

Title (en)

Frequency-selective laminated ultrasound transducer

Title (de)

Frequenzselektiver Ultraschall-Schichtwandler

Title (fr)

Transducteur stratifié d'ultrason à sélectivité de fréquence

Publication

EP 0451306 B1 19970716 (DE)

Application

EP 90106773 A 19900409

Priority

EP 90106773 A 19900409

Abstract (en)

[origin: EP0451306A1] For certain applications, for example in glass fracture detection, it is of advantage to use frequency-selective ultrasonic transducers. In this case, it is not necessary to connect elaborate follow-up filter arrangements for filtering out relevant frequency components of the recorded ultrasonic spectrum. A laminated ultrasonic transducer which has high response sensitivity for particular frequencies to be specified can be created by at least one of its geometric dimensions being specifically adapted to the frequency selectivity required from it. The laminated ultrasonic transducer preferably has a piezoceramic platelet (1) which is surrounded by a layer (2) of low acoustic impedance on at least one of its two plate surfaces. The piezoceramic platelet (1) is suitably rectangular, resulting in a cuboid body. One of the dimensions of height, length and width is determined in such a manner that it corresponds to a desired fundamental frequency of oscillation. <IMAGE>

IPC 1-7

G10K 9/12

IPC 8 full level

G01N 29/24 (2006.01); **B06B 1/06** (2006.01); **G10K 9/122** (2006.01); **H04R 17/00** (2006.01)

CPC (source: EP US)

B06B 1/067 (2013.01 - EP US); **G10K 9/122** (2013.01 - EP US)

Cited by

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