

Title (en)

METHOD FOR PRODUCING AT LEAST ONE PHOTOVOLTAIC CELL FOR CONVERTING ELECTROMAGNETIC RADIATION INTO ELECTRICAL ENERGY

Title (de)

VERFAHREN ZUR HERSTELLUNG ZUMINDEST EINER PHOTOVOLTAIKZELLE ZUR WANDLUNG ELEKTROMAGNETISCHER STRAHLUNG IN ELEKTRISCHE ENERGIE

Title (fr)

PROCÉDÉ DE FABRICATION D'AU MOINS UNE CELLULE PHOTOVOLTAÏQUE POUR CONVERTIR UN RAYONNEMENT ÉLECTROMAGNÉTIQUE EN ÉNERGIE ÉLECTRIQUE

Publication

EP 4356436 A1 20240424 (DE)

Application

EP 22732176 A 20220608

Priority

- DE 102021115260 A 20210614
- EP 2022065460 W 20220608

Abstract (en)

[origin: WO2022263240A1] The invention relates to a method for producing at least one photovoltaic cell for converting electromagnetic radiation into electrical energy, comprising the method steps: A. providing a superstrate in the form of a semiconductor substrate; B. applying photovoltaic cell semiconductor layers directly or indirectly on a rear face of the superstrate to form at least one photovoltaic cell, wherein: the photovoltaic cell semiconductor layers comprise at least one absorber layer formed by a direct semiconductor; the superstrate is formed as a current-conducting layer and has a thickness of greater than 10 µm, and the photovoltaic cell semiconductor layers are designed to be electrically connected to the current-conducting layer in method step B; and the band gap of the current-conducting layer is greater than the band gap of the absorber layer by at least 50 meV.

IPC 8 full level

H01L 31/18 (2006.01)

CPC (source: EP KR)

H01L 31/022433 (2013.01 - EP KR); **H01L 31/02327** (2013.01 - KR); **H01L 31/0735** (2013.01 - EP KR); **H01L 31/1844** (2013.01 - EP KR); **Y02E 10/544** (2013.01 - EP)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

DE 102021115260 A1 20221215; CA 3222526 A1 20221222; CN 117597788 A 20240223; EP 4356436 A1 20240424;
JP 2024523027 A 20240625; KR 20240022562 A 20240220; WO 2022263240 A1 20221222

DOCDB simple family (application)

DE 102021115260 A 20210614; CA 3222526 A 20220608; CN 202280042707 A 20220608; EP 2022065460 W 20220608;
EP 22732176 A 20220608; JP 2023577271 A 20220608; KR 20247001048 A 20220608