DURATION OF FREEZING OF RAW FOOD MATERIALS WITH RESPECT TO THERMAL CHARACTERISTICS

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The basis of the problem in question is the integral equation of conservation and transfer of energy in processes with phase transitions and chemical reactions. Solution of the equation is obtained in the approximation of constant body density and temperature dependency for specific heat coefficient and thermal conductivity coefficient.

The solution for the equation is obtained. It lies in duration of the process which is composed of cooling process duration and freezing process duration.

The obtained formulae are suitable for engineering calculations of durations of cooling and freezing of food products with respect to thermal characteristics. **Keywords:** cooling, freezing, thermal conductivity, heat capacity.