

Title (en)
LIGHTING DEVICE AND LIGHTING METHOD

Title (de)
BELEUCHTUNGSVORRICHTUNG UND BELEUCHTUNGSVERFAHREN

Title (fr)
DISPOSITIF ET PROCEDE D'ECLAIRAGE

Publication
EP 2008018 A4 20110629 (EN)

Application
EP 07755653 A 20070418

Priority
• US 2007009462 W 20070418
• US 79285906 P 20060418
• US 79352406 P 20060420
• US 86813406 P 20061201
• US 56644006 A 20061204

Abstract (en)
[origin: WO2007123940A2] A lighting device comprising first and second groups of solid state light emitters, which emit light having peak wavelength in ranges of from 430 nm to 480 nm and from 600 nm to 630 nm, respectively, and a first group of lumiphors which emit light having dominant wavelength in the range of from 555 nm to 585 nm. In some embodiments, if current is supplied to a power line, a combination of (1) light exiting the lighting device which was emitted by the first group of emitters, and (2) light exiting the lighting device which was emitted by the first group of lumiphors would, in an absence of any additional light, produce a sub-mixture of light having x, y color coordinates within an area on a 1931 CIE Chromaticity Diagram defined by points having coordinates (0.32, 0.40), (0.36, 0.48), (0.43, 0.45), (0.42, 0.42), (0.36, 0.38). Also provided is a method of lighting.

IPC 8 full level
F21K 99/00 (2010.01); **F21V 9/40** (2018.01); **H01L 25/075** (2006.01); **H01L 33/00** (2010.01); **H01L 33/48** (2010.01)

CPC (source: EP KR US)
F21K 9/62 (2016.07 - EP KR US); **F21Y 2115/10** (2016.07 - EP KR US)

Citation (search report)
• [X] EP 1160883 A2 20011205 - MATSUSHITA ELECTRIC IND CO LTD [JP]
• [I] US 2003067773 A1 20030410 - MARSHALL THOMAS M [US], et al
• [I] WO 2006028312 A1 20060316 - LUXPIA CO LTD [KR], et al
• [I] WO 2005013365 A2 20050210 - MATSUSHITA ELECTRIC IND CO LTD [JP], et al
• [A] US 6441558 B1 20020827 - MUTHU SUBRAMANIAN [US], et al
• See references of WO 2007123940A2

Citation (examination)
• TANABE SETSUHISA ET AL: "YAG glass-ceramic phosphor for white LED (II): Luminescence characteristics", PROCEEDINGS OF SPIE, S P I E - INTERNATIONAL SOCIETY FOR OPTICAL ENGINEERING, US, vol. 5941, 1 January 2005 (2005-01-01), pages 1 - 6, XP002459950, ISSN: 0277-786X, DOI: 10.1117/12.614681
• JOUNG KYU PARK ET AL: "Application of Ba[^{sup} 2+].Mg[^{sup} 2+] Co-doped Sr[_{sub} 2]SiO[_{sub} 4]:Eu Yellow Phosphor for White-Light-Emitting Diodes", JOURNAL OF THE ELECTROCHEMICAL SOCIETY, vol. 152, no. 8, 1 January 2005 (2005-01-01), pages H121, XP055126869, ISSN: 0013-4651, DOI: 10.1149/1.1939187
• GERD O MUELLER ET AL: "Illumination-grade white LEDs", PROCEEDINGS OF SPIE, vol. 4776, 26 November 2002 (2002-11-26), XP055126871, ISSN: 0277-786X, DOI: 10.1117/12.457123

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DOCDB simple family (publication)
WO 2007123940 A2 20071101; WO 2007123940 A3 20081231; BR PI0710463 A2 20110816; CN 101554088 A 20091007; CN 101554088 B 20110803; CN 102305374 A 20120104; CN 102305374 B 20150422; EP 2008018 A2 20081231; EP 2008018 A4 20110629; JP 2009534794 A 20090924; JP 2013058487 A 20130328; JP 5244090 B2 20130724; JP 5622824 B2 20141112; KR 20090007451 A 20090116; KR 20130019027 A 20130225; TW 200806924 A 20080201; TW I432677 B 20140401

DOCDB simple family (application)
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