

26 – 29 May 2013, Kyiv, Ukraine

PRECONDITIONS OF THE MATERIAL CHOICE AND INERT BODIES SHAPES FOR DRYING OF LIQUID FOODSTUFF

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The analysis of scientific and technical information concerning realization of drying ways for receiving friable foodstuff showed that the perspective there is a way of drying in a boiling layer of inert bodies by spraying of a liquid product on its surface.

The wide nomenclature of products which are dried up in such apparatus, causes a large number of researches in the industry therefore development of the effective way of liquid products drying on the surface of inert bodies in the pseudo-liquefied or vibro of pseudo-liquefied layer is a quite perspective task. When developing it, an important task is material choice of inert bodies, their form and the geometrical dimension.

The researches of drying process of foodstuff on inert bodies surface which have a form of cubes, a sphere from glass, metal, Teflon, aluminum and composites from them are brought by many authors. The important factor here is the dimension of these bodies. So P. G. Romankov says that at increasing of the inert bodies dimensions to 6... 12 mm, a product which is dried up, generally consists of parts in the dimension about 300 microns and looks like "flakes" or grains. The performance of the dryer increases significantly, but the heat-carrier speed also increases, which requires additional energy.

Another authors point to expediency and efficiency of liquid drying and crystal of the forming solutions in the pseudo-liquefied layer of binary inert bodies which consist of the mix of Teflon and aluminum parts.

However, there is not enough information about the impact of size and material of inert solids on heat and mass transfer in drying foodstuff.

So, the important direction of researches is justification of the dimension choice, form and material of inert bodies for drying of liquid and pasty foodstuff on their surface.

KEY WORDS

inert bodies, drying, material, shape, foodstuff

Indicate type of presentation: Oral Poster