



New connection on: : 26-06-2018 : 23:08:43 - Last disconnection on: :
26-06-2018 : 19:09:30

V 4.0.0.44358(LP,U,linux) (Rev:43856 2017-04-27 09:03:29 +0200#(D201802)) (RPM D201802)

Welcome to EPOQUE Rebuild under the Production Environment

[EPODOC: SS 3] EMG and electrode and muscle and audio and voice near less

Results in EPODOC 0

EPODOC: term 'VOICE NEAR LESS' not found in index 'BI'. *WARNING(1)*

[SS 4] EMG and electrode and muscle

Results in EPODOC 83

[SS 5] 4 and audio

Results in EPODOC 3

[SS 6] ..v

[EPODOC: SS 6] 4 and voice

Results in EPODOC 0

[SS 7] voice and emg and electrode

Results in EPODOC 5

[SS 8] ..v

[EPODOC: SS 8] ..li



PN - [US2017084266](#) A1 20170323

PR - KR20140025968
20140305; WO2014KR12506
20141218

AP - US201415122869 20141218

DT - **

CT - || R141 (A1)
[US7676372](#) B1 20100309 [] (OBA TOSHIHIKO [JP]);
[US2007100630](#) A1 20070503 [] (MANABE HIROYUKI [JP], et al);
[US2005102134](#) A1 20050512 [] (MANABE HIROYUKI [JP], et al);
[US2010114240](#) A1 20100506 [] (GUNTINAS-LICHIUS ORLANDO [DE], et al);
[US2016314781](#) A1 20161027 [] (SCHULTZ TANJA [DE], et al)

CCI - [G10L13/02](#) ; [G10L15/24](#)

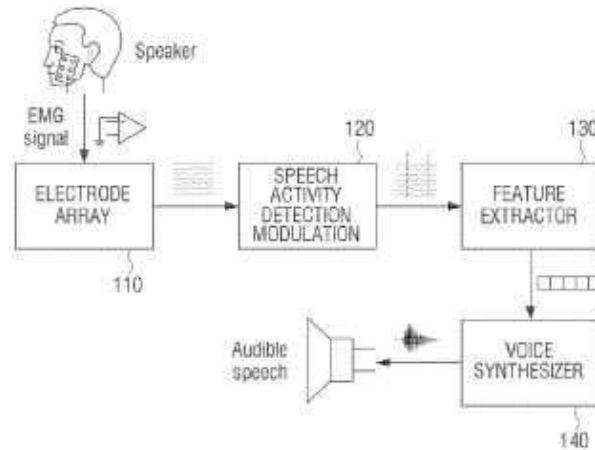
CUI - [G10L13/043](#) ; [G10L13/047](#) ;
[G10L25/93](#)

CCA - [G10L13/08](#) ; [G10L25/78](#)

PA - SAMSUNG ELECTRONICS CO
LTD [KR]

TI - **VOICE SYNTHESIS APPARATUS AND METHOD FOR SYNTHESIZING VOICE**

AB - A **voice** synthesis apparatus is provided. The **voice** synthesis apparatus includes: an **electrode** array configured to, in response to voiceless speeches of a user, detect an electromyogram (**EMG**) signal from skin of the user; a speech activity detection module configured to detect a voiceless speech period of the user; a feature extractor configured to extract a signal descriptor indicating a feature of the **EMG** signal for the voiceless speech period; and a **voice** synthesizer configured to synthesize speeches by using the extracted signal descriptor.



PN - [CN106233379](#) A 20161214

PR - KR20140025968
20140305; WO2014KR12506
20141218

AP - CN2014878437 20141218

DT - I

CCI - [G10L13/02](#) ; [G10L15/24](#)

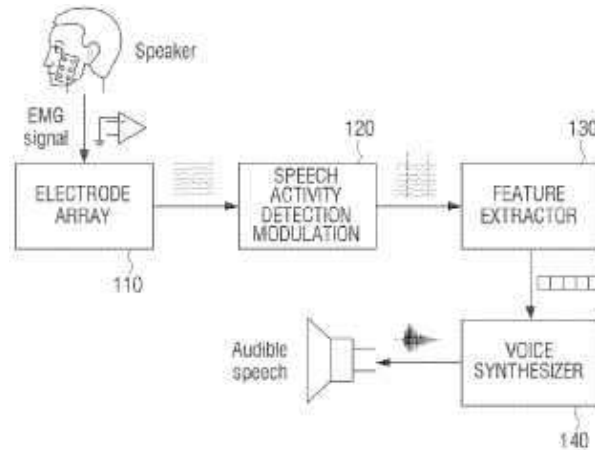
CUI - [G10L13/043](#) ; [G10L13/047](#) ;
[G10L25/93](#)

CCA - [G10L13/08](#) ; [G10L25/78](#)

PA - SAMSUNG ELECTRONICS CO
LTD

TI - **Voice** synthesis apparaatus
and method for
synthesizing **voice**

AB - A **voice** synthesis apparatus
is provided. The **voice**
synthesis apparatus includes:
an **electrode** array configured
to, in response to voiceless
speeches of a user, detect an
electromyogram (**EMG**) signal
from skin of the user; a
speech activity detection
module configured to detect a
voiceless speech period of the
user; a feature extractor
configured to extract a signal
descriptor indicating a
feature of the **EMG** signal for
the voiceless speech period;
and a **voice** synthesizer
configured to synthesize
speeches by using the
extracted signal descriptor.



3/5 © EPODOC / EPO

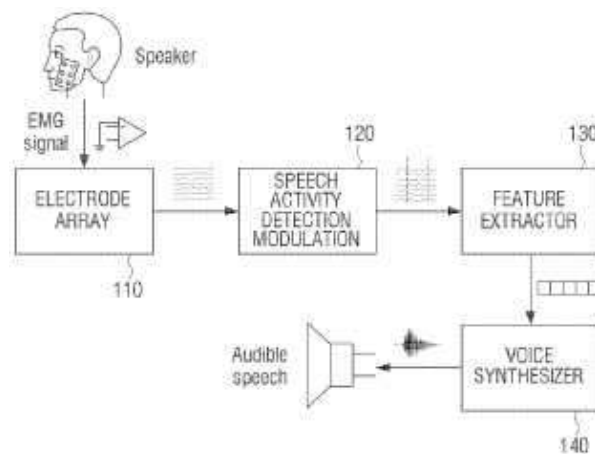
PN - [WO2015133713](#) A1 20150911

PR - KR20140025968 20140305

AP - WO2014KR12506 20141218

DT - *; Rep

CT - |KR| ISR (A1)
[US2005102134](#) A1 20050512
[Y] (MANABE HIROYUKI [JP], et
al)
[Y] 1-12
* See paragraphs [0053]
-[0058]; figure 1; and claims
1-3. *;
[US7680666](#) B2 20100316



[Y] (MANABE HIROYUKI [JP], et al)

[Y] 1-12

* See column 6, line 63 - column 7, line 52; figure 1; and claims 1-3. *;

[US2007100508](#) A1 20070503

[A] (JEONG HYUK [KR], et al)

[A] 1-12

* See paragraphs [0026]

-[0034]; and figure 1. *;

[US2004088164](#) A1 20040506

[A] (PERLO PIERO [IT], et al)

[A] 1-12

* See paragraphs [0015]

-[0036]; and figures 1-5. *;

[WO2010070552](#) A1

20100624 [A] (KONINKL

PHILIPS ELECTRONICS NV [NL], et al)

[A] 1-12

* See pages 7-9; and figure 1. *

- CCI - [G10L13/02](#) ; [G10L15/24](#)
- CUI - [G10L13/043](#) ; [G10L13/047](#) ;
[G10L25/93](#)
- CCA - [G10L13/08](#) ; [G10L25/78](#)
- PA - SAMSUNG ELECTRONICS CO
LTD [KR]
- TI - **VOICE SYNTHESIS APPARATUS**
AND METHOD FOR
SYNTHESIZING **VOICE**
- AB - A **voice** synthesis apparatus
is provided. The **voice**
synthesis apparatus includes:
an **electrode** array configured
to, in response to voiceless
speeches of a user, detect an
electromyogram (**EMG**) signal
from skin of the user; a
speech activity detection
module configured to detect a
voiceless speech period of the
user; a feature extractor
configured to extract a signal
descriptor indicating a
feature of the **EMG** signal for
the voiceless speech period;
and a **voice** synthesizer
configured to synthesize
speeches by using the
extracted signal descriptor.

4/5 © EPODOC / EPO

PN - [US6270466](#) B1 20010807

PR - US19980194237 19981123; US19960018316P 19960524; WO1998US00692 19980114; US19990341720 19990715; US19970035536P 19970116; WO1997US08641 19970521

AP - US19990341720 19990715

DT - *

CCI - [B29C41/36](#) ; [A61B5/0488](#) ; [A61B5/0492](#) ; [A61B5/4557](#) ; [A61B5/486](#) ; [A61B5/6814](#) ; [A61B5/6815](#) ; [A61B5/6816](#) ; [A61B5/6838](#) ; [A61F5/56](#) ; [B29C41/003](#) ; [B29C41/16](#)

CLC - [B22F2999/00](#) , [B22F3/008](#) , [B22F3/22](#) , ADD

CCA - [A61B2560/0209](#) ; [A61B2560/0412](#) ; [B22F2999/00](#)

PA - BRUXCARE L L C [US]

TI - Bruxism biofeedback apparatus and method including acoustic transducer coupled closely to user's head bones

AB - A method and apparatus for the treatment of bruxism thorough biofeedback is disclosed. In one embodiment, the apparatus consists of electronics mounted in a light-weight headband which may be worn comfortably by a user during sleep or while awake. Electrodes within the headband pick up surface **EMG** voltage signals indicative of bruxism, and bio-feedback is provided to the user by a piezoelectric transducer in mechanical contact with the head of the user. One **electrode** of the piezoelectric transducer also serves as the reference sense **electrode**. The electrodes require no chemistry, allowing the apparatus to be worn for considerable periods without skin irritation. Information detailing the timing, quantity, and duration of bruxing events may be stored internally for later retrieval via display, computer interface, or **voice** synthesis interface. When **EMG** signals satisfy certain pre-determined time and amplitude conditions, an acoustical bio-feedback signal is generated. The bio-feedback signal may start small and build up until the cessation of bruxing, when it may be rapidly terminated, facilitating treatment without waking a sleeping user.

TXT - powder size L000.5 H002 mum; B22F; D20030918

5/5 © EPODOC / EPO

PN - [WO9831277](#) A1 19980723

PR - US19970035536P 19970116

AP - WO1998US00692 19980114

DT - *; Rep

CT - |US| ISR (A1)
[US4934378](#) A 19900619 [Y] (PERRY JR JOHN D [US]);
[US5368042](#) A 19941129 [Y] (O'NEAL JOHN L [US], et al);
[US5067488](#) A 19911126 [Y] (FUKADA EIICHI [JP], et al);
[US5078153](#) A 19920107 [Y] (NORLANDER JEFFREY Y [US], et al);
[US3978847](#) A 19760907 [Y] (FEHMI LESTER G, et al)

CCI - [A61B5/6838](#) ; [A61B5/0488](#) ; [A61B5/0492](#) ; [A61B5/486](#) ; [A61B5/6814](#) ; [A61B5/6815](#) ; [A61B5/6816](#)

CCA - [A61B5/4547](#) ; [A61B2560/0412](#)

PA - BRUXCARE L L C [US]; WEINSTEIN LEE [US]; DELVIN THOMAS E [US]; ULRICH KARL T [US]; BURNS CLAY A [US]

TI - BRUXISM BIOFEEDBACK APPARATUS AND METHOD INCLUDING ACOUSTIC TRANSDUCER COUPLED CLOSELY TO USER'S HEAD BONES

AB

- A method and apparatus for the treatment of bruxism through biofeedback is disclosed. In one embodiment, the apparatus consists of electronics (M1) mounted in a lightweight headband (HB1) which may be worn comfortably by a user during sleep or while awake. Electrodes (E1-E3) within the headband (HB1) pick up surface **EMG** voltage signals (S1-S5) indicative of bruxism. Biofeedback is provided to the user by a piezoelectric transducer (PET1) in mechanical contact with the head of the user. One **electrode** of the piezoelectric transducer (PET1) also serves as the reference sense **electrode** (E2). The electrodes require no chemistry, allowing the apparatus to be worn for considerable periods without skin irritation. Information detailing the timing, quantity, and duration of bruxism events may be stored for later retrieval via display (D), computer interfaces (UP), or **voice** synthesis interface (VI). When **EMG** signals satisfy certain predetermined time and amplitude conditions, an acoustical biofeedback signal (SK) is generated. The biofeedback signal may start small and build up until the cessation of bruxism, when it may be rapidly terminated, facilitating treatment without waking a sleeping user.

[SS 8]