

ABSTRACT

A refrigerator includes: a heat insulation box having a storage space therein, the storage space being partitioned into a plurality of storage compartments by a partition member; a low-temperature compartment provided as one of the storage
5 compartments and configured to store a cooling target object at a temperature equal to or lower than a freezing point of the cooling target object without freezing the cooling target object; a cooling device configured to cool the storage space; and a controller configured to control the cooling device to repeatedly perform a first
10 process of decreasing a compartment temperature of the low-temperature compartment, to a first temperature lower than the freezing point of the cooling target object, from a second temperature higher than the freezing point in a duration set in advance, and a second process of increasing the compartment temperature from the first temperature to the second temperature and maintaining the second temperature
15 value of a difference between the freezing point and the compartment temperature of the low-temperature compartment while the compartment temperature of the low-temperature compartment is lower than the freezing point balances with a time integral value of the difference between the freezing point and the compartment
20 temperature of the low-temperature compartment while the compartment temperature of the low-temperature compartment is higher than the freezing point.