ABSTRACT

The present invention provides an apparatus for producing single crystals according to the Czochralski method, the apparatus including a chamber that can be divided into a plurality of chambers; at least one of the plurality of divided chambers having a circulating coolant passage in which a circulating coolant for cooling the chamber circulates; and measuring means that respectively measure an inlet temperature, an outlet temperature, and a circulating coolant flow rate of the circulating coolant in the circulating coolant passage; the apparatus further including a calculating means that calculates a quantity of heat removed from the chamber and/or a proportion of the quantity of removed heat, from the measured values of the inlet temperature, outlet temperature, and circulating coolant flow rate; and a pulling rate control means that controls a pulling rate of the single crystal based on the resulting quantity of removed heat and/or the resulting proportion of the quantity of removed heat. The invention also provides a method for producing single crystals using the apparatus. Thus, an apparatus and a method for producing single crystals are provided for producing single crystals while easily stabilizing the crystal quality.