SOI SUBSTRATES WITH A FINE BURIED INSULATING LAYER

ABSTRACT

A method of producing a semiconductor structure 6, 6', 6''' with a fine buried insulating layer presenting a thickness between 2 and 25nm, including the following stages: forming at least one insulating layer 3, 4 on a surface 3' of a first substrate and/or on a surface 4' of a second substrate 2, said surfaces 3', 4' being free from an insulator or presenting a native oxide layer resulting from exposure of the substrates to the ambient; assembling said first and second substrates 1 and 2; thinning down said first substrate 1, in order to obtain said semiconductor structure, the insulating layer forming stage consists in a plasma activation based on oxidising and/or nitriding gas.

Fig. 3F