

# (12) International Application Status Report

**Received at International Bureau:** 13 July 2018 (13.07.2018)

**Information valid as of:** 05 December 2018 (05.12.2018)

**Report generated on:** 26 March 2019 (26.03.2019)

**(10) Publication number:**

WO2019/006059

**(43) Publication date:**

03 January 2019 (03.01.2019)

**(26) Publication language:**

English (EN)

**(21) Application Number:**

PCT/US2018/039896

**(22) Filing Date:**

28 June 2018 (28.06.2018)

**(25) Filing language:**

English (EN)

**(31) Priority number(s):**

62/525,902 (US)

**(31) Priority date(s):**

28 June 2017 (28.06.2017)

**(31) Priority status:**

Priority document received (in compliance with PCT Rule 17.1)

**(51) International Patent Classification:**

A61N 1/36 (2006.01)

**(71) Applicant(s):**

MED-EL ELEKTROMEDIZINISCHE GERAETE GMBH [AT/US]; Fuerstenweg 77 A-6020 Innsbruck (AT) *(for all designated states)*

UNIVERSIDAD DE SALAMANCA [ES/ES]; Patio de Escuelas 1 37008 Salamanca (ES) *(for all designated states)*

**(72) Inventor(s):**

LÓPEZ-POVEDA, Enrique Alejandro; c/o UNIVERSIDAD DE SALAMANCA Patio de Escuelas, 1 37008 Salamanca (ES)

**(74) Agent(s):**

SANDVOS, Jay; SUNSTEIN KANN MURPHY & TIMBERS LLP 125 Summer Street Boston, Massachusetts 02110 (US)

**(54) Title (EN):** MEDIAL OLIVOCOCHLEAR REFLEX SOUND CODING WITH BANDWIDTH NORMALIZATION

**(54) Title (FR):** CODAGE DE SON RÉFLEXE OLIVO-COCHLÉAIRE MÉDIAL AVEC NORMALISATION DE BANDE PASSANTE

**(57) Abstract:**

**(EN):** A signal processing arrangement is described for signal processing in a bilateral hearing implant system. A channel compression module develops a inhibition-adjusted band pass signal for each band pass signal using a channel-specific dynamic inhibition adjustment based on a channel-normalized medial olivocochlear reflex model that reflects bandwidth energy for a corresponding contralateral band pass signal and bandwidth energy for a selected reference contralateral band pass signal.

**(FR):** La présente invention concerne un agencement de traitement de signal pour un traitement de signal dans un système d'implant auditif bilatéral. Un module de compression de canal développe un signal passe-bande ajusté par inhibition pour chaque signal passe-bande utilisant un ajustement d'inhibition dynamique spécifique au canal sur la base d'un modèle de réflexe olivo-cochléaire médial normalisé selon le canal qui reflète l'énergie de bande passante pour un signal de passe-bande controlatéral correspondant et une énergie de bande passante pour un signal passe-bande controlatéral de référence sélectionné.

**International search report:**

Received at International Bureau: 08 October 2018 (08.10.2018) [EP]

**International Report on Patentability (IPRP) Chapter II of the PCT:**

Not available

**(81) Designated States:**

AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA,

PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

European Patent Office (EPO) : AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR

African Intellectual Property Organization (OAPI) : BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG

African Regional Intellectual Property Organization (ARIPO) : BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW

Eurasian Patent Organization (EAPO) : AM, AZ, BY, KG, KZ, RU, TJ, TM