



# Atomic Fluorescence Spectrophotometer



## ATOMIC FLUORESCENCE SPECTROPHOTOMETER LAFS-100 SERIES

Labocon Atomic Fluorescence Spectrophotometer LAFS-100 Series offer elemental analysis of hydride forming element.

The Hydride/vapor generator and gas-liquid separation system provides enhanced sensitivities and reduced interferences for parts per trillion (ppt) detection of Mercury (Hg), Arsenic (As), Cadmium (Cd), Zinc (Zn), Bismuth (Bi), Selenium (Se), Tellurium (Te), Antimony(Sb), Tin(Sn), Germanium (Ge), and Lead(Pb).

### Features

- **Vapor/Hydride Generator**
  - Advanced Vapor/Hydride Generator offers enhanced sensitivity, reduced interference, and ultra-low detection limits for the determination of sub-trace levels of Mercury and hydride forming elements.
- **Advanced Gas/Liquid Separator**
  - State-of-the-art design of low dead volume, high efficiency, double gas/liquid separator optimizes the separation of hydride and Hg cold vapor. This design minimizes pressure fluctuations thus enhancing the precision of the measurement.
- **Reaction/Mixing Manifold**
  - The reaction/mixing manifold include multi-mixing levels for easy combination. It enables unlimited flexibility in mixing patterns.
- **Optical Design**
  - Shield optic design greatly reduces light interference and enhances the signal-noise ratio, increasing the sensitivity and precision of the measurement.
- **Dual Channel Simultaneous Analysis**
  - The new light path design enables simultaneous analysis of two elements which greatly increasing the efficiency of measurements.
- **Exhaust System**
  - The integrated exhaust system effectively decontaminates the exterior pollution, thereby enhancing the accuracy of the measurements.
- **User-Friendly, Windows-Based Software**
  - The graphical interface software provides ease of operation, method development, auto sampler control and data acquisition/analysis. It enables real-time display of fluorescence intensity against time for both channels.

- **For Model LAFS-102 and LAFS-103:**
  - Environment protective with high efficiency Hg elimination technique, decontaminates Hg pollution in lab environment efficiently
  - Quartz atomizer with infrared heating temperature control technique designed for optimum performance and durability
  - Hydride/vapor generator and gas-liquid separation system
  - Adopts light closed optical alignment system
  - Adopts special technique for "Gaseous mercury determination" and "Determination of ultra-trace Hg in water samples"
  - Automatic liquid waste discharge
  - Auto gas line control and alarm system
  - Simultaneous analysis of elements
  - RS232 port supports USB interface communication
  - Windows 98/Me/2000/XP operating software with real time display of fluorescence signal

## Application

Labocon Atomic Fluorescence Spectrophotometer LAFS 100 series is widely used in metallurgical and geological industries, petrochemical, pharmaceutical industries, water supply and drainage, education and scientific research, clinical diagnostic, public health and disease control, agriculture, environmental monitoring.



**Specification**

| Model           |                            | LAFS-102  | LAFS-103   |
|-----------------|----------------------------|---|------------|
| Detection Limit | As, Sb, Bi, Se, Te, Pb, Sn | 0.03µg/L  |            |
|                 | Hg (Solid, Gas, Water)     | 0.003µg/L, 1.0ng/m <sup>3</sup> ,<br>0.0004µg/L |            |
|                 | Cd                         | 0.001µg/L                                       |            |
|                 | Zn                         | 2.0µg/L   |            |
|                 | Ge                         | 0.3µg/L   |            |
| RSD             | As, Sb, Bi, Se, Te, Pb, Sn | 1%  |            |
|                 | Hg (Solid, Gas, Water)     | 1%, 5%, 2%                                      |            |
|                 | Cd                         | 1%  |            |
|                 | Zn                         | 1%  |            |
|                 | Ge                         | 1%  |            |
| Linear Range    | As, Sb, Bi, Se, Te, Pb, Sn | 10 <sup>3</sup>                                 |            |
|                 | Hg (Solid, Gas, Water)     | 10 <sup>3</sup> , 10 <sup>2</sup>               |            |
|                 | Cd                         | 10 <sup>3</sup>                                 |            |
|                 | Zn                         | 10 <sup>3</sup>                                 |            |
|                 | Ge                         | 10 <sup>3</sup>                                 |            |
| Catalog No.     |                            | 9524122442                                      | 9524123442 |



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