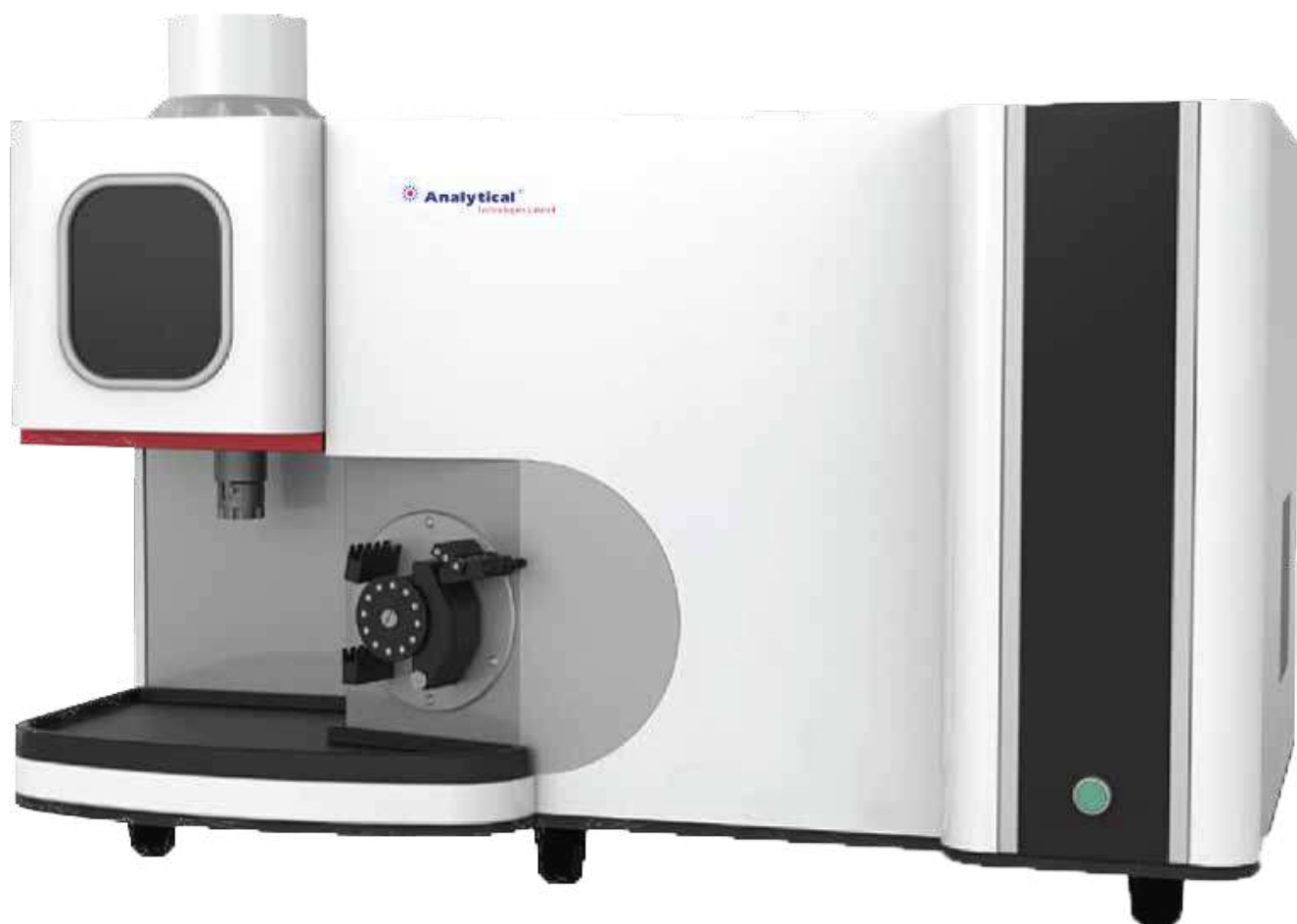


ICP-OES 3500



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

Analytical Technologies Limited

An ISO 9001 Certified Company

www.analyticalgroup.net

ICPOES-3500 has capacity of quick quantitative analysis for all metal elements and some nonmetal elements. It is widely used for element analysis in such fields as metallurgy, geology, material, environment, food, medicine, petroleum, chemical industry, biology and water quality

It has a wider dynamic linear range and lower background with a vertical torch dual view and a cooled cone developed to remove the cooler ICPOES tail.

The self-excited solid radio frequency generator is efficient, stable, small in volume and fast in turning, capable of ensuring high-precision and long-term stability

The echelle polychromator delivers all the emission lines within the whole spectral range on the large-area CCD detector simultaneously in a single exposure.

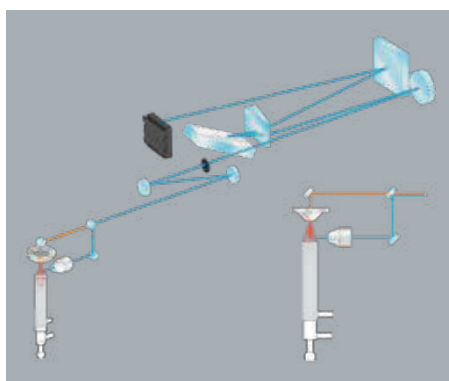
The ICP will be of simultaneous measurement type, using single aspiration for all analyte wavelengths and with capability of full simultaneous background correction.

A powerful software system simplifies the development process for the analysis method. The tailored operation software is developed according to application needs in various analysis.

It has capable of determining all the desired elements in one analytical method in single run. Quick cold start up time of about 15 min. Integration time up to 1 second

►► OPTICAL SYSTEM

- The design of radial view and axial view is suitable for element measurement in samples with content from less than ppm to high concentration
- The instrument have facility to switch between axial and radial view in single run.
- The use of a CaF₂ prism can increase the optical throughput.
- The optimized optical design and aspherical elements prevents astigmatism, guaranteeing the best image quality, promoting spectrum acquisition efficiency.
- The purging and maintaining technology in the polychromator can not only shorten the time for gas purging of the polychromator but also can increase the sensitivity and stability especially in the ultraviolet spectrum, making it capable for measurement once the machine is started.
- The multi-point monitoring temperature control can ensure stability with no drift of the optical system for a long time



▶▶ RF GENERATOR

- The self-excited solid radio frequency generator is efficient, stable, small in volume and fast in turning, capable of adapting to measurement of various complex matrix samples and volatile organic solvent, obtaining excellent long-term stability.
- The design of a vertical flare pipe makes it have a better sample tolerance, less demand for cleaning and lower consumption for spare torches.
- The technology of removing ICPOES tail by the cooled cone can weaken the self-absorption effect and ionization interference to the largest extent obtaining a wider dynamic linear range and lower background to ensure the measurement accuracy.
- It has a green energy saving standby mode. The function can help save the cost by lowering the output power and decreasing the gas flow rate with only maintaining the ICPOES operation.
- The design for simple torch installation makes it capable for rapid positioning with great position.
- The real-time monitoring for the instrument parameter and high-performance can industrial field bus can ensure high efficiency and reliability of communication.

▶▶ SAMPLING SYSTEM

- The instrument is equipped with a series of optimized sampling systems, which can be used for testing organic solvent, high salinity/complex matrix sample, or samples containing hydrofluoric acid etc
- The removable or integrated torch makes it easy for maintenance, rapid for replacement with a low cost
- Mass flow controller(MFCs) are used to control the flow rate of the cooling gas, auxiliary gas and carrier gas in order to ensure the stability of the testing performance for a long time.
- The multi-channel 12-roller peristaltic pump can increase the stability of sample uptaking

▶▶ DETECTOR

- The large-area back-illuminated CCD detector has good sensitivity over the whole spectral range, especially better quantum efficiency in UV than counterparts, anti-blooming function, an extremely wide dynamic range and an extremely fast speed for signal processing.
- It can finish collecting and reading signals for the whole spectral range in a single exposure in order to obtain a faster and accurate analysis result.
- It has the largest target area among similar products, with millions of pixels, single pixel area of 24umx24um, Triple-stage Peltier cooling, refrigeration temperature - 35°C low noise and excellent stability



►► ANALYSIS SOFTWARE

- The humanized interface design is easy for understanding and simple for use. The software system is optimized for analysis and application, capable of conducting analysis and operation rapidly, needless for complex methods development.
- The rich spectral line library can give a prompt to potential interference elements and help users select & analyze the spectral line in a reasonable way
- It has a simple setting for observation modes and an intuitional display for testing results.
- 21 CFR compliant software.

►► PLASMA/GAS FLOW

- Plasma ignition is computer controlled and totally automated. The plasma can be ignited automatically at a user-determined time and turned off automatically after an analysis.
- The instrument is capable of Simultaneous Dual viewing (Axial and Radial & dual) in single aspiration. The instrument have facility to switch between axial and radial view in single run.
- The plasma system is enabled with safety viewing window and fully interlocked door.
- 3 no. of mass flow controller/ electronic flow controller system available for plasma, nebulizer, and auxiliary

►► SAFETY PROTECTION SYSTEM

- Integrated EMC protection system to reduce electromagnetic radiation;
- Interlocking door protection to prevent loss caused by misoperation;
- UV-proof observation window.

►► BACKGROUND CORRECTION AND SPECTRAL INTERFERENCE

- System have the facility of background correction.
- The system have automatic spectral interferences correction.

►► TECHNICAL PARAMETERS

- Analysis Capability -
 - Detection Limit: sub ppb- ppb
 - Short-term Stability: $RSD \leq 0.5\%$ (500LOD)
 - Long-term Stability: $RSD \leq 1.0\%$ (4h,500LOD)
- Optical system -
 - Spectral range: 165-950nm
 - Resolution: 0.007nm@200nm
 - Constant temperature: $38^{\circ}\text{C} \pm 0.1^{\circ}\text{C}$
 - CCD Pixel: 1024x 1024
 - Single pixel area: $24\mu\text{m} \times 24\mu\text{m}$
- RF Generator -
 - Self-excited solid radio frequency generator, output power continuous adjustment by 1W.
 - Oscillation frequency: 27.12/40 MHz
 - Output power: 700W-1600W
 - Power Stability: $\leq 0.1\%$
- Operating environment -
 - Room humidity: relative humidity: 20-80%
 - Argon purity: Higher than 99.95%
 - Air exhaust: not less than 400m³/hr
 - Power supply: 220V \pm 10%, AC single phase, 50-60Hz; 4KVA
- Specifications -
 - Dimensions: W x D x H (106cm x 67cm x 75cm)
 - Weight: 180kg

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
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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

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 @



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