

Milk & Dairy Analyzer

Sensory & Chemical Testing

In the milk and dairy industry, an accurate and reliable diagnosis of the type and cause of sensory defects is essential for making decisions at the production, processing and distribution stages. To set up a comprehensive quality assurance process, dairy manufacturers require objective and efficient methods for the flavor evaluation of all incoming raw materials as well as dairy ingredients, finished products and ingredients.

Alpha MOS **Milk & Dairy Analyzer** provides fast and flexible solutions for assessing the products all through the manufacturing line and for monitoring processes efficiency and products quality from farm to fork.



Objective & sensitive evaluation

Instrumental measurement produces reliable results and allows to detect odor compounds at very low concentrations.

Simple method

Requiring no sample preparation, e-nose analysis is simple to set up.

Fast analyses, high throughput

In routine analysis, the milk and dairy e-nose can test a sample every 8 minutes, 24h/7d.

A powerful decision tool

- Benchmarking models for comparing the overall aroma profiles of several products
- Qualitative models for accepting or rejecting samples based on determined organoleptic specifications
- Quantification models for determining a compound concentration or a sensory score
- Shelf life models for evaluating the changes of sensory features over time
- Multi-applications system

QUALITY CONTROL & PRODUCT DEVELOPMENT	Gas sensors e-nose	GC e-nose
Quality control of raw milk odor (origin, freshness, etc)	x	x
Quality control of ingredients & additives (flavors, caseinates, yeasts, living organisms)	x	x
Quality control of finished products (cheese, yoghurts, ice creams, butter, milk powder, cheese powder, flavored milk)	x	x
Quality control of packaging	x	x
Correlation with sensory evaluation of milk and dairy products	x	x
Investigation of off-odors in milk (p-cresol, etc)		x
Process monitoring (Cleaning In Place Efficiency, influence of sterilization process on sensory features)	x	x
Assessment of dairy products rancidity	x	x
Competitive benchmarking of several brands	x	x
Follow-up of dairy products ageing	x	x
Monitoring of cheese maturation	x	x





Integrated & optimized methods

Alpha Soft monitoring software includes 12 optimized methods for a variety of milk and dairy analyses.

The step by step procedures and optimized analytical parameters allow to get precise and reliable results at first use.

AroChemBase lists more than 600 molecules typical of milk and dairy products.

Data & product traceability

Through data storage within the monitoring and processing software, it is easy to trace the production.

No health hazard

The use of instruments in sensory evaluation prevents from exposing assessors to potentially hazardous contaminants.



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MILK & DAIRY PRODUCTS ANALYZERS

Sensory evaluation & chemical investigation

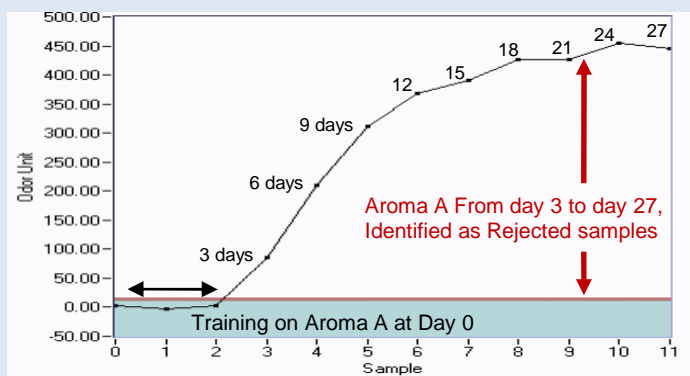


Gas sensor e-nose

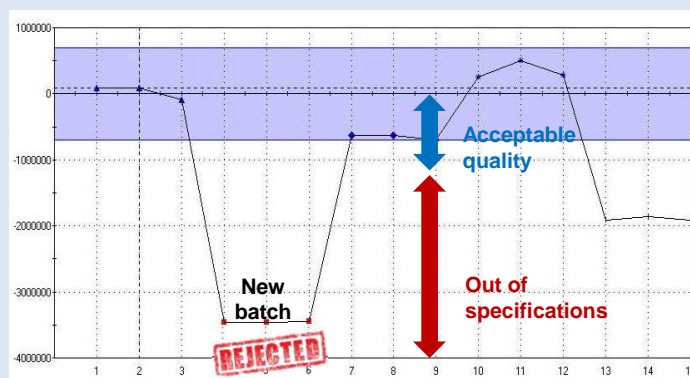


Fast GC e-nose

- **Gas sensors analyzer** allowing to rapidly decide whether to accept or reject samples based on the measurement of the overall odor profile
- **Fast Gas Chromatography analyzer** allowing to assess the overall aroma profile, characterize the chemical compounds and related sensory attributes



Shelf life model for evaluating the change of aroma of a flavored milk over time



Pass / Fail Quality control model for determining the grade of a dairy product and decide whether to accept or reject it

