SIMULATION OF THE FORMATION OF PRIMARY GROWN-IN MICRODEFECTS IN DISLOCATION-FREE SILICON SINGLE CRYSTALS

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S u m m a r y

A mathematical model of the formation of primary grown-in microdefects on the base of the dissociation diffusion process is presented. The cases of the interactions "oxygen-vacancy" (V+O) and "carbon-self-interstitials" (C+I) near the crystallization front for dislocation-free silicon single crystals, which were obtained by the floating zone and Czochralski methods, are considered. The obtained approximate analytic expressions correlate with the heterogeneous mechanism of the formation of grown-in microdefects.