Title (en)

CORE-SHELL PHOSPHOR PRODUCED BY HEAT-TREATING A PRECURSOR IN THE PRESENCE OF LITHIUM TETRABORATE

Title (de)

MITTELS WÄRMEBEHANDLUNG EINES VORLÄUFERS IN GEGENWART VON LITHIUMTETRABORAT HERGESTELLTER KERN-HÜLLE-PHOSPHOR

Title (fr)

LUMINOPHORE DE TYPE COEUR/COQUILLE OBTENU PAR TRAITEMENT THERMIQUE D'UN PRECURSEUR EN PRESENCE DE TETRABORATE DE LITHIUM

Publication

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Application

EP 11706539 A 20110228

Priority

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- EP 2011052896 W 20110228

Abstract (en)

[origin: WO2011107422A1] The phosphor of the invention is characterized in that same is capable of being produced by a method in which a precursor including particles having an average diameter of between 1.5 and 15 micrometers is heat-treated under a reducing atmosphere, said particles including a mineral core and a shell containing a composite phosphate of lanthanum and/or cerium, optionally doped with terbium, which covers the mineral core uniformly over a thickness greater than or equal to 300 nm, the heat treatment taking place in the presence of lithium tetraborate (Li2B4O7), as a fluxing agent, in a mass quantity of at most 0.2%, at a temperature of between 1050°C and 1150°C and for a time period of between 2 hours and 4 hours.

IPC 8 full level

C09K 11/77 (2006.01); **H01J 61/44** (2006.01)

CPC (source: EP KR US)

C09K 11/02 (2013.01 - EP US); **C09K 11/77** (2013.01 - KR); **C09K 11/7777** (2013.01 - EP US); **H01J 61/44** (2013.01 - EP KR US)

Citation (search report)

See references of WO 2011107422A1

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