



thermoscientific

iCE FIOS Atomic Absorption Spectrometer

A unique double beam AAS to expand
your analysis

ThermoFisher
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iCE FIOS AAS

A unique double beam, ten lamp AAS system to expand your analysis

The Thermo Scientific™ iCE™ FIOS™ AAS incorporates a unique ten lamp carousel that enables the measurement of a wide range of elements, expanding your AAS analysis. The flame atomizer combined with the double beam optical system enables the analysis of elements in the concentration range of sub ppm to % level.

- Easy-access ten lamp carousel with the capability to read coded lamps
- High light transmission for high precision and accuracy

The iCE FIOS AAS instrument is an ideal solution for laboratories that analyze a number of elements in samples at varying concentration ranges.

Flame atomizer

- Auto ignition of flame after all safety interlock checks:
 - Flame door lock
 - Burner presence
 - Burner type sensor
 - Drain flow sensor
 - Lamp door
 - Pressure sensor
- Software controlled burner height, vertical and angular movement
- Display of fuel and oxidant pressure for real time monitoring
- User friendly push-fit burner
- Inert nebulizer and spray chamber suitable for all types of samples prepared using various acids

Ten lamp carousel

- Ten lamp carousel for fast and automatic switch over
- Auto detection of all coded lamps
- Auto alignment of the HCL
- Efficient fibre optics communication
- User definable, software controlled power switch for HCL to enhance lamp life
- Magnetic lock enabled doors with safety sensors



Thermo Scientific iCE FIOS AAS.

Laboratory optimization

Enable your team to achieve more with innovative and cutting edge technology

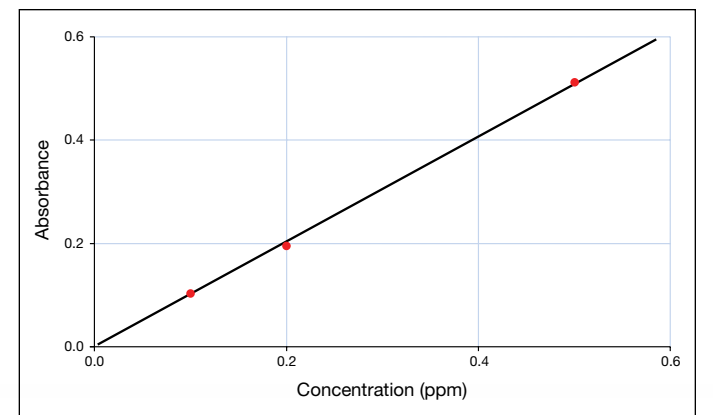
The iCE FIOS AAS incorporates innovative design in both the instrument and software. This ensures that the iCE FIOS AAS maintains analytical stability without compromising on performance.

Key hardware features

- Double beam optics to improve signal stability
- Automatic fuel flow and burner position optimisation to ease method development
- Software controlled burner with horizontal, vertical and angular movement to optimise performance
- Comprehensive cookbook tool for users to help in method development
- Flexibility and reduced warm-up time for lamps increasing productivity
- Auto detection of coded lamps

Key software features

- Safety and performance is ensured by all interlock checks
- Automatic lamp shut down to preserve lamp life
- Software controlled fuel ratio
- Customizable report including analytical data and sample information
- Automatic concentration curve calculation by quadratic, linear, cubic or polynomial fit
- Stable performance even in case of voltage fluctuation



Calibration Graph: (LINEAR) 1.38033
R-squared = 1.000
Eqn $(-0.0029 + 1.0235 \times X)$



Key applications

A unique instrument for routine applications

Soil and agriculture

The iCE FIOS AAS is suited to the analysis of elements in soil and agricultural samples. The unique ten lamp capability enables the analysis of both nutritional and toxic elements falling in the concentration range of the instrument.

Environmental analysis

The powerful detection capabilities of the iCE FIOS AAS is ideal for the targeted monitoring of trace elements in environmental samples. This applies either in response to a specific environmental event or as a part of routine monitoring.

Food safety

You can measure key elements for food labeling applications using flame AAS atomizer. This allows concentration ranges from sub ppm to % level to be accurately measured for compliance with international food safety and labeling standards.

Pharmaceutical and nutraceutical compliance

Ensure you have an instrument to comply with legislation. The iCE FIOS AAS can analyze major elements in pharmaceutical samples with the unique double beam design ensuring accuracy and precision.

Industrial QA/QC

With a wide measurement range, the iCE FIOS AAS is well suited to a quality control environment. It has the ability to measure major elements in products.





Find out more at thermofisher.com/TEA

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