

Title (en)  
Improvements in or relating to ultrasonic transducers.

Title (de)  
Ultraschallwandler.

Title (fr)  
Transducteurs ultrasoniques.

Publication  
**EP 0043195 A1 19820106 (EN)**

Application  
**EP 81302576 A 19810610**

Priority  
GB 8021043 A 19800626

Abstract (en)  
An ultrasonic transducer including a plate of piezoelectric material which can be excited to produce ultrasonic vibrations in a medium which is coupled acoustically to the transducer, and means for so exciting the plate of piezoelectric material, wherein the plate of piezoelectric material is divided into elements such that each element has at least one dimension which is considerably smaller than the thickness of the plate of piezoelectric material.

IPC 1-7  
**G10K 11/34**

IPC 8 full level  
**H04R 1/44** (2006.01); **B06B 1/06** (2006.01); **H04R 17/00** (2006.01)

CPC (source: EP)  
**B06B 1/0622** (2013.01)

Citation (search report)

- US 3952387 A 19760427 - IINUMA KAZUHIRO, et al
- GB 2035010 A 19800611 - GEN ELECTRIC
- EP 0006623 A2 19800109 - SIEMENS AG [DE]
- EP 0025092 A1 19810318 - SIEMENS AG [DE]
- EP 0005071 A2 19791031 - TOKYO SHIBAURA ELECTRIC CO [JP]
- US 4122725 A 19781031 - THOMPSON ROBERT B

Cited by  
EP0140363A3

Designated contracting state (EPC)  
DE FR NL

DOCDB simple family (publication)  
**EP 0043195 A1 19820106**; JP S5748898 A 19820320

DOCDB simple family (application)  
**EP 81302576 A 19810610**; JP 9954481 A 19810626