Abstract

Silicon wafer and method for producing it

The invention relates to a silicon wafer having an oxygen concentration of $5 \cdot 10^{17}$ to $7.5 \cdot 10^{17}$ cm^{-3}, which has the following BMD densities after the following thermal processes, carried out alternatively:
- a BMD density of at most $1 \cdot 10^{8}$ cm^{-3} after a treatment for three hours at 780°C and subsequently for 16 hours at 1000°C, and
- a BMD density of at least $1 \cdot 10^{9}$ cm^{-3} after heating of the silicon wafer at a heating rate of 1 K/min from a start temperature of 500°C to a target temperature of 1000°C and subsequent holding at 1000°C for 16 hours.

The invention also relates to a method for producing said silicon wafer by irradiation with flashlight.