

Title (en)

NOVEL MATERIALS FOR N-TYPE DOPING OF THE ELECTRON TRANSPORTING LAYERS IN ORGANIC ELECTRONIC DEVICES

Title (de)

NEUE MATERIALIEN ZUR N-DOTIERUNG DER ELEKTRONENTRANSPORTSCHICHTEN IN ORGANISCHEN ELEKTRONISCHEN BAUELEMENTEN

Title (fr)

MATIERES DE DOPAGE N DES COUCHES DE TRANSPORT D'ELECTRONS DANS DES COMPOSANTS ELECTRONIQUES ORGANIQUES

Publication

EP 1938399 A1 20080702 (DE)

Application

EP 06793040 A 20060829

Priority

- EP 2006065752 W 20060829
- DE 102005042104 A 20050905

Abstract (en)

[origin: WO2007028738A1] Novel materials for n-type doping of the electron transporting layers in organic electronic devices, use for that purpose and organic electronic devices. The invention relates to novel materials based on donor carbene intermediates to improve the electron injection and the electron transport in organic electronic devices such as organic light-emitting diodes (OLEDs), organic field-effect transistors (OFETs) and devices based on organic photovoltaics, such as in particular organic solar cells.

IPC 8 full level

H10K 99/00 (2023.01)

CPC (source: EP KR US)

H10K 50/165 (2023.02 - EP US); **H10K 71/30** (2023.02 - EP US); **H10K 85/633** (2023.02 - EP US); **H10K 85/636** (2023.02 - EP US); **H10K 85/655** (2023.02 - EP US); **H10K 99/00** (2023.02 - KR); **Y02B 10/10** (2013.01 - EP US); **Y02E 10/549** (2013.01 - EP US); **Y10S 428/917** (2013.01 - EP US)

Citation (examination)

- HERTEL D ET AL: "Organische Leuchtdioden", CHEMIE IN UNSERER ZEIT, VERLAG CHEMIE, WEINHEIM, DE, vol. 39, 1 January 2005 (2005-01-01), pages 336 - 347, XP002466852, ISSN: 0009-2851, DOI: DOI:10.1002/CIUZ.200400356
- O. VALDES-AGUELERA AND D.C. NECKERS: "Aggregation Phenomena in Xanthene Dyes", ACC. CHEM. RES., vol. 22, 1989, pages 171 - 177
- See also references of WO 2007028738A1

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

WO 2007028738 A1 20070315; CN 101268565 A 20080917; EP 1938399 A1 20080702; EP 2267812 A1 20101229; EP 2267812 B1 20120104; JP 2009510718 A 20090312; JP 5065276 B2 20121031; KR 101331463 B1 20131120; KR 20080052635 A 20080611; US 2008297035 A1 20081204; US 8221903 B2 20120717

DOCDB simple family (application)

EP 2006065752 W 20060829; CN 200680032370 A 20060829; EP 06793040 A 20060829; EP 10179438 A 20060829; JP 2008529598 A 20060829; KR 20087007905 A 20060829; US 6585906 A 20060829