

Title (en)

COLOR CONVERSION LAYER AND DISPLAY APPARATUS HAVING THE SAME

Title (de)

FARBKONVERSIONSSCHICHT UND ANZEIGEVORRICHTUNG DAMIT

Title (fr)

COUCHE DE CONVERSION DE COULEUR ET APPAREIL D'AFFICHAGE DOTÉ DE CELLE-CI

Publication

EP 3631860 A1 20200408 (EN)

Application

EP 18727814 A 20180601

Priority

- EP 17306241 A 20170922
- EP 17306246 A 20170922
- EP 17306247 A 20170922
- EP 17306248 A 20170922
- EP 17206479 A 20171211
- EP 2018064435 W 20180601

Abstract (en)

[origin: WO2018220163A1] The present invention relates to a color conversion layer (4) comprising at least one light emitting material (7) comprising at least one composite particle (1) surrounded partially or totally by at least one surrounding medium (71); wherein said light emitting material (7) is configured to emit light in response to an excitation and the at least one composite particle (1) comprises a plurality of nanoparticles encapsulated in an inorganic material; and wherein said inorganic material (2) has a difference of refractive index compared to the at least one surrounding medium (71) superior or equal to 0.02 at 450 nm. The present invention also relates to display apparatus.

IPC 8 full level

H01L 27/32 (2006.01); **C09K 11/02** (2006.01); **C09K 11/70** (2006.01); **C09K 11/88** (2006.01); **H01L 33/50** (2010.01); **H01L 51/52** (2006.01)

CPC (source: EP US)

C09K 11/02 (2013.01 - EP); **C09K 11/025** (2013.01 - EP US); **C09K 11/06** (2013.01 - US); **C09K 11/08** (2013.01 - EP); **C09K 11/565** (2013.01 - EP US); **C09K 11/70** (2013.01 - EP); **C09K 11/703** (2013.01 - EP US); **C09K 11/883** (2013.01 - EP US); **G02B 6/0026** (2013.01 - US); **G02F 1/133504** (2013.01 - US); **G02F 1/133514** (2013.01 - US); **G02F 1/133603** (2013.01 - US); **G02F 1/133605** (2013.01 - US); **G02F 1/133617** (2013.01 - US); **G03B 21/008** (2013.01 - US); **G03B 21/204** (2013.01 - US); **H01L 25/0753** (2013.01 - US); **H01L 33/50** (2013.01 - US); **H01L 33/501** (2013.01 - EP US); **H01L 33/502** (2013.01 - EP US); **H01L 33/505** (2013.01 - EP US); **H10K 50/865** (2023.02 - US); **H10K 59/38** (2023.02 - EP US); **H10K 59/8792** (2023.02 - EP); **B82Y 20/00** (2013.01 - EP US); **C09K 2211/10** (2013.01 - US); **G02B 2207/101** (2013.01 - EP); **G02F 1/133603** (2013.01 - EP); **G02F 1/133614** (2021.01 - US); **G02F 2201/501** (2013.01 - US); **G02F 2202/10** (2013.01 - US); **H10K 2102/331** (2023.02 - EP US)

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 2018220163 A1 20181206; CN 110945661 A 20200331; EP 3631860 A1 20200408; JP 2020522746 A 20200730; JP 2023011635 A 20230124

DOCDB simple family (application)

EP 2018064435 W 20180601; CN 201880049837 A 20180601; EP 18727814 A 20180601; JP 2019566599 A 20180601; JP 2022163430 A 20221011