

Title (en)
ELECTROLUMINESCENT ASSEMBLY

Title (de)
LICHTEMITTIERENDE ANORDNUNG

Title (fr)
ENSEMBLE ELECTROLUMINESCENT

Publication
EP 1552569 A2 20050713 (DE)

Application
EP 03795765 A 20031219

Priority
• DE 0304188 W 20031219
• DE 10261609 A 20021220

Abstract (en)
[origin: WO2004057687A2] The invention relates to a light-emitting arrangement comprising a circuit board and a light-emitting component with organic layers. Said component is provided with at least one charge carrier-conveying layer for electrons or holes made of an organic material (5, 9, 25, 29, 45, 49) and a light-emitting layer made of an organic material (7, 27, 47) and is characterized by the fact that the sequence of organic layers is applied to a circuit board as a substrate while encompassing at least one doped conveying layer so as to improve electron injection or hole injection. Layers improving electron injection or hole injection (3, 23, 43) on the substrate side can also be used. A thin glass layer located in or on the substrate provides sealing from oxygen and water.

IPC 1-7
H01L 51/20

IPC 8 full level
H01L 51/50 (2006.01); **H01L 51/00** (2006.01); **H01L 51/52** (2006.01); **H01L 51/40** (2006.01); **H05K 1/03** (2006.01)

CPC (source: EP KR US)
H05K 1/0366 (2013.01 - KR); **H10K 50/14** (2023.02 - KR); **H10K 50/155** (2023.02 - EP US); **H10K 50/165** (2023.02 - EP US); **H10K 50/841** (2023.02 - US); **H10K 71/30** (2023.02 - KR); **H10K 77/10** (2023.02 - EP KR US); **H05K 1/0366** (2013.01 - EP US); **H10K 50/14** (2023.02 - EP US); **H10K 50/841** (2023.02 - EP KR); **H10K 71/30** (2023.02 - EP US); **H10K 2102/3031** (2023.02 - EP US); **Y02E 10/549** (2013.01 - EP KR US)

Citation (examination)
• GAO Z.Q. ET AL: "Organic electroluminescent devices by high-temperature processing and crystalline hole transporting layer", APPLIED PHYSICS LETTERS, vol. 74, no. 22, 31 May 1999 (1999-05-31), NEW YORK, US, pages 3269 - 3271, XP000847295
• DOBBERTIN T. ET AL, APPL. PHYS. LETT., vol. 83, no. 24, 15 December 2003 (2003-12-15), pages 5071 - 5073
• PARTHASARATHY G. ET AL, APPL. PHYS. LETT., vol. 72, no. 17, 27 April 1998 (1998-04-27), pages 2138 - 2140
• HUNG L.S. ET AL, APPL. PHYS. LETT., vol. 74, no. 21, 24 May 1999 (1999-05-24), pages 3209 - 3211
• LI F. ET AL., APPL. PHYS. LETT., vol. 70, no. 10, 10 March 1997 (1997-03-10), pages 1233 - 1235
• HUNG L.S. ET AL, APPL. PHYS. LETT., vol. 70, no. 2, 13 January 1997 (1997-01-13), pages 152 - 154
• ITOH Y. ET AL, EXTENDED ABSTRACTS THE 51ST AUTUMN MEETING, THE JAPAN SOCIETY OF APPLIED PHYSICS, 1990, pages 1040
• CAMPBELL I.H. ET AL, APPL. PHYS. LETT., vol. 71, no. 24, 15 December 1997 (1997-12-15), pages 3528 - 3530
• KIM H.-K. ET AL, APPL. PHYS. LETT., vol. 86, no. 18, 29 April 2005 (2005-04-29), pages 183503-1 - 183503-3
• PARTHASARATHY G. ET AL, APPL. PHYS. LETT., vol. 76, no. 15, 10 April 2000 (2000-04-10), pages 2128 - 2130

Designated contracting state (EPC)
AT DE GB IT

DOCDB simple family (publication)
WO 2004057687 A2 20040708; **WO 2004057687 A3 20041216**; AU 2003298073 A1 20040714; AU 2003303088 A1 20040714; CN 100536192 C 20090902; CN 1692507 A 20051102; DE 10261609 A1 20040708; DE 10261609 B4 20070503; DE 10262143 B4 20110120; EP 1552569 A2 20050713; JP 2005524966 A 20050818; JP 3838518 B2 20061025; KR 100654579 B1 20061208; KR 20040077676 A 20040906; TW 200423447 A 20041101; TW I231059 B 20050411; US 2005236973 A1 20051027; WO 2004057686 A2 20040708; WO 2004057686 A3 20050106

DOCDB simple family (application)
DE 0304295 W 20031219; AU 2003298073 A 20031219; AU 2003303088 A 20031219; CN 200380100211 A 20031219; DE 0304188 W 20031219; DE 10261609 A 20021220; DE 10262143 A 20021220; EP 03795765 A 20031219; JP 2004561052 A 20031219; KR 20047009418 A 20031219; TW 92136327 A 20031219; US 48858604 A 20041206