



ATOMIC ABSORPTION SPECTROPHOTOMETER BFP-903

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ATOMIC ABSORPTION SPECTROMETER

Intelligent feedback detection technology, real-time monitoring of the instantaneous current of the light source, preventing DC lighting, more reliable protection of the hollow cathode lamp;

Mature technology of aberration eliminated C-T type monochromator, with stable performance

Independent modular circuit design, no interference with each other, easier for daily use and maintenance

High-reliability gas-liquid separator and fuel gas filter device, providing robustness even in a high humid and harsh environment.



Higher Reliability

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Higher Security

Modular gas supply management system of flame/graphite furnace atomization system

SPECIFICATIONS

Model	BFP-903
Wavelength Range	190-900nm
Spectral Bandwidth	
Wavelength Accuracy	Better than $\pm 0.20\text{nm}$
Wavelength Reproducibility	Better than 0.06 nm
Resolution	$0.2\text{ nm} \pm 0.02\text{ nm}$
Static Baseline Stability	Baseline drift $\leq 0.003\text{ Abs}/30\text{ min}$; Instantaneous noise $\leq 0.0005\text{ Abs}$
Dynamic Baseline Stability	Baseline drift $\leq 0.003\text{ Abs}/15\text{ min}$; Instantaneous noise $\leq 0.003\text{ Abs}$
Cu Determination by Flame	
Detection Limit	$\leq 0.003\text{ }\mu\text{g/mL}$
Sensitivity	$\leq 0.03\text{ }\mu\text{g/mL}/1\%$
Precision	$\leq 0.5\%$
Linear Correlation Coefficient	≥ 0.9998
Linear Range	$\geq 0.65\text{ Abs}$
Cd Determination by Graphite Furnace	
Background Correction	
D ₂ Lamp Background Correction	At 1 A , correction capability is better than 30 times
S-H Background Correction	At 1.8 A , correction capability is better than 30 times
Monochromator	C-T Type
Photomultiplier	CR131
Atomizer	Graphite Furnace/Air-C ₂ H ₂ Flame
Dimensions	128x75 x83
Weight	90 kg
Power Supply	Main Unit: Single-phase AC, 110V/220V
Maximum power consumption	0.2 kVA
Alt Name	Atomic Absorption Spectrometer

FEATURES

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Higher Security

Modular gas supply management system of flame/graphite furnace atomization system realizes lower failure rate, and further improves safety and reliability;

High-precision mass flow controller in flame system, with mature and stable circuit system, realizing precise control of gas flow;

Temperature control protection system together with dual air circuit breakers in GF system, effectively preventing current overload or abnormal temperature rise.

Multiple safety interlock devices with fully automatic power-off protection and alarm, preventing problems before they happen.

Alarm and automatic flame shut down and gas cut-off for ignition failure, fuel gas leakage, abnormal flow in flame system; Alarm and automatic electric protection for abnormal water and gas control, abnormal graphite tube installation and abnormal temperature control in graphite furnace system.

Easier to use

Uniquely designed 8-lamp turret: fully automatic switching, collimation and optimization; "power balance+ sequence intelligent adjustment technology" realizing accurate synchronization of the light source signal, easily supporting 1 lamp working, 0-7 lamp preheating at the same time, to meet diversified task requirements.

Automatically controlled changeover of the integrated flame/graphite furnace atomizer featuring easy operation and time saving eliminates human labor.

Quick-displacement flame emission burner designed for easily ionized elements such as K, Na, etc., allows you to obtain a linear range of 3 times that of conventional flame methods, effectively reducing dilution steps and narrow linear range problems of similar elements;

Temperature control modes in graphite furnace analysis can be switched over easily between optical control and constant voltage control, according to different elements and graphite tubes, for the best results and extending the lifetime of graphite tubes.

Newly developed analysis software with decades of experience, realizing automatic instrument optimization, setting all conditions in one go. Simple and comfortable human-machine dialogue makes newcomers easy to get started. An expert database eliminates the worries of your analysis work.

Graphite Furnace Atomizer

Longitudinal heating GF system with temperature up to 3000°C and heating rate above 2500°C/s.

Two temperature control modes selectable: optical and constant voltage. Both slope and step heating programs are available.

Temperature control accuracy is less than 1%.

Fully automatic GF height and horizontal position setting and optimization.

Inner gas, external gas, and make-up gas are controlled separately. Circulating water and gas-flow control and monitoring systems are equipped.

Graphite furnace pneumatic control and pressure lock ensure constant pressure and reliable contact.

Different types of graphite tubes can be used.

Graphite tube dimensions: 28 mm x 8 mm.

Flame Atomizer

10 cm single-slot Ti burner head for flame absorption; emission burner for flame emission.

Direct-forming spray chamber made of corrosion-resistant PPS material.

Burner head height and horizontal position are automatically set and optimized; burner angle is rotatable.

Automatic ignition with a high-precision mass flow control system, enabling fully automated fuel gas flow control and adjustment.



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