

Title (en)

ORGANIC LIGHT-EMITTING DIODE WITH OUTPUT OPTIMISED BY CONFINEMENT OF PLASMONS AND DISPLAY DEVICE COMPRISING A PLURALITY OF SUCH DIODES

Title (de)

ORGANISCHE LICHTEMITTIERENDE DIODE MIT DURCH EINSCHRÄNKUNG VON PLASMONEN OPTIMISierter AUSGANGSLEISTUNG UND ANZEIGEVORRICHTUNG MIT EINER VIELZahl SOLCHER DIODEN

Title (fr)

DIODE ELECTROLUMINESCENTE ORGANIQUE A RENDEMENT OPTIMISE PAR CONFINEMENT DE PLASMONS ET DISPOSITIF D'AFFICHAGE COMPRENANT UNE PLURALITE DE TELLES DIODES

Publication

EP 3596760 A1 20200122 (FR)

Application

EP 18711102 A 20180314

Priority

- FR 1752095 A 20170315
- EP 2018056452 W 20180314

Abstract (en)

[origin: WO2018167177A1] An organic light emitting diode comprising a first electrode (EL1), a stack of organic semiconducting layers (EO), including at least one organic light-emitting layer, deposited on top of said first electrode, and a second electrode (EL2) deposited on an opposite surface of said stack to the first electrode, characterised in that the first electrode comprises at least one region (PC) in electrical contact with the stack of organic semiconducting layers, having a geometry suitable for allowing the excitation of a localised plasmon mode (PLL) at the emission wavelength of the light emitting organic layer. A display device comprising a plurality of such diodes sharing a stack of organic semiconducting layers. A method for producing such a diode and such a display device.

IPC 8 full level

H10K 99/00 (2023.01)

CPC (source: EP KR US)

H10K 50/19 (2023.02 - US); **H10K 50/805** (2023.02 - US); **H10K 50/858** (2023.02 - US); **H10K 59/80515** (2023.02 - EP KR); **H10K 59/80521** (2023.02 - EP KR); **H10K 59/875** (2023.02 - EP KR); **H10K 71/231** (2023.02 - US); **H10K 2102/3026** (2023.02 - EP KR)

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 2018167177 A1 20180920; CN 110431683 A 20191108; EP 3596760 A1 20200122; FR 3064114 A1 20180921; JP 2020515009 A 20200521; KR 20190124234 A 20191104; US 2020013983 A1 20200109

DOCDB simple family (application)

EP 2018056452 W 20180314; CN 201880017609 A 20180314; EP 18711102 A 20180314; FR 1752095 A 20170315; JP 2019550754 A 20180314; KR 20197026172 A 20180314; US 201816491139 A 20180314