

Title (en)
Water resistant hearing aid

Title (de)
Wasserresistentes Hörgerät

Title (fr)
Appareil auditif résistant à l'eau

Publication
EP 2091269 A3 20110126 (DE)

Application
EP 09150491 A 20090114

Priority
• DE 102008009284 A 20080215
• US 2894608 P 20080215

Abstract (en)
[origin: EP2091269A2] The device (100) has an electric acoustics converter (110) receiving an acoustics wave and converting into an electric signal. Another electro acoustics converter (130) converts the signal into the wave. Electronic circuits (120, 140) and an electric energy source (150) i.e. battery, are sealed against fluid by plating and sealing. The electric acoustics converters e.g. flexural resonator, are designed from a material, which changes deformation into electric and/or magnetic field and/or electric current and/or electric voltage, and is insensitive against the fluid. The electro acoustics converters are selected from piezoelectric converters such as flexural resonator and thick oscillator.

IPC 8 full level
H04R 25/00 (2006.01); **H04R 15/00** (2006.01); **H04R 17/00** (2006.01); **H04R 17/02** (2006.01)

CPC (source: EP US)
H04R 25/60 (2013.01 - EP US); **H04R 15/00** (2013.01 - EP US); **H04R 17/005** (2013.01 - EP US); **H04R 17/025** (2013.01 - EP US); **H04R 25/604** (2013.01 - EP US); **H04R 25/609** (2019.04 - EP US); **H04R 25/65** (2013.01 - EP US); **H04R 2217/01** (2013.01 - EP US)

Citation (search report)
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• [A] WO 9325053 A1 19931209 - BAUSCH & LOMB [US]
• [A] EP 1799009 A1 20070620 - UNDERSEA SYSTEMS INTERNATIONAL [US]
• [A] JP H09215098 A 19970815 - RION CO
• [A] JP 2004235870 A 20040819 - RION CO
• [A] JP 2004227980 A 20040812 - RION CO
• [A] HILLENBRAND J ET AL: "Piezoelectret microphones with high sensitivity", ELECTRETS, 2005. ISE-12. 2005 12TH INTERNATIONAL SYMPOSIUM ON SALVADOR, BAHIA, BRAZIL 11-14 SEPT. 2005, PISCATAWAY, NJ, USA,IEEE, 11 September 2005 (2005-09-11), pages 125 - 128, XP010905727, ISBN: 978-0-7803-9116-1, DOI: 10.1109/ISE.2005.1612334

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Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA RS

DOCDB simple family (publication)
EP 2091269 A2 20090819; EP 2091269 A3 20110126; EP 2091269 B1 20110907; EP 2091269 B2 20141105; AT E524025 T1 20110915; DE 102008009284 A1 20090827; DE 102008009284 B4 20091022; DK 2091269 T3 20111212; DK 2091269 T4 20150216; US 2009208045 A1 20090820; US 8144907 B2 20120327

DOCDB simple family (application)
EP 09150491 A 20090114; AT 09150491 T 20090114; DE 102008009284 A 20080215; DK 09150491 T 20090114; US 32262309 A 20090205