

Title (en)
LUMINESCENCE CONVERSION OF LED WITH PHOSPHORESCENCE EFFECT, USE THEREOF AND OPERATIONAL METHOD ASSOCIATED THEREWITH

Title (de)
LUMINESZENZKONVERSIONS-LED MIT NACHLEUCHTEFFEKT UND DEREN VERWENDUNG SOWIE ZUGEH RIGES BETRIEBSVERFAHREN

Title (fr)
DEL A CONVERSION DE LUMINESCENCE POSSEDANT UN EFFET DE PHOSPHORESCENCE ET UTILISATION DE LADITE DEL, AINSI QUE PROCEDE DE FONCTIONNEMENT ASSOCIE

Publication
EP 1602134 A2 20051207 (DE)

Application
EP 04719919 A 20040312

Priority

- DE 2004000505 W 20040312
- DE 10311056 A 20030313

Abstract (en)
[origin: WO2004082032A2] The invention relates to a light source (1) comprising at least one LED (2) for emitting primary radiation (4) and at least one luminiscent substance (6) for converting the primary radiation into secondary radiation (5). The light source is characterised in that secondary radiation has a decay time, which is greater than one second at room temperature, during which the luminiscence intensity of the secondary radiation decreases by 50 %. The luminiscent substance displays a phosphorescence effect. The luminiscent substance emits secondary radiation over a long period of time after the LED is switched off and after excitation of the luminiscent substance has ended. The light source can be seen after the LED has been switched off. Preferably, the decay time lasts from several minutes to several hours. The light source is used, for example, for the illumination of a flight path.

IPC 1-7
H01L 33/00

IPC 8 full level
H01L 33/00 (2006.01); **H01L 33/50** (2010.01)

CPC (source: EP US)
H01L 33/50 (2013.01 - EP US); **H01L 33/502** (2013.01 - EP US)

Citation (search report)
See references of WO 2004082032A2

Designated contracting state (EPC)
BE DE FR GB

DOCDB simple family (publication)
WO 2004082032 A2 20040923; WO 2004082032 A3 20050602; CN 100479204 C 20090415; CN 1762060 A 20060419; EP 1602134 A2 20051207; JP 2006521011 A 20060914; KR 101100467 B1 20111229; KR 20050116375 A 20051212; US 2006164004 A1 20060727; US 7479732 B2 20090120

DOCDB simple family (application)
DE 2004000505 W 20040312; CN 200480006844 A 20040312; EP 04719919 A 20040312; JP 2006504262 A 20040312; KR 20057016993 A 20040312; US 54605105 A 20050817