

## System for dynamic sampling of volatile compounds by solid phase microextraction

Instituto de la Grasa (CSIC) has developed a system of measurement of volatile compounds, in dynamic mode, very simple and economic that combines the simplicity of solid phase micro extraction (SPME) with the high sensitivity and recovery performance of dynamic systems.

Companies interested in the application of this technology under patent license are sought.

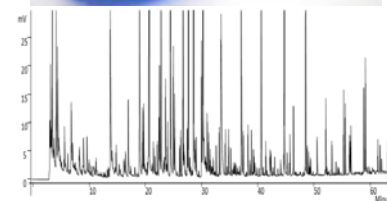
### *An offer for patent license*

#### Volatile compounds and food quality

The present system extracts volatile compounds by solid phase microextraction having high adsorption capacity and good recovery factors, due to a continuous flow of carrier gas through the head-space.

In this dynamic and closed system, the release and removal of the volatile compounds are performed both of them in the headspace of the sample, where a high concentration of volatile compounds occurs allowing a good adsorption capacity and good recovery factors. In addition, the extraction fiber where volatile compounds are adsorbed is not easily saturated as it happens in the static mode, so improving the adsorption of heavy volatile compounds and low vapor pressure volatiles. Therefore, the repeatability in the analysis of volatile compounds is also enhanced.

This system could have application for all kinds of samples whose matrices are complex and the composition of the aroma is of interest to determine their quality (oil, wine, etc.)



Analysis of volatiles by means of the present procedure to determine quality of virgin olive oil and extra virgin

#### Main innovations and advantages

- It is a simple, fast and economic system, which solves the problems encountered in static techniques, without increasing the cost and time of measurement.
- This system provides greater sensitivity, allows measurement of volatiles present at low concentrations and has no problem of adsorption competition of volatile compounds to the solid fiber.
- This system simplifies the complexity of other dynamic methods such as TENAX trap
- It is a quantitative analysis system
- It applies to all types of samples, both in solid or liquid state.

#### Patent Status

Spanish patent grantec

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