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

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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 39/12 (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
- [PX] 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

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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