

Title (en)
LUMINESCENT COMPOSITE COMPRISING A POLYMER AND A LUMINOPHORE AND USE OF THIS COMPOSITE IN A PHOTOVOLTAIC CELL

Title (de)
LUMINESZIERENDE ZUSAMMENSETZUNG MIT EINEM POLYMER UND EINEM LEUCHTSTOFF UND VERWENDUNG DAVON IN EINER PHOTOVOLTAIKZELLE

Title (fr)
COMPOSITE LUMINESCENT COMPRENANT UN POLYMER ET UN LUMINOPHORE ET UTILISATION DE CE COMPOSITE DANS UNE CELLULE PHOTOVOLTAIQUE

Publication
EP 3049504 A1 20160803 (FR)

Application
EP 14772370 A 20140925

Priority
• FR 1302230 A 20130925
• EP 2014070477 W 20140925

Abstract (en)
[origin: WO2015044261A1] The composite of the invention comprises (a) a polymer selected from ethylene-vinyl acetate, polyethylene terephthalate, ethylene tetrafluoroethylene, ethylene trifluorochloroethylene, fluorinated ethylene propylene, polyvinyl butyral, polyurethane and silicones; (b) an inorganic luminophore based on at least one element chosen from the rare earths, zinc and manganese, which has an external quantum yield greater than or equal to 40% for at least one excitation wavelength between 350 nm and 440 nm; an absorption less than or equal to 10% for a wavelength greater than 440 nm; an average particle size less than 1 µm; this luminophore also having an emission peak in the wavelength region between 440 nm and 900 nm.

IPC 8 full level
C09K 11/64 (2006.01); **C09K 11/63** (2006.01); **H01L 31/048** (2006.01)

CPC (source: EP KR US)
C09K 11/7726 (2013.01 - EP KR US); **C09K 11/7734** (2013.01 - EP KR US); **C09K 11/778** (2013.01 - EP KR US);
H01L 31/02322 (2013.01 - KR US); **H01L 31/0481** (2013.01 - EP KR US); **H01L 31/055** (2013.01 - EP KR US); **H10K 30/87** (2023.02 - EP KR US);
H10K 85/1135 (2023.02 - KR); **H10K 85/151** (2023.02 - KR); **C01P 2004/64** (2013.01 - KR); **H10K 30/30** (2023.02 - US);
H10K 30/50 (2023.02 - EP KR); **H10K 85/113** (2023.02 - EP US); **H10K 85/1135** (2023.02 - EP US); **H10K 85/151** (2023.02 - EP US);
Y02E 10/52 (2013.01 - EP KR US); **Y02E 10/549** (2013.01 - EP KR 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 2015044261 A1 20150402; CN 105579552 A 20160511; EP 3049504 A1 20160803; JP 2016540056 A 20161222;
JP 6888955 B2 20210618; KR 102387247 B1 20220418; KR 20160060667 A 20160530; TW 201527483 A 20150716; TW I665284 B 20190711;
US 2016222289 A1 20160804

DOCDB simple family (application)
EP 2014070477 W 20140925; CN 201480053211 A 20140925; EP 14772370 A 20140925; JP 2016515517 A 20140925;
KR 20167009305 A 20140925; TW 103133450 A 20140925; US 201415024653 A 20140925