

Isolation of the unsaponifiable fraction from oils and minor compounds measurement

The Spanish Research Council (CSIC) has developed a method to isolate the unsaponifiable fraction of fats and oils using a supported liquid extraction (SLE) column, its later purification with preparative HPLC and its characterization and quantification using gas chromatography (GC). This new procedure implies an important improvement regarding the current methods.

Companies of the instrumental analytical chemistry field (scientific and technological equipment) are being sought to collaborate through a patent licence agreement.

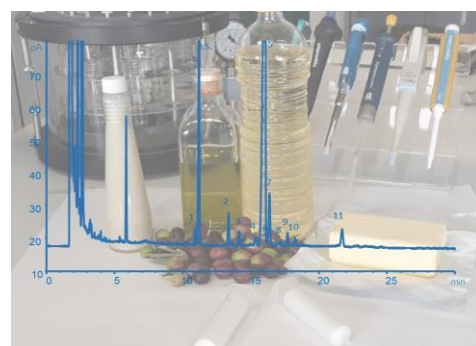
An offer for Patent Licensing

Characterization and verification of edible fats and oils

Unsaponifiable fraction of oils or fats constitutes a very small fraction but an essential part for the oil healthy properties. It is a complex fraction made of a huge number of minor compounds.

The previous isolation of the unsaponifiable fraction suggested in this method makes the analysis of this fraction compounds easier (sterols, tocopherols, etc.). Furthermore, this method ensures the removal of fatty acids in order to avoid possible interferences.

In case of edible oils and fats, the unsaponifiable fraction is a source of information for characterize and verify the oil. Specially, the composition of sterols of any oil or fat is a distinctive feature of itself and, therefore, it has become a useful tool for detection of contaminants and adulterants of oils.



Sterols composition of a fat sample analysed with described procedure

Main innovations and advantages

- Use small amount of samples.
- Use of reagents and solvents are cut down.
- Time of analysis is significantly shortened.
- Efficiency is increased regarding current methods, reducing the sample handling.

Patent Status

Priority patent application filed suitable for international extension

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