

Title (en)
PHOTOVOLTAIC ELEMENT WITH OPTICALLY FUNCTIONAL CONVERSION LAYER FOR IMPROVING THE CONVERSION OF THE INCIDENT LIGHT AND METHOD FOR PRODUCING SAID PHOTOVOLTAIC ELEMENT

Title (de)
PHOTOVOLTAISCHES ELEMENT MIT OPTISCH FUNKTIONALER KONVERSIONSSCHICHT ZUR VERBESSERUNG DER UMWANDLUNG DES EINFALLENDEN LICHTS SOWIE VERFAHREN ZU DESSEN HERSTELLUNG

Title (fr)
ÉLÉMENT PHOTOVOLTAÏQUE DOTÉ D'UNE COUCHE DE CONVERSION OPTIQUEMENT FONCTIONNELLE PERMETTANT D'AMÉLIORER LA TRANSFORMATION DE LA LUMIÈRE INCIDENTE ET PROCÉDÉ DE FABRICATION DE CET ÉLÉMENT

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EP 2545592 A2 20130116 (DE)

Application
EP 11707602 A 20110308

Priority
• DE 102010015848 A 20100308
• EP 2011001133 W 20110308

Abstract (en)
[origin: WO2011110329A2] The invention relates to a photovoltaic element (1) comprising an optically functional surface layer (5) for improving the conversion of the incident light. The functioning of said layer involves absorbing incident sunlight having a low wavelength and emitting it again as light radiation having a higher wavelength, such that this light spectrum becomes usable for solar cells. In order to solve the currently unsolved problem of embedding such a layer into a thin-film solar cell (2) with a substrate (4) arranged on the front side, whilst ensuring high weathering resistance, it is proposed to arrange the optical functional layer (5) in an additional encapsulation element (10) on the front side and thus to construct the photovoltaic element as a double or multiple composite assembly.

IPC 8 full level
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CPC (source: EP US)
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Citation (search report)
See references of WO 2011110329A2

Citation (examination)
WO 2007098021 A2 20070830 - UNIV CALIFORNIA [US], et al

Designated contracting state (EPC)
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