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(54) Title: DEVICE AND METHOD FOR BONDING ALIGNMENT

(54) 发明名称: 一种键合对准设备和方法

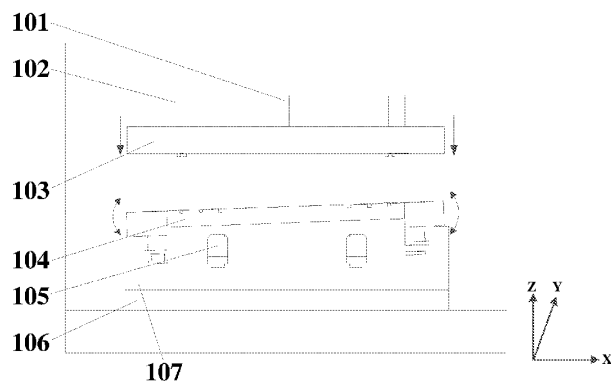


图 1

(57) Abstract: Provided are a device and method for bonding alignment. The device for bonding alignment comprises a platen assembly and an objective lens (105) located at one side of the platen assembly. The platen assembly comprises a first substrate supporting platform (103) and a rotatable second substrate supporting platform (104). If surfaces of the first and second substrate supporting platforms are not parallel to each other, the second substrate supporting platform is rotated such that the surfaces of the first and second substrate supporting platforms are parallel to each other. Next, a first substrate (301) is loaded to the first substrate supporting platform. Since one side of the platen assembly is provided with the objective lens, an alignment mark (302) on the first substrate can be observed. Next, a second substrate (501) is loaded to the second substrate supporting platform. The objective lens is used to observe an alignment mark (502) on the second substrate. The two substrates are moved according to an observation result obtained by means of the objective lens, such that the alignment marks of the two substrates are aligned, thereby realizing bonding alignment of the two substrates. The method for bonding alignment comprises, substrate supporting platforms are adjusted first, and then substrates are aligned. The invention does not need a very high precision device, thereby reducing complexity of a device. Moreover, adjusting substrate supporting platforms

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first ensures global precision control with respect to alignment of substrates, and can in particular reduce wedge error resulting from bonding of deformed substrates.

(57) 摘要: 提供一种键合对准设备和方法, 其中键合对准设备包括压盘组件和位于压盘组件一侧的物镜组 (105), 压盘组件包括一个第一承片台 (103) 和一个可旋转的第二承片台 (104), 若第一、第二承片台之间台面不平行, 则旋转第二承片台使得两者的台面平行, 然后将第一基片 (301) 上载到第一承片台上, 由于压盘组件的一侧设置了物镜组, 其可以观察第一基片上的对准标记 (302), 然后将第二基片 (501) 上载到第二承片台上, 物镜组观察第二基片上的对准标记 (502), 根据物镜组的观察情况, 移动两个基片使得两个基片的对准标记对准, 则完成了两个基片的键合对准。键合对准方法是先调整承片台, 然后对准基片, 无需设置过高精密的设备, 减少了设备的复杂度, 而且先调整承片台能够确保对基片对准的全局精度的掌控, 尤其能够减少由于基片变形后键合所产生的楔形误差。