

Title (en)

POLYMERIC BORON COMPOUNDS AND USE THEREOF IN ORGANIC LIGHT-EMITTING DIODES

Title (de)

POLYMERE BORVERBINDUNGEN UND DEREN VERWENDUNG IN ORGANISCHEN LEUCHTDIODEN

Title (fr)

DIODE ELECTROLUMINESCENTE ORGANIQUE ET SES UTILISATIONS

Publication

EP 1730797 A2 20061213 (DE)

Application

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Priority

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Abstract (en)

[origin: WO2005096402A2] The invention relates to an organic light-emitting diode (OLED) featuring an increased service life and improved transport of negative charge carriers. Said organic light-emitting diode is based on an organic semiconducting material in which the transport of negative charge carriers and stability regarding reduction are determined by means of triarylated Lewis acid units, particularly perarylated borane units. This results in an improved service life of the emissive layer, which increases the service life of the component while dispensing with the need to readjust brightness during operation. The invention further relates to such organic light-emitting diodes in which the position of the emitter region in the emitter layer and the emission color can be influenced in a specific manner with the aid of triarylated Lewis acids such as perarylated borane units.

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WO 2005096402 A2 20051013; **WO 2005096402 A3 20051124**; CN 1938877 A 20070328; CN 1938877 B 20121114; DE 102004015845 A1 20051103; DE 102004015845 B4 20121220; EP 1730797 A2 20061213; JP 2007531993 A 20071108; KR 101282049 B1 20130704; KR 20060135050 A 20061228; US 2009289544 A1 20091126; US 8580392 B2 20131112

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