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(81) 指定国(除另有指明, 要求每一种可提供的国家
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MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE,
PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE,

(54) Title: ARRAY-TYPE MEGASONIC CLEANING DEVICE FOR CLEANING WAFERS

(54) 发明名称: 一种用于清洗晶圆的排列式兆声清洗装置

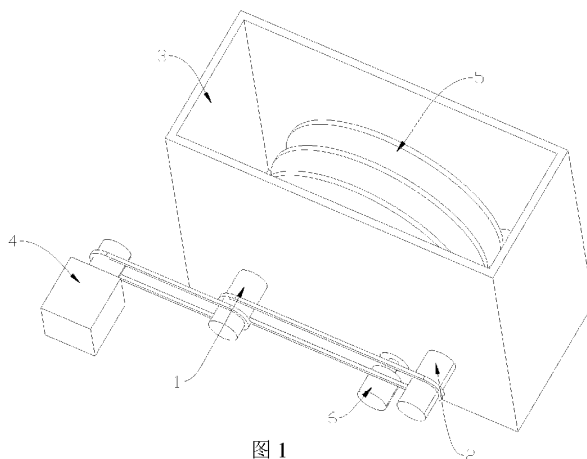


图 1

(57) Abstract: An array-type megasonic cleaning device for cleaning wafers (5), comprising: a washing tank (3); and a first driving shaft (1) and a second driving shaft (2) that are arranged in parallel with each other in the cleaning tank (3), are capable of rotating circumferentially about their own center axes under the drive of a drive unit (4) and have an axial length of 60-350 mm, wherein at least two first engaging grooves (11) are formed on the first driving shaft (1) in a length direction, at least two second engaging grooves (21) are formed on the second driving shaft (2) in a length direction, and the second engaging grooves (21) are arranged corresponding to the first clamping grooves (11); the plurality of wafers (5) are respectively placed by means of the cooperation between the first engaging grooves (11) and the second engaging grooves (21); and the first driving shaft (1) and the second driving shaft (2) rotate in the same direction, and the plurality of wafers (5) can be driven by friction to rotate simultaneously, so as to achieve the effect of cleaning. With this arrangement, a plurality of wafers (5) can be placed in the cleaning tank (3) for simultaneous cleaning, so as to minimize

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WO 2023/066406 A1

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UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW。

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HU, IE, IS, IT, LT, LU, LV, MC, ME, MK, MT, NL, NO,
PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF,
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本国际公布:

- 包括国际检索报告 (条约第21条(3))。
- 包括关于请求恢复一项或多项优先权要求的信息
(细则26之二. 3和48. 2(b)(vii))。

the footprint of the cleaning tank (3) to the greatest extent and ensure the consistency of the cleaning effect of the wafers (5) under the
premise of ensuring the same cleaning efficiency.

(57) 摘要: 一种用于清洗晶圆(5)的排列式兆声清洗装置, 包括: 清洗槽(3); 第一主动轴(1)和第二主
动轴(2), 平行设于清洗槽(3)内, 且在驱动单元(4)的驱动下可绕其自身中心线周向旋转, 其轴向长度
为60-350mm; 第一主动轴(1)上沿长度方向设有至少两个第一卡槽(11), 第二主动轴(2)上沿长度方向设
有至少两个第二卡槽(21), 第二卡槽(21)与第一卡槽(11)对应设置; 多片晶圆(5)分别通过第一卡槽
(11)和第二卡槽(21)的配合实现放置; 第一主动轴(1)和第二主动轴(2)沿相同方向转动, 可摩擦驱动
多片晶圆(5)同时转动, 以实现清洗。通过该设置, 清洗槽(3)中可以放置多片晶圆(5)进行同时清洗, 在
确保同等清洗效率的前提下, 最大程度减小了清洗槽(3)的占地面积, 确保晶圆(5)清洗的效果一致性。