

Title (en)
ORGANIC PHOTOVOLTAIC DEVICES

Title (de)
ORGANISCHE FOTOVOLTAISCHE BAUELEMENTE

Title (fr)
DISPOSITIFS ORGANIQUES PHOTOVOLTAIQUES

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EP 02765783 A 20020607

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• US 94822601 A 20010906

Abstract (en)
[origin: WO02101838A1] The present invention generally relates to organic photosensitive optoelectronic devices. More specifically, it is directed to organic photovoltaic devices, e.g., organic solar cells. Further, it is directed to an optimized organic solar cell comprising multiple stacked subcells in series. High power conversion efficiency are achieved by fabrication of a photovoltaic cell comprising multiple stacked subcells with thickness optimization and employing an electron blocking layer.

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Citation (search report)
• [A] JP H04192376 A 19920710 - SEKISUI CHEMICAL CO LTD
• [XYI] WO 0139276 A1 20010531 - UNIV PRINCETON [US]
• [YA] PETTERSSON L A A ROMAN L S INGAN[S O: "Modeling photocurrent action spectra of photovoltaic devices based on organic thin films", JOURNAL OF APPLIED PHYSICS, AMERICAN INSTITUTE OF PHYSICS. NEW YORK, US, vol. 86, no. 1, 1 July 1999 (1999-07-01), pages 487 - 496, XP002955718, ISSN: 0021-8979, DOI: 10.1063/1.370757
• [XI] HIRAMOTO M ET AL: "Effect of thin gold interstitial-layer on the photovoltaic properties of tandem organic solar cell", BIOORGANIC & MEDICINAL CHEMISTRY LETTERS, PERGAMON, ELSEVIER SCIENCE, GB, 1 January 1990 (1990-01-01), pages 327 - 330, XP002991125, ISSN: 0960-894X
• See also references of WO 02101838A1

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