

Title (en)
THIN-LAYER SOLAR MODULE HAVING IMPROVED INTERCONNECTION OF SOLAR CELLS AND METHOD FOR THE PRODUCTION THEREOF

Title (de)
DÜNNSCHICHT-SOLARMODUL MIT VERBESSERTER ZUSAMMENSCHALTUNG VON SOLARZELLEN SOWIE VERFAHREN ZU DESSEN HERSTELLUNG

Title (fr)
MODULE SOLAIRE À COUCHE MINCE AVEC INTERCONNEXION AMÉLIORÉE DE CELLULES SOLAIRES AINSI QUE PROCÉDÉ POUR SA FABRICATION

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Application
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Priority

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Abstract (en)
[origin: WO2011009860A2] The invention relates to a thin-layer solar module 1 containing a plurality of interconnected solar cells 2, comprising in the order indicated the layers (a) a substrate 3; (b) a first electrode layer 4; (c) a semiconductor layer 5; and (d) a second electrode layer 6; wherein at least one non-linear recess 7 is disposed in the first electrode layer 4 and a second non-linear recess 8 is disposed in the second electrode layer 6 and in the semiconductor layer 5, wherein a first projection 9 of the first non-linear recess 7 onto the substrate 3 and a second projection 10 of the second non-linear recess 8 onto the substrate 3 intersect or contact each other at at least two projection points 14,15, the thin-layer solar module 1 has at least one island-shaped contact region 11 extending in a direction vertical to the substrate 3 through the layers (a) through (d) 3,4,5,6 and bounded in a direction parallel to the substrate 3 by the first projection 9 and the second projection 10, and wherein a third recess 12 is present in the semiconductor layer 5 within the island-shaped contact region 11 and is filled with an electrically conductive material, and a fourth recess 20 extending through the first electrode layer 4, the semiconductor layer 5, and the second electrode layer 6 between at least two island-shaped contact regions 11. The invention further relates to a method for producing said thin-layer solar module.

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