

DESCRIPTION

~~METHOD FOR MANUFACTURING SOI WAFER~~

TECHNICAL FIELD

[0001]

The present invention relates to a method of manufacturing an SOI wafer, and more particularly to a method of manufacturing an SOI wafer that requires extremely high uniformity of SOI layer thickness, called Fully Depleted Silicon-On-Insulator (FDSOI).

BACKGROUND ART

[0002]

One of conventional methods for thinning an SOI layer is to subject an SOI wafer to heat treatment with a batch heat treatment furnace, change silicon on the SOI surface into an oxide film by oxidation, and then remove the oxide film.

[0003]

This method requires precisely controlling the thickness of the oxide film to be an aimed value in order to accurately reduce SOI film thickness (the thickness of the SOI layer) to an intended value (a target value). However, it is very difficult to precisely control the thickness of an actual oxide film, which is grown by heat treatment, since the oxidation rate is changed depending on variation of pressure during oxidation. Thus, when oxidation is used for thinning, the following method has been employed: the layer is thinned by oxidation such that the SOI film thickness after thinning is slightly thicker than an intended value, and then the layer is further thinned by etching for a controlled etching period such

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