

ABSTRACT

WAFER PRODUCING METHOD

A wafer producing method for producing a hexagonal single crystal wafer from a hexagonal single crystal ingot is disclosed. The wafer producing method includes a separation start point forming step of setting the focal point of a laser beam having a transmission wavelength to the ingot inside the ingot at a predetermined depth from the upper surface of the ingot, which depth corresponds to the thickness of the wafer to be produced, and next applying the laser beam to the upper surface of the ingot as relatively moving the focal point and 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. In the separation start point forming step, the laser beam includes a plurality of laser beams to be simultaneously applied to form a plurality of linear modified layers. The focal points of the plural laser beams are arranged with a predetermined spacing in the direction of formation of an off angle.

(Figure 7)