

ABSTRACT

THIN PLATE SEPARATING METHOD

Disclosed herein is a thin plate separating method for separating a thin plate from an SiC substrate having a first surface, a second surface opposite to the first surface, a c-axis extending from the first surface to the second surface, and a c-plane perpendicular to the c-axis, the thin plate being formed by epitaxial growth on the first surface of the SiC substrate. The thin plate separating method includes a separation start point forming step of setting the focal point of a laser beam having a transmission wavelength to the SiC substrate near the first surface of the SiC substrate from the second surface of the SiC substrate, and next applying the laser beam to the second surface as relatively moving the focal point and the SiC substrate to thereby form a modified layer parallel to the first surface and cracks extending from the modified layer along the c-plane, thus forming a separation start point, and also includes a separating step of applying an external force to the SiC substrate to separate the thin plate from the SiC substrate at the separation start point after performing the separation start point forming step.

(Figure 7)