

Title (en)

BACK-CONTACT SOLAR CELL AND METHOD FOR PRODUCING SUCH A BACK-CONTACT SOLAR CELL

Title (de)

RÜCKKONTAKTSOLARZELLE UND VERFAHREN ZUM HERSTELLEN EINER SOLCHEN

Title (fr)

CELLULE SOLAIRE À CONTACT ARRIÈRE ET SON PROCÉDÉ DE FABRICATION

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Application

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Abstract (en)

[origin: WO2012156398A1] The invention relates to a back-contact solar cell and to a method for producing a solar cell that has a semiconductor substrate of a first conductivity type having a front side and a back side, comprising the method steps of producing a plurality of passage openings extending from the front side to the back side, creating a layer of a conductivity type opposite the first conductivity type along the front side, producing a front-side contact in the form of a metallization and a back-side contact, wherein the front-side contact is connected in an electrically conductive manner to back-side contact areas that bound the passage openings on the back side and are electrically insulated with respect to the back side, and connecting the back-side contact areas to one another. In order to produce the solar cell more cost-effectively compared to the prior art and to achieve high long-term stability, according to the invention electrically conductive front-side contact areas that bound the passage openings on the front side are formed when the front-side contact is formed, the passage openings are provided with an electrically insulating first layer on the inside, and an electrically conductive material is subsequently introduced, starting from the back side, through the passage openings up to the front-side contact areas while the back-side contact areas are simultaneously formed.

IPC 8 full level

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Citation (search report)

See references of WO 2012156398A1

Citation (examination)

- JP 2008034609 A 20080214 - KYOCERA CORP
- DE 4344693 A1 19940630 - FUJI ELECTRIC CO LTD [JP]
- US 2010275987 A1 20101104 - SAKAMOTO TOMONARI [JP], et al

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