

[DOWNLOAD](#)

Computational Fluid Dynamics Modelling of a CSRTC Dryer

By Oyeniji, Samuel / Aviara, Ndubisi

Condition: New. Publisher/Verlag: LAP Lambert Academic Publishing | Drying is a preservation method widely used in which water activity of food is decreased to minimize biochemical reactions of degradation. In order to improve the control of this unit operation, it is important to use accurate models to simulate the drying operation most especially the air flow and temperature distribution in the dryer as this is responsible for the uneven drying of the products which is one of the most reoccurring situation in a static convective dryers. This research work tends to simulate the thermal profile of the dryer system and the thermal analysis of the energy and exergy accounting of the dryer. The Computational Fluid Dynamics (CFD) model was designed with SolidWorks 2014 while the flow simulation was performed using SolidWorks Flow Simulation (SWFS) 2014 SP4.0. and then applied to the analysis of the flow parameters. Cut plots of the drying air parameters were generated and explained. The average drying air temperature obtained in the process of the Computational Fluid Dynamics (CFD) simulation was in agreement with the experimental drying temperature with emphasis on the drying tray. The energy and exergy analyses of the dryer were also analyzed. | Format:...



[READ ONLINE](#)
[7.24 MB]

Reviews

This sort of publication is almost everything and taught me to hunting forward and much more. Yes, it is actually play, continue to an amazing and interesting literature. I am pleased to tell you that this is basically the best book we have read through inside my individual life and could be he finest book for ever.

-- **Enrique Ritchie Sr.**

If you need to adding benefit, a must buy book. I have read through and i also am confident that i will likely to study again once again in the future. I am very happy to tell you that here is the best pdf i have read through in my personal existence and may be he finest ebook for actually.

-- **Mabelle Tillman**