

Title (en)

ARYL-ETHYLENE SUBSTITUTED AROMATIC COMPOUNDS AND THEIR USE AS ORGANIC SEMICONDUCTORS

Title (de)

AROMATISCHE ARYL-ETHYLEN-SUBSTITUIERTE VERBINDUNGEN UND IHRE VERWENDUNG ALS ORGANISCHE HALBLEITER

Title (fr)

COMPOSES AROMATIQUES ARYL-ETHYLENE SUBSTITUES ET UTILISATION COMME SEMICONDUCTEURS ORGANIQUES

Publication

EP 1869720 A4 20110921 (EN)

Application

EP 06749630 A 20060411

Priority

- US 2006013274 W 20060411
- US 67217705 P 20050415

Abstract (en)

[origin: WO2006113205A2] There are disclosed aryl-ethylene aromatic compounds and their use as organic semiconductors. The compounds can be used in electronic devices such as organic thin film transistors (OTFTs), display devices, light-emitting diodes, photovoltaic cells, photo-detectors, and memory cells. Methods for manufacturing these aryl-ethylene aromatic compounds are also disclosed.

IPC 8 full level

H01L 29/08 (2006.01); **H01L 51/00** (2006.01); **H10N 10/856** (2023.01)

CPC (source: EP KR)

C07C 13/19 (2013.01 - EP); **C07C 13/567** (2013.01 - EP); **C07C 15/52** (2013.01 - EP); **C07C 15/56** (2013.01 - EP); **C07C 15/60** (2013.01 - EP); **C07C 15/62** (2013.01 - EP); **C07C 17/00** (2013.01 - EP); **C07C 17/14** (2013.01 - EP); **C07C 17/263** (2013.01 - EP); **C07C 22/08** (2013.01 - EP); **C07C 25/22** (2013.01 - EP); **C07C 25/24** (2013.01 - EP); **C07C 43/215** (2013.01 - EP); **C07C 46/00** (2013.01 - EP); **C07C 49/796** (2013.01 - EP); **C07C 50/24** (2013.01 - EP); **C07C 255/52** (2013.01 - EP); **C07C 321/28** (2013.01 - EP); **C07D 333/18** (2013.01 - EP); **C07D 495/04** (2013.01 - EP); **C07F 7/081** (2013.01 - EP); **C08G 61/02** (2013.01 - EP); **C08G 61/126** (2013.01 - EP); **H10K 85/615** (2023.02 - EP); **H10K 85/622** (2023.02 - EP); **H10K 85/626** (2023.02 - EP); **H10K 85/655** (2023.02 - EP); **H10K 85/6576** (2023.02 - EP); **H10K 99/00** (2023.02 - EP); **C07C 2601/14** (2017.05 - EP); **C07C 2603/18** (2017.05 - EP); **C07C 2603/24** (2017.05 - EP); **C07C 2603/44** (2017.05 - EP); **C07C 2603/50** (2017.05 - EP); **C07C 2603/52** (2017.05 - EP); **C08G 2261/3223** (2013.01 - EP); **C08G 2261/3422** (2013.01 - EP); **C08G 2261/411** (2013.01 - EP); **C08G 2261/413** (2013.01 - EP); **C08G 2261/92** (2013.01 - EP); **H10K 10/464** (2023.02 - EP); **H10K 10/466** (2023.02 - EP); **H10K 50/11** (2023.02 - EP); **H10K 50/14** (2023.02 - EP); **H10K 85/114** (2023.02 - EP); **H10K 85/40** (2023.02 - EP); **H10K 85/631** (2023.02 - EP); **H10K 85/654** (2023.02 - EP); **Y02E 10/549** (2013.01 - EP); **Y02P 70/50** (2015.11 - EP)

C-Set (source: EP)

1. **C07C 17/00 + C07C 25/22**
2. **C07C 17/14 + C07C 25/02**
3. **C07C 17/263 + C07C 25/24**
4. **C07C 46/00 + C07C 50/24**

Citation (search report)

- [XY] US 2001038924 A1 20011108 - TADASHI ISHIBASHI [JP], et al
- [X] JP H06271846 A 19940927 - TOYO INK MFG CO
- [X] US 2004004215 A1 20040108 - IECHI HIROYUKI [JP], et al
- [Y] US 2005048313 A1 20050303 - SOTOYAMA WATARU [JP]
- [Y] EASTWOOD A J ET AL: "Synthesis and luminous properties of electroluminescent liquid crystals", SYNTHETIC METALS 20010315 ELSEVIER LTD GB, vol. 121, no. 1-3, 15 March 2001 (2001-03-15), pages 1659 - 1660, XP002652454, DOI: 10.1016/S0379-6779(00)00894-8
- [X] NOVIKOVA T S ET AL: "Aromatic copolyamides and copolyesters with vinylenarylene and terthiophene fragments in the polymer chain: synthesis and photophysical properties", SYNTHETIC METALS, ELSEVIER SEQUOIA, LAUSANNE, CH, vol. 83, 1 September 1996 (1996-09-01), pages 47 - 55, XP008124846, ISSN: 0379-6779
- [A] GORJANC T C ET AL: "Organic field effect transistors based on modified oligo-p-phenylenes", APPLIED PHYSICS LETTERS, AIP, AMERICAN INSTITUTE OF PHYSICS, MELVILLE, NY, US, vol. 84, no. 6, 9 February 2004 (2004-02-09), pages 930 - 932, XP012062051, ISSN: 0003-6951, DOI: 10.1063/1.1639513

Citation (examination)

- WO 2005016882 A1 20050224 - UNIV LAVAL [CA], et al
- GB 1222863 A 19710217 - CIBA GEIGY AG [CH]
- BROENE R D ET AL: "The Synthesis of Circumanthracene", TETRAHEDRON LETTERS, ELSEVIER, AMSTERDAM, NL, vol. 32, no. 39, 23 September 1991 (1991-09-23), pages 5227 - 5230, XP002169040, ISSN: 0040-4039, DOI: 10.1016/S0040-4039(00)92350-5

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DOCDB simple family (application)

US 2006013274 W 20060411; CN 200680011729 A 20060411; CN 201210160802 A 20060411; EP 06749630 A 20060411; JP 2008506569 A 20060411; KR 20077026454 A 20060411; TW 95113517 A 20060414