

A method for preparation of of dislocation-free single-crystals of silicon by the method of crucibleless zone melting includes growing on the seed of thin "journal", growth of the conical section of single-crystal to the set diameter and subsequent growing of cylindrical part of single-crystal of D diameter with the use of inductor with the d internal diameter, which is less than D value. Growth of the conical section of single-crystal to the diameter, equal 0.7-0.8 of the internal diameter of inductor is carried out with the decreasing of the traverse speed of molten zone according to the ratio $V = 9-0.26 \times D$. Then on the area of growth to the diameter, equal 1.0-1.1 of the inductor internal diameter, the traverse speed of molten zone is held up constant. Subsequent single-crystal growth to the set diameter is carried out with the increasing of the traverse speed of molten zone to the achievement of its set value.