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(81) 指定国(除另有指明, 要求每一种可提供的国家保护): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, 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, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW。

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(54) Title: WAFER BOAT ASSEMBLY AND SEMICONDUCTOR PROCESS DEVICE

(54) 发明名称: 晶舟组件和半导体工艺设备

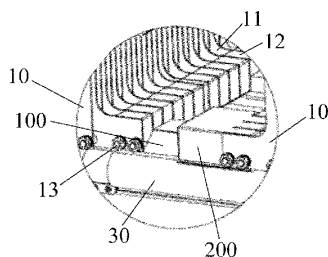


图 2

(57) Abstract: Provided in the present disclosure are a wafer boat assembly and a semiconductor process device. The wafer boat assembly comprises a plurality of wafer boats, which are configured to sequentially electrically connect to each other in a process chamber and in an axis direction of the process chamber, wherein at least one pair of adjacent wafer boats each have, at the bottoms of the sides opposite each other thereof, a front electrically conductive boat leg and a rear electrically conductive boat leg, a contact protrusion is provided at the top of one of the front electrically conductive boat leg and the rear electrically conductive boat leg, a contact recess is provided at the bottom of the other one of the front electrically conductive boat leg and the rear electrically conductive boat leg, and the contact recess is in contact with the contact protrusion, such that the adjacent wafer boats are electrically connected to each other; and the wafer boat among the plurality of wafer boats which is adjacent to an opening on a side of the process chamber is configured to be electrically connected to a power supply assembly, so as to receive a radio-frequency signal provided by the power supply assembly. In the present disclosure, adjacent wafer boats are electrically connected to each other by means of a rear electrically conductive boat leg and a front conductive boat leg forming a lap joint, such that not only can a radio-frequency signal be introduced from a single side and be transmitted between wafer boats, but a semiconductor process effect and a machine production capacity can also be ensured.

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本国际公布:

— 包括国际检索报告(条约第21条(3))。

(57) 摘要: 本公开提供一种晶舟组件和半导体工艺设备, 包括多个晶舟, 多个晶舟用于在工艺腔室中沿工艺腔室的轴线方向依次电连接, 至少一对相邻的晶舟在彼此相对的一侧的底部分别具有前导电舟脚和后导电舟脚, 前导电舟脚和后导电舟脚中的一者的顶部具有接触凸起, 前导电舟脚和后导电舟脚中的另一者的底部具有接触凹槽, 接触凹槽与接触凸起接触, 以将相邻的晶舟电连接; 多个晶舟中与工艺腔室一侧的开口相邻的晶舟用于与供电组件电连接, 以接收供电组件提供的射频信号。本公开通过后导电舟脚与前导电舟脚搭接的方式将相邻晶舟电连接, 不仅可以实现单侧引入射频信号, 以及晶舟之间传递射频信号, 而且可以保证半导体工艺效果和机台产能。