

Abstract

Apparatus for pulling a single crystal of semiconductor material by the CZ method from a melt and method using the apparatus

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An apparatus and method for pulling a single crystal of semiconductor material by the CZ method from a melt, said apparatus comprising

a crucible to accommodate the melt;

a resistance heater arranged around the crucible;

10 a camera system for observing a phase boundary between the melt and the growing single crystal, where the camera system has an optical axis; and

a heat shield in frustoconical form with narrowing diameter in the region of its lower end and arranged above the crucible and surrounding the growing single crystal, characterized by

15 an annular element for capturing particles that projects inward from an inner side face of the heat shield and has an arrestor edge directed upward at its inner end, wherein the optical axis of the camera system runs between the arrestor edge and the growing single crystal.

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Drawing relating to abstract: fig. 1