital component digitizes the signals. A **detecting** component **detects** onsets of respiratory phases, and a separating component separates inspiratory sound signals and expiratory sound signals from the breathing sound signals. A segmenting component segments the inspiratory and expiratory phase signals into a short duration of overlapping windows, and a collection characteristic extraction component obtains characteristics from each window. A calculation component performs statistical analysis to reduce the number of significant characteristics and classify the patient as OSA or non-OSA and predicts severity of the OSA as one of mild, moderate and severe.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/08 A61B7/00 A61B7/04

A61F5/56 G06F19/00 (Advanced/Invention)

CPC: A61B5/4818 A61B5/0803 A61B5/0826 A61B5/6822

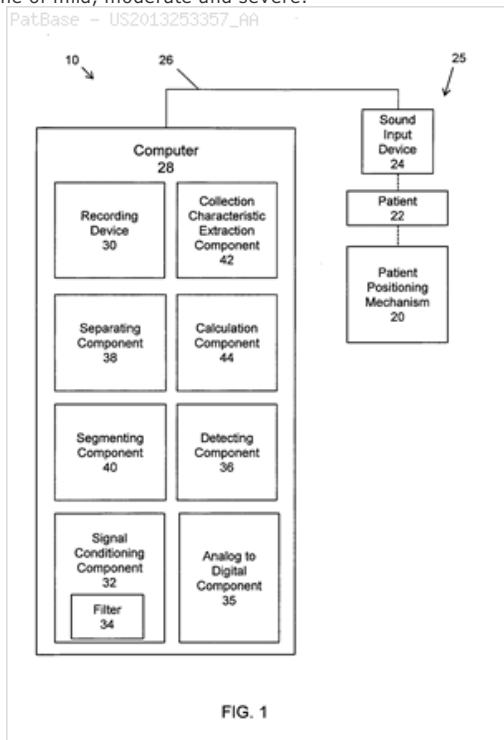
A61B5/6823 A61B5/6832 A61B5/70 A61B5/7264 A61B7/003

A61B7/04 A61B2562/0204 G06F19/345 G16H50/20

European: A61B5/48C8 A61B5/72K12 A61B7/00D A61B7/04

G06F19/34K K61B5/68B2F K61B5/68B3D

US: 600/529



Family:

Publication number	Publication date	Application number	Application date
CA2799094 AA	20121109	CA20112799094	20110524
EP2575613 A2	20130410	EP20110792006	20110524
EP2575613 A4	20150401	EP20110792006	20110524
US2013253357 AA	20130926	US20110699462	20110524
US9931073 BB	20180403	US20110699462	20110524
WO11154791 A2	20111215	WO20111B01119	20110524
WO11154791 A3	20120216	WO20111B01119	20110524

Priority:

US20100347608P 20100524 US20110699462 20110524 WO20111B01119 20110524

Probable Assignee: OF MANITOBA UNIV

Assignee(s): (std): MONTAZERI AMAN ; MONTAZERIPOURAGHA AMANALLAH ; MOUSSAVI ZAHRA ; UNIV MANITOBA ; UNIV OF MANITOBA

Assignee(s): UNIVERSITY OF MANITOBA ; OF MANITOBA UNIV

Inventor(s): (std): MONTAZERIPOURAGHA AMANALLAH ; MOUSSAVI ZAHRA ; MONTAZERI AMAN

Agent(s): CASSAN MACLEAN ; WINTER BRANDL FUERNISS HUEBNER ROESS KAISER POLTE PARTNERSCHAFT ; VALAUSKAS CORDER LLC

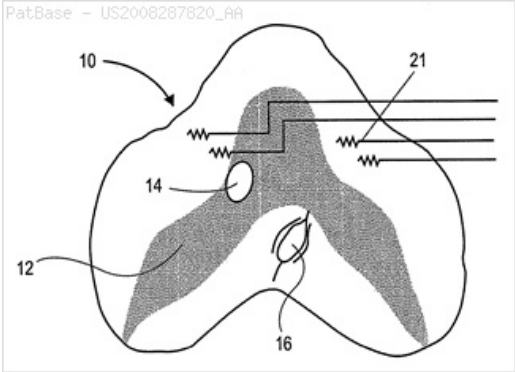
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: **DEVICES** AND **METHODS** FOR ASSESSING MOTOR POINT ELECTROMYOGRAM AS A BIOMARKER

Abstract: Described herein are **methods** of **detecting** the presence or progression of neuromuscular disorders (including ALS) based at least in part on diaphragm **EMG** signals taken at different points in time from the same implanted electrode(s). Signals may be used to diagnose or to monitor progression of a disorder or to track a treatment. Thus, diaphragm **EMG** signal may be used as a marker (e.g., a "biomarker") for the **detection** or progression of a neurological disorder such as ALS. The characteristics or parameters of diaphragm **EMG** signals may be used to create an activity index, which may be output or compared and further analyzed. These signals may also be analyzed to show a difference between the left and right sides of the diaphragm.

Classifications:

International (IPC 8-9): A61B10/00 A61B5/04 A61B5/0488 A61N1/36 (Advanced/Invention); A61B5/0492 (Advanced/Non-invention); A61B5/04 A61B5/0488 A61N1/36 (Core/Invention)
CPC: A61B5/0488 A61N1/3601
European: A61B5/0488 A61N1/36C
US: 600/529 600/529P



Family:

Publication number	Publication date	Application number	Application date
US2008287820 AA	20081120	US20080122482	20080516
US9820671 BB	20171121	US20080122482	20080516
WO08144578 A1	20081127	WO2008US64002	20080516

Priority:

US20070938686P 20070517 US20080122482 20080516

Probable Assignee: SYNAPSE BIOMEDICAL INC

Assignee(s): (std): IGNAGNI ANTHONY R ; ONDERS RAYMOND P ; SYNAPSE BIOMEDICAL INC

Assignee(s): DIRECTOR OF OHIO DEVELOPMENT SERVICES AGENCY

Inventor(s): (std): IGNAGNI ANTHONY R ; ONDERS RAYMOND P

Agent(s): SHAY GLENN LLP; SHOOP RICHARD D ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: **METHOD** AND **APPARATUS** FOR PROVIDING A VISUAL REPRESENTATION OF SLEEP QUALITY BASED ON **ECG** SIGNALS

Abstract: A **method** of providing a graphical representation of sleep quality includes obtaining **ECG** data for a patient, obtaining a plurality of N-intervals from the **ECG** data, calculating a plurality of spectral densities based on the plurality of N-N intervals, wherein each spectral density is associated with one of a plurality of successive time windows and is calculated based on certain ones of the N-N intervals associated with the one of the plurality of successive time windows, and generating the graphical representation of sleep quality using the plurality of spectral densities.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/04 A61B5/0402

A61B5/0428 A61B5/0432 A61B5/044 A61B5/0452

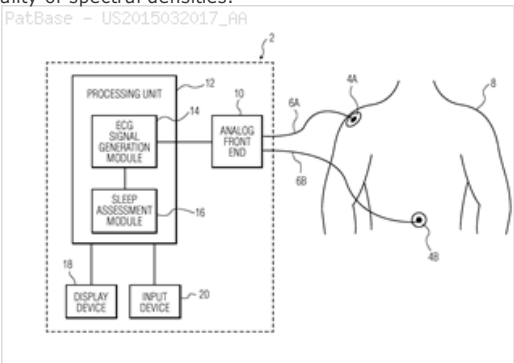
A61B5/16 (Advanced/Invention)

CPC: A61B5/4815 A61B5/044 A61B5/0452 A61B5/04014

A61B5/0006 A61B5/0402 A61B5/4806 A61B5/7257 A61B5/0432

A61B5/04286

US: 600/523



Family:

Publication number	Publication date	Application number	Application date
CN104321013 A	20150128	CN201380026372	20130318
CN104321013 B	20170815	CN201380026372	20130318
EP2827767 A1	20150128	EP20130722534	20130318
JP2015510810 T2	20150413	JP20150501028T	20130318
JP6275109 B2	20180207	JP20150501028T	20130318
US2015032017 AA	20150129	US20130385192	20130318
US2017143255 AA	20170525	US20170424294	20170203
US9566032 BB	20170214	US20130385192	20130318
WO13140324 A1	20130926	WO20131B52142	20130318

Priority:

US20120613637P 20120321 US20130385192 20130318 WO20131B52142 20130318
US20140385192 20140915 US20170424294 20170203

Probable Assignee: PHILIPS KONINKLL NV

Assignee(s): (std): KONINK PHILIPS N V ; KONINKL PHILIPS ELECTRONICS NV ; KONINKL PHILIPS NV ; PHILIPS KONINKLL NV

Assignee(s): PHILIPS ELECTRONICS KONINKLL NV

Inventor(s): (std): BABAEIZADEH SAEED ; ZHOU SOPHIA HUAI

Agent(s): STEFFEN THOMAS; STEFFEN THOMAS ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: **DEVICE** TO **DETECT** AND TREAT **APNEAS** AND HYPOPNEA

Abstract: A **method** and **apparatus** for the treatment of Sleep **Apnea** events and Hypopnea episodes wherein one embodiment comprises a wearable, belt like **apparatus** containing a microphone and a plethysmograph. The microphone and plethysmograph generate signals that are representative of physiological aspects of respiration, and the signals are transferred to an imbedded computer. The embedded computer extracts the sound of breathing and the sound of the heart beat by Digital Signal **Processing** techniques. The embedded computer has elements for determining when respiration parameters falls out of defined boundaries for said respiration parameters. This exemplary **method** provides real-time **detection** of the onset of a Sleep **Apnea** event or Hypopnea episode and supplies stimulation signals upon the determination of a Sleep **Apnea** event or Hypopnea episode to initiate an inhalation. In one embodiment, the stimulus is applied to the patient by a cutaneous rumble effects actuator and/or audio effects broadcasting.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/08 A61B5/085

A61B7/00 (Advanced/Invention)

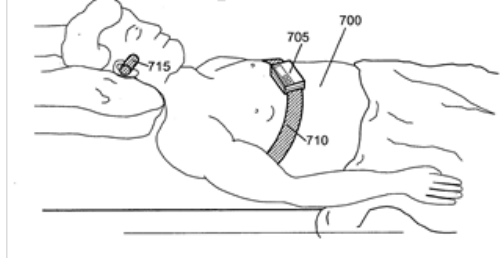
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A61B5/7282 A61B5/6817 A61B5/0205 A61B5/7405 A61B5/486

A61B5/6831 A61B5/7264 A61B5/7455

US: 600/301

PatBase - US2014051938_AH



Family:

Publication number	Publication date	Application number	Application date
US2014051938 AA	20140220	US20080277386	20081125
US2017188940 A9	20170706	US20080277386	20081125

Priority:

US20070990035P 20071126 US20080277386 20081125

Probable Assignee: WHISPERSOM CORP

Assignee(s): (std): BARTON DANIEL JOHN ; GOLDSTEIN DAVID BRIAN ; WHISPERSOM CORP

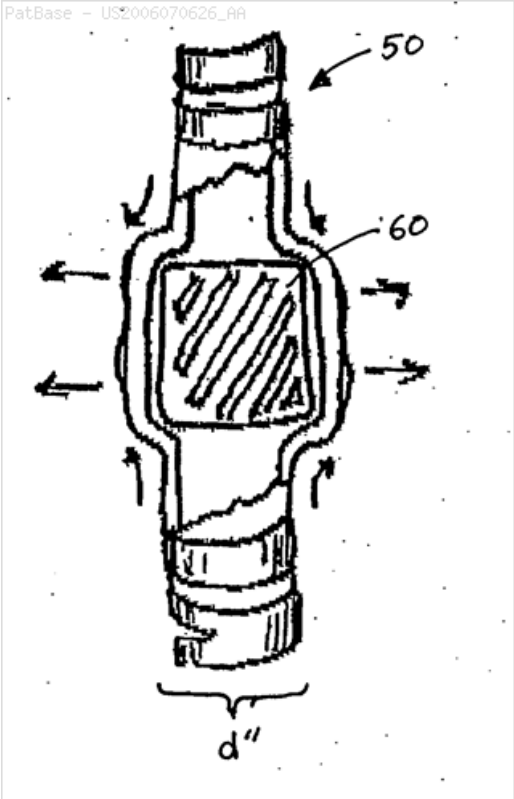
Inventor(s): (std): BARTON DANIEL JOHN ; GOLDSTEIN DAVID BRIAN

Title: SYSTEM AND METHOD FOR AIRWAY MANIPULATION

Abstract: **Methods** and **devices** are disclosed for manipulating the airway, such as to treat obstructive sleep **apnea**. An implant is positioned within the body with respect to the airway. The spatial orientation of the airway is manipulated, directly or indirectly, to affect the configuration of the airway. In general, the implant is manipulated to displace the trachea in an inferior direction, resist superior displacement of the trachea and/or to alter the tracheal wall tension. The implant restrains the trachea in the manipulated configuration.

Classifications:

International (IPC 8-9): A61B17/04 A61F2/02 A61F2/04 A61F2/06 A61F2/08 A61F2/82 A61M15/00 A61M16/00 A62B9/02 A62B9/06 (Advanced/Invention); A61B17/06 A61B17/34 A61F2/06 (Advanced/Non-invention)
CPC: A61F2/82 A61B17/0401 A61B17/0487 A61B17/3421 A61B17/3423 A61B2017/0453 A61B2017/0454 A61B2017/0458 A61B2017/0464 A61B2017/0496 A61B2017/06176 A61F2/04 A61F2002/046 A61F2002/065 A61F2250/0004
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US: 128/200.24 128/200.26 128/207.14 128/207.140P 128/207.15 128/207.150S 128/207.16 128/207.160S 600/37 600/37P 623/1.11 623/1.15 623/1.18 623/1.2 623/1.22 623/1.36 623/11.11 623/14.11 623/23.64 623/23.7



Family:

Publication number	Publication date	Application number	Application date
US2006070626 AA	20060406	US20040958205	20041004
US2011270031 AA	20111103	US20110184614	20110718
US7997266 BB	20110816	US20040958205	20041004
US9022024 BB	20150505	US20110184614	20110718
WO06041791 A2	20060420	WO2005US35541	20050930
WO06041791 A3	20070614	WO2005US35541	20050930

Priority:

US20040958205 20041004 US20040958205 20041005 US20110184614 20110718

Probable Assignee: PHILIPS ELECTRONICS KONINKLL NV

Assignee(s): (std): ASPIRE MEDICAL INC ; BURG ERIK J VAN D ; DINEEN MICHAEL T ; FRAZIER ANDREW ; KONINKL PHILIPS ELECTRONICS NV ; ROUE CHAD C ; VAN DER BURG ERIK J ; KONINKL PHILIPS NV

Assignee(s): PHILIPS ELECTRONICS KONINKLL NV ; KONINKLIJKE PHILIPS ELECTRONICS N V ; PHILIPS KONINKLL NV

Inventor(s): (std): BURG ERIK J VAN D ; DINEEN MICHAEL T ; FRAZIER ANDREW ; ROUE CHAD C ; VAN DER BURG ERIK J

Inventor(s): ROUE CHAD ; BURG ERIK VAN D ; DINEEN MICHAEL

Agent(s): KNOBBE MARTENS OLSON AND BEAR LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KP KR KZ LC LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: **DEVICE** AND **METHOD** FOR DETERMINING A COMPARISON VALUE OF BIODATA AND FOR RECORDING BIODATA

Abstract: The **method** and the **device** are used for evaluating recorded measurement data. In particular, the use of the **method** and of the **device** makes it possible to **detect** the individual risk of a living being in respect of certain disease states and, if appropriate, to automatically evaluate correspondingly recognized risks in a **device control**. Measurement data in respect of heart-specific and/or circulation-specific parameters or respiration-specific parameters of a patient are preferably recorded and evaluated. The measurement data are determined over a defined period of time and the measurement data are evaluated taking into account the time information. A particularly effective implementation of the **method** can be based on pattern recognition in which individual patterns and/or sequence patterns are evaluated.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/02 A61B5/024

A61B5/0295 A61B5/04 A61B5/0402 A61B5/08 A61B5/14

A61B5/1455 (Advanced/Invention);

A61B5/00 A61B5/02 A61B5/04 A61B5/14 (Core/Invention)

CPC: A61B5/02 A61B5/024 A61B5/0285 A61B5/0205 A61B5/08

A61B5/082 A61B5/1135 A61B5/14551 A61B5/4818 A61B2560/0443

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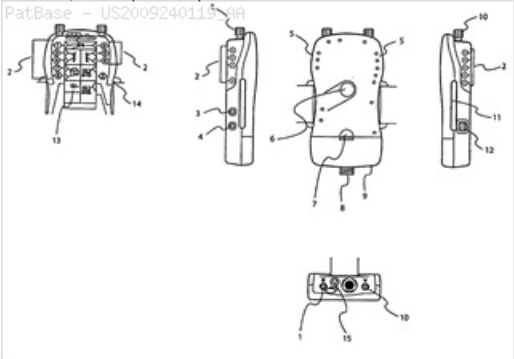
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A61B5/48C8 A61B5/72M2 K61B5/024 K61B5/0285 K61B5/08

K61B5/113B K61B5/72M2 K61B560/04H

US: 600/301 600/301P



Family:

Publication number	Publication date	Application number	Application date
DE102007016446 A1	20071018	DE200710016446	20070404
DE102007016447 A1	20071011	DE200710016447	20070404
EP2004037 A1	20081224	EP20070722172	20070404
US2009240119 AA	20090924	US20070225980	20070404
US9801589 BB	20171031	US20070225980	20070404
WO07115553 A1	20071018	WO2007DE000614	20070404

Priority:

DE200610018040 20060407 DE200610018041 20060407 DE200710016447 20070404
DE200710016446 20070404 WO2007DE000614 20070404

Probable Assignee: WEINMANN GERATE FUR MEDIZIN GMBH AND CO KG

Assignee(s): (std): SCHOELLER BERND ; SCHWAIBOLD MATTHIAS ; SOMMERMEYER DIRK ; WEINMANN G GERAETE MED ; LOEWENSTEIN MEDICAL TECH S A

Assignee(s): LOEWENSTEIN MEDICAL TECHNOLOGY GMBH AND CO KG ; LOEWENSTEIN MEDICAL TECHNOLOGY SA ; WEINMANN GERAETE F MEDIZIN GMBH AND CO KG ; WEINMANN GERAETE FUER MEDIZIN GMBH AND CO KG ; WEINMANN GERATE FUR MEDIZIN GMBH ; WEINMANN GERATE FUR MEDIZIN GMBH AND CO KG

Inventor(s): (std): SOMMERMEYER DIRK ; SCHWAIBOLD MATTHIAS ; SCHOELLER BERND

Agent(s): KLICKOW HANS HENNING; FRIEDRICH KUEFFNER; ABEL LAW GROUP LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: **METHOD**, SYSTEM, AND **APPARATUS** FOR AUTOMATIC **DETECTION** OF OBSTRUCTIVE SLEEP **APNEA** FROM **OXYGEN SATURATION** RECORDINGS

Abstract: Disclosed embodiments include a **method** for automatic **detection** of sleep **apnea** implemented in a medical **apparatus**, the **method** comprising (a) extracting a plurality of signal features by analyzing an **oxygen saturation** signal, (b) performing dimensionality reduction on the plurality of signal features to generate a plurality of signal features in a transformed space; and (c) displaying a sleep **apnea** diagnosis result based on a statistical classifier that operates on the plurality of signal features in a transformed space.

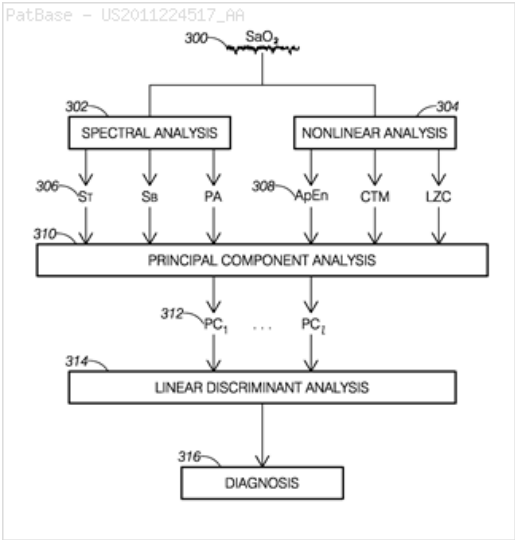
Classifications:

International (IPC 8-9): A61B5/00 A61B5/1455 (Advanced/Invention)

CPC: A61B5/4818 A61B5/14551 A61B5/7264

European: A61B5/1455N A61B5/48C8 A61B5/72K12

US: 1/1 600/310 600/323 600/323P



Family:

Publication number	Publication date	Application number	Application date
US2011224517 AA	20110915	US20110044846	20110310
US2012296182 AA	20121122	US20120561011	20120728
US8862195 BB	20141014	US20110044846	20110310
US9386951 BB	20160712	US20120561011	20120728

Priority:

US20100312252P 20100310 US20110044846 20110310 US20110523403P 20110815
US20120561011 20120728

Probable Assignee: OF VALLADOLID UNIV

Assignee(s): (std): ABOY PEDRO MATEO RIOBO ; ALVAREZ GONZALEZ DANIEL ; DEL CAMPO MATIA FELIX ; DEL CAMPO MATIAS FELIX ; MARCOS MARTIN JOSE VICTOR ; HORNERO SANCHEZ ROBERTO ; RIOBO ABOY PEDRO MATEO ; SANCHEZ ROBERTO HORNERO ; MATIAS FELIX DEL CAMPO ; MARTIN JOSE VICTOR MARCOS ; GONZALEZ DANIEL ALVAREZ ; UNIV VALLADOLID

Assignee(s): UNIVERSIDAD DE VALLADOLID ; OF VALLADOLID UNIV

Inventor(s): (std): ABOY PEDRO MATEO RIOBO ; ALVAREZ GONZALEZ DANIEL ; DEL CAMPO MATIA FELIX ; DEL CAMPO MATIAS FELIX ; GONZALEZ DANIEL ALVAREZ ; HORNERO SANCHEZ ROBERTO ; MARCOS MARTIN JOSE VICTOR ; MARTIN JOSE VICTOR MARCOS ; MATIAS FELIX DEL CAMPO ; RIOBO ABOY PEDRO MATEO ; SANCHEZ ROBERTO HORNERO

Agent(s): MATEO; ABOY AND ASSOCIATES PC

Title: ELECTRONIC ANTI-SNORING AND SLEEP **APNEA DEVICE** FOR SLEEP-BREATHING DISORDERS, ELECTRONIC ANTI-BRUXING **DEVICE**, AND ELECTRONIC **DEVICE** FOR TMD THERAPY

Abstract: **Devices** and **methods** for preventing or mitigating the occurrence of sleep breathing disorders use an extra-oral unit for **detecting** sounds from a sleeping patient and for sending commands to an intra-oral **device** for applying an electrical stimulation to one or more locations in the oral cavity of the patient. Similarly, bruxing and temporomandibular disorder can be mitigated or prevented by applying electrical stimulation to the oral cavity of a patient in response to the **detection** of pressure caused by bruxing activity or oral para-functional activity. The intra-oral unit includes a **controller** for **controlling** the generation of the electrical stimulation to be applied to the oral cavity of the patient, and first and second protective layers sealing the **controller** therebetween.

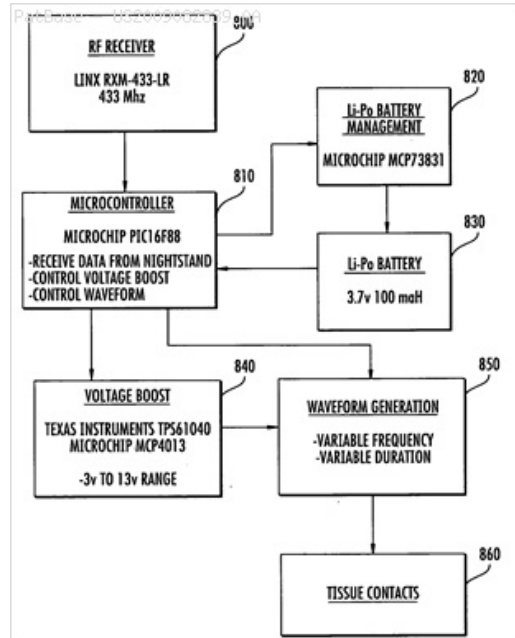
Classifications:

International (IPC 8-9): A61B7/00 A61F5/56 A61N1/00 A61N1/05 A61N1/36 B29C65/70 B32B37/24 (Advanced/Invention); A61B7/00 A61F5/56 A61N1/00 A61N1/05 A61N1/36 B29C65/70 B32B37/14 (Core/Invention)

CPC: A61N1/0548 A61N1/3601 A61N1/375 A61N1/37247 A61B5/11 A61B5/4557 A61B5/4806 A61B5/4818 A61B5/682 A61B5/7257 A61B7/003 A61B2562/0247 A61B2562/046 A61N1/37252

European: A61B5/11 A61B5/45R2F A61B5/48C8 A61B5/68B2B5 A61B5/72K10B A61B7/00D A61N1/05K5 A61N1/36C A61N1/375 K61B5/48C K61B562/02H K61B562/04D K61N1/05K5 K61N1/36C K61N1/372D4U K61N1/372D8 K61N1/375

US: 156/242 600/586 600/586P 607/134 607/134P 607/42 607/42P



Family:

Publication number	Publication date	Application number	Application date
US2009082839 AA	20090326	US20080154339	20080522
US2010185254 AA	20100722	US20100690515	20100120
US2010200158 AA	20100812	US20100690596	20100120
US2010204614 AA	20100812	US20100699200	20100203
US2010204747 AA	20100812	US20100690574	20100120
WO10090852 A2	20100812	WO2010US21575	20100121
WO10090852 A3	20101014	WO2010US21575	20100121
WO10093505 A1	20100819	WO2010US21590	20100121

Priority:

US20070946159P 20070626 US20080154339 20080522 US20090146087P 20090121
 US20100690515 20100120 US20100690596 20100120 US20100690574 20100120
 US20100699200 20100203

Probable Assignee: ZURLIN TECHNOLOGIES HOLDINGS LLC

Assignee(s): (std): LINDQUIST SHERRILL F ; ZURASKY JACOB D ; ZURASKY JOHN E ; ZURLIN TECHNOLOGIES HOLDINGS L

Assignee(s): ZURLIN TECHNOLOGIES HOLDINGS LLC

Inventor(s): (std): LINDQUIST SHERRILL F ; ZURASKY JACOB D ; ZURASKY JOHN E

Agent(s): ALLEN DYER DOPPELT MILBRATH AND GILCHRIST PA; REGAN CHRISTOPHER F ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

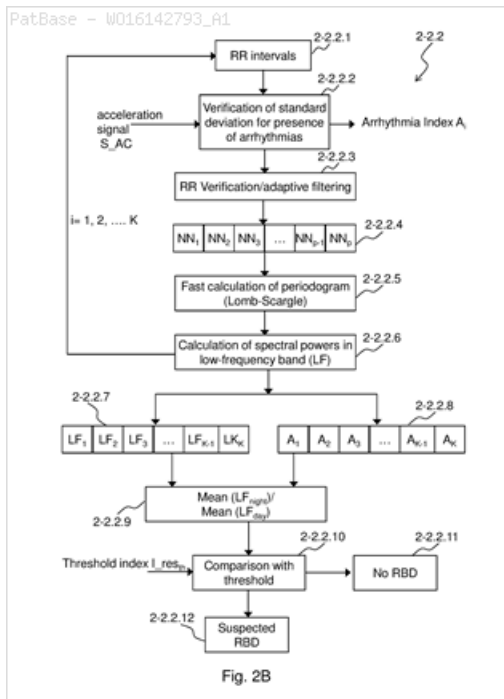
Title: PORTABLE ELECTRONIC **DEVICE** TO **PROCESS** A SIGNAL ACQUIRED FROM A LIVING BODY AND **METHOD** THEREOF

Abstract: The present application relates to a portable electronic **device** for **processing** a signal acquired from a living body. The Applicant has perceived that the portable electronic **device** according to the present invention has the following advantages: - it allows automatic **detection** of biological parameters indicative of sleep behaviour disorders (for example, of the RBD type) and, preferably, sleep **apnea**, for largescale screening applications; - it can be used at the home of a subject who reports sleep disorders that are not well defined; it does not require the presence of specialized medical or technical personnel; - it is compact; - it is flexible; - it can be easily worn and used by the subject himself or herself and does not need to be applied by technical or medical personnel; - it provides a result that can be easily interpreted by the subject without the aid of medical personnel; - it is not cumbersome and does not cause difficulties in falling asleep or maintaining a qualitatively and quantitatively optimal sleep, and thus enables a valid test.

Classifications:

International (IPC 8-9): A61B5/024 A61B5/04 (Advanced/Invention); A61N1/36 (Advanced/Non-invention)

CPC: A61B5/02405 A61B5/0006 A61B5/0024 A61B5/02416 A61B5/04017 A61B5/4076 A61B5/4812 A61B5/4842 A61B5/0205 A61B5/14551 A61B5/4818 A61B5/4815 A61B5/02055 A61B5/0245 A61B5/0456 A61B5/6898 A61B5/7253



Family:

Publication number	Publication date	Application number	Application date
EP3267880 A1	20180117	EP20160712495	20160212
WO16055129 A1	20160414	WO2015EP00550	20150312
WO16142793 A1	20160915	WO2016IB50758	20160212

Priority:

IT2014MI00312U 20141010 WO2015EP00550 20150312 WO2016IB50758 20160212

Probable Assignee: MICROBIOMED S R L

Assignee(s): (std): GAMBARDELLA ANTONIO ; MICROBIOMED S R L ; QUATTRONE ALDO ; VESCIO BASILIO ; SALSONE MARIA

Assignee(s): MICROBIOMED SRL

Inventor(s): (std): GAMBARDELLA ANTONIO ; QUATTRONE ALDO ; SALSONE MARIA ; VESCIO BASILIO

Agent(s): DONDI SILVIA; VALENTINI GIULIANO; PENZA GIANCARLO ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: MEDICAL **DEVICE** AND **METHOD** WITH IMPROVED BIOMETRIC VERIFICATION

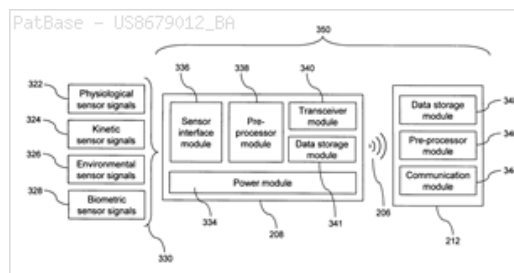
Abstract: The present invention is both a **device** and a **method** for verifying a subject's identity while using a medical **device** or undergoing a medical diagnostic or therapeutic procedure, particularly at home or at a remote location. The **method** and **device** can be used for inpatient and remote sleep and signal analysis with biometric identification. The present invention is further related to the **devices** and sensors used in executing the **method**, and includes various embodiments of a **method** of inpatient and remote sleep analysis.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/0205 A61B5/0402
A61B5/0476 A61B5/0488 A61B5/0496 A61B5/1172 A61B5/1455
G06K9/00 (Advanced/Invention);
A61B5/087 (Advanced/Non-invention)

CPC: A61B5/0002 A61B5/1455 A61B5/4806 A61B5/6826
G06K9/00885 A61B5/0006 A61B5/0205 A61B5/0402 A61B5/0476
A61B5/0488 A61B5/0496 A61B5/14551 A61B5/4809 A61B5/4815
A61B5/087 A61B5/1172 A61B5/0022

US: 382/115 600/301



Family:

Publication number	Publication date	Application number	Application date
US8679012 BA	20140325	US20080228461	20080813
US9943252 BA	20180417	US20140173897	20140206

Priority:

US20080228461 20080813 US20140173897 20140206

Probable Assignee: CLEVELAND MEDICAL DEVICES INC

Assignee(s): (std): CLEVELAND MED DEVICES INC ; KAYYALI HANI

Assignee(s): CLEVELAND MEDICAL DEVICES INC ; DIRECTOR OF OHIO DEVELOPMENT SERVICES AGENCY

Inventor(s): (std): KAYYALI HANI

Agent(s): BRIAN; MATTHEW

Title: PATIENT IN-THE-LOOP PARTICIPATORY CARE AND MONITORING

Abstract: **Methods** and systems for patient participatory care and monitoring are provided for applications including respiratory care, **ECG** monitoring, capnography, infusion pump alarm prevention/management, pressure sore prevention, incentive spirometry, consciousness monitoring during sedation, pain management and other care and monitoring modalities. A patient in-the-loop system includes an input interface for receiving data acquired from a monitoring, **controlling** or sensing **device**, a storage **device** for storing the data at a first location, and a **processor** for analyzing artifacts in the data and determining whether the patient provided a deliberate action with respect to the **device** as a response to a prompt or query. The **processor** can further initiate a variety of prompts and/or output queries stored in the storage **device** at a second location to the patient. The data derived from these patient-in-the-loop techniques are formatted to be received and interpreted by electronic medical record and electronic record keeping systems.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/02 A61B5/1455 G01F15/06

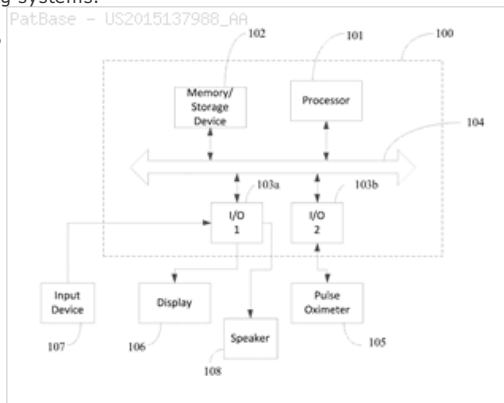
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F04C2270/041 G16H40/67 G06F19/3418

US: 340/870.02 702/19

**Family:**

Publication number	Publication date	Application number	Application date
EP2849635 A1	20150325	EP20130790129	20130517
EP2849635 A4	20160120	EP20130790129	20130517
US2015137988 AA	20150521	US20130400525	20130517
US9881133 BB	20180130	US20130400525	20130517
WO13173712 A1	20131121	WO2013US41590	20130517

Priority:

US20120649165P 20120518 US20130400525 20130517 WO2013US41590 20130517

Probable Assignee: UNIV OF FLORIDA RESEARCH FOUNDATION INC

Assignee(s): (std): UNIV FLORIDA ; UNIV OF FLORIDA RESEARCH FOUNDATION INC

Assignee(s): OF FLORIDA RESEARCH FOUNDATION INCORPORATED UNIV ; OF FLORIDA RESEARCH FOUNDATION INC UNIV

Inventor(s): (std): BISHT YASHWANT SINGH ; GRAVENSTEIN NIKOLAUS ; LIZDAS DAVID ; LAMPOTANG SAMSUN ; SCHWAB WILHELM K

Agent(s): FINNIE PETER JOHN; SALIWANCHIK LLOYD AND EISENSCHENK; KNIGHT SARAH J ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: DIAGNOSIS, MONITORING, AND TREATMENT OF RESPIRATORY DISORDERS

Abstract: Automation for a system and/or **method detects** and/or **controls** treatment of inspiratory flow limitation. The system may include a flow rate sensor configured to generate a signal representing a respiratory flow rate of a patient. It may include a recording **device** configured to record the generated respiratory flow rate signal during a diagnosis session. It may include a computing **device (7040)** configured to **detect** a degree of inspiratory flow limitation of the patient on the recorded respiratory flow rate signal. The **method** may include extracting an inspiratory portion of each breath during a **detection** and/or monitoring session from a respiratory flow rate signal of the patient, calculating a feature vector from each inspiratory flow portion, labelling each feature vector as flow limited or not flow limited, and/or computing a metric based on the labels, the metric indicating the degree of inspiratory flow limitation of the patient during the session.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/087 A61M16/00
A61M16/10 A61M16/16 G06Q50/22 (Advanced/Invention)
CPC: A61M2205/3592 A61M2205/42 A61M2205/502 A61M16/107
A61M16/026 A61B5/087 A61B5/4818 A61B5/4836 A61M16/0066
A61M16/1055 A61M16/109 A61M16/16 A61M2016/0027
A61M2205/14 A61M2205/3368 A61M2205/3584 A61M2205/505
A61M2209/08

**Family:**

Publication number	Publication date	Application number	Application date
EP3185942 A1	20170705	EP20150835731	20150827
EP3185942 A4	20180509	EP20150835731	20150827
TW201612845 A	20160401	TW20150127831	20150826
US2017367619 AA	20171228	US20150504461	20150827
WO16029265 A1	20160303	WO2015AU50496	20150827

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US20140043079P 20140828 US20150504461 20150827 WO2015AU50496 20150827

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Inventor(s): (std): ZHAN CE

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Title: **METHOD** AND **APPARATUS** FOR ASSESSING SLEEP QUALITY

Abstract: Systems and/or **methods** for assessing the sleep quality of a patient in a sleep session are provided. Data is collected from the patient and/or physician including, for example, sleep session data in the form of one or more physiological parameters of the patient indicative of the patient's sleep quality during the sleep session, a subjective evaluation of sleep quality, etc.; patient profile data; etc. A sleep quality index algorithm, which optionally may be an adaptive algorithm, is applied, taking into account some or all of the collected data. Sleep quality data may be presented to at least the patient, and it may be displayed in any suitable format (e.g., a format useful for the patient to be appraised on the progress of the treatment, a format useful for a sleep clinician to monitor progress and/or assess the effectiveness of differing treatment regimens, etc).

Classifications:

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CPC: A61B5/024 A61M16/0057 A61B5/4815 A61B5/0476

A61B5/4812 A61M16/0051 A61M2205/3375 A61M2205/502

A61M2205/52 A61M2230/10 A61M2230/18 A61M2230/205

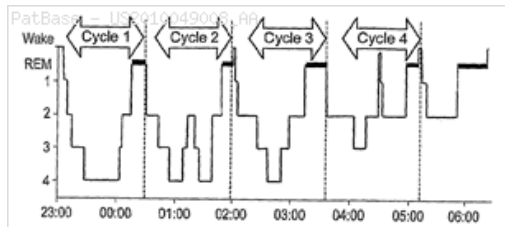
A61M2230/63 A61M16/024 G06F19/00

European: A61B5/0476 A61B5/48C4 A61B5/48C6 A61M16/00K

K61M205/33U K61M205/50A K61M205/52 K61M230/10 K61M230/18

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US2010049008 AA	20100225	US20070311361	20070927
US2014076318 AA	20140320	US20130085327	20131120
US8617068 BB	20131231	US20070311361	20070927
WO08037020 A1	20080403	WO2007AU01440	20070927

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US20090311361 20091006

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Agent(s): NIXON AND VANDERHYTE PC ; DAVIDSON GEOFFREY ROBERT ET AL

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW