Title (en)

Multilayer acoustic transducer.

Title (de)

Mehrfachschicht akustischer Wandler.

Title (fr)

Transducteur acoustique à couches multiples.

Publication

EP 0620049 A3 19950906 (EN)

Application

EP 94302655 A 19940414

Priority

US 4860493 A 19930416

Abstract (en)

[origin: EP0620049A2] An acoustic transducer apparatus comprises a piezoelectric resonator stack which contains active piezoelectric layers (20,20B,20C,20D,20E,20F), internal conductive electrodes (22A,22B,22C,22D,22E,22F), internal bonding layers (25A,25B,25C,25D), and an optional internal dielectric layer (24A,24B). The electrodes may be connected to provide alternating polarization directions, or any other desired sequence of polarization directions, in the sequence of piezoelectric layers. An optional edge dielectric layer (21A,21B,21C,21D,21E,21F), positioned between side electrodes (23A,23B) and adjacent piezoelectric layers, controls the fringe electrical fields and the lateral piezoelectric modes that would otherwise develop. The piezoelectric layers may have uniform thicknesses with independently selected polarization direction within each piezoelectric layer. Alternatively, the individual piezoelectric layers may have non-uniform thicknesses tn and independently selected polarization direction within each layer. <IMAGE>

IPC 1-7

B06B 1/06

IPC 8 full level

A61B 8/00 (2006.01); **B06B 1/06** (2006.01); **H04R 17/00** (2006.01)

CPC (source: EP)

B06B 1/064 (2013.01)

Citation (search report)

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- [A] US 2894317 A 19590714 - MARKS SPENCE T
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- [A] ANONYMOUS: "Fabrication of Multilayer Thin Film Piezoelectric Transducers. August 1972.", IBM TECHNICAL DISCLOSURE BULLETIN, vol. 15, no. 3, NEW YORK, US, pages 928 - 929
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DE FR GB IT NL

DOCDB simple family (publication)

EP 0620049 A2 19941019; **EP 0620049 A3 19950906**; JP H06319734 A 19941122

DOCDB simple family (application)

EP 94302655 A 19940414; JP 7159794 A 19940316