

Abstract**Process for producing semiconductor wafers**

A process for producing a semiconductor wafer of single-crystal silicon, comprising provision of a substrate wafer of single-crystal silicon which contains interstitial
5 oxygen in a concentration of more than 5×10^{16} AT/cm³ (new ASTM); an RTA treatment of the substrate wafer containing a first heat treatment of the substrate wafer at a first temperature in a temperature range of not less than 1200°C and not more than 1260°C for a period of not less than 5 s and not more than 30 s, wherein a front side of the substrate wafer is exposed to an atmosphere containing argon,
10 a second heat treatment of the substrate wafer at a second temperature in a temperature range of not less than 1150°C and not more than 1190°C for a period of not less than 15 s and not more than 20 s, wherein a front side of the substrate wafer is exposed to an atmosphere containing argon and ammonia,
and a third heat treatment of the substrate wafer at a third temperature in a
15 temperature range of not less than 1160°C and not more than 1190°C for a period of not less than 20 s and not more than 30 s, wherein a front side of the substrate wafer is exposed to an atmosphere containing argon.

Figure accompanying the abstract: Fig. 1