BK-AA860B Pro Atomic Absorption Spectrophotometer



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Introduction:

BK-AA860B Pro features an advanced 8-lamp design, a flame atomizer, 7-level spectral bandwidth adjustment, and Zeeman background correction. It delivers full-wavelength, full-element analysis with high-precision background compensation, capable of detecting over 30 elements at concentrations ranging from mg/L (10^{-6}) to μg/L (10^{-9}) levels. Ideal for geochemistry, metallurgy, materials science, agriculture, petrochemicals, third-party testing, and academic research.

Features:

* The flame system uses high-precision mass flow controllers for precise automated flow control.
* The constant transverse magnetic field Zeeman background correction technology provides superior full-spectrum background absorption correction capability.
* Built-in cooling water detection and temperature monitoring ensure reliable operation of the magnetic field system.
* The patented quick-release burner head design solves cleaning challenges, allowing tool-free disassembly in just 3 seconds.
* A complete gas-liquid separation system and fuel filtration unit ensure stable operation in high-humidity environments or with limited gas supply.
* Multiple safety interlock mechanisms with automatic shutdown and alarm functions protect against operational anomalies.
* The modular instrument design and circuit architecture enable easy maintenance and quick component replacement.

Technical Parameters:

Model	BK-AA860B Pro
Wavelength Range	170~900nm
Spectral Bandwidth	0.1, 0.2, 0.4, 0.8, 1.2, 1.6, 2.6nm
Wavelength Accuracy	±0.1nm
Wavelength Repeatability	≤0.05nm
Detector	Photomultiplier tube detector
Monochromator	Classic Czerny-Turner configuration
Optical System Focal Length	430mm
Baseline Stability	Drift ≤0.0005Abs, noise ≤0.0005Abs(Steady 60min) Drift ≤0.001Abs, noise ≤0.001Abs(Dynamic 30min)
Resolution	Spectral bandwidth deviation ≤0.02nm Manganese double line valley to peak energy ratio ≤25%
Characteristic Concentration	Flame method for Cu: ≤0.03μg/mL/1%
Detection Limit	Flame method for Cu: ≤0.002μg/mL
Preciseness	Flame method for Cu: ≤0.25%
Background Correction Ability	Zeeman correction: ≥1.8Abs, background ≥150 times
Diffraction Grating	Plane diffraction grating (1800 grooves/mm, blazed at 250nm)
Lamp Stand	8(Support simultaneous preheating of 1~4 lights)
Standard Accessory	Element lamp(Cu*1, Hg*1), software working station, oil-free air compressor, recirculating chiller
Optional Accessory	Wide slit combustion head, adjustable nebulizer, green energy-saving accessories, audit trailing software, computer, printer, flame autosampler
Power Supply	AC 220V, 50Hz
External Size(W*D*H)	1010*620*630mm
Package Size(W*D*H)	1220*800*910mm
Net Weight	115kg
Gross Weight	190kg

Flame System

Air-acetylene Burner	100mm all-titanium burner
Atomization Chamber System	Integrally molded from polyphenylene sulfide
Magnetic Field Strength	≥1.0T
Reading Mode	Foot pedal operation
Safety System	Emergency shutdown protection switch, automatic gas cut-off/shutdown/alarm in case of abnormal status, abnormal air pressure, ignition failure, gas leakage, water seal, abnormal flow rate, etc.

Software Working Station

Smart Optimization	One-key operation for instrument optimization, supporting multi-task analysis
Repeat Measurement	1~99 replicates with auto-calculation of mean/SD/RSD
Print/Export Reports	Word/Excel supported
Auto-Calibration	Curve fitting, re-slope & concentration calculation, incl. standard addition method