

Title (en)
SOUND TRANSDUCER, COMPRISING A PIEZOCERAMIC TRANSDUCER ELEMENT WHICH IS INTEGRATED IN A DIAPHRAGM THAT CAN VIBRATE

Title (de)
SCHALLWANDLER, MIT IN SCHWINGFÄHIGE MEMBRAN INTEGRIERTEM PIEZOKERAMISCHEM WANDLERELEMENT

Title (fr)
TRANSDUCTEUR ACOUSTIQUE COMPRENANT UN ÉLÉMENT TRANSDUCTEUR PIÉZOCÉRAMIQUE INTÉGRÉ DANS UNE MEMBRANE OSCILLANTE

Publication
EP 3600698 A1 20200205 (DE)

Application
EP 18713224 A 20180323

Priority
• DE 102017205375 A 20170330
• EP 2018057486 W 20180323

Abstract (en)
[origin: WO2018177945A1] The invention proposes a sound transducer, in particular for an ultrasound sensor. The sound transducer (1) has a functional group (2), wherein the functional group (2) comprises a diaphragm pot (6) and at least one electroacoustic transducer element (3). The sound transducer (1) also has a housing (5). The diaphragm pot (6) comprises a diaphragm (3) that can vibrate and a circumferential wall (7) and also at least one electroacoustic transducer element (3), wherein the transducer element (3) is designed to cause the diaphragm (8) to vibrate and/or to convert vibrations of the diaphragm (8) into electrical signals. The diaphragm pot (6) is formed from a plastics material, wherein, according to the invention, the at least one transducer element (3) is integrated into the diaphragm (8) that can vibrate, in particular without an additional adhesive layer, wherein the transducer element (3) is designed as a piezoceramic element.

IPC 8 full level
B06B 1/06 (2006.01); **G10K 11/00** (2006.01)

CPC (source: EP US)
B06B 1/0611 (2013.01 - EP); **B06B 1/0651** (2013.01 - EP US); **B06B 1/0655** (2013.01 - EP); **B06B 1/0666** (2013.01 - US); **G10K 11/004** (2013.01 - EP US); **H10N 30/02** (2023.02 - US); **H10N 30/88** (2023.02 - US)

Citation (search report)
See references of WO 2018177945A1

Designated contracting state (EPC)
AL 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 RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
WO 2018177945 A1 20181004; CN 110475621 A 20191119; CN 110475621 B 20220211; DE 102017205375 A1 20181004; EP 3600698 A1 20200205; JP 2020511906 A 20200416; JP 6891293 B2 20210618; US 11583896 B2 20230221; US 2021101179 A1 20210408

DOCDB simple family (application)
EP 2018057486 W 20180323; CN 201880023317 A 20180323; DE 102017205375 A 20170330; EP 18713224 A 20180323; JP 2019552621 A 20180323; US 201816497933 A 20180323