

Device for growing oriented metal monocrystals using method of vertical directed crystallization comprises heater with heat shields, inside which crucible-container with channels for growing monocrystals is located, which is attached at the bottom to rod with the possibility of withdrawing it downward from heater for cooling. At the end of conical section of channels, openings are provided that lead to recesses for seed crystals. In the upper part of crucible-container, there is chamber for loading starting material; in the conical bottom of which there is opening that, through channels, connects chamber to all channels.