

ABSTRACT OF THE DISCLOSURE

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 along a c-plane in the ingot, thus forming a separation start point. The separation start point forming step includes a first step of scanning the laser beam from a scanning start point to a scanning end point on the ingot and a second step of scanning the laser beam from the scanning end point to the scanning start point, wherein the first step and the second step are alternately repeated plural times to thereby separate the cracks from the modified layer.

(Fig. 12A)