

## Static Light Scattering Method for the Analysis of Raw Cow's Milk

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**Abstract :** Static Light Scattering (SLS) was used as a method to analyse cow's milk raw, coming from the town of Lagos de Moreno, Jalisco, Mexico. This method is based on the analysis of the dispersion of light laser produced by a set of particles in solution. Based on the above, raw milk, which contains particles of fat globules, with a diameter of 2000 nm and particles of micelles of protein with 300 nm in diameter were analyzed. For this, dilutions of commercial milk were made (1.0%, 2.0% and 3.3%) to obtain a pattern of laser light scattering and also made measurements of raw cow's milk. Readings were taken in a sweep initial angle  $10^\circ$  to  $170^\circ$ , results were analyzed with the program OriginPro 7. The SLS method gives us an estimate of the percentage of fat content in milk samples. It can be concluded that the SLS method, is a quick method of analysis to detect adulteration in raw cow's milk.

**Keywords :** light scattering, milk analysis, adulteration in milk, micelles, OriginPro

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