

# 3500I PLUS

## Atomic Absorption Spectrometer



EPCC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

**Analytical Technologies Limited**

An ISO 9001 Certified Company

[www.analyticalgroup.net](http://www.analyticalgroup.net)

- 3500I PLUS has built a reputation in elemental analysis research, with unbeatable performance, sensitivity and flexibility. These instruments are used in a variety of fields including environmental, agriculture, clinical, and mining

## ►► Spectrometer

Optics	High light throughput, full reflection, switchable single/double beam optic. Narrow beam optical design for flame and furnace configuration. Aberration corrected 300mm focus length Czerny-Turner monochromator with software controlled wavelength selection and optimization.
Dimensions	W 84 x D 68 x H 42cm (W 76 x D 61 x H 76cm with autosampler)
Band Pass	Software adjustable 0.2, 0.6 and 1.2 nm and 0.6 nm reduced slit height for GF
Grating	Diffraction grating with 1800lines/mm.
Wavelength Range	185-900 nm controlled by software
Wavelength Scan / Optimization	From 185-900 nm in any selected range with Zoom Function Automatic wavelength optimization with graphical display
Background Correction	Rapid self-reversal method. Deuterium lamp with 1 ms rapid response for accurate correction. Electronic modulation with deuterium current control and aperture attenuation
PMT	High quantum efficiency, 185-900 nm, automatic gain control
Data Sampling Rate	D2 and hollow cathode lamps operate up to 1000 Hz data sampling rate
Light Source	8 lamp motorized turret with independent power supply Automatic alignment and coded lamp capability
Built-in High Intensity Hollow Cathode Lamps	3 channel independent high intensity power supply provides improved sensitivities and lower detection limits

## ►► Atomizers

The configuration of the atomization compartment allows rapid changeover between atomization sources.

## ►► Flame

Gas control	Software controlled with automatic changeover between different flame systems
Spray Chamber	Solid Teflon spray chamber, inert to acids and organic solvents
Burner	Corrosion resistant titanium burners available for both air/acetylene and nitrous-oxide/acetylene
Flow-rate / Control	Software controlled
Sample Introduction	Automatic on-line dilution and preparation of calibration curves from a single standard
Fume Exhaustion	Conventional laboratory extraction system
Safety System	Safety interlock mechanism that monitors the burner type, burner fitted, gas pressures. Flame on/off sensors; Power failure automatic shutdown. Liquid trap system, pressure relief plug and flame shield to protect from UV radiation

## ►► Transversely-heated Graphite Furnace

Purge Gas	Computer controlled flow rate of Ar or He from 0 to 5.0 L/min
Furnace Tube	Pyrolytically coated integrated contact cuvette, 5.7mm internal diameter x 19mm, transversely heated, temperature gradient of less than 20°C
Temperature Range	Programmable from ambient up to 3000°C. Full range temperature sensors for direct real-time temperature display and control over the full temperature range
Furnace heating rate	Up to 3800 K / s
Program flexibility	Heating programs of up to 30 steps. Each step can be programmed separately
Ramp Time	The heating time of the graphite tube to the preprogrammed temperature can be varied in steps of 0.1 sec
Hold Time	Selectable from 0 s up to 25 s in steps of 0.1 sec

## ▶▶ Vapor and Hydride Generator

Absorption Cell	Constant temperature electrothermally heated quartz absorption cell with temperature range of ambient to 1000 °C
Pump	Continuous flow peristaltic pump with speed control
Accessories	High efficiency mixing section, gas-liquid separator, tubing and connectors included
Performance	Cold vapor and hydride generation determinations of Hg, As, Se, Te, Bi, Sb, Sn and other hydride-forming elements at sub-trace levels

## ▶▶ Autosampler

### Optional Autosampler for Flame, GF and/or VG atomizers:

Bench top high capacity autosampler for flame and vapor generation atomization:

Autosampler design	Free movement in directions allows user to adapt system to any suitable sample container
Sample Introduction	Combined with on-line dilution, the flame autosampler offers calibration from a single standard and automatic dilution of over-range samples

## ▶▶ Autosampler

Instrument mounted with high capacity autosampler for flame, graphite furnace, vapor generation:

Dispensable reagent volume	Up to 1000µL, selectable in increments of 1µL
Sampling capacity	Holds standard 192 sample cup/test tube (0.5 or 10 mL) sample racks. Also compatible with standard solvent
Super Fast-Dry function	Software controlled preheating and sample injection speed. Allows for 3 sample/min turn-around time with Graphite Furnace
Sample Introduction	Random access with adjustable sample/reagent volume, automatic standard and sample preparation, and bulk standard calibration mode

## HPLC Servicing, Validation, Trainings and Preventive Maintenance :

**HPLC Servicing** :HPLC Servicing : We have team of service engineers who can attend to any make of HPLC promptly @the most affordable cost.

**Trainings** :We also take up preventive Maintenance to reduce downtime of HPLC's Trainings.

**AMC's/CMC** :AMC's/CMC :We offer user training both in-House and at customer sites on HPLC principles, operations, trouble-shooting.

**Validations** :Validations :We have protocols for carrying out periodic Validations as per GLP/GMP/USFDA norms.

**Instruments** :Instruments :We offer instruments/Renting Services Modules like pumps,detector etc. on Rent.



## About Analytical Technologies

Analytical Technologies is synonymous for offering technologies for doing analysis and is the Fastest Growing Global Brand having presence in at least 96 countries across the global. Analytical Technologies Limited is an ISO:9001 Certified Company engaged in Designing, Manufacturing, Marketing & providing Services for the Analytical, Chromatography, Spectroscopy, Bio Technology, Bio Medical, Clinical Diagnostics, Material Science & General Laboratory Instrumentation. Analytical Technologies, India has across the Country operations with at least 4 Regional Offices, 6 Branch Offices & Service Centers. Distributors & Channel partners worldwide.

## Our Products & Technologies



UV/VIS  
Spectro 2080+  
Double Beam



Infra FTIR



Optima Gas  
Chromatograph  
3007



Optima Gas  
Chromatograph  
2979 Plus



Flash  
Chromatograph



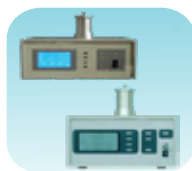
Atomic Absorption  
Spectrophotometer



Liquid Particle  
Counter



Optical Emission  
Spectrophotometer



DSC/TGA



Semi Auto Bio  
Chemistry Analyzer



HEMA 2062  
Hematology  
Analyzer



Micro Plate  
Reader/Washer



URINOVA 2800  
Urine Analyzer



Total Organic  
Carbon 3800



Fully Automated  
CLIA



NOVA-2100  
Chemistry Analyzer



PCR/Gradient PCR/  
RTPCR



TOC  
Analyzer



Laser Particle  
Size Analyzer



Ion Chromatograph



Water purification  
system

## Regulatory compliances



## Corporate Social Responsibility

Analytical Foundation is a nonprofit organization (NGO) found for the purpose of:



**Analytical**  
**Foundation**

1. Research & Innovation Scientist's awards/QC Professional Award : Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personalities for their contributions across various field of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at [Info@analyticalfoundation.org](mailto:Info@analyticalfoundation.org)

2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds,souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.

## Reach us @



 **Analytical**<sup>®</sup>  
Technologies Limited

HPLC Solutions   MultipleLabs   Analytical Bio-Med   Analytical Distributors   Analytical Foundation (Trust)

**Corporate & Regd. Office:**  
Analytical House, # E67 & E68,  
Ravi Park, Vasna Road, Baroda,  
Gujarat 390 015. INDIA

T: +91 265 2253620  
+91 265 2252839  
+91 265 2252370  
F: +91 265 2254395

E: [info@hplctechnologies.com](mailto:info@hplctechnologies.com)  
[info@multiplelabs.com](mailto:info@multiplelabs.com)  
[info@analyticalgroup.net](mailto:info@analyticalgroup.net)  
[info@analyticalbiomed.com](mailto:info@analyticalbiomed.com)

W. [www.analyticalgroup.net](http://www.analyticalgroup.net)  
[www.hplctechnologies.com](http://www.hplctechnologies.com)  
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