

17 Documents

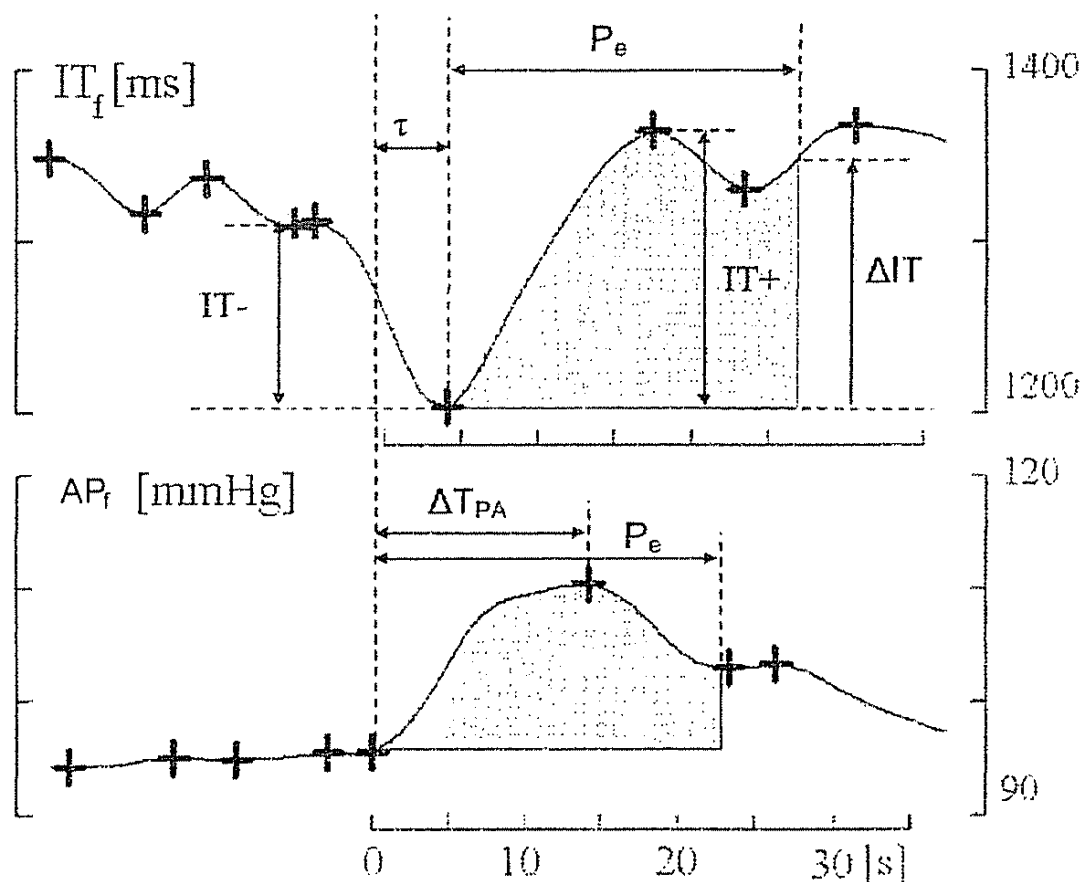
Publication numbers	Title	Current assignees
FR2877205 A1	Device for predicting abnormal medical events and/or assisting in diagnosis and/or monitoring in order to determine depth of anaesthesia	Andrey Civijan, ...
WO200466839 A1	Method and apparatus for monitoring intravenous (IV) drug concentration using exhaled breath	UNIVERSITY OF FLORIDA
US20030176804 A1	Method and apparatus for monitoring respiratory gases during anesthesia	UNIVERSITY OF CENTRAL FLORIDA RESEARCH FOUNDATION, ...
US20030139681 A1	Method and apparatus for monitoring intravenous (IV) drug concentration using exhaled breath	UNIVERSITY OF FLORIDA RESEARCH FOUNDATION
US20040010203 A1	Method and apparatus for the estimation of anesthetic depth using wavelet analysis of the electroencephalogram	BIONOVA TECHNOLOGIES
DE102005007963 A1	Vegetative stress e.g. tachycardia, level quantification method for autonomous nervous system balance determination, involves obtaining real time parameter representing level as function of variance portions of low and high frequency bands	DRESDEN UNIVERSITY OF TECHNOLOGY
CA2968645 A1	Mobile wearable monitoring systems	DAVID BURTON
US20120029601 A1	Non-invasive vagal nerve stimulation to treat disorders	ELECTROCORE
WO9846126 A1	Improved signal processing apparatus and method	MASIMO
MX9702434 A	Signal processing apparatus	JPMORGAN CHASE BANK
US20070203448 A1	System and method for monitoring health using exhaled breath	UNIVERSITY OF FLORIDA RESEARCH FOUNDATION
WO2013126176 A1	Nerve stimulation methods for averting imminent onset or episode of a disease	ELECTROCORE
WO2006122201 A2	Automated detection of sleep and waking states	SALK INSTITUTE FOR BIOLOGICAL STUDIES
US20040081587 A1	System and method for real-time diagnosis, treatment, and therapeutic drug monitoring	UNIVERSITY OF FLORIDA
US20050256385 A1	Signal processing apparatus	JPMORGAN CHASE BANK
US20130066395 A1	Nerve stimulation methods for averting imminent onset or episode of a disease	ELECTROCORE
US8190249 B1	Multi-parametric quantitative analysis of bioelectrical signals	INFINITE BIOMEDICAL TECHNOLOGIES

Family 1/17 - FAMPAT - ©Questel

Title

(EP1807002)

Device for predicting abnormal medical events and/or assisting in diagnosis and/or monitoring in order to determine depth of anaesthesia

Images**Publication data including kind & date**

FR2877205	A1	2006-05-05	FR2877205
WO2006048587	A1	2006-05-11	WO200648587
EP1807002	A1	2007-07-18	EP1807002
JP2008518705	A	2008-06-05	JP2008518705
US20090076339	A1	2009-03-19	US20090076339
EP1807002	B1	2013-02-20	EP1807002
JP5288802	B2	2013-09-11	JP5288802
US8641632	B2	2014-02-04	US8641632

**Abstract**

(EP1807002)

The invention relates to the field of technological assistance for anaesthesia and intensive care practitioners, as well as to the field of simple, reliable medical monitoring for managing anaesthesia and/or predicting deleterious medical events. The invention aims to provide a system enabling prevention and anticipation of procedures necessary for patients and/or maintenance of patients in a suitable anaesthetic state for a surgical operation at a given time. For said purpose, the invention provides a method of predicting abnormal medical events and/or assisting in diagnosis and/or monitoring, which is characterised in that it essentially comprises the continuous, real-time detection of a concomitant occurrence of a temporary inefficiency in cardiac baroreceptor reflex and an activation of non-baroreceptor reflex cardiovascular control. The invention also relates to the device used to implement said method.

Inventors

QUINTIN LUC

CIVIDJIAN ANDREI

Family 2/17 - FAMPAT - ©Questel

Title

(EP2055233)

Method and apparatus for monitoring intravenous (IV) drug concentration using exhaled breath

Images

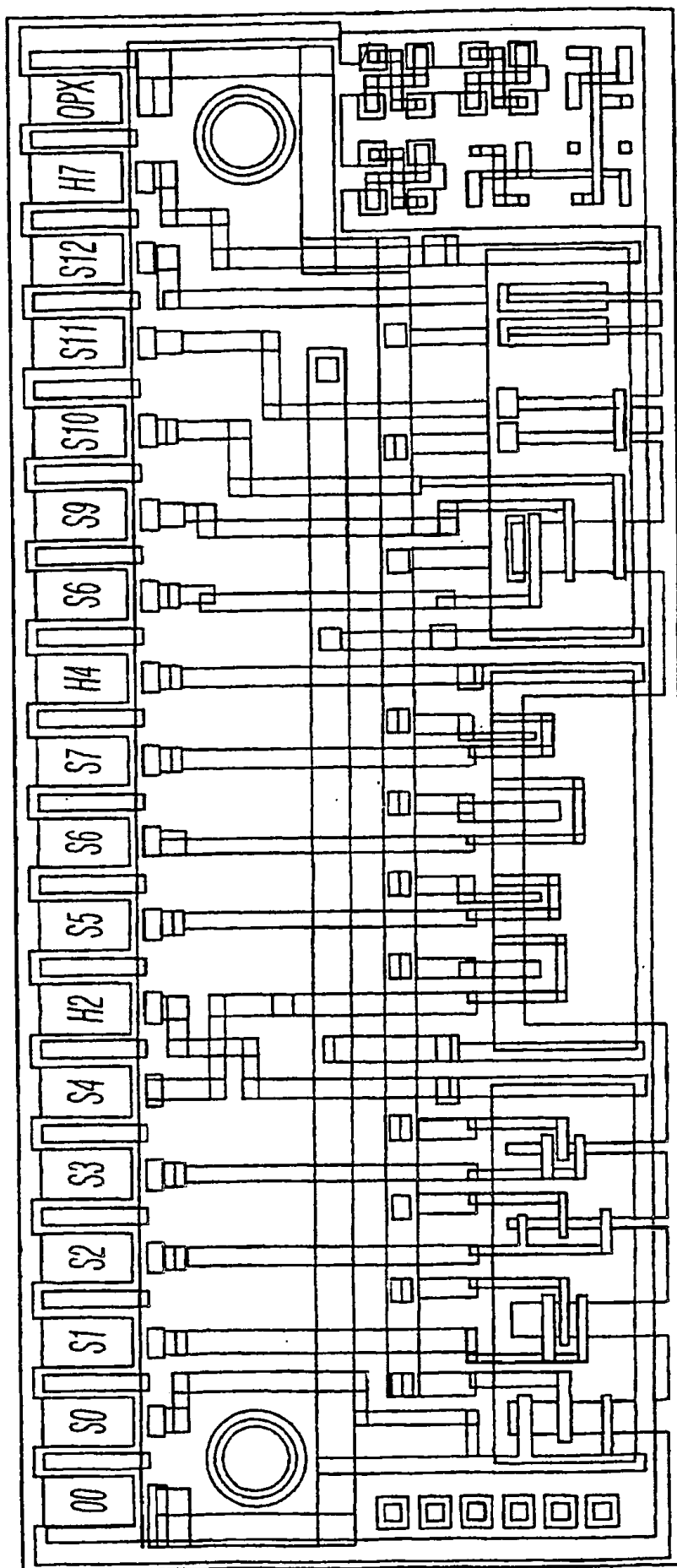


FIG. 1

	A1	2004-08-12	WO200466839				
AU2003214900	A1	2004-08-23	AU2003214900				
EP1610681	A1	2006-01-04	EP1610681				
JP2006513435	A	2006-04-20	JP2006513435				
EP2055233	A1	2009-05-06	EP2055233				
JP4773098	B2	2011-09-14	JP4773098				
EP1610681	B1	2011-10-05	EP1610681				
AT526876	T	2011-10-15	ATE526876				
ES2369903	T3	2011-12-09	ES2369903				
EP2055233	B1	2012-10-10	EP2055233				

Abstract

(EP2055233)

The present invention relates to a method for determining the concentration of at least one anesthetic agent in a patient's bloodstream comprising: sampling a patient's expired breath; and analyzing the breath for concentration of at least one substance indicative of the anesthetic agent using sensor technology.

Inventors

MELKER RICHARD J

BJORAKER DAVID G

Latest standardized assignees - inventors removed

UNIVERSITY OF FLORIDA

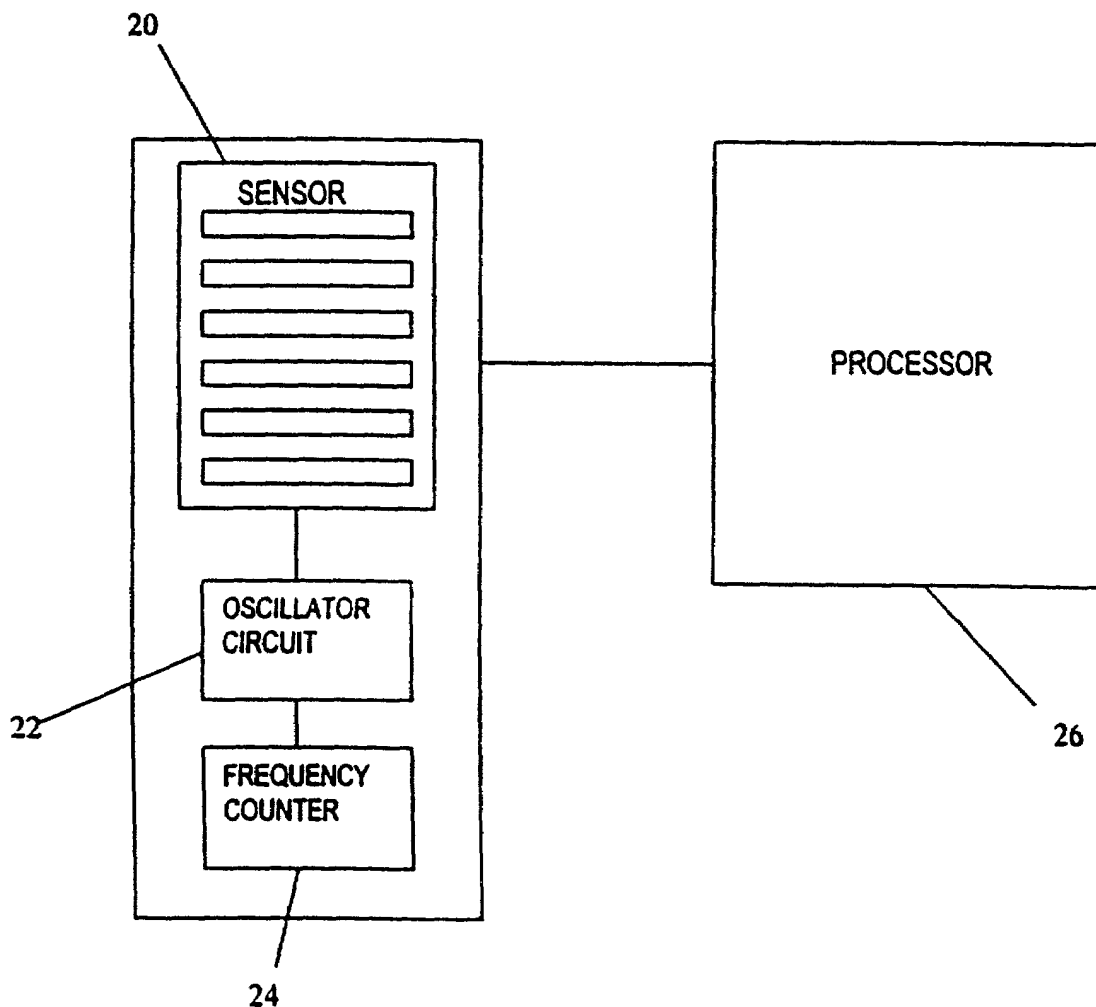
Family 3/17 - FAMPAT - ©Questel

Title

(EP1519767)

Method and apparatus for monitoring respiratory gases during anesthesia

Images



Publication data including kind & date

US20030176804	A1	2003-09-18	US20030176804
WO2004000400	A2	2003-12-31	WO2004000400
AU2003241504	A1	2004-01-06	AU2003241504
WO2004000400	A3	2004-02-19	WO2004000400
EP1519767	A2	2005-04-06	EP1519767
JP2005530553	A	2005-10-13	JP2005530553
US6981947	B2	2006-01-03	US6981947



Abstract

(EP1519767)

A method and system is provided for monitoring delivery of anesthesia (inhalational and intravenous) and detecting the depth of anesthesia wherein at least one anesthetic agent is absorbed in a patient's bloodstream during the administration of anesthesia, which includes sampling inspired and expired gas; analyzing the gas for concentration of at least one substance indicative of the anesthetic agent using sensor technology such as free (unmetabolized) anesthetic agent or its metabolites; determining the effect of the agent based on that concentration; and determining depth of anesthesia based thereon.

Inventors

MELKER RICHARD J

Latest standardized assignees - inventors removed

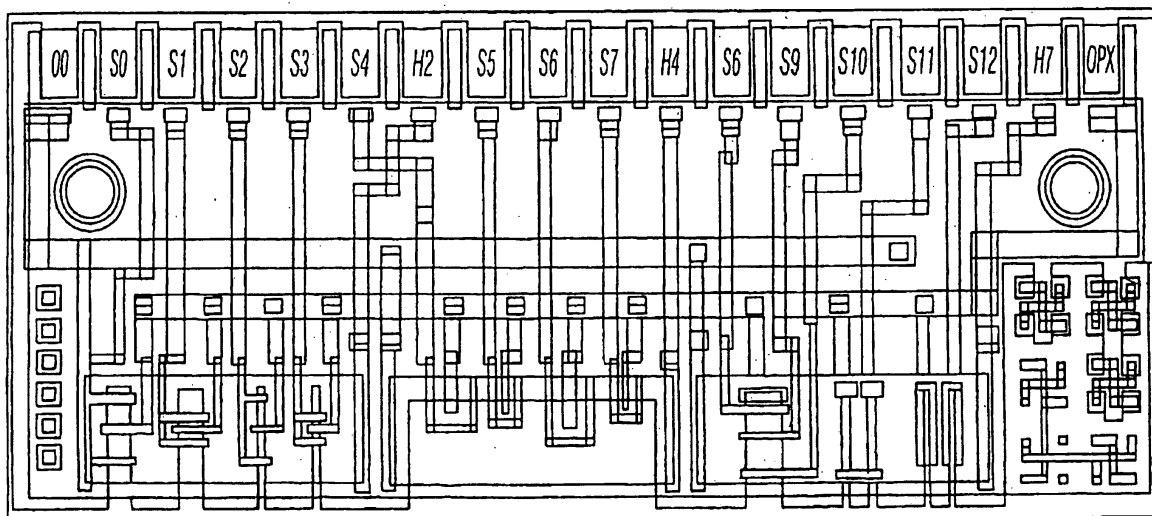
UNIVERSITY OF CENTRAL FLORIDA RESEARCH FOUNDATION

UNIVERSITY OF FLORIDA RESEARCH FOUNDATION

Title

(US7104963)

Method and apparatus for monitoring intravenous (IV) drug concentration using exhaled breath

Images**Publication data including kind & date**[US20030139681](#)

A1 2003-07-24

US20030139681

[US7104963](#)

B2 2006-09-12

US7104963

**Abstract**

(US7104963)

A method and system is provided for detecting the depth of anesthesia wherein at least one anesthetic agent is absorbed in a patient's bloodstream during the administration of anesthesia, which includes sampling a patient's expired breath; analyzing the breath for concentration of at least one substance indicative of the anesthetic agent using sensor technology such as free (unmetabolized) anesthetic agent or its metabolites; determining the effect of the agent based on that concentration; and determining depth of anesthesia based thereon. The method also detects endogenous compounds such as ketones and ammonia in exhaled breath as well as other pathologic organisms.

Inventors

MELKER RICHARD J

BJORAKER DAVID G

Latest standardized assignees - inventors removed

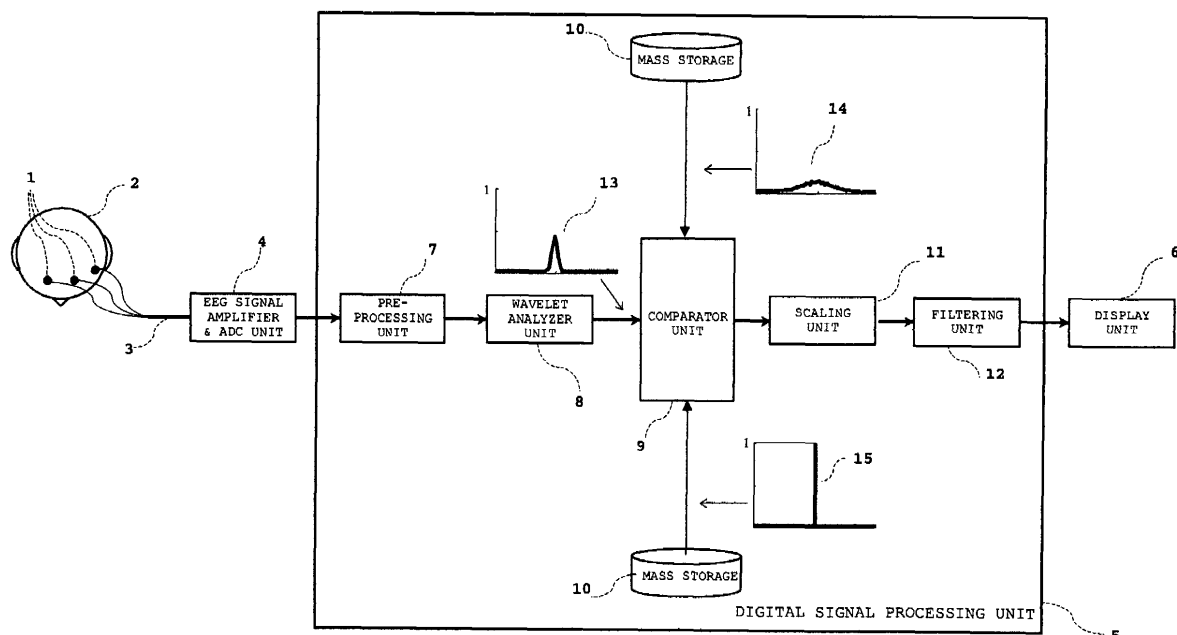
UNIVERSITY OF FLORIDA RESEARCH FOUNDATION

Family 5/17 - FAMPAT - ©Questel

Title

(US8798735)

Method and apparatus for the estimation of anesthetic depth using **wavelet** analysis of the electroencephalogram**Images**



Publication data including kind & date

US20040010203	A1	2004-01-15	US20040010203
US7373198	B2	2008-05-13	US7373198
US20080294063	A1	2008-11-27	US20080294063
US7603168	B2	2009-10-13	US7603168
US8798735	B1	2014-08-05	US8798735



Abstract

(US8798735)

A method and apparatus to monitor the neurologic state of a patient undergoing general anesthesia is provided. Previous automated systems to monitor the neurologic state of a patient undergoing general anesthesia involve a significant time delay between the patient's true hypnotic state and the computed indices. The present invention reduces this time delay by using a different analysis technique applied to spontaneous EEG. A **wavelet** decomposition and statistical analysis of the observed EEG is conducted and compared to reference data to provide a numerical indicator. In addition, this indicator is more consistent with the patient's loss of consciousness indicated by the loss of count event than previous systems.

Inventors

BIBIAN STÉPHANE
 ZIKOV TATJANA
 DUMONT GUY ALBERT
 RIES CRAIG ROBERT
 PUIL ERNEST
 AHMADI HOSSAIN CYRUS
 HUZMEZAN MIHAI
 MACLEOD BERNARD ANSELL

Latest standardized assignees - inventors removed

BIONOVA TECHNOLOGIES

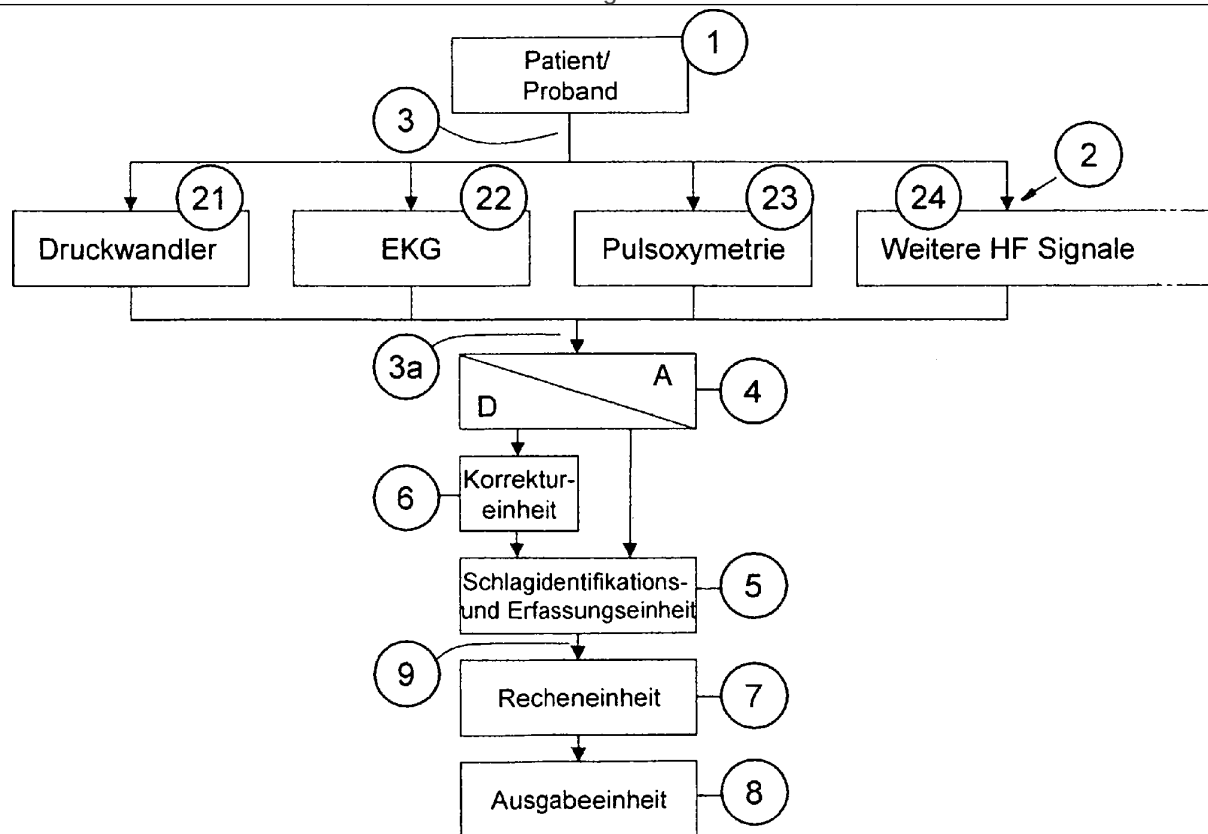
Family 6/17 - FAMPAT - ©Questel

Title

(DE102005007963)

Vegetative stress e.g. tachycardia, level quantification method for autonomous nervous system balance determination, involves obtaining real time parameter representing level as function of variance portions of low and high frequency bands

Images

**Publication data including kind & date**

DE102005007963

A1 2006-08-31

DE102005007963

**Abstract**

(DE102005007963)

The method involves converting a heart beat signal (9) into a one-dimensional unequally spaced heart-rate raw signal, which is code converted to equi distant signal. Variance portions representing energy peaks of a heart-rate energy spectrum are assigned to predefined frequency bands. A real time parameter representing a vegetative stress level is determined as a function of the variance portions of low and high frequency bands. An independent claim is also included for a device for quantification of vegetative stress levels.

Inventors

HELLER AXEL R

BURGHARDT MATTHIAS

Latest standardized assignees - inventors removed

DRESDEN UNIVERSITY OF TECHNOLOGY

Family 7/17 - FAMPAT - ©Questel

Title

(EP3242587)

Mobile wearable monitoring systems

Images

Title: Somfit FIGURES

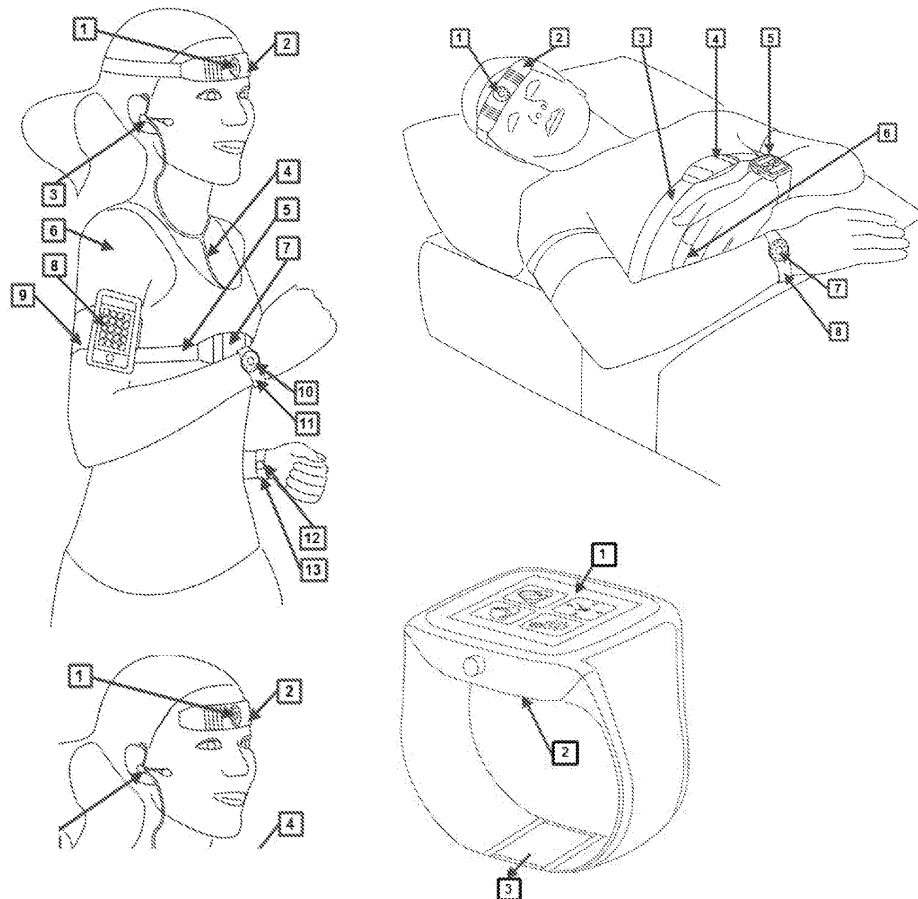


Figure 1 LEFT TOP: figure presents example of a subject/patient wearable neuro-sleep/fitness/health management systems comprising applied forehead sensor (Somfit) using headband attachment [2], eLifeBAND (arm phone/entertainment/device holder) [9], eLifeWATCH [13], RIGHT-TOP: sleeping subject with eLifeCHEST [3], eLifeWATCH [5], eLifeWRIST [8] and Somfit [1] devices LOWER RIGHT: eLifeWATCH with sensor monitoring platform. LEFT LOWER: forehead applied sensor incorporating self-adhesive attachment without requirement of head band attachment.

Publication data including kind & date

CA2968645	A1	2016-07-14	CA2968645
WO2016110804	A1	2016-07-14	WO2016110804
AU2016205850	A1	2017-07-27	AU2016205850
IN201717023353	A	2017-09-22	IN201717023353
EP3242587	A1	2017-11-15	EP3242587
KR20170129689	A	2017-11-27	KR20170129689
CN107438398	A	2017-12-05	CN107438398
JP2018505759	A	2018-03-01	JP2018505759
AU2016205850	B2	2018-10-04	AU2016205850



Abstract

(EP3242587)

This document describes a number of inventions comprising of one or more wearable devices (i.e. attached or applied to limbs, body, head or other body extremities but also applicable to implanted or physiologically attachable systems). These systems have a means of enabling diagnostic or prognostic monitoring applicable to monitoring relevant parameters and corresponding analysis determination and characterisation applicable to the onset or detection of events or health conditions of interest. One application relates to sleep monitoring and associate EEG sensors.

Inventors

BURTON DAVID

Latest standardized assignees - inventors removed

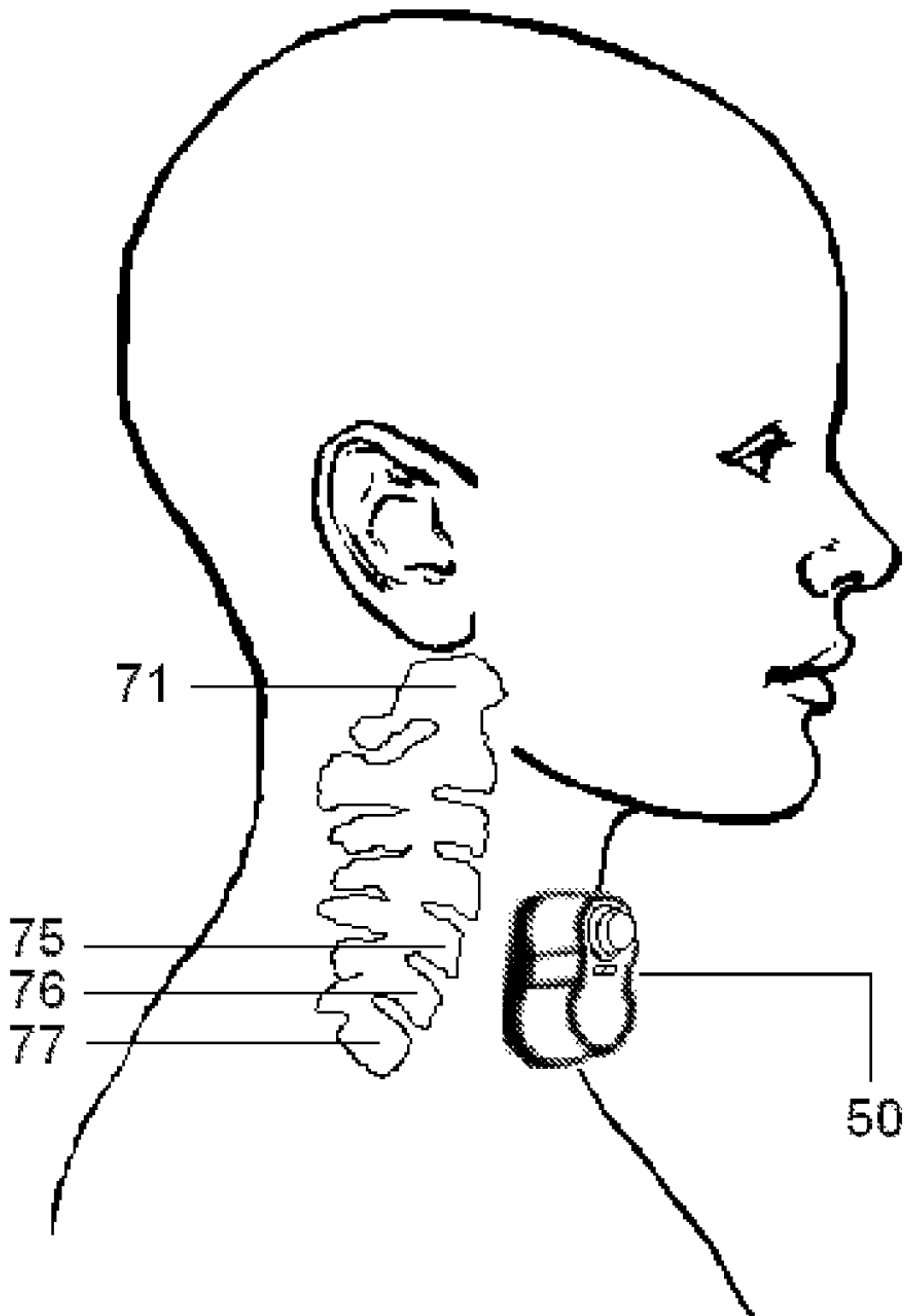
DAVID BURTON

Family 8/17 - FAMPAT - ©Questel

Title

(US9623240)

Non-invasive vagal nerve stimulation to treat disorders

Images

Publication data including kind & date

US20120029601	A1	2012-02-02	US20120029601				
US20120029591	A1	2012-02-02	US20120029591				
US20120101326	A1	2012-04-26	US20120101326				
US20120185020	A1	2012-07-19	US20120185020				
US20120184801	A1	2012-07-19	US20120184801				
US20130066392	A1	2013-03-14	US20130066392				
US20130131746	A1	2013-05-23	US20130131746				
US20130131753	A1	2013-05-23	US20130131753				
US20130184792	A1	2013-07-18	US20130184792				
US20130238050	A1	2013-09-12	US20130238050				
US20130238049	A1	2013-09-12	US20130238049				
US20130245712	A1	2013-09-19	US20130245712				
US20130245711	A1	2013-09-19	US20130245711				
US20130310909	A1	2013-11-21	US20130310909				
US20130317580	A1	2013-11-28	US20130317580				
US20140142654	A1	2014-05-22	US20140142654				
US20140257437	A1	2014-09-11	US20140257437				
US8843210	B2	2014-09-23	US8843210				
US8914122	B2	2014-12-16	US8914122				
US8918178	B2	2014-12-23	US8918178				
US8983629	B2	2015-03-17	US8983629				
US8983628	B2	2015-03-17	US8983628				
US20150190637	A1	2015-07-09	US20150190637				
US20150190636	A1	2015-07-09	US20150190636				
US9126050	B2	2015-09-08	US9126050				
US9174045	B2	2015-11-03	US9174045				
US9174066	B2	2015-11-03	US9174066				
US9233242	B2	2016-01-12	US9233242				
US9248286	B2	2016-02-02	US9248286				
US20160045731	A1	2016-02-18	US20160045731				
US20160051818	A1	2016-02-25	US20160051818				
US20160121114	A1	2016-05-05	US20160121114				
US9358381	B2	2016-06-07	US9358381				
US9403001	B2	2016-08-02	US9403001				
US9415219	B2	2016-08-16	US9415219				
US20160279410	A1	2016-09-29	US20160279410				
US20160367808	A9	2016-12-22	US20160367808				
US9623240	B2	2017-04-18	US9623240				
US10207106	B2	2019-02-19	US10207106				

Abstract

(US9623240)

Devices, systems and methods are disclosed for treating bronchial constriction related to asthma, anaphylaxis, chronic obstructive pulmonary disease (COPD), exercise-induced bronchospasm and post-operative bronchospasm. The treatment comprises transmitting impulses of energy non-invasively to selected nerve fibers that activate neural pathways to reduce the release of acetylcholine from airway-related vagal preganglionic neurons within the brain of the patient. The transmitted energy impulses, comprising magnetic and/or electrical energy, stimulate the selected nerve fibers to produce the bronchodilation.

Inventors

SIMON BRUCE J

ERRICO JOSEPH P

RAFFLE JOHN T

Latest standardized assignees - inventors removed

ELECTROCORE

Family 9/17 - FAMPAT - ©Questel

Title

(WO9846126)

Improved signal processing apparatus and method

Images

U.S. PATENT DOCUMENTS

4,846,183 7/2/98 Martic .
 4,848,901 7/2/98 Hissel, Jr. .
 4,854,699 8/1/98 Edgar, Jr. .
 4,859,057 8/1/98 Taylor et al. .
 4,860,759 8/2/98 Kahn et al. .
 4,873,265 9/2/98 Flower et al. .
 4,897,587 9/1/98 Brick et al. .
 4,899,253 9/1/98 Craig, Jr. et al. .
 4,899,254 9/1/98 Stone et al. .
 4,899,353 11/2/98 Hausman et al. .
 4,902,101 11/2/98 Cheung et al. .
 4,907,891 3/1/00 Mao .
 4,911,167 3/1/00 Greenman et al. .
 4,927,764 7/1/00 Shiga et al. .
 4,928,692 5/1/00 Gaudreau et al. .
 4,944,372 6/1/00 Caserman et al. .
 4,948,748 8/1/00 Lehman .
 4,955,379 9/2/00 Hall .
 4,956,867 9/1/00 Zurek et al. .
 5,003,977 6/1/01 Suzuki et al. .
 5,007,695 10/1/01 Hirao et al. .
 5,150,047 3/2/03 Otagaki et al. .
 5,273,036 12/1/03 Kromberg et al. .
 5,287,818 3/1/01 Pologe .
 5,300,919 5/1/04 Minichi .
 5,349,057 9/1/04 McCarthy et al. .
 5,353,680 3/1/05 Polson et al. .
 5,458,128 10/1/95 Polanyi et al. .
 5,490,515 7/1/96 Diab et al. .
 5,515,169 7/1/96 Cargil et al. .
 5,558,427 12/1/96 Tien .
 5,632,272 5/1/97 Diab et al. .
 5,738,101 4/1/98 Tao et al. . 600/519

OTHER PUBLICATIONS

Tremper, Kevin K. et al., "Pulse Oximetry: Technical Aspects of Machine Design" by Jouis A. Pologe, *Advances in Oxygen Monitoring*, Little, Brown and Company, 1987, pp. 157-158.

Klimasauskas, Casey, "Neural Nets and Noise Filtering" Article, *Dr. Dobbs's Journal*, Jan. 1989, pp. 32-34, 36-38, 42, 47, 49, 96, 98, 100.

Neuman, Michael R., "Pulse Oximetry: Physical Principles, Technique, Realization and Present Limitations", *Continuous Transcutaneous Monitoring*, Plenum Press, New York, 1987, pp. 135-144.

Soveringhaus, John W. M.D., "Pulse Oximetry: Uses and Limitations", ASA Convention 1989, New Orleans.

Cohen, Aaron Ph.D., "Vol. I: Time and Frequency Domain Analysis", *Biomedical Signal Processing*, CRC Press, Inc., pp. 152-159.

Harris, Fred et al., "Digital Signal Processing With Efficient Polyphase Recursive All-Pass Filters" Article, Presented at International Conference on Signal Processing, Florence, Italy, Sep. 4-6, 1991.

Rabiner, Lawrence R. et al., "Theory and Approximation of Infinite Impulse Response Digital Filters", Prentice Hall Inc., Englewood Cliffs, NJ, 1975, p. 260.

Mook, G.A. et al., "Spectrophotometric determination of oxygen saturation of blood independent of the presence of indocyanine green", *Cardiovascular Research*, vol. 13, 1979, pp. 233-237.

Melnikot, Steve, "Neural Networks for Signal Processing: A Case Study" Article, *Dr. Dobbs's Journal*, Jan. 1989, pp. 36-37.

Mook, G.A. et al., "Wavelength dependency of the spectrophotometric determination of blood oxygen saturation", *Clinical Chemistry Acta*, vol. 26, 1969, pp. 70-73.

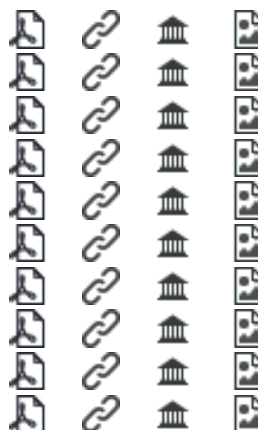
Brown, David P., "Evaluation of Pulse Oximeters using Theoretical Models and Experimental Studies" Masters Thesis, University of Washington, 1987.

Publication data including kind & date

WO9846126	A1	1998-10-22	WO9846126
AU7109298	A	1998-11-11	AU9871092
US6002952	A	1999-12-14	US6002952
US6067462	A	2000-05-23	US6067462
US6699194	B1	2004-03-02	US6699194
US20040204637	A1	2004-10-14	US20040204637
US20050096517	A1	2005-05-05	US20050096517
US20060200016	A1	2006-09-07	US20060200016
US20080036752	A1	2008-02-14	US20080036752
US7471971	B2	2008-12-30	US7471971



US7489958	B2	2009-02-10	US7489958
US7499741	B2	2009-03-03	US7499741
US20090209835	A1	2009-08-20	US20090209835
US8180420	B2	2012-05-15	US8180420
US8190227	B2	2012-05-29	US8190227
US20120302894	A1	2012-11-29	US20120302894
US20130197328	A1	2013-08-01	US20130197328
US8845543	B2	2014-09-30	US8845543
US8888708	B2	2014-11-18	US8888708
US9289167	B2	2016-03-22	US9289167
US20170014083	A1	2017-01-19	US20170014083



Abstract

(WO9846126)

This invention is a method and apparatus to analyze two measured signals that are modeled as containing desired and undesired portions such as noise, FM and AM modulation. Coefficients relate the two signals according to a model defined in accordance with the present invention. In one embodiment a transformation is used to evaluate a ratio of the two measured signals in order to find appropriate coefficients (1240). The measured signals are then fed into a signal scrubber (1242, 1260) which uses the coefficients to remove unwanted portions. The signal scrubbing is performed in either the time domain (1242) or in the frequency domain (1260). The method and apparatus are particularly advantageous to blood oximetry and pulse rate measurements. In another embodiment, an estimate of the pulse rate is obtained by applying a set of rules (1250) to a special transform of the scrubbed signal. In another embodiment an estimate of the pulse rate is obtained by transforming the scrubbed signal from a first spectral domain into a second spectral domain (1252). The pulse rate is found by identifying the largest spectral peak in the second spectral domain.

Inventors

DIAB MOHAMED K

MCCARTHY REX J

Latest standardized assignees - inventors removed

MASIMO

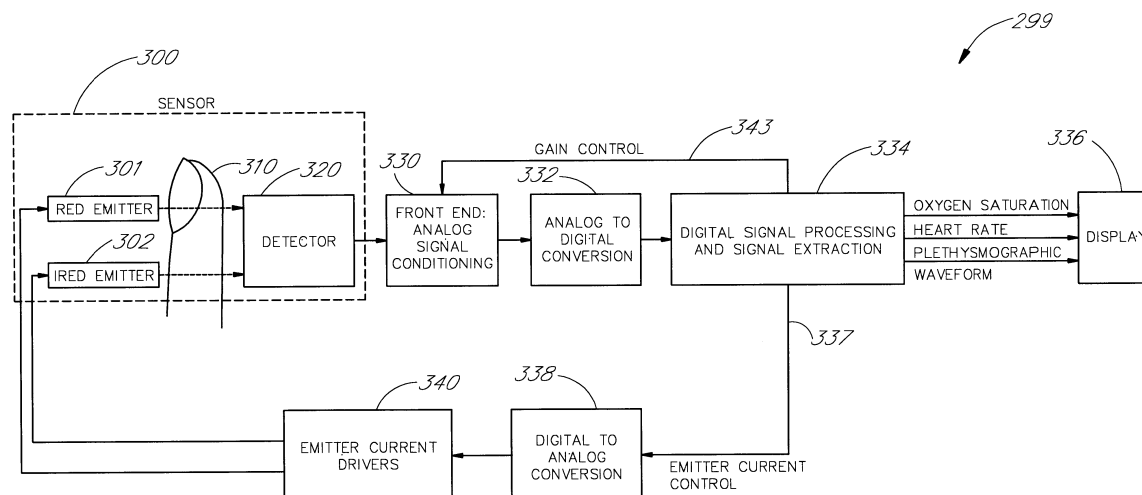
Family 10/17 - FAMPAT - ©Questel

Title

(US8948834)

Signal processing apparatus

Images



MX9702434	A	1998-05-31	MX9702434				
US20020077536	A1	2002-06-20	US20020077536				
US20020128544	A1	2002-09-12	US20020128544				
US20030036689	A1	2003-02-20	US20030036689				
US6650917	B2	2003-11-18	US6650917				
US20040064020	A1	2004-04-01	US20040064020				
US20040068164	A1	2004-04-08	US20040068164				
US6745060	B2	2004-06-01	US6745060				
US20040204636	A1	2004-10-14	US20040204636				
US20040210146	A1	2004-10-21	US20040210146				
US20050209517	A1	2005-09-22	US20050209517				
US20060217609	A1	2006-09-28	US20060217609				
US7215984	B2	2007-05-08	US7215984				
US7254433	B2	2007-08-07	US7254433				
US20070225581	A1	2007-09-27	US20070225581				
US20070249918	A1	2007-10-25	US20070249918				
US20070291832	A1	2007-12-20	US20070291832				
US20080004514	A1	2008-01-03	US20080004514				
US20080045823	A1	2008-02-21	US20080045823				
US7454240	B2	2008-11-18	US7454240				
US7496393	B2	2009-02-24	US7496393				
JP2009039548	A	2009-02-26	JP2009039548				
US7509154	B2	2009-03-24	US7509154				
US7530955	B2	2009-05-12	US7530955				
US8036728	B2	2011-10-11	US8036728				
US8046042	B2	2011-10-25	US8046042				
US8046041	B2	2011-10-25	US8046041				
US20120149997	A1	2012-06-14	US20120149997				
US8364226	B2	2013-01-29	US8364226				
US8942777	B2	2015-01-27	US8942777				
US8948834	B2	2015-02-03	US8948834				

Abstract

(US8948834)

The present invention involves a method and an apparatus for analyzing measured signals, including the determination of a measurement of correlation in the measured signals during a calculation of a physiological parameter of a monitored patient. Use of this invention is described in particular detail with respect to blood oximetry measurements.

Inventors

DIAB MOHAMED K

KIANI-AZARBAYJANY ESMAIEL

WEBER WALTER M

Latest standardized assignees - inventors removed

JPMORGAN CHASE BANK

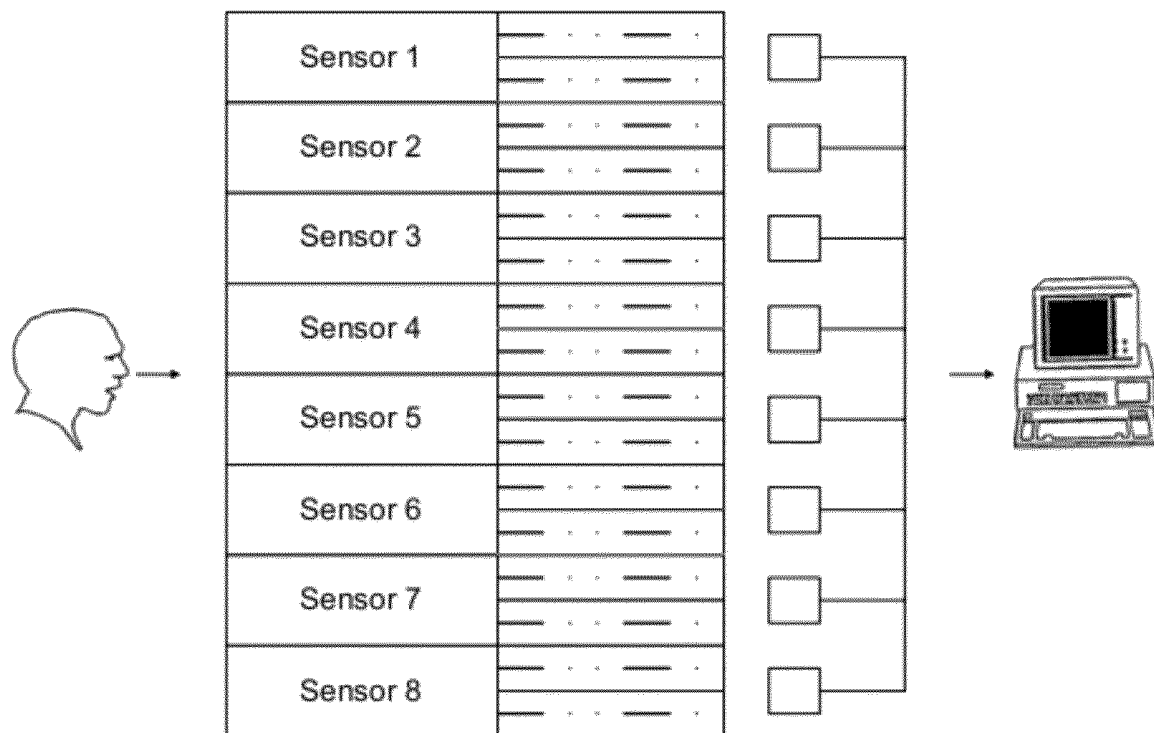
Family 11/17 - FAMPAT - ©Questel

Title

(US8211035)

System and method for monitoring health using exhaled breath

Images



Publication data including kind & date

US20070203448	A1	2007-08-30	US20070203448
US20120016252	A1	2012-01-19	US20120016252
US8211035	B2	2012-07-03	US8211035



Abstract

(US8211035)

The present invention includes systems and methods for monitoring endogenous compound concentration in blood by detecting markers, such as odors, upon exhalation by a patient, wherein such markers are the endogenous compound itself or result from the endogenous compound. In the case of olfactory markers, the invention preferably utilizes electronic sensor technology, such as the commercial devices referred to as “artificial” or “electronic” noses or tongues, to non-invasively monitor endogenous compound levels in blood. The invention further includes a reporting system capable of tracking endogenous compound concentrations in blood (remote or proximate locations) and providing the necessary alerts with regard to emergent or harmful conditions in a patient.

Inventors

MELKER RICHARD J
BJORAKER DAVID G
LAMPOTANG SAMSUN

Latest standardized assignees - inventors removed

UNIVERSITY OF FLORIDA RESEARCH FOUNDATION

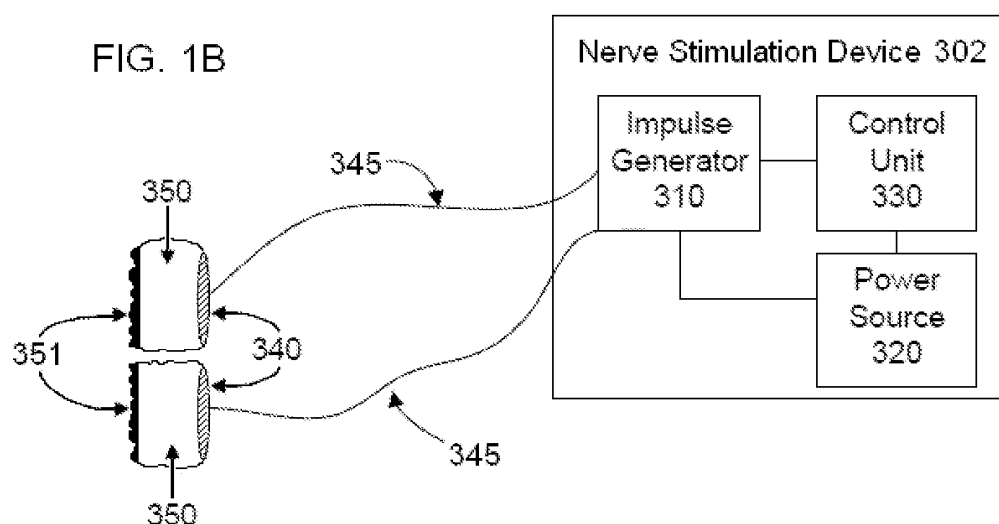
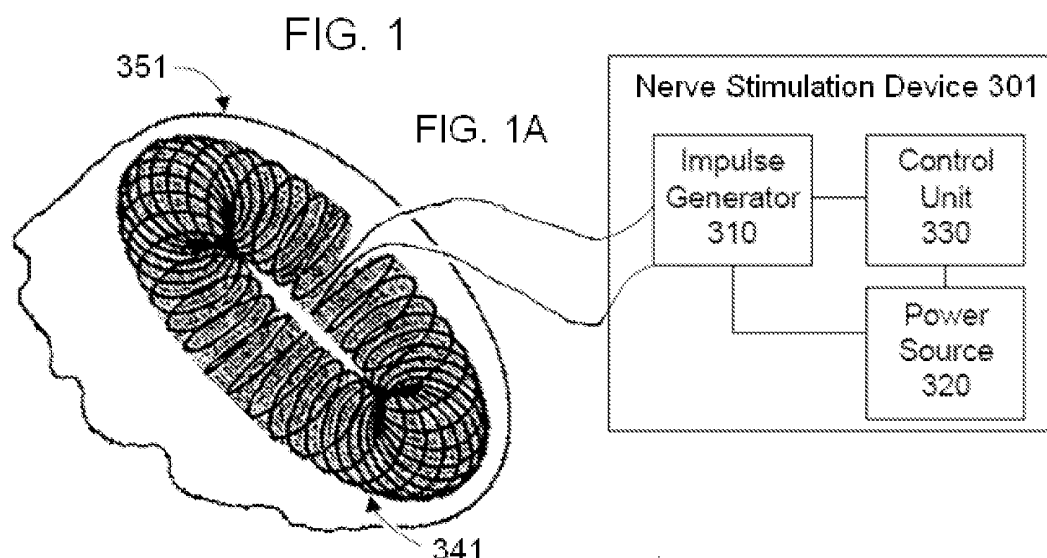
Family 12/17 - FAMPAT - ©Questel

Title

(WO2013126176)

Nerve stimulation methods for averting imminent onset or episode of a disease

Images



Publication data including kind & date

[WO2013126176](#)

A1 2013-08-29

WO2013126176



Abstract

(WO2013126176)

Transcutaneous electrical and magnetic nerve stimulation devices are disclosed, along with methods of averting imminent medical attacks using energy that is delivered noninvasively by the devices. In particular, the devices and methods involve handheld devices designed to stimulate the vagus nerve of a patient with a signal sufficient to minimize or avert epileptic seizures.

Inventors

SIMON BRUCE

ERRICO JOSEPH P

RAFFLE JOHN T

Latest standardized assignees - inventors removed

ELECTROCORE

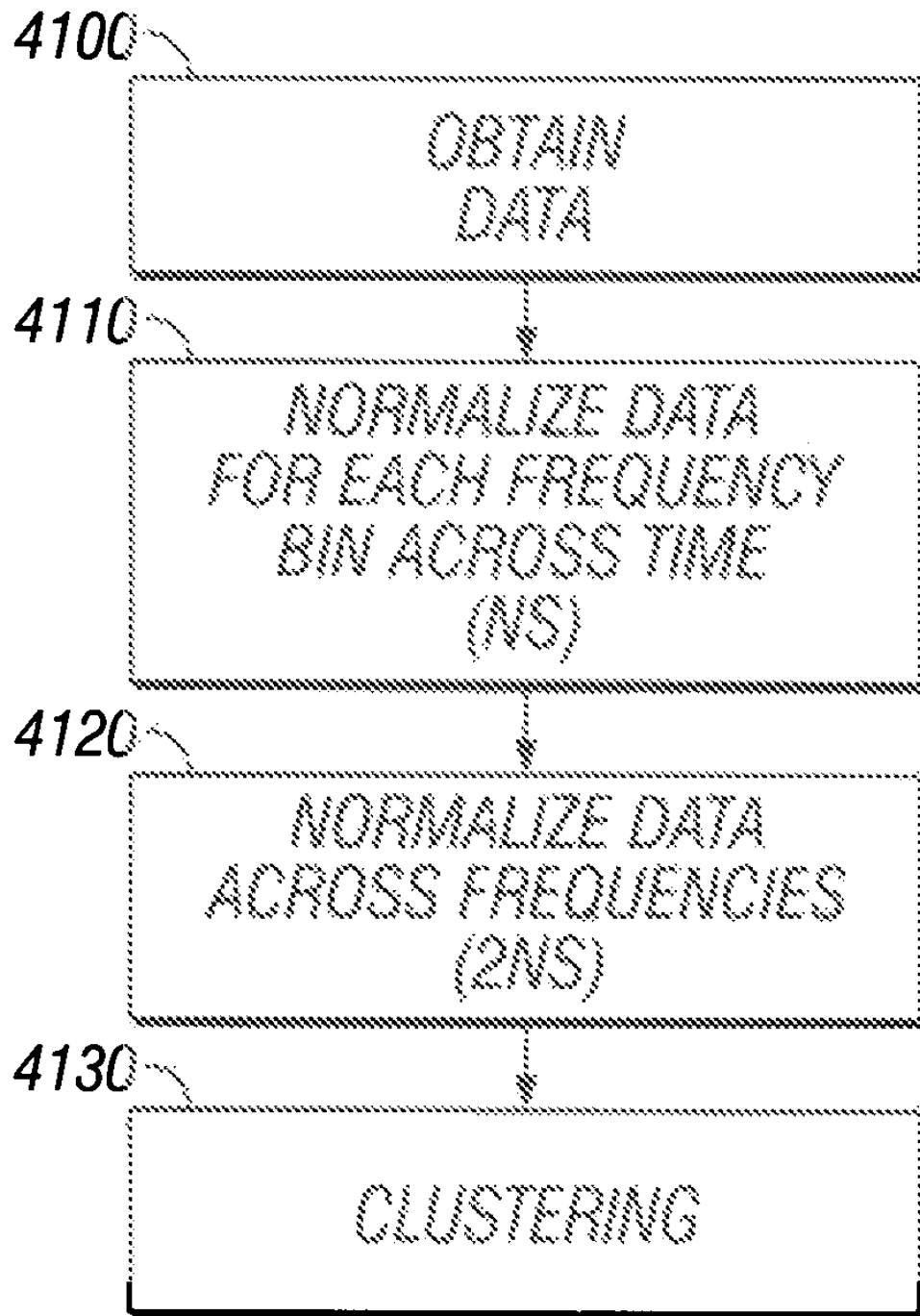
Family 13/17 - FAMPAT - ©Questel

Title

(EP1885237)

Automated detection of sleep and waking states

Images



Publication data including kind & date

WO2006122201	A2	2006-11-16	WO2006122201
CA2607049	A1	2006-11-16	CA2607049
WO2006121455	A1	2006-11-16	WO2006121455
US20070016095	A1	2007-01-18	US20070016095
IN1894/MUMNP/2007	A	2007-12-07	IN2007MN01894
WO2006122201	A3	2007-12-21	WO2006122201
IL187239	A	2008-02-09	IL-187239
EP1885237	A2	2008-02-13	EP1885237
KR20080025673	A	2008-03-21	KR20080025673
CN101272732	A	2008-09-24	CN101272732
JP2008544772	A	2008-12-11	JP2008544772



US8073534	B2	2011-12-06	US8073534				
US20120029378	A1	2012-02-02	US20120029378				
CN101272732	B	2012-11-14	CN101272732B				
EP1885237	A4	2013-03-20	EP1885237				
IL226577	A	2013-06-27	IL-226577				
IL187239	B	2013-06-27	IL-187239				
KR101395197	B1	2014-05-15	KR101395197				
JP2014176743	A	2014-09-25	JP2014176743				
CA2607049	C	2015-03-31	CA2607049				
EP1885237	B1	2015-04-22	EP1885237				
ES2542852	T3	2015-08-12	ES2542852				
HK1113072	A1	2016-06-24	HK1113072				
JP5964351	B2	2016-08-03	JP5964351				
IN293499	B	2018-02-27	IN-293499				

Abstract

(EP1885237)

Determining low power frequency range information from spectral data.Raw signal data can be adjusted to increase dynamic range for power within low power frequency ranges as compared to higher-power frequency ranges to determine adjusted source data valuable for acquiring low power frequency range information.Low power frequency range information can be used in the analysis of a variety of raw signal data.For example, low power frequency range information within electroencephalography data for a subject from a period of sleep can be used to determine sleep states.Similarly, automated full-frequency spectral electroencephalography signal analysis can be useful for customized analysis including assessing sleep quality, detecting pathological conditions, and determining the effect of medication on sleep states.

Inventors

LOW PHILIP S

Latest standardized assignees - inventors removed

SALK INSTITUTE FOR BIOLOGICAL STUDIES

Family 14/17 - FAMPAT - ©Questel

Title

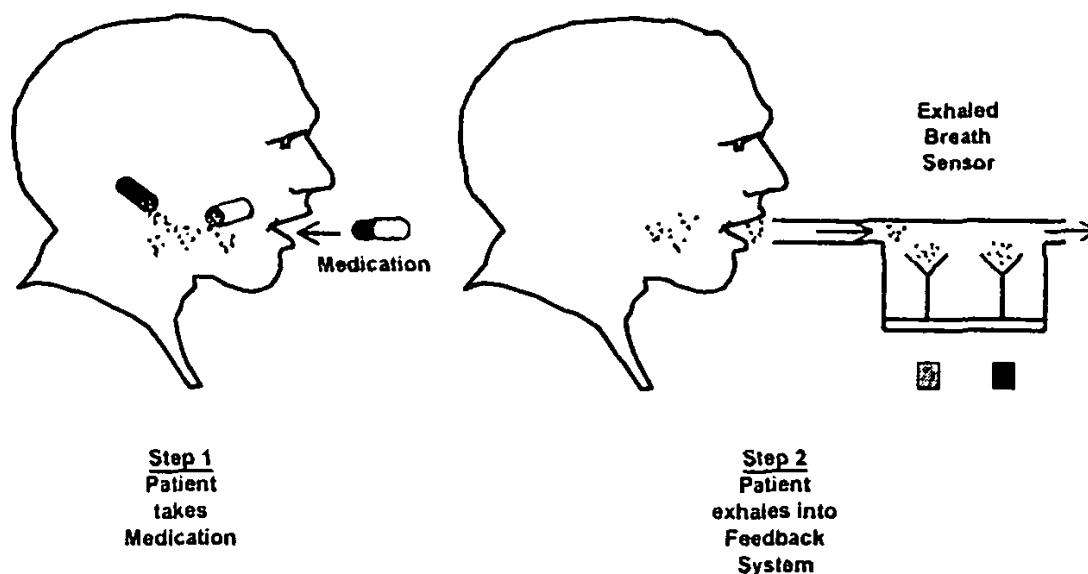
(EP1990639)

System and method for real-time diagnosis, treatment, and therapeutic drug monitoring

Images

Patient Compliance Monitoring System

Overview



PCMS includes marker compound included in medication that is exhaled into detection system for accurate and reliable monitoring off-site

Publication data including kind & date

US20040081587	A1	2004-04-29	US20040081587
US20050054942	A1	2005-03-10	US20050054942
WO2005098429	A2	2005-10-20	WO200598429
WO2005098429	A3	2006-05-26	WO200598429
EP1718971	A2	2006-11-08	EP1718971
US20070167853	A1	2007-07-19	US20070167853
JP2007525670	A	2007-09-06	JP2007525670
US20070258894	A1	2007-11-08	US20070258894
EP1990639	A1	2008-11-12	EP1990639
US7820108	B2	2010-10-26	US7820108



Abstract

(EP1990639)

Systems and methods for diagnosing and/or treating diseases as well as monitoring disease treatment. For diagnosis, the present invention uses nanoparticle-based assemblies, which comprise a nanoparticle; a surrogate marker; and a means for detecting a specific chemical entity. In certain embodiments, nanoparticle-based assemblies include a payload for simultaneous diagnosis and treatment of disease. In further embodiments, a therapeutic drug and therapeutic drug marker are administered to a patient to monitor disease treatment. Bodily fluid samples are analyzed using sensor technology to detect the presence of surrogate and/or therapeutic drug markers to provide an efficient and accurate means for diagnosing a disease and/or monitoring disease treatment.

Inventors

MELKER RICHARD J

SACKELLARES JAMES CHRIS

GOLD MARK S

DENNIS DONN MICHAEL

MARTIN CHARLES R

STEWART JON D

Latest standardized assignees - inventors removed

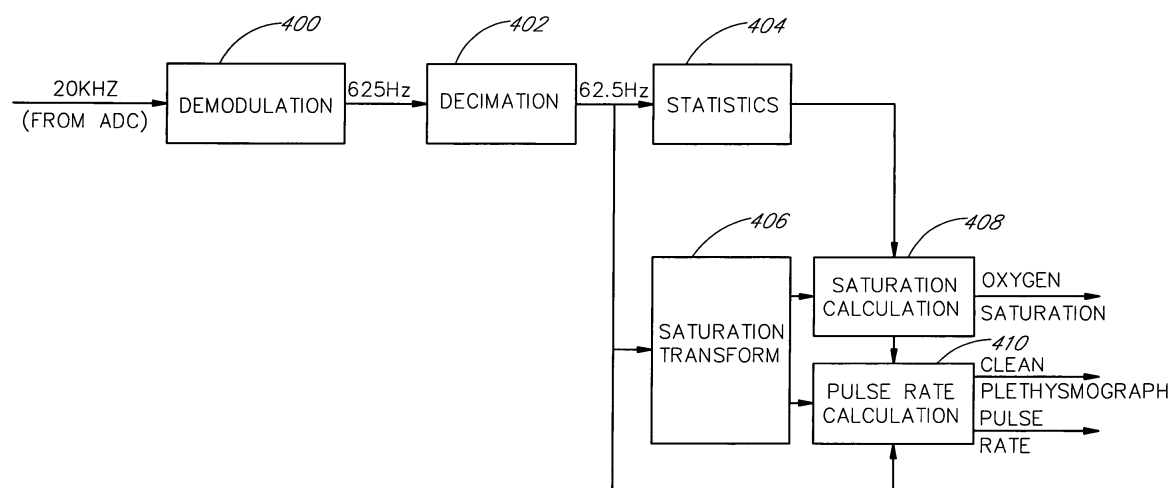
UNIVERSITY OF FLORIDA

Family 15/17 - FAMPAT - ©Questel

Title

(US7383070)

Signal processing apparatus

Images**Publication data including kind & date**

US20050256385	A1	2005-11-17	US20050256385
US20060089549	A1	2006-04-27	US20060089549
US7215986	B2	2007-05-08	US7215986
US7383070	B2	2008-06-03	US7383070

**Abstract**

(US7383070)

The present invention involves a method and an apparatus for analyzing measured signals, including the determination of a measurement of correlation in the measured signals during a calculation of a physiological parameter of a monitored patient. Use of this invention is described in particular detail with respect to blood oximetry measurements.

Inventors

DIAB MOHAMED K

KIANI-AZARBAYJANY ESMAIEL

ELFADEL IBRAHIM M

MCCARTHY REX J

WEBER WALTER M

SMITH ROBERT A

Latest standardized assignees - inventors removed

JPMORGAN CHASE BANK

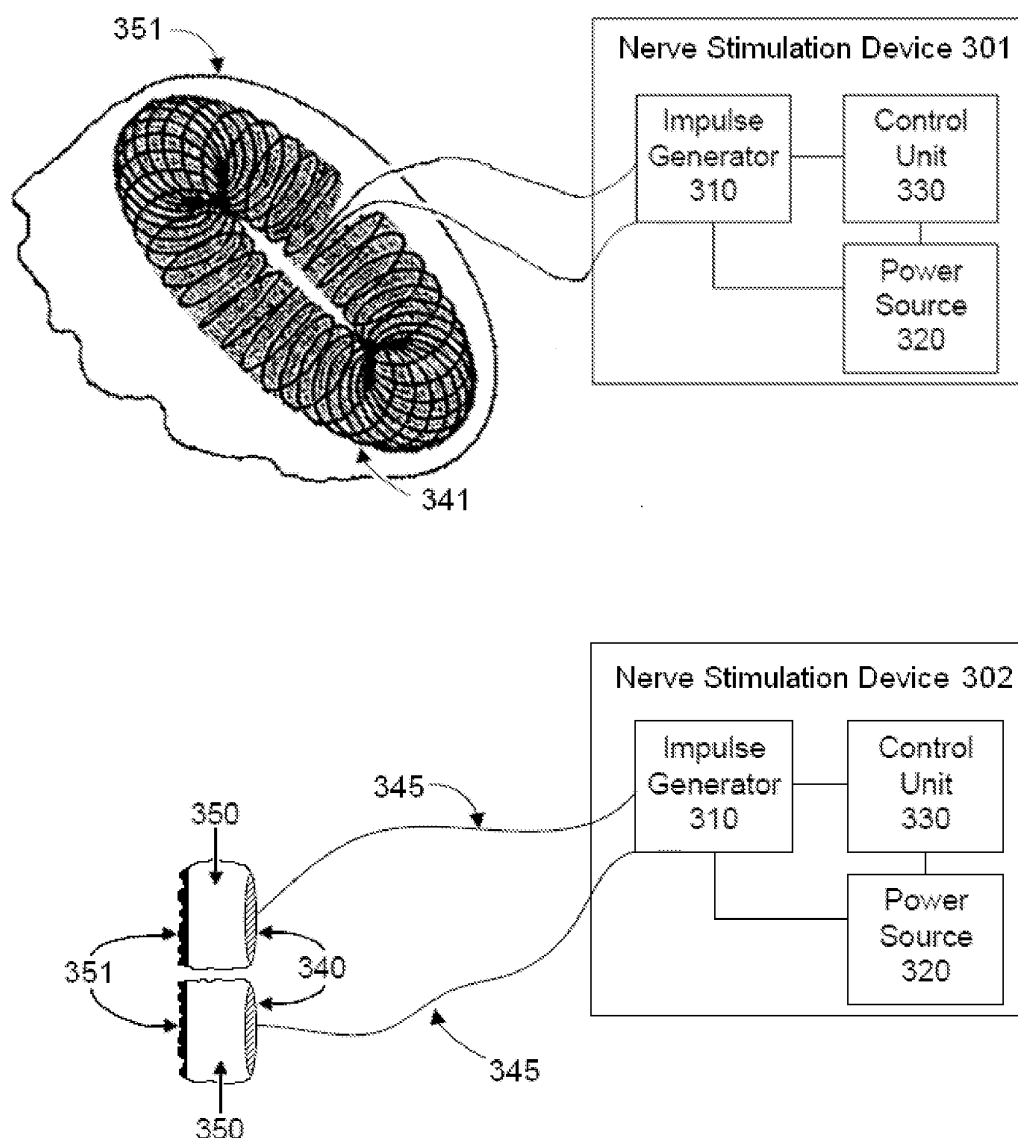
Family 16/17 - FAMPAT - ©Questel

Title

(US20170120052)

Nerve stimulation methods for averting imminent onset or episode of a disease

Images



Publication data including kind & date

US20130066395	A1	2013-03-14	US20130066395
US20170120052	A9	2017-05-04	US20170120052



Abstract

(US20170120052)

Transcutaneous electrical and magnetic nerve stimulation devices are disclosed, along with methods of averting imminent medical attacks using energy that is delivered noninvasively by the devices. The attacks comprise asthma attack, epileptic seizure, attacks of migraine headache, transient ischemic attack or stroke, onset of atrial fibrillation, myocardial infarction, onset of ventricular fibrillation or tachycardia, panic attack, and attacks of acute depression. The imminence of an attack is forecasted using grey-box or black-box models as used in control theory. In preferred embodiments of the disclosed methods, a vagus nerve in the neck of a patient is stimulated noninvasively to avert the attack.

Inventors

SIMON BRUCE J
ERRICO JOSEPH P
RAFFLE JOHN T

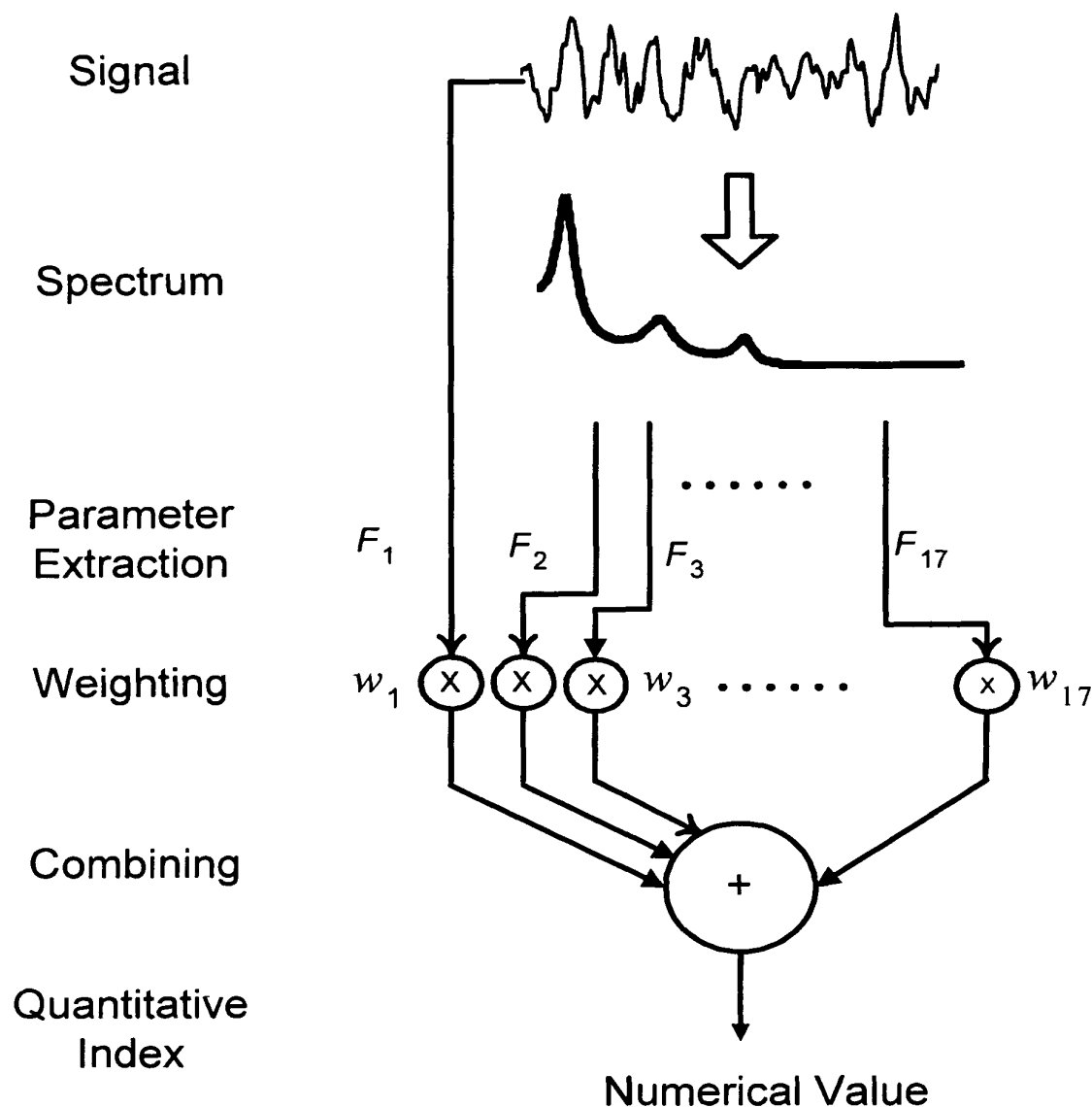
Latest standardized assignees - inventors removed

ELECTROCORE

Title

(US8190249)

Multi-parametric quantitative analysis of bioelectrical signals

Images**Publication data including kind & date**[US8190249](#)

B1 2012-05-29

US8190249

**Abstract**

(US8190249)

Certain embodiments relate to a method for determining a condition of a subject, including obtaining a signal, the signal including a plurality of determinable parameters. The method also includes determining at least two of the plurality of determinable parameters from the signal, to yield determined parameters. The method also includes applying a weighting factor to each of the determined parameters to yield weighted parameters, and combining the weighted parameters to determine a numeric value relating to the condition of the subject. Other embodiments are described and claimed.

Inventors

GHARIEB REDA R

HATHI MANAN

VENKATASHA SANTOSH

SHERMAN DAVID

ROTHMAN NEIL

NATARAJAN MARGARET

NATURAJAN ANANTH

Latest standardized assignees - inventors removed

INFINITE BIOMEDICAL TECHNOLOGIES