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## Determination of extra virgin olive oil adulterants by UV-Visible spectroscopy employing artificial neural networks

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O live oil is rich in antioxidants, vitamin E; besides promotes the absorption of minerals, helps control blood glucose levels and reduces the risk of cardiovascular disease. Because these reasons, olive oil is very important in Mediterranean diet. The objective of this work is to determine accidental adulterations in olive oil produced with other kinds of oil. In this case it will be employed soybean oil and almond oil to adulterate extra virgin olive oil with designation of origin of the Arbequina variety. The real situation can take place in food production plants where different olive oil types can be used, like in bakery or different cookies factories. To determine the adulterations, experimental measurements of various adulterated samples are carried out by UV-Visible spectroscopy and later an artificial neural network that can connect areas of the spectra with concentration and type adulterant is performed, so with a measure of UV-VIS spectroscopy and an algorithm can be able to create a tool capable of detecting adulteration effectively.

## Biography

Sara Vidalis is going to finish her academic degree from Universidad Complutense of Madrid. She is studying a Chemistry degree and she collaborates with the group Algoreach research since 2013.

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