

ABSTRACT OF THE DISCLOSUREA METHOD OF OBTAINING A THIN FILM OF SEMICONDUCTOR
MATERIAL INCLUDING NOTABLY ELECTRONIC COMPONENTS

The invention relates to a method of obtaining a thin film from a substrate made of semiconductor material, the thin film including at least one element (3) made of a material different from the said semiconductor material, on one face of the substrate and conferring to the thin film a heterogeneous structure. It comprises the following steps:

- implantation by bombardment of the face (2) of said substrate by ions in order to create in the volume of the substrate gaseous microbubbles (21 to 24), the implantation being carried out having regard to the element produced in such a way that a continuous area of gaseous microbubbles (21, 24) is obtained demarcating a region of small thickness, on the side of said face (2) of the substrate and containing said element (3) and a region of appreciably greater thickness formed by the rest of the substrate,

- then, thermal treatment of the substrate at a temperature that is sufficient to create, by a crystalline rearrangement effect in the substrate and the effect of pressure of the microbubbles, a separation of the two regions situated on each side of the area of gaseous microbubbles (21, 24), the region of small thickness constituting the thin film.

FIG. 3