

CISCAL

CI SCIENTIFIC

OENOLOGY

wine analyzer equipment and supply



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TITRATOR

During the winemaking process, it is important to monitor and control the acidity of the wine. The acidity of the wine is one of the key factors that contribute to its taste, and it also plays an important role in the wine's stability and aging potential.

Titration works by adding a measured amount of a solution (called a titrant) of known concentration to the wine until the acidity is neutralized. The titration measures the volume of the titrant required to neutralize the acidity, and from this, the acidity of the wine can be calculated.

Manual Titration Kit



Industries

Oenological

Food



Applications

Wine analysis

Titration



TOTAL ACIDITY MANUAL TITRATION KIT

- » Bottle for 1000ml burette
- » Pellet burette 25ml 1/20
- » Polyacetal forcep NS29 Cone
- » Single-Lever with valve and tube
- » 250ml flask
- » Pipettes calibrated class A 1 tract 10ml

SO2 MANUAL TITRATION KIT

- » Bottle for 1000ml burette
- » Pellet burette 25ml 1/20
- » Polyacetal forcep NS29 Cone
- » Single-Lever with valve and tube
- » 250ml flask
- » Pipettes calibrated class A 1 tract 5ml
- » Glass dispensers and plastic bottle 1-2-5ml



Automatic Flash Titrator



Automatic titrator Flash has been designed to simply and precisely satisfy and perform the widest range of potentiometric titrations.

Up to two automatic burettes for titrant delivery and three peristaltic pumps can be installed. Automatic pH, acidity and SO₂ analyses are made easy and simple.

Technical features

SPECIFIC PROGRAMS ONLY FOR OENOLOGICAL ANALYSES

- » pH and total acidity: performed with a pH electrode on tel quel sample (editable pH end-point titration)
- » Free, total and combined SO₂: performed with double platinum electrode on tel quel sample (ripper method)
- » pH calibration and reagents standardization: optional calibration with several buffers (e.g. 7/3pH)

AUTOMATIC BURETTES

- » burette equipped with 12.000 high definition stepper motor
- » 10ml clear glass syringe and tip made of interchangeable PTFE
- » Three-way valve (titrant/cleaning reactant suction, titrant delivery, syringe) made of anti-corrosive material

PUMP

- » Very often a titration process requires addition of auxiliary reagents such as acid for acidifying, water for diluting, etc.
- » With up to a maximum of 3 peristaltic pumps, operated together or separately, every phase of the titration process can be made totally automatic.
- » Delivery: 1ml/sec
- » Internal tube: noprène
- » External tube: PVC and PTFE



WINE ANALYZER

Analyzers play an important role in measuring and analyzing various parameters of wine during its production, aging, and bottling stages. Analyzers help winemakers to achieve consistent quality and to detect potential problems that could affect the wine's quality and stability.



Hyperlab Plus and Basic wine analyzer



Hyperlab wine analyzer represents the most advanced solution for analytical control automation in the oenological field.

The results of the analyses are extremely accurate and permit the user to work in an extremely time-efficient manner thus allowing for both quality analysis improvement and cost-benefit optimization.

Best Quality and Economical

Hyperlab automation guarantees the greatest data results accuracy and precision, thus significantly reducing analysis costs by about seven times when compared with manual methodologies. With Hyperlab reagents are reduced to minimum: a single determination requires less than 300 microlitres

Calibration

Reagent blank subtraction, 1 to 8 calibrators for single test. Linear and non-linear regressions with three types of data extrapolation: cubic, polynomial and log-logit.

Innovative software and hardware

Innovative software: Windows system, user-friendly functions, touch screen technology, switch-on/off with programmable start-up, on-line support.

Monitor: Information on programmed methods, selected analyses, n° of analyses to be run, calibration and check status.

Reagent panel: Displays the samples position and their volumes.

Samples: Samples status display. Possibility of adding, removing or modifying samples during the analysis.

Working lists: Unlimited working lists can be used simultaneously. Tests may be added or removed and automatically repeated if wrong. Inspection of kinetics reaction can be performed for single tests.

Multiparametric Analyzer



HYPERLAB SMART is a compact and versatile multiparameter analyzer designed to perform in complete automation the enzymatic and colorimetric analyses necessary to control the winemaking processes and the quality of the wine itself.

Hyperlab Smart is an indispensable tool for the winemaker by allowing to reduce analysis time without sacrificing the sensitivity and accuracy of the result.

Automation & Reduced Analysis Time

In just a few seconds, the operator can place the samples in the tubes (no sample preparation is required), start the desired analyses from the software, and once started the instrument will operate completely autonomously allowing the operator to carry on other analyses/tasks without having to worry about checking its operation.

Reaction Kinetics

After the reading has been taken, there is the possibility of graphically verifying what the reaction kinetics trend was to confirm that the entire process is working well to ensure the accuracy of the result.

No Maintenance

Hyperlab SMART uses disposable reaction segments (4 of 24 positions = 96) for the enzymatic reaction therefore does not need the cuvette washing system and thus requires much less maintenance than models that are equipped with.

Quality and Economy

HYPERLAB automation ensures greater accuracy and precision of results with costs per analysis seven times lower than manual methodologies. Hyperlab minimizes reagent usage: in fact, it requires less than 300 microliters per single determination.



ONE - F&B Analyzer



ONE analyzer has been designed for chemical, enzymatic and colorimetric analyses in the food and beverage field and is very useful to control the quality of every phase of production.

The new ONE is equipped with a wide range of preloaded applications for the food & beverage sectors providing a simple and intuitive interface through a graphic display that guides the user step by step during the analysis, as well as the ability to program new analytical methods.

Methods in memory

ACETALDEHYDE, ACETIC ACID, AMMONIACAL AND \pm -AMMINIC NITROGEN, ANTHOCYANS, CALCIUM, CATECHINS, CHLORIDES, CITRIC ACID, COLOUR, CUPPER, D-GLUCONIC ACID, L AND D LACTIC ACID, L AND D MALIC ACID, FREE & TOTAL SO₂, GLUCOSE-FRUCTOSE, GLYCEROL, IRON, L-ASCORBIC ACID, MAGNESIUM, POTASSIUM, PYRVIC ACID, SUCROSE, TARTARIC ACID, TOTAL POLYPHENOLS

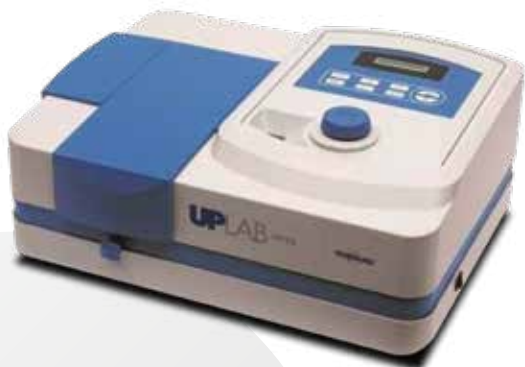
Main Features

- » Languages: Italian and English
- » More than 132 programmable methods
- » 55 pre-loaded methods optimized with Steroglass enzymatic and colorimetric Kits.
- » Easy Software with step-by-step procedures
- » 9 positions thermal block for cuvette incubation (25-45°C)
- » Data shown on display
- » Integrated printe

Analytical Techniques

- » End point
- » Kinetics
- » Fixed time
- » Algorithms: linear and polynomial
- » Colour determination at 420+520+620 nm
(for oenological application)

Enzymatic Analyses



UpLab spectrophotometers are provided with UPSoft, a Steroglass patented software, that allows the execution of analytical spectrophotometer determinations for even non-expert users.

Thanks to the management of different work methods as "End-Point", "Differential", "Differential self blank" and "Colors" with UpLab is possible to make all the semiautomatic enzymatic and colorimetric analysis, in general necessary in Food & Beverage environment.

Vacuum Sealing System

The industrial safety rotary evaporators are able to safeguard the user from any risk during work. The thermostatic bath is covered by a transparent shield providing the operator with utmost protection from glass breaking and spray at high temperature.

UPLAB UV-VIS AUTO spectrophotometer (code SQAS072480) complete with UPSoft, software for Food & Beverage analysis management using Steroglass kits

- » Spectral bandwidth: 2nm (1 - 5nm optional)
- » Accuracy of the length. wavelength: $\pm 0.5\text{nm}$
- » Reproducibility of length. wavelength: 0.2 nm
- » Display: 6 Inch LCD
- » Emission source: Tungsten halogen lamp, lamp D2

Supplied complete with accessories necessary for the proper operation, including adapter for 1mm cuvette.

UPLAB UV-VIS spectrophotometer (code SQAS072478) complete with UPSoft, software for Food & Beverage analysis management using Steroglass kits

- » Wavelength range: 190 ~ 1100nm
- » Wavelength accuracy: $\pm 2.0\text{nm}$
- » Display: LCD 16X2
- » Emission source: Tungsten halogen lamp, lamp D2

Supplied complete with accessories necessary for the proper operation, including adapter for 1mm cuvette.



Alcodens Hydrostatic Balance



The Alcodens hydrostatic balance enables the determination of alcohol by volume according to the OIV method and Regulations 2870/2000 and 128/2004

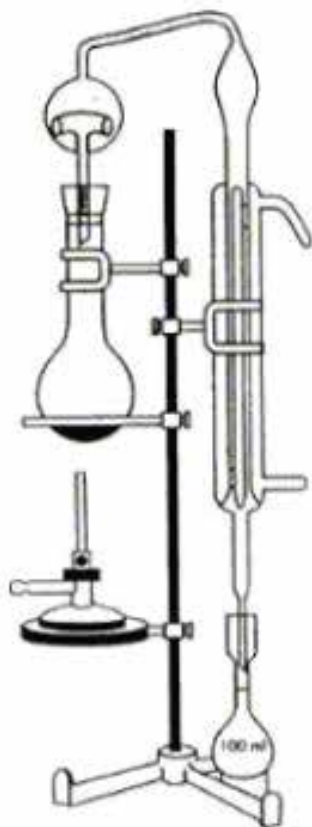
The scale is also capable of handling:

- » Alcoholic strength by volume: 0-100% V/V
- » Density reading at 20°C
- » Resolution: 0.01% V/V
- » Accuracy and repeatability: 0.02% V/V
- » Total dry extract from 0.0 to 505.8 g/L
- » Must evaluation expressed as: degree Baumé, Babo, Volumic Mass, Probable Alcohol
- » User profile creation with password protection
- » Correction of draft volume in both distilled water and using known solutions, Calibration and zeroing of the balance.

Technical Features

- » 5-inch color display allows easy selection of parameters;
- » Built-in software to manage densimetric measurements;
- » Automatic balance calibration with internal mass for consistently accurate results;
- » 2 pescants (20 ml) and 2 beakers (75 ml) double-jacketed included with the instrument;
- » Built-in RS232 port for printer connection;
- » USB port for saving data to USB flash drive;
- » All data and results are visible on the scale screen, so there is no need to connect to other instruments for data processing.

Distiller for alcohol (official EEC method) single gas



Single distiller with gas heating, according to the official EEC method. The instrument is composed of 500ml distillation flask, refrigeration unit, GS pincers, tripod with rod, support pliers, flame spreader net, bunsen with thermocouple, 200ml flask of distilled collection. Complete with 1 meter of gas pipe. The distiller can work with natural gas or LPG

Apparatus for volatile acidity in wine



In borosilicate glass, for the determination of acidity of the wines in a current of steam. Supplied with steam generator flask, kettle ball, tube development with security bubble, bubbles and coolant volumetric flask.

Supplied without frame, heater and pincers.

Waterlab - Water activity meter



Waterlab Water Activity Meter is an indispensable tool for the quality control of products and ingredients in the food, pharmaceutical and cosmetic fields.

Wherever it is necessary to study the shelf life of a product in order to determine its risk of microbial development and therefore its shelf life over time, Waterlab is the ideal solution.

New calibration and control modes allow the operator to optimize times even in the case of multiple analysis of samples with very different aW values.

TECHNICAL FEATURES

- » Measurement range: from 0.030 to 1,000 aw
- » Accuracy: ± 0.003 aw at $+ 25^{\circ}\text{C}$
- » Repeatability (standard deviation):
 ± 0.001 aw
- » Calibration: on six points
(0.250 - 0.500 - 0.760 - 0.920 - 0.984 - 1,000)
- » Balance / measurement times: <5 minutes
- » Probe sensor: dew point (sensor required by ISO 21807: 2004 and subsequent 21787)
- » Sensor block with front opening for easy sample insertion and cleaning. Equipped with a fan to even out the head space, a high-seal chamber with a gasket capable of guaranteeing very little environmental interference
- » Display resolution: ± 0.0001 aw (4 decimal place) - (improvement compared to ISO 21807: 2004)
- » Security: administrator and user management by password (in accordance with 21 CFR part 11 - guarantee of non-modifiability of the data acquired)
- » Complete thermostatic of the sample: at $+ 25^{\circ} \pm 1^{\circ}\text{C}$ (adjustable from $+ 15^{\circ}\text{C}$ to $+ 50^{\circ}\text{C}$)
- » Operation at room temperature: from $+ 5^{\circ}\text{C}$ to $+ 50^{\circ}\text{C}$
- » Digital resolution: 0.01°C
- » Temperature Accuracy: $\pm 0.2^{\circ}\text{C}$
- » Temperature Uncertainty: $\pm 0.2^{\circ}\text{C}$

Easy Check Tartaric Stability Analyzer



Easycheck makes it possible to monitor the tartaric stability of wines with extreme accuracy and precision thanks to ISO precipitation tests that can be carried out down to -4 °C.

Easycheck also allows detailed management of results, both in terms of graphs and conductivity, and enables evaluation of the most suitable treatments for achieving tartaric stability.

Analysis tests carried out with Easycheck tartaric stability analyzer by our specialist Fabrizio Squartecchia.



Tartaric acid and potassium, which are naturally present in grapes, can salify in wine resulting in the formation of insoluble bitartrate salts that in most cases are not appreciated by the increasingly demanding wine consumers. The formation of potassium bitartrate and its eventual precipitation, in addition to its concentration, is due to particular chemical/physical conditions such as pH value, storage temperature, % ethanol, presence of protective colloids.



CONSUMABLES

The use of laboratory consumables in oenology is important because it enables wine producers to make informed decisions about the quality of their product. By monitoring and controlling the different factors that affect wine quality, producers can ensure that their wine meets the desired standards and is safe for consumption. Additionally, laboratory consumables can help wine producers identify potential problems during the production process and take corrective action before the wine is bottled and sold to consumers.



Single sample kit filtering wines complete with pump

Single-sample filtration system complete with:

- » 1000ml vacuum conical flask
- » 300ml graduating funnel up to 250ml
- » support for d.47mm membranes in sintered glass
- » tube with hose end for connection to vacuum
- » locking clamp in satinized aluminum
- » Oil free vacuum pump V300 171 / min 90 mbar
- » Silicone tube d 8x15mm for vacuum

Enzymatic and colorimetric kits

Enzymatic analysis is the official method for many important parameters in Food and beverage field.

Steroglass offers a wide range of multi-parametric analyzers combined with enzymatic and colorimetric kits able to determine the most important parameters of wine, fruit juice, winegard



Standards for enzymatic and colorimetric kits

- » ACETIC ALDEHYDE STANDARD 100mg/l 1x10ml
- » IRON STANDARD 20mg/l 1x10ml
- » CALCIUM STANDARD 100mg/l 1x10ml
- » GLYCEROL STANDARD 10g/l 1x10ml
- » GLUCOSE FRUCTOSE STANDARD 20g/l 1x10ml
- » MULTIPARAMETRIC STANDARD 6X10ml composed by:
 - » L-Malic Acid 5g/l; D-Lactic Acid 3g/l; L-Lactic Acid 3g/l;
 - » D-Gluconic Acid 1g/l; Citric Acid 0,8g/l; Acetic Acid 1g/l
- » POLYPHENOLS STANDARD 5g/l 1x10ml
- » TARTARIC ACID 5g/l 1x10ml
- » AMMONIACAL AZOTE STANDARD 50mg/l 1x10ml
- » alfa-AMINIC STANDARD 160mg/l 1x10ml
- » CHLORIDES STANDARD 1g/l 1x10ml
- » COPPER STANDARD 2mg/l 1x10ml
- » POTASSIUM STANDARD 1500mg/l 1x10ml
- » MAGNESIUM STANDARD 24.3 mg/l 1x10ml
- » PYRUVIC ACID STANDARD 0.5 g/l 1x10ml
- » SULPHATES STANDARD 2 g/l, 1x100ml
- » GLUCOSE+FRUCTOSE+SUCROSE STANDARD
- » SUGARS CALIBRATION KIT HC LIQUID 5x10



Stero Brett Kit

Kit for semi-quantitative analysis of *Brettanomyces* spp. in alcoholic beverages.

STERO-BRETT is an innovative instrument for the semi-quantitative detection of *Brettanomyces* in alcoholic beverages. It is the combination of a species-specific culture-dependent and an easy and ready-to-use technology (dip-slide) and therefore allows the producer to conduct the analysis independently.

Easy-to-use

STERO-BRETT can be used directly at the production site without the involvement of laboratories or specialized staff, in each case allowing for a clear result supported by multiple elements.



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Contact Us:

HQ Unit 1/9 Bearing Rd Seven Hills 2147 NSW

VIC Unit 13/63 Ricky Way, Epping 3076 VIC

QLD Unit 3. 54-58 Nealdon Drive, Meadowbrook, 413 QLD

Info@ciscientific.com

www.ciscientific.com

1300 225 542



1300-225-524 | info@ciscientific.com | www.ciscientific.com | Unit 1/9 Bearing Road, Seven Hills NSW 2147