Title (en)

P-I-N-TYPE ORGANIC LIGHT-EMITTING DIODE

Title (de)

ORGANISCHE LEUCHTDIODE VOM P-I-N-TYP

Title (fr)

DIODE ÉLECTROLUMINESCENTE ORGANIQUE DE TYPE PIN

Publication

EP 2862211 A1 20150422 (FR)

Application

EP 13728418 A 20130614

Priority

- FR 1255680 A 20120618
- EP 2013062362 W 20130614

Abstract (en)

[origin: WO2013189850A1] The invention relates to a p-i-n-type organic light-emitting diode (OLED) including a stack that includes the following ordered series: a first electrode (2, 8) of a first electrode type, a first transport layer (3, 7) of a first charge carrier type, a transmission layer (5), a second transport layer (3, 7) of a second charge carrier type, and a second electrode (2, 8) of a second electrode type. At least one of the transport layers (3, 7) includes at least two basic transport layers (3l-3n, 7l-7n). According to the invention, each basic transport layer (3l-3n, 7l-7n) of a single transport layer (3, 7) has, relative to an adjacent basic transport layer, a charge carrier mobility corresponding to said decreasing transport layer, and consequently, a conductivity that decreases as the basic transport layer (3l-3n, 7l-7n) progresses away from the adjacent electrode (2, 8), the basic transport layers of a single transport layer having the same dopant concentration.

IPC 8 full level

H01L 51/50 (2006.01)

CPC (source: EP KR US)

H10K 50/11 (2023.02 - US); **H10K 50/155** (2023.02 - EP KR US); **H10K 50/156** (2023.02 - EP KR US); **H10K 50/165** (2023.02 - EP KR US); **H10K 50/166** (2023.02 - EP KR US); H10K 2101/30 (2023.02 - US); H10K 2101/40 (2023.02 - US); H10K 2102/351 (2023.02 - US)

Citation (search report)

See references of WO 2013189850A1

Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

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