

Abstract

Method for recharging raw material polycrystalline silicon

To provide a method for recharging raw material polycrystalline silicon, which enables large chunks of polycrystalline silicon to be recharged while preventing a crucible from being damaged and ruptured as well as restricting the decline of the dislocation free rate and the quality of the grown ingot.

When polycrystalline silicon chunks are recharged, cushioning layer formation polycrystalline silicon chunks Sb, which are small-sized polycrystalline silicon chunks S1 or middle-sized polycrystalline silicon chunks S2, are introduced first. The cushioning layer formation polycrystalline silicon chunks Sb are deposited on a surface 41 of a silicon melt 40 in a crucible 20 and form a cushioning layer 50. Since next, large-sized polycrystalline silicon chunks S3 are introduced onto the cushioning layer 50, the cushioning layer 50 cushions the impact due to the dropping of the large-sized polycrystalline silicon chunks S3.

Fig. 2-3(e)