

A new device to the detection of meat freshness

Applications

Applications for this technique are found in food freezing facilities and warehouses.

Problem addressed

On both local and international levels, the demand for better quality food is increasing, as are concerns about the issues of authenticity, traceability, safety and nutritional quality. Accurate labeling is one of the important steps needing monitoring. As meat is a perishable product, it requires excellent temperature control. But labeling thawed frozen meat as fresh meat is a common form of adulteration of this product. In fact, preserving the freshness of meat requires excellent hygienic conditions and high financial costs. To reduce these expenses, some producers transport frozen meat and thaw it at its final destination before it is sold as fresh meat. In addition, the retail price of frozen or thawed meat is lower than the price of the same fresh product, due to the higher quality.

Technology

Since it is difficult to visually discriminate between fresh and thawed meat, intentional and unintentional confusion may occur. Following recurrent adulterations in this area, the instrument "MEATER" was built in the Microbiology laboratory of the Faculty of Pharmacy in collaboration with the Industrial Research Institute, the LIRA and IVP programs, in order to distinguish fresh meat of thawed meat through the activity levels of the enzyme β -hydroxyacyl-CoA-dehydrogenase. This device allows better control over incorrectly labeled meat and increases consumer protection.

Advantages

- Healthier diets
- Good hygiene practices
- Reduce risk of disease and premature death
- Reduces economic burden of foodborne illness

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