

Process for reducing the boron concentration of a semiconductor layer**Abstract**

The present disclosure relates to a process for reducing the boron concentration of a semiconductor layer (12) of a semiconductor-on-insulator substrate (1), comprising:

5 - at least one heat treatment cycle, each cycle comprising a thermal oxidation of said semiconductor layer (12) so as to form an oxide layer (120) on the semiconductor layer (12), wherein, by boron segregation, boron atoms from the semiconductor layer (12) diffuse into the oxide layer (120) so as to create a boron concentration deficit in the semiconductor layer (12) at the interface with the oxide layer (120), and

10 - removing the oxide layer (120),

 in which the thermal oxidation comprises a temperature increase under an inert atmosphere above a target thermal oxidation temperature followed by a temperature decrease down to said target thermal oxidation temperature so as to form a temperature gradient in the substrate in order to give rise to a higher rate of formation
15 of the oxide layer (120) at the centre of the semiconductor layer than at the edge.

Figure for the abstract: Figure 5