

Title (en)
PROCESS FOR FABRICATING ORGANIC SEMICONDUCTOR DEVICES USING INK-JET PRINTING TECHNOLOGY AND DEVICE AND SYSTEM EMPLOYING SAME

Title (de)
TINTENSTRAHL-DRUCKVERFAHREN FÜR DIE HERSTELLUNG VON ORGANISCHEN HALBLEITERANORDNUNGEN

Title (fr)
PROCEDE DE FABRICATION DE DISPOSITIFS A SEMI-CONDUCTEURS ORGANIQUES AU MOYEN D'UNE TECHNIQUE PAR JET D'ENCRE ET DISPOSITIF ET SYSTEME AFFERENTS

Publication
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Application
EP 98953483 A 19981014

Priority

- US 9821665 W 19981014
- US 6229497 P 19971017
- US 7270998 P 19980127

Abstract (en)
[origin: WO9921233A1] An emission system for presenting visual image is disclosed. The emissive system typically contains first electrodes (90) deposited over and in contact with a substrate. One or more conjugated organic buffer layers (40) are then deposited over and in contact with the first electrodes, and second electrodes (22) are subsequently deposited over the conjugated organic buffer layers. The conjugated organic buffer layers (40) regulate current flow between the first electrodes (90) and the second electrodes (22). Either before or after the deposition of each conjugated organic buffer layer (40), but before the deposition of the second electrodes (22), conjugated organic deposits (34, 36, 38) are ink-jet printed such that they are in contact with at least one conjugated organic buffer layer. The conjugated organic deposits (34, 36, 38) help to generate an indicator when a voltage stimulus is applied across the first electrodes (90) and the second electrodes (22). Depending on the material of the conjugated organic deposits (34, 36, 38), the indicator may be luminescence, fluorescence, conductivity, or the like. A voltage source is used for selectively applying the voltage stimulus across the first electrodes (90) and the second electrodes (22).

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IPC 8 full level
H01L 21/48 (2006.01); **H01L 27/32** (2006.01); **H01L 51/00** (2006.01); **H01L 51/05** (2006.01); **H01L 51/40** (2006.01); **H01L 51/50** (2006.01); **H05B 33/10** (2006.01); **H05B 33/12** (2006.01); **H01L 51/30** (2006.01)

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Citation (search report)

- [E] EP 0892028 A2 19990120 - SEIKO EPSON CORP [JP]
- [PX] BHARATHAN J ET AL: "Polymer EL devices processed by inkjet printing", APPLIED PHYSICS LETTERS, 25 MAY 1998, vol. 72, pages 2660 - 2662, XP002188993, ISSN: 0003-6951
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