Title (en)

REDUCTION IN THE CONTACT RESISTANCE IN ORGANIC FIELD EFFECT TRANSISTORS WITH PALLADIUM CONTACTS BY THE USE OF NITRILES AND ISONITRILES

Title (de)

VERRINGERUNG DES KONTAKTWIDERSTANDES IN ORGANISCHEN FELDEFFEKTTRANSISTOREN MIT PALLADIUMKONTAKTEN DURCH VERWENDUNG VON NITRILEN UND ISONITRILEN

Title (fr)

DIMINUTION DE LA RESISTANCE DE CONTACT DANS DES TRANSISTORS A EFFET DE CHAMP ORGANIQUES DOTES DE CONTACT AU PALLADIUM, PAR UTILISATION DE NITRILES ET D'ISONITRILES

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Application

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Abstract (en)

[origin: WO2004004022A1] The invention relates to a semiconductor device with a semiconductor path made from an organic semiconductor material, a first contact for the injection of charge carriers into the semiconductor path and a second contact for the extraction of charge carriers from the semiconductor path, whereby a layer of a nitrile or an isonitrile is arranged between the first contact and the semiconductor path and/or between the second contact and the semiconductor path. The nitrile or isonitrile acts as charge transfer molecule which facilitates the transfer of charge carriers between contact and organic semiconductor material. The contact resistance between the contact and organic semiconductor material can thus be significantly reduced.

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IPC 8 full level

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