

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 A4 20240306 (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 27/15 (2006.01); **H01L 33/38** (2010.01); **H01L 33/62** (2010.01)

CPC (source: EP KR)

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Citation (search report)

- [XD] EP 3182451 A1 20170621 - STANLEY ELECTRIC CO LTD [JP]
- [XAI] WO 2016079505 A1 20160526 - MLED LTD [GB]
- [XD] US 2017210277 A1 20170727 - HARADA MITSUNORI [JP], et al
- [X] US 9412907 B1 20160809 - PLACE THOMAS [US], et al
- [A] WO 2014105403 A1 20140703 - INVENSAS CORP
- See also references of WO 2021231772A1

Designated contracting state (EPC)

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DOCDB simple family (publication)

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DOCDB simple family (application)

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