

Title (en)

HIGH FREQUENCY WIDEBAND WIDE BEAM ULTRASOUND EMITTER TRANSDUCER FOR UNDERWATER COMMUNICATIONS

Title (de)

HOCHFREQUENZ-BREITBAND-BREITSTRAHL-ULTRASCHALLSENDER FÜR UNTERWASSERKOMMUNIKATION

Title (fr)

TRANSDUCTEUR D'ÉMETTEUR ULTRASONORE À FAISCEAU ÉTENDU ET LARGE BANDE HAUTE FRÉQUENCE POUR COMMUNICATIONS SOUS-MARINES

Publication

EP 3638429 A1 20200422 (EN)

Application

EP 18746282 A 20180618

Priority

- PT 11015217 A 20170616
- IB 2018054471 W 20180618

Abstract (en)

[origin: WO2018229735A1] Underwater ultrasound transducer for underwater communications comprising an assembly of a backing structure and a multi-layer piezoelectric polymer film attached to a surface of said backing structure, wherein said surface has a shape of a torus or of part of a torus and said film has a shape of part of a cylindrical segment, wherein said film is arranged in the outer half-surface of the torus shape. It may comprise a plurality of cylindrical segment multi-layer piezoelectric polymer films arranged around the outer half-surface of the torus shape. The surface may have a shape of a torus cut along its equator plane. The film may be Polyviyidenefluoride (PVDF) or P(VDF-TrFE) polymer thin film.

IPC 8 full level

B06B 1/06 (2006.01); **G10K 11/00** (2006.01); **H04R 1/44** (2006.01)

CPC (source: EP)

B06B 1/0622 (2013.01); **B06B 1/0688** (2013.01); **G10K 11/006** (2013.01); **G10K 2200/11** (2013.01)

Citation (search report)

See references of WO 2018229735A1

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 2018229735 A1 20181220; EP 3638429 A1 20200422; EP 3638429 B1 20210804; PT 3638429 T 20211109

DOCDB simple family (application)

IB 2018054471 W 20180618; EP 18746282 A 20180618; PT 18746282 T 20180618