

Title (en)

OPTOELECTRONIC DEVICE HAVING A DIODE PUT UNDER TENSILE STRESS BY AN INVERSE PIEZOELECTRIC EFFECT

Title (de)

OPTOELEKTRONISCHE VORRICHTUNG MIT EINER DURCH EINE INVERSE PIEZOELEKTRISCHE WIRKUNG UNTER ZUGSPANNUNG STEHENDEN DIODE

Title (fr)

DISPOSITIF OPTOELECTRONIQUE A DIODE CONTRAINTE EN TENSION PAR EFFET PIEZOELECTRIQUE INVERSE

Publication

**EP 3782205 A1 20210224 (FR)**

Application

**EP 19744752 A 20190415**

Priority

- FR 1853386 A 20180418
- FR 2019050882 W 20190415

Abstract (en)

[origin: WO2019202250A1] The invention relates to an optoelectronic device (1) comprising: - at least one diode (2) that has a semiconductor portion (20) in which a PN or PIN junction is formed; - a peripheral conductive layer (40) that extends in the main plane in such a way as to surround the semiconductor portion (20); - a peripheral piezoelectric portion (30) that extends in the main plane in such a way as to surround the semiconductor portion (20); - a first polarizing electric circuit (30) capable of generating an electric field in the peripheral piezoelectric portion (30) by applying an electric potential at least to the peripheral conductive layer (40) so as to induce a deformation of the peripheral piezoelectric portion (30) in the direction of the main plane, thus causing a tensile deformation of the semiconductor portion (20) in the main plane.

IPC 8 full level

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CPC (source: EP US)

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