

ABSTRACT

WAFER PRODUCING METHOD

A wafer producing method for producing a wafer having an off angle α from a hexagonal single crystal ingot having an upper surface, a c-plane exposed to the upper surface, and a c-axis perpendicular to the c-plane is disclosed. The wafer producing method includes a supporting step of supporting the ingot through a wedge member having a wedge angle α to a support table having a horizontal supporting surface, the wedge angle α being equal to the off angle α , thereby inclining the upper surface of the ingot by the off angle α with respect to a horizontal plane, a modified layer forming step of setting the focal point of a laser beam having a transmission wavelength to the ingot inside the ingot at a fixed vertical position and next applying the laser beam to the upper surface as relatively moving the focal point and the ingot in a first direction perpendicular to a second direction where the off angle α is formed, thereby linearly forming a modified layer inside the ingot and cracks extending from the modified layer along the c-plane, and an indexing step of relatively moving the focal point in the second direction to index the focal point by a predetermined amount.

(Figure 6)