

Title (en)

METHOD FOR THE PRODUCTION OF A PIEZOELECTRIC ACTUATOR

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES PIEZOELEKTRISCHEN AKTORS

Title (fr)

PROCEDE PERMETTANT DE PRODUIRE UN ACTIONNEUR PIEZOELECTRIQUE

Publication

**EP 1902480 A1 20080326 (DE)**

Application

**EP 06777596 A 20060705**

Priority

- EP 2006063921 W 20060705
- DE 102005031342 A 20050705

Abstract (en)

[origin: WO2007003655A1] Disclosed is a method for producing a piezo actuator (1) comprising a plurality of actuator layers (4) made of a ceramic material and one respective metallic layer electrode (2, 2') that is disposed between the actuator layers (4) and is alternately electrically connected to one respective terminal electrode (15; 15') via which a voltage can be applied to the layer electrodes (2; 2'). At least one terminal electrode (15; 15') extends within the piezo actuator (1). The piezo actuator (1) has a face (5) and an opposite base (7). According to the inventive production method, at least one longitudinal bore (10; 10') is introduced into a green member forming the piezo actuator. A tubular terminal electrode (15, 15') is then introduced into said longitudinal bore (10, 10') such that the terminal electrode (15; 15') protrudes from the face (5) of the green member. The green member is finally heated until the sintering process has been completed, the end of the terminal electrode (15, 15') that protrudes from the face (5) being supported such that the green member is not deformed during the sintering process. A piezo actuator (1) produced according to said method encompasses at least one terminal electrode (15; 15') which is configured in a tubular manner and extends inside the piezo actuator (1).

IPC 8 full level

**H01L 41/273** (2013.01); **H01L 41/293** (2013.01)

CPC (source: EP US)

**H10N 30/053** (2023.02 - EP US); **H10N 30/063** (2023.02 - EP US); **H10N 30/50** (2023.02 - EP US); **H10N 30/874** (2023.02 - EP US);  
**Y10T 29/42** (2015.01 - EP US)

Citation (search report)

See references of WO 2007003655A1

Designated contracting state (EPC)

DE ES FR IT

DOCDB simple family (publication)

**DE 102005031342 A1 20070111**; CN 101218690 A 20080709; EP 1902480 A1 20080326; US 2008218034 A1 20080911;  
WO 2007003655 A1 20070111

DOCDB simple family (application)

**DE 102005031342 A 20050705**; CN 200680024618 A 20060705; EP 06777596 A 20060705; EP 2006063921 W 20060705;  
US 91467006 A 20060705