

Title (en)  
THIN-FILM PHOTOVOLTAIC DEVICE ESPECIALLY FOR SOLAR GLAZING UNITS

Title (de)  
FOTOVOLTAISCHE DÜNNSCHICHTVORRICHTUNG, INSBESONDERE FÜR SOLARE VERGLASUNGSEINHEITEN

Title (fr)  
DISPOSITIF PHOTOVOLTAÏQUE A COUCHES MINCES, NOTAMMENT POUR VITRAGE SOLAIRE

Publication  
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Application  
**EP 13795549 A 20131022**

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Abstract (en)  
[origin: WO2014064381A1] Thin-film photovoltaic device (1) comprising a substrate on which is deposited a photovoltaic film (3) comprising a first conductive layer forming a back electrical contact, a second photoactive layer that is absorbent in the solar spectrum and that is based on an inorganic material, and a third layer made of a transparent conductive material forming a front electrical contact, said photovoltaic film being divided to form a plurality of individual and interconnected photovoltaic cells (30), wherein it comprises a plurality of individual holes (31) at least passing through the first and second layers of the photovoltaic film in each cell, each hole having dimensions in the principle plane comprised between 10 nanometres and 400 microns, each hole being separated from the closest adjacent hole by a distance comprised between 5 nanometres and 400 microns, and each cell having an apertured area, corresponding to the area of the holes arranged in said cell in the principle plane, comprised between 10 and 90% of the total area of the cell in said principle plane, and preferably between 30 and 70%. The present invention is applicable to the field of solar glazing units.

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