

**Process Modeling and Convective Drying Optimization of Raspberry Pomace as a Fiber-Rich
Functional Ingredient: Effect on Techno-functional and bioactive Properties**

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Table S1. Physicochemical characterization of raspberries (*Rubus idaeus*, Var. ‘Adelita’).

| Parameter | Value |
|----------------------------------|--------------|
| pH | 3.50 ± 0.01 |
| Soluble solids (°Bx) | 11.2 ± 0.15 |
| Titrateable acidity ^a | 0.75 ± 0.13% |
| Maturity index ^b | 14.05 ± 0.25 |
| Color | |
| <i>L</i> * | 39.12 ± 0.15 |
| <i>a</i> * | 34.59 ± 0.41 |
| <i>b</i> * | 13.74 ± 0.24 |

Mean values represent the average ± SD of triplicate experiments. Color parameters (*L**, *a**, *b**) follow the CIELAB color space, where *L** indicates lightness, *a** red/green axis, and *b** yellow/blue axis.

^a Titrateable acidity expressed as g of citric acid per 100 g of juice.

^b °Bx/acidity.

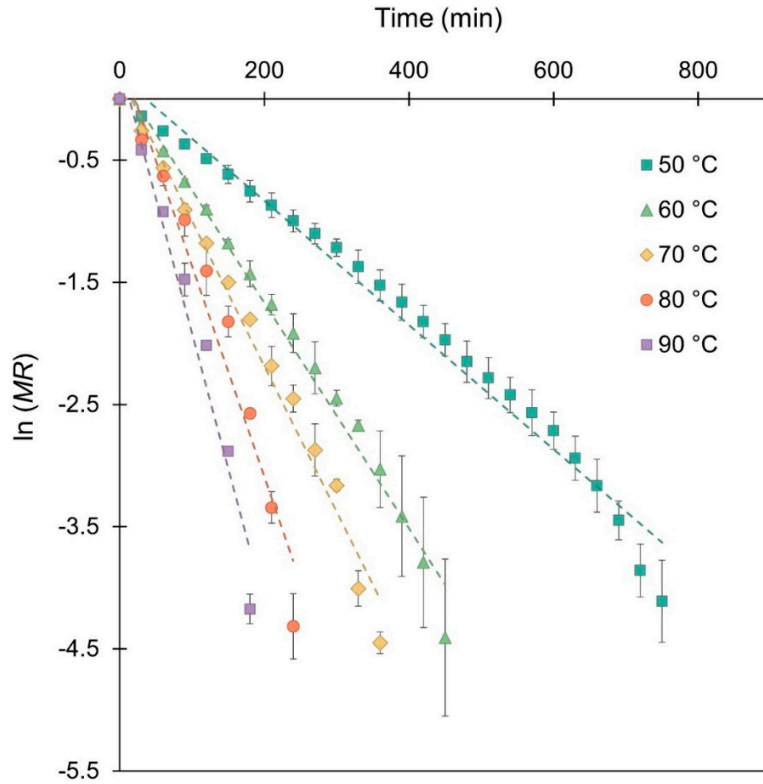


Figure S1. Linear regression of the natural logarithm of the moisture ratio ($\ln MR$) versus drying time for raspberry pomace at different drying temperatures (50, 60, 70, 80, and 90 °C).

^aThe slopes of these lines were used to calculate the effective moisture diffusivity (D_{eff}).

^bError bars represent the standard deviation of triplicate measurements.

Table S2. Linear regression equations derived from $\ln MR$ versus drying time for different drying temperatures.

| Temperature (°C) | Equation |
|------------------|-------------------------|
| 50 | $Y = -0.0051x + 0.1821$ |
| 60 | $Y = -0.0092x + 0.1736$ |
| 70 | $Y = -0.0119x + 0.1916$ |
| 80 | $Y = -0.0172x + 0.3548$ |
| 90 | $Y = -0.0221x + 0.2881$ |

Linear regression equations obtained from the drying data of raspberry pomace in **Figure S1**. These equations were used to calculate the effective moisture diffusivity (D_{eff}) for each temperature.

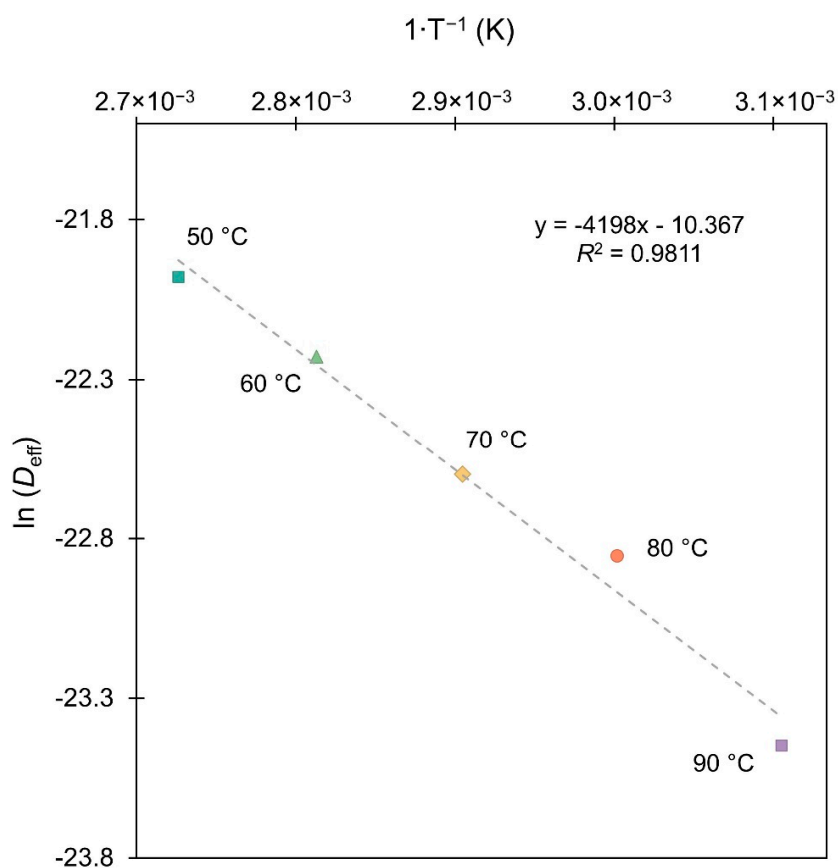


Figure S2. Plot of the natural logarithm of effective moisture diffusivity ($\ln D_{\text{eff}}$) versus the inverse of absolute temperature ($1 \cdot T^{-1}$) for raspberry pomace dried at different temperatures (50, 60, 70, 80, and 90 °C).

^aThe slope of the linear regression was used to calculate the activation energy (E_a) according to the Arrhenius equation.

^bThe regression equation and R^2 value are provided, showing the quality of the fit.