Method for Permanent Bonding of Wafers

Abstract

This invention relates to a method for bonding of a first contact surface (3) of a first substrate (1) to a second contact surface (4) of a second substrate (2) with the following steps, especially the following sequence:

- forming a reservoir (5) in a surface layer (6) on the first contact surface (3), the first surface layer (6) consisting at least largely of a native oxide material,
- at least partial filling of the reservoir (5) with a first educt or a first group of educts,
- the first contact surface (3) making contact with the second contact surface (4) for formation of a prebond connection,
- forming a permanent bond between the first and second contact surface (3, 4), at least partially strengthened by the reaction of the first educt with a second educt contained in a reaction layer (7) of the second substrate.

Figure 5