## ABSTRACT OF THE DISCLOSURE

The invention relates to a method of forming a structure comprising a layer taken off from a donor wafer, the donor wafer comprising prior to taking-off a first layer and a second layer in different materials.

The method comprises the following steps:

(a) implanting atomic types to form a weakness zone under the second layer;

(b) bonding the donor wafer to a host wafer;

(c) supplying energy so as to disunite the layers taken off from the donor wafer from the weakness zone;

(d) selective etching of the remaining part of the first layer with respect to the second layer.

The method comprises moreover a step capable of strengthening the bond, carried out at a temperature below around 800°C (1,472°F).

The implantation parameters of the implantation carried out in step (a) are adjusted so as to minimise the surface roughness which appears immediately after carrying out step (c).

Figure 3d