

Title (en)

ILLUMINATION DEVICE FOR SIMULATING NEON OR SIMILAR LIGHTING USING PHOSPHORESCENT DYE

Title (de)

BELEUCHTUNGSVORRICHTUNG ZUR SIMULATION VON NEON- ODER ÄHNLICHEM LICHT UNTER VERWENDUNG VON PHOSPHORESZIERENDEN FARBSTOFFEN

Title (fr)

DISPOSITIF D'ECLAIRAGE PERMETTANT DE SIMULER UN ECLAIRAGE AU NEON OU SIMILAIRE A L'AIDE D'UN COLORANT PHOSPHORESCENT

Publication

EP 1706665 A4 20070321 (EN)

Application

EP 04815860 A 20041229

Priority

- US 2004043867 W 20041229
- US 53358103 P 20031231

Abstract (en)

[origin: WO2005065356A2] An illumination device simulates neon lighting using a light source for emitting light of a predetermined first hue and a light-transmitting medium having a predetermined density of phosphorescent dye positioned adjacent to the light source. The phosphorescent dye will absorb light emitted by the light source and emit light of a second hue. An observer of the device perceives light that is of a hue that is different from the predetermined first hue. A means for varying the intensity of the light emitted by the light source creates color changing effects in the illumination device. Light-emitting diodes (LEDs) are a suitable light source. A waveguide having both optical waveguide and light scattering properties is used to diffuse the combined light and simulate the uniform appearance of a neon tube. Alternatively, the waveguide itself can be doped with phosphorescent dye to emit light having the perceived hue.

IPC 8 full level

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CPC (source: EP US)

F21K 9/00 (2013.01 - EP US); **F21K 9/64** (2016.07 - EP US); **F21S 4/20** (2016.01 - EP); **F21V 9/38** (2018.01 - EP US); **G02B 6/0023** (2013.01 - EP US); **F21Y 2115/10** (2016.07 - EP US)

Citation (search report)

- [XY] WO 02070948 A1 20020912 - WAVELIGHT LASER TECHNOLOGIE AG [DE], et al
- [X] EP 0982924 A2 20000301 - HEWLETT PACKARD CO [US]
- [X] US 2003085642 A1 20030508 - PELKA DAVID G [US], et al
- [Y] US 2002043938 A1 20020418 - LYS IHOR A [US]
- [Y] US 5810463 A 19980922 - KAWAHARA ATSUSHI [JP]
- See references of WO 2005065356A2

Citation (examination)

- US 2560117 A 19510710 - MALLARY ROBERT W
- DE 828629 C 19520121 - ALEXANDER RINGLEB DR

Designated contracting state (EPC)

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DOCDB simple family (application)

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