

Title Theoretical Models for Fluid Bed Drying of Cut Vegetables
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Abstract

The main aim of the presented study was to verify the hypothesis that a theoretically created system of equations describing the kinetics of the drying of a single solid body and enabling the modelling of both the first and second fluidisation period of the drying of solids such as vegetables can be a mathematical model of the fluidisation drying of cut vegetables. Logical verification made prior to the experiments, followed by empirical confirmation of the presented model based on the results of measurements of the drying of cut carrots and celery, corroborated the hypothesis to a degree allowing it to be considered verified. Moreover, theoretical models allowing the calculation of drying chamber capacity in designed fluid bed dryers have been suggested.