

Title (en)

METHOD FOR PRODUCING A SOLAR CELL WITH A SELECTIVE Emitter

Title (de)

VERFAHREN ZUR HERSTELLUNG EINER SOLARZELLE MIT EINEM SELEKTIVEN Emitter

Title (fr)

PROCÉDÉ DE FABRICATION D'UNE CELLULE SOLAIRE COMPORTANT UN ÉMETTEUR SÉLECTIF

Publication

EP 2601691 A2 20130612 (DE)

Application

EP 11770037 A 20110802

Priority

- DE 102010054182 A 20101210
- DE 102010044313 A 20100903
- DE 102010033030 A 20100802
- DE 2011075181 W 20110802

Abstract (en)

[origin: WO2012022349A2] Method for producing a solar cell with a selective emitter comprising the steps of forming (10, 12, 14) a dopant-containing glass layer (55) on at least one part of a surface of a solar cell substrate (50), forming (16) a weakly doped emitter (58) in regions of the solar cell substrate (50) that are covered by the glass layer (55) by indiffusing (16) dopant from the glass layer (55) into the solar cell substrate (50), locally indiffusing (18) additional dopant from the glass layer (55) into the solar cell substrate (50) by locally heating (18) regions of the solar cell substrate (50) that are located below the glass layer (55) for the purpose of locally forming (18) heavily doped emitter regions (60), wherein, as dopant-containing glass layer (55), such a glass layer (55) is formed (10, 12, 14) on the at least one part of the surface of the solar cell substrate (50), which glass layer has a lower dopant concentration in a first partial layer (52) of the glass layer (55), said first partial layer being located nearer the surface of the solar cell substrate (50), than in a second partial layer (54) of the glass layer (55), said second partial layer being located further away from the surface of the solar cell substrate (50).

IPC 8 full level

H01L 31/18 (2006.01)

CPC (source: EP KR)

H01L 31/0236 (2013.01 - KR); **H01L 31/04** (2013.01 - KR); **H01L 31/068** (2013.01 - EP); **H01L 31/18** (2013.01 - KR);
H01L 31/1804 (2013.01 - EP); **Y02E 10/547** (2013.01 - EP); **Y02P 70/50** (2015.11 - EP)

Citation (search report)

See references of WO 2012022349A2

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

DOCDB simple family (publication)

WO 2012022349 A2 20120223; WO 2012022349 A3 20130718; CN 103262266 A 20130821; EP 2601691 A2 20130612;
KR 20130108271 A 20131002

DOCDB simple family (application)

DE 2011075181 W 20110802; CN 201180048018 A 20110802; EP 11770037 A 20110802; KR 20137004914 A 20110802