Title (en)

Method of manufacturing an ultrasonic transducer

Title (de)

Verfahren zur Herstellung eines Ultraschallwandlers

Title (fr)

Procédé de fabrication d'un transducteur à ultrasons

Publication

EP 1201322 A3 20090318 (DE)

Application

EP 01121973 A 20010913

Priority

DE 10052636 A 20001024

Abstract (en)

[origin: EP1201322A2] The method involves producing ceramic elements as piezoelectric or electrostrictive rods (20) with a constant thickness plastic coating, feeding them to a container (31) with a vibration drive to pack them vertically, filling the container with plastic, resin or polyurethane, removing the container after setting, grinding until the rods are at a length suitable for a working frequency and arranging electrodes to contact some or all rods. Independent claims are also included for the following: an ultrasonic transducer.

IPC 8 full level

B06B 1/06 (2006.01)

CPC (source: EP US)

B06B 1/0629 (2013.01 - EP US); Y10T 29/42 (2015.01 - EP US); Y10T 29/49004 (2015.01 - EP US); Y10T 29/49005 (2015.01 - EP US); Y10T 29/49169 (2015.01 - EP US)

Citation (search report)

- [A] EP 0697257 A2 19960221 - HEWLETT PACKARD CO [US]
- [A] US 5950291 A 19990914 - GENTILMAN RICHARD L [US], et al
- [A] SMITH W A: "Composite piezoelectric materials for medical ultrasonic imaging transducers-a review", ISAF '86. PROCEEDINGS OF THE SIXTH IEEE INTERNATIONAL SYMPOSIUM ON APPLICATIONS OF FERROELECTRICS (CAT. NO.86CH2358-0) IEEE NEW YORK, NY, USA, 1986, pages 249 - 256, XP002513231

Designated contracting state (EPC)

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Designated extension state (EPC)

AL LT LV MK RO SI

DOCDB simple family (publication)

EP 1201322 A2 20020502; **EP 1201322 A3 20090318**; **EP 1201322 B1 20100303**; AT E459431 T1 20100315; DE 10052636 A1 20020508; DE 10052636 B4 20040708; DE 50115369 D1 20100415; DK 1201322 T3 20100517; US 2002063495 A1 20020530; US 6574842 B2 20030610

DOCDB simple family (application)

EP 01121973 A 20010913; AT 01121973 T 20010913; DE 10052636 A 20001024; DE 50115369 T 20010913; DK 01121973 T 20010913; US 4711102 A 20020117