

Title (en)

PHOTOVOLTAIC DEVICE COMPRISING A 1,3,5-TRIS-AMINOPHENYL-BENZENE COMPOUND

Title (de)

FOTOVOLTAISCHE EINRICHTUNG MIT EINER 1,3,5-TRISAMINOPHENYLBENZOLVERBINDUNG

Title (fr)

DISPOSITIF PHOTOVOLTAIQUE COMPRENANT UN COMPOSE 1,3,5-TRIS-AMINOPHENYL-BENZENE

Publication

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Application

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Priority

EP 0210120 W 20020910

Abstract (en)

[origin: WO2004025748A1] A photovoltaic device comprising a n-type semiconductor with a band-gap of greater than 2.9 eV, a spectral sensitizer and a 1,3,5-tris-aminophenyl-benzene compound represented by formula (I): wherein R1 represents a -NR3R4 group, wherein R3 and R4, same or different, represents a C2-C10 alkyl group including the alkyl groups in substituted form, a benzyl group, a cycloalkyl group, or an aryl group, and R2 represents hydrogen, an alkyl group including a substituted alkyl group or halogen; and the 1,3,5-tris-aminophenyl-benzene compound is optionally in a cationic form; and a process for preparing the above-mentioned photovoltaic device with at least one transparent electrode comprising the steps of: providing a support with a conductive layer as one electrode; coating the conductive layer on the support with a layer comprising the n-type semiconductor with a bandgap of greater than 2.9 eV; coating the n-type semiconductor-containing layer with a solution or dispersion comprising the 1,3,5-tris-aminophenyl-benzene compound, or cation thereof, to provide after drying a layer comprising the 1,3,5-tris-aminophenyl-benzene compound; and applying a conductive layer to the layer comprising the 1,3,5-tris-aminophenyl-benzene compound thereby providing a second electrode.

IPC 1-7

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IPC 8 full level

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