

Title (en)
A PANEL-SHAPED, HYBRID PHOTOVOLTAIC/THERMAL DEVICE

Title (de)
PLATTENFÖRMIGE HYBRIDE PHOTOVOLTAISCHE TERMISCHE ANORDNUNG

Title (fr)
DISPOSITIF PHOTOVOLTAIQUE/THERMIQUE HYBRIDE EN FORME DE PANNEAU

Publication
EP 1012886 A1 20000628 (EN)

Application
EP 98940680 A 19980825

Priority

- NL 9800477 W 19980825
- NL 1006838 A 19970825

Abstract (en)
[origin: WO9910934A1] A panel-shaped hybrid photovoltaic/thermal device (1) comprising metal absorption means (6) for converting solar energy into thermal energy, and laminated, panel-shaped photovoltaic means (2) comprising photovoltaic cells (3) of a crystalline silicon for converting solar energy into electric energy. The photovoltaic means (2) and the absorption means (6) have been joined to form a single assembly with the interposition of a metal-containing plastic material (10) having bonding properties. The device (1) is constructionally simple and suited for optimizing the electric and thermal efficiency.

IPC 1-7
H01L 31/058; F24J 2/24

IPC 8 full level
F24J 2/04 (2006.01); **F24S 10/75** (2018.01); **F24S 23/30** (2018.01); **F28F 13/00** (2006.01); **H01L 31/048** (2014.01); **H01L 31/058** (2006.01); **H02S 40/44** (2014.01)

CPC (source: EP)
F24S 10/20 (2018.04); **F24S 10/25** (2018.04); **F24S 10/75** (2018.04); **F24S 23/31** (2018.04); **F28F 13/00** (2013.01); **H01L 31/048** (2013.01); **H02S 40/44** (2014.12); **F24S 2025/601** (2018.04); **Y02B 10/20** (2013.01); **Y02B 10/70** (2013.01); **Y02E 10/44** (2013.01); **Y02E 10/50** (2013.01); **Y02E 10/60** (2013.01)

Citation (search report)
See references of WO 9910934A1

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US11018623B2; US11264947B2; US11687112B2; US11894806B2; US9853565B2; US10992238B2; US9960731B2; US11579235B2; US11961922B2; US12032080B2; US9935458B2; US10637393B2; US11271394B2; US11476799B2; US11996488B2; US9876430B2; US10673229B2; US11070051B2; US11489330B2; US12057807B2; US10461687B2; US10468878B2; US10693415B2; US11183969B2; US11296650B2; US11424616B2; US9680304B2; US9948233B2; US10097007B2; US11063440B2; US11962243B2; US9639106B2; US9866098B2; US10007288B2; US10666125B2; US11205946B2; US11881814B2; DE102010013673A1; US9853490B2; US9941813B2; US11545912B2; US11742777B2; US12027849B2; US12119758B2; US9644993B2; US9923516B2; US10381977B2; US11002774B2; US11073543B2; US11183968B2; US11598652B2; US11620885B2; US12094306B2; US9647442B2; US9853538B2; US9869701B2; US10447150B2; US10673222B2; US10931228B2; US10969412B2; US11183922B2; US11349432B2; US11867729B2; US12003215B2; US10115841B2; US10396662B2; US10778025B2; US10931119B2; US11177663B2; US11177768B2; US11201476B2; US11728768B2; US11870250B2; US11979037B2; US12003107B2; US9831824B2; US9979280B2; US10230310B2; US10644589B2; US10886832B2; US10886831B2; US11183923B2; US11296590B2; US11632058B2; US11693080B2; US12055647B2; US9812984B2; US9819178B2; US9966766B2; US10230245B2; US10608553B2; US10651647B2; US10673253B2; US11043820B2; US11424617B2; US11682918B2; US11888387B2; US11929620B2; US12027970B2; US12046940B2; US12132125B2; US9673711B2; US9960667B2; US10116217B2; US10516336B2; US11031861B2; US11309832B2; US11575260B2; US11575261B2; US11594968B2; US11594882B2; US11594881B2; US11594880B2; US11658482B2; US11735910B2; US12068599B2; US12107417B2

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
WO 9910934 A1 19990304; AU 8890198 A 19990316; CA 2301657 A1 19990304; EP 1012886 A1 20000628; NL 1006838 C2 19990304

DOCDB simple family (application)
NL 9800477 W 19980825; AU 8890198 A 19980825; CA 2301657 A 19980825; EP 98940680 A 19980825; NL 1006838 A 19970825