Title (en)

SEMICONDUCTOR HETEROSTRUCTURES WITH WURTZITE-TYPE STRUCTURE ON ZNO SUBSTRATE

Title (de)

HALBLEITERHETEROSTRUKTUREN MIT WURTZIT-STRUKTUR AUF ZNO-SUBSTRAT

Title (fr)

HETEROSTRUCTURES SEMI-CONDUCTRICES AVEC STRUCTURE DE TYPE WURTZITE SUR SUBSTRAT EN ZnO

Publication

EP 3542392 A1 20190925 (FR)

Application

EP 17797365 A 20171115

Priority

- FR 1661191 A 20161118
- EP 2017079275 W 20171115

Abstract (en)

[origin: WO2018091502A1] Process for fabricating a heterostructure made of semiconductor materials having a crystalline structure of wurtzite type, comprising the following steps: - structuring a surface (SD) of a zinc oxide monocrystalline substrate (S) into mesas (M); - depositing by epitaxy at least one layer (CA) of semiconductor materials having a crystalline structure of wurtzite type, forming said heterostructure, on top of the structured surface. Heterostructure obtained by such a process. Process for fabricating at least one electronic or optoelectronic device from such a heterostructure.

IPC 8 full level

H01L 21/20 (2006.01)

CPC (source: EP KR US)

H01L 21/02403 (2013.01 - EP KR US); **H01L 21/0243** (2013.01 - EP KR US); **H01L 21/0254** (2013.01 - EP KR US); **H01L 21/02554** (2013.01 - EP KR US); **H01L 21/02565** (2013.01 - EP KR US); **H01L 21/02598** (2013.01 - US); **H01L 21/02609** (2013.01 - US); **H01L 21/30604** (2013.01 - KR); **H01L 21/324** (2013.01 - KR); **H01L 29/045** (2013.01 - US); **H01L 29/2003** (2013.01 - US); **H01L 29/2203** (2013.01 - US); **H01L 29/267** (2013.01 - US); **H01L 33/007** (2013.01 - EP KR US); **H01L 33/16** (2013.01 - EP KR US); **H01L 33/32** (2013.01 - EP KR US)

Citation (search report)

See references of WO 2018091502A1

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)

WO 2018091502 A1 20180524; EP 3542392 A1 20190925; FR 3059147 A1 20180525; FR 3059147 B1 20190125; JP 2020502785 A 20200123; JP 7213807 B2 20230127; KR 102504115 B1 20230224; KR 20190079678 A 20190705; US 11217663 B2 20220104; US 2019280085 A1 20190912

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EP 2017079275 W 20171115; EP 17797365 A 20171115; FR 1661191 A 20161118; JP 2019526550 A 20171115; KR 20197017163 A 20171115; US 201716349586 A 20171115