

ABSTRACT

WAFER PRODUCING METHOD

Disclosed herein is a wafer producing method for producing a hexagonal single crystal wafer from a hexagonal single crystal ingot. The wafer producing method includes a separation start point forming step of applying a laser beam having a transmission wavelength to the ingot to thereby form a modified layer parallel to the upper surface of the ingot and cracks extending from the modified layer, thus forming a separation start point. The separation start point forming step includes a modified layer forming step of relatively moving the focal point of the laser beam in a first direction perpendicular to a second direction where a c-axis in the ingot is inclined by an off angle with respect to a normal to the upper surface and the off angle is formed between the upper surface and a c-plane perpendicular to the c-axis, thereby linearly forming the modified layer extending in the first direction. In the modified layer forming step, the laser beam is applied to the ingot in the condition where the direction of the polarization plane of the laser beam is set to the first direction as a processing direction.

(Figure 11)