TITLE OF THE INVENTION

Thin film splitting method

TEXT OF THE ABSTRACT

A method of fabricating thin films of semiconductor materials by implanting ions in a substrate composed of at least two different elements at least one of which can form a gaseous phase on bonding with itself and/or with impurities includes the following steps:

(1) bombarding one face of the substrate with ions of a non-gaseous heavy species in order to implant those ions in a concentration sufficient to create in the substrate a layer of microcavities containing a gaseous phase formed by the element of the substrate;

(2) bringing this face of the substrate into intimate contact with a stiffener; and

(3) obtaining cleavage at the level of the microcavity layer by the application of heat treatment and/or a splitting stress.

(no figure)