METHOD FOR MEASURING THE THICKNESS OF A SURFACE LAYER OF AN SOI SUBSTRATE

ABSTRACT

The invention relates to a method for measuring at least one thickness parameter of a surface layer of an SOI substrate, comprising the following steps:

a) carrying out a thickness measurement at a predefined number of first points that are spatially distributed over the surface, resulting in a first series of values comprising a first maximum and a first minimum; the thickness measurement being carried out using a first technique;

b) producing a complete map of the surface of the surface layer using a second technique, different from the first technique, the map reflecting a physical characteristic of the surface layer correlated with thickness;

c) analysing the map so as to identify whether there is a signature liable to reflect a variation in thickness, greater than or equal to the difference between the first maximum and the first minimum, in a localized region of the surface layer;

d) if a signature is identified, carrying out a thickness measurement at a plurality of second points positioned in the localized region, resulting in a second series of values comprising a second maximum and/or a second minimum; the thickness measurement being carried out using the first technique;

e) calculating at least one thickness parameter, based on the first series of values and, potentially, on the second series of values.

Fig. 4a