- exposing the first contact surface (3) to the atmosphere, especially with a high oxygen and/or water content,
- exposing the first contact surface (3) to a fluid consisting especially predominantly, preferably almost completely, of especially deionized H_2O and/or H_2O_2,
- exposing the first contact surface (3) to N_2 gas and/or O_2 gas and/or Ar gas and/or forming gas, especially consisting of 95% Ar and 5% H_2, especially with an ion energy in the range from 0 to 200 eV.

12. The method as claimed in one of the preceding claims, wherein the formation and the filling of a reservoir take place additionally on the second contact surface (4), especially in the growth layer (8), and the formation of the permanent bond is additionally strengthened by reaction of the first educt with a second educt contained in a reaction layer (7') of the first substrate (1).

13. The method as claimed in one of the preceding claims, wherein the average distance (B) between the reservoir (5) and the reaction layer (7) immediately before formation of the permanent bond is between 0.1 nm and 15 nm, especially between 0.5 nm and 5 nm, preferably between 0.5 nm and 3 nm.

14. The method as claimed in one of the preceding claims, wherein the irreversible bond has a bond strength which comprises twice, preferably 4 times, more preferably 10 times, most preferably 25 times the prebond strength.

15. The method as claimed in one of the preceding claims, wherein the size of the reservoir (5) is configured to hold the first educt and to accomodate excess first educt remaining from the reaction of the first educt with the second educt.

16. The method as claimed in one of the preceding claims, wherein O_2-gas is used for plasma discharge.