

DS Oenophoto

Enzymatic and colorimetric analysis by photometry

This photometer makes possible fast and reliable analysis by the winemaker himself, for common parameters such as residual sugars, yeast assimilable nitrogen, malic acid, etc. Completed with common accessories at the laboratory and colorimetric & enzymatic kits, it allows the wineries to run their own analysis.

Principle

A photometer or spectrophotometer is an instrument that permits the measurement of how much a solution absorbs over a certain range of wavelength. A part of the light that passes through the sample solution is absorbed by the chemical molecules of the sample, and is this amount of light absorbed that the instrument measures.

For the analyses in oenology, we compare the reaction produced by an enzymatic or colorimetric reagent in a white (water), a standard solution, and a sample in order to determine the concentration of the required parameter in the sample. Indeed, this reaction causes a change of absorbance, proportional to the concentration of the parameter (Beer-Lambert law). The absorbance of the sample is measured by photometry over a certain range of wavelength.

Advantages

- Adapted to cuvettes with O.P. 10 mm semi-micro
- Connected via Bluetooth with the Android operating system (smartphone or tablet, not supplied)
- DS Oenophoto Application available for free download from Play Store
- Export of data in CSV format (for Excel spreadsheet for example)
- Analyze up to 12 samples simultaneously



Ref.197400



DS Oenophoto software



Developed and manufactured in France



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Technical features

Wavelength	340 and 580 nm
Photometric range	-0.2 to 3.0 A
Linearity	1% between 0.2 et 2.5A
Ambient environment for use	5 to 40°C- maximum relative humidity 80% Ventilated room, without dust, away from direct sunlight, without vibrations
Port	Bluetooth
Dimensions / Weight	115 x 65 x 55 mm / 240g
Power supply	Battery operation, rechargeable through USB cable

Parameters & available references

Reference for reagent kit	Parameters	Measuring range (without dilution)	uncertainty	Number of analysis
197820	Acetic acid	0-1 g/l	10%	45/135
197821	L-malic acid	0-3 g/l	10%	45/135
197822	L-lactic acid	0-1,5 g/l	10%	45/135
197823	D-lactic acid	0-1,5 g/l	10%	45/135
197824	D-gluconic acid	0-4 g/l	10%	45/135
197825	D-malic acid	0-3 g/l	10%	45/135
197826	D-Glucose/D-Fructose	0-5 g/l	10%	45/135
197827/M	Total sugars (Sucrose + G/F)	0-10 g/l	10%	45/135
197829/M	Alpha amino nitrogen	0-200 mg/l	10%	35/105
197832/M	Iron	0-10 mg/l	10%	40/125
197833/M	Copper	0-2 mg/l	10%	24/75
197841/M	Citric acid	0-1 g/l	10%	45/135
197843	Acetaldehyde	0-500 mg/l	10%	45/135
197845/M	Ammoniacal nitrogen	0-120 mg/l	15%	50/125
197846	Glycerol	0-1 g/l	15%	45/135
197852/M	Acide L-ascorbique	0-300mg/l	15%	50/130

Supply with:

- 605301 : Clinipet+ micropipette with fixed volume 10 µl
- 605310 : Clinipet+ micropipette with fixed volume 100 µl
- 605375 : Clinipet+ micropipette with fixed volume 750 µl
- 605074: 200µl p transparent tip for ref 605310 (x1000)
- 605076 : 1000 µl blue tips for ref. 605050 (x 1000)
- 197818 : Semi-micro cell PMMA (x100)
- 605300 : Holder for 4 Clinipet+ micropipettes

Options

- Mini vortex mixer



Easy and quick agitation of the samples after adding the reagents. It activates automatically and rises quickly at high speed.

- Mini centrifuge

Powerful and Convenient Mini Centrifuge for simple and quick Applications.



- Ultrasonic baths (ref : 609010)



It allows a quick degasification of samples before analysis.

- Dry Block Heaters

Heating thermostat for spectrophotometry cells. It reduces the incubation time.

