FTIR Analyzer

Anton Paar
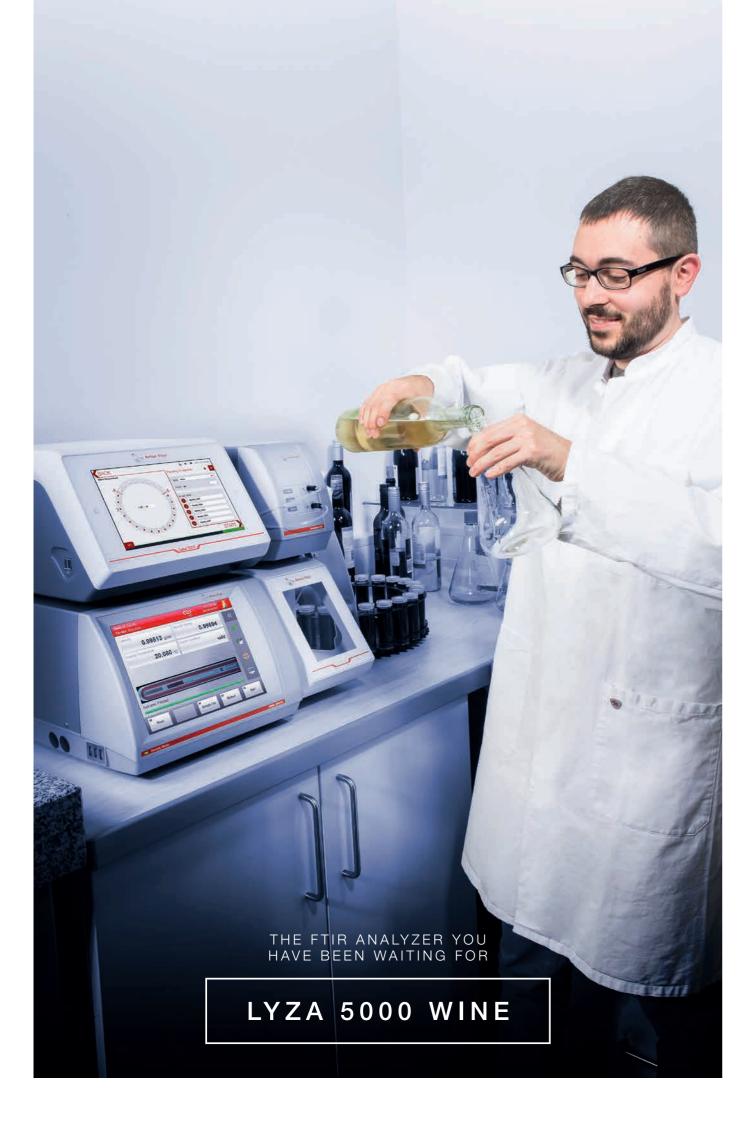
LYZA 5000 WINE

The evolution of wine analysis

The novel multiparameter FTIR analyzer Lyza 5000 Wine is your solution for the analysis of must, must in fermentation, and wine.

Fast measurements for a multitude of parameters ensure that you have all the information you need – during all stages of wine production. Thanks to a quick setup and pre-installed models all important results for wine analysis, including ethanol, sugars, and acid profile, are just a tap away.

Lyza 5000 Wine can be used as a stand-alone device, automated for high throughput, or connected to your benchmark instruments – Anton Paar density meters and Alcolyzer – for the most powerful wine analysis.

Precise and profound wine analysis right at your fingertips

Lyza 5000 Wine: Features

The highest precision in the wine market

Lyza 5000 Wine is more precise than any other FTIR analyzer. Anton Paar has developed a highly innovative 12-bounce attenuated total reflection (ATR) measurement cell which allows for ideal signal intensity and is barely influenced by turbid or gassing samples. Together with the most accurate cell temperature control (±0.03 °C), the highest precision of your measurements is ensured.

User-friendly touchscreen interface

With Lyza 5000 Wine's state-of-the-art user interface, single measurements, adjustment of models, or even complex measurement routines are only one tap away. Quick setup and minimal measurement times of less than one minute for more than 13 parameters in one go let you handle huge workloads with ease.

Live notifications and guided workflows

Lyza 5000 Wine automatically reminds you to perform water reference measurements and recommends what action to take to keep your instrument in perfect condition for precise results. Integrated workflows guide you through water and ethanol reference measurements – no proprietary reference standards are necessary.

Automation with Xsample 520

Together with Lyza 5000 Wine, the Xsample 520 sample changer automates the filling and measurement of 24 samples in a row. New measurements can be queued at any time, even during running measurements. Use Xsample 520 to increase your sample throughput and to simplify your daily routines – all at an affordable price.

More parameters in one setup

The combination of Lyza 5000 Wine with other Anton Paar instruments such as a density meter, alcohol meter, pH meter, turbidity meter, and a sample changer provides the most powerful measurement system in wine analysis. Receive results from all instruments in a single report with only one sample preparation, one filling, and one measurement.

Data handling and LIMS integration

Lyza 5000 Wine supports you in every way to efficiently process and distribute your measurement results. Reports can be automatically printed and digitally exported to your hard drive or network storage. For the highest degree of automation, Lyza 5000 Wine is completely integrated into your LIMS system via Ethernet and WiFi.

Specifications

WINE

Measurement specifications

Parameter	Units	Range	Repeatability (s.d.)[1]	RMSEP[2]
Ethanol	%v/v	6 to 20	0.02	0.1
Fructose	g/L	0 to 6	0.2	0.45
Fructose	g/L	6 to 160	0.5	2.0
Glucose	g/L	0 to 3	0.2	0.45
Glucose	g/L	3 to 150	0.5	1.5
Titratable acidity	g/L	2 to 12	0.02	0.35
Volatile acids	g/L	0 to 1.5	0.02	0.12
Malic acid	g/L	0 to 7	0.05	0.45
Tartaric acid	g/L	0 to 5	0.05	0.35
Lactic acid	g/L	0 to 3	0.05	0.30
pH	-	3 to 4	0.01	0.08
Density	g/mL	0.98 to 1.1	0.0002	0.001
Extract	g/L	0 to 350	0.3	2.0
Glycerol	g/L	0 to 25	0.2	1.0

[1] Repeatability as mean standard deviation according to ISO 5725, using a set of representative wines

[2] Root mean square error of prediction for a set of representative wines; under ideal conditions

Technical specifications

Ambient temperature	15 °C to 32 °C (59 °F to 89.6 °F), non-condensing
Sample temperature	15 °C to 35 °C
Cell type	12-bounce ATR ZnSe flow-through cell
Minimum sample volume	15 mL
Measurement time per sample[3]	42 seconds
Dimensions (L x W x H)	450 mm x 340 mm x 240 mm (17.7 in x 13.4 in x 9.4 in)
Cell temperature control	Peltier element / Stability ±0.005 °C / Accuracy ±0.03 °C
Power supply	AC 100 V to 240 V / 47 to 63 Hz / DC 24V, 3A
Weight	15.2 kg (33.5 lbs)
Communication interfaces	5 x USB / RS-232 / CAN / HDMI Ethernet / Bluetooth[4] / WiFi[4]
Display	10.1 in PCAP touchscreen, TFT WXGA (1280 Px x 800 Px)

[3] After temperature equilibration

[4] Via external WiFi/Bluetooth® dongle

www.anton-paar.com