

ABSTRACT

To provide a method of using a boron diffusion source, whereby time until carrying out reoxidizing treatment is extended, and a method for producing a semiconductor using it.

A method of using a boron diffusion source, characterized by using a boron diffusion source
5 made of a composite sintered body comprising an Al_2O_3 component, a SiO_2 component and a BN component in a non-oxidizing gas atmosphere with an oxygen concentration of from 0.3 to 5 vol%.
Further, a method for producing a semiconductor, characterized by placing a boron diffusion source made of a composite sintered body comprising an Al_2O_3 component, a SiO_2 component and a BN component wherein as the boron diffusion source, a composite sintered body is used wherein the
10 total content of the Al_2O_3 component and the SiO_2 component is from 30 to 70 mass%, the content of the BN component is from 30 to 70 mass%, and the molar ratio of $\text{Al}_2\text{O}_3/\text{SiO}_2$ is from 1.0 to 2.4 and a semiconductor wafer in a diffusion furnace and heating them under a non-oxidizing gas atmosphere with an oxygen concentration of from 0.3 to 5 vol.%