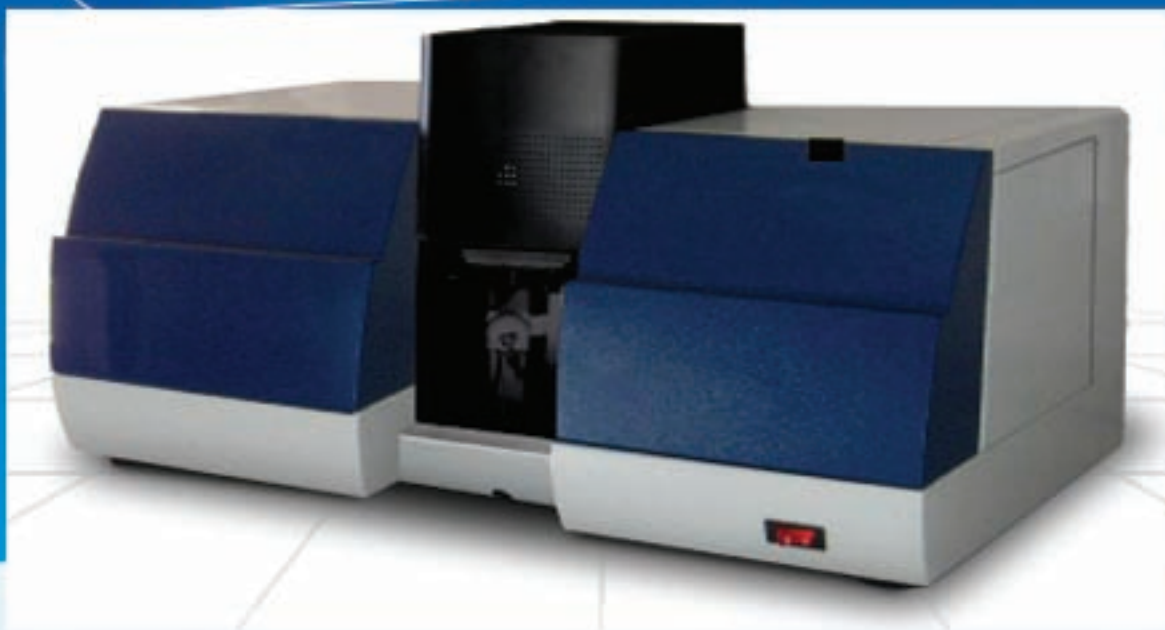




**Analytical**<sup>®</sup>  
SPECTROSCOPY

# FUSION AAS2990

Atomic Absorption Spectrophotometer



Analytical Technologies Limited  
[www.analyticalgroup.net](http://www.analyticalgroup.net)

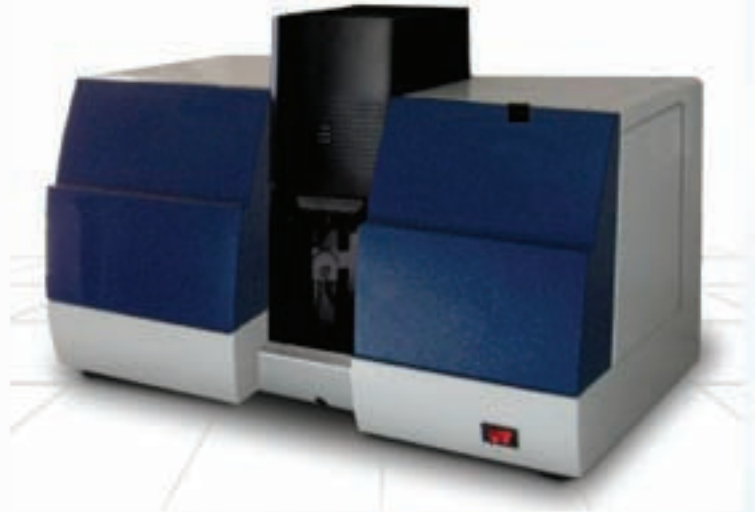
# FUSION AAS2990

## Atomic Absorption Spectrophotometer

- Reliable data quality • Stable instrument performance
- High quality first class service • Our customer service safeguard system is at the highest quality

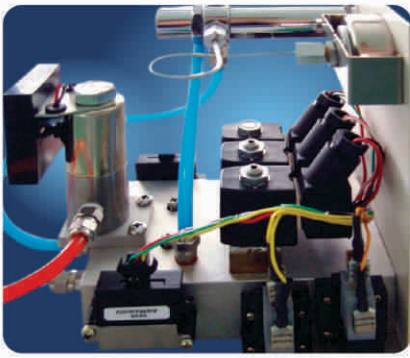
### Instrument Introduction

FUSION AAS2990 is in the present domestic market the volume smallest multi-purpose completely automatic atomic absorption spectrophotometer, has the formidable control and data-handing capacity, by specialized AAWinLab computer workstation software completely automated by PC machine the analysis test work, operates nimble easily use, built-in small laboratory management system, has Total Quality Control (QC) function, supports GLP and GMP function. May realize the auto sampler, hydride generator etc. to unite with the technology, have high sensitivity, good accuracy, quick analysis speed etc. merits.



Simple Fusion AAS2990

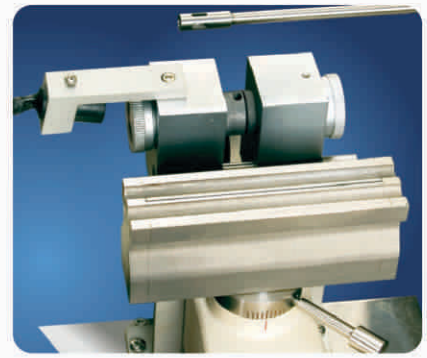
- Inside and outside aerosol -like the path of rays integration structure and the CAN-BUS analysis system, guaranteed instrument's extendibility.
- Can elect to install 6, 8, 10 hollow cathode lamps (possible to install two high performance hollow cathode lamp)
- The patent light signal processing system and high accuracy circuit design, lower electric noise, high anti-jamming ability
- Thermostable, anti-corrosive entire titanium burner head, inertia polyphenylene sulfide atomizing chamber, had guaranteed easy to clean and the non-memory effect.
- Realizes the atomization device automatic and the manual switchover, have auto-ignition and the flameout function, as well as flux automatic control.
- Intellectualized work software, realizes breakdown self-checking, as well as automatic background adjustment function. Comprehensive security countermeasure, instrument exceptionally protects, acetylene revelation warning, the undervoltage protection etc.



Integrated Gas Course  
Valve Island



Full Titanium Burner Head  
Polyphenylene Sulfide Atomizing Chamber



Two kind of automatizations may  
automatic or manual switch over devise

## ■ Analysis and Application

The FUSION AAS2990 completely automatic atom absorption spectrophotometer widely applies in needing to examine the metal and partial element all departments. These elements in the constant, micro and in the trace amount level all can detection. Therefore in environmental protection, medicine hygiene, food safety, metallurgy, clay fertilizer etc obtains the widespread application.

Inside and outside aerosol - like the path of rays integration structure and the patent light signal processing system has guaranteed the instrumental analysis high sensitivity. In the FUSION AAS2990 graphite furnace analysis, the use ordinary hollow cathode lamp can definitely satisfy likely domains and so on food security, water quality guarantee and health to the lead trace analysis request.

The next chart is an example, in instrumentation condition same situation, FUSION AAS2990 compete with generally AAS analysis result,  $1 \mu\text{g/L}$  Pb standard solution, sam.inj.  $20 \mu\text{L}$ , This chart indicated because of FUSION AAS2990 baseline stability outclass than generally AAS, . Can therefore determine the low concentration lead accurately.

- **Enviromental Protection**

Atmosphere、 water quality、 soil metal pollutant analysis

- **Medicine Health**

Medicine and in technique of production metallic element analysis and control

Clinical and disease control in the parsing process metallic element detect ,like blood、 urine、 hair etc.

- **Food Sanitation**

In each kind of food metallic element analysis,like meats、 aquatic product、 liquor、 tea、 dairy etc.

- **Geological Metallurgy**

Geological prospecting, mineral analysis, mineral appraisal etc.

Steel products smelting craft control and impurity analysis

- **Agricultural Analysis**

In agricultural production process various metalloids ultimate analysis ,like grain ,seed ,vegetables , feed ,chemical fertilizer etc.

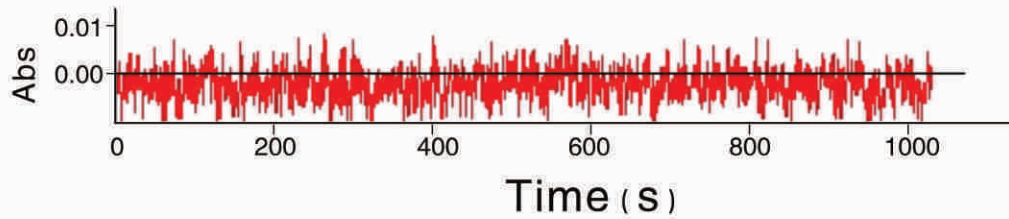
- **Cosmetics Analysis**

In each kind of cosmetics metallic element

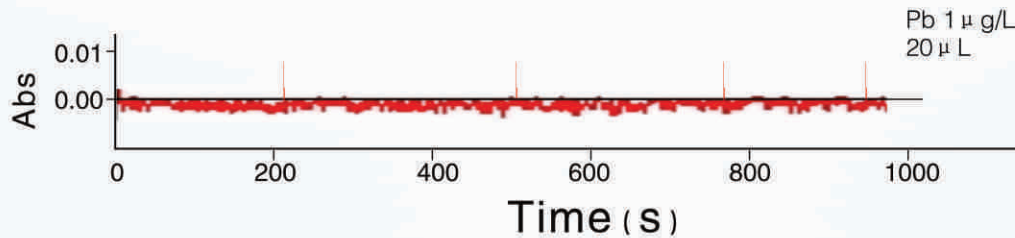
Education Scientific Research

Teaching demonstration、 student test 、 in the scientific research metallic element analysis

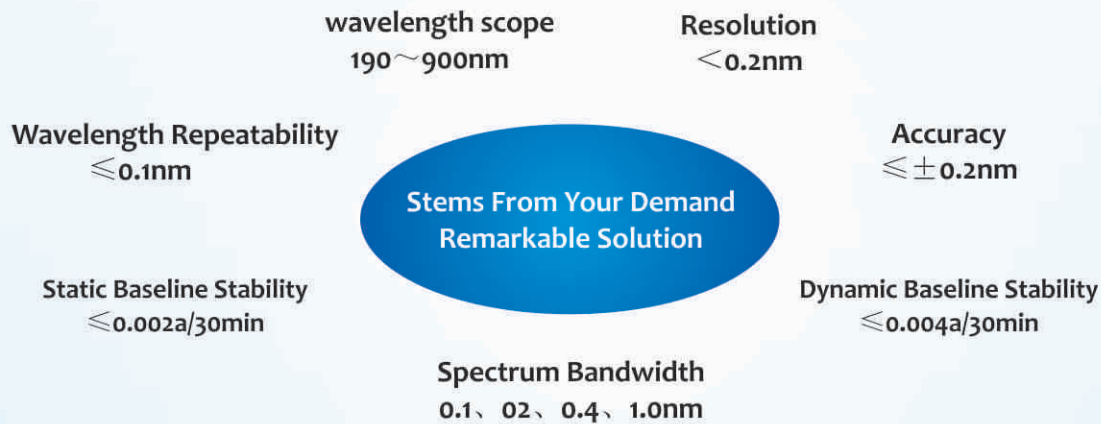
## ■ Generally instrument noise



## ■ FUSION AAS2990 baseline stability and outstanding trace constituent analysis



## ■ Technical Parameter



### Flame Method:

- Benchmark concentration of Cu <math>< 0.03 \mu\text{g/ml}</math>
- Limit of detection <math>< 0.005 \mu\text{g/ml}</math> (Cu)
- RSD ≤ 0.8%
- Background calibration at 1A ≥ 50 times
- burner metal entire titanium 50、100mm may exchange the burner head
- The position adjustment optimum and around the position establishes automatically.

### Graphite Furnace Method:

- Benchmark concentration of Cd:  $0.5 \times 10^{-12}\text{g}$
- Limit of detection :  $1 \times 10^{-12}\text{g}$  (Cd)
- RSD ≤ 2%
- Temperature rising speed ≥ 2000 °C/s
- Temperature range: R.T.~3000 °C
- Heating way 9 steps, slope, step and maximum work rate elevation of temperature way
- Control temperature way: dry cineration stage power control, atomization stage light controls the maximum work rate elevation of temperature control

### Graphite Furnace auto-sampler:

Intelligent sample configuration、self-cleaning、self-diagnosis function  
Sample number: sample 50 set, trial produce 5 set

### Service Support

High quality research development and application team, responds your service demand promptly. Free assistance user development chromatograph, spectral analysis method, provides the sample examination. Regular hold training class, serves your laboratory thoroughly.

## ►► About Analytical Technologies

Analytical Technologies is synonymous for offering Technologies for doing analysis and is the Fastest Growing Global Brand having presence in at least 96 countries across the globe. Analytical Technologies Limited is an ISO : 9001 Certified Company engaged in Designing, Manufacturing, Marketing & Providing Services for the Analytical, Chromatography, Spectroscopy, Bio Technology, Bio Medical, Clinical Diagnostics, Material Science & General Laboratory Instrumentation. Analytical Technologies, India has across the Country operations with at least 4 Regional Offices, 6 Branch Offices & Service Centers.

## ►► Our Products And Technologies



Intelligent HPLC /  
BioLC™ / nanoLC™



Automated GPC  
system



Preparative Process  
HPLC



Production HPLC



Amino Acid Analyzer



Ion Chromatograph



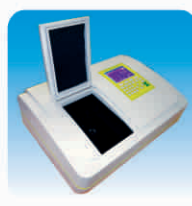
Gas Chromatograph



Flash Chromatography



FTIR Spectrometer



Spectro UV 2080+  
Double Beam



Optical Emission  
Spectrometer



DSC / TGA



HEMA 3210  
Fully-automatic  
Hematology Analyzer



PCR/  
Gradient PCR/RT PCR



NOVA 2200 Plus  
Auto  
Chemistry Analyzer



URINOVA 2800  
Urine Analyzer



Fully Automated  
CLIA



Electrolyte Analyzer



Water Purification  
System



Elisa / Microplate  
Reader - Washer



HPLC Consumables



Bio Chemistry Reagents  
Rapid Diagnostic kits



Urine Strips



Hematology  
Reagents



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Analytical Technologies Limited  
Analytical Bio-Technologies  
Analytical Bio- Med  
HPLC Solutions

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