



## **AF-630** Three-channel Atomic Fluorescence Spectrometer (Environmental protection type)

## **AF-640** Double-channel Atomic Fluorescence Spectrometer (Environmental protection type)

### **Application Fields:**

- Environmental monitoring
- Food
- City water supply and drainage
- Drinking water
- Clinical medicine
- Agriculture environmental protection and agriculture product
- Chinese medicine
- Harmful element detection in cosmetics
- Geology and metallurgy
- Ocean environment and water products
- Education and scientific research

### **Accurate Determination of**

Hg As Sb Bi Se Te Pb Sn Ge Zn Cd

# AF-630 Three-channel Atomic Fluorescence Spectrometer

## AF-640 Double-channel Atomic Fluorescence Spectrometer

### Instrument Features

- Five patented techniques with independent intellectual property.
- Environmental protection type atomic fluorescence spectrometer with world-first "High-efficiency Hg-elimination Technique", decontaminating Hg pollution in lab environment efficiently and protecting analysts' health. (Patent)
- Chinese first quartz atomizer with "full-ceramics infrared heating temperature control" technique with super-long lifetime. (Patent)
- Chinese first technology of "low-temperature atomic Argon-Hydrogen flame auto-ignition", improving the analysis sensitivity of elements to be determined, and reducing memory effect in large degree. (Patent)
- Advanced spraying jet type hydride /vapor generation gas-liquid separation system and automatic waste liquid discharge.
- Standard RS-232 port communication; supporting USB interface communication.
- The newest special device of "Gaseous Mercury Determination", the detection limit of which reaches  $1\text{ng}/\text{m}^3$ , determining Hg content in the air, natural gas, lab and working field etc. (Patent)
- The newest special device with special technology, "Determination of Ultra-trace Hg in Water Samples" is adopted, with detection limit up to  $0.0004\text{ ug}/\text{l}$ , realizing

direct determination of ultra-trace Hg in Class I and II ground water and seawater.

- Realize three or two elements determination simultaneously.
- Newly designed light closed optical alignment system is adopted.
- Gas line auto-control, auto-protection and auto-alarm functions incorporated.

### Brand-new Windows98/Me/2000/XP operation software

- Fluorescence signal profile real-time display and overlap;
- Graphics scale auto zooming;
- Working curve auto fitting, multi-graphics display;
- Multi-functions of single-step running, continuous running and auto-sampling operation.
- All kinds of analysis program, analysis data and signal graphics can be stored and printed out;
- Several kinds of report format are available.
- Detailed software online help is provided.
- Expert system provides physical parameters of various elements, preparation of standard solutions, sample preparations, interference elimination and more than 500 relative articles on analysis methods of domestic and abroad writers.

### Specifications

Element	D.L	RSD	Linear range
As Sb Bi Se Te Pb Sn	$<0.03\text{ ug}/\text{L}$	1%	$10^3$
Hg	$<0.003\text{ug}/\text{L}$		
Cd	$<0.001\text{ug}/\text{L}$		
Zn	$<2.0\text{ug}/\text{L}$		
Ge	$<0.3\text{ug}/\text{L}$		
Hg in gas state (air, natural gas, lab, testing site etc)	$<1.0\text{ng}/\text{m}^3$	5%	$10^2$
Hg in water sample (Sea water, surface water etc)	$<0.0004\text{ug}/\text{L}$	2%	