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## Effect of convective drying on the bioactive compounds content of pinot noir grape pomace

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Grape pomace is the most important by-product of the wine and grape juice industry, being considered a good source of bioactive compounds and fibers. Therefore, it can be considered a cheap source of functional ingredients, and an alternative to reduce the environmental impact. The objectives of this study were to evaluate the drying kinetics of grape pomace, to fit these kinetic data to known mathematical models and to study the effect of time and temperature on the phenolic compounds content and antioxidant capacity of the pomace. The experiments were conducted in a convective tray dryer at different temperatures (40°C, 50°C and 60°C), until equilibrium moisture content was achieved, and the experimental data were fitted to seven mathematical models, being compared with respect to the determination coefficient (R<sup>2</sup>) and the residual sum of squares (RSS). The behavior of phenolic compounds and antioxidant capacity along the drying process at different temperatures was also evaluated. The Page model was selected as the most adequate to represent the convective drying of grape pomace. Treatments showed significant difference in the preservation of phenolic compounds and antioxidant capacity. The pomace dried at 60°C showed the highest levels of these characteristics (2.54±0.10 g.GAE/100g and 156.55±10.45 µmol Trolox/g, respectively), suggesting that this temperature was able to inactivate enzymes that can catalyze the degradation of phenolic compounds.

### Biography

Renata V Tonon is a Researcher at Embrapa Food Technology (Ministry of Agriculture, Livestock and Food Supply, Brazil) and concluded her PhD in Food Engineering at the University of Campinas, Brazil. Her main research interests are focused on microencapsulation, spray drying and membrane technology, as tools for concentration and preservation of bioactive compounds, as well as for wastes and coproducts recovery.

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