

Title (en)

ELECTRO-OPTICAL ELEMENT INTEGRATING AN ORGANIC ELECTROLUMINESCENT DIODE AND AN ORGANIC TRANSISTOR FOR MODULATING SAID DIODE

Title (de)

ELEKTROOPTISCHES ELEMENT MIT ORGANISCHER ELEKTROLUMINESZENZDIODE UND ORGANISCHER TRANSISTOR ZUR MODULIERUNG DIESER DIODE

Title (fr)

ÉLEMENT ELECTRO-OPTIQUE INTEGRANT UNE DIODE ORGANIQUE ELECTROLUMINESCENTE ET UN TRANSISTOR ORGANIQUE DE MODULATION DE CETTE DIODE.

Publication

EP 1943678 A1 20080716 (FR)

Application

EP 06819150 A 20061026

Priority

- EP 2006067797 W 20061026
- FR 0553348 A 20051104

Abstract (en)

[origin: WO2007051753A1] In said element one transistor current flow electrode and a diode lower electrode form a common layer. According to the invention, the transistor comprises a contact area (31, 32; 31) which is made of a semiconductor material and arranged between at least one current flow electrode (21, 22, 81, 32') and an active area (41, 41') which is made of a semiconductor material and is doped with doping element(s) embodied in the form of electron donors or acceptors. According to said invention, said contact layer is also used directly in the form of the diode lower electrode or the intermediate carrier-injecting layer for said electrode. The invention advantageously simplifies the production of said integrated elements.

IPC 8 full level

H01L 27/32 (2006.01); **H01L 51/10** (2006.01)

CPC (source: EP US)

H10K 10/464 (2023.02 - EP US); **H10K 10/466** (2023.02 - EP US); **H10K 10/84** (2023.02 - EP US); **H10K 59/123** (2023.02 - EP US);
H10K 59/125 (2023.02 - EP US); H10K 10/488 (2023.02 - US); **H10K 50/11** (2023.02 - US); **H10K 50/15** (2023.02 - US);
H10K 50/155 (2023.02 - EP US); H10K 50/16 (2023.02 - US); **H10K 50/165** (2023.02 - EP US); **H10K 50/17** (2023.02 - EP US);
H10K 50/171 (2023.02 - US); **H10K 50/18** (2023.02 - EP US); **H10K 50/805** (2023.02 - US); **H10K 50/844** (2023.02 - US);
H10K 50/856 (2023.02 - US); **H10K 59/873** (2023.02 - EP)

Citation (examination)

- JP 2003229616 A 20030815 - CANON KK
- EP 1076368 A2 20010214 - EASTMAN KODAK CO [US]
- EP 1439589 A2 20040721 - EASTMAN KODAK CO [US]
- See also references of WO 2007051753A1

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

WO 2007051753 A1 20070510; EP 1943678 A1 20080716; US 10367049 B2 20190730; US 2018158892 A1 20180607

DOCDB simple family (application)

EP 2006067797 W 20061026; EP 06819150 A 20061026; US 8452806 A 20061026