

Title (en)

ORGANIC PHOTOSENSITIVE OPTOELECTRONIC DEVICE

Title (de)

ORGANISCHE OPTOELEKTRONISCHE LICHTEMPFINDLICHE VERRICHTUNG

Title (fr)

DISPOSITIF ORGANIQUE OPTOELECTRONIQUE PHOTOSENSIBLE

Publication

EP 1048084 A4 20010509 (EN)

Application

EP 99942386 A 19990818

Priority

- US 9919067 W 19990818
- US 13634298 A 19980819
- US 13616698 A 19980819
- US 13637798 A 19980819
- US 13616598 A 19980819
- US 13616498 A 19980819

Abstract (en)

[origin: WO0011725A1] An organic photosensitive optoelectronic device (OPOD) is optimized to enhance characteristics such as external quantum efficiency. The OPOD (300) may have one or more transparent electrodes (302, 304). The substrate (301) may be the bottom electrode, or there may be a bottom electrode distinct from the substrate. One or more organic photoconductive layers (303) are disposed between the electrodes. The OPOD may also have a multilayer photoconductive structure or a stacked configuration of multiple photosensitive optoelectronic subcells. The OPOD may also have a reflective layer or a reflective substrate.

IPC 1-7

H01L 31/06; B32B 9/04; H01L 25/04; H01L 51/20; H01L 51/30; H01L 31/0224; H01L 27/146; H01L 27/142

IPC 8 full level

H01L 51/42 (2006.01); **B32B 9/04** (2006.01); **H01L 27/30** (2006.01); **H01L 51/00** (2006.01); **H01L 51/30** (2006.01)

CPC (source: EP)

B82Y 10/00 (2013.01); **H10K 30/211** (2023.02); **H10K 30/57** (2023.02); **H10K 30/82** (2023.02); **H10K 39/32** (2023.02); **H10K 30/451** (2023.02); **H10K 85/211** (2023.02); **H10K 85/30** (2023.02); **H10K 85/311** (2023.02); **H10K 85/60** (2023.02); **H10K 85/621** (2023.02); **Y02E 10/549** (2013.01)

Citation (search report)

- [X] US 4963196 A 19901016 - HASHIMOTO YUICHI [JP]
- [X] US 5315129 A 19940524 - FORREST STEPHEN R [US], et al
- [A] EP 0575187 A1 19931222 - MITSUBISHI CHEM IND [JP], et al
- [P] WO 9939372 A2 19990805 - UNIAX CORP [US]
- [Y] US 5527716 A 19960618 - KUSIAN WILHELM [DE], et al
- [A] US 4451691 A 19840529 - FRAAS LEWIS M [US]
- [X] WANG D -J ET AL: "Photovoltaic properties of porphyrin solid films with electric-field induction", THIN SOLID FILMS, CH, ELSEVIER-SEQUOIA S.A. LAUSANNE, vol. 284-28, no. DOUBLE, 15 September 1996 (1996-09-15), pages 596 - 599, XP004031400, ISSN: 0040-6090
- [Y] PATENT ABSTRACTS OF JAPAN vol. 013, no. 136 (E - 737) 5 April 1989 (1989-04-05)
- [A] PATENT ABSTRACTS OF JAPAN vol. 013, no. 136 (E - 737) 5 April 1989 (1989-04-05)
- See also references of WO 0011725A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

WO 0011725 A1 20000302; WO 0011725 A9 20000831; AR 022366 A1 20020904; AR 054454 A2 20070627; AR 054455 A2 20070627; AR 054456 A2 20070627; AR 054457 A2 20070627; AR 054458 A2 20070627; AR 054459 A2 20070627; AR 054762 A2 20070718; AR 054763 A2 20070718; AU 2004200841 A1 20040325; AU 2004200841 B2 20070419; AU 2004200841 C1 20140213; AU 2004200843 A1 20040325; AU 2004200843 B2 20071206; AU 2004200844 A1 20040325; AU 2004200844 B2 20071206; AU 2004200844 C1 20140213; AU 2004200847 A1 20040325; AU 2004200847 B2 20071122; AU 2004200847 C1 20140213; AU 5577799 A 20000314; AU 772422 B2 20040429; BR 9906708 A 20020213; CA 2306833 A1 20000302; CA 2306833 C 20130212; CN 102694124 A 20120926; CN 102694124 B 20150819; CN 1237626 C 20060118; CN 1277738 A 20001220; EP 1048084 A1 20001102; EP 1048084 A4 20010509; EP 2287922 A1 20110223; EP 2295238 A1 20110316; EP 2298547 A1 20110323; EP 2312648 A1 20110420; EP 2317567 A1 20110504; HK 1094092 A1 20070316; IN 23MU2000 A 20050617; JP 2002523904 A 20020730; JP 2010192931 A 20100902; JP 2011187984 A 20110922; JP 2011205156 A 20111013; JP 2011205157 A 20111013; JP 2011205158 A 20111013; JP 2011205159 A 20111013; JP 2011205160 A 20111013; JP 2014158047 A 20140828; JP 2014170953 A 20140918; JP 2016105510 A 20160609; JP 5090587 B2 20121205; MX 239894 B 20060830; MX PA00003918 A 20010901; TW 479373 B 20020311

DOCDB simple family (application)

US 9919067 W 19990818; AR P060102082 A 20060522; AR P060102083 A 20060522; AR P060102084 A 20060522; AR P060102085 A 20060522; AR P060102086 A 20060522; AR P060102087 A 20060522; AR P060102088 A 20060522; AR P060102089 A 20060522; AR P990104130 A 19990818; AU 2004200841 A 20040302; AU 2004200843 A 20040302; AU 2004200844 A 20040302; AU 2004200847 A 20040302; AU 5577799 A 19990818; BR 9906708 A 19990818; CA 2306833 A 19990818; CN 201210153323 A 19990818; CN 99801626 A 19990818; EP 10009906 A 19990818; EP 10009907 A 19990818; EP 10009908 A 19990818; EP 10010254 A 19990818; EP 10010981 A 19990818; EP 99942386 A 19990818; HK 07100315 A 20070110; IN 23MU2000 A 20000418; JP 2000566896 A 19990818; JP 2010106765 A 20100506; JP 2011117041 A 20110525; JP 2011160985 A 20110722; JP 2011160986 A 20110722; JP 2011160987 A 20110722; JP 2011160988 A 20110722; JP 2011160989 A 20110722; JP 2014090137 A 20140424; JP 2014090138 A 20140424; JP 2016037580 A 20160229; MX PA00003918 A 19990818; TW 88114114 A 19990818