

Comparative Study by Differential Scanning Calorimetry and Gas Chromatography of the Fatty Acids Content in Different Brands of Milk

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The objective of this study is to develop a method for DSC to analyze fatty acids content in different brands of milk. Typically, these analytes have been determined by GC through the formation of the corresponding methyl ethers (FAME) as volatile derivatives. The results obtained by the GC technique, were used as a reference to validate the results obtained via the alternative DSC method. The endothermic and exothermic effects in the samples of milk are similar to those obtained using the individual FAMES and 1:1 mixtures of each one of them. These effects are due to FAME's crystallization, fusion and boiling transitions.