

## **P16: ISOTOPIC MODEL FOR DETECTING ORIGIN OF MILK**

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Nowadays, more and more products of doubtful origin are entering the market, downgrading the value of authentic products and the labor of honest producers. Consequently, it becomes a necessity the traceability and the authenticity of these products, first, to protect the local production and, second, to inform the consumers about the origin of the products. The most capable and promising analytical technique for identifying the geographical traceability of individual products is the analysis of stable isotopes. For example, analyzing the  $\delta^{18}\text{O}$  and  $\delta^2\text{H}$  of the milk and the water of the milk can determine the geographical origin of the animal. Furthermore, measuring the values of  $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$  will provide with the information of the feed supplied to livestock which is an extra detail for characterization of the geographical origin.

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