

AAS PLUS ADS1000 FSX

Diode Array Based Atomic
Absorption Spectrophotometer

MOTRAS
SCIENTIFIC



AAS Plus - ADS1000 FSX

MS AAS Plus ADS1000 FSX is fully automated PC Controlled atomic absorption spectrophotometer with flame system.

The system uses state-of-art imaging sensor to perform analysis simultaneously like an OES. This allows the system to resolve all wavelengths at once unlike conventional system which uses monochromator and are bound to resolve one a specific wavelength. Therefore, the number of HCL lamp does not matter, as to fully utilize the capability of instrument, multi-element lamp is used. The system can perform analyses upto 8 element simultaneously.

The system comprises of automatic independent HCL turret with automatic variable spectral bandpass.

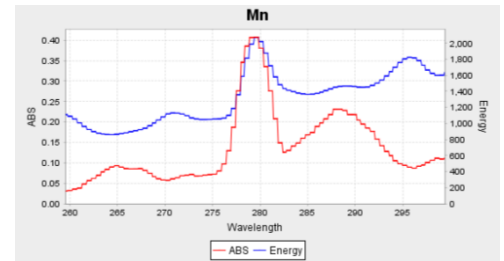
The system uses state-of-art, ultra-fast lamp modulation up to 1024 Hertz coupled with imaging sensor with internal reference beam for double beam operation and uses two-line background correction to achieve extreme stable and reproducible results.

General Specifications

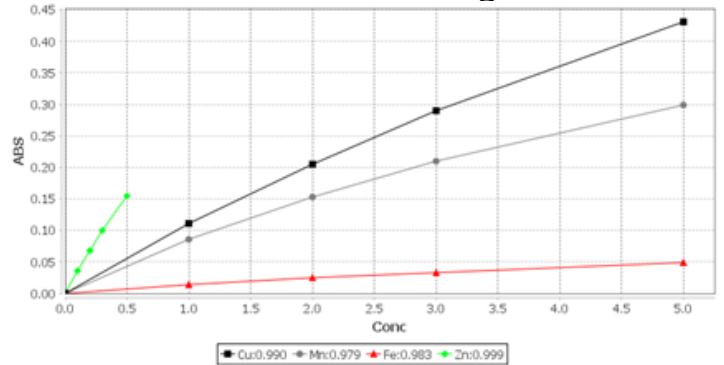
- Multi Element analysis in real time
- 4 analysis (Zn,Mn,Fe,Cu) in 3 seconds
- Zero moving parts for superior stability
- USB connectivity
- Reference beam available
- Ultra fast 1024 Hz modulation
- ABS range from -0.3 to 3.5 ABS
- Automatic slit and gain control
- Automatic gas box with real time sensing for Fuel, Oxidant, Nebulizer, Water Trap, Bung

Optics

- Czerny Turner configuration with stray light correction
- Automatic wavelength calibration
- Original holographic grating blazed at 230.0nm
- 1200lines/mm as standard
- 4 analysis (Zn,Mn,Fe,Cu) in 3 seconds
- Zero moving parts for superior stability
- USB connectivity
- Reference beam available
- Ultra fast 1024 Hz modulation
- ABS range from -0.3 to 3.5 ABS
- Automatic slit and gain control



Auto Wavelength Calibration



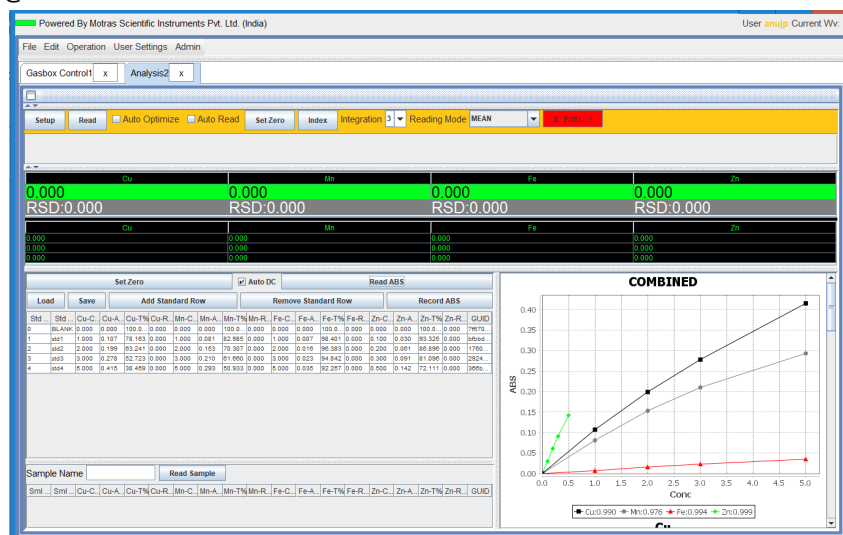
Simultaneously Standard Calibration

Atomizer & Flame System

- PTFE inert atomizer with 100mm burner for Air-Acetylene flame
- Software controlled Fuel and Oxidant operation and monitoring
- Automatic safe shutdown on loss of pressure, nebulizer, water trap, bung
- Display of status of all monitoring in software and on instrument panel
- Flame cut off provided through software, hardware button and sensing signals
- Optional software controlled movement in 3 axis
- Error history saving and acknowledgement

Operating Software

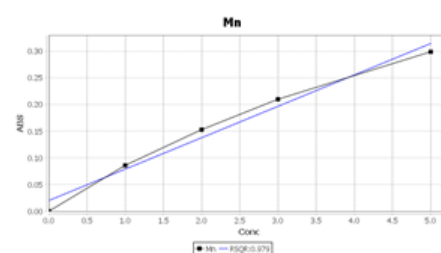
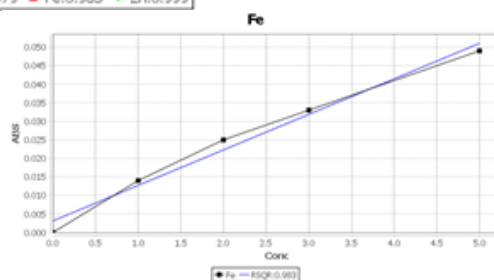
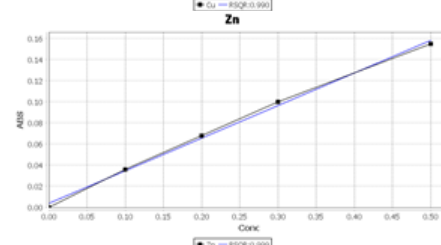
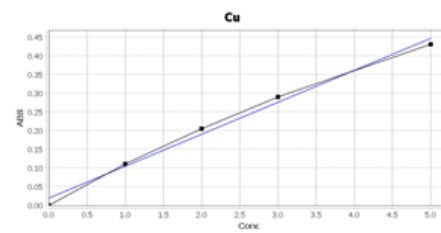
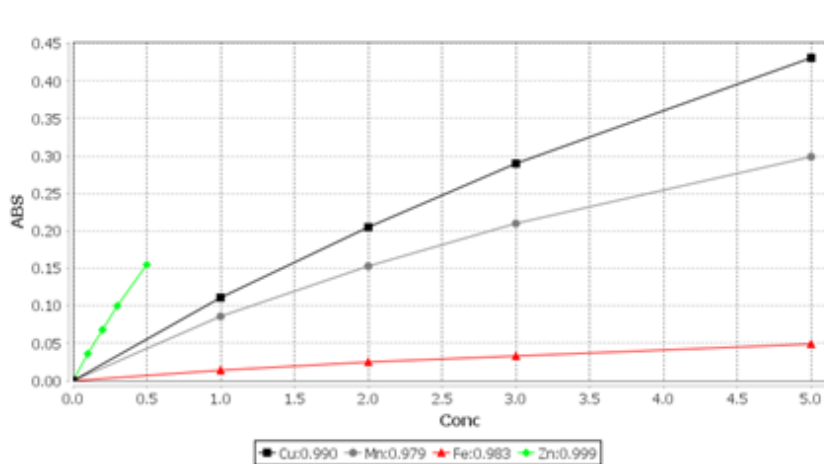
- Automatic initialization and self-diagnostics on startup
- Powerful analysis setup with adjustment of replicates, integration time and read delay
- CFR21 part 11 compliant software with database support to capture all events and results generated by the software
- Gasbox control via simple interface
- Easy calibration of multi standards



Specifications

SYSTEM	PC Based AAS with Air-Acetylene flame, capable to perform multiple analysis simultaneously (like Zn,Fe,Mn,Cu) from single sample.
DATA PROCESSING	PC with USB and printer support
PHOTOMETRIC SYSTEM	Simultaneous beam technology to resolve all wavelength at once in real time. Certified 1200lines/mm grating blazed at 230.0nm for superior UV reflectance Accuracy and repeatability of 0.1nm Wavelength range from 190.0 - 930.0nm Automatic slit setting Automatic peak selection and indexing
BANDWIDTH	0.0nm to 2.5nm automatic
GRATING	Certified 1200lines/mm blazed at 230.0nm for superior UV reflectance Optional 1800lines/mm also available
DETECTOR	High efficiency CCD Image Sensor with >3600 pixels
LAMP TURRET	Automatic with up to 8 element analysis in single sample simultaneously
BACKGROUND CORRECTION	Multi-line, Off Peak and Pulsed Lamp (SR) Background Correction techniques available
OPERATING MODES	Absorption, Emission, Molecular Absorption
BURNER HEAD	High quality 100 mm S.S. / Titanium*optional burner for Air-Acetylene. 3-Dimensional adjustment
INTERGATION TIME	0.0 to 150 Seconds
ACCURACY	+/- 0.008 ABS at 1.0ABS
ATOMIZER	100% PTFE spray chamber with inert impact bead for flow spoiler
NEBULIZER	Outer shell made in S.S. with inner structure made in PTFE with capillary made in Platinum and Iridium for high corrosion resistance
FLAME SYSTEM	Computer controlled with digital sensing on fuel and oxidant lines shown on software. Interlocks for fuel, oxidant, burner, liquid trap. Flash Back arrestor provided for fuel line and N.R.V for oxidant lines. Oxidant flow automatic setting.
SOFTWARE	Compatible with MS Windows system with all functions available. Built in cook book with interference detection
CONNECTIVITY	USB
ELECTRICAL PARAMETERS	220v +/-10v Single Phase 500VA

Standard Graph from single multi standard



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