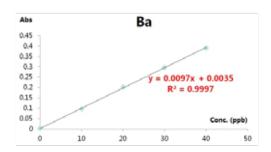


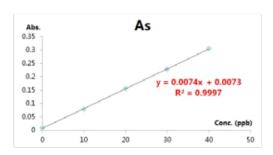


# 3500I

# **Atomic Absorption Spectrometer**







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

# **Analytical Technologies Limited**

An ISO 9001 Certified Company



• Built on years of research and development, the 3500I can detect and analyze more than 70 elements with sensitivity ranging from ppm to ppt. The modular design provides the flexibility to choose the right configuration for your needs and enables elemental analyses at multiple concentration levels. The true double beam and two independent background correction methods ensure reliable and precise results. The 3500I is an ideal solution for any laboratory requiring a high quality precision instrument with a small footprint.

# **>>** Configurations

Flame (F), Flame/Graphite Furnace (F/GF), Flame/Vapor Generation (F/VG), Flame/Graphite Furnace/Vapor Generation (F/GF/VG)

#### FEATURES AND BENEFITS

- Switchable single/double beam optics for highly accurate and precise results under various conditions.
- 6-lamp turret with auto-switch minimizes time between elemental analyses.
- Patented online dilution enables automatic dilution from a single solution to create calibration standards for flame and graphite furnace.
- Heating rate of up to 3800 K/sec and the transversely heated graphite furnace tube facilitates fast and uniform temperature distribution.
- scan from 185 900 nm in under 100 seconds provides results faster and enables higher throughput.
- Optional Universal or Flame-only autosampler provides random access to all sample vials.
- Durable Teflon nebulizer chamber provides superior resistance to corrosive reagents.
- Self-reverse and industry-leading 1 kHz D2 background correction ensures accuracy of results.

#### **▶▶** SPECTROMETER

Primary Optics	Switchable single/double beam optics. Narrow beam optical design for flame and furnace configuration. Aberration corrected Czerny-Turner monochromator with software controlled wavelength selection and optimization.
Focal length	300 mm
Optical Resolution	0.2 nm, Mn 279.5 & 279.8 nm peak ratio > 40%
Band Pass	Software adjustable 0.2, 0.6 and 1.2 nm and 0.6 nm reduced slit height for GF. Bandwidth is automatically selected



Grating	Diffraction grating with 1200 lines/mm
Wavelength Range	185-900 nm controlled by software
Wavelength Accuracy	From 185-900nm < 0.2 nm
Wavelength Precision	< 0.3 nm
Dynamic baseline stabilitity	±0.004A / 30 min
Measurement Units	Peak height, peak area
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 from 185-900 nm, automatic gain control
Light Source	6 lamp motorized turret. Automatic selection, positioning and alignment
Built-in High Intensity Power Supply	Two (2) channel independent high intensity power supply provides improved sensitivities and lower detection limits
Dimensions / Weight	L 74.9 x W 59.5 x H 36.2 cm (add 34 cm with autosampler) / 57 kg (94 kg with autosampler)

# **ATOMIZERS**

Standard Atomizer	Flame; transversely heated graphite furnace
Atomizer switch	Automatic (F/GF)
Optional Atomizer	Vapor and hydride generator (VG); N2O flame
Safety System	Liquid level trap, burner head identification, auto shut down of flame, GF cooling water and argon gas flow monitoring and alarm

# **FLAME**

Spray Chamber	Solid Teflon nebulizing spray chamber, with tailor-made high proficiency nebulizer with glass capillary and metal jacket
Gas control	Auto gas control, auto-switch between air and nitrous oxide, auto optimization of acetylene flow rate and burner height
Flame Ignition	Automatic
Performance	2ppm Cu Abs > 0.4, RSD =< 0.5%



# **GRAPHITE FURNACE:**

Graphite Furnace (GF)	Transversely heated graphite furnace, built in graphite furnace power supply, heating rate of 3800K/sec
GF Heating Program	Ramp, step, temperature holding, maximum 30 programmable heating steps
Performance	1ppb Cd Abs > 0.3, RSD =< 2.0%

# **VAPOR/HYDRIDE GENERATOR:**

VG Control Mode	Electro-heating, continuous flow peristaltic pump with speed
	control, high efficiency mixing section and gas-liquid separation

# **SAMPLE PREPARATION**

Autosampler	Optional Flame-only or Universal (compatible with all atomizer types) autosampler. Enables on-line dilution for GF
Sampling capacity	Holds up to 192 sample cup/tubes (0.5 or 10 mL) sample racks or solvent extraction or ICP tubes, microplates, etc.
Operation Control	External PC connection



#### **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 Maintenace 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: 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, Manufaturing, 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+



Infra FTIR



Optima Gas Chromatograph 3007



Optima Gas Chromatograph 2979 Plus



Flash Chromatograph



Atomic Absorption Spectrophotometer



Liquid Partical Counter



Double Beam

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:



- 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 personallities 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
- 2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.
- 3. ANALYTICAL FOUNDATION aims to DETOXIFY human minds, souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.

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