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(54) **Title**: WAFER SUPPORT APPARATUS AND SEMICONDUCTOR PROCESSING DEVICE HAVING SAME

(54) **发明名称** : 晶圆承载装置及具有它的半导体处理设备

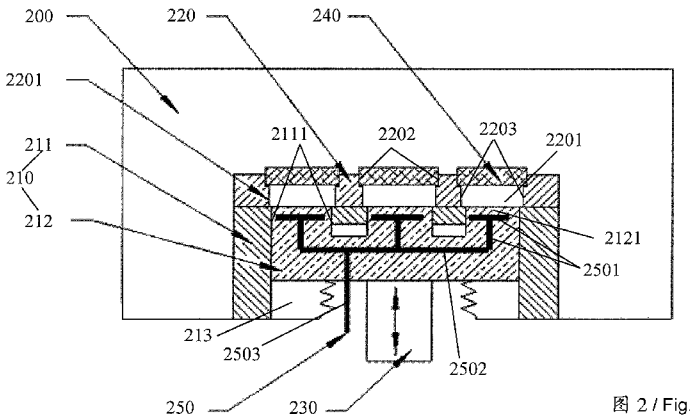


图 2 / Fig. 2

(57) **Abstract**: Provided are a wafer support apparatus and a semiconductor processing device having same. The wafer support apparatus includes a chuck, wherein the chuck includes a mobile part and a chuck body with a hollow cavity, the top wall of the chuck body is provided with a first through-hole, the mobile part is housed in the hollow cavity, and the upper surface of the mobile part is provided with a protrusion part corresponding to the first through-hole; a tray, wherein the tray is provided on the chuck body, the tray is provided with a second through-hole corresponding to the first through-hole for housing a wafer, with the diameter of the upper end of the second through-hole being greater than the diameter of the wafer, and the diameter of the lower end of the second through-hole being less than the diameter of the wafer; and a lift assembly, wherein the lift assembly is connected to the mobile part of the chuck and used for driving the mobile part to lift in the hollow cavity so that the protrusion part contacts with or separates from the wafer. The wafer support apparatus and semiconductor processing device provided in the present invention performs direct temperature control on a wafer through the mobile part of the chuck, thus being able to control the temperature of the wafer rapidly and effectively, improving the temperature uniformity of the wafer and improving the process effects.

(57) **摘要**:

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本国际公布:

— 包括国际检索报告(条约第 21 条(3))。

本发明提供一种晶圆承载装置和具有它的半导体处理设备。该晶圆承载装置包括卡盘，卡盘包括移动部和具有中空腔的卡盘本体，且卡盘本体的顶壁设有第一通孔，移动部容纳在中空腔内，移动部的上表面设有与第一通孔对应的凸出部；托盘，托盘设在卡盘本体上，托盘设有与第一通孔对应且用于容纳晶圆的第二通孔，其中第二通孔的上端的直径大于晶圆直径且第二通孔的下端的直径小于晶圆直径；和升降组件，升降组件与卡盘的移动部相连，用于驱动移动部在中空腔内升降以使凸出部与晶圆接触或脱离。本发明提供的晶圆承载装置及半导体处理设备，通过卡盘的移动部对晶圆进行直接温度控制，从而可以快速且有效地控制晶圆的温度，提高晶圆的温度均匀性，提升工艺效果。