Analytical Technologies Inductively Coupled Plasma Optical Emission Spectrometer ICP-OES 3003 Features :

1. Main Configuration and Accessories

1.1 Main Configuration

Simultaneous ICP-OES which is based on echelle grating-prism optical system, large area CID detector, RF generator, Auto-tuning, Chinese and English interface software, Dedicated cycle cooling water system, Argon gas pipes, Cooling water pipes, High sensitivity sampling system (imported high-efficiency nebulizer and Scott spray chamber).

1.2 Accessories (other requests on configurations)

1) Chinese and English control software;
2) Three Argon/Nitrogen pressure reducing valves; Three Argon/Nitrogen gas pipes, 10 meters for each;
3) Dedicated cycle cooling water system, equipped with two water pipes, 10 meters for each;
4) High sensitivity sampling system (imported high efficiency nebulizer and Scott type spray chamber);
5) Standard solution used for installation;
6) Brand precision purification voltage regulator (10 kVA);
7) Mainstream brand computer and laser printer;
8) Consumables for a year;

Consumable	Quantity
Quartz torch tube	2
Imported high-efficiency nebulizer	1
Scott spray chamber	2
Imported peristaltic pump tube	5
Liquid waste tube	2m
Torch tube/fog chamber clip	1 (equipped according to need)
Sampling capillary	2m

2. Main Technical Parameters

2.1 Desktop, plasma radial view system.

2.2 ★ Plasma flame can be adjusted, move to front or back, up or down (controlled by computer),supporting both auto and manual mode.

2.3 ★ Precision: Multi-element mixed solution 2ppm, RSD ≦ 0.5% .

2.4 ★ Stability: 2 hours RSD ≦ 1.0%.

2.5 ★ Resolution: peak FWHM≤ 0.007 nm@200nm

2.6 ★Wavelength range: 175-900nm

2.7 ★Detection limits: Surpass the requirements of GB.

2.8 ★Ultra-fast: High dynamic range CID detector, with an inherent excellent anti-blooming function, supporting both Full-Frame Readout and Random Access Integration, succeeded to measure both the weak and severe lines in one exposure without deterioration of the detection limit; Have electronic shutter function, could individually optimize with different integration time for the specific line; Achieve to readout for any line individually within 2 ms

2.9 ★Outstanding analyzing function: Qualitative and semi-quantitative and quantitative analysis are all available; Flexible Full-frame analyzing for advanced application; Intelligent background correction and interrupt correction; Powerful off-line data reprocessing; Reasonable management of the method and data set make it more convenient for the user to retrieve and query the results; Thorough library with nearly 60,000 lines make the choice more versatile and precise.

3. Sampling System

3.1 Torch tube: One-piece .Several models are available according to the center channel size
3.2 Nebulizer: Efficient concentric nebulizer. Optional for high solids and HF resistant etc.
3.3 Spray chamber: Scott spray chamber
3.4 ★ Total argon gas consumption: Less than 14 L/min
3.5 ★ Peristaltic pump is four-channel automatic type, and the rotate speed can be adjusted continuously.
3.6 Automatic sampler (Optional)

4. RF Generator and Plasma

4.1 ★ Type: solid-state RF generator, water-cooling, auto-tuning
4.2 ★ Frequency: 27.12 MHz
4.3 ★ Power: 800w∼1500w, continuous adjustable, accuracy of adjustment is 2W, power stability < 0.1%
4.4 ★ Ignition of plasma is auto-control. All operating parameters such as carrier gas flow are auto-control except for ICP-OES host power supply.

5. Spectrometer

5.1 Optical stability: on the same platform with sampling system, the whole optical system adopts shockproof measures, so that the instrument performance will not be affected by ordinary ground vibration.
5.2 ★Optical parameter: Simultaneous echelle type
Echelle grating:52.67lp/mm, blazing angle: 64°, substrate: zerodur
Focal length: 430mm

Slit: Customise for the requirements of the users, ensure the ultimate performance.