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USING ELECTRIC IMPULSES FOR DEHYDRATION MATERIALS

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ABSTRACT

Airflow and anybody by friction with the surface drying biological object have the ability to accumulate electric charges. Water is a weak electrolyte, the more it in the product-materials, the higher its conductivity. In the process of drying, the surface layer of the materials is transformed into thermal insulation layer, which prevents transfer of heat into the depth of the materials, that is, evaporation of liquid from the deeper layers.

When the surface layer of the material dryes, it becomes the dielectric and in during the friction with the air stream is charging. These charges are accumulated and there may come a time when the electric current will be significantly high for the emergence the process of the micro-electro osmosis. Then the liquid under the influence of an electric field to rise through the capillaries to the outer surface of the particles of a biological object, and these particles have overcome significant obstacles [2].

Thus, using this effect or phenomenon, you can intensify the process of drying of biological objects.

KEYWORDS: Materials, Drying, Electricity, Impulses, Impulse Generator, Micro-Electro Osmosis, Capillary, Impulse Frequency, Duty Cycle, Hertz