

Title (en)

WAFER BOAT AND PLASMA TREATMENT DEVICE FOR WAFERS

Title (de)

WAFERBOOT UND PLASMA-BEHANDLUNGSVORRICHTUNG FÜR WAFER

Title (fr)

BAC DE PLAQUETTES ET DISPOSITIF DE TRAITEMENT PAR PLASMA DE PLAQUETTES

Publication

**EP 3278358 A1 20180207 (DE)**

Application

**EP 16713909 A 20160401**

Priority

- DE 102015004419 A 20150402
- EP 2016057287 W 20160401

Abstract (en)

[origin: WO2016156607A1] Wafer boats for plasma treatment of disk-shaped wafers, in particular, semiconductor wafers for semiconductor or photovoltaic applications, and a plasma treatment device for wafers are described. A wafer boat has a plurality of first receiving elements arranged parallel to one another, which each have a plurality of receiving slots for receiving an edge region of a wafer or of a wafer pair, as well as a plurality of second receiving elements arranged parallel to one another which are each electrically conductive and have at least one depression for receiving an edge region of at least one wafer or one wafer pair. An alternative wafer boat has a plurality of electrically-conductive, plate-shaped receiving elements arranged parallel to one another which have a height that is less than half of the height of the wafers to be received, wherein the receiving elements each have at least three receiving elements on the opposing sides for receiving wafers. The wafer boats can be received in the processing chamber of the plasma treatment device, which has means for controlling or monitoring a process gas atmosphere in the processing chamber and at least one power source which can be connected to the electrically-conductive receiving elements of the wafer boat in a suitable way in order to apply an electrical voltage between directly adjacent wafers received in the wafer boat.

IPC 8 full level

**H01L 21/673** (2006.01); **H01J 37/32** (2006.01)

CPC (source: CN EP KR US)

**B65G 21/20** (2013.01 - US); **C23C 14/34** (2013.01 - US); **H01J 37/32715** (2013.01 - CN EP KR US); **H01L 21/28** (2013.01 - US); **H01L 21/67313** (2013.01 - CN EP KR US); **H01L 21/67316** (2013.01 - CN EP US); **H01L 21/67346** (2013.01 - CN KR)

Citation (search report)

See references of WO 2016156607A1

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)

**DE 102015004419 A1 20161006**; CN 107995998 A 20180504; EP 3278358 A1 20180207; KR 20170135903 A 20171208; TW 201704563 A 20170201; US 2018066354 A1 20180308; WO 2016156607 A1 20161006

DOCDB simple family (application)

**DE 102015004419 A 20150402**; CN 201680031736 A 20160401; EP 16713909 A 20160401; EP 2016057287 W 20160401; KR 20177031924 A 20160401; TW 105110509 A 20160401; US 201615563639 A 20160401