**WHAT IS CLAIMED IS:**

1. A wafer producing method for producing a hexagonal single crystal wafer from a hexagonal single crystal ingot having a first surface, a second surface opposite to said first surface, a c-axis extending from said first surface to said second surface, and a c-plane perpendicular to said c-axis, said wafer producing method comprising:

a separation start point forming step of setting a focal point of a laser beam having a transmission wavelength to said hexagonal single crystal ingot inside said hexagonal single crystal ingot at a predetermined depth from said first surface, which depth corresponds to the thickness of said wafer to be produced, and next applying said laser beam to said first surface as relatively moving said focal point and said hexagonal single crystal ingot to thereby form a modified layer parallel to said first surface and cracks extending from said modified layer along said c-plane, thus forming a separation start point; and

a wafer separating step of separating plate-shaped member having a thickness corresponding to the thickness of said wafer from said hexagonal single crystal ingot at said separation start point after performing said separation start point forming step, thus producing said wafer from said hexagonal single crystal ingot;

said separation start point forming step including

a modified layer forming step of relatively moving the focal point of said laser beam in a first direction perpendicular to a second direction where said c-axis is inclined by an off angle with respect to a normal to said first surface and said off angle is formed between said first surface and said c-plane, thereby linearly forming said modified layer extending in said first direction, and

an indexing step of relatively moving said focal point in said second direction to thereby index said focal point by a predetermined amount,

wherein in said modified layer forming step, said laser beam includes a plurality of laser beams to be simultaneously applied to form a plurality of linear modified layers, the focal points of said laser beams being arranged in said second direction with a predetermined spacing.

2. The wafer producing method according to claim1, wherein in said modified layer forming step, the predetermined spacing between any adjacent ones of said focal points is set so that the upper limit of said predetermined spacing becomes nearly equal to a spacing defined when the front ends of said cracks extending from said adjacent modified layers in said second direction overlap each other.

3. The wafer producing method according to claim 1, wherein in said indexing step, the index amount L is given as L = H × M, where H is said predetermined spacing and M is the number of said focal points.

4. The wafer producing method according to claim 1, wherein said hexagonal single crystal ingot is selected from an SiC single crystal ingot and a GaN single crystal ingot.