

Title (en)
METHOD FOR MANUFACTURING A MONOCRYSTALLINE PIEZOELECTRIC LAYER, AND MICROELECTRONIC, PHOTONIC, OR OPTICAL DEVICE INCLUDING SUCH A LAYER

Title (de)
VERFAHREN ZUR HERSTELLUNG EINER MONOKRISTALLINEN PIEZOELEKTRISCHEN SCHICHT UND MIKROELEKTRONISCHE, FOTONISCHE ODER OPTISCHE VORRICHTUNG MIT SOLCH EINER SCHICHT

Title (fr)
PROCEDE DE FABRICATION D'UNE COUCHE PIEZOELECTRIQUE MONOCRISTALLINE ET DISPOSITIF MICROELECTRONIQUE, PHOTONIQUE OU OPTIQUE COMPRENANT UNE TELLE COUCHE

Publication
EP 3394323 A1 20181031 (FR)

Application
EP 16819091 A 20161221

Priority
• FR 1563057 A 20151222
• EP 2016082259 W 20161221

Abstract (en)
[origin: WO2017109005A1] The invention relates to a method for manufacturing a monocrystalline piezoelectric material layer (10). Said method is characterized in that it includes: providing a donor substrate (100) made of said piezoelectric material, providing a receiving substrate (110), transferring a so-called "seed layer" (102) of said donor substrate (100) onto the receiving substrate (110), and using epitaxy of the piezoelectric material on the seed layer (102) until the desired thickness is obtained for the monocrystalline piezoelectric layer (10).

IPC 8 full level
C30B 25/18 (2006.01); **H10N 30/853** (2023.01); **C30B 29/22** (2006.01); **H01L 21/762** (2006.01); **H10N 30/00** (2023.01); **H10N 30/072** (2023.01); **H10N 30/076** (2023.01); **H10N 30/079** (2023.01); **H10N 30/085** (2023.01); **H10N 30/20** (2023.01); **H10N 30/30** (2023.01)

CPC (source: CN EP KR US)
C30B 25/186 (2013.01 - EP KR US); **C30B 29/22** (2013.01 - CN EP KR US); **H01L 21/76254** (2013.01 - CN EP KR); **H03H 3/02** (2013.01 - CN US); **H03H 3/08** (2013.01 - CN US); **H03H 9/02023** (2013.01 - CN); **H03H 9/02031** (2013.01 - CN); **H03H 9/02551** (2013.01 - CN); **H03H 9/176** (2013.01 - CN); **H03H 9/19** (2013.01 - CN); **H03H 9/25** (2013.01 - CN US); **H03H 9/54** (2013.01 - CN US); **H03H 9/64** (2013.01 - CN US); **H10N 30/072** (2023.02 - CN EP KR US); **H10N 30/076** (2023.02 - KR); **H10N 30/079** (2023.02 - CN EP KR US); **H10N 30/085** (2023.02 - CN US); **H10N 30/20** (2023.02 - CN US); **H10N 30/302** (2023.02 - CN); **H10N 30/708** (2024.05 - CN US); **H10N 30/8542** (2023.02 - CN US); **C30B 29/30** (2013.01 - US); **H10N 30/076** (2023.02 - EP US)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
FR 3045678 A1 20170623; **FR 3045678 B1 20171222**; CN 108603306 A 20180928; CN 114242885 A 20220325; EP 3394323 A1 20181031; JP 2019506782 A 20190307; JP 2021048624 A 20210325; JP 6812443 B2 20210113; JP 7200199 B2 20230106; KR 102654808 B1 20240405; KR 20180098344 A 20180903; SG 11201805403R A 20180730; US 11600766 B2 20230307; US 2019006577 A1 20190103; US 2023217832 A1 20230706; WO 2017109005 A1 20170629

DOCDB simple family (application)
FR 1563057 A 20151222; CN 201680081355 A 20161221; CN 202111570629 A 20161221; EP 16819091 A 20161221; EP 2016082259 W 20161221; JP 2018532615 A 20161221; JP 2020202217 A 20201204; KR 20187021277 A 20161221; SG 11201805403R A 20161221; US 201616064420 A 20161221; US 202318179071 A 20230306