ROMANIAN WINE ANALYSIS BY ^{1}H-NMR SPECTROSCOPY

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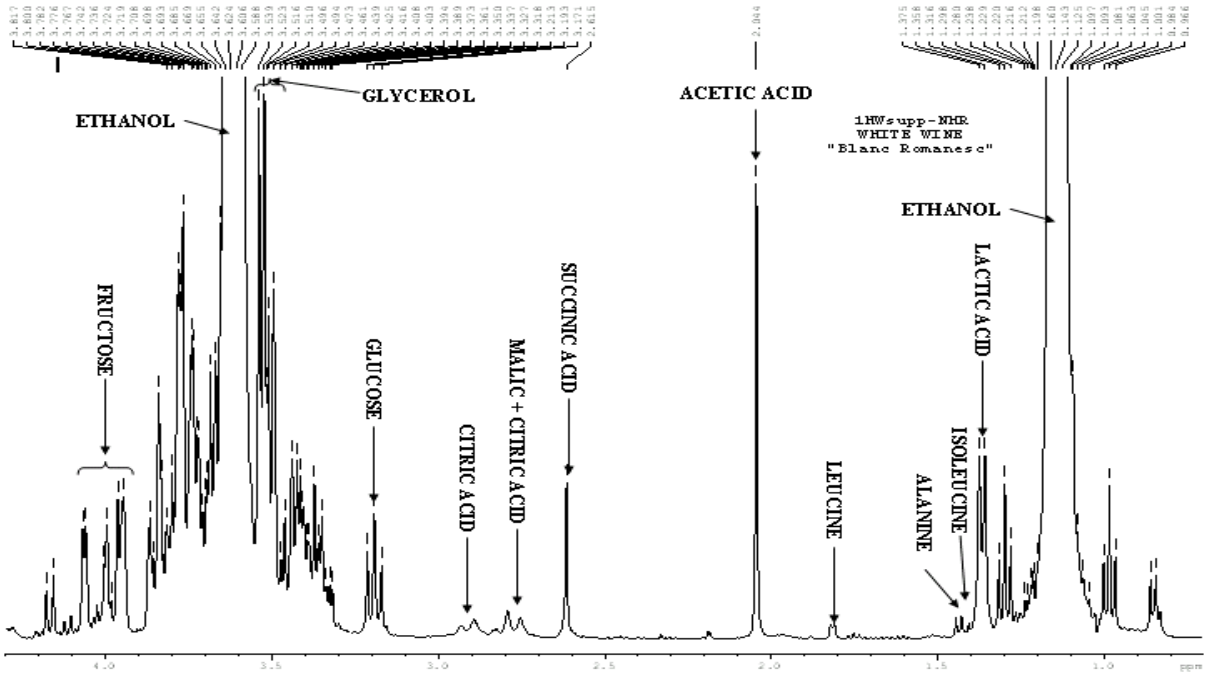
Although the sensibility of the NMR method is smaller than for other chemical analyses, the advantage of the NMR method is given by the fact that this method can provide direct information and a total biochemical profile for the sample. Classical chemical analyses need predetermined analytical conditions, longer time and can give information regarding only the specific compounds.

In this study the ^{1}H-NMR spectra have been recorded for a group of Romanian wine samples. We made spectral attributions for organic components which can be found in white and red Romanian wine:

- Carboxylic acids: lactic, citric, malic, acetic, tartaric, succinic.
- Aminoacides: leucine, isoleucine, proline, alanine, valine.
- Monosaccharide: glucose, fructose.
- Glycerin.



The figure represents a detail of the ^{1}H-NMR spectra with water suppression (0.7 – 4.3 ppm) for a white wine sample.

Thus, the NMR method is a powerful instrument for quantitative measurement and identification of the organic compounds, which can be found in wine, with a high potential for application in some other food branches.