

ABSTRACT

SiC WAFER PRODUCING METHOD

Disclosed herein is an SiC wafer producing method for producing an SiC wafer from a single crystal SiC ingot. The SiC wafer producing method includes a separation layer forming step of setting a focal point of a pulsed laser beam having a transmission wavelength to single crystal SiC inside the ingot at a predetermined depth from an end surface of the ingot, the predetermined depth corresponding to the thickness of the wafer to be produced, and next applying the pulsed laser beam to the ingot, thereby forming a plurality of modified portions on a c-plane present in the ingot at the predetermined depth and also forming cracks isotropically on the c-plane so as to extend from each modified portion, each modified portion being a region where SiC has been decomposed into Si and C, the modified portions and the cracks constituting a separation layer along which the wafer is to be separated from the ingot.

(Figure 6A)