Abstract

SINGLE CRYSTAL SILICON PLATE-SHAPED BODY AND PRODUCTION METHOD THEREFOR

An object of the invention is to develop a single crystal silicon that becomes such a high-performance device as a solar cell or a power device in which decrease in lifetime is suppressed even if heating treatment from 800℃ to 1100℃ performed in a device production process is applied in a single crystal silicon plate-shaped body having a high oxygen concentration. Provided is a single crystal silicon plate-shaped body as cut out from an upper portion of a straight body portion of a CZ method single crystal silicon ingot in which an interstitial oxygen concentration in a crystal is 25 ppma to 45 ppma and a substitutional carbon concentration is 0.5 ppma or less in a radial center, wherein in the radial center, oxygen precipitates are not observed in a bulk in an image of 200,000 times by means of a transmission electron microscope, and after heating the single crystal silicon plate-shaped body at 950℃ for 60 minutes, oxygen precipitates are observed in an image of the 200,000 times, and a shape of the oxygen precipitates is observed in a polyhedral structure in an image of 2,000,000 times.

(Fig.1)