Title (en)
Hearing device and method of operating a hearing device

Title (de)
Hörgerät sowie Verfahren zum Betrieb eines Hörgerätes

Title (fr)
Prothèse auditive et procédé d'utilisation d'une prothèse auditive

Publication
EP 1858292 B2 20220223 (EN)

Application
EP 06120253 A 20060907

Priority
EP 06114038 A 20060516

Abstract (en)
[origin: EP1858292A1] The method for operating a hearing device (1) having an adjustable transfer function (G) comprising M sub-functions (g1...gM), wherein M is an integer with M #¥ 1, and wherein said transfer function (G) describes how input audio signals (S1) generated by an input transducer unit (2) of said hearing device (1) relate to output audio signals (S2) to be fed to an output transducer unit (5) of said hearing device (1), comprises the steps of: - deriving said input audio signals (S1) from a current acoustic environment; and for each of said M sub-functions (g1,..., gM): - deriving, on the basis of said input audio signals (S1) and for each class of N classes (C1,...,CN) each of which describes a predetermined acoustic environment, a class similarity factor (p1;...;pN) indicative of the similarity of said current acoustic environment with the predetermined acoustic environment described by the respective class, wherein N is an integer with N #¥ 2; - deriving from N predetermined base parameter sets (B1/1,...,B1/N;...;BM/1,...,BM/N) assigned to the respective sub-function (g1;...;gM) and in dependence of said class similarity factors (p1,...,pN) an activity parameter set (a1;...;aM) for the respective sub-function (g1;...;gM), wherein each of said N base parameter sets (B1/1,...,B1/N;...;BM/1,...,BM/N) assigned to the respective sub-function (g1;...;gM) is assigned to a different class (C1;...;CN) of said N classes (C1,..., CN); - adjusting the respective sub-function (g1;...;gM) by means of said activity parameter set (a1;...; aM). It is suggested to use a time-averaged activity parameter set (a1*). An improved adaptation of the hearing device to a current acoustic environment can be achieved.

IPC 8 full level
H04R 25/00 (2006.01)

CPC (source: EP)
H04R 25/70 (2013.01); H04R 25/407 (2013.01); H04R 25/502 (2013.01); H04R 2225/41 (2013.01)

Citation (opposition)
  Opponent :
- EP 1404152 A2 20040331 - SIEMENS AUDIOLOGISCHE TECHNIK [DE]
- EP 1841286 A2 20071003 - SIEMENS AUDIOLOGISCHE TECHNIK [DE]
- NORDQVIST P. AND LEIJON A.: "Hearing-aid automatic gain control adapting to two sound sources in the environment, using three time constants", J. ACOUST. SOC. AM., vol. 116, no. 5, November 2004 (2004-11-01)

Cited by
EP4415390A1; EP3345263B1; EP2369859A3; EP3843427A1; US11153693B2; US11323827B2; WO2018196973A1; WO2009143898A1; EP2369859A2; US8571242B2; EP3345263A1; WO2023104865A1; EP2654321B1; EP3120578B1; EP3120578B2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1858292 A1 20071121; **EP 1858292 B1 20140618**; **EP 1858292 B2 20220223**; DK 1858292 T3 20140707; DK 1858292 T4 20220411

DOCDB simple family (application)
EP 06120253 A 20060907; DK 06120253 T 20060907