

Drying method based on a thermoelectric freeze dryer includes freezing the product in a vacuum chamber using Peltier thermoelectric converters with a liquid cooling system, evacuating the chamber and subsequent sublimation drying with desublimation of water vapor on the cooled surface. After freezing the product and evacuating the chamber, the thermoelectric converter located on the product side is disconnected from the power supply. The cooling liquid, which removes heat from the heated side of the thermoelectric converter, which is used for desublimation, is directed through the heat exchange device of the disconnected thermoelectric converter. Heat is transferred from the cooling liquid to the frozen product with the possibility of ensuring the sublimation process. The sublimation drying process is regulated by changing the flow rate of the cooling liquid and the magnitude of the supply current of the thermoelectric converter, which is used for desublimation.