

ABSTRACT

METHOD OF PROCESSING SINGLE-CRYSTAL MEMBER

A method of processing a single-crystal member includes setting the peak energy density of a pulsed laser beam to a value in a range from 1 TW/cm² to 100 TW/cm², and applying the pulsed laser beam to the single-crystal member while positioning a converged point of the pulsed laser beam at a predetermined position spaced from an upper side of the single-crystal member to grow fine a hole and a amorphous region shielding the fine hole from the upper side of the single-crystal member, thereby forming a shield tunnel in the single-crystal member.

(Figure 6C)