

DESCRIPTION

~~SOI WAFER MANUFACTURING METHOD~~

TECHNICAL FIELD

[0001]

The present invention relates to a method for manufacturing an SOI wafer by an ion implantation delamination method.

BACKGROUND ART

[0002]

In conventional examples, at an outer peripheral portion of an SOI wafer fabricated by the ion implantation delamination method, an SOI layer is not transferred, and a terrace where a base wafer surface is exposed is formed. A main cause thereof is that bonding force between bonded wafers is weak since flatness of the wafers becomes poor due to polishing sag at a wafer outer peripheral portion and the SOI layer is hardly transferred to the base wafer side.

[0003]

Observing a terrace portion of this SOI wafer with the use of an optical microscope, an SOI island that the SOI layer is isolated in an island shape is observed at a boundary between the SOI layer and the terrace portion. It can be considered that the SOI island is generated in a transitional region of flatness that allows transfer of the SOI layer and flatness that does not allow transfer of the same. There is concern that such an SOI island delaminates from a wafer during a device fabrication process, turns to a silicon particle to again adhere to a device fabrication region, and causes

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