

Title (en)

LIGHT, RIGID, SELF-SUPPORTING SOLAR MODULE AND METHOD FOR THE PRODUCTION THEREOF

Title (de)

LEICHTES, BIEGESTEIFES UND SELBSTTRAGENDES SOLARMODUL SOWIE EIN VERFAHREN ZU DESSEN HERSTELLUNG

Title (fr)

MODULE SOLAIRE LÉGER, RÉSISTANT À LA FLEXION ET AUTOPORTANT ET PROCÉDÉ DE FABRICATION D'UN TEL MODULE

Publication

**EP 2289111 A2 20110302 (DE)**

Application

**EP 09761413 A 20090603**

Priority

- EP 2009003951 W 20090603
- DE 102008028069 A 20080612
- DE 102009014348 A 20090321

Abstract (en)

[origin: US2011155222A1] The solar module according to the invention consists of a transparent adhesive layer (1), in which the solar cells (3) that are interconnected by cell connectors (2) are embedded. A transparent, UV stable, thin front layer (4), composed for example of a thin pane of glass, is located above said adhesive layer. The supporting sandwich element (5), consisting of a nucleic layer (6) and glass fibre layers (7) bonded by means of polyurethane is located on the rear face. Fastening elements (8) and an electric socket (9) are integrated into the supporting sandwich element. A barrier film (10), which prevents the entry of water and oxygen, adjoins the sandwich element. The solar module has peripheral edge protection (11) consisting of elastomeric polyurethane, which prevents the lateral penetration of water, dirt and oxygen. The invention also relates to a method for producing the solar module.

IPC 8 full level

**H01L 31/048** (2006.01)

CPC (source: EP US)

**B32B 17/10018** (2013.01 - EP US); **B32B 17/10788** (2013.01 - EP US); **B32B 37/10** (2013.01 - EP US); **H01L 31/048** (2013.01 - EP US); **H02S 20/23** (2014.12 - EP US); **B32B 37/1207** (2013.01 - EP US); **B32B 2037/1223** (2013.01 - EP US); **B32B 2262/101** (2013.01 - EP US); **B32B 2457/12** (2013.01 - EP US); **Y02B 10/10** (2013.01 - EP US); **Y02E 10/50** (2013.01 - EP US); **Y10T 156/10** (2015.01 - EP US)

Citation (search report)

See references of WO 2009149850A2

Designated contracting state (EPC)

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 SE SI SK TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

**US 2011155222 A1 20110630**; AU 2009256920 A1 20091217; BR PI0915003 A2 20190924; CA 2727413 A1 20091217; CN 102067329 A 20110518; DE 102009014348 A1 20091217; EP 2289111 A2 20110302; IL 209544 A0 20110131; JP 2011523221 A 20110804; KR 20110014198 A 20110210; MX 2010013465 A 20101221; WO 2009149850 A2 20091217; WO 2009149850 A3 20101104

DOCDB simple family (application)

**US 99771009 A 20090612**; AU 2009256920 A 20090603; BR PI0915003 A 20090603; CA 2727413 A 20090603; CN 200980122073 A 20090603; DE 102009014348 A 20090321; EP 09761413 A 20090603; EP 2009003951 W 20090603; IL 20954410 A 20101124; JP 2011512868 A 20090603; KR 20107027874 A 20090603; MX 2010013465 A 20090603