



Agricultural Journals

Research in

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Res. Agr. Eng.

**Mirzaee E., Rafiee S.,
Keyhani A., Emam-
Djomeh Z.:
Determining of**

moisture diffusivity and activation energy in drying of apricots

Res. Agr. Eng., 55 (2009): 114-120

In this study, Fick's second law was used as a major equation to calculate the moisture diffusivity for apricot fruit with some simplification. Drying experiments were carried out at the air temperatures of 40, 50, 60, 70, and 80° C and the drying air velocity of 1, 1.5 and 2 m/s. The experimental drying curves showed only a falling drying rate period. The calculated value of the moisture diffusivity varied from 1.7×10^{-10} to 1.15×10^{-9} m²/s for apricot fruit, and the value of activation energy ranged from 29.35 to 33.78 kJ/mol at different velocities of air.

Keywords:

apricots; drying; effective moisture diffusivity; activation energy

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