

ABSTRACT

Process for fabricating a detachable structure in the form of a wafer, in particular made of silicon, and application of this process

Process for fabricating a structure in the form of a wafer, comprising at least a substrate (3), a superstrate (5) and at least one intermediate layer (4) interposed between the substrate and the superstrate, consisting: in forming, on a substrate, at least one intermediate layer comprising at least one base material in which what are called extrinsic atoms or molecules are distributed, these differing from the atoms or molecules of the base material, so as to constitute a substructure (2); in applying a base heat treatment to this substructure (2) such that, in the temperature range of this heat treatment, the presence of the chosen extrinsic atoms or molecules in the chosen base material causes a structural transformation of said intermediate layer; and in joining a superstrate (5) to said heat-treated intermediate layer (4) so as to obtain said structure (1) in the form of a wafer.

Application of the process to the fabrication of detachable semiconductor structures.

Reference: Figure 3