

Title (en)
(EN) METHOD FOR THE CONTACT SEPARATION OF ELECTRICALLY-CONDUCTING LAYERS ON THE BACK CONTACTS OF SOLAR CELLS AND CORRESPONDING SOLAR CELL

Title (de)
VERFAHREN ZUR KONTAKTTRENNUNG ELEKTRISCH LEITFÄHIGER SCHICHTEN AUF RÜCKKONTAKTIERTEN SOLARZELLEN UND ENTSPRECHENDE SOLARZELLE

Title (fr)
PROCÉDÉ D'ISOLATION DE CONTACTS DE COUCHES ÉLECTROCONDUCTRICES SUR DES CELLULES SOLAIRES À CONTACT ÉTABLI SUR LA FACE ARRIÈRE ET CELLULE SOLAIRE CORRESPONDANTE

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Application
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Abstract (en)
[origin: WO2006042698A1] A method for production of a solar cell (1), comprising a semiconductor substrate (2), is disclosed, the electrical contact of which is achieved on the back face of the semiconductor substrate. The back face of the semiconductor substrate comprises locally doped regions (3). The adjacent regions (4) have a different doping from said region (3). According to the invention, short-circuiting of the conducting material (5) of the solar cell may be avoided, whereby both regions (3,4), at least at the boundaries (6) thereof, are coated with a thin electrically-insulating layer (7). Both regions (3,4) are then coated over the whole surface thereof with an electrically-conducting material (5). The separation of the electrically-conducting layers (5) is achieved by application of an etching barrier layer (8) to the whole surface, which is then selectively removed without a mask, for example by laser ablation, locally above the insulating layer (7). By the subsequent attack of an etching solution the etching barrier layer (8) is locally removed from the conducting layer (5) in the region of the openings (9).

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