

Title (en)

MULTILAYER PIEZOELECTRIC CERAMIC TRANSDUCER AND FABRICATION METHOD

Title (de)

PIEZOELEKTRISCHE KERAMISCHE MEHRSCHICHTMANDLER UND VERFAHREN ZU DEREN HERSTELLUNG

Title (fr)

TRANSDUCTEUR CERAMIQUE PIEZO-ELECTRIQUE A MULTIPLES COUCHES ET PROCEDE DE FABRICATION

Publication

**EP 1016145 A4 20020508 (EN)**

Application

**EP 97939345 A 19970724**

Priority

- US 9713025 W 19970724
- US 68649696 A 19960725

Abstract (en)

[origin: WO9805080A1] A method of fabricating a multilayer piezoelectric transducer. The method involves net-shape molding from a mixture of a piezoelectric or electrostrictive ceramic powder material and an organic binder a unitary piezoelectric or electrostrictive ceramic body. The body (21) includes a top, four sides normal to the top, and a base interconnecting the sides. First and second cavities are molded into at least one side to divide the ceramic body into a plurality of ceramic layers disposed generally parallel to the top. The first cavities alternate with the second cavities in the ceramic body. Each ceramic layer except an uppermost and a lowermost ceramic layer is joined at one edge to one ceramic layer adjacent thereto by a first ceramic bridge and at the same or a different edge to another ceramic layer adjacent thereto by a second ceramic bridge.

IPC 1-7

**H01L 41/24**; **H01L 41/083**; **B28B 1/24**

IPC 8 full level

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CPC (source: EP)

**H10N 30/045** (2023.02); **H10N 30/05** (2023.02); **H10N 30/063** (2023.02); **H10N 30/067** (2023.02); **H10N 30/097** (2023.02); **H10N 30/50** (2023.02)

Citation (search report)

- [XA] GB 2242312 A 19910925 - HITACHI METALS LTD [JP]
- [A] EP 0683534 A1 19951122 - FRANCE ETAT [FR]
- [DA] US 5340510 A 19940823 - BOWEN LESLIE J [US]
- [A] PATENT ABSTRACTS OF JAPAN vol. 018, no. 161 (E - 1526) 17 March 1994 (1994-03-17) & US 5633554 A 19970527 - KAJI TAKATOSHI [JP]
- See references of WO 9805080A1

Designated contracting state (EPC)

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DOCDB simple family (publication)

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