

Title (en)

PHOSPHOR CONVERTED LED WITH HIGH COLOR QUALITY

Title (de)

PHOSPHORKONVERTIERTE LED MIT HOHER FARBQUALITÄT

Title (fr)

DEL CONVERTIE À LUMINOPHORE AVEC UNE QUALITÉ DE COULEUR ÉLEVÉE

Publication

EP 3844821 A1 20210707 (EN)

Application

EP 19765625 A 20190828

Priority

- US 201816119688 A 20180831
- EP 18201516 A 20181019
- US 2019048576 W 20190828

Abstract (en)

[origin: WO2020047100A1] A light emitting diode (LED) device may include an LED die having a first surface on a substrate. A first phosphor layer may be formed on a second surface and sides of the LED die. The second surface may be opposite the first surface. A second phosphor layer may be formed on the first phosphor layer. The second phosphor layer may have a peak emission wavelength (Lpk2) located between a peak emission wavelength of the LED die (LpkD) and a peak emission wavelength of the first phosphor layer (Lpk1).

IPC 8 full level

H01L 33/50 (2010.01); **H01L 33/60** (2010.01)

CPC (source: EP KR)

C09K 11/08 (2013.01 - KR); **C09K 11/7728** (2013.01 - KR); **H01L 33/46** (2013.01 - KR); **H01L 33/504** (2013.01 - EP KR); **H01L 33/58** (2013.01 - KR); **H01L 33/502** (2013.01 - EP)

Citation (examination)

WO 2005103199 A1 20051103 - MATSUSHITA ELECTRIC IND CO LTD [JP], et al

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 2020047100 A1 20200305; CN 112913037 A 20210604; CN 112913037 B 20241029; EP 3844821 A1 20210707; KR 102530363 B1 20230509; KR 20210052514 A 20210510; TW 202021156 A 20200601; TW I796516 B 20230321

DOCDB simple family (application)

US 2019048576 W 20190828; CN 201980071816 A 20190828; EP 19765625 A 20190828; KR 20217009423 A 20190828; TW 108131373 A 20190830