Title:	**HPLC-UV and HPLC-FL Fingerprinting for the Characterization, Classification and Authentication of Vietnamese and Cambodian Coffees**
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Nowadays, society is increasingly showing more concerns related to the quality and origin of the products that are consumed. Therefore, food organoleptic properties are not the only determinant factor when consumers buy food, but also they focus on the food label to get information about the provenance of the product, the properties of its ingredients, the presence of components which can produce intolerances or allergies, etc. Moreover, the tendency to maintain healthy dietary habits is rising considerably. Consequently, the population is increasingly demanding more information about products, but in an era of informative saturation, it is impossible to guarantee that all the information we get is truthful. Additionally, adulteration as a food fraud is a common practice in this industry, which not only involves an economic cheat but also implies a risk for people who suffer from allergy episodes or intolerances to a non-specified ingredient.

In this work, different Vietnamese and Cambodian coffee samples have been classified employing HPLC-UV and HPLC-FL chromatographic fingerprints as chemical descriptors and using Principal component analysis (PCA) and Partial least squares regression-discriminant analysis (PLS-DA) as chemometric methods. This process has been carried out applying a previously developed method of the research group. Also, the HPLC-UV chromatographic fingerprints obtained for different coffee adulterations have been used for the authentication of the coffee samples and the quantification of the adulterant concentration level employing the chemometric method of Partial least squares (PLS) regression.

Both HPLC-UV and HPLC-FL proposed methods have provided appropriated chemical descriptors for the classification of the analyzed samples, but the classification of samples regarding region of origin (Vietnam or Cambodia) has shown clearer results than the classification of Vietnamese samples regarding coffee specie (Arabica or Robusta). Concerning the authentication, the HPLC-UV method has also provided suitable chemical descriptors to address the quantification of adulterated coffees for three adulteration cases evaluated:

Vietnamese Arabica coffee adulterated with Vietnamese Robusta Coffee, Vietnamese Arabica coffee adulterated with Cambodian coffee, and Vietnamese Robusta coffee adulterated with Cambodian coffee.