

## عنوان مقاله:

Estimation of the Moisture Diffusivity in Thin Layer Drying of Armoracia Slices

## محل انتشار:

کنفرانس بین المللی توسعه پایدار، راهکارها و چالش ها با محوریت کشاورزی، منابع طبیعی، محیط زیست و گردشگری (سال: 1393)

تعداد صفحات اصل مقاله: 6

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## خلاصه مقاله:

Armoracia rusticana is cultivated mainly for its roots that are used in the human diet as a pungent spice. The roots represent rich sources of biologically active phytochemicals, which are beneficial for humans. In the present work, the effective moisture diffusivity was calculated using an infinite series solution of Fick's diffusion equation. It was observed that increasing drying temperature and increasing sample size increases effective moisture diffusion. All drying experiments had only falling rate period. The highest values of effective moisture diffusion were  $2.966 \times 10^{-10}$  m<sup>2</sup>/s obtained with sample size of 1×3 cm at air temperature of 80 °C. While the lowest values were  $0.345 \times 10^{-10}$  m<sup>2</sup>/s for the control samples with sample size of 1×1 cm at 60 °C temperature.

## کلمات کلیدی:

Armoracia, Drying, Moisture diffusivity, sample size

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/354435>

