ABSTRACT

METHOD OF BONDING TWO SUBSTRATES

The invention provides a method of bonding two substrates together during which the surfaces of said substrates are brought into contact with each other, comprising at least one step of cleaning the surface of one and/or the other of the substrates to be bonded before their surfaces are brought into contact, characterized in that the cleaning step is carried out so that each surface cleaned is not significantly roughened, and in that the bonding is furthermore preceded by heating at least one substrate to be bonded, said heating being initiated before the surfaces of the substrates are brought into contact and continued at least until they have been brought into contact.

The invention also relates to a method of forming a structure comprising a thin layer of semiconductor material transferred from a donor substrate onto a second substrate, the method comprising co-implantation of two atomic species into the donor substrate so as to create a weakened zone delimiting the thin layer to be transferred, and bonding said substrates together, characterized in that the two atomic species are implanted so that their peaks have an offset of less than 200 Å in the thickness of the donor substrate, and in that the bonding is carried out by the method described above.

FIGURE 3