

Method and Device for Bonding Substrates

Abstract

The invention relates to a method and a corresponding device for bonding a first contact surface (35k) of a first substrate (35) to a second contact surface (36k) of a second substrate (36) with the following steps, in particular the following sequence:

- Arrangement of a substrate stack (14), formed from the first substrate (35) and the second substrate (36) and aligned on the contact surfaces (35k, 36k), between a first heating surface (15) of a first heating system (30) and a second heating surface (19) of a second heating system (26), whereby
 - a) The first heating surface (15) is arranged facing a first surface (35o) of the first substrate (35), facing away from the first contact surface (35k),
 - b) The second heating surface (19) is arranged facing a second surface (36o) of the second substrate, facing away from the second contact surface (36k),
 - c) Between the first surface (35o) and the first heating surface (15), there is a separation distance $A > 0 \mu\text{m}$, and
 - d) Between the second surface (36o) and the second heating surface (19), there is a separation distance $B > 0 \mu\text{m}$,
- Heating the heating surfaces (15, 19) and approaching the substrate stack (14) to the heating surfaces (15, 19) by reducing the separation distances A and B to $0 \mu\text{m}$,
- Forming a bond between the first contact surface (35k) and the second contact surface (36k) by pressurization of the substrate stack (14) on the surfaces (35o, 36o).

Figure 6.