

DESCRIPTION

PRODUCTION METHOD FOR MIRROR-POLISHED WAFERS

TECHNICAL FIELD

[0001]

The present invention relates to a method for producing a mirror-polished wafer, the method which produces a plurality of mirror-polished wafers.

BACKGROUND ART

[0002]

In the past, a method for producing a silicon wafer has been generally formed of the following processes. First, a slicing process is performed in which a silicon ingot pulled upwardly by a silicon single crystal pulling apparatus is sliced by a wire saw by using fine SiC powder to obtain silicon wafers in the shape of a thin disk. Then, a chamfering process is performed in which an outer edge portion of each silicon wafer is chamfered to prevent chipping and cracking in the silicon wafer obtained by slicing.

[0003]

Next, a lapping process adopting a planetary motion method is performed, the lapping process in which a plurality of silicon wafers are sandwiched between cast-iron upper and lower turn tables and machined in order to remove strain on a surface of each silicon wafer, the strain caused by the slicing process, and make the silicon wafers have uniform thickness. At this time, the silicon wafers are lapped while receiving supply of free abrasive grains such as alumina.

[0004]

Then, a wet etching process is performed in which a mechanically damaged layer generated in the chamfering process

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