

Title (en)

LIGHT-EMITTING DEVICE WITH CONFIGURABLE SPATIAL DISTRIBUTION OF EMISSION INTENSITY

Title (de)

LICHEMITTIERENDE VORRICHTUNG MIT KONFIGURIERBARER RÄUMLICHER VERTEILUNG DER EMISSIONSINTENSITÄT

Title (fr)

DISPOSITIF ÉLECTROLUMINESCENT À DISTRIBUTION SPATIALE CONFIGURABLE D'INTENSITÉ D'ÉMISSION

Publication

**EP 4150679 A1 20230322 (EN)**

Application

**EP 21803213 A 20210513**

Priority

- US 202016875237 A 20200515
- EP 20180007 A 20200615
- US 202117142960 A 20210106
- US 2021032312 W 20210513

Abstract (en)

[origin: WO2021231772A1] A semiconductor light-emitting device includes a junction between doped semiconductor layers, a first set of multiple independent contacts connected to a first doped layer and a second set of one or more contacts connected to the second doped layer. Multiple conductive vias connect the independent contacts to the first doped layer, enabling differing corresponding via currents to be applied to the first doped layer through the vias independent of one another. A spatial distribution of via currents among the multiple vias can be selected to yield a corresponding spatial distribution of emission intensity. Alteration of the via current distribution results in corresponding alteration of the emission intensity distribution; such alterations can be implemented dynamically. Multiple devices can be arranged as a light-emitting array.

IPC 8 full level

**H01L 33/08** (2010.01); **H01L 25/075** (2006.01); **H01L 33/14** (2010.01); **H01L 33/38** (2010.01); **H01L 33/62** (2010.01); **H05B 45/10** (2020.01)

CPC (source: EP KR)

**G09G 3/32** (2013.01 - KR); **H01L 25/0753** (2013.01 - EP KR); **H01L 27/156** (2013.01 - EP KR); **H01L 33/38** (2013.01 - KR); **H01L 33/405** (2013.01 - KR); **H01L 33/46** (2013.01 - KR); **H05B 45/20** (2020.01 - EP); **H05B 45/30** (2020.01 - EP KR); **H05B 47/155** (2020.01 - EP); **H01L 25/167** (2013.01 - EP); **H01L 33/62** (2013.01 - EP)

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

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Designated validation state (EPC)

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DOCDB simple family (publication)

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