

Title (en)

ELECTROLUMINESCENT DEVICE MADE OF ORGANIC MATERIAL

Title (de)

ELEKTROLUMINESZENZVORRICHTUNG AUS ORGANISCHEM MATERIAL

Title (fr)

DISPOSITIF ELECTROLUMINESCENT CONSTITUE DE MATERIAU ORGANIQUE

Publication

EP 0946995 A2 19991006 (DE)

Application

EP 97950052 A 19971030

Priority

- DE 19646119 A 19961108
- EP 9706004 W 19971030

Abstract (en)

[origin: DE19646119A1] This invention concerns an electroluminescent device, the electroluminescence spectrum of which does not overlap with the absorption spectrum, which contains two or more organic layers between two electrodes. This device is characterized by the fact that a) two neighboring organic layers each have an optical band gap of at least 2.5 eV, and b) the wave length (lambda max corresponding to an energy Emax), at which the electroluminescence reaches a maximum, lies in the range which corresponds to the energy difference DELTA E (ionization potential of the first organic layer minus electron affinity of the second organic layer), Emax being less than or equal to 2.5 eV.

IPC 1-7

H01L 33/00

IPC 8 full level

H01L 33/00 (2006.01); **C09K 11/06** (2006.01); **H01L 51/50** (2006.01); **H05B 33/10** (2006.01); **H05B 33/12** (2006.01); **H05B 33/14** (2006.01); **H05B 33/22** (2006.01)

CPC (source: EP KR)

H05B 33/12 (2013.01 - EP); **H05B 33/14** (2013.01 - EP); **H05B 33/22** (2013.01 - EP); **H10K 50/11** (2023.02 - EP); **H10K 99/00** (2023.02 - KR)

Citation (search report)

See references of WO 9821758A2

Designated contracting state (EPC)

DE FR GB NL

DOCDB simple family (publication)

DE 19646119 A1 19980514; CN 1155114 C 20040623; CN 1236486 A 19991124; EP 0946995 A2 19991006; JP 2001504629 A 20010403; JP 4414490 B2 20100210; KR 100573183 B1 20060424; KR 20000053102 A 20000825; WO 9821758 A2 19980522; WO 9821758 A3 19980702

DOCDB simple family (application)

DE 19646119 A 19961108; CN 97199548 A 19971030; EP 9706004 W 19971030; EP 97950052 A 19971030; JP 52210398 A 19971030; KR 19997004026 A 19990506