TECHNOLOGY OFFER

WISSENS/
TRANSFER/
OST/

www.wtz-ost.at

Rapid differentiation of fresh and thawed meat or fish by FTIR spectroscopy

A novel Fourier Transform Infrared (FTIR) spectroscopy based approach for rapid and reliable differentiation of fresh from frozen/thawed meat or fish has been developed. This fast and inexpensive high throughput technique represents a powerful tool that can be used by retailers, processors and governmental control agencies to ascertain correct labeling of meat and fish.

REFERENCE:
EM094

AVAILABLE FOR:
- co-operation
- licensing

KEYWORDS:
Food labeling, quality control, food storage, FTIR spectroscopy

IPR:
Patent filed

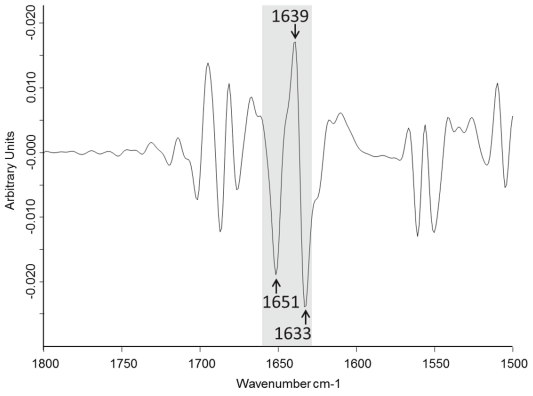
INVENTORS:
Prof. Roger Stephan
Dr. Sophia Johler
Prof. Monika Ehling-Schulz
Dr. Tom Grunert

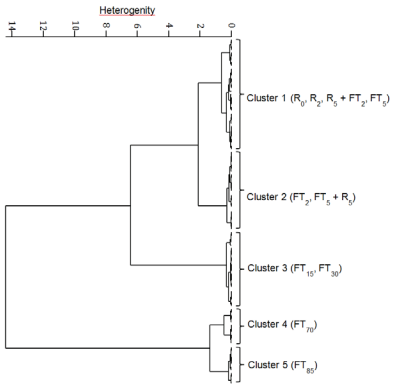
BACKGROUND

In December 2014, the EU and Switzerland implemented a new regulation specifying that frozen/thawed products have to be labeled "defrosted", as safety, taste and the physical quality of food items – in particular meat and fish – can be affected (EU Regulation 1169/2011). Retailers, processors and regulatory control agencies require a fast, reproducible, and inexpensive technique for differentiation of fresh and frozen/thawed products. Such a method to ensure proper labelling and product quality so far has not been available.

INVENTION

The invention provides a method for rapid differentiation of fresh and frozen/thawed meat or fish by FTIR spectroscopy and subsequent data processing based on hierarchical cluster analysis and artificial neuronal network analysis. It is suitable for routine control as described above.





FIELDS OF USE

FTIR spectroscopy in the food industry: The innovation opens a whole new field of applications for FTIR spectroscopes including high-throughput quality control of chicken, beef, pork, lamb, turkey, and fish by retailers, eat processors and governmental agencies.

FURTHER READING

T. Grunert, R. Stephan, M. Ehling-Schulz, S. Johler (2016). Food Control, 60(2): 361-364.

CONTACT:

Christine Ruckenbauer
Technologie Transfer
christine.ruckenbauer@
vetmeduni.ac.at
Tel: 01 25077 1047

unitectra
Technology Transfer of the Universities of Basel, Bern and Zurich

University of Zurich[UZH]

vetmeduni vienna