

Title (en)

METHOD FOR FRAGMENTING A ROD-LIKE MATERIAL, IN PARTICULAR MADE OF POLYCRYSTALLINE SILICON

Title (de)

VERFAHREN ZUM FRAGMENTIEREN EINES STANGENARTIGEN MATERIALS, INSBESONDERE AUS POLYKRISTALLINEM SILIZIUM

Title (fr)

PROCÉDÉ POUR FRAGMENTER UN MATÉRIAU EN FORME DE BARRE, EN PARTICULIER EN SILICIUM POLYCRISTALLIN

Publication

**EP 3122463 A1 20170201 (DE)**

Application

**EP 14717391 A 20140326**

Priority

CH 2014000039 W 20140326

Abstract (en)

[origin: WO2015143572A1] The invention relates to a method for fragmenting a rod-like semiconductor material (1), comprising the steps: a) providing a section (3) of the rod-like material (1) that is surrounded by a process fluid (2); b) arranging an electrode arrangement (4) comprising two electrodes (5, 6) in the region of this section (3) in such a way that the electrodes (5, 6) are immersed in the process fluid (2) and are at a distance from one another and are each at a distance from the rod-like material (1), c) generating high-voltage breakdowns through the rod-like material (1) and/or along the surface of the rod-like material (1) in the region of the electrodes (5, 6) by applying high-voltage pulses to the electrode arrangement (4), wherein, during the generation of the high-voltage breakdowns, a relative movement in the longitudinal direction of the rod-like material (1) is generated between the electrode arrangement (4) and the rod-like material (1). By virtue of the method according to the invention, it is possible to comminute rod-like semiconductor material into a fraction of relatively uniform size and shape with a low energy expenditure, and to maintain a low contamination with foreign material.

IPC 8 full level

**B02C 19/18** (2006.01)

CPC (source: EP KR)

**B02C 19/18** (2013.01 - EP KR); **B02C 2019/183** (2013.01 - EP KR)

Citation (search report)

See references of WO 2015143572A1

Cited by

EP3581544A1; US11273451B2

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 2015143572 A1 20151001**; CA 2943892 A1 20151001; CA 2943892 C 20211109; CN 106132550 A 20161116; CN 106132550 B 20200221; EP 3122463 A1 20170201; EP 3122463 B1 20180627; JP 2017515774 A 20170615; JP 6403795 B2 20181010; KR 20160137539 A 20161130; TW 201538813 A 20151016; TW I652383 B 20190301

DOCDB simple family (application)

**CH 2014000039 W 20140326**; CA 2943892 A 20140326; CN 201480077501 A 20140326; EP 14717391 A 20140326; JP 2016559172 A 20140326; KR 20167025960 A 20140326; TW 103142023 A 20141203