

Nicolas Vargas

Search history

Search 1: SFT=(depth and anesthesia and eeg) (Results 826)
Search 2: SFT=(depth and anesthesia and eeg and wavelet*) (Results 121)
Search 3: SFT=((depth w10 anesthesia) and eeg and wavelet*) (Results 62)
Search 4: (Results)
Search 5: SFT=((depth w10 anesthesia) and eeg and wavelet* and ecg) (Results 34)
Search 6: 5 and PD<20161005 (Results 29)
Search 7: 6 and neural network (Results 6)

1) Family number: 50820065 (US2001029326A)

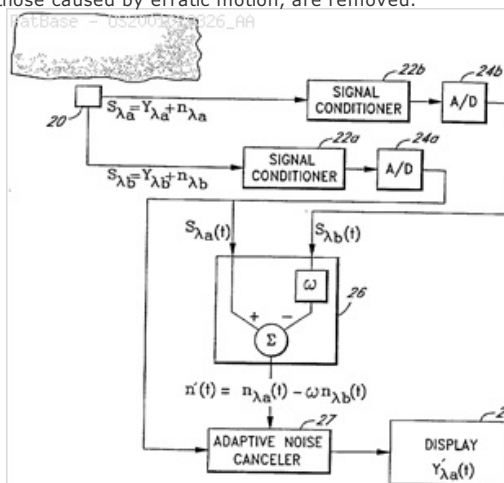
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Title: SIGNAL PROCESSING APPARATUS AND METHOD

Abstract: A signal processor which acquires a first signal, including a first desired signal portion and a first undesired signal portion, and a second signal, including a second desired signal portion and a second undesired signal portion, wherein the first and second desired signal portions are correlated. The signals may be acquired by propagating energy through a medium and measuring an attenuated signal after transmission or reflection. Alternatively, the signals may be acquired by measuring energy generated by the medium. A processor of the present invention generates a noise reference signal which is a combination of only the undesired signal portions and is correlated to both the first and second undesired signal portions. The noise reference signal is then used to remove the undesired portion of each of the first and second measured signals via an adaptive noise canceler, preferably of the joint process estimator type. The processor of the present invention may be employed in conjunction with an adaptive noise canceler in physiological monitors wherein the known properties of energy attenuation through a medium are used to determine physiological characteristics of the medium. Many physiological conditions, such as the pulse of a patient or the concentration of a constituent in a medium, can be determined from the desired portion of the signal after undesired signal portions, such as those caused by erratic motion, are removed.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/02 A61B5/0205 A61B5/0215 A61B5/024 A61B5/0245 A61B5/08 A61B5/145 A61B5/1455 A61B5/1464 A61B6/00 A61B8/00 A61B8/08 G01D3/028 G01N21/53 G01N21/59 G01R29/26 G06F17/00 G06F17/10 G06F17/14 G06F17/40 G06F19/00 G06K9/00 H04B1/12 H04B15/00 H04B17/00 H04B3/46 H04Q1/20 (Advanced/Invention); A61B5/00 A61B5/02 A61B5/021 A61B5/0215 A61B5/024 A61B5/029 A61B5/0402 A61B5/0476 A61B5/08 A61B5/145 A61B6/00 A61B8/00 G01D3/028 G01N21/31 G06F17/10 G06F17/40 G06F19/00 H04B15/00 (Advanced/Non-invention); A61B5/00 A61B5/145 G01D3/028 G06F17/00 G06F17/10 G06F17/40 G06F19/00 H04B1/12 H04B15/00 (Core/Invention); A61B5/0215 A61B6/00 A61B8/00 (Core/Non-invention)
International (IPC 1-7): A61B5/00 A61B5/02 A61B5/0245 A61B5/14 A61B5/145 A61B6/00 G01D3/04 G06F15/31 G06F15/42 G06F15/90 G06F17/00 G06F17/14 G06F19/00 H04B1/12 H04B17/00 H04B3/46
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European: A61B5/1455 A61B5/1455N A61B5/145P A61B5/48D A61B5/72B A61B5/72B2 A61B5/72B2D A61B5/72F A61B5/72H A61B5/72K10 A61B5/72K8 A61B8/52F2 G06F17/40 G06K9/00M1D H04B1/12A K61B5/021 K61B5/0215D K61B5/024 K61B5/029 K61B5/0402 K61B5/0476 K61B5/08R K61B5/145G K61B5/72F K61B5/72K10B K61B5/72K10D K61B5/72K8 K61B6/00 K61B8/00 S01N21/31D2
US: 128/630 128/633 356/39 356/41 375/227 375/227P 375/E07.24 375/E7.24 375/E72.40S 600/300 600/301 600/301P 600/310 600/310P 600/322 600/323 600/323P 600/323S 600/324 600/324P 600/324S 600/33 600/330 600/330P 600/330S 600/336 600/336P 600/336S 600/364 600/364P 600/407 600/407P 600/476 600/476S 600/479 600/479S 600/481 600/502 600/502P 600/502S 600/508 600/509 600/509S 600/529 600/529S 700/189 700/189S 700/194 700/194S 702/19 702/191 702/191S 702/19S 702/28 702/28S 703/19 703/19S



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Priority:

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Agent(s): GRIFFITH HACK ; DAVIES COLLISON CAVE ; DAVIES COLLISON CAVE PTY LTD ; KIRBY EADES GALE BAKER ; SIM AND MCBURNEY ; VOSSIUS AND PARTNER PATENTANWALTE RECHTSANWALTE MBB ; VOSSIUS AND PARTNER ; KNOBBE MARTENS OLSON AND BEAR LLP ; KNOBBE MARTENS OLSON AND BEARR LLP

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

Title: METHOD AND APPARATUS FOR THE ESTIMATION OF ANESTHETIC DEPTH USING **WAVELET** ANALYSIS OF THE ELECTROENCEPHALOGRAM

Abstract: 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.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/04 A61B5/0476

A61B5/048 (Advanced/Invention);

A61B5/04 A61B5/0476 (Core/Invention)

International (IPC 1-7): A61B5/04

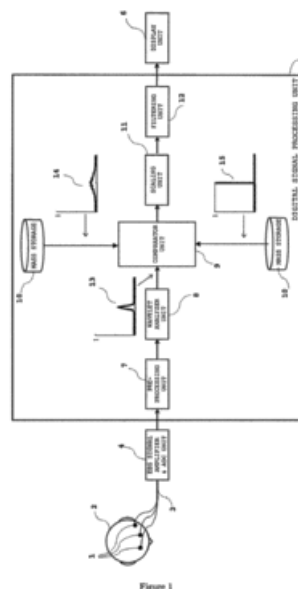
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European: A61B5/048 A61B5/48D A61B5/72K10D

US: 600/300 600/509 600/521 600/544 600/544P 600/545

PatBase - US2004010203_AA

Patent Application Publication Jan. 15, 2004 Sheet 1 of 7 US 2004/0010203 A1



Family:

Publication number	Publication date	Application number	Application date
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US2008294063 AA	20081127	US20080148151	20080417
US7373198 BB	20080513	US20030616997	20030711
US7603168 BB	20091013	US20080148151	20080417
US8798735 BA	20140805	US20090584083	20090831

Priority:

US20020395313P 20020712 US20030616997 20030711 US20080148151 20080417
US20090584083 20090831

Probable Assignee: BIONOVA TECHNOLOGIES INC

Assignee(s): (std): AHIMADI HOSAAIN CYRUS ; AHMADI HOSSAIN CYRUS ; BIBIAN STEPHANE ; BIONOVA TECHNOLOGIES INC ; DUMONT GUY ALBERT ; HUZMEZAN MIHAI ; MACLEOD BERNARD ANSELL ; ZIKOV TATJANA ; RIES CRAIG ROBERT ; PUIL ERNEST

Inventor(s): (std): AHMADI HOSSAIN CYRUS ; BIBIAN STEPHANE ; DUMONT GUY ALBERT ; HUZMEZAN MIHAI ; MACLEOD BERNARD ANSELL ; PUIL ERNEST ; RIES CRAIG ROBERT ; ZIKOV TATJANA ; AHMADI HOSAAIN CYRUS ; AHIMADI HOSAAIN CYRUS

Agent(s): TATJANA ZIKOV; OYEN WIGGS GREEN AND MUTALA LLP

Title: METHOD AND DEVICE FOR PREDICTING ABNORMAL MEDICAL EVENTS AND/OR ASSISTING IN DIAGNOSIS AND/OR MONITORING, PARTICULARLY IN ORDER TO DETERMINE **DEPTH** OF **ANESTHESIA**

Abstract: 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.

Classifications:

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

A61B5/022 A61B5/04 A61B5/0452 A61B5/08 A61B5/16 A61M16/01

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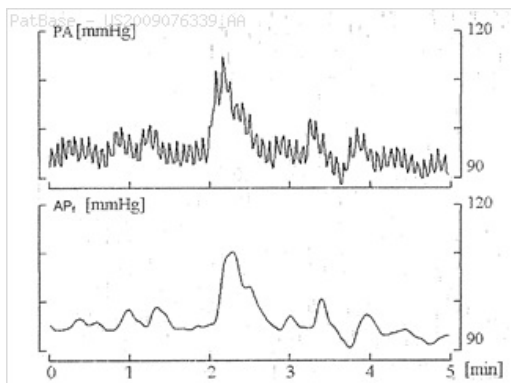
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G06Q50/00 (Core/Invention)

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European: A61B5/0205 A61B5/021 A61B5/024 A61B5/0456

**Family:**

Publication number	Publication date	Application number	Application date
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Priority:

FR20040011726 20041103 EP20050819328 20051103 WO2005FR50928 20051103

Probable Assignee: ANDREI CIVIDJIAN**Assignee(s):** (std): CIVIDJIAN ANDREI ; QUINTIN LUC ; QUINTIN LUE**Assignee(s):** LUC QUINTIN ; ANDREI CIVIDJIAN**Inventor(s):** (std): CIVIDJIAN ANDREI ; QUINTIN LUC ; QUINTIN LUE**Inventor(s):** LUC QUINTIN ; ANDREI CIVIDJIAN**Agent(s):** Cabinet Plasseraud; LUC QUINTIN; MCDONNELL BOEHNEN HULBERT AND BERGHOFF LLP

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

4) Family number: 12271747 (US2004204637A)

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Title: SIGNAL PROCESSING APPARATUS AND METHOD

Abstract: A method and an 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. The measured signals are then fed into a signal scrubber which uses the coefficients to remove the unwanted portions. The signal scrubbing is performed in either the time domain or in the frequency domain. 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 to a spectral 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. The pulse rate is found by identifying the largest spectral peak in the second spectral domain.

Classifications:**International (IPC 8-9):** A61B5/00 A61B5/02 A61B5/0205

A61B5/024 A61B5/04 A61B5/1455 A61B6/00 G06K9/00

G09G5/00 (Advanced/Invention);

A61B5/02 A61B5/024 A61B5/04 (Advanced/Non-invention)

International (IPC 1-7): A61B5/00 A61B5/02 A61B5/04**CPC:** A61B5/0205 A61B5/7203 A61B5/02416 A61B5/1455

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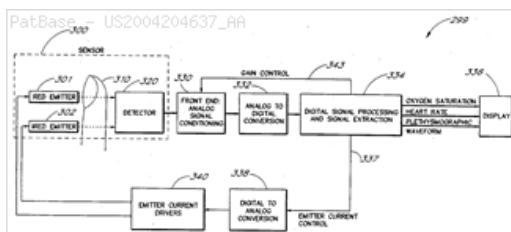
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US: 1/1 345/208 345/208P 600/310 600/322 600/323 600/323P 600/323S 600/324 600/324P 600/336 600/336P 600/336S

600/407 600/476 600/479 600/481 600/500 600/502 600/502S 600/509 600/509S 700/194 700/194S 702/191

**Family:**

Publication number	Publication date	Application number	Application date
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Priority:

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

5) Family number: 63726773 (US2013066395A)

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Title: NERVE STIMULATION METHODS FOR AVERTING IMMINENT ONSET OR EPISODE OF A DISEASE

Abstract: 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.

Classifications:

International (IPC 8-9): A61N1/36 A61N1/40 (Advanced/Invention)

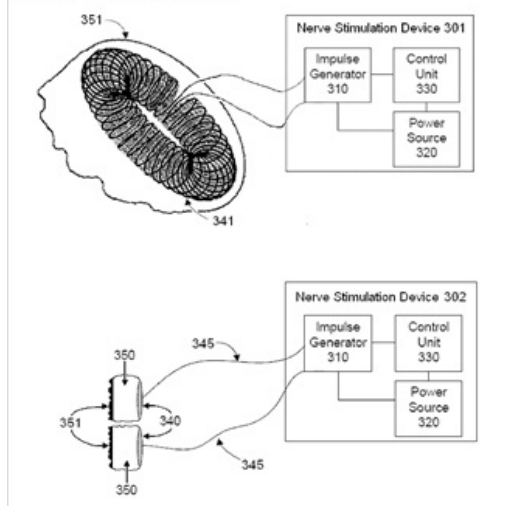
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A61B5/4094 A61B5/4833 A61B5/4836 A61N1/36014 A61N1/3756

A61N2/006 A61N2/02

US: 607/48 607/72

PatBase - US2013066395_AA



Family:

Publication number	Publication date	Application number	Application date
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Priority:

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US20120655716 20121019		

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6) Family number: 58177846 (US2016150988A)

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Title: SYSTEMS AND METHODS FOR TRACKING NON-STATIONARY SPECTRAL STRUCTURE AND DYNAMICS IN PHYSIOLOGICAL DATA

Abstract: Systems and methods for tracking dynamic structure in physiological data are provided. In some aspects, the method includes providing physiological data, including electroencephalogram ("EEG") data, acquired from a subject and assembling a time-frequency representation of signals from the physiological data. The method also includes generating a dynamic model of at least one non-stationary spectral feature, such as at least one non-stationary spectral peak, using the time-frequency representation and a user indication, and applying a dynamic model of at least one non-stationary spectral feature in a parameter estimation algorithm to compute concurrent estimates of spectral parameters describing the at least one non-stationary spectral feature. The method also includes tracking the spectral parameters of the at least one spectral feature over time.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/04 A61B5/0476

A61B5/048 G01R23/16 (Advanced/Invention);

A61B5/00 A61B5/04 A61B5/0402 A61B5/0488 A61B5/0496

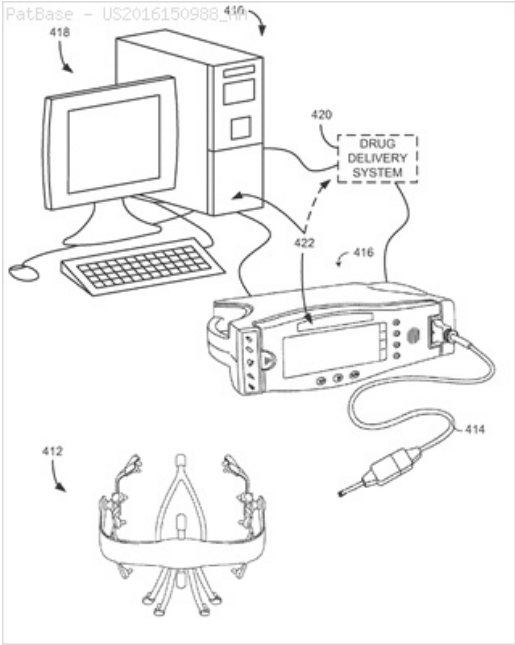
A61B5/053 (Advanced/Non-invention)

CPC: A61B5/0402 A61B5/0488 A61B5/0496 A61B5/0533

A61B5/7253 A61B5/04012 A61B5/048 A61B5/4806 A61B5/725

A61B5/4839 A61B5/4821

US: 600/300 600/509



Family:

Publication number	Publication date	Application number	Application date
EP3014290 A1	20160504	EP20140818074	20140627
EP3014290 A4	20170308	EP20140818074	20140627
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US2016150988 AA	20160602	US20140900805	20140627
WO14210549 A1	20141231	WO2014US44720	20140627

Priority:

US20130840093P 20130627 US20140900805 20140627 WO2014US44720 20140627

Probable Assignee: TRUSTEES OF BOSTON UNIV

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Inventor(s): (std): EDEN URI ; PRERAU MICHAEL J ; PURDON PATRICK L

Agent(s): SAMSON AND PARTNER PATENTANWALTE MBB; TORINO SHOJI; ROCHE RICHARD T

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