

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 a 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 along a c-plane, thus forming a separation start point. The separation start point forming step includes a modified layer forming step of linearly forming the modified layer and an indexing step of relatively moving the focal point in the direction where an off angle is formed and the c-plane is inclined downward to thereby index the focal point by a predetermined amount.

(Figure 11)