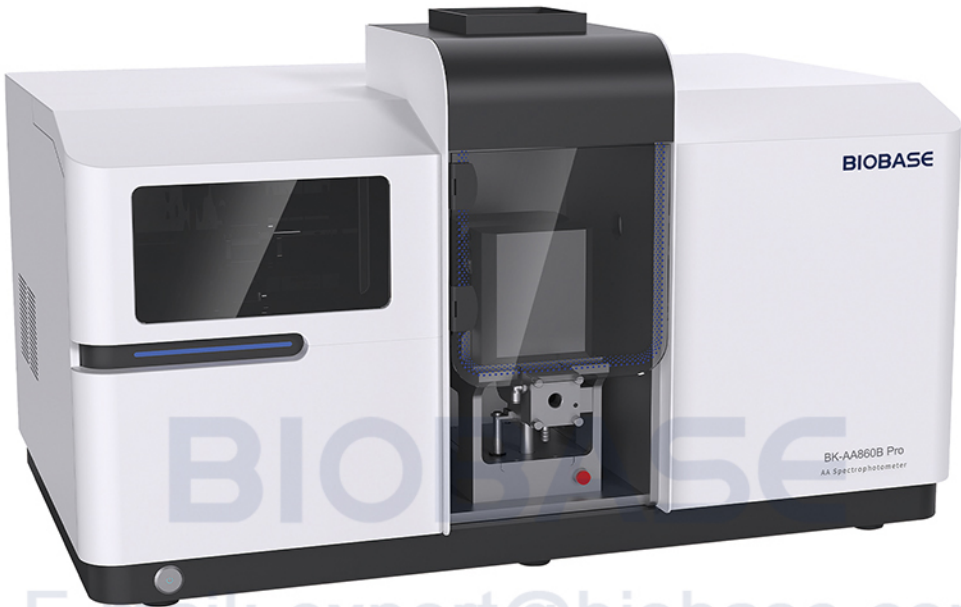


BK-AA860B Pro Atomic Absorption Spectrophotometer



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  $\mu\text{g/L}$  ( $10^{-9}$ ) 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)<br>Drift ≤0.001Abs, noise ≤0.001Abs(Dynamic 30min)                                                                                             |
| Resolution                    | Spectral bandwidth deviation ≤0.02nm<br>Manganese double line valley to peak energy ratio ≤25%                                                                                                  |
| Characteristic Concentration  | Flame method for Cu: ≤0.03 $\mu\text{g/mL}$ /1%                                                                                                                                                 |
| Detection Limit               | Flame method for Cu: ≤0.002 $\mu\text{g/mL}$                                                                                                                                                    |
| 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                                                                                                                                              |
| Optional Accessory            | Wide slit combustion head, adjustable nebulizer, green energy-saving accessories, audit trailing software, oil-free air compressor, computer, printer, recirculating chiller, flame autosampler |
| Power Supply                  | AC 220V, 50Hz(Standard); 110V, 50Hz(Optional, external transformer)                                                                                                                             |
| 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 |