DEVELOPMENT OF ENERGY EFFICIENT EQUIPMENT FOR DRYING HYDROBINOTS (NON-FISH PRODUCTS OF THE SEA)

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The article is devoted to the development of technical equipment for the drying process of thermolabile hydrobionts (non-fish products of the sea). Modern methods of drying hydrobionts with the use of warm air are described and their main drawbacks are found concerning their main drawbacks regarding the drying of thermolabile hydrobionts (non-fish products of the sea). The urgency of the development of new energy-efficient equipment designs, in particular, for drying process of thermolabile hydrobionts (non-fish products of the sea) in the fluidized layer is given. It will allow to determine optimal parameters of the process, the correct choice of which will improve the quality of the initial products, increase energy saving and intensity of the drying process. The results of the patent search for the existing drying equipment for drying the hydrobionts (non-fish products of the sea) are presented, and their shortcomings are described. The ways for the improvement of the methods and equipment are proposed to develop resource-saving technology for drying thermolabile hydrobionts (non-fish products of the sea). A new industrial equipment (drying plants) is developed to carry out the drying process for various types of thermolabile hydrobionts (non-fish products of the sea) in a fluidized bed using oscillation and a vibro-boiling layer. The article describes the design of the proposed drying plants for the intensification of thermolabile hydrobionts (non-fish products of the sea) drying. The advantages of the proposed equipment for the intensification of thermolabile hydrobionts (non-fish products of the sea) drying are determined. The developed new constructions of drying equipment, in particular, for drying the thermolabile hydrobionts (non-fish products of the sea) makes it possible to reduce metal and energy consumption, intensify the mixing of the product, obtain a large amount of the product of specified humidity, mass exchange, reduce the pelletization of the product.

Keywords: hydrobionts, thermal lability, process, drying, equipment, fluidization, vibro-boiling, layer