

Title (en)

POLING OF A PIEZOELECTRIC THIN FILM ELEMENT IN A PREFERRED ELECTRIC FIELD DRIVING DIRECTION

Title (de)

POLUNG EINES PIEZOELEKTRISCHEN DÜNNSCHICHTELEMENTS IN EINER BEVORZUGTEN TREIBRICHTUNG DES ELEKTRISCHEN FELDES

Title (fr)

POLARISATION D'UN ÉLÉMENT À COUCHES MINCES PIÉZOÉLECTRIQUE DANS UNE DIRECTION D'ENTRAÎNEMENT DE CHAMP ÉLECTRIQUE PRÉFÉRÉE

Publication

EP 3479422 A1 20190508 (EN)

Application

EP 17737023 A 20170630

Priority

- GB 201611430 A 20160630
- GB 2017051926 W 20170630

Abstract (en)

[origin: GB2551803A] A piezoelectric thin film element is provided comprising a first electrode 26; a piezoelectric layer 24 formed on said first electrode; and a second electrode formed 22 on said piezoelectric layer. The piezoelectric layer is poled, by applying a poling electric field across said piezoelectric layer from said first electrode to said second electrode, wherein said second electrode is at a lower potential relative to said first electrode, and wherein said first and second electrodes are configured such that said second electrode is at a lower potential relative to said first electrode when said piezoelectric thin film element is deformed in a deformation direction predominantly opposite to said dipole direction. The first electrode may have a cavity 10 formed below it. The substrate 2 upon which the piezoelectric element is formed may be patterned to reduce the thickness of the substrate. These devices may be made as one of a plurality.

IPC 8 full level

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CPC (source: EP GB)

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