Title (en)

HIGHLY CURVED PHOTOVOLTAIC ELEMENT

Title (de)

STARK GEKRÜMMTES PV-ELEMENT

Title (fr)

ELEMENT PHOTOVOLTAÏQUE FORTEMENT GALBE

Publication

**EP 2550682 A1 20130130 (FR)**

Application

**EP 11720128 A 20110323**

Priority

- FR 1001143 A 20100323
- FR 2011000166 W 20110323

Abstract (en)

[origin: WO2011117481A1] Photovoltaic modules placed on roofs generally degrade the attractiveness of the building because the modules do not conform to the geometry of the covering elements used for the roof, in particular when the roof is made of highly curved tiles. The invention relates to a photovoltaic element made by directly encapsulating photovoltaic cells beneath a highly curved transparent tile. Said transparent tile has a lower surface consisting of a plurality of non-coplanar planar areas, each of said planar areas being provided with at least one photovoltaic cell. Said photovoltaic cells are encapsulated in a transparent polymer between the planar areas of the lower surface of the tile and a rear substrate formed by a polymer, so as to not cause any optical loss by multiplication of the interfaces. The highly curved transparent tile consists of a transparent material such as glass, a transparent polymer or an assemblage of glass and a transparent polymer; the transparent polymer can in particular be a polycarbonate or PMMA.

IPC 8 full level

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CPC (source: EP)

**H02S 20/25** (2014.12); Y02B 10/10 (2013.01); Y02E 10/50 (2013.01)

Citation (search report)

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