

Stanislav Lilov, Taro Nishiguchi, Shigehiro Nishino. STUDY ON THE GROWTH CONDITIONS OF SILICON CARBIDE MONOCRYSTALS FROM VAPOR PHASE

In the present work are presented the results on the investigation of some kinetic growth conditions during the growth of 6H-SiC monocrystalline ingots. The kinetic coefficient of crystallization is determined. It is obtained an experimental dependence of the movement of the front of crystallization on the time during the growth process. The suitable conditions for the establishment of a stable crystal growth of 15R-SiC on 4H-SiC and 6H-SiC substrates are discussed. For the growth of 15R-SiC on 6H-SiC and 4H-SiC substrates are needed growth temperatures lower than 2000 C and 1800 C, respectively.

Key words: silicon carbide, crystals, growth, vapor phase, sublimation

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