

Abstract :

In the present study three-dimensional numerical results are performed to analyze the effect of a transverse magnetic field on the crystal growth in traditional and new geometries, cylindrical and hemispherical. In addition, we show in our paper that a new three-dimensional approach based on the pressure, which plays an important role involving directly in the crystal growth process. The evolution of the pressure in the Czochralski melt under a transverse magnetic field was not studied before to our best knowledge.