Abstract

Semiconductor wafer composed of silicon and method for producing same

A semiconductor wafer composed of monocrystalline silicon having a front side and having a rear side and having a denuded zone, which extends from the front side to the rear side as far as a depth which between a center and an edge of the semiconductor wafer on average is not less than 8 μm and not more than 18 μm, and having a region which adjoins the denuded zone and has BMDs whose density at a distance of 30 μm from the front side is not less than 2×10^9 cm^{-3}. The method for producing the semiconductor wafer comprises providing a substrate wafer composed of monocrystalline silicon and an RTA treatment of the substrate wafer, which is subdivided into a first thermal treatment of the substrate wafer in an atmosphere consisting of argon and into a second thermal treatment of the substrate wafer in an atmosphere consisting of argon and ammonia.

Drawing for the abstract: figure 2