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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,

(54) Title: SEMICONDUCTOR HEAT TREATMENT DEVICE AND CARRYING DEVICE TRANSMISSION METHOD THERE-OF

(54) 发明名称: 半导体热处理设备及其承载装置传输方法

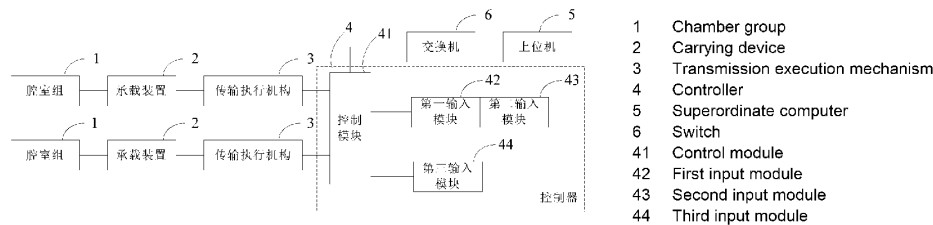


图 2

(57) Abstract: The present disclosure provides a semiconductor heat treatment device and a carrying device transmission method thereof. The semiconductor heat treatment device comprises: a plurality of process chambers, divided into at least one chamber group; carrying devices, having one-to-one correspondence to the chamber groups; at least one transmission execution mechanism, the transmission execution mechanisms being connected to the carrying devices in a one-to-one correspondence manner and configured to drive the corresponding carrying devices to perform an incoming action or an outgoing action; a controller, communicatively connected with the transmission execution mechanisms and configured to receive an incoming instruction or an outgoing instruction corresponding to a specified process chamber, and control, according to the incoming instruction or the outgoing instruction, a transmission execution mechanism corresponding to a chamber group to which the specified process chamber belongs to perform the incoming action or the outgoing action; and a superordinate computer, communicatively connected with the controller and configured to send the incoming instruction or the outgoing instruction to the controller by using a preset scheduling method. The present solution solves the problems in the prior art of low automation degree and scheduling efficiency, redundant structure, high energy consumption of the entire machine, and high device manufacturing and maintenance costs.

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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: 本公开提供的半导体热处理设备及其承载装置传输方法, 该设备包括多个工艺腔室, 多个工艺腔室划分为至少一组腔室组; 承载装置与腔室组一一对应; 至少一个传输执行机构, 与承载装置一一对应地连接, 传输执行机构用于驱动对应的承载装置执行传入动作或传出动作; 控制器, 与传输执行机构通信连接, 用于接收与指定的工艺腔室对应的传入指令或传出指令, 并根据传入指令或传出指令, 控制与指定的工艺腔室所属的腔室组对应的传输执行机构执行传入动作或传出动作; 上位机, 与控制器通信连接, 用于采用预设调度方法向控制器发送传入指令或传出指令。本方案解决现有技术中自动化程度和调度效率较低、结构冗余、整机能耗高、设备制造和维护成本高的问题。