

Abstract

A significant reduction in the burden on an evacuation operator and a significant reduction in evacuation cost are achieved when the concentration of impurities included in silicon are measured in liquid helium by a photoluminescence method. A glass which serves as a material for forming an inner cylinder Dewar flask (2) has an SiO₂ content of 65% by weight to 75% by weight, and has an average thermal expansion rate of $25 \times 10^{-7}/^{\circ}\text{C}$ to $55 \times 10^{-7}/^{\circ}\text{C}$ when the temperature of the glass is 20°C to 300°C.

Fig. 2 accompanies abstract