Postharvest of *Coffea canephora* var. conilon: an analytical approach to the study of different processing methods

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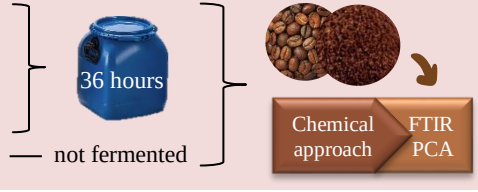
Introduction

Fermentation of *Coffea canephora* is an alternative to improve its quality, as biochemical processes that occur can induce changes in the chemical and sensory characteristics of coffee. In this study, an analytical approach combining Fourier transform mid-infrared spectroscopy (FTIR) and principal component analysis (PCA) was used to assess the influence of different postharvest methods on the chemical profile of coffee produced in 2021 and 2022.

Materials/Methods

Five post-harvest treatments (T) were applied to conilon coffee fruits:

T1- Washed
T2- Dry-fermentation
T3- Yeast fermentation
T4- Natural fermentation
T5- Natural control



Results/Discussion

The scoring graph (Figure 1.A) provides information about the similarities between the samples, while the loading graph (Figure 1.B) indicates the spectral regions responsible for the separation of the samples, which by PC1, occurred between 1650-1550 cm^{-1} and 1400-650 cm^{-1}; and by PC2 at 3500-3000 cm^{-1} and 1650-1550 cm^{-1}.

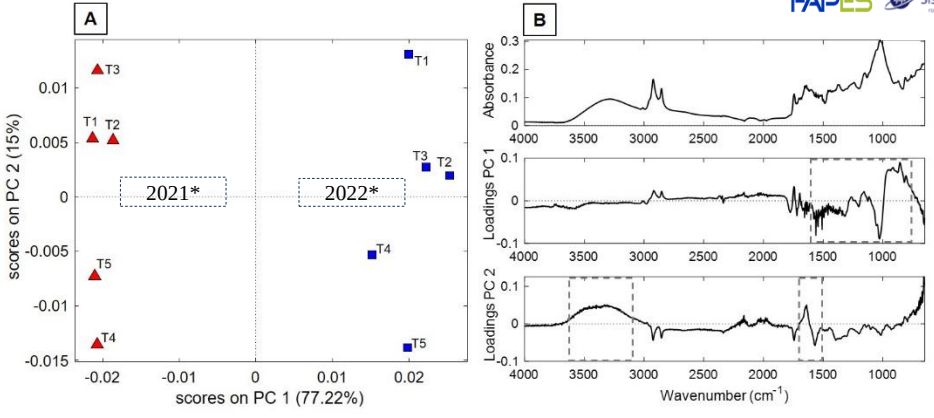


Figure 1: PCA results: scores plot (A), and loadings plot (B). *Harvest year.

Conclusion/Perspectives

The postharvest methods employed contribute to the biochemical modulation of *C. canephora* var. conilon, as the chemical profiles remained consistent regardless of the year, being influenced only by the method used.

References:

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