

Title (en)

OPTOELECTRONIC SEMICONDUCTOR COMPONENT HAVING A SEMICONDUCTOR CONTACT LAYER AND METHOD FOR PRODUCING THE OPTOELECTRONIC SEMICONDUCTOR COMPONENT

Title (de)

OPTOELEKTRONISCHES HALBLEITERBAUELEMENT MIT EINER HALBLEITERKONTAKTSCHICHT UND VERFAHREN ZUR HERSTELLUNG DES OPTOELEKTRONISCHEN HALBLEITERBAUELEMENTS

Title (fr)

COMPOSANT SEMI-CONDUCTEUR OPTOÉLECTRONIQUE AYANT UNE COUCHE DE CONTACT SEMI-CONDUCTRICE ET PROCÉDÉ DE FABRICATION DU COMPOSANT CONDUCTEUR OPTOÉLECTRONIQUE

Publication

EP 3841619 A1 20210630 (DE)

Application

EP 19758911 A 20190809

Priority

- DE 102018120490 A 20180822
- EP 2019071474 W 20190809

Abstract (en)

[origin: WO2020038743A1] An optoelectronic semiconductor component (10) comprises a first semiconductor layer (120) of a first conductivity type, a second semiconductor layer (130) of a second conductivity type, respective semiconductor materials of the first and second semiconductor layers (120, 130) each being a compound semiconductor material containing a first, a second and a third composition element, and a second contact region (135) for electrically contacting the second semiconductor layer (130). The second contact region (135) has a second metal contact layer (134) and a semiconductor contact layer (132) between the metal contact layer (134) and the second semiconductor layer (130). A semiconductor material of the semiconductor contact layer (132) contains the first, second and third composition elements, the concentration of the first and second composition elements changing from a position on a side of the second semiconductor layer (130) to a position on the side of the second metal contact layer (134).

IPC 8 full level

H01L 33/40 (2010.01); **H01L 33/32** (2010.01); **H01L 33/38** (2010.01)

CPC (source: EP KR US)

G01J 1/429 (2013.01 - KR); **H01L 33/0075** (2013.01 - US); **H01L 33/32** (2013.01 - KR US); **H01L 33/382** (2013.01 - KR US); **H01L 33/40** (2013.01 - EP KR US); **F21Y 2115/10** (2016.07 - KR); **H01L 33/32** (2013.01 - EP); **H01L 33/382** (2013.01 - EP); **H01L 2933/0016** (2013.01 - EP KR)

Citation (search report)

See references of WO 2020038743A1

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

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DE 102018120490 A1 20200227; CN 112585769 A 20210330; EP 3841619 A1 20210630; JP 2021534590 A 20211209; KR 20210034073 A 20210329; US 11764330 B2 20230919; US 2021288221 A1 20210916; WO 2020038743 A1 20200227

DOCDB simple family (application)

DE 102018120490 A 20180822; CN 201980055067 A 20190809; EP 19758911 A 20190809; EP 2019071474 W 20190809; JP 2021509843 A 20190809; KR 20217005413 A 20190809; US 201917269212 A 20190809