

Title (en)

ACTIVE BACKPLANE FOR THIN SILICON SOLAR CELLS

Title (de)

AKTIVE RÜCKWAND FÜR DÜNNE SILICIUM-SOLARZELLEN

Title (fr)

PANNEAU ARRIÈRE ACTIF POUR CELLULES SOLAIRES EN SILICIUM MINCES

Publication

EP 2691990 A4 20140903 (EN)

Application

EP 12765891 A 20120328

Priority

- US 201161468548 P 20110328
- US 2012031043 W 20120328

Abstract (en)

[origin: WO2012135395A2] Fabrication methods and structures relating to backplanes for back contact solar cells that provide for solar cell substrate reinforcement and electrical interconnects are described. The method comprises depositing an interdigitated pattern of base electrodes and emitter electrodes on a backside surface of a semiconductor substrate, attaching a prepeg backplane to the interdigitated pattern of base electrodes and emitter electrodes, forming holes in the prepeg backplane which provide access to the first layer of electrically conductive metal, and depositing a second layer of electrically conductive metal on the backside surface of the prepeg backplane forming an electrical interconnect with the first layer of electrically conductive metal through the holes in the prepeg backplane.

IPC 8 full level

H01L 31/042 (2014.01); **H01L 31/0216** (2014.01); **H01L 31/0224** (2006.01); **H01L 31/05** (2014.01); **H01L 31/068** (2012.01); **H01L 31/18** (2006.01)

CPC (source: EP KR)

H01L 31/0216 (2013.01 - KR); **H01L 31/022441** (2013.01 - EP); **H01L 31/04** (2013.01 - KR); **H01L 31/0516** (2013.01 - EP);
H01L 31/0682 (2013.01 - EP); **H01L 31/18** (2013.01 - KR); **H01L 31/1892** (2013.01 - EP); **Y02E 10/547** (2013.01 - EP)

Citation (search report)

- [XYI] DE 102006052018 A1 20080515 - FRAUNHOFER GES FORSCHUNG [DE]
- [I] DE 102010004112 A1 20101230 - BOSCH SOLAR ENERGY AG [DE]
- [I] US 2008236655 A1 20081002 - BALDWIN DANIEL F [US], et al
- [I] DE 102008018360 A1 20091015 - SEHO SYSTEMTECHNIK GMBH [DE]
- [Y] US 2011056532 A1 20110310 - RAVI TIRUNELVELI S [US], et al
- [A] EP 1194022 A1 20020403 - IBIDEN CO LTD [JP]
- [A] A.H.M.E REINDERS ET AL: "Design of Fibre Reinforced PV Concepts for Building Integrated Applications", PROCEEDINGS OF THE 24TH EUROPEAN PHOTOVOLTAIC SOLAR ENERGY CONFERENCE, 21 September 2009 (2009-09-21) - 25 September 2009 (2009-09-25), Hamburg, XP055130284, Retrieved from the Internet <URL:<http://dx.doi.org/10.4229/24thEUPVSEC2009-5AO.9.5>> [retrieved on 20140721], DOI: 10.4229/24thEUPVSEC2009-5AO.9.5
- See references of WO 2012135395A2

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

DOCDB simple family (publication)

WO 2012135395 A2 20121004; WO 2012135395 A3 20130207; EP 2691990 A2 20140205; EP 2691990 A4 20140903;
KR 102015591 B1 20190828; KR 20140027188 A 20140306

DOCDB simple family (application)

US 2012031043 W 20120328; EP 12765891 A 20120328; KR 20137028432 A 20120328