

substrate holder. In particular, the compensation of the distortions is not permanent, i.e. the distortions re-emerge when the active controllable deformation elements of the substrate holders are switched off or the substrates are removed.

The substrate deforms back into its original shape, i.e. it behaves elastically. In the prior art, an attempt is made to compensate for the distortions by means of such substrate holders before further process steps are carried out on the substrate. One of the most important processes, in which it must be ensured that the local and/or global distortions of at least one substrate surface have been compensated for before proceeding onwards, is the aforementioned bonding.

Embodiment of the present invention eliminate the drawbacks of the prior art.

All combinations of at least two of the features stated in the description, in the claims and/or the figures also fall within the scope of the invention. Values lying within the stated limits are also disclosed as limiting values in the stated value ranges and can be claimed in any combination.

According to a first aspect of the present invention, there is provided a method for compensating for distortions on at least one substrate surface of a substrate, wherein at least one local action is produced on at least one of the substrate surfaces.

According to a second aspect of the present invention, there is provided a device for compensating for distortions on at least one substrate surface of a substrate, wherein at least one local action can be produced on at least one of the substrate surfaces.

According to a third aspect of the present invention, there is provided a product produced with the above method and/or the above device.

Especially when a plurality of distortions are present, not all the distortions present have to be compensated for. It is also possible to let several distortions continue to be present, in order to achieve a desired distortion. Preferably, however, distortions in the vicinity of functional units and structures are mainly compensated for, since such distortions represent a drawback in further process steps.

In particular, it is conceivable that the at least one local action is generated with the purpose of producing deformations in order to bring the substrate into a desired shape. In particular, a partial region of the substrate which does not have any distortion can be deformed by the at least one local action, in order to compensate for a distortion in another partial region.

The at least one local action compensates for the at least one distortion in at least one substrate surface and in particular produces deformations at another point. The newly produced deformations will improve the newly created state of the at least one substrate surface.

In particular, provision is made such that the device comprises means for generating the local action, wherein the means for generating the local action preferably comprise a laser.

The substrate is in particular a wafer.