

50 Documents

Publication numbers	Title	Current assignees
US20150173672 A1	A device to detect , assess and treat snoring, sleep apneas and hypopneas	WHISPERSOME
WO200550525 A1	A healthcare processing device and display system	DRAEGER MEDICAL SYSTEMS
WO2007101141 A2	A medical signal processing system with distributed wireless sensors	HMICRO
WO200550524 A2	A modular medical care system	DRAEGER MEDICAL SYSTEMS
CA2886648 A1	A monitoring device	BIOTELEMETRY TECHNOLOGY
WO201176886 A2	A monitoring device	DELTA DANSK ELEKTRONIK LYS AKUSTIK
EP2338409 A1	A monitoring system	DELTA DANSK ELEKTRONIK LYS & AKUSTIK
WO200550523 A2	A processing device and display system	DRAEGER MEDICAL SYSTEMS
CA2967065 A1	A system and a method for generating stress level and stress resilience level information for an individual	GLOBAL STRESS INDEX
CA2967067 A1	A system and a method for generating a profile of stress levels and stress resilience levels in a population	GLOBAL STRESS INDEX
WO2010107928 A2	A system for the assessment of sleep quality in adults and children	ADVANCED BRAIN MONITORING
WO2011159592 A1	A systems approach to disease state, health, and comorbidity	FLINTS HILLS SCIENTIFIC
US20140273858 A1	Adaptive data transfer using bluetooth	FITBIT
WO200936327 A1	Adherent device for respiratory monitoring and sleep disordered breathing	MEDTRONIC MONITORING
US20150150499 A1	Administering a sleep disorder	SURGICAL ROBOTICS, ...
WO2013177338 A2	Adverse event mitigation systems, methods and devices	ASPEN SURGICAL PRODUCTS, ...
US20080066769 A1	Airway implants and methods and devices for insertion and retrieval	PHILIPS
WO200733520 A1	An electronic device	MING YOUNG BIOMEDICAL
WO201117778 A1	Anaesthesia and consciousness depth monitoring system	BURTON DANIEL, ...
CA2957766 A1	Ans assessment systems, kits, and methods	AUTONOMIX MEDICAL
WO201574918 A1	Apnea safety control	PHILIPS
WO2013152403 A1	Apparatus and methods for ventilatory treatment	RESMED

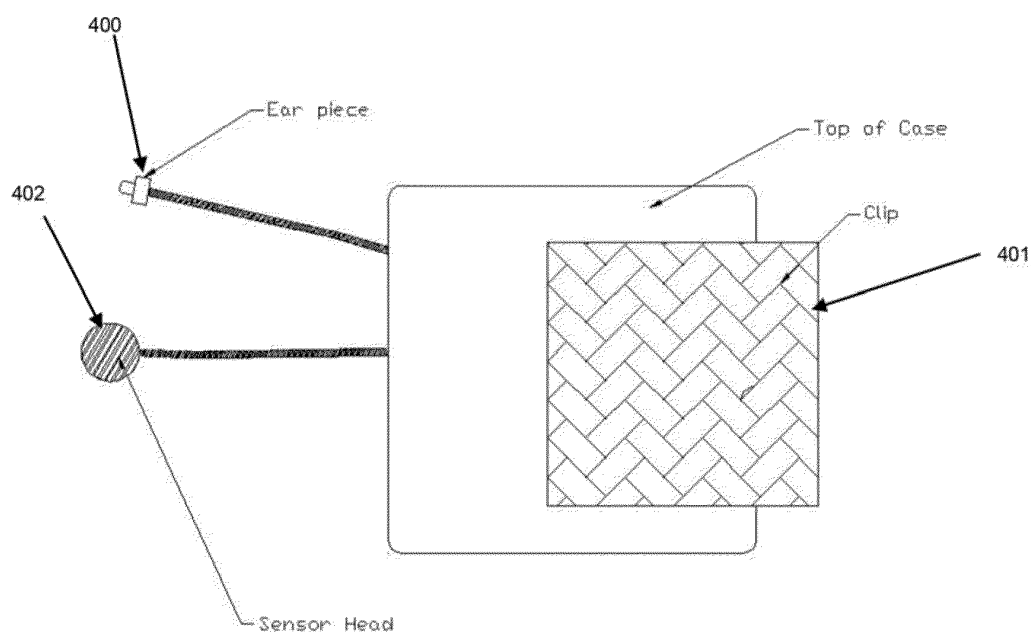
Publication numbers	Title	Current assignees
US20120298105 A1	Apparatus and methods for delivery of therapeutic agents to mucous or serous membrane	FLINT HILLS SCIENTIFIC
WO2012139737 A1	Apparatus and method for data processing for physiological signals	DRAEGERWERK
US20110060215 A1	Apparatus and method for continuous noninvasive measurement of respiratory function and events	LIFEWAVE BIOMEDICAL
KR20070120827 A	Apparatus and method of sensing sleeping condition of user	SAMSUNG ELECTRONICS
JP2007061439 A	Apparatus and method of measuring biological information	TOSHIBA
WO200602056 A2	Apparatus and method for identifying sleep apnea	VANGUARD TECHNOLOGIES, ...
WO200462484 A2	Apparatus and method for monitoring for disordered breathing	MEDTRONIC
WO201014497 A1	Apparatus for detection of myocardial ischemia upon exertion	CARDIAC PACEMAKERS
US20030055348 A1	Apparatus for detecting sleep apnea using electrocardiogram signals	RESMED SENSOR TECHNOLOGIES
WO201252882 A1	Apparatus for diagnosing obstructive sleep apnea with an awake patient	PHILIPS
AU-627395 A0	Apparatus for gas delivery	COMPUMEDICS SLEEP
WO200432719 A2	Apparatus for maintaining and monitoring sleep quality during therapeutic treatments	COMPUMEDICS MEDICAL INNOVATION
US5520192 A	Apparatus for the monitoring and control of respiration	IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY & MEDICINE
US20120251989 A1	Apparatus, system, and method for modulating consolidation of memory during sleep	SHEEPDOG SCIENCES
WO2011149565 A1	Apparatus, system, and method for seizure symptom detection	RTI INTERNATIONAL
US20150366518 A1	Apparatuses, Methods, Processes, and Systems Related to Significant Detrimental Changes in Health Parameters and Activating Lifesaving Measures	SHERLOCK SOLUTIONS
WO200284624 A1	Arrangement for registration	INCREA
WO201120299 A1	Article for monitoring physiological function and posture status	MING YOUNG BIOMEDICAL
US20140031703 A1	Athletic monitoring	TREEFROG DEVELOPMENTS
US20150094545 A1	Automated at-rest status sensing	COVIDIEN
US20050081847 A1	Automatic activation of medical processes	CARDIAC PACEMAKERS
WO2007149856 A2	Automatic and ambulatory monitoring of congestive heart failure patients	ADIDAS

Publication numbers	Title	Current assignees
US20050076908 A1	Autonomic arousal detection system and method	CARDIAC PACEMAKERS
US20100147304 A1	Bio-mask with integral sensors	COMPUMEDICS
WO200143804 A1	Bio-mask with integral sensors	COMPUMEDICS
JP2016010651 A	Biological information measuring apparatus, biological information measuring method, and program	NIHON KOHDEN
JP2009060969 A	Biological information display device and biological information display method	SONY
WO201624495 A1	Biological-signal measurement system, biological-information measurement device, and method for changing biological-information extraction algorithm	NIPPON TELEGRAPH & TELEPHONE

Family 1/50 - FAMPAT - ©Questel

Title

(EP3215010)

A device to **detect**, assess and treat snoring, sleep apneas and hypopneas**Images****Publication data including kind & date**

US20150173672	A1	2015-06-25	US20150173672
CA3004536	A1	2016-05-12	CA3004536
WO2016073965	A1	2016-05-12	WO201673965
EP3215010	A1	2017-09-13	EP3215010
CN107205693	A	2017-09-26	CN107205693
EP3215010	A4	2018-06-20	EP3215010

**Abstract**

(EP3215010)

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

Inventors

GOLDSTEIN DAVID

Latest standardized assignees - inventors removed

WHISPERSOME

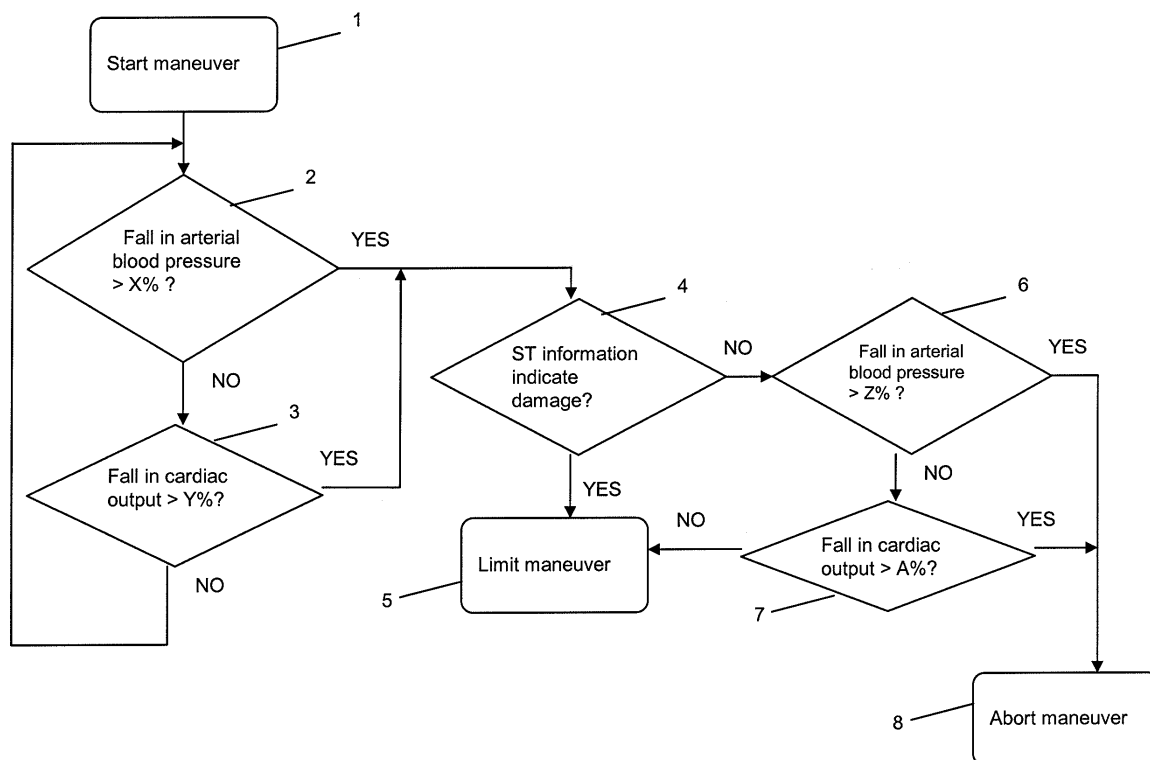
Family 2/50 - FAMPAT - ©Questel

Title

(EP1690209)

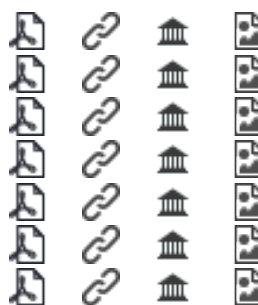
A healthcare processing device and display system

Images



Publication data including kind & date

WO2005050525	A1	2005-06-02	WO200550525
US20050124866	A1	2005-06-09	US20050124866
EP1690209	A1	2006-08-16	EP1690209
CN1871610	A	2006-11-29	CN1871610
JP2007510504	A	2007-04-26	JP2007510504
US20080000479	A1	2008-01-03	US20080000479
US9233222	B2	2016-01-12	US9233222



Abstract

(EP1690209)

A processing device and display system supporting a plurality of different modules providing different functions used in delivering healthcare to a patient, includes a patient monitoring module, including a processor, for acquiring and processing signals derived from sensors suitable for attachment to a patient. A patient treatment module, including a processor, supports delivering treatment to the patient using a treatment delivery device. A central processor exchanges data with module processors and processes signals derived from said patient treatment module to support monitoring of patient condition while concurrently monitoring operation of said treatment delivery device in delivering said treatment to said patient.

Inventors

ELAZ JOSEPH
SCHOLZ WOLFGANG
CAVALLARO SAMUEL
BUTTERBRODT JAY

Latest standardized assignees - inventors removed

DRAEGER MEDICAL SYSTEMS

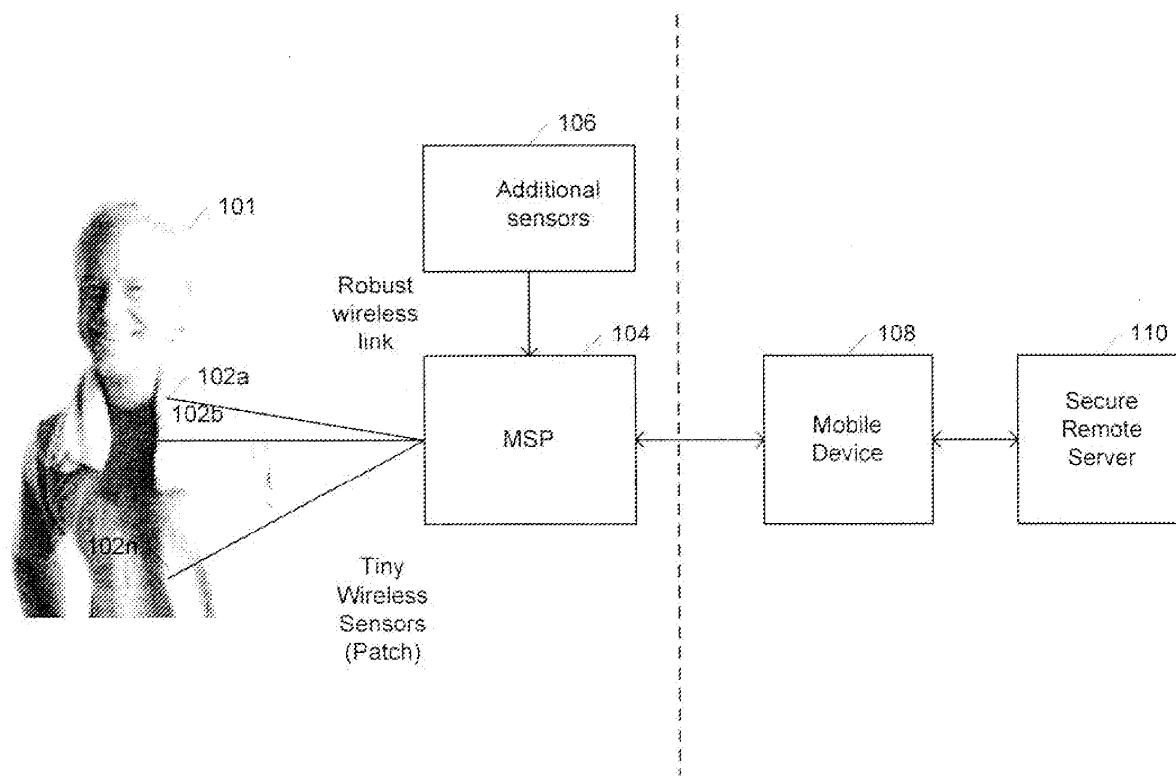
Family 3/50 - FAMPAT - ©Questel

Title

(EP1993437)

A medical signal processing system with distributed wireless sensors

Images



Publication data including kind & date

WO2007101141	A2	2007-09-07	WO2007101141
WO2007101141	A3	2008-01-10	WO2007101141
EP1993437	A2	2008-11-26	EP1993437
US20100049006	A1	2010-02-25	US20100049006
EP1993437	A4	2014-05-14	EP1993437



Abstract

(EP1993437)

A wireless medical signal processing system for health monitoring is disclosed which achieves high wireless link reliability/security, low power dissipation, compactness, low cost and supports a variety of sensors for various physiological parameters. The system includes a medical signal processor which communicates with a wireless distributed sensor system as its peripheral for **detecting** physiological parameters of the person and for providing signals indicative thereof. The medical signal processor wirelessly receives the signals from the distributed wireless sensor system in a multiplexed fashion and processes the signals to provide an indication of the health of the person. The indication of health could relate to a disease state, general health or fitness level of a person. The system also includes a mobile device for receiving the indication of the health of the person to allow for a **diagnosis** or treatment of the person.

Inventors

MAGAR SURENDAR

SATTIRAJU VENKATESWARA RAO

Latest standardized assignees - inventors removed

HMICRO

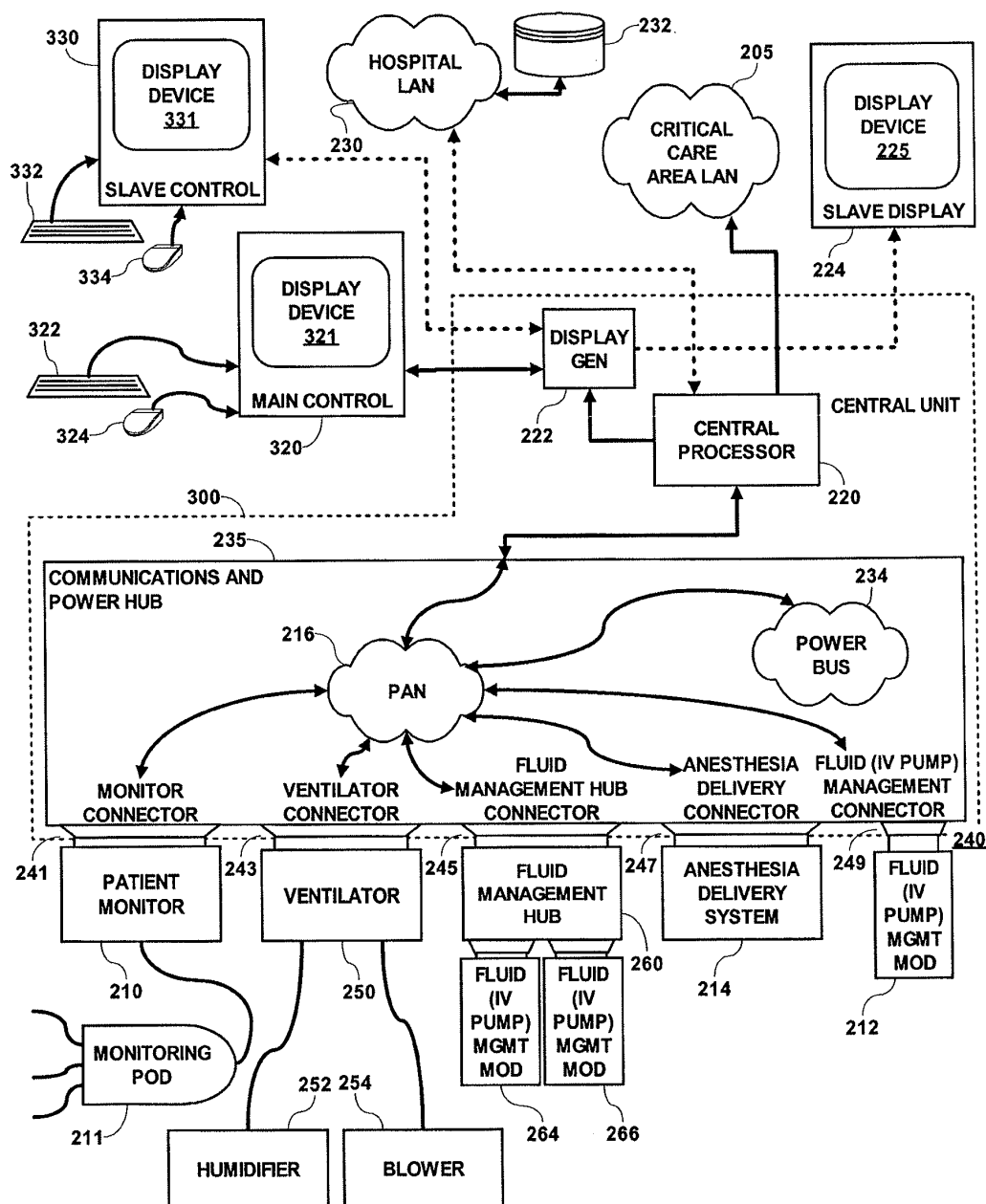
Family 4/50 - FAMPAT - ©Questel

Title

(EP1697872)

A modular medical care system

Images



Publication data including kind & date

WO2005050524	A2	2005-06-02	WO2005050524
US20050133027	A1	2005-06-23	US20050133027
WO2005050524	A3	2005-09-22	WO2005050524
EP1697872	A2	2006-09-06	EP1697872
CN1871611	A	2006-11-29	CN1871611
JP2007521849	A	2007-08-09	JP2007521849
US20080110460	A1	2008-05-15	US20080110460
US8312877	B2	2012-11-20	US8312877



Abstract

(EP1697872)

A modular medical care system, housing a plurality of different modules providing different functions used in delivering healthcare to a patient, includes a plurality of different modules including: (a) a patient monitoring module for acquiring and processing signals derived from sensors suitable for attachment to a patient; and (b) a patient treatment module for delivering treatment to the patient. A processor processes signals derived from the plurality of different modules. A communication interface provides bi-directional communication between the processor and the plurality of different

modules via a network.

Inventors

ELAZ JOSEPH

KELLY CLIFFORD MARK

SCHOLZ WOLFGANG

CAVALLARO SAMUEL

KRUGER THOMAS

DORING MARTIN

LANDOWSKI CHRISOPH

Latest standardized assignees - inventors removed

DRAEGER MEDICAL SYSTEMS

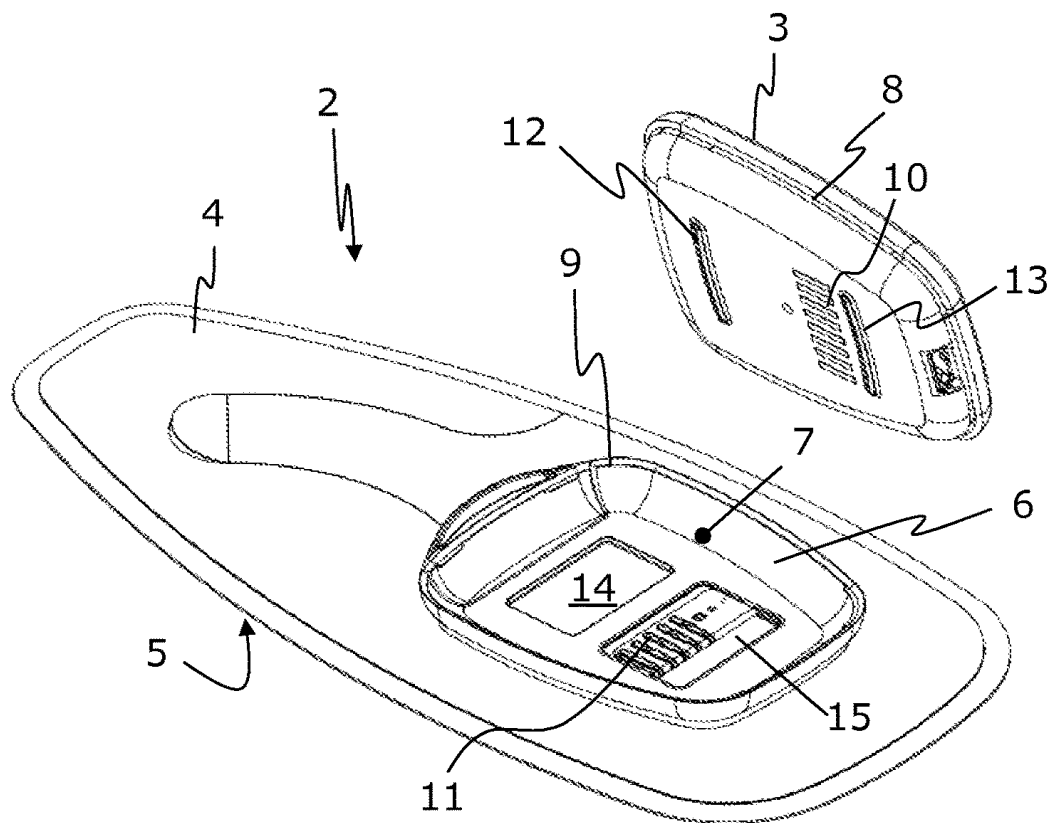
Family 5/50 - FAMPAT - ©Questel

Title

(EP2906102)

A monitoring device

Images



Publication data including kind & date

CA2886648	A1	2014-04-17	CA2886648
WO2014057083	A2	2014-04-17	WO201457083
WO2014057083	A3	2014-07-24	WO201457083
BR112015008090	A1	2015-04-22	BR112015008090
AU2013328589	A1	2015-05-21	AU2013328589
AU2013328589	A8	2015-06-11	AU2013328589



CN104768450	A	2015-07-08	CN104768450				
EP2906102	A2	2015-08-19	EP2906102				
US20150250422	A1	2015-09-10	US20150250422				
IN3839DEN2015	A	2015-10-02	IN2015DN03839				
JP2015534495	A	2015-12-03	JP2015534495				
HK1208139	A1	2016-02-26	HK1208139				
BR112015008090	A2	2017-07-04	BR112015008090				
EP2906102	B1	2017-09-06	EP2906102				
US9833193	B2	2017-12-05	US9833193				
US20180249957	A1	2018-09-06	US20180249957				

Abstract

(EP2906102)

The invention provides a monitoring device suitable for attachment to a surface of a subject, the device comprising a data collector and a processor. The data collector comprises a flexible foil attached to a less flexible socket, where the foil forms a dermal side surface of the data collector for adhesion to a skin surface of a subject to be monitored. To enable communication of electrical signals between the data collector and the processor, the data collector comprises a distribution structure formed as a pattern of an electrically conductive material on an outer surface of a foldable sheet. The foldable sheet forms a layer in the flexible foil and comprising an interface portion which is folded into an aperture in the socket to form a coupling inside the cavity for electrical communication with a matching coupling of the processor when the processor is received in the cavity.

Inventors

BAY LASSE

Latest standardized assignees - inventors removed

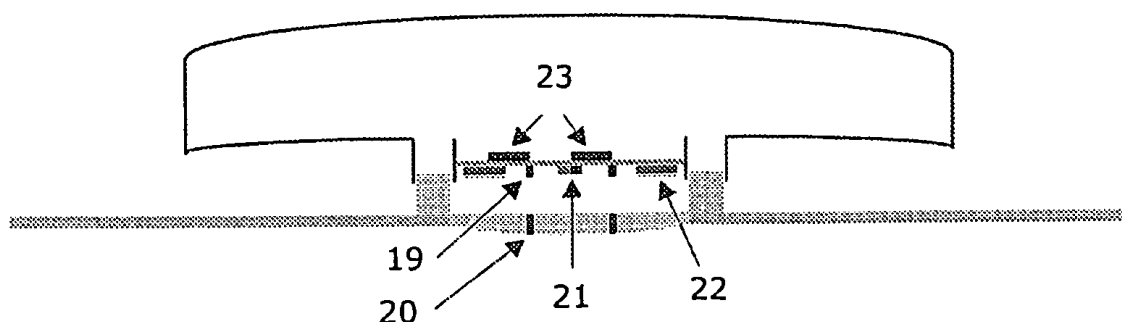
BIOTELEMETRY TECHNOLOGY

Family 6/50 - FAMPAT - ©Questel

Title

(EP2515744)

A monitoring device

Images**Publication data including kind & date**

WO2011076886	A2	2011-06-30	WO201176886				
CA2785354	A1	2011-06-30	CA2785354				
WO2011076886	A3	2011-09-22	WO201176886				
AU2010334812	A1	2012-07-26	AU2010334812				
EP2515744	A2	2012-10-31	EP2515744				
CN102811657	A	2012-12-05	CN102811657				

US20130060098	A1	2013-03-07	US20130060098				
JP2013515528	A	2013-05-09	JP2013515528				
BR112012017166	A1	2013-12-31	BR112012017166				
AU2010334812	B2	2015-02-05	AU2010334812				
BR112012017166	A2	2016-03-15	BR112012017166				

Abstract

(EP2515744)

The present invention relates to a novel monitoring device suitable for attachment to a surface of a subject and for monitoring specific physiological signals including photoplethysmography of respiration of a subject wearing the device.

Inventors

THOMSEN ERIK V

HAAHR RASMUS GROENBEK

DUUN SUNE

Latest standardized assignees - inventors removed

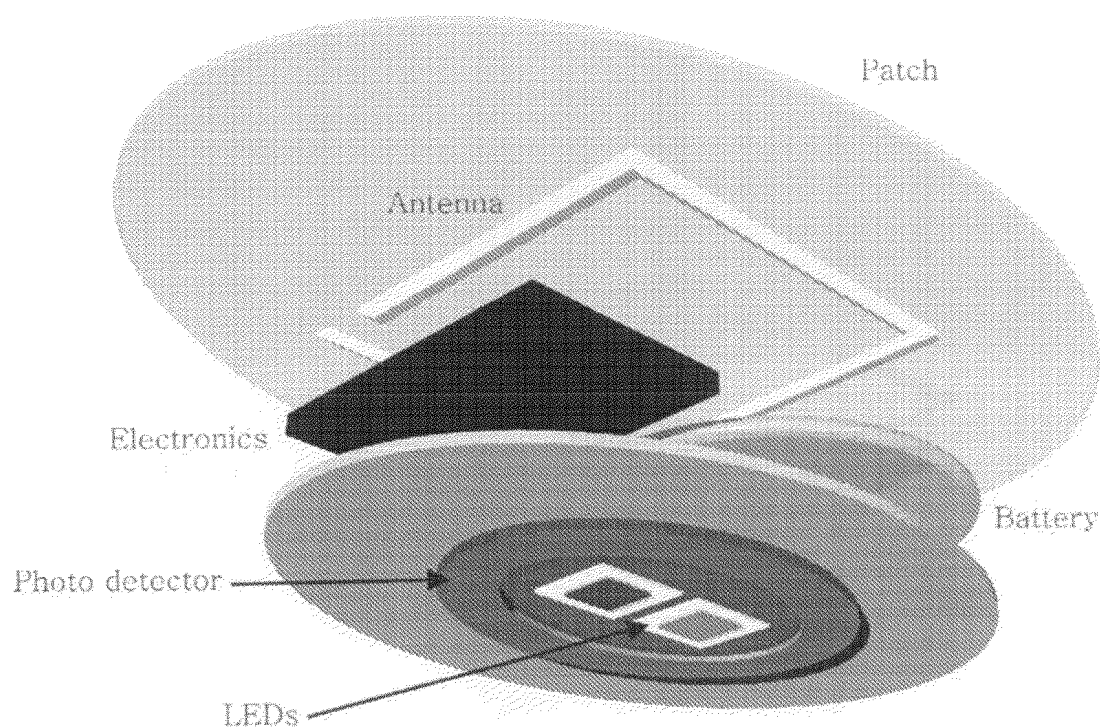
DELTA DANSK ELEKTRONIK LYS AKUSTIK

Family 7/50 - FAMPAT - ©Questel

Title

(EP2896356)

A monitoring system

Images**Publication data including kind & date**

EP2338409	A1	2011-06-29	EP2338409				
WO2011076884	A2	2011-06-30	WO2011076884				
WO2011076884	A3	2011-09-09	WO2011076884				
EP2515747	A2	2012-10-31	EP2515747				
US20130030259	A1	2013-01-31	US20130030259				
EP2896356	A1	2015-07-22	EP2896356				

Abstract

(EP2896356)

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.

Inventors

THOMSEN ERIK V

HAAHR RASMUS GRØNBÆK

DUUN SUNE

HOPPE KARSTEN

BRANEBJERG JENS

Latest standardized assignees - inventors removed

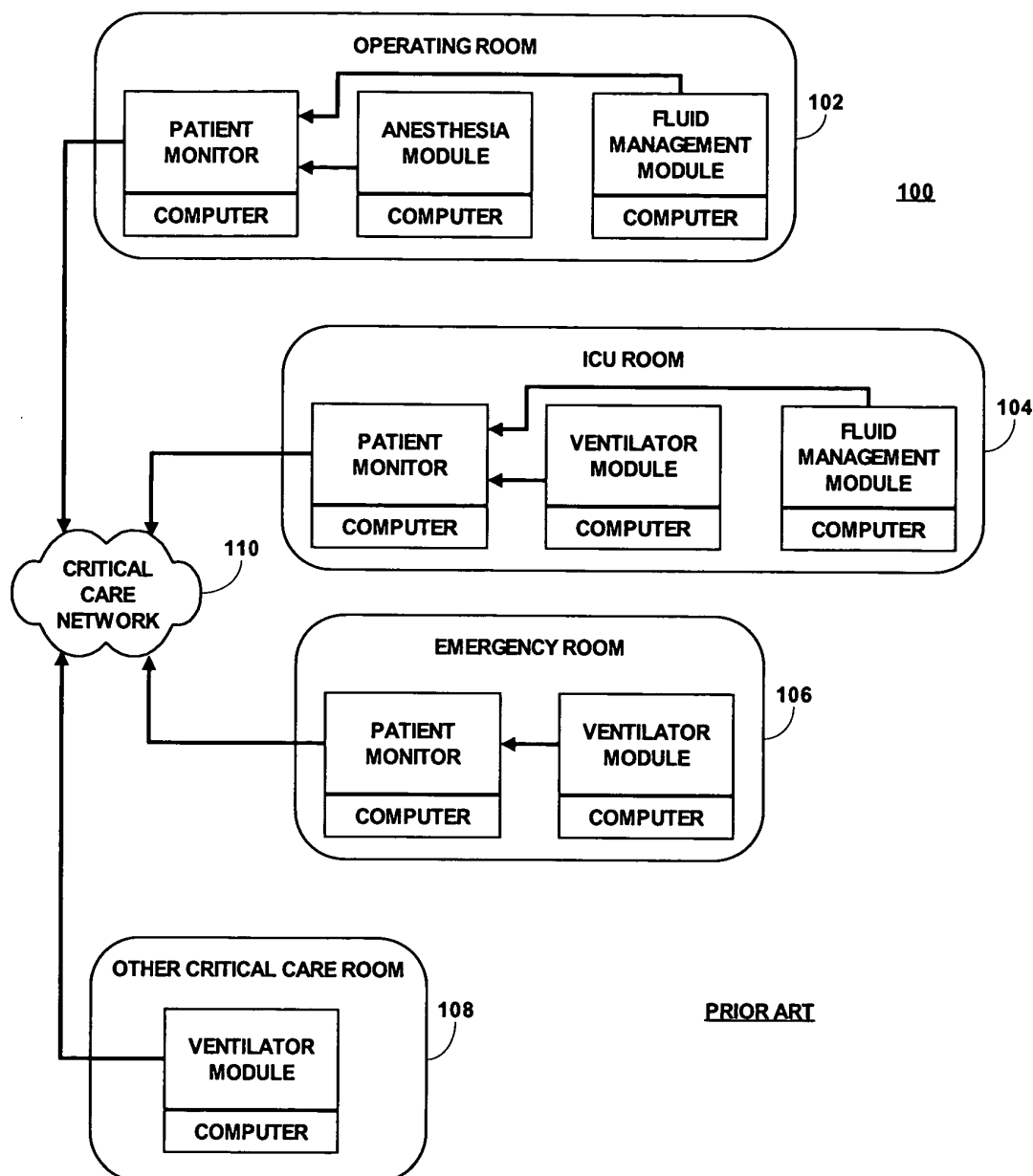
DELTA DANSK ELEKTRONIK LYS & AKUSTIK

Family 8/50 - FAMPAT - ©Questel

Title

(EP1683066)

A processing device and display system

Images

Publication data including kind & date

WO2005050523	A2	2005-06-02	WO200550523
US20050143632	A1	2005-06-30	US20050143632
WO2005050523	A3	2005-10-06	WO200550523
EP1683066	A2	2006-07-26	EP1683066
CN1871609	A	2006-11-29	CN1871609
JP2007519431	A	2007-07-19	JP2007519431

**Abstract**

(EP1683066)

A processing device and display system provides different functions used in delivering healthcare to a patient. A plurality of different individual modules includes at least one of: (a) a patient monitoring module for acquiring and processing signals derived from sensors suitable for attachment to a patient; and (b) a patient treatment module for providing treatment to a patient. A central processor exchanges data with the plurality of modules and processes signals derived from at least one of the plurality of different modules. A display generator initiates generation of data representing at least one user interface image including processed signal information of at least one of the plurality of different modules.

Inventors

ELAZ JOSEPH

SCHOLZ WOLFGANG

CAVALLARO SAMUEL

LANDOWSKI CHRISTOPHER

MARQUARDT KLAUS

DUPPE CHRISTIAN

Latest standardized assignees - inventors removed

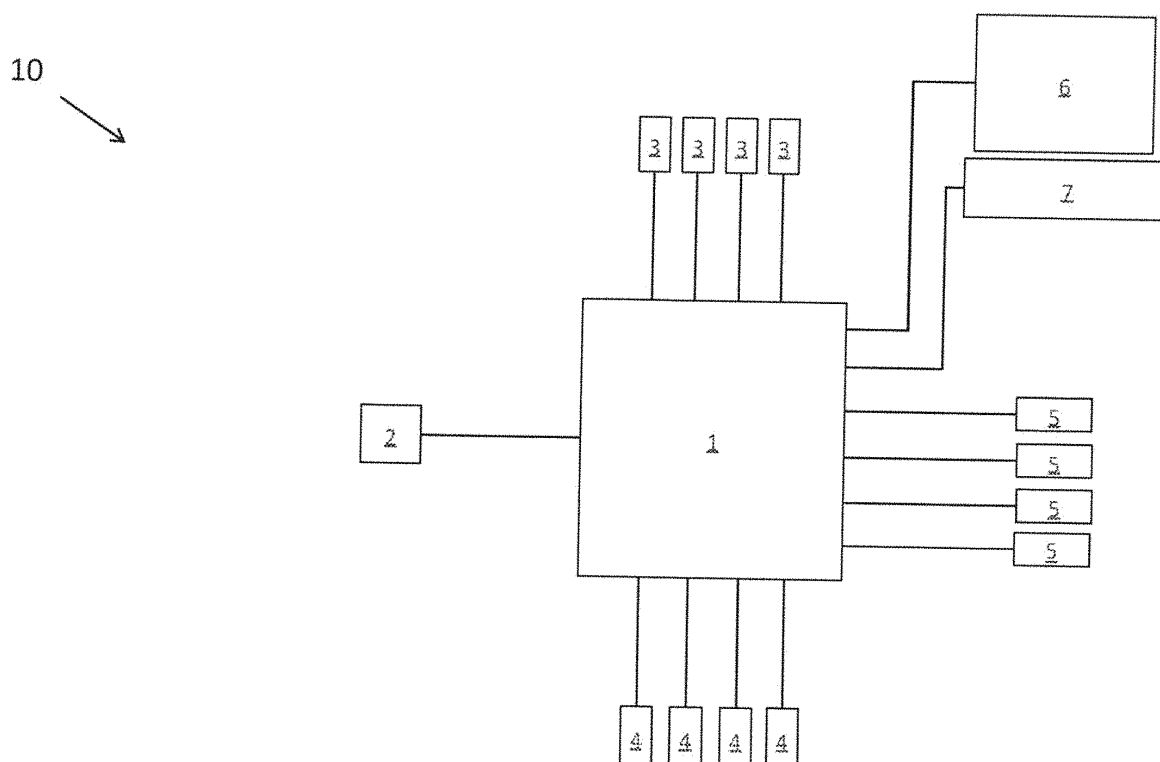
DRAEGER MEDICAL SYSTEMS

Family 9/50 - FAMPAT - ©Questel

Title

(EP3217862)

A system and a method for generating stress level and stress resilience level information for an individual

Images

Publication data including kind & date

CA2967065	A1	2016-05-19	CA2967065				
WO2016074036	A1	2016-05-19	WO201674036				
BR112017009806	A1	2017-05-30	BR112017009806				
AU2015345999	A1	2017-06-08	AU2015345999				
EP3217862	A1	2017-09-20	EP3217862				
KR20170117019	A	2017-10-20	KR20170117019				
US20170319122	A1	2017-11-09	US20170319122				
JP2017533804	A	2017-11-16	JP2017533804				
IN201717020144	A	2017-11-17	IN201717020144				
CN107405072	A	2017-11-28	CN107405072				
BR112017009806	A2	2017-12-26	BR112017009806				
EP3217862	A4	2018-08-08	EP3217862				

Abstract

(EP3217862)

Disclosed herein is a system and a method for generating stress level information for an individual and stress level resilience information for an individual, which includes a stress information processing module configured to process stress information for the individual, the stress information for the individual comprising at least two of psychometric information for the individual, physiological information for the individual, behavioural information for the individual, and cognitive function information for the individual

Inventors

WILD TRAVIS LEIGH

FOSTER STEPHEN AARON

Latest standardized assignees - inventors removed

GLOBAL STRESS INDEX

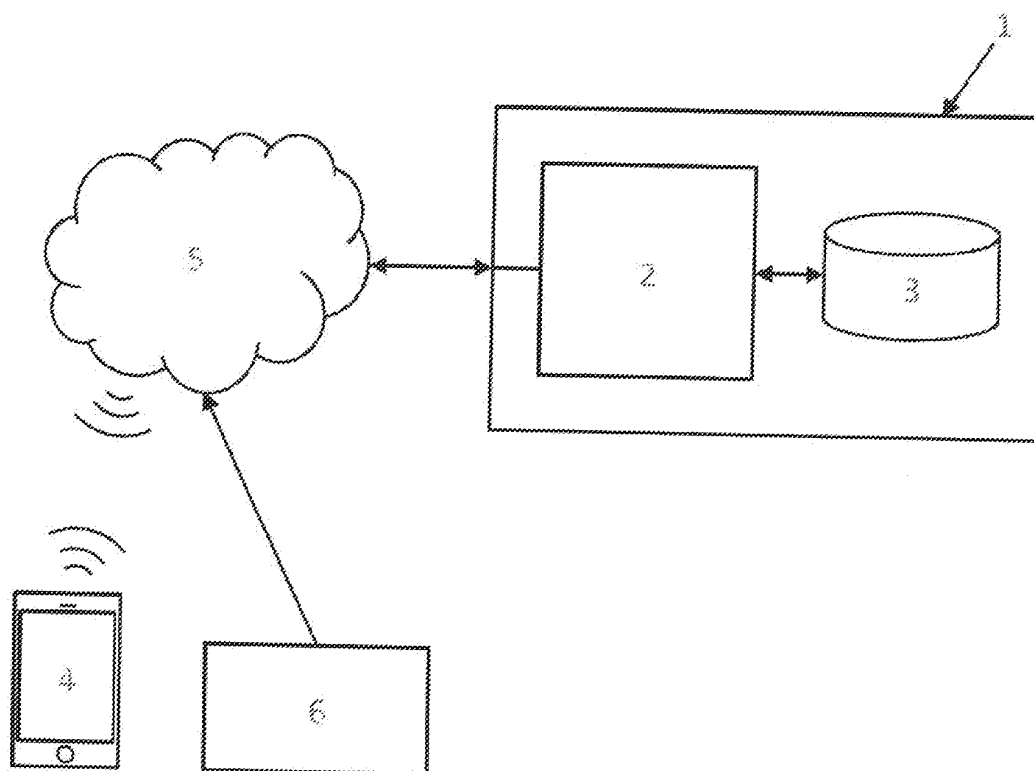
Family 10/50 - FAMPAT - ©Questel

Title

(EP3218835)

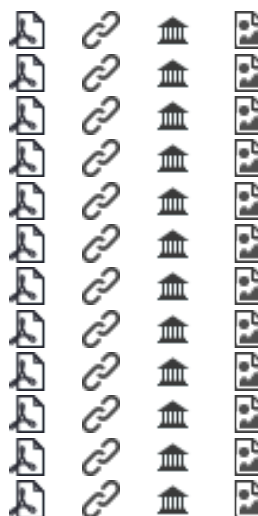
A system and a method for generating a profile of stress levels and stress resilience levels in a population

Images



Publication data including kind & date

CA2967067	A1	2016-05-19	CA2967067
WO2016074037	A1	2016-05-19	WO201674037
BR112017009795	A1	2017-05-30	BR112017009795
AU2015346000	A1	2017-06-08	AU2015346000
EP3218835	A1	2017-09-20	EP3218835
KR20170115037	A	2017-10-16	KR20170115037
JP2017533805	A	2017-11-16	JP2017533805
IN201717020143	A	2017-11-17	IN201717020143
CN107430640	A	2017-12-01	CN107430640
BR112017009795	A2	2017-12-19	BR112017009795
US20180303396	A1	2018-10-25	US20180303396
EP3218835	A4	2018-11-14	EP3218835



Abstract

(EP3218835)

A method and a system for generating stress level information indicative of a stress level of a plurality of individuals. The method and system comprises receiving, via a network, individual stress information for each of the plurality of individuals, and generating, in a processing system, a statistical value for the stress level of the plurality of individuals by statistically processing the individual stress information for each of the plurality of individuals.

Inventors

WILD TRAVIS LEIGH

FOSTER STEPHEN AARON

Latest standardized assignees - inventors removed

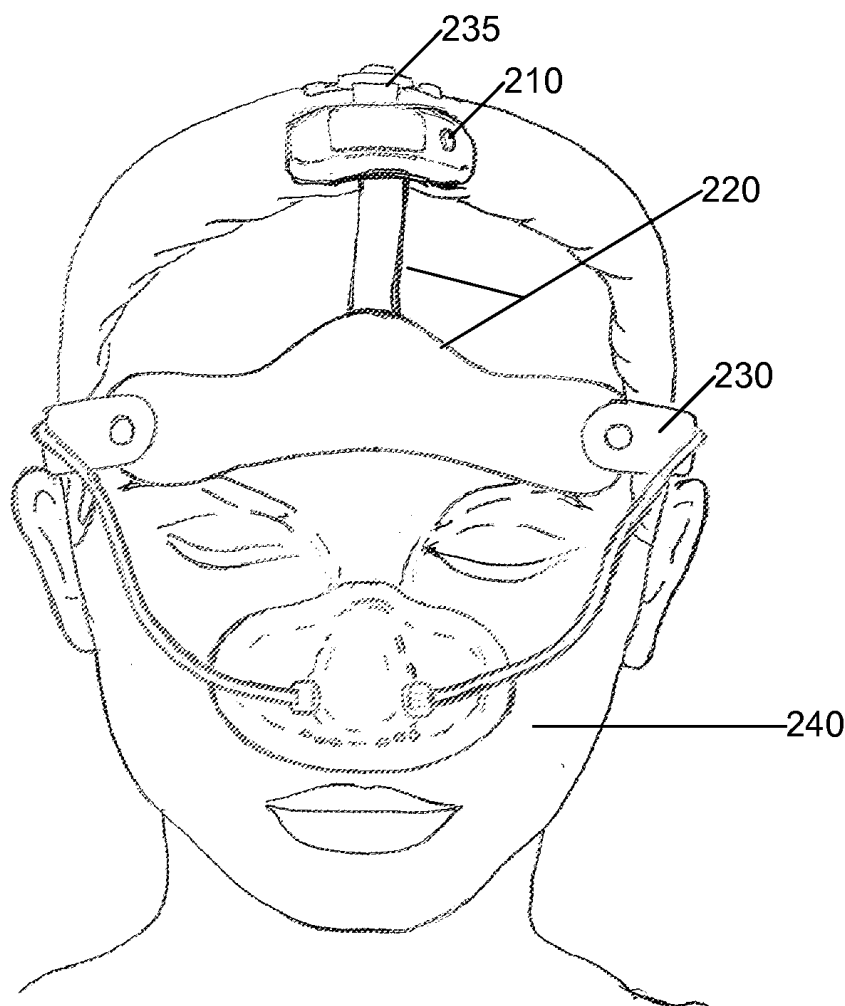
GLOBAL STRESS INDEX

Family 11/50 - FAMPAT - ©Questel

Title

(EP2408353)

A system for the assessment of sleep quality in adults and children

Images**FIG. 2A****Publication data including kind & date**

WO2010107928	A2	2010-09-23	WO2010107928
WO2010107928	A3	2011-01-13	WO2010107928
EP2408353	A2	2012-01-25	EP2408353
CN102341035	A	2012-02-01	CN102341035
EP2408353	A4	2015-02-25	EP2408353

**Abstract**

(EP2408353)

Systems and methods for assessment of sleep quality in adults and children are provided. These techniques include an apparatus worn above the forehead containing the circuitry for collecting and storing physiological signals. The apparatus integrates with a sensor strip and a nasal mask to obtain the physiological signals for the user. The form factor of this apparatus is comfortable, easy to self-apply, and results in less data artifacts than conventional techniques for capturing physiological data for analyzing sleep quality. Neuro-respiratory signals are analyzed using means to extract more accurate

definitions of the frequency and severity of sleep discontinuity, sleep disordered breathing and patterns of sleep architecture. Biological biomarkers and questionnaire responses can also be compared to a database of healthy and chronically diseased patients to provide a more accurate differential **diagnosis** and to help determine the appropriate disease management recommendations.

Inventors

LEVENDOWSKI DANIEL J

WESTBROOK PHILIP R

BERKA CHRIS

POPOVIC DJORDJE

ZAVORA TIMOTHY

DAVIS GENE

MITROVIC MIRKO

VELJKOVIC BRATISLAV

Latest standardized assignees - inventors removed

ADVANCED BRAIN MONITORING

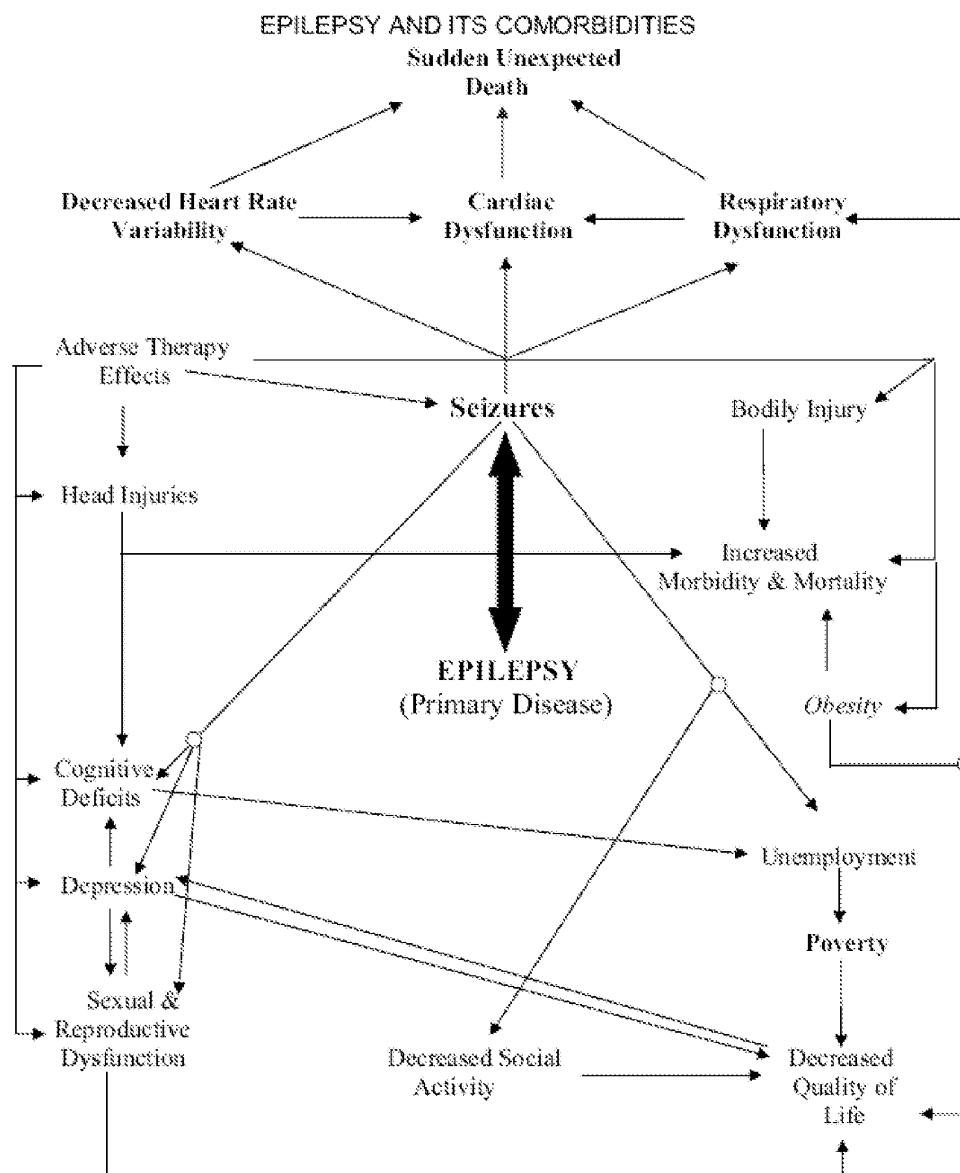
Family 12/50 - FAMPAT - ©Questel

Title

(WO2011159592)

A systems approach to disease state, health, and comorbidity

Images

**FIGURE 17****Publication data including kind & date**

WO2011159592	A1	2011-12-22	WO2011159592
CA2802694	A1	2011-12-22	CA2802694
AU2011267946	A1	2012-11-29	AU2011267946
AU2011267946	B2	2014-10-30	AU2011267946

**Abstract**

(WO2011159592)

Methods, systems, and apparatus for assessing a state of a primary disease or 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 primary disease or 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 a method described above is also provided. A medical device system capable of implementing a method described above is also provided.

Inventors

OSORIO IVAN

Latest standardized assignees - inventors removed

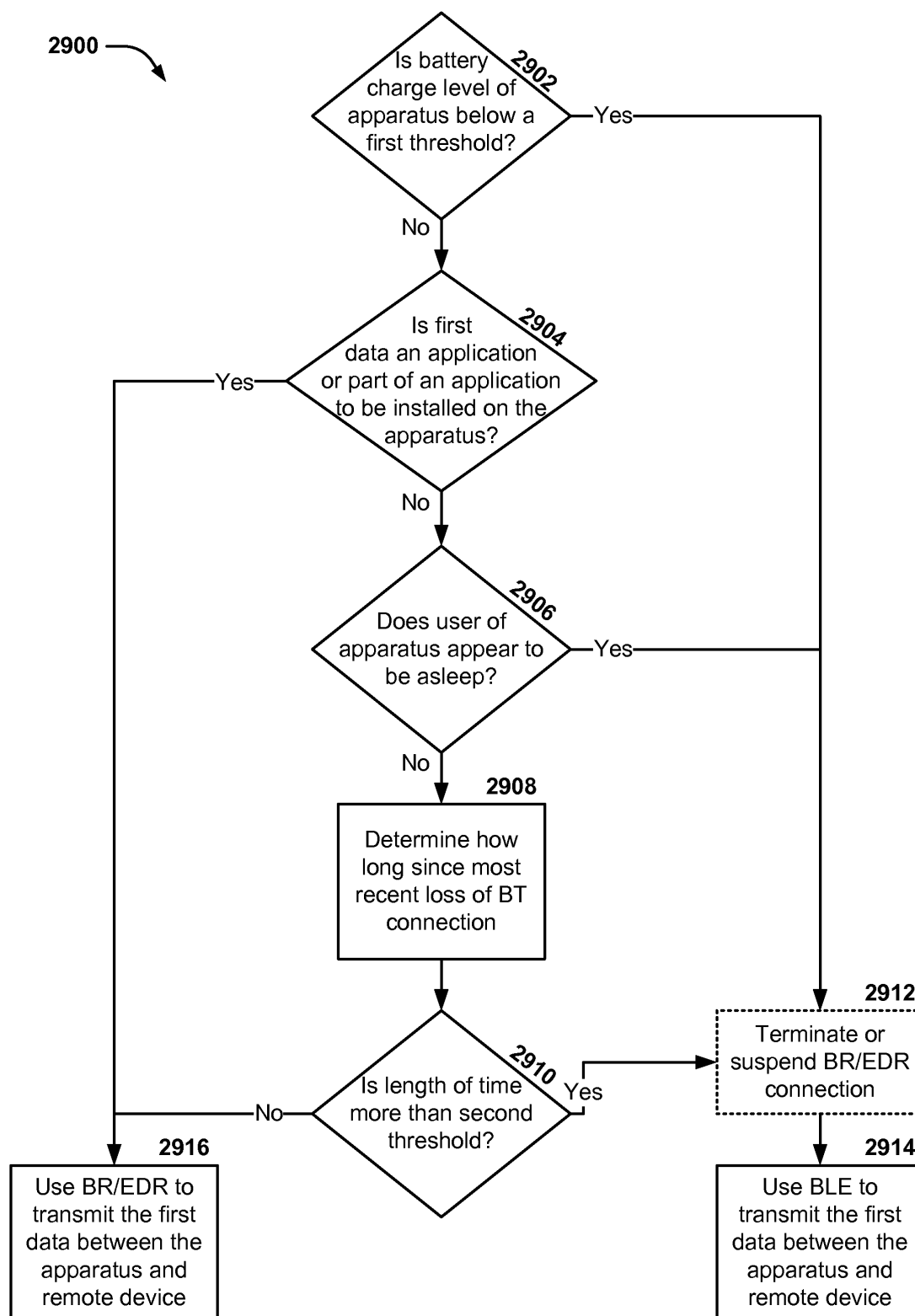
FLINTS HILLS SCIENTIFIC

Family 13/50 - FAMPAT - ©Questel

Title

(US9641239)

Adaptive data transfer using bluetooth

Images

[CN104218976](#)

A 2014-12-17 CN104218976

[US9641239](#)

B2 2017-05-02 US9641239

[US20170257162](#)

A1 2017-09-07 US20170257162

Abstract

(US9641239)

Biometric monitoring devices, including various technologies that may be implemented in such devices, are discussed herein. Additionally, techniques, systems, and apparatuses are discussed herein for utilizing two different Bluetooth communications interfaces, one that provides Bluetooth classic (base rate/enhanced data rate) communications functionality and one that provides Bluetooth low-energy communications functionality, in a common device. The techniques, systems, and apparatuses may elect to use a particular Bluetooth interface based on various criteria.

Inventors

PANTHER HEIKO GERNOT ALBERT

PARK JAMES

Latest standardized assignees - inventors removed

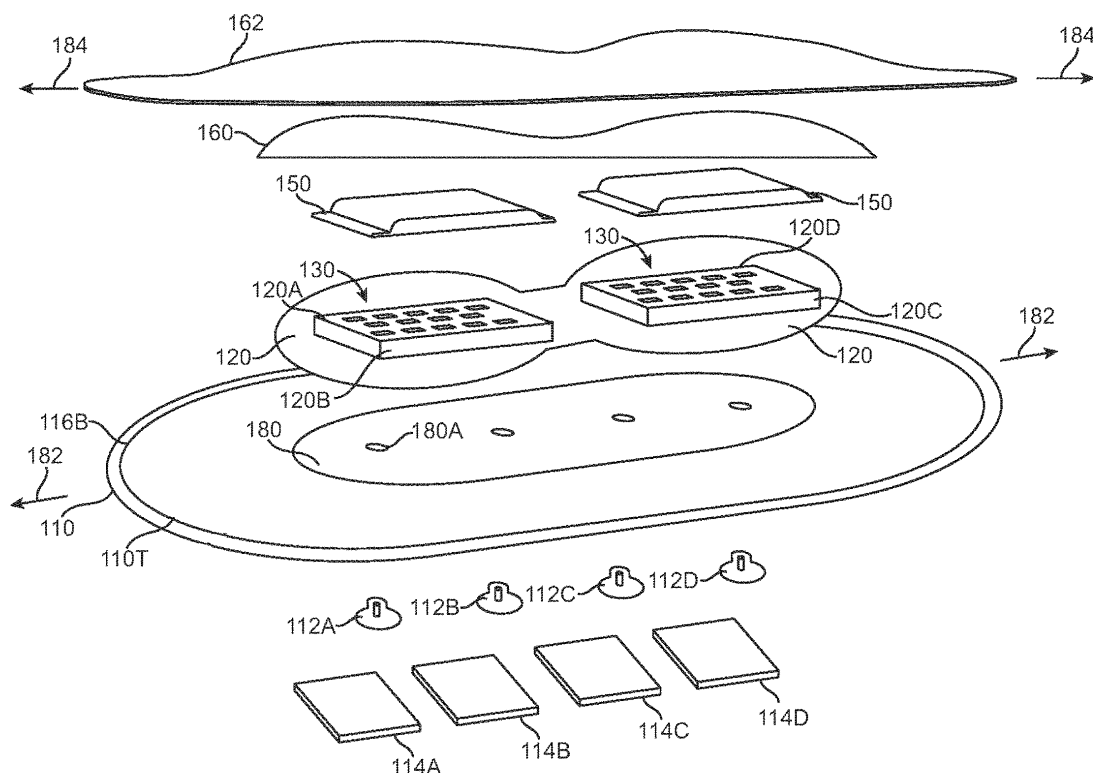
FITBIT

Family 14/50 - FAMPAT - ©Questel

Title

(EP2200512)

Adherent device for respiratory monitoring and sleep disordered breathing

Images**Publication data including kind & date**[WO2009036327](#)

A1 2009-03-19 WO2009036327

[US20090076405](#)

A1 2009-03-19 US20090076405

[US20090076364](#)

A1 2009-03-19 US20090076364

[EP2200512](#)

A1 2010-06-30 EP2200512

[US8249686](#)

B2 2012-08-21 US8249686



US20120277549	A1	2012-11-01	US20120277549				
US8591430	B2	2013-11-26	US8591430				
US8688190	B2	2014-04-01	US8688190				
US20140288385	A1	2014-09-25	US20140288385				
US20140330088	A1	2014-11-06	US20140330088				
US10028699	B2	2018-07-24	US10028699				

Abstract

(EP2200512)

A respiratory monitoring system is provided. A measuring system is provided that includes, (i) an adherent device configured to be coupled to a patient, the adherent device including a plurality of sensors that monitor respiratory status, at least one of the sensors configured to monitor the patient's respiration, and (ii) a wireless communication device coupled to the plurality of sensors and configured to transfer patient data directly or indirectly from the plurality of sensors to a remote monitoring system. A remote monitoring system is coupled to the wireless communication device.

Inventors

AMURTHUR BADRI

BLY MARK J

LIBBUS IMAD

MANICKA YATHEENDHAR D

Latest standardized assignees - inventors removed

MEDTRONIC MONITORING

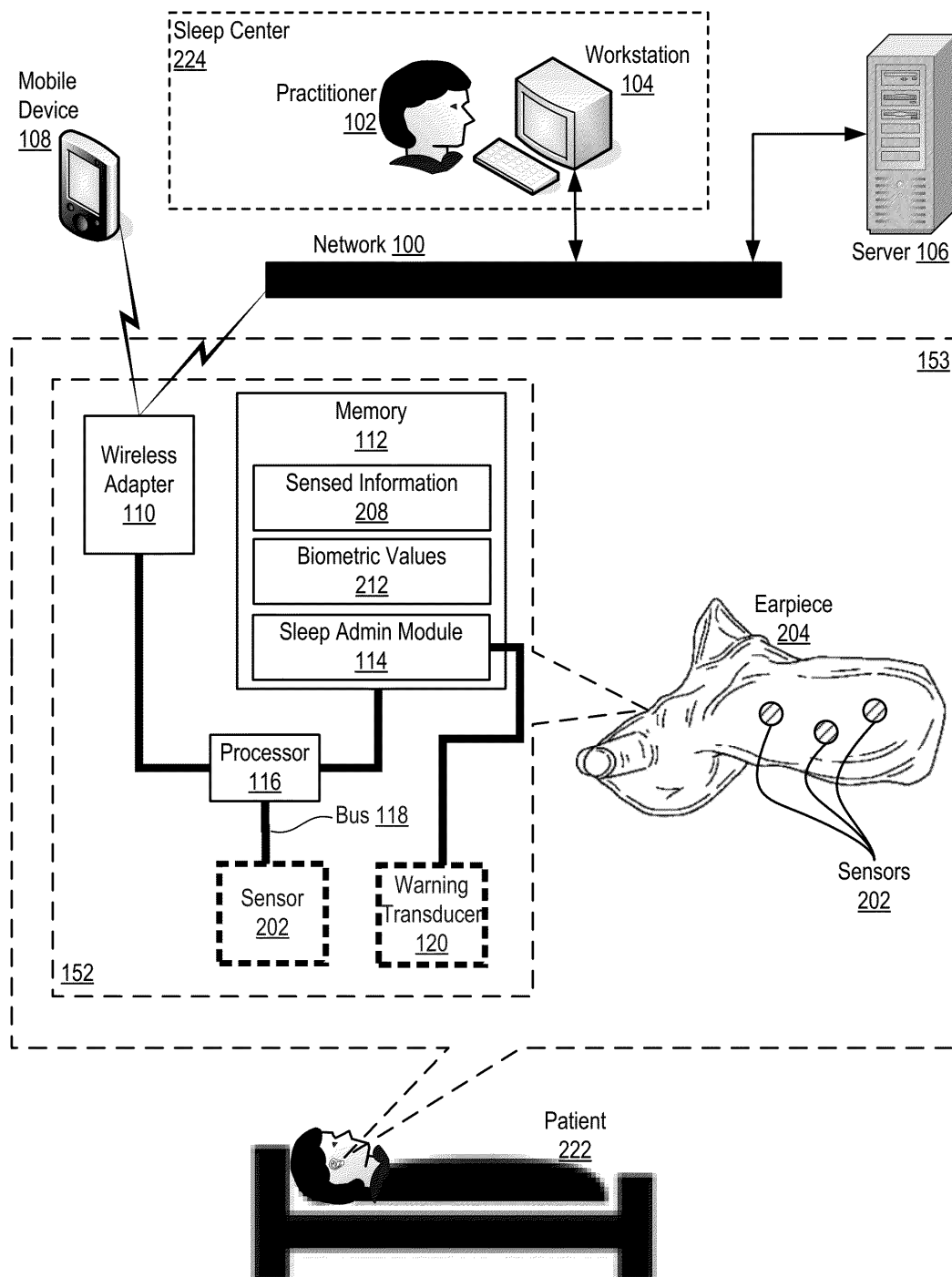
Family 15/50 - FAMPAT - ©Questel

Title

(US20150150499)

Administering a sleep disorder

Images



Publication data including kind & date

US20150150499

A1 2015-06-04

US20150150499



Abstract

(US20150150499)

Methods and apparatuses for administering a sleep disorder are provided. Embodiments include receiving, in a sleep administration module through one or more sensors of an earpiece worn within an ear of a sleeping patient, information regarding the sleep of the patient; deriving, by the sleep administration module from the information regarding the sleep of the patient, one or more biometric values capable of indicating the existence of a sleep disorder; and determining, by the sleep administration module, whether the one or more biometric values indicate that the sleeping patient is presently experiencing a sleep disorder.

Inventors

GEORGE EOHAN

HATZILIAS KAROL

PATEL MAYOOR

PINGALI GOVINDA

POZGAY BRIAN

RAUBOLT JIM

SHARPE WESS ERIC

THOMPSON JACOB

Latest standardized assignees - inventors removed

SURGICAL ROBOTICS

UNITED SCIENCES

UNITED SCIENCES PAYROLL

OTOMETRICS

AEROSCAN

3DM SYSTEMS

NEAR AUDIO

TMJ GLOBAL

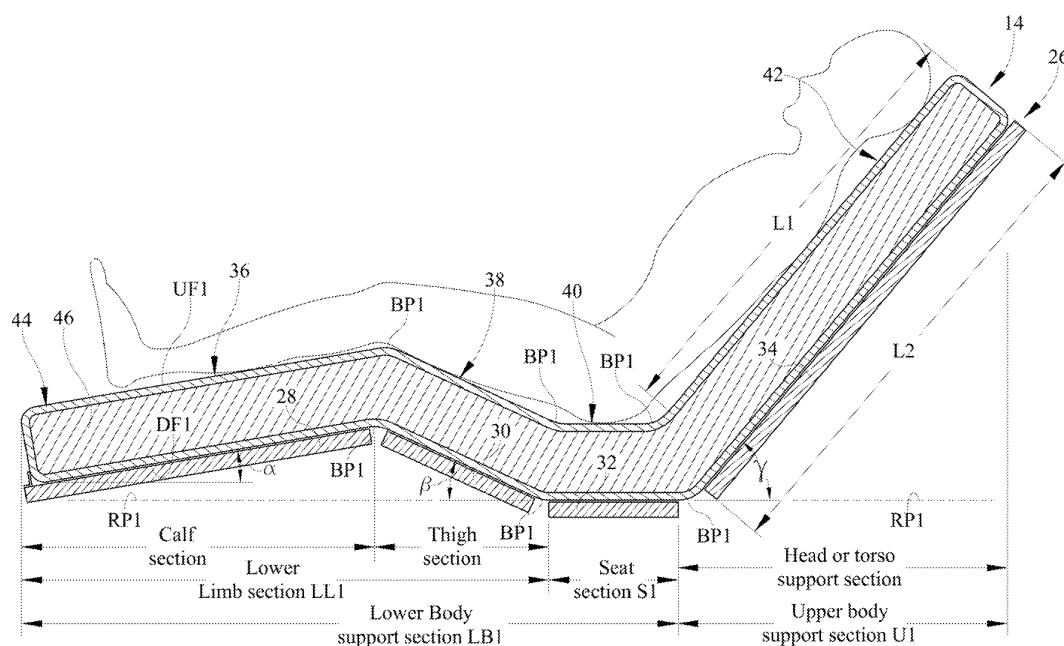
Family 16/50 - FAMPAT - ©Questel

Title

(EP2852361)

Adverse event mitigation systems, methods and devices

Images



Publication data including kind & date

WO2013177338	A2	2013-11-28	WO2013177338
WO2013177338	A3	2014-01-30	WO2013177338
EP2852361	A2	2015-04-01	EP2852361
US20150136146	A1	2015-05-21	US20150136146
JP2015525094	A	2015-09-03	JP2015525094
EP2852361	A4	2015-10-07	EP2852361
JP6122950	B2	2017-04-26	JP6122950



[JP2017159049](#)

A 2017-09-14 JP2017159049

[JP6388979](#)

B2 2018-09-12 JP6388979

**Abstract**

(EP2852361)

A method comprises determining a person's level of risk for developing an adverse condition; selecting a care protocol based on the level of risk; displaying a proposed configuration of a person support structure corresponding to the care protocol for a caregiver to approve; and upon approval by the caregiver, implementing the configuration.

Inventors

HOOD MICHAEL S

RIBBLE DAVID

GAZAGNES LAETITIA

DEGUIGNET PIERRE

BHAJ AZIZ A

AGDEPPA ERIC D

WIGGERMANN NEAL

HOWELL CHARLIE

SRIVASTAVA VARAD

PENNINGER JASON

Latest standardized assignees - inventors removed

ASPEN SURGICAL PRODUCTS

ALLEN MEDICAL SYSTEMS

HILL ROM SERVICES

WELCH ALLYN

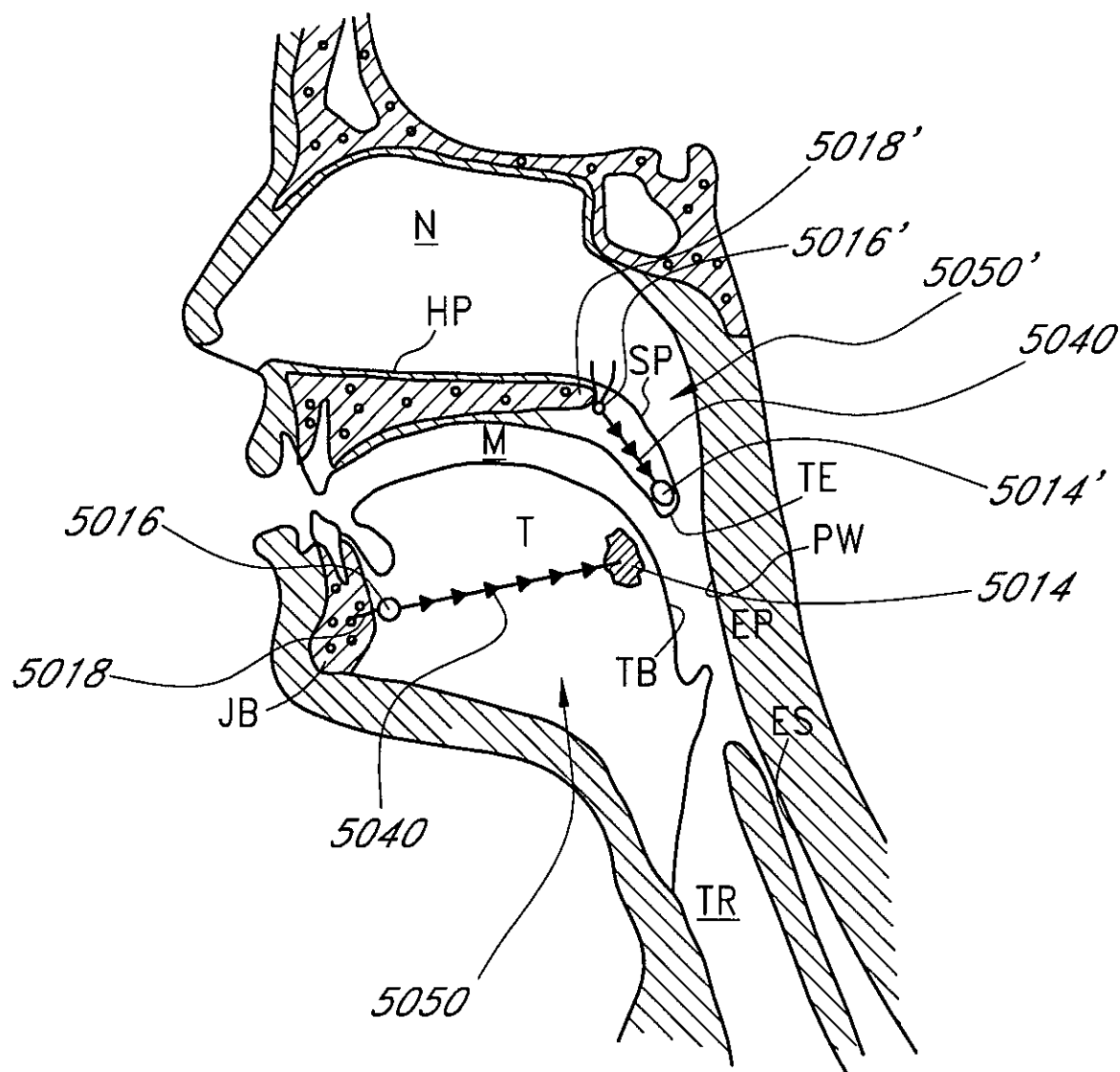
Family 17/50 - FAMPAT - ©Questel

Title

(US8757163)

Airway implants and methods and devices for insertion and retrieval

Images



Publication data including kind & date

US20080066769	A1	2008-03-20	US20080066769
US8096303	B2	2012-01-17	US8096303
US20120111341	A1	2012-05-10	US20120111341
US8757163	B2	2014-06-24	US8757163
US20150075541	A1	2015-03-19	US20150075541



Abstract

(US8757163)

Embodiments of the present invention relate to methods and devices for the treatment of airway obstruction, such as obstructive sleep apnea, and devices and methods that facilitate insertion and retrieval of the same. In one embodiment, disclosed is a tissue tensioner that includes an elongate flexible tether having a first end and a second end, a bone anchor configured to be connected to a patient's mandible, a tissue ingrowth implant configured to be implanted in a patient's tongue and connected to the second end of the tether, and an adjustment mechanism configured to be held by the bone anchor adjacent the patient's mandible and configured to receive the first end of the tether and configured to adjust tension in the flexible tether between the patient's mandible and tongue. Various anchors, tethers, securement mechanisms, and adjustment mechanisms that can be used with glossal and palatal remodeling systems are also disclosed.

Inventors

DINEEN MICHAEL
HIROTSUKA MARK
JACKSON JASPER
SHULOCK DAMIEN

FRAZIER ANDREW

ROUE CHAD

VAN DER BURG ERIK

Latest standardized assignees - inventors removed

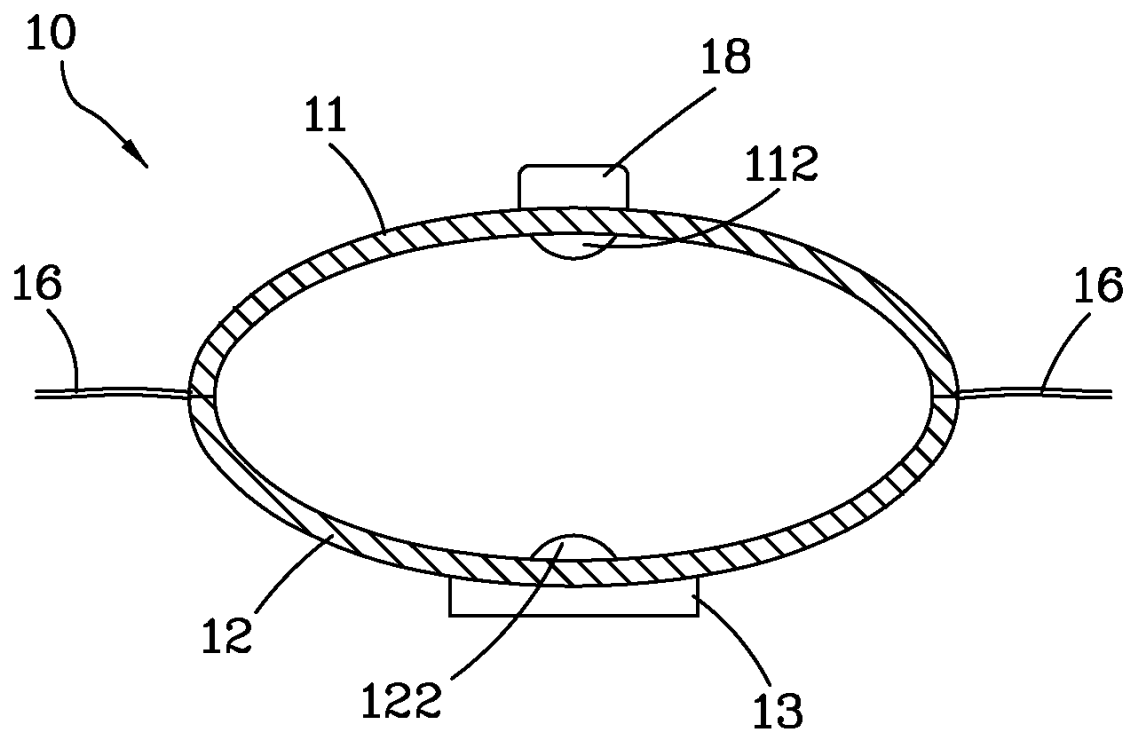
PHILIPS

Family 18/50 - FAMPAT - ©Questel

Title

(EP1946696)

An electronic device

Images**Publication data including kind & date**

WO2007033520	A1	2007-03-29	WO200733520
EP1946696	A1	2008-07-23	EP1946696
CN101272728	A	2008-09-24	CN101272728
US20080230363	A1	2008-09-25	US20080230363
JP2009508601	A	2009-03-05	JP2009508601
EP1946696	A4	2009-08-12	EP1946696
CN101272728	B	2010-09-29	CN101272728B
JP4779017	B2	2011-09-21	JP4779017
US8193465	B2	2012-06-05	US8193465
EP1946696	B1	2012-08-15	EP1946696
US20120238845	A1	2012-09-20	US20120238845
US9161721	B2	2015-10-20	US9161721

**Abstract**

(EP1946696)

An electronic device which includes a resilient piece, base plate and electronic source. The upper conductor is located on the resilient piece; the base plate is connected to the resilient piece, with a space between the two. The lower conductor is

located on the base plate, and there is a crevice between the lower conductor and the upper conductor. The electronic source electrically connected to the upper conductor and the lower conductor. The sensor device is located on the base plate. Utilizing this structure, the electronic device can, based on the user's needs, perform testing of the subject's physiological status or test a specific site that is pressed, be used as assist for medical equipment, exercise equipment or communications facilities.

Inventors

YANG CHANG-MING

Latest standardized assignees - inventors removed

MING YOUNG BIOMEDICAL

Family 19/50 - FAMPAT - ©Questel

Title

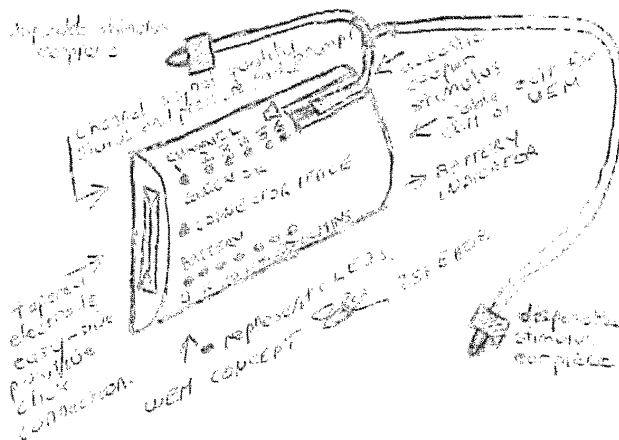
(EP2464283)

Anaesthesia and consciousness depth monitoring system

Images

The above illustration presents the ISA system encompassing a reflective oximeter (8); embedded electrophysiological electrodes with re-hydration and abrasion pressure pad functions (1-6); stimulus (7) and integrated oximeter (8), and LED quality status indicators.

10



Conceptual overview of UEM module incorporating (LHS panel) binaural stimulus “Y” adaptor acoustic-coupler circuit, electrode assembly connection status, battery display indicator, signal quality status and user prompt indicators [7; 8]

Publication data including kind & date

WO2011017778	A1	2011-02-17	WO201117778				
KR20120049337	A	2012-05-16	KR20120049337				
EP2464283	A1	2012-06-20	EP2464283				
AU2010282150	A1	2012-07-26	AU2010282150				
WO2011017778	A9	2012-11-01	WO201117778				
US20120277548	A1	2012-11-01	US20120277548				
JP2013501542	A	2013-01-17	JP2013501542				
CN102946797	A	2013-02-27	CN102946797				
IN2311/CHENP/2012	A	2013-05-03	IN2012CN02311				
JP5754054	B2	2015-07-22	JP5754054				
AU2010282150	B2	2016-03-31	AU2010282150				
KR20160050092	A	2016-05-10	KR20160050092				

AU2016202435	A1	2016-06-23	AU2016202435				
CN102946797	B	2016-12-07	CN102946797B				
KR101751823	B1	2017-06-29	KR101751823				
CN107095656	A	2017-08-29	CN107095656				
EP2464283	A4	2017-10-25	EP2464283				
AU2018201683	A1	2018-04-05	AU2018201683				
KR20180039762	A	2018-04-18	KR20180039762				
KR101854205	B1	2018-05-04	KR101854205				

Abstract

(EP2464283)

The present invention consists of a method and system incorporating non-linear dynamic (NLD) analysis such as entropy or other complexity analysis monitoring continuous or evoked signals from a biological subject, where such a system comprises of processing steps including: a) the combination of a biological signal evoked as a result of patient stimulation presented to a biological subject and a non-linear analysis method capable of capturing temporal changes in signal order or regularity; b) any combination (of processed evoked or continuous central nervous or peripheral physiological mechanisms b) a means to generate a measure (indicative of a patient's level of anaesthesia and consciousness depth (A&CD), sedation or sleep/wake state. Additionally, the present invention consists of a method and system incorporating a NLD analysis means to improve the discrimination between different signals origins including any combination of: a) central nervous system (CNS), b) peripheral control or nervous system (PNS), c) autonomic control or nervous system (ANS), d) arousals, and e) artifacts.

Inventors

BURTON DAVID

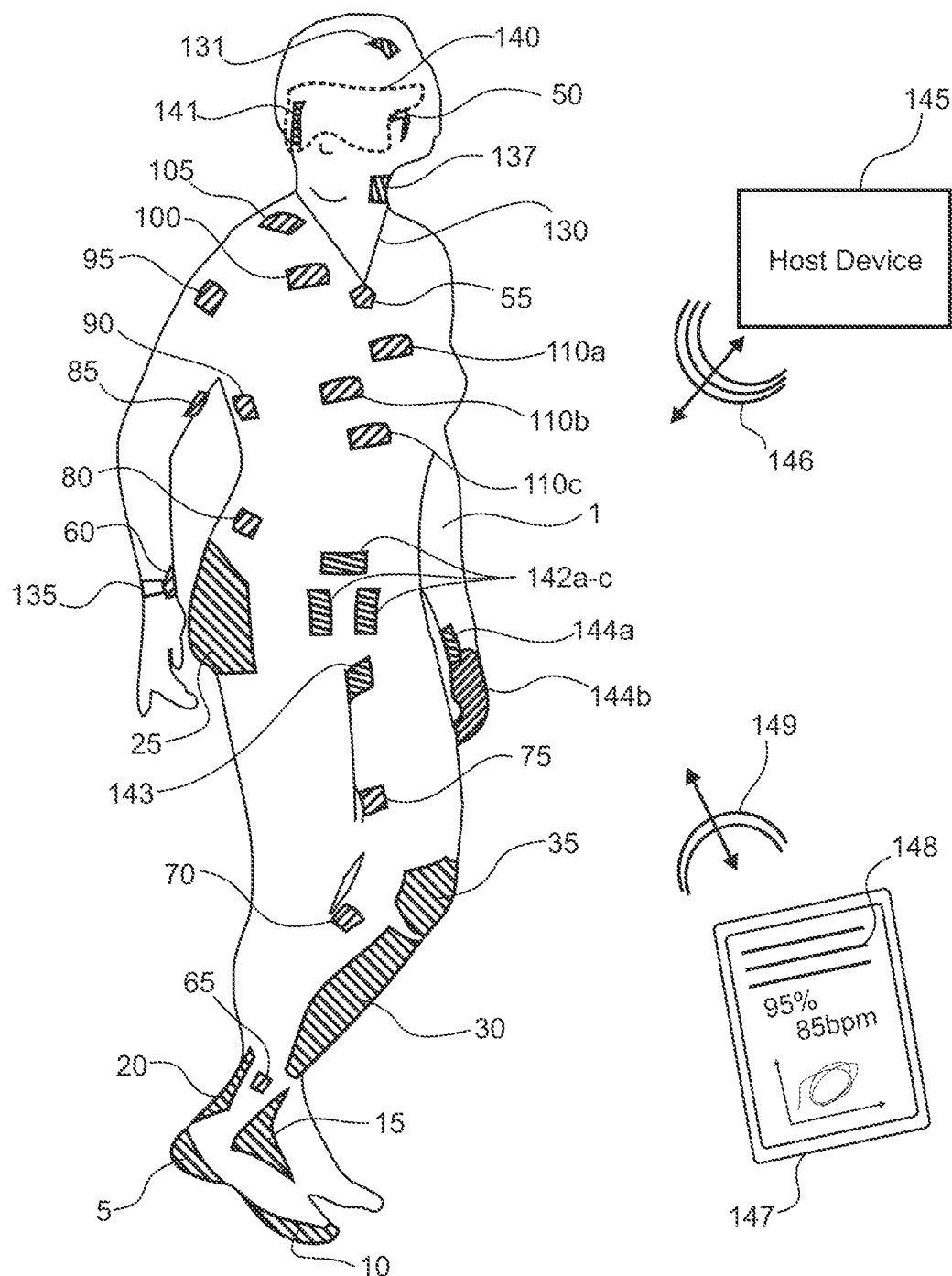
Family 20/50 - FAMPAT - ©Questel

Title

(EP3177201)

Ans assessment systems, kits, and methods

Images



Publication data including kind & date

CA2957766	A1	2016-02-18	CA2957766
WO2016025323	A1	2016-02-18	WO201625323
AU2015302050	A1	2017-03-02	AU2015302050
WO2016025323	A8	2017-03-23	WO201625323
SG11201701018P	A	2017-03-30	SG11201701018P
IN201747007733	A	2017-06-02	IN201747007733
EP3177201	A1	2017-06-14	EP3177201
US20170231490	A1	2017-08-17	US20170231490
EP3177201	A4	2018-07-25	EP3177201



Abstract

(EP3177201)

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.

Inventors

TOTH LANDY

SCHWARTZ ROBERT

Latest standardized assignees - inventors removed

AUTONOMIX MEDICAL

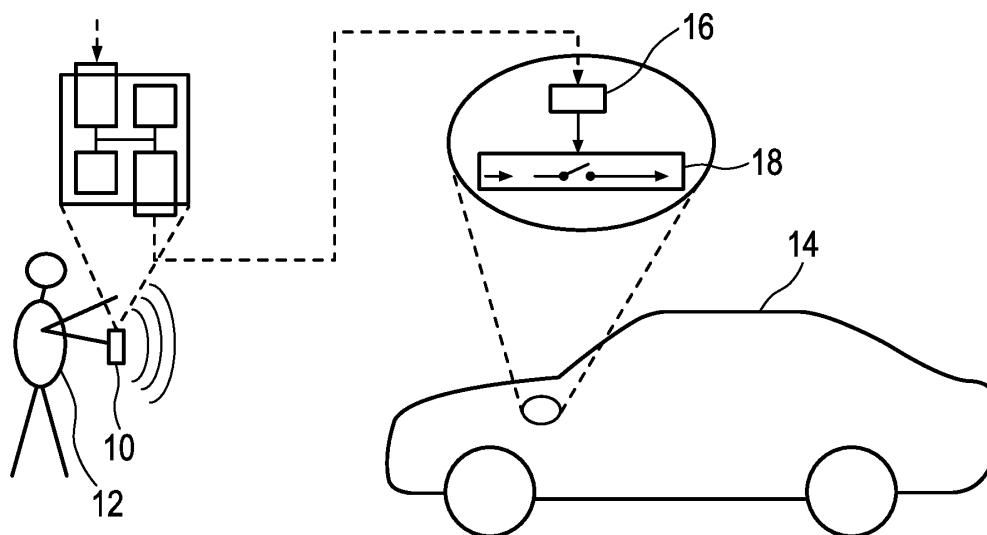
Family 21/50 - FAMPAT - ©Questel

Title

(EP3071092)

Apnea safety control

Images



Publication data including kind & date

WO2015074918	A1	2015-05-28	WO201574918
CN105792732	A	2016-07-20	CN105792732
EP3071092	A1	2016-09-28	EP3071092
US20160287158	A1	2016-10-06	US20160287158
JP2016537115	A	2016-12-01	JP2016537115
US10117616	B2	2018-11-06	US10117616



Abstract

(EP3071092)

The present invention relates to a safety support system (10), comprising a data interface (20) for receiving sleep quality data carrying information on the sleep quality of a person (12), a sleep quality assessment unit (22) for determining a sleep quality indicator being indicative of the sleep quality of the person (12) based on the received sleep quality data and a safety unit (24) for determining machine operation settings for the person (12) based on the sleep quality indicator, said machine operation settings being indicative of an allowed operation of a machine (14) by the person (12). The present invention further relates to a corresponding method and to a machine (14) comprising a safety support system (10) as described above.

Inventors

LAWRENSON MATTHEW JOHN

Latest standardized assignees - inventors removed

PHILIPS

Family 22/50 - FAMPAT - ©Questel

Title

(EP2836264)

Apparatus and methods for ventilatory treatment

Images**Publication data including kind & date**

WO2013152403	A1	2013-10-17	WO2013152403
AU2013247403	A1	2014-09-25	AU2013247403
CN104302338	A	2015-01-21	CN104302338
EP2836264	A1	2015-02-18	EP2836264
US20150059755	A1	2015-03-05	US20150059755
JP2015512728	A	2015-04-30	JP2015512728
AU2013247403	B2	2015-07-16	AU2013247403
AU2015238920	A1	2015-10-29	AU2015238920
EP2836264	A4	2015-12-23	EP2836264
NZ630350	A	2016-05-27	NZ-630350
AU2015238920	B2	2016-09-08	AU2015238920
NZ719166	A	2017-10-27	NZ-719166
CN104302338	B	2018-02-16	CN104302338B
CN108114355	A	2018-06-05	CN108114355
JP6340360	B2	2018-06-06	JP6340360
JP2018110880	A	2018-07-19	JP2018110880

**Abstract**

(EP2836264)

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.

Inventors

BASSIN DAVID JOHN

Latest standardized assignees - inventors removed

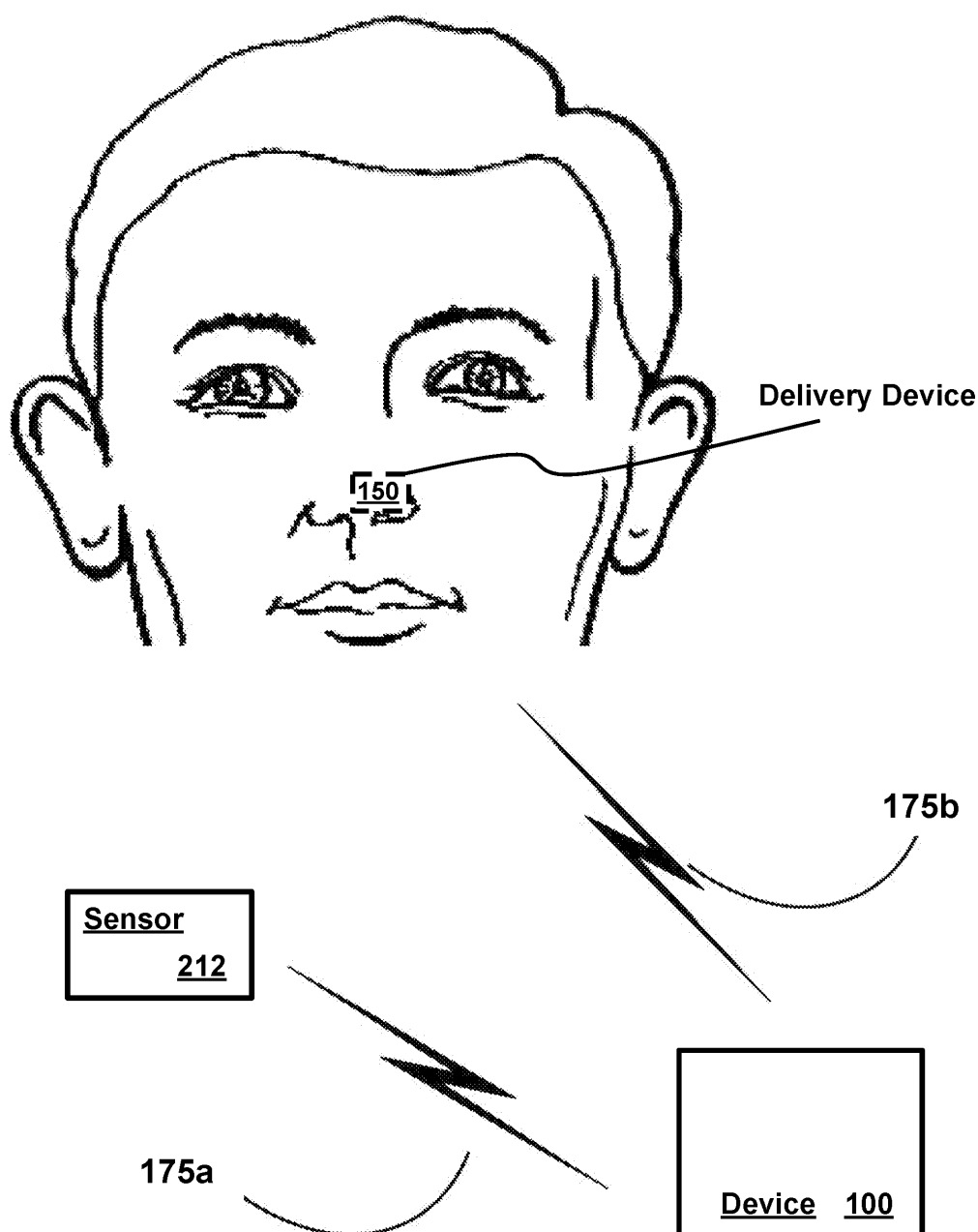
RESMED

Family 23/50 - FAMPAT - ©Questel

Title

(US8944052)

Apparatus and methods for delivery of therapeutic agents to mucous or serous membrane

Images**Publication data including kind & date**

US20120298105	A1	2012-11-29	US20120298105
US8944052	B2	2015-02-03	US8944052
US20150202363	A1	2015-07-23	US20150202363



US10137247

B2 2018-11-27 US10137247

Abstract

(US8944052)

A method, apparatus, and system are provided for mucous membrane therapy. The method includes receiving at least one body signal from a patient; **detecting** a condition of the patient based on the body signal; and administering the therapy to at least one of a mucous membrane or a serous membrane of the patient. A medical device system configured to implement the method is provided. A computer-readable storage device for storing instructions that, when executed by a processor, perform the method is also provided.

Inventors

OSORIO IVAN

Latest standardized assignees - inventors removed

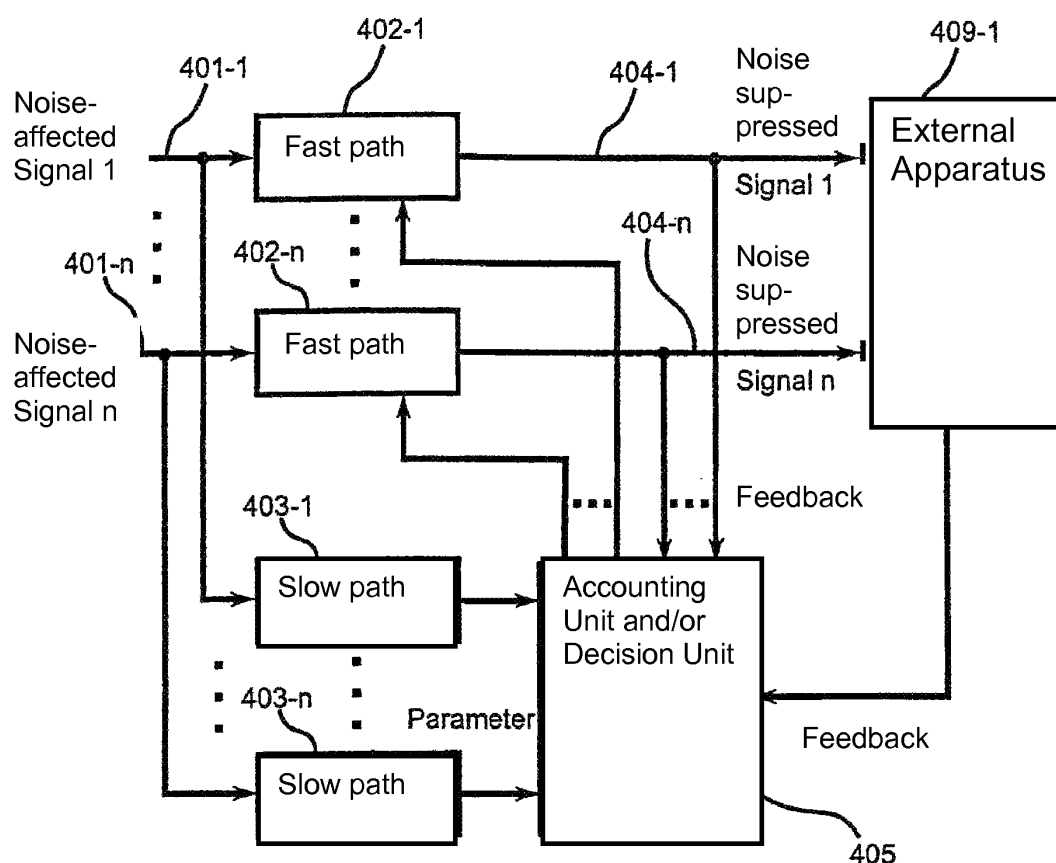
FLINT HILLS SCIENTIFIC

Family 24/50 - FAMPAT - ©Questel

Title

(EP2696924)

Apparatus and method for data processing for physiological signals

Images**Publication data including kind & date**

WO2012139737	A1	2012-10-18	WO2012139737
DE102011016804	A1	2012-10-18	DE102011016804
WO2012139737	A4	2012-12-27	WO2012139737
EP2696924	A1	2014-02-19	EP2696924
US20140142395	A1	2014-05-22	US20140142395
DE102011016804	B4	2016-01-28	DE102011016804
EP2696924	B1	2016-08-31	EP2696924



[US9585622](#)

B2 2017-03-07 US9585622

Abstract

(EP2696924)

The invention relates to a filter apparatus (100) having a signal input (101) to which an input signal is applied which contains a useful component and a noise component, a fast signal path (102) and a slow signal path (103) arranged in parallel therewith, wherein the fast signal path and the slow signal path are coupled to the signal input, the fast signal path contains a filter in order to prompt fast filtering of the input signal, the slow signal path contains a filter in order to prompt slow filtering of the input signal, and an output of the slow signal path is coupled to the fast signal path by means of a signal line (106). A signal output (104) which is coupled to the fast signal path has an output signal applied to it which essentially contains useful components of the input signal.

Inventors

SATTLER FRANK

EGER MARCUS

Latest standardized assignees - inventors removed

DRAEGERWERK

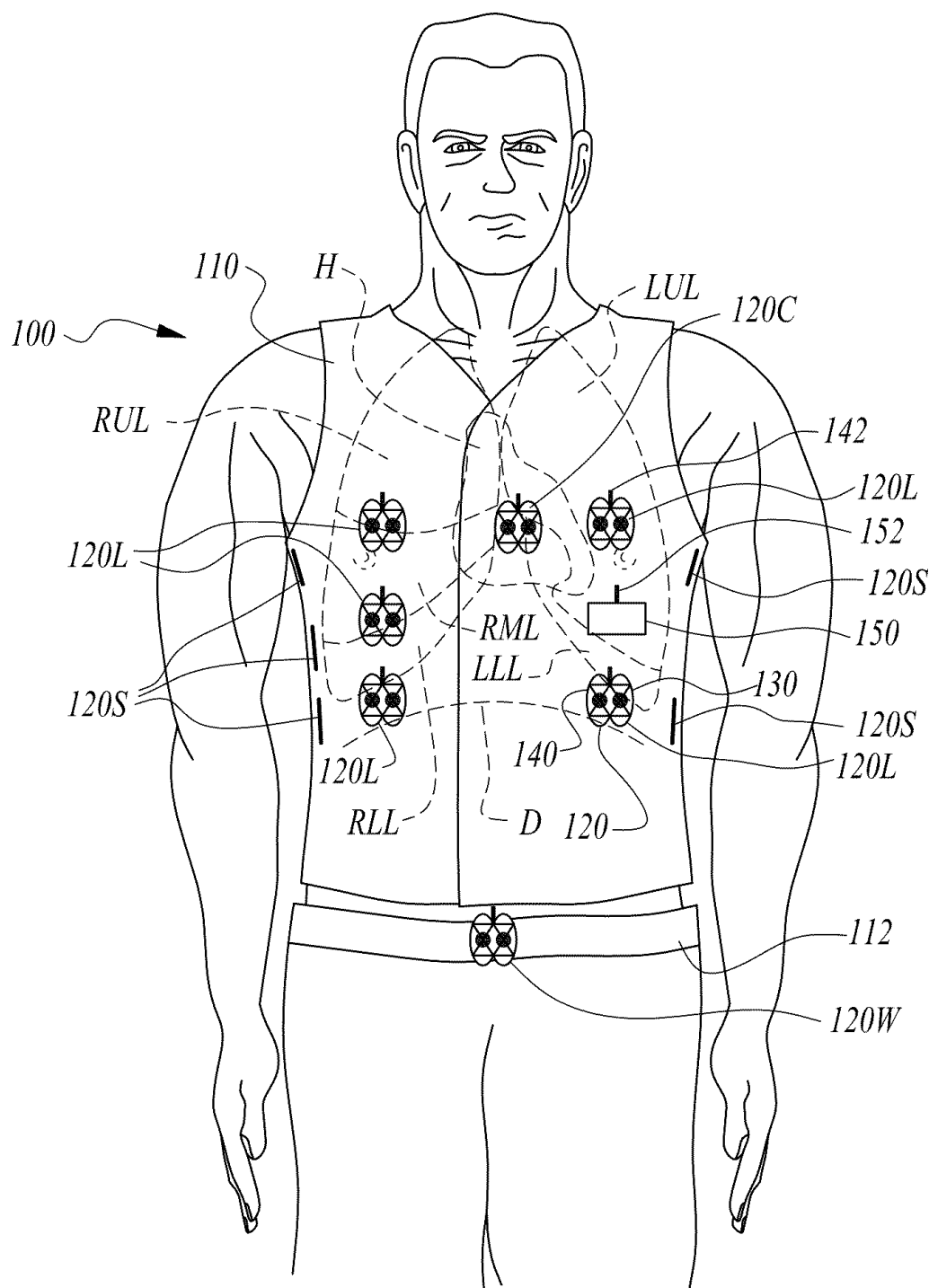
Family 25/50 - FAMPAT - ©Questel

Title

(US9002427)

Apparatus and method for continuous noninvasive measurement of respiratory function and events

Images



Publication data including kind & date

US20110060215	A1	2011-03-10	US20110060215
US9002427	B2	2015-04-07	US9002427
US20150208949	A1	2015-07-30	US20150208949
US20170258366	A1	2017-09-14	US20170258366



Abstract

(US9002427)

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.

Inventors

TUPIN JR JOE PAUL

TUPIN JOE PAUL

MURRAY JR KENNETH ARLAN

TUPIN JOHN DAVID

Latest standardized assignees - inventors removed

LIFEWAVE BIOMEDICAL

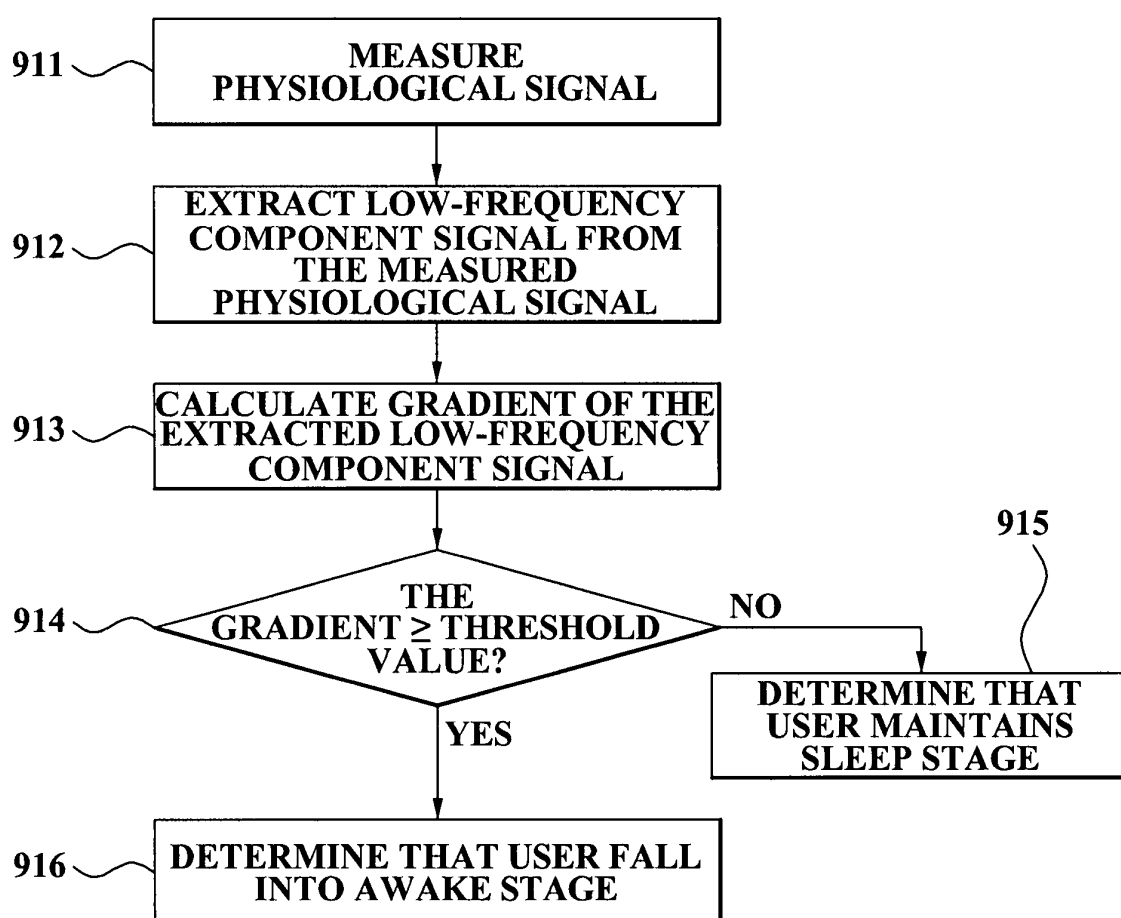
Family 26/50 - FAMPAT - ©Questel

Title

(US8784322)

Apparatus and method of sensing sleeping condition of user

Images



Publication data including kind & date

KR20070120827	A	2007-12-26	KR20070120827
US20080009685	A1	2008-01-10	US20080009685
KR100809041	B1	2008-03-03	KR100809041
US8784322	B2	2014-07-22	US8784322



Abstract

(US8784322)

A method and apparatus for sensing a sleeping condition of a user, including measuring a physiological signal of a user who is sleeping, determining whether or not a predetermined motion artifact is contained in the measured physiological signal, and determining that the user goes into an awake state when the predetermined motion artifact is contained in the

measured physiological signal.

Inventors

KIM JONG PAL

SHIN KUN SOO

BAE SOO HYUN

LEE MI HEE

Latest standardized assignees - inventors removed

SAMSUNG ELECTRONICS

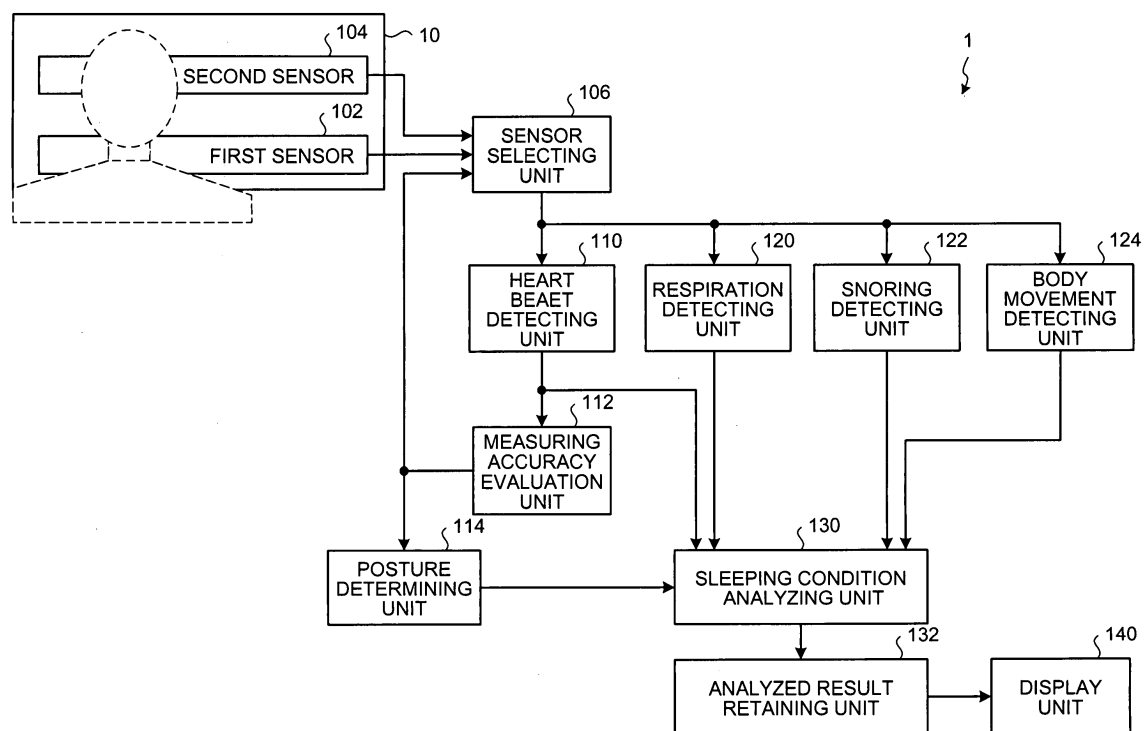
Family 27/50 - FAMPAT - ©Questel

Title

(US20070083125)

Apparatus and method of measuring biological information

Images



Publication data including kind & date

JP2007061439

A 2007-03-15

JP2007061439

US20070083125

A1 2007-04-12

US20070083125



Abstract

(US20070083125)

A biological information measuring apparatus with a pillow shape having a convex portion to be contacted with a cervical region of a user, the apparatus includes a first measuring unit arranged on the convex portion measuring biological information about the user in a sleeping condition; a second measuring unit arranged in a position other than the convex portion measuring biological information about the user in the sleeping condition; a selecting unit selecting any one of the first and the second measuring unit based on the measured results of the first and second measuring unit; and a heart beat detecting unit detecting heart beats of the user based on the measured result of the first or the second measuring unit selected by the selecting unit.

Inventors

OUCHI KAZUSHIGE

SUZUKI TAKUJI

MORIYA AKIHISA

Latest standardized assignees - inventors removed

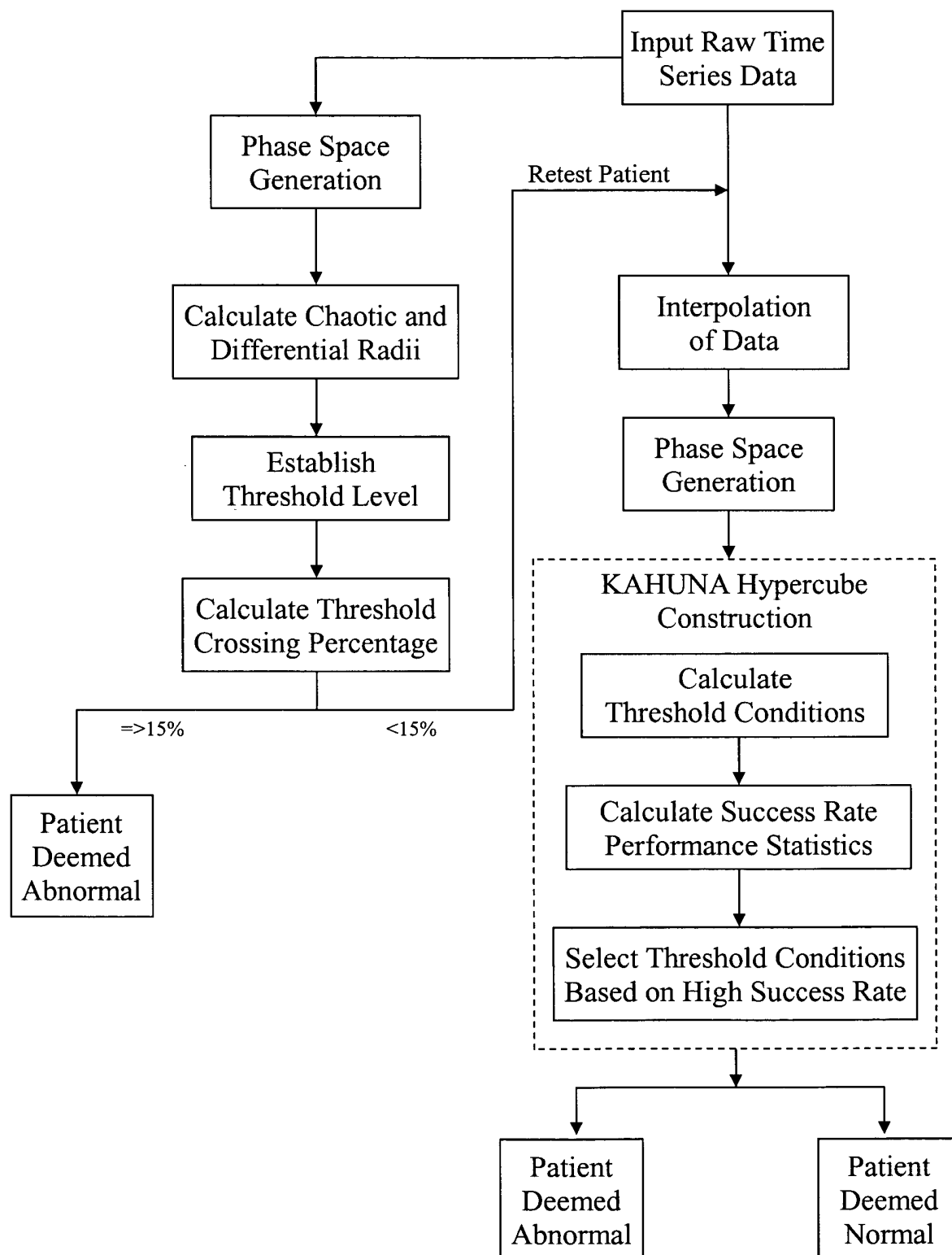
TOSHIBA

Family 28/50 - FAMPAT - ©Questel

Title

(WO200602056)

Apparatus and method for identifying sleep apnea

Images**Publication data including kind & date**[WO2006002056](#)

A2 2006-01-05

WO200602056

[US20060107954](#)

A1 2006-05-25

US20060107954



[US7153264](#)

B2 2006-12-26 US7153264

[WO2006002056](#)

A3 2007-02-15 WO200602056

Abstract

(WO200602056)

A method is provided for identifying a disease of a patient. The method includes collecting data of at least one cardio-respiratory function of the patient over time, eliminating artifacts from the collected data to create a new data record, constructing a phase-space from the new data record, and constructing a hypercube covering the phase-space. The method further includes calculating threshold criteria for quantifying dispersion characteristics of an attractor of the phase-space and determining the patient's tendency towards the disease based on the threshold criteria.

Inventors

KATZ RICHARD A C O VANGUARD TE

HALL JEFFREY S

NUTTALL ALBERT H

DODENHOFF TRACEY A

SAWYER DOUGLAS M

Latest standardized assignees - inventors removed

VANGUARD TECHNOLOGIES

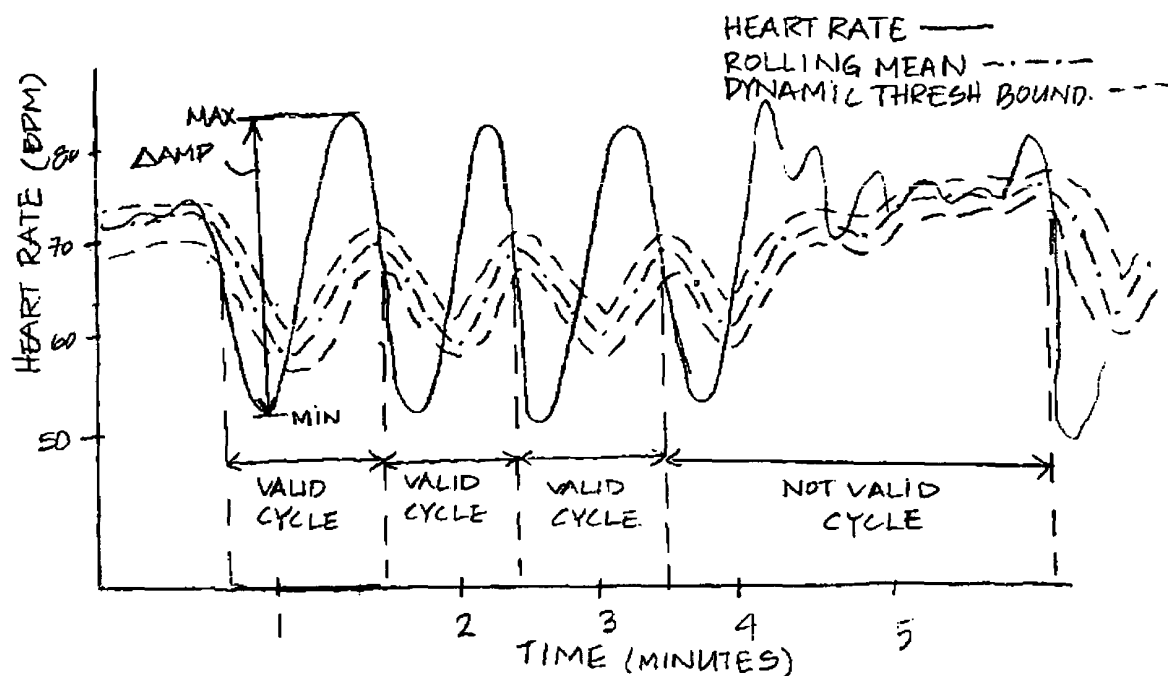
KATZ RICHARD A C O VANGUARD TE

Family 29/50 - FAMPAT - ©Questel

Title

(WO200462485)

Apparatus and method for monitoring for disordered breathing

Images**Publication data including kind & date**[WO2004062484](#)

A2 2004-07-29 WO200462484

[WO2004062485](#)

A2 2004-07-29 WO200462485

[WO2004062484](#)

A3 2004-09-16 WO200462484

[WO2004062485](#)

A3 2004-12-23 WO200462485

[US20050119711](#)

A1 2005-06-02 US20050119711

[US7438686](#)

B2 2008-10-21 US7438686

Abstract

(WO200462485)

The present application relates to a device and method for monitoring for sleep disordered breathing or other types of disordered breathing such as Cheyne-Stokes breathing. More specifically, a device and method for **detecting** disordered breathing is provided that monitors a physiological parameter, which becomes cyclical due to apnea-hyperpnea (or arousal) alternation and provides the basis for the determination of a number of breathing disorder metrics.

Inventors

CHO YOUNG KYUN

LAWABNI ABED E

SHELDON TODD J

MARKOWITZ TOBY H

SOWELAM SAMEH

PITSCHNEIDER RAYLENE

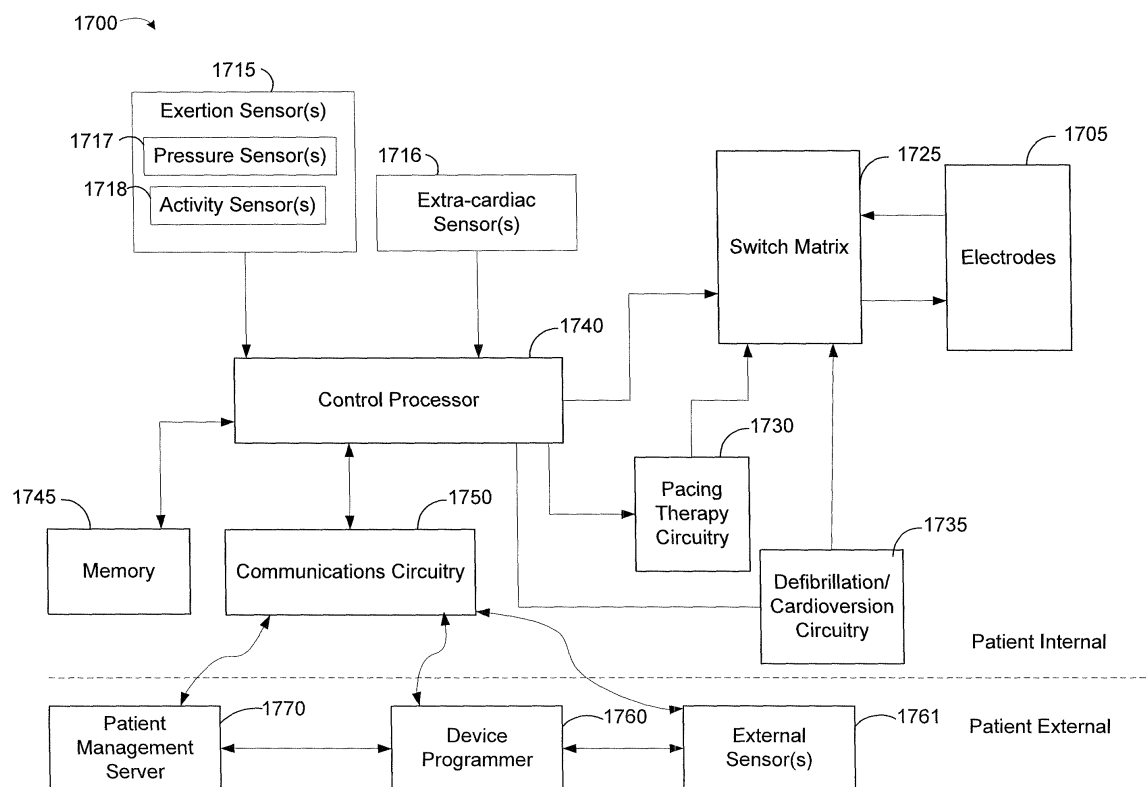
Latest standardized assignees - inventors removed

MEDTRONIC

Family 30/50 - FAMPAT - ©Questel

Title

(EP2317913)

Apparatus for **detection** of myocardial ischemia upon exertion**Images****Publication data including kind & date**

WO2010014497	A1	2010-02-04	WO201014497
US20100030090	A1	2010-02-04	US20100030090
EP2317913	A1	2011-05-11	EP2317913
JP2011529726	A	2011-12-15	JP2011529726
US8321003	B2	2012-11-27	US8321003
US20130085401	A1	2013-04-04	US20130085401



JP5343130	B2	2013-11-13	JP5343130
EP2317913	B1	2013-11-20	EP2317913
US9026201	B2	2015-05-05	US9026201

**Abstract**

(EP2317913)

Various method embodiments of the present invention concern sensing patient- internal pressure measurements indicative of physiological exertion, identifying one or more steady state periods of physiological exertion based on the patient-internal pressure measurements, sensing extra-cardiac response data and cardiac response data corresponding to the one or more physiological exertion steady state periods, respectively comparing the extra-cardiac response data and the cardiac response data to extra-cardiac response information and cardiac response information associated with equivalent levels of physiological exertion intensity of the one or more steady state periods, and determining the likelihood that myocardial ischemia occurred during the one or more steady state periods based on the comparison of the extra-cardiac response data to the extra-cardiac response information and the cardiac response data to the cardiac response information.

Inventors

ZHANG YI

BECK KENNETH C

LEWICKE AARON

ZHANG YUNLONG

Latest standardized assignees - inventors removed

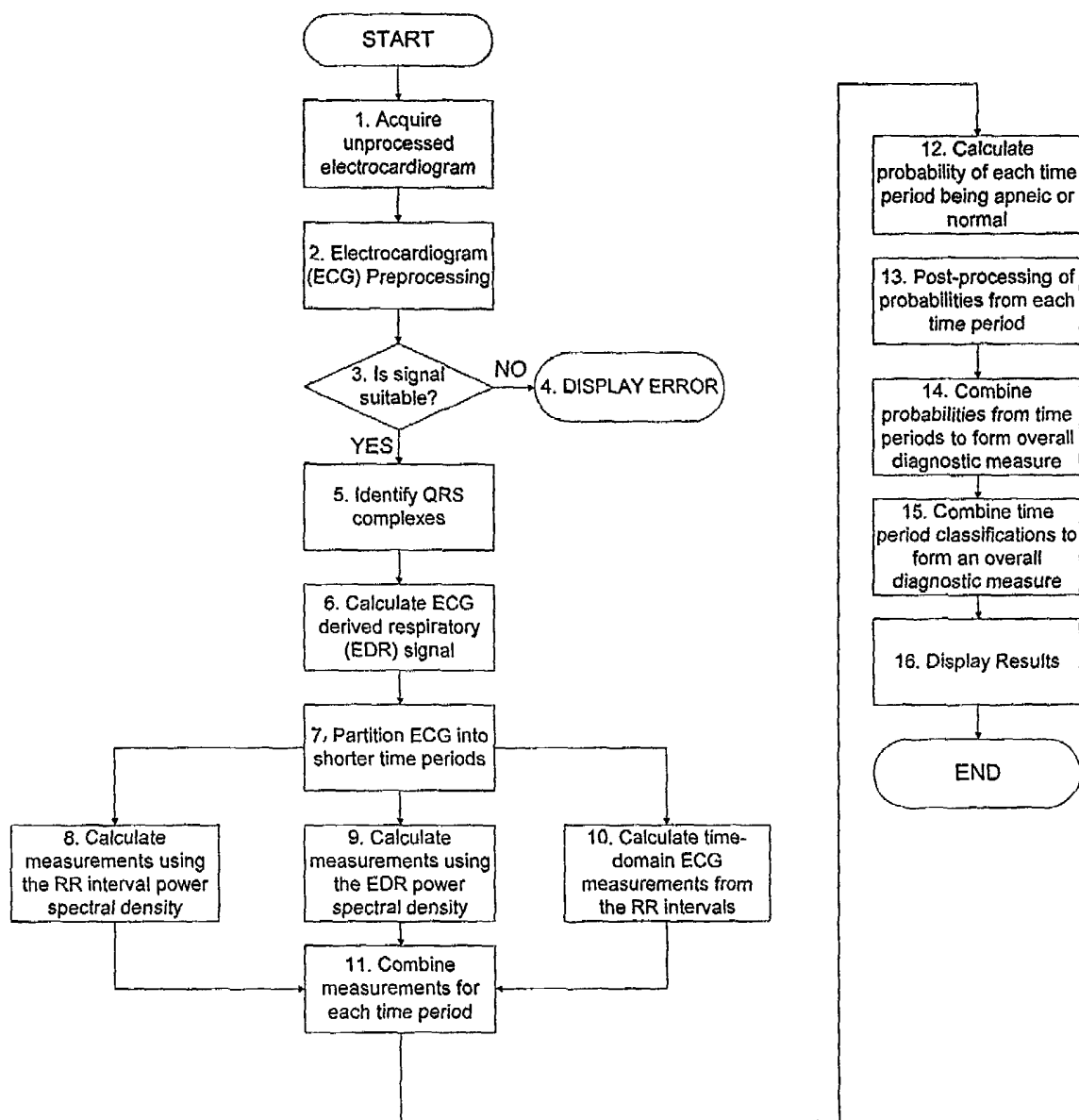
CARDIAC PACEMAKERS

Family 31/50 - FAMPAT - ©Questel

Title

(US7862515)

Apparatus for **detecting** sleep apnea using electrocardiogram signals**Images**



Publication data including kind & date

US20030055348	A1	2003-03-20	US20030055348
US7025729	B2	2006-04-11	US7025729
US20060184056	A1	2006-08-17	US20060184056
US7862515	B2	2011-01-04	US7862515



Abstract

(US7862515)

An apparatus for **diagnosing** sleep apnea only uses an electrocardiogram signal and a computer processor and associated computer code that are configured to analyze the electrocardiogram signal and classify each time period of the electrocardiogram signal as either apneic or normal. A **diagnostic** measure of sleep apnea for the human patient is provided based on classification results obtained by combining a results for various electrocardiogram signal time periods. A computer-readable medium has computer code that causes the computer to analyze an electrocardiogram signal relating to the human patient and classify each time period in a set of time periods as either apneic or normal. A **diagnostic** measure of sleep apnea is provided based on classification results obtained by combining a plurality of results from the set of time periods using either time or frequency domain processing, or both.

Inventors

DE CHAZAL PHILIP
 HENEGHAN CONOR
 SHERIDAN ELAINE

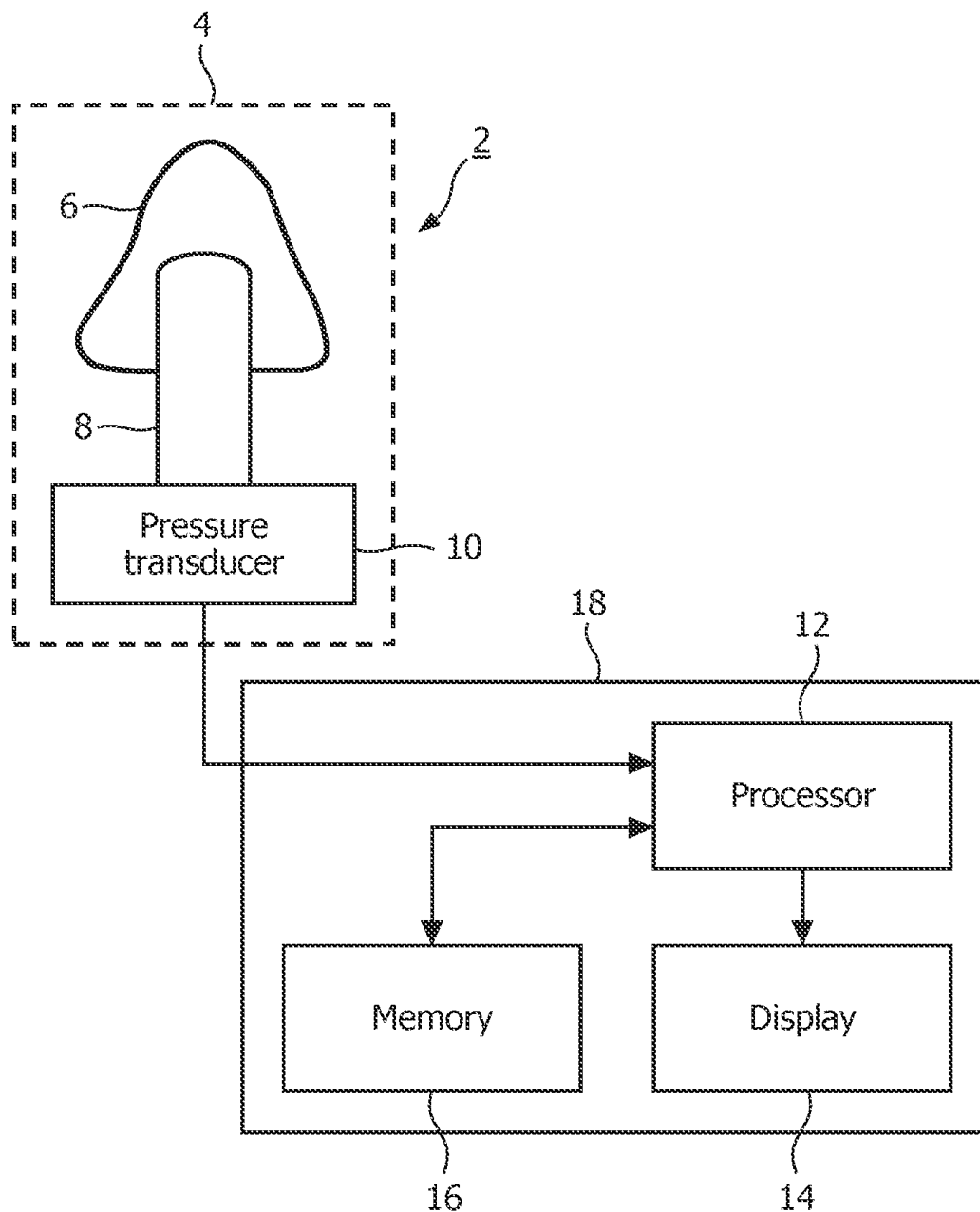
Latest standardized assignees - inventors removed

RESMED SENSOR TECHNOLOGIES

Family 32/50 - FAMPAT - ©Questel

Title

(EP2629661)

Apparatus for **diagnosing** obstructive sleep apnea with an awake patient**Images****Publication data including kind & date**

WO2012052882	A1	2012-04-26	WO201252882
CN103167828	A	2013-06-19	CN103167828
EP2629661	A1	2013-08-28	EP2629661
US20130289401	A1	2013-10-31	US20130289401



JP2013543741	A	2013-12-09	JP2013543741				
BR112013009346	A1	2014-01-07	BR112013009346				
IN2836/CHENP/2013	A	2014-07-18	IN2013CN02836				
RU2013122802	A	2014-11-27	RU2013122802				
CN103167828	B	2016-02-24	CN103167828B				
JP6043289	B2	2016-12-14	JP6043289				
EP2629661	B1	2016-12-14	EP2629661				

Abstract

(EP2629661)

An apparatus for use in **diagnosing** the presence of obstructive sleep apnea (OSA) in a patient includes a sensing module structured to measure a parameter indicative of a tremor in the patient's neck, tongue and/or throat muscles while the patient is awake, the parameter not being airflow through the patient's airway. The sensing module generates one or more electrical signals based on the measured parameter. The apparatus also includes a processor operatively coupled to the sensing module, the processor being structured to receive the one or more electrical signals, perform an analysis of the one or more electrical signals, and based on the analysis determine whether the tremor has a frequency in at least one predetermined frequency range that is indicative of OSA.

Inventors

COLBAUGH MICHAEL EDWARD

FLIGGE RONALD DEAN

IYER VIJAY KUMAR

MECHLENBURG DOUGLAS

SHAW EDMUND ARNLIOT

ZIMMERMAN NATHAN

Latest standardized assignees - inventors removed

PHILIPS

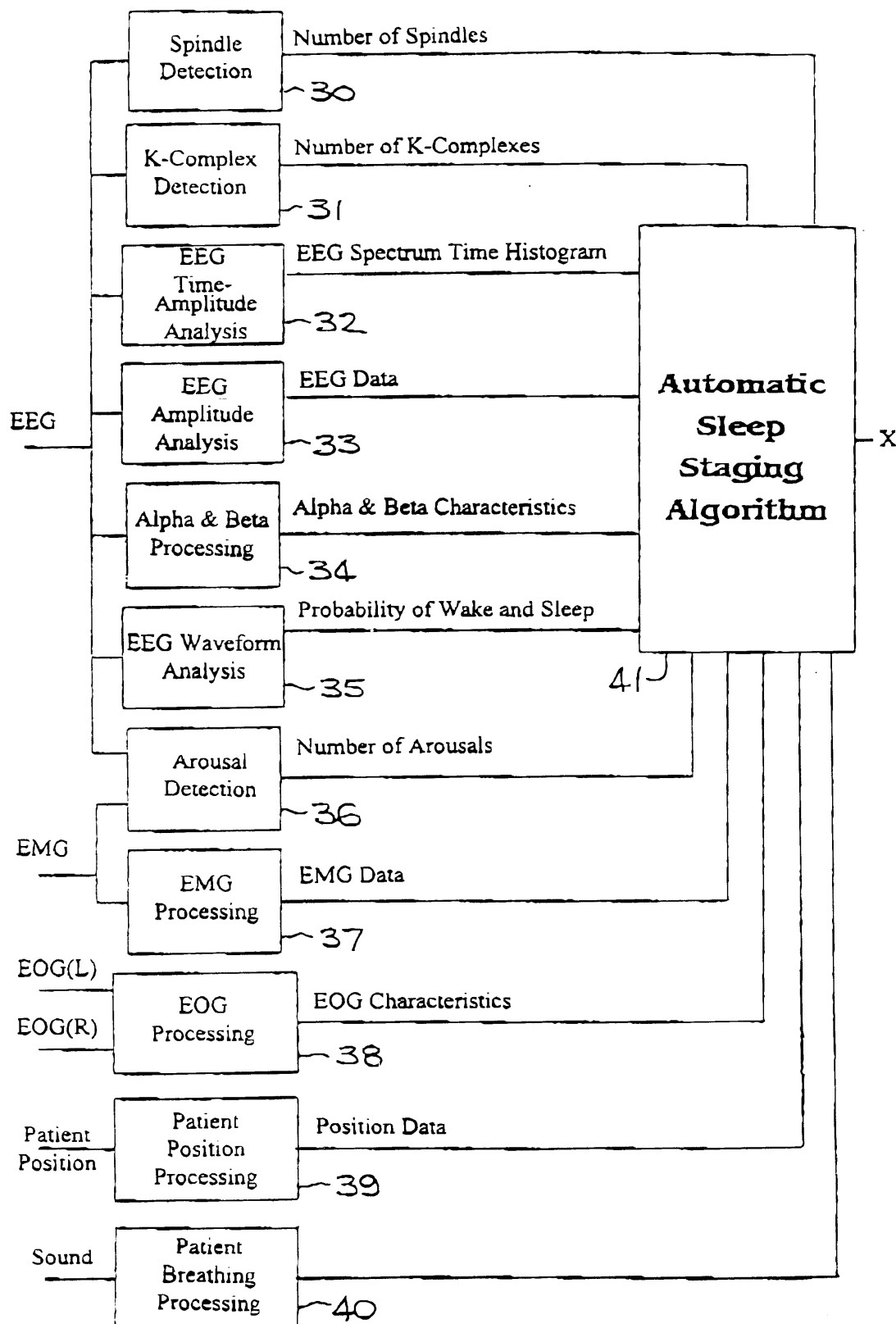
Family 33/50 - FAMPAT - ©Questel

Title

(EP-862475)

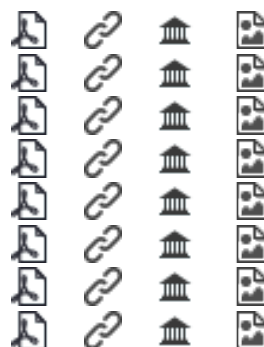
Apparatus for gas delivery

Images



Publication data including kind & date

AUPN627395	A0	1995-11-23	AU-627395
WO9716216	A1	1997-05-09	WO9716216
AU7267996	A	1997-05-22	AU9672679
EP0862475	A1	1998-09-09	EP-862475
CN1202832	A	1998-12-23	CN1202832
AU707148	B2	1999-07-01	AU-707148
KR19990067210	A	1999-08-16	KR19990067210
JPH11514279	A	1999-12-07	JP11514279



EP0862475	A4	1999-12-08	EP-862475				
US6397845	B1	2002-06-04	US6397845				
RU2198689	C2	2003-02-20	RU2198689				
VN0003306	B	2003-03-25	VN---3306B				
KR100446133	B1	2005-01-13	KR100446133				
EP0862475	B1	2005-01-26	EP-862475				
CN1187105	C	2005-02-02	CN1187105C				
AT287743	T	2005-02-15	ATE287743				
DE69634262	D1	2005-03-03	DE69634262				
DE69634262	T2	2006-03-30	DE69634262				
JP3798023	B2	2006-07-19	JP3798023				

Abstract

(EP-862475)

Apparatus for controlling gas delivery to a patient, the delivery being adapted to maintain a physiological event such as effective respiratory function and/or absence of arousals. The apparatus includes means (10, 12, 13) for monitoring one or more physiological variables such as EEG, EOG, EMG, patient position and breathing associated with the patient. The apparatus also includes means (14, 15) for deriving from the variables, data representing physiological states of the patient corresponding to the variables and means (16, 17) for determining from the data for each physiological state, a gas pressure value beyond and below which there is a deterioration in the physiological event. The deriving means may include an automatic sleep staging algorithm (41) and the determining means may include a pressure seek algorithm.

Inventors

BURTON DAVID

Latest standardized assignees - inventors removed

COMPUMEDICS SLEEP

Family 34/50 - FAMPAT - ©Questel

Title

(EP1551286)

Apparatus for maintaining and monitoring sleep quality during therapeutic treatments

Images

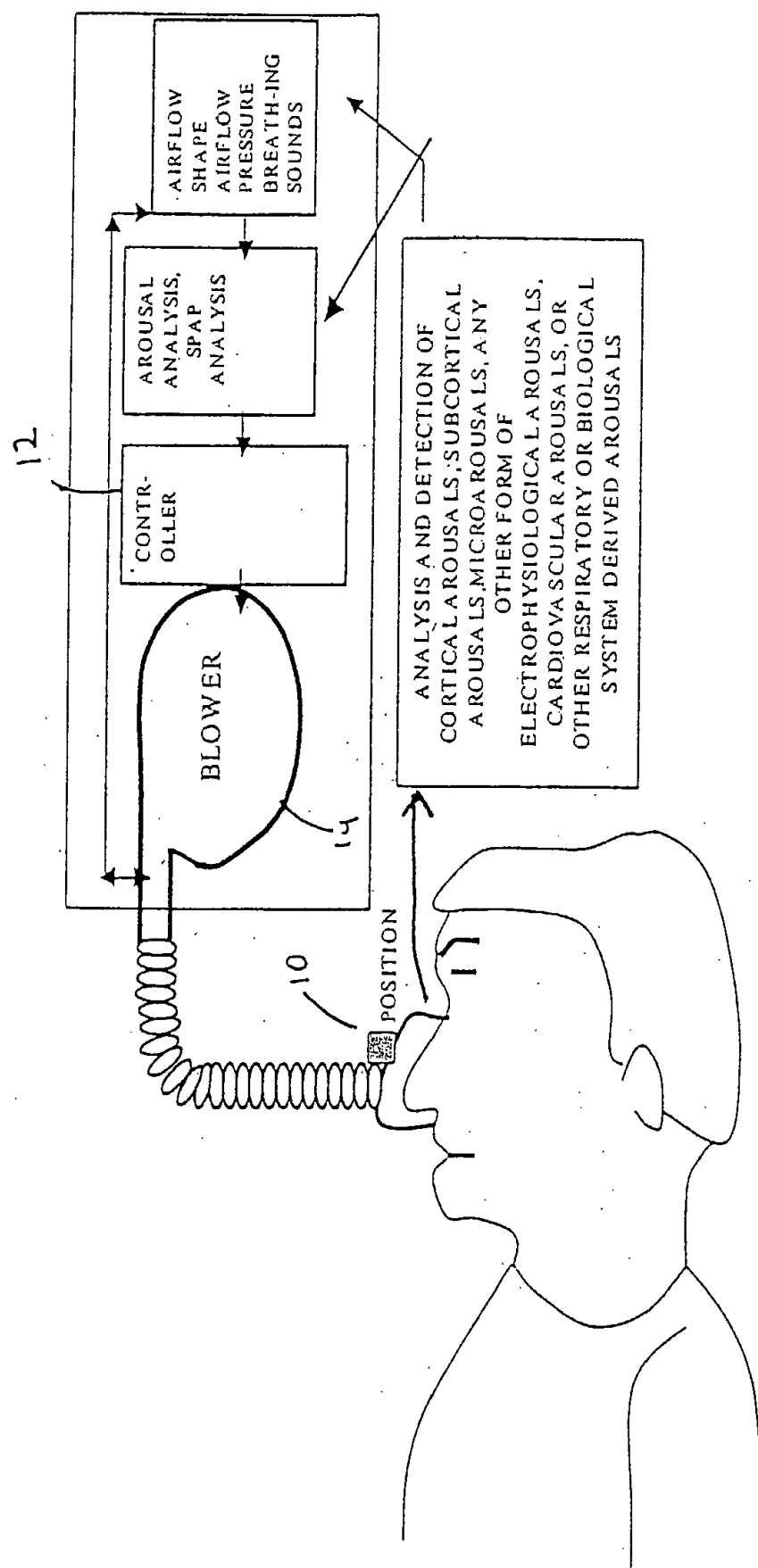


FIG. 1

Publication data including kind & date

WO2004032719	A2	2004-04-22	WO200432719
CA2711783	A1	2004-04-22	CA2711783
CA2501607	A1	2004-04-22	CA2501607
AU2003277338	A1	2004-05-04	AU2003277338



WO2004032719	A3	2004-06-10	WO200432719				
IS7788	A	2005-04-08	IS---7788				
NO20052237	D0	2005-05-09	NO200502237				
NO20052237	A	2005-07-07	NO200502237				
KR20050072435	A	2005-07-11	KR20050072435				
MXPA05003815	A	2005-07-13	MX2005PA003815				
EP1551286	A2	2005-07-13	EP1551286				
WO2004032719	A8	2005-08-11	WO200432719				
BR0315175	A	2005-08-23	BR200315175				
BRPI0315175	A1	2005-08-23	BRPI0315175				
IN0253/MUMNP/2005	A	2005-09-23	IN2005MN00253				
PL375763	A1	2005-12-12	PL2003375763				
CN1713850	A	2005-12-28	CN1713850				
RU2005114379	A	2006-01-20	RU2005114379				
JP2006516100	A	2006-06-22	JP2006516100				
NZ539584	A	2007-07-27	NZ-539584				
IN208175	B	2007-08-10	IN-208175				
AU2003277338	B2	2008-06-05	AU2003277338				
RU2338457	C2	2008-11-20	RU2338457				
NZ555559	A	2009-03-31	NZ-555559				
EP1551286	A4	2009-06-24	EP1551286				
JP2010104814	A	2010-05-13	JP2010104814				
KR20100095662	A	2010-08-31	KR20100095662				
KR20100097765	A	2010-09-03	KR20100097765				
KR20100097764	A	2010-09-03	KR20100097764				
KR20100097766	A	2010-09-03	KR20100097766				
KR101060923	B1	2011-08-30	KR101060923				
JP4865229	B2	2012-02-01	JP4865229				
CN1713850	B	2012-04-18	CN1713850B				
KR20120094156	A	2012-08-23	KR20120094156				
KR101177207	B1	2012-08-24	KR101177207				
IL167899	B	2012-08-30	IL-167899				
HK1085636	A1	2012-12-28	HK1085636				
KR101309971	B1	2013-09-17	KR101309971				
KR101318718	B1	2013-10-16	KR101318718				
BRPI0315175	A2	2014-08-26	BR200315175				
CA2711783	C	2016-12-20	CA2711783				
EP1551286	B1	2017-11-22	EP1551286				
CA2501607	C	2018-08-21	CA2501607				

Abstract

(EP1551286)

The present invention monitors and interprets physiological signals and spontaneous breathing events to **detect** the onset of arousal. Once the onset of arousal is determined, the present invention determines adjustments that are needed in the operation of a therapeutic device to avoid or minimize arousals. In one embodiment, the present invention includes one or more sensors (10) which **detect** a patient's physiological parameters, a controller (12) which monitors and determines the onset of arousal based on the physiological variables received from the sensor (10), and a therapeutic treatment device which is controlled by the controller. The sensor can be a combination of one or more devices which are able to monitor a physiological parameter that is used by the present invention to determine the onset of arousal or the onset of a sleep

disorder. The sensors can be integrated into one unit or may operate independent of the others.

Inventors

BURTON DAVID

ZILBERG EUGENE

Latest standardized assignees - inventors removed

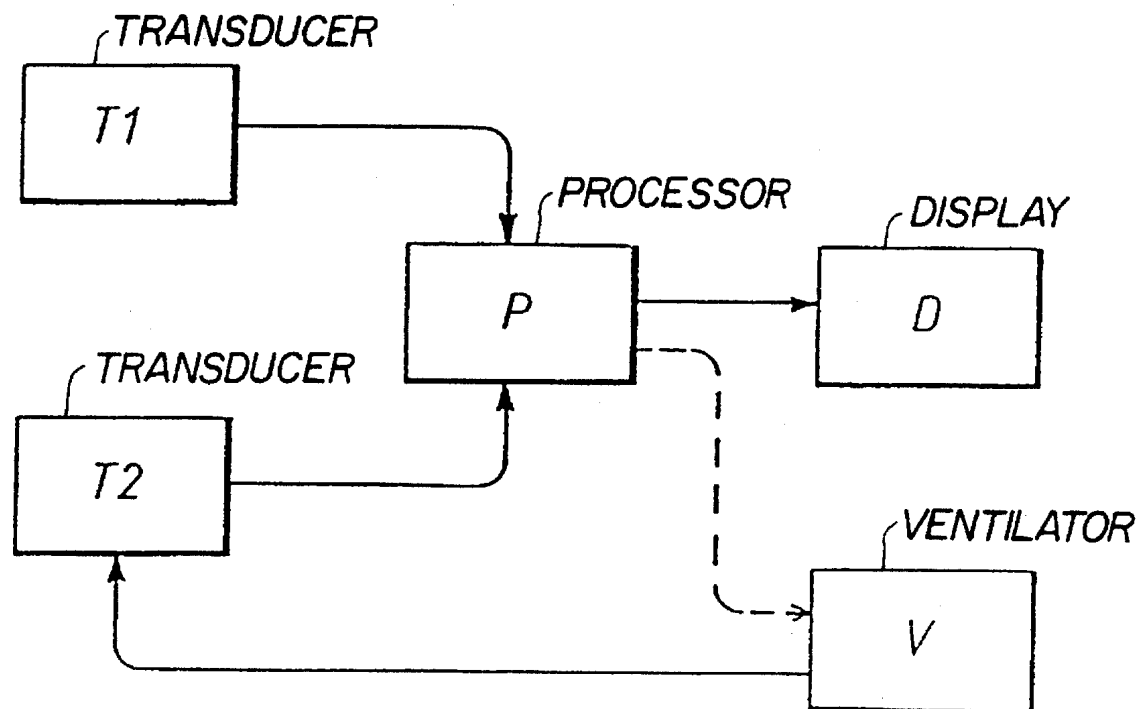
COMPUMEDICS MEDICAL INNOVATION

Family 35/50 - FAMPAT - ©Questel

Title

(US5520192)

Apparatus for the monitoring and control of respiration

Images**Publication data including kind & date**[US5520192](#)

A 1996-05-28 US5520192

**Abstract**

(US5520192)

A respiration monitor for measuring the respiration of a subject on a mechanical ventilator comprises first transducer means arranged to produce a first signal representative of a respiration status of the subject, second transducer means arranged to produce a second signal representative of a cyclical status of the mechanical ventilator, and processor means arranged to receive said first and second signals and to produce an output signal dependent upon the relative phase of said first and second signals. The invention extends to a method of monitoring, and also to a method of determining the rate at which a mechanical ventilator should be set in order to achieve 1:1 entrainment with spontaneous respiratory efforts.

Inventors

KITNEY RICHARD I

BIGNALL SIMON

Latest standardized assignees - inventors removed

IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY & MEDICINE

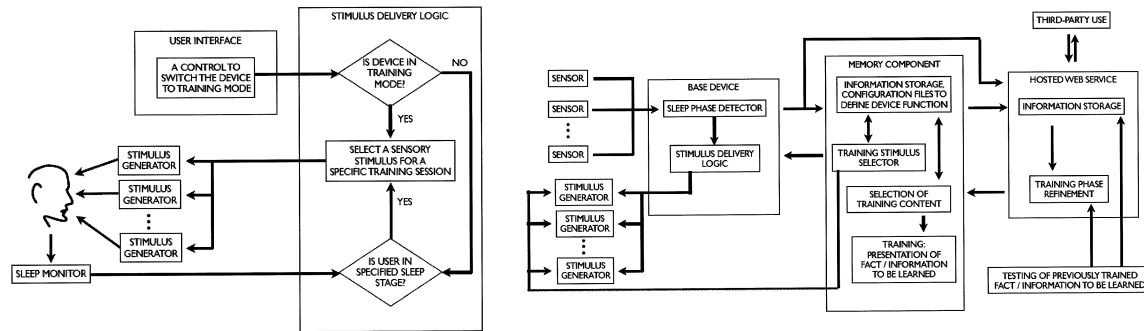
Family 36/50 - FAMPAT - ©Questel

Title

(WO2012138761)

Apparatus, system, and method for modulating consolidation of memory during sleep

Images



Publication data including kind & date

US20120251989	A1	2012-10-04	US20120251989
WO2012138761	A1	2012-10-11	WO2012138761
US8382484	B2	2013-02-26	US8382484



Abstract

(WO2012138761)

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.

Inventors

WETMORE DANIEL Z
 ANDERSON TODD O
 BARRETTO ROBERT J
 BUTTERWICK ALEXANDER F A

Latest standardized assignees - inventors removed

SHEEPDOG SCIENCES

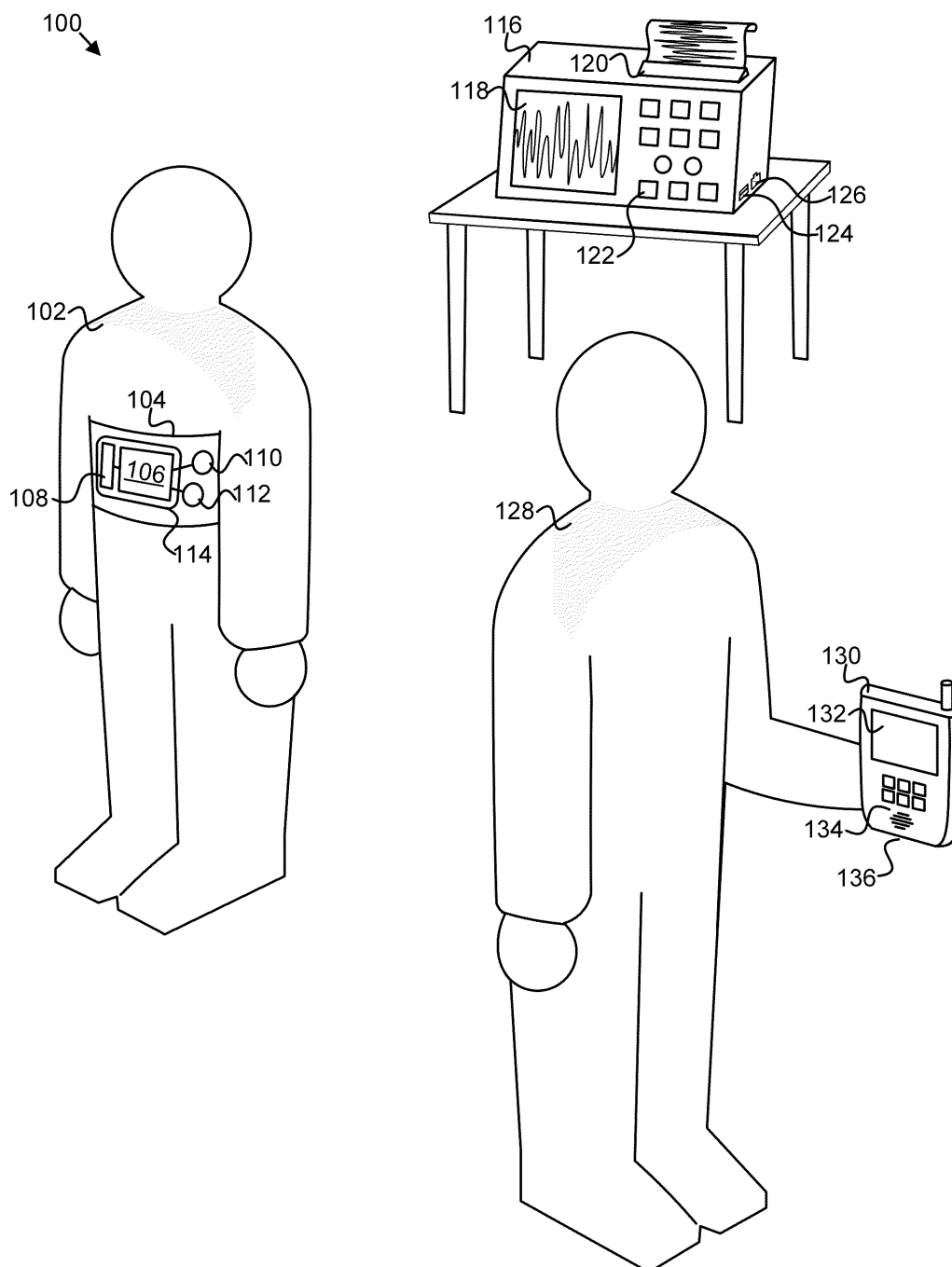
Family 37/50 - FAMPAT - ©Questel

Title

(EP2575605)

Apparatus, system, and method for seizure symptom **detection**

Images



Publication data including kind & date

WO2011149565	A1	2011-12-01	WO2011149565
EP2575605	A1	2013-04-10	EP2575605
US20130116514	A1	2013-05-09	US20130116514
EP2575605	A4	2015-01-21	EP2575605
US9339195	B2	2016-05-17	US9339195



Abstract

(EP2575605)

An apparatus, system, and method are disclosed for **detecting** seizure symptoms in an individual 102. A sensor module 202 receives physiological data for an individual 102 from one or more sensors 110, 112, such as a heart activity sensor. A feature **detection** module 204 **detects** a predefined feature 500, 520, 530, 540 in the physiological data. The predefined feature 500, 520, 530, 540 is associated with a seizure or another medical condition. An alert module 206 broadcasts an alert in response to the feature **detection** module 204 **detecting** the predefined feature 500, 520, 530, 540.

Inventors

PITRUZZELLO ANN

KRONER BARBARA

SHOREY JAMIE

STRUBE DAVID

Latest standardized assignees - inventors removed

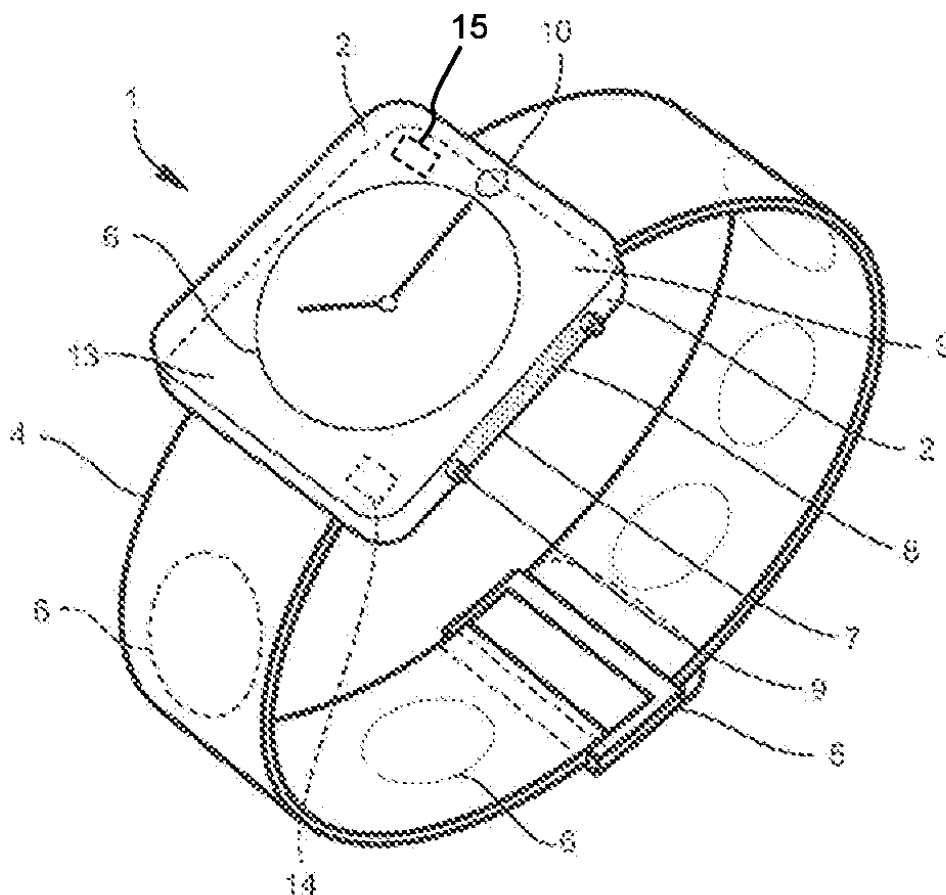
RTI INTERNATIONAL

Family 38/50 - FAMPAT - ©Questel

Title

(US20150366518)

Apparatuses, Methods, Processes, and Systems Related to Significant Detrimental Changes in Health Parameters and Activating Lifesaving Measures

Images**Publication data including kind & date**[US20150366518](#)

A1 2015-12-24

US20150366518

**Abstract**

(US20150366518)

Certain exemplary embodiments can provide an apparatus wearable by a user. The apparatus can comprise a biometric sensor constructed to generate signals based upon measurements of the user. The apparatus can comprise a processor constructed to determine a significant detrimental change in the user via an algorithm based upon the signals.

Inventors

SAMPSON ROBERT

Latest standardized assignees - inventors removed

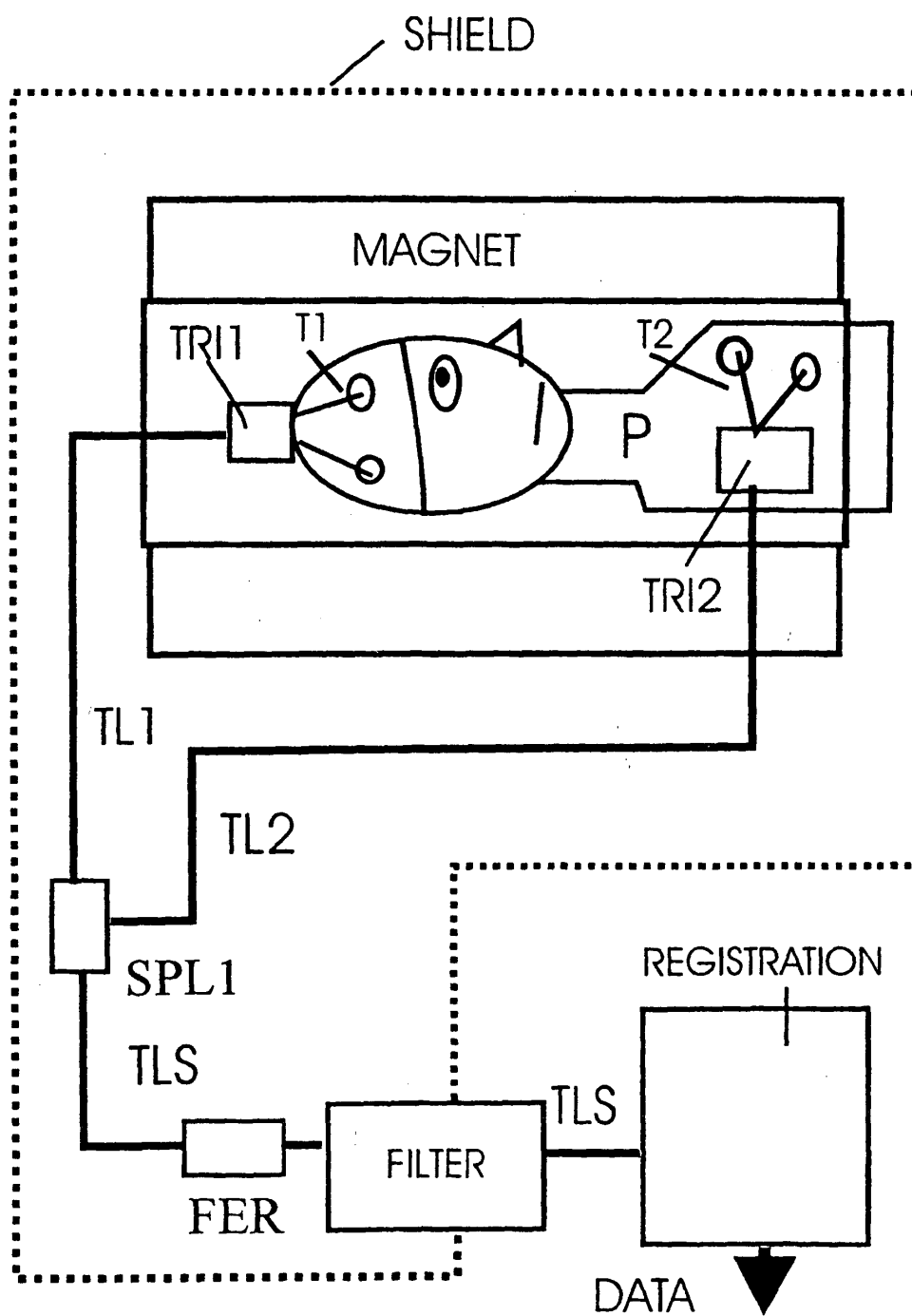
SHERLOCK SOLUTIONS

Family 39/50 - FAMPAT - ©Questel

Title

(EP1386302)

Arrangement for registration

Images**Publication data including kind & date**

WO02084624	A1	2002-10-24	WO200284624
EP1386302	A1	2004-02-04	EP1386302
US20040056103	A1	2004-03-25	US20040056103
JP2004527843	A	2004-09-09	JP2004527843
EP1386302	B1	2006-06-21	EP1386302
AT331268	T	2006-07-15	ATE331268
DE60212616	D1	2006-08-03	DE60212616



DE60212616

T2 2007-02-22 DE60212616

Abstract

(EP1386302)

The invention relates an arrangement including a method and means, which may be used for registration of signals, such as EEG, ECG and EMG, from one or several objects, such as human body, animal, apparatus or equipment, or from apparatus or equipment especially in environment, such as e.g. in MRI environment, where registration is not allowed to disturb operation and correspondingly some other operation is not allowed to disturb registration or cause damages to object from which registration takes place and its characteristic to the invention that that transducers (T1, T2) and to them attached signal means (SC, RT1, RT2) are supplied with driving energy via transmission line (TLS, TL1, TL2) and via at least one isolation means (ISOLATION) and said transfer of driving energy takes place at radio frequency essentially higher than that of said disturbing electromagnetic energy.

Inventors

SEPPONEN RAIMO

Latest standardized assignees - inventors removed

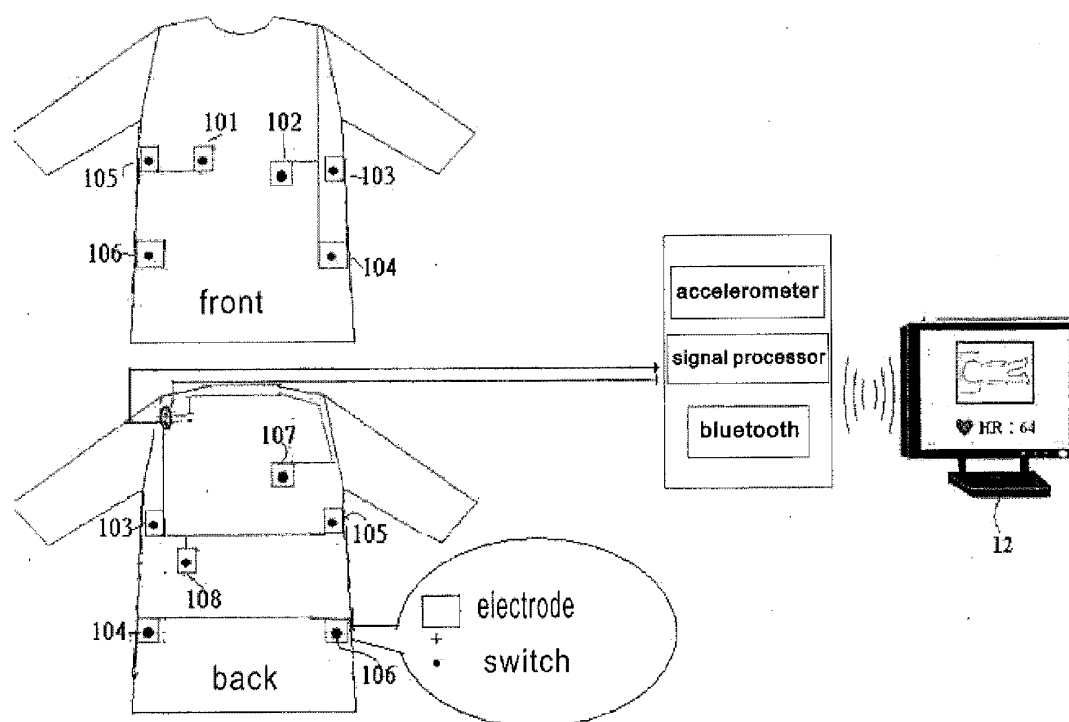
INCREA

Family 40/50 - FAMPAT - ©Questel

Title

(WO201120299)

Article for monitoring physiological function and posture status

Images**Publication data including kind & date**

WO2011020299	A1	2011-02-24	WO2011020299
WO2011020216	A1	2011-02-24	WO2011020216
CN102143709	A	2011-08-03	CN102143709
US20120215076	A1	2012-08-23	US20120215076

**Abstract**

(WO201120299)

An article, a method and a system for monitoring physiological function and posture status are provided by the present

invention, wherein the article is contacted with a body directly or indirectly. At least one set of non-posture physiological sensors are set in the article and connected or contacted with at least one switch, one pressure sensor, one strain sensor or one pressure gauge at the same time. The switch, the pressure sensor, the strain sensor or the pressure gauge is set in the same article or a different article, and the non-posture physiological sensors sense the user's physiological function and posture status. The above technical solution provided by the invention can accurately **detect** the changes in body posture.

Inventors

YANG CHANG-MING

YANG TZULIN

YANG HAO

Latest standardized assignees - inventors removed

MING YOUNG BIOMEDICAL

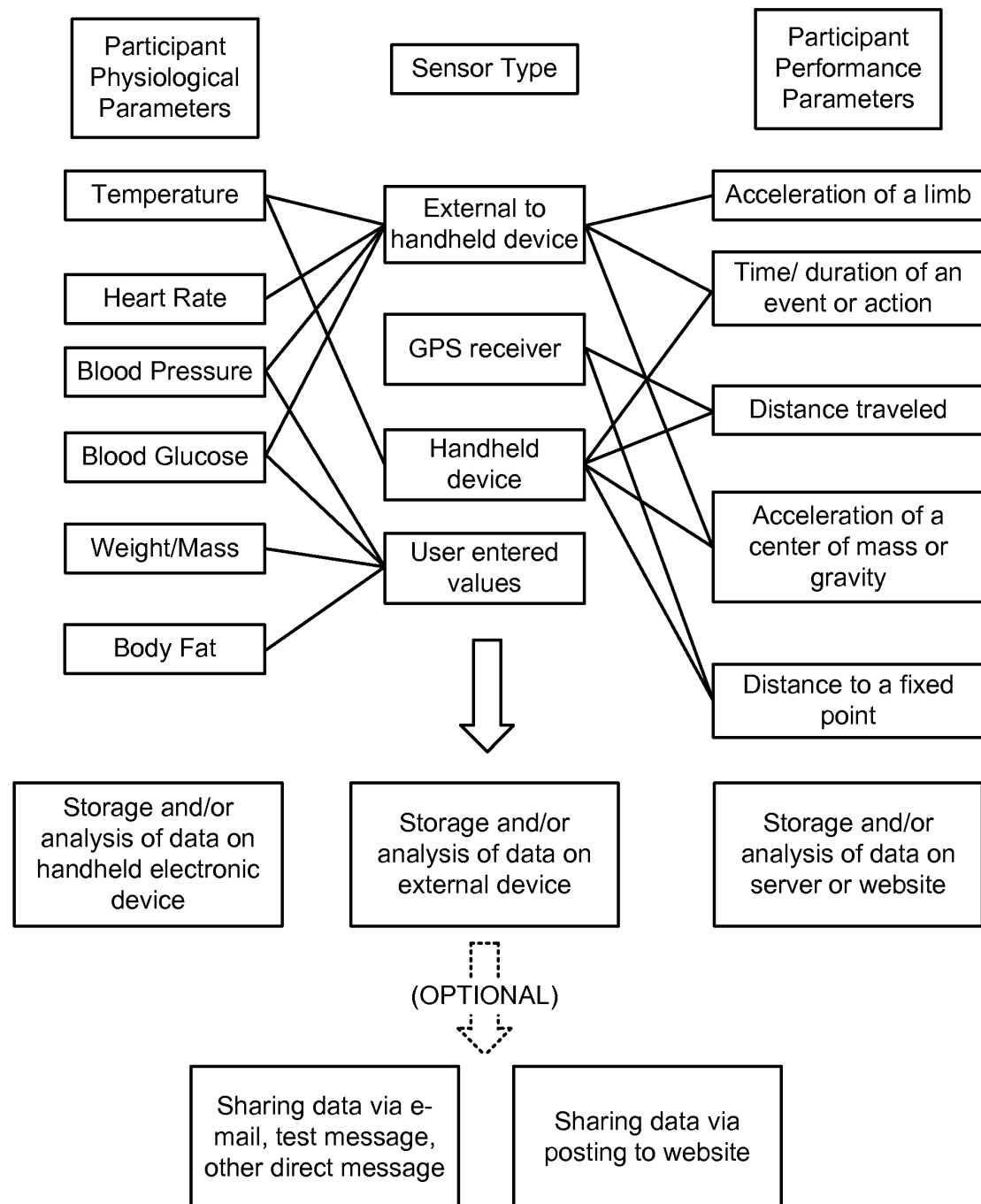
Family 41/50 - FAMPAT - ©Questel

Title

(EP2880570)

Athletic monitoring

Images



Publication data including kind & date

US20140031703	A1	2014-01-30	US20140031703
CA2880434	A1	2014-02-06	CA2880434
WO2014022438	A1	2014-02-06	WO201422438
US20140228649	A1	2014-08-14	US20140228649
AU2013296579	A1	2015-02-26	AU2013296579
EP2880570	A1	2015-06-10	EP2880570
US9579048	B2	2017-02-28	US9579048



Abstract

(EP2880570)

A system for determining a set of characteristics of a participant performing an activity is provided. The system includes two or more data collectors and a processor. The two or more data collectors include a physical data collector for collecting physical data associated with the activity and a physiological data collector for collecting physiological data associated with the activity. The processor has one or more data inputs in communication with the processor. Each of the one or more data

inputs communicates with at least one of the data collectors to receive the physical data or the physiological data. The processor is adapted to receive the physical data and the physiological data from the one or more data inputs and process the physical data and the physiological data according to a characteristic generation program. The set of characteristics represents a performance level of the participant performing the physical activity.

Inventors

RAYNER GARY

NOLAN JAMES S

Latest standardized assignees - inventors removed

TREEFROG DEVELOPMENTS

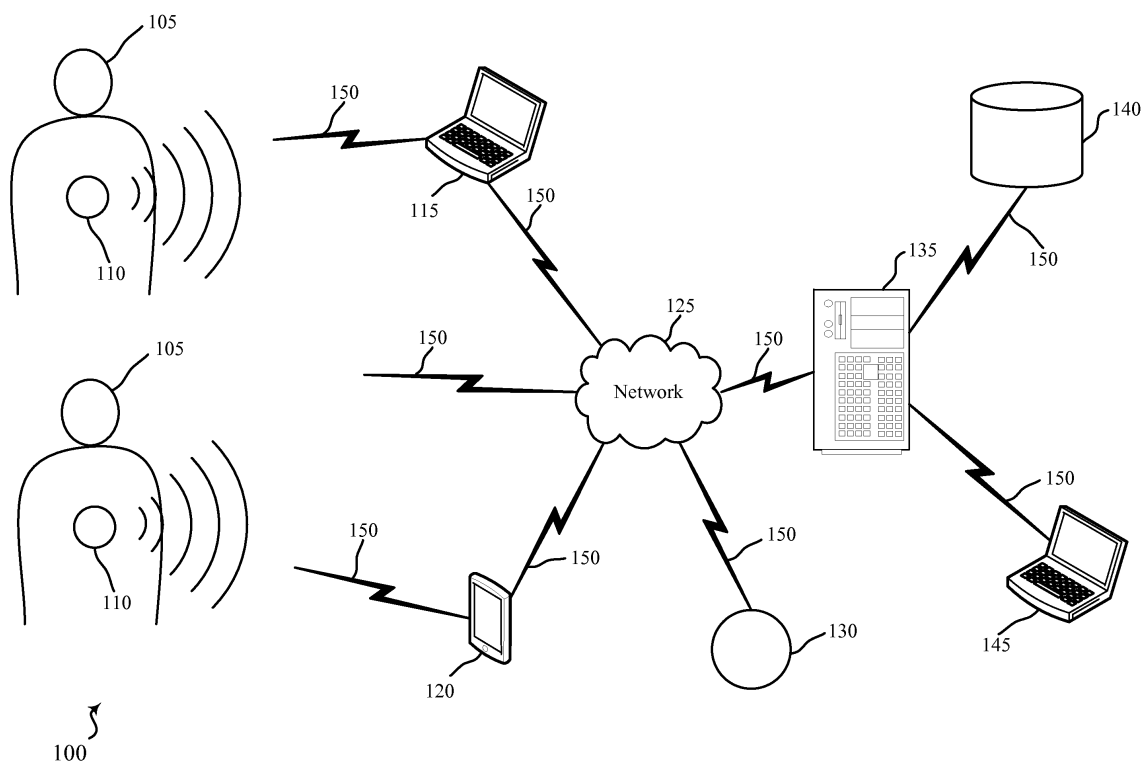
Family 42/50 - FAMPAT - ©Questel

Title

(WO201550816)

Automated at-rest status sensing

Images



Publication data including kind & date

US20150094545	A1	2015-04-02	US20150094545
WO2015050816	A1	2015-04-09	WO201550816



Abstract

(WO201550816)

Methods, apparatuses and systems are described for associating remote physiological monitoring with an at-rest condition of a patient. The methods may include receiving activity data and physiological data of a patient. The methods may also include determining that an at-rest condition is satisfied by at least one of the received activity data and physiological data. Once it is determined that the at-rest condition is satisfied, the methods may also include associating an at-rest indicator with one or more physiological measurements of the patient.

Inventors

RUSSELL BRIAN KEITH

WOODWARD JONATHAN JAMES

MORRIS BENJAMIN DAVID

Latest standardized assignees - inventors removed

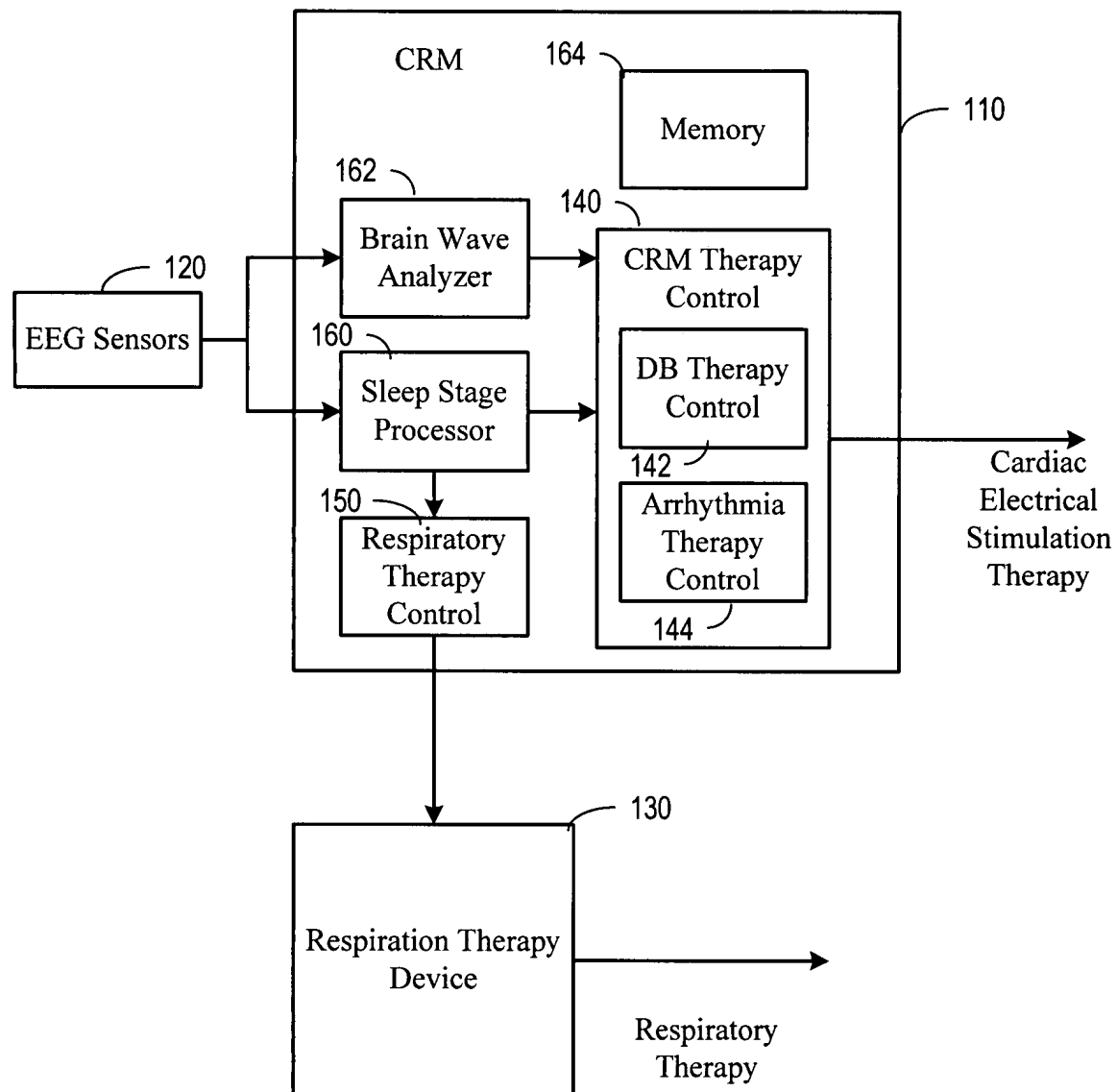
COVIDIEN

Family 43/50 - FAMPAT - ©Questel

Title

(US8380296)

Automatic activation of medical processes

Images**Publication data including kind & date**

US20050081847	A1	2005-04-21	US20050081847
US7668591	B2	2010-02-23	US7668591
US20100106211	A1	2010-04-29	US20100106211
US8380296	B2	2013-02-19	US8380296

**Abstract**

(US8380296)

Systems and methods involve automatic activation, de-activation or modification of therapies or other medical processes based on brain state. A medical system includes a sensor system having one or more sensors configured to sense signals related to the brain state of the patient. A brain state analyzer detects various brain states, including sleep stage and/or brain seizures. A controller uses the brain state detection information to control a medical system configured to perform at least one respiratory or cardiac process. Methods involve sensing signals related to brain state and determining the brain

state of a patient based on the sensed signals. At least one respiratory or cardiac medical process is controlled based on the patient's brain state.

Inventors

LEE KENT

STAHMANN JEFFREY E

HARTLEY JESSE W

NI QUAN

Latest standardized assignees - inventors removed

CARDIAC PACEMAKERS

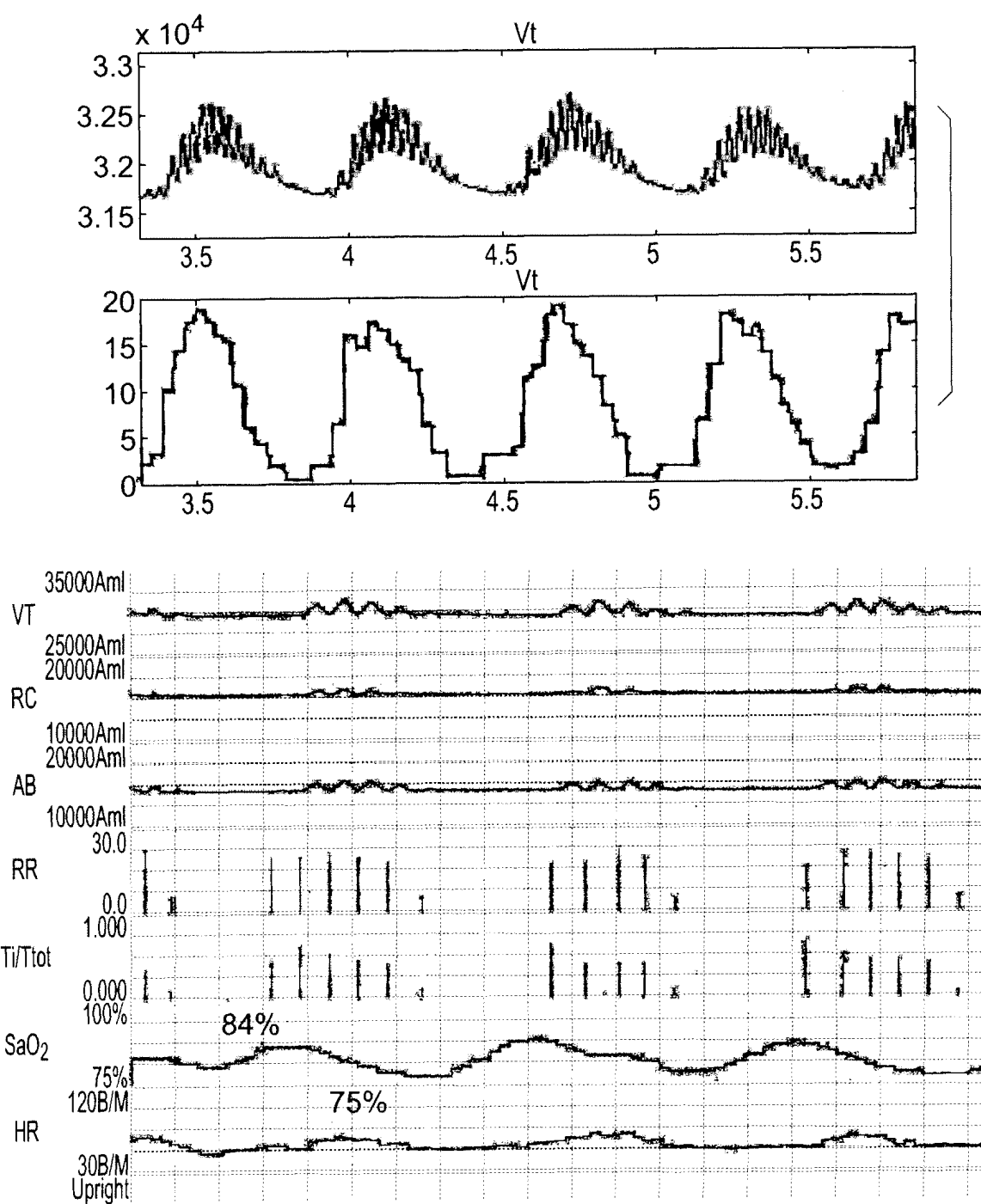
Family 44/50 - FAMPAT - ©Questel

Title

(EP2034882)

Automatic and ambulatory monitoring of congestive heart failure patients

Images



Publication data including kind & date

WO2007149856	A2	2007-12-27	WO2007149856
CA2656062	A1	2007-12-27	CA2656062
AU2007261061	A1	2007-12-27	AU2007261061
US20080045815	A1	2008-02-21	US20080045815
WO2007149856	A3	2008-11-27	WO2007149856
EP2034882	A2	2009-03-18	EP2034882
JP2009540953	A	2009-11-26	JP2009540953
EP2034882	A4	2011-04-20	EP2034882
US8475387	B2	2013-07-02	US8475387
JP5281002	B2	2013-09-04	JP5281002
CA2656062	C	2016-05-31	CA2656062
EP2034882	B1	2017-12-20	EP2034882



Abstract

(EP2034882)

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.

Inventors

DERCHAK P ALEXANDER

MYERS LANCE

LUCIA GARY MICHAEL

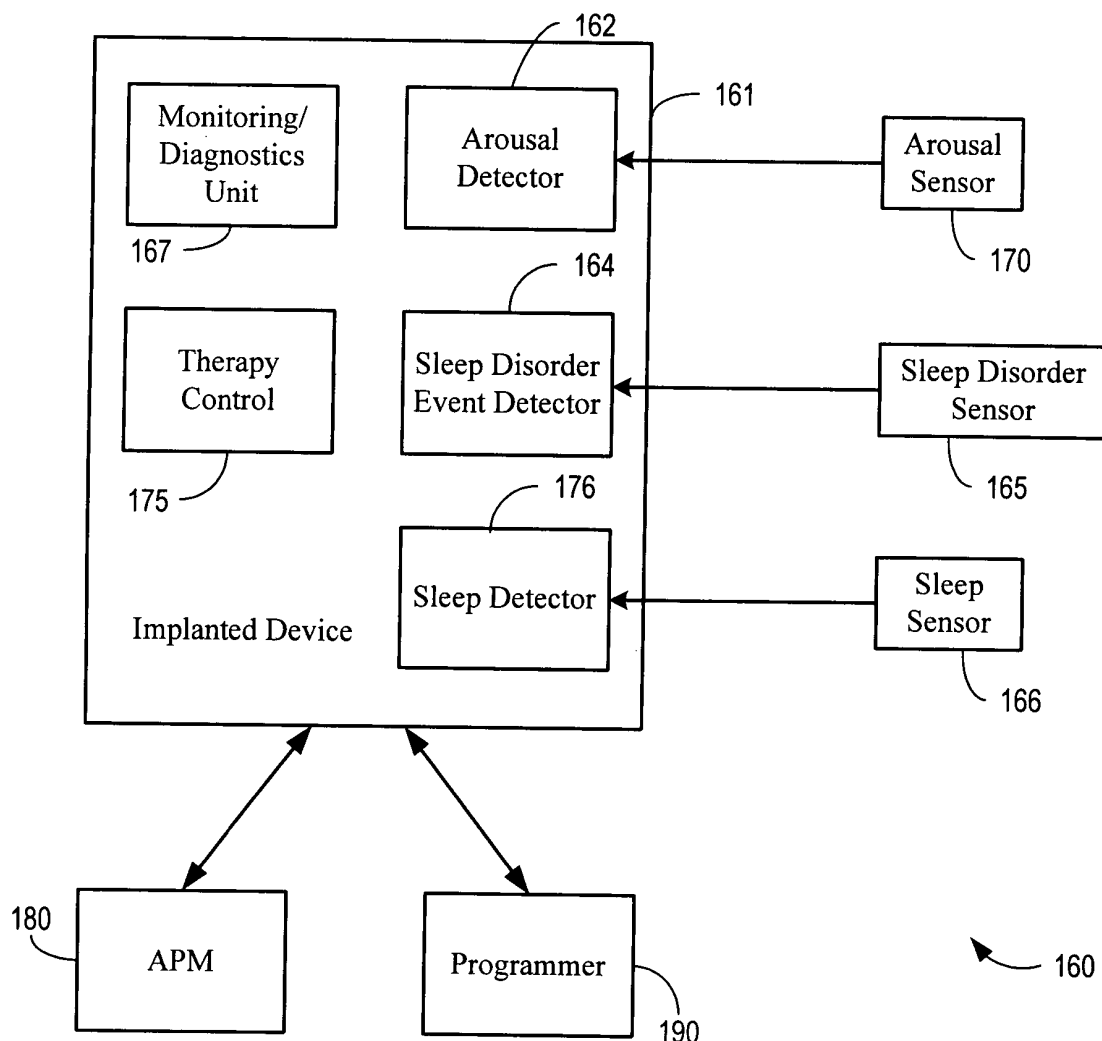
Latest standardized assignees - inventors removed

ADIDAS

Family 45/50 - FAMPAT - ©Questel

Title

(US9014819)

Autonomic arousal **detection** system and method**Images**

US8606356	B2	2013-12-10	US8606356
US20140107506	A1	2014-04-17	US20140107506
US9014819	B2	2015-04-21	US9014819

**Abstract**

(US9014819)

Various approaches to **detecting** arousals from sleep involve generating signals modulated by muscle tone, brainwave activity, and/or other nervous system activity associated with a patient's autonomic arousal response. Generating the signals and/or **detecting** autonomic arousals from sleep may be performed using an implantable device. Arousal information may be useful to identify sleep disorder events associated with arousals from sleep, for **diagnostic** purposes, and/or for therapy adjustment.

Inventors

LEE KENT

NI QUAN

HARTLEY JESSE W

STAHMANN JEFFREY E

Latest standardized assignees - inventors removed

CARDIAC PACEMAKERS

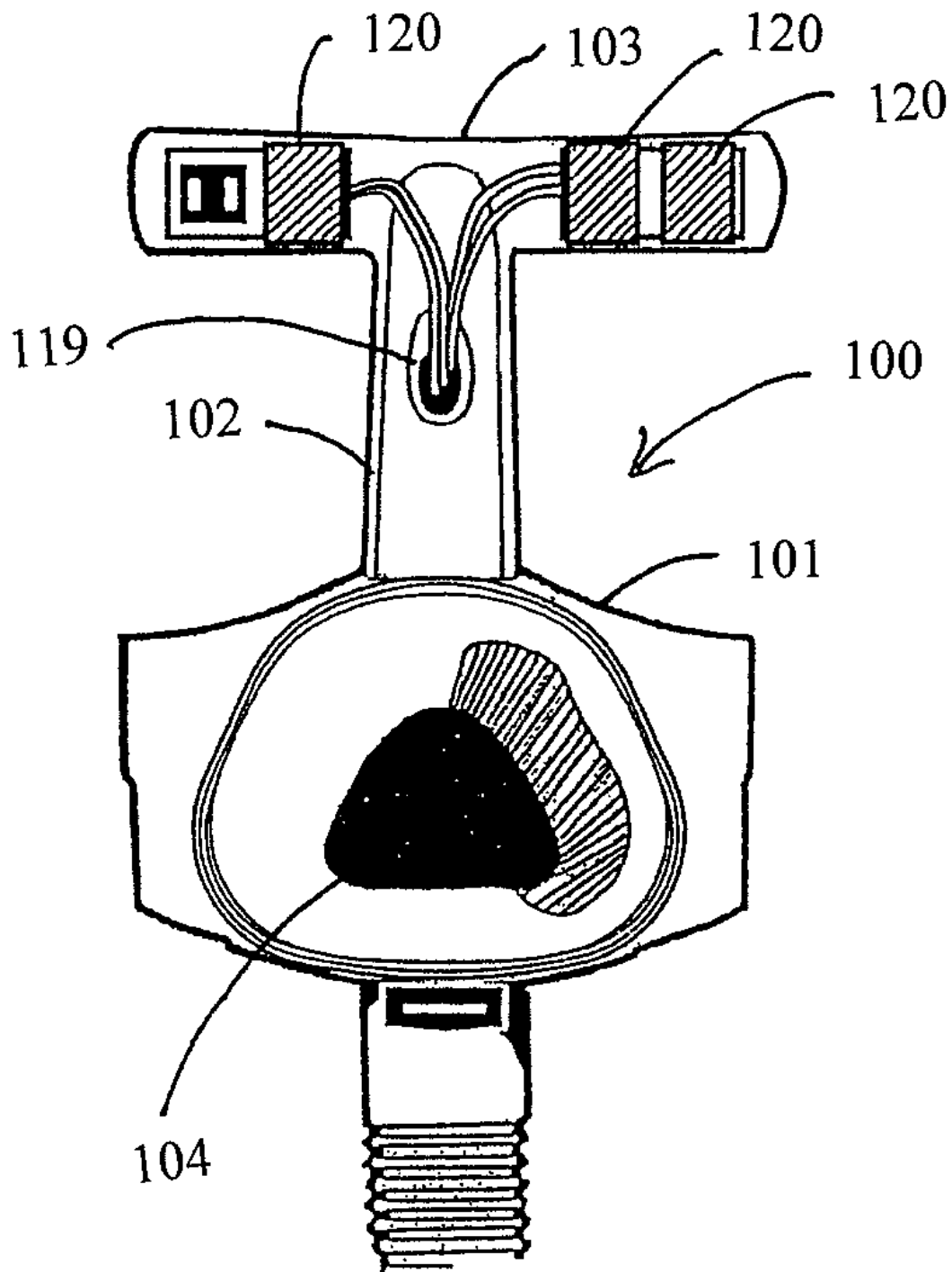
Family 46/50 - FAMPAT - ©Questel

Title

(US8281787)

Bio-mask with integral sensors

Images



Publication data including kind & date

US20100147304	A1	2010-06-17	US20100147304
US8281787	B2	2012-10-09	US8281787



Abstract

(US8281787)

A system including a mask to **detect** an EEG signal and to deliver a gas, the mask having a forehead support extending from the body and adapted to contact a forehead surface of the patient during use, the forehead support having a plurality of sensors located thereon for **detecting** electrophysiological signals of the patient, with the plurality of sensors including EEG sensors positioned proximate to FP1/FP2 standard electrode placement positions of the patient, a gas delivery device in fluid communication with the mask and having an adjustable gas output, and a control system for determining a sleep stage from EEG signals **detected** by the mask and adjusting a gas delivery device based on the sleep stage.

Inventors

US7204250	B1	2007-04-17	US7204250				
IN217342	B	2008-04-11	IN-217342				
EP1237613	B1	2008-08-13	EP1237613				
AT404236	T	2008-08-15	ATE404236				
DE60039908	D1	2008-09-25	DE60039908				
DK1237613	T3	2008-12-15	DK1237613T				
CA2394217	C	2009-01-06	CA2394217				
CN100512902	C	2009-07-15	CN100512902C				
HK1053433	A1	2010-03-26	HK1053433				
JP4771638	B2	2011-09-14	JP4771638				

Abstract

(EP1237613)

A breathing mask (10) for use in monitoring a patient, providing sensors (25, 26) built into the mask (10) for ease of application to a patient such that donning the mask (10) places all the required sensors on the patient. The mask (10) has a perimeter (12) with a soft pliable material with sensors (25) therein for contacting the patient's skin and making an airtight seal. The mask (10) also has sensors (26) on the body of the mask and on associated straps or caps. The sensors (25, 26) can be used for monitoring the patient's EMG, EEG, EOG, ECG, surface blood pressure, temperature, pulse, blood oxygen, position of the patient, activity level of the patient, sounds and gas pressure in the mask (10).

Inventors

BURTON DAVID

Latest standardized assignees - inventors removed

COMPUMEDICS

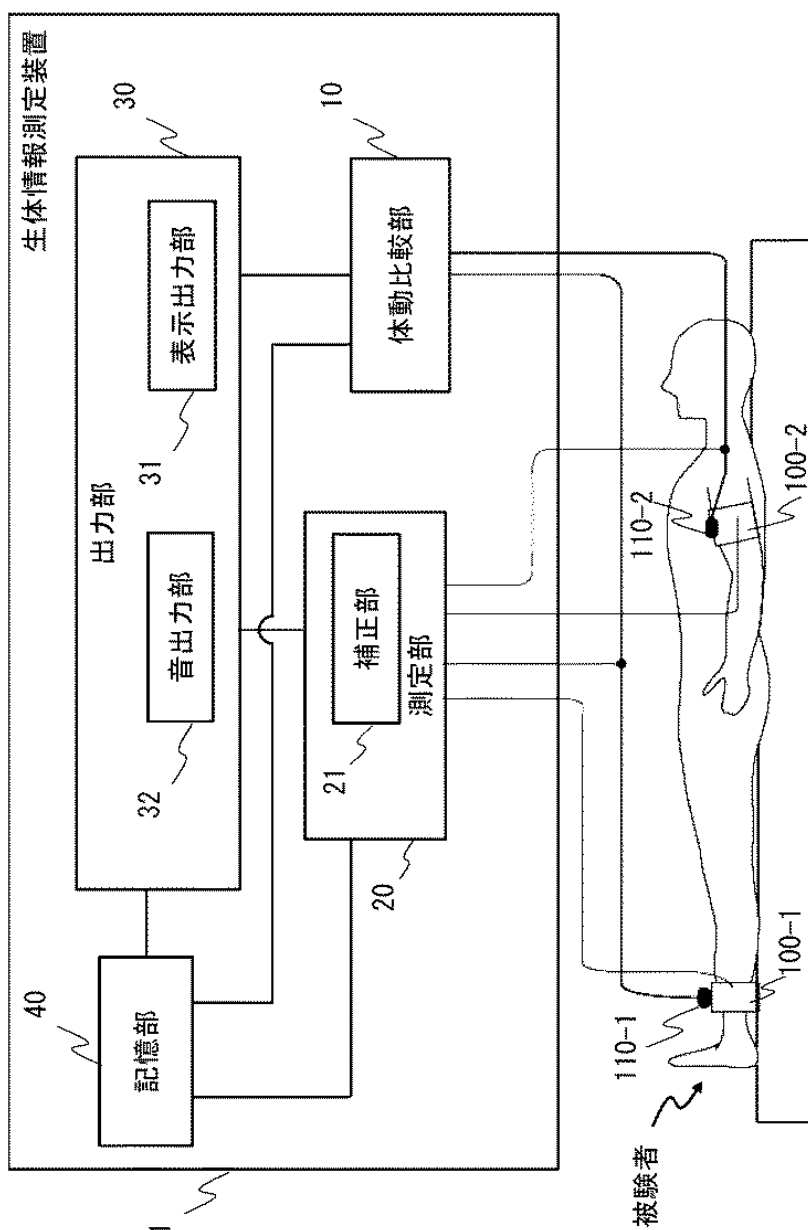
Family 48/50 - FAMPAT - ©Questel

Title

(JP2016010651)

Biological information measuring apparatus, biological information measuring method, and program

Images



Publication data including kind & date

[JP2016010651](#)

A 2016-01-21 JP2016010651

[JP6226828](#)

B2 2017-11-08 JP6226828



Abstract

(JP6226828)

PROBLEM TO BE SOLVED: To provide a biological information measuring apparatus, a biological information measuring method, and a program that can inform that a measured value may be inaccurate when a body movement of a subject is large. **SOLUTION:** A measuring part 20 acquires biological information through a living-body interface 100 mounted on a subject. A body-movement comparing part 10 compares body-movement information on the subject acquired by a sensor

110 with a threshold value. An output part 30 outputs the biological information on the subject. When it is determined that the body-movement information is larger than the threshold value, the output part 30 uses an output mode different from that when the body-movement information is smaller than the threshold value.

Inventors

INOUE MASAYUKI

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Latest standardized assignees - inventors removed

NIHON KOHDEN

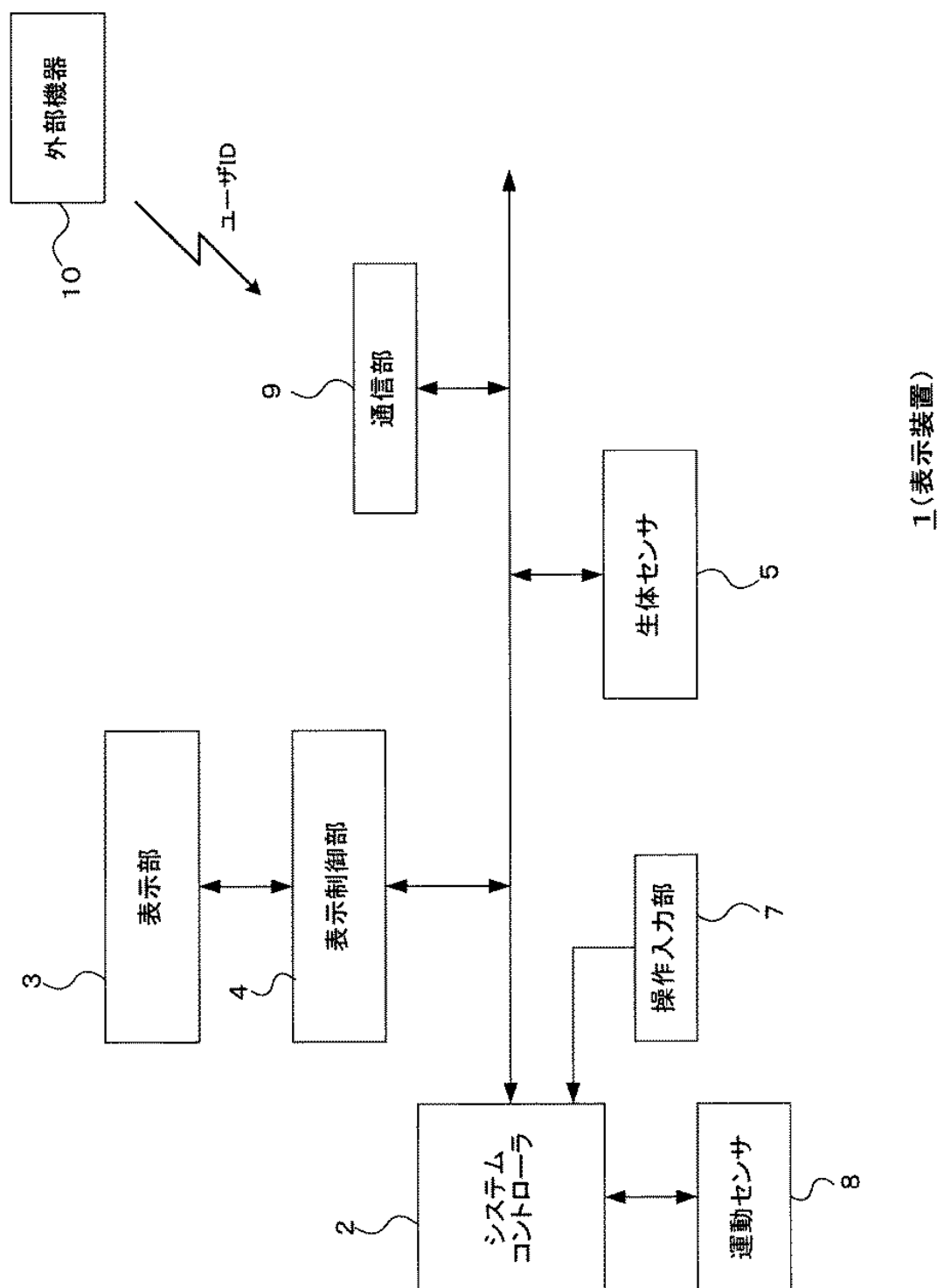
Family 49/50 - FAMPAT - ©Questel

Title

(JP2009060969)

Biological information display device and biological information display method

Images

**Publication data including kind & date**

JP2009060969

A

2009-03-26

JP2009060969

**Abstract**

(JP2009060969)

PROBLEM TO BE SOLVED: To obtain biological information of a user and to display the obtained biological information in such a way as can be visually recognized by others by wearing the clothes or personal adornment as a biological

information display device.

SOLUTION: The user's biological information is obtained by wearing the biological information display device. The user's own biological information can be used as a way of self-expression by displaying the obtained biological information in such a way as appealing to the visual sense of others like, for example, numerical values, graphs or waveforms.

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Latest standardized assignees - inventors removed

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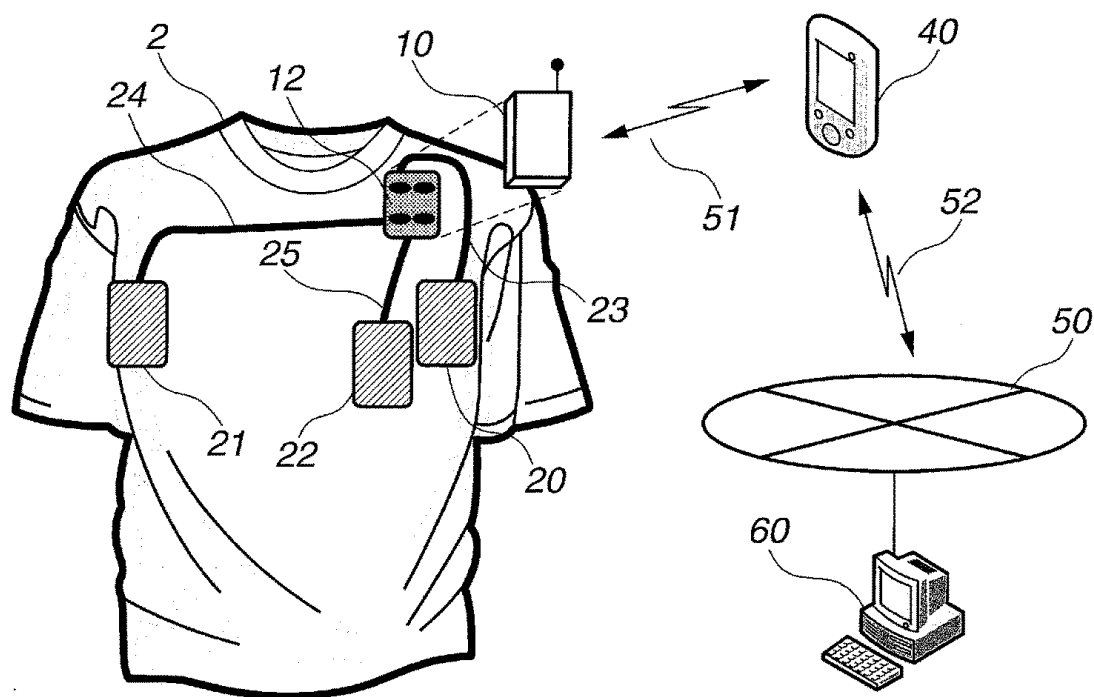
Family 50/50 - FAMPAT - ©Questel

Title

(EP3181042)

Biological-signal measurement system, biological-information measurement device, and method for changing biological-information extraction algorithm

Images



Publication data including kind & date

WO2016024495	A1	2016-02-18	WO201624495
TW201609054	A	2016-03-16	TW201609054
CN106659411	A	2017-05-10	CN106659411
JPWO2016024495	A1	2017-06-01	JP2016024495W



EP3181042	A1	2017-06-21	EP3181042				
US20170224244	A1	2017-08-10	US20170224244				
TWI602544	B	2017-10-21	TWI602544				
JP6280226	B2	2018-02-14	JP6280226				
EP3181042	A4	2018-08-01	EP3181042				

Abstract

(EP3181042)

In a biological signal measurement system of this invention, biological digital data is generated from a biological signal measured by a biological signal measurement apparatus, and first feature amount data extracted from the biological digital data and downsized biological digital data are transmitted to a portable terminal. In a biological information measurement apparatus of this invention, biological feature amount data is extracted from measured biological waveform data, and at least one of the biological waveform data and the biological feature amount data is transmitted to an external device. It is possible to provide a biological signal measurement system capable of continuously measuring a biological signal for a long time without disturbing daily life and provide a biological information measurement apparatus capable of implementing downsizing and long life of a battery.

Inventors

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Latest standardized assignees - inventors removed

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