



smell
&
taste
color
shape

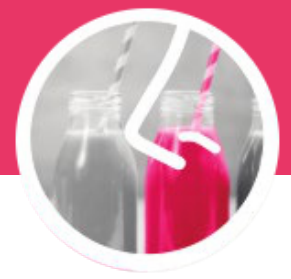


Alpha **MOS**

SENSORY ANALYSIS SOLUTION

HERACLES

ODOR ANALYSIS



Column and oven

- Metal capillary columns
- One injection, simultaneous analysis of two columns
- Oven temperature: 35°C to 300°C
- Heating rate up to 8°C/s (480°C/min)

Detectors

- 2 flame ionization detectors (FID)
- FID Ignition monitored by software
- Operating temperature: up to 300°C
- FID sensitivity: 10^{-10} to 10^{-12} A/mV
- FID dynamic linearity $> 10^6$

Trap

- Solid adsorbent trap
- Packing: 10mg of tenax TA
- Sub ambient sampling capabilities
- Temperature controlled from 0 to 280°C

Inject

- splitless type
- Heated up to 300°C
- Programmable vent & septum purge

Application area

Food & beverage :

- Food rancidity
- honey types classification and aroma profiling
- Meat and fish freshness analysis
- Freshness and aroma analysis of fruits
- Yogurt and raw materials flavor analysis
- Milk freshness analysis
- Judgment of non-alcoholic beverages
- Distinguishing the smell of alcoholic beverages
- Edible Oil freshness, grain storage
- Coffee & tea products
- Aroma, seasonings and ingredients
- Healthy food flavors analysis

Packaging :

- Grade evaluation of the odor of packaging materials

Autosampler

- Programmable injection speed
- Sample tray can be expanded to 3, each tray contains 60 positions
- Independently heated module
- Adjustable range of sample shaking speed: 250 ~ 750 rpm, each 1rpm controllable
- Optional range of syringe: 10ul ~ 5mL
- Headspace/liquid automatic sampling or manual injection

Performance

- Start up in less than 20 minutes
- RSD $< 0.3\%$ on retention times
- RSD $< 3\%$ on peak areas
- Usual analysis cycle time: 6 min

Dimensions

- Unit (WHD) : 23*32*44cm
- Weight: 16Kg

Electrical data

- Supply voltage: 120V or 230V (50Hz or 60Hz)

Chemical industry :

- Automotive interior materials, cosmetics, chemical raw materials

Pharmaceutical :

- TCM raw materials identification and decoction pieces quality control, formula improvement

Tobacco :

- The origin, grade, variety judgment, finished tobacco quality and aroma analysis of various tobaccos

Environment :

- Off-odor, gas leakage, sewage odor

Detection of pathogenic microorganisms :

- Microbial detection of aquatic and meat products

Pesticide residues :

- Pesticide residues in fruits and vegetables

Medical diagnosis :

- Response to disease, tumor screening, digestive function, etc., by patient exhalation

HERACLES ODOR ANALYSIS



AlphaSoft

Compatible with Windows®7 and Windows®10. This software contains instruments control and monitoring and includes a complete chemometrics software package for data processing.

Statistical analysis

- PCA : The software can automatically combine and screen all the information, select the characteristic fingerprint information of the sample, and objectively reflect the differences between the samples.

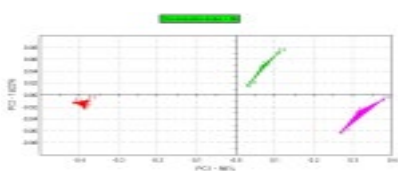


Figure1. PCA map

- DFA: Classification of products based on several groups, Discrimination of various grades, origins, intensities, classes, etc.

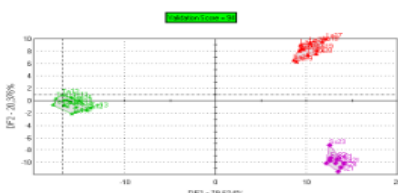


Figure2.DFA map

- SQC : After training, blind samples can be qualified. Model for statistical monitoring of product quality and variability

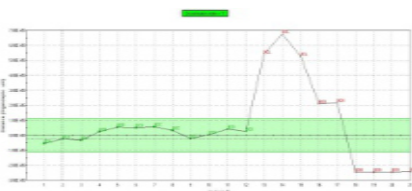


Figure 3.SQC map

AroChemBase - Chemical & sensory database :

- 142,000+ compounds
- 3,790+ with sensory attributes
- 2,000+ with human smell detection thresholds
- Based on 10,000+ publications
- Flexible & customizable

- Sensory ID: Patented model for fast comparison of entire chromatograms without integration needed.

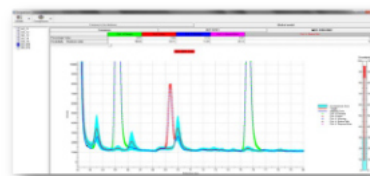


Figure 4. Sensory ID map

- Shelf life: Mapping of the evolution of odor/taste/visual profile of products over time

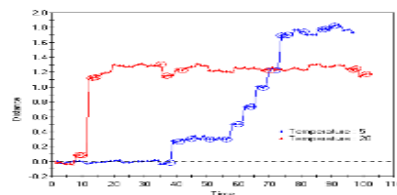


Figure 5 . shelf life map

- PLS: quantitative model, can be used for concentration quantification, can also be used to correlate with human sensory panel to predict sensory score .

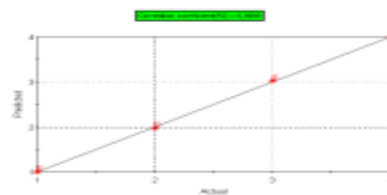


Figure 6. PLS map



Polyscientific Enterprise Sdn Bhd
百利企业有限公司 ^{152064 D}

Melaka (HQ)
272, Taman Asean,
Jalan Malim,
75250 Melaka

T +606 3350690 F +606 3351631

Shah Alam
14, Jalan Serendah 26/39,
Kawasan Perindustrian HICOM,
40400 Shah Alam, Selangor

T +603 51036920 F +603 51036980

Penang
16, Jalan Sungai Tiram 7,
11900 Bayan Lepas,
Penang

T +604 6371500 F +604 6371600

Johor
No. 365 Jalan Ekoperniagaan 11,
Taman Ekoperniagaan 2,
Senai Airport City, 81400 Senai,
Johor

T +607 5955243 F +607 5998822

info@polyscientific.com.my

www.poly.my