

Title (en)

ORGANOMETALLIC COMPOUNDS AND DEVICES MADE WITH SUCH COMPOUNDS

Title (de)

ORGANOMETALLISCHE ZUSAMMENSETZUNGEN UND MIT SOLCHEN ZUSAMMENSETZUNGEN HERGESTELLTE EINRICHTUNGEN

Title (fr)

COMPOSÉS ORGANOMÉTALLIQUES ET DISPOSITIFS FAITS DE CES COMPOSÉS

Publication

EP 1754267 A1 20070221 (EN)

Application

EP 05759481 A 20050608

Priority

- US 2005020412 W 20050608
- US 54559604 P 20040609

Abstract (en)

[origin: WO2005124889A1] The present invention is generally directed to organometallic compounds having Formula (I), Formula (II), or Formula (III) and devices having a layer including at least one of these compounds: (I), (II), (III) wherein: L<1> is selected from an aryl-N-heterocycle ligand and a heteroaryl-N-heterocycle ligand, L<2> is an anionic ligand, L<3> is a nonionic ligand, L<4> is selected from L<1> and L<2> M is a metal selected from Re, Ru, Os, Rh, Ir, Pd, Pt, and Au Fw is a moiety capable of bearing at least two (L<4>-Ye) groups Y is a group selected from alkylene, heteroalkylene, alkenylene, heteroalkenylene, and alkynylene a is selected from 1 and 2 b is selected from 0 and 1 c is selected from 0, 1, and 2 d is selected from 0 and an integer from 1 through 8 e is selected from 0 and 1 f is selected from 0 and 1 g is an integer from 1 through 4, and h is selected from 1 and 2, with the proviso that a, b, and c are selected such that the metal is tetracoordinate when M is Au, Pd, or Pt, and the metal is hexacoordinate when M is Re, Ru, Os, Rh, or Ir, and with the proviso that when f = 0, then e = 0 and there is at least one substituent R_g1< on at least one ligand, wherein R_g1< is solvent-solubilizing. .

IPC 8 full level

H01L 51/30 (2006.01); **C07F 15/00** (2006.01); **C09K 11/06** (2006.01); **H01L 51/00** (2006.01); **H05B 33/14** (2006.01); **H01L 51/50** (2006.01)

CPC (source: EP KR)

C07F 15/0033 (2013.01 - EP KR); **C09K 11/06** (2013.01 - EP KR); **H05B 33/14** (2013.01 - EP KR); **H10K 50/11** (2023.02 - KR); **H10K 85/341** (2023.02 - KR); **H10K 85/342** (2023.02 - EP KR); **H10K 85/344** (2023.02 - KR); **C09K 2211/1029** (2013.01 - EP KR); **C09K 2211/185** (2013.01 - EP KR); **H10K 50/11** (2023.02 - EP); **H10K 85/341** (2023.02 - EP); **H10K 85/344** (2023.02 - EP)

Citation (search report)

See references of WO 2005124889A1

Cited by

WO2012084219A1; US10340471B2; US10854835B2; US11631825B2

Designated contracting state (EPC)

DE

DOCDB simple family (publication)

WO 2005124889 A1 20051229; EP 1754267 A1 20070221; JP 2008504371 A 20080214; JP 2012107030 A 20120607; JP 4934035 B2 20120516; KR 101233855 B1 20130215; KR 101292376 B1 20130801; KR 20070033350 A 20070326; KR 20120052425 A 20120523; WO 2005124890 A1 20051229

DOCDB simple family (application)

US 2005020412 W 20050608; EP 05759481 A 20050608; JP 2007527757 A 20050608; JP 2012009928 A 20120120; KR 20067025982 A 20050608; KR 20127010762 A 20050608; US 2005020449 W 20050608