



AMAZINGLY  
CAPABLE  
REMARKABLY  
AFFORDABLE



**Avio® 200 ICP Optical Emission Spectrometer**

For research use only. Not for use in diagnostic procedures.

  
**PerkinElmer®**  
*For the Better*

# PERFORMANCE VALUE AND EASE OF USE IN ONE COMPACT PACKAGE

Capable of handling even the most difficult, high-matrix samples without dilution, the Avio® 200 system brings a whole new level of performance and flexibility to ICP.

What's more, that unprecedented performance comes with unparalleled ease-of-use. Unique hardware features and the industry's most intuitive software combine to make multi-element measurements as easy as single-element analyses.

The smallest ICP on the market, Avio 200 offers efficient operation, reliable data, and low cost of ownership by delivering:

- The lowest argon consumption of any ICP
- The fastest ICP startup (spectrometer ready in just minutes from power on)
- Superior sensitivity and resolution for all elements of interest
- Extended linear range with dual viewing technology

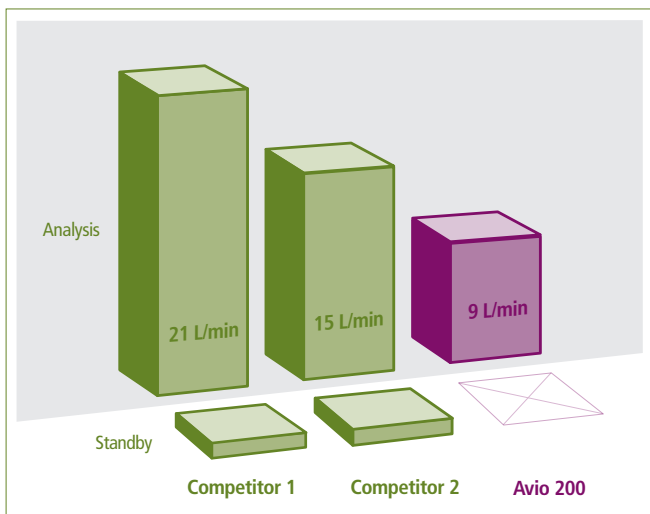
Reliable. Capable. Affordable. The Avio 200 is everything you're looking for in an ICP.



Avio 200 ICP-OES

# WHY JUST ENGINEER WHEN YOU CAN PIONEER

Designed to meet the most challenging of customer needs – and exceed them – the Avio 200 ICP allows you to run more samples more cost-efficiently than ever before with an array of unique and proprietary features.



The Avio 200 operates with a plasma flow of 8 L/min and a total argon gas flow of 9 L/min, compared to 21 L/min required by other systems.

## Low cost of ownership

Avio's proprietary Flat Plate™ plasma technology generates a robust, matrix-tolerant plasma using half the argon of other systems, giving you:

- Faster return on investment
- Superior uptime and productivity by eliminating the need for cooling and maintenance associated with traditional load coils

Plus, for added efficiencies, PerkinElmer's Dynamic Wavelength Stabilization feature lets you go from power on to analysis in just minutes, allowing you to freely turn off the instrument when not in use.



Avio's unique vertical Dual View optical system ensures the widest working range and excellent detection limits.

## Uncompromising Dual View capability

Unlike synchronous vertical Dual View ICP systems that compromise performance in order to provide axial and radial viewing, the Avio 200 system's Dual View capability measures every wavelength with no loss of light or sensitivity. Even elements at high (>500 nm) or low (<200 nm) wavelengths can be measured with complete confidence, no matter the concentrations.

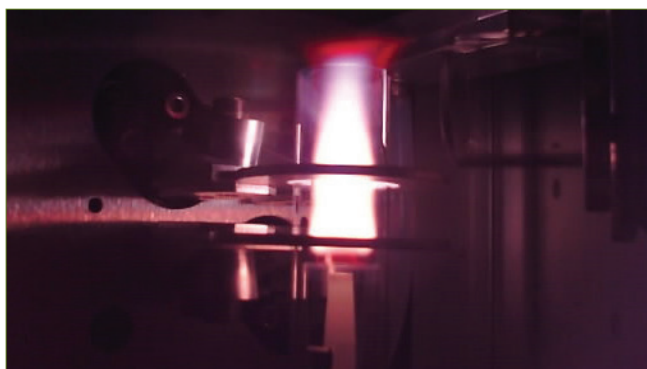
The Avio system's unique Dual View design also offers an extended linear dynamic range, enabling:

- Minimized sample preparation and dilution
- High and low concentrations measured in the same run
- Better quality control and more accurate results
- Fewer reruns

## Integrated plasma viewing camera

Simplify your method development and enjoy the convenience of being able to monitor your plasma remotely with the Avio 200 system's PlasmaCam™ technology. An industry first, the color camera lets you:

- View the plasma in real time
- Perform remote diagnostics
- See sample introduction components



PlasmaCam allows easy viewing of the plasma and surrounding components for easy method development and troubleshooting.

### Revolutionary PlasmaShear system for argon-free interference removal

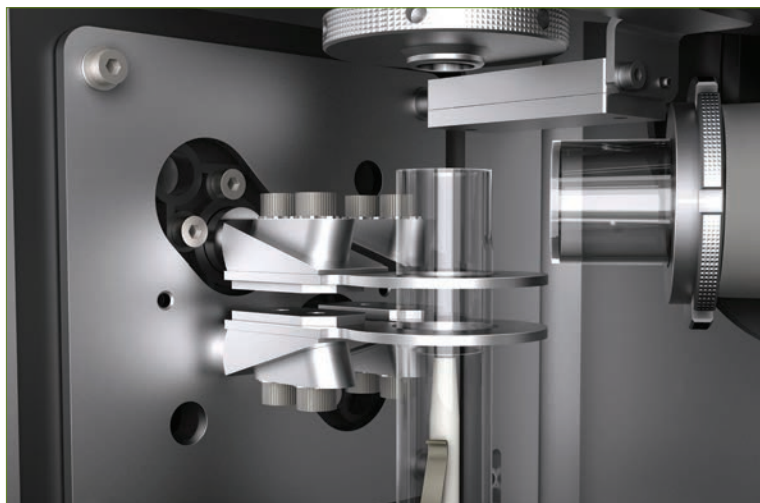
To remove interferences during axial viewing, you need to eliminate the cool tail plume of the plasma. No instrument does it more effectively, reliably, or economically than the Avio 200.

While other ICPs use as much as 4 L/min of argon to remove the plume, the Avio system's unique PlasmaShear™ technology runs on air. No need for ionization suppressants. No high-maintenance, high-extraction systems or cones. Just a fully integrated, fully automated interference-removal system that delivers problem-free axial analysis.

### Vertical plasma with quick-change torch mount for unsurpassed matrix flexibility

Quickly and easily adjusted without tools, even when the ICP is running, the Avio 200 system's vertical torch delivers greater sample flexibility and simplified maintenance. Uniquely designed, the torch mount features:

- A removable injector that is independent of the torch for less maintenance and potential for breakage
- Automatic self-alignment to provide consistent depth setting even after removal
- Compatibility with a variety of nebulizers and spray chambers for added flexibility



Avio's proprietary Flat Plate plasma technology provides a more compact, robust, and stable plasma than traditional helical coil systems.



Avio's vertical torch design delivers greater sample flexibility and simplified maintenance.

## MULTI-ELEMENT ANALYSIS MADE EASY

Avio is the ideal ICP platform for AA users requiring multi-element capabilities. Not only does it allow you to measure more elements at lower levels, it does so without added complexity or cost. In fact, the Avio 200 can shorten your analysis times by eliminating the need to dilute samples. Step up to the superior all-around performance of a solution that is:

- As easy to use as your AA with no flammable gases
- As cost-efficient as your AA (with no lamps to buy when you run new elements)
- The same size as your AA

Plus, it utilizes the intuitive, cross-platform Syngistix™ software package unique to PerkinElmer atomic spectroscopy instruments.

# ENHANCING PERFORMANCE FROM THE INSIDE OUT



## ■ Flat Plate Plasma Technology

- More robust and stable plasma
- Unsurpassed matrix tolerance
- Lowest argon consumption (half that of traditional load coils)
- Less maintenance

## ■ Vertical Torch

- Optimal performance for any sample type
- Quick and easy to adjust for simple maintenance
- Torch mount ensures easy, accurate realignment after removal

## ■ Small Footprint

- 65 x 76 x 81 cm (W x D x H)
- Saves valuable laboratory bench space

## ■ Color PlasmaCam

- Simplifies method development by allowing continuous viewing of the plasma
- Remote diagnostic capabilities for superior uptime

## ■ Dual View

- Optimizes plasma viewing – both axial and radial
- Measures elements with high and low concentrations in the same run, regardless of wavelength

## ■ New 4-Channel, 12-Roller Peristaltic Pump

- Delivers greater sample-introduction flexibility
- Enhances and optimizes stability

## ■ PlasmaShear System

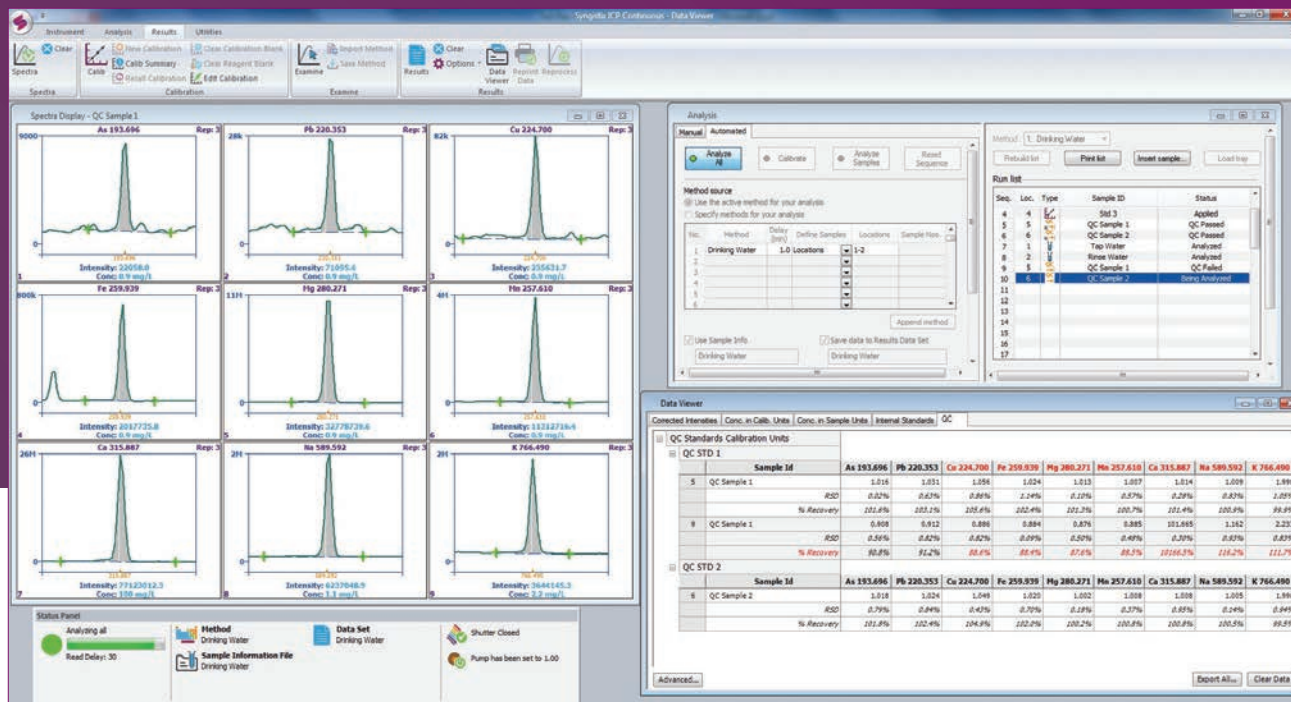
- Argon-free interference removal
- Maintenance-free design (no cones to clean or high extraction systems)

# INTERACT WITH A MORE INTUITIVE INTERFACE

The Avio 200 runs using Syngistix for ICP software. Powerful, flexible, and simple, this cross-platform package offers:

- An intuitive, left-to-right, icon-based design
- Built-in, preset methods for faster, easier operation, requiring minimal training
- Extensive QC options to ensure quality data

Designed to mirror your workflow, the Syngistix interface walks you through every step of an analysis – from instrument setup to results – for consistent, efficient, reliable operation. Enjoy more functionality with fewer clicks from start to finish.



## Instrument Startup/ Optimization

**Status Panel** displays real-time information on key instrument components so you can monitor the entire system at a glance.

**Continuous Graphics** allows real-time monitoring of instrument performance while optimizing instrument parameters.

## Simple Method Development

**Preset Methods** offer faster, simpler operation and accurate, reliable data.

**Method Editor** organizes parameters into logical groups – spectrometer, sampler, processing, and QC – and allows measurement times to be selected for optimum speed and productivity.

## Enhanced Productivity

**Multicomponent Spectral Fitting (MSF)** offers simple, reliable interference removal by letting you isolate the analytical signal from the measured spectra for superior accuracy, precision, and detection limits.

**Cross-Tab Data Viewer** displays results in an easy-to-read, elements-across format for simpler review and analysis.

## Data Analysis

**Data Reprocessing** lets you adjust everything from background correction points to your calibration curve after data collection to optimize the measurement of a particular sample without having to re-run it.

**Status Panel** features a graphic progress bar showing the percentage of an analysis that has been completed. Managing your system – and your time – has never been easier.

## INconX™ Mobile Status App

This feature allows you to monitor and manage your Avio 200 from anywhere, any time, using your mobile device. Check an ongoing analysis, manage multiple users, even control functions like turning the plasma on and off.

# ACCESSORIZE YOUR SYSTEM OPTIMIZE YOUR RESULTS

PerkinElmer makes it easy to get the most out of your Avio 200 system with a full range of accessories and consumables designed to optimize performance, streamline your workflow, and generate faster, more accurate results.

## Titan MPS™ microwave sample preparation system

Easy to load and easy to use, the Titan MPS delivers simple, safe, cost-effective microwave sample preparation, optimizing performance by constantly monitoring and adjusting digestion conditions during operation.

## SPB digestion blocks

When conducting routine sample preparation, PerkinElmer's SPB blocks are ideal for any open-vessel digestion/heating method requiring a temperature below 180 °C.

## S10 Autosampler

Turn your Avio 200 ICP-OES into an efficient, fully automated analytical workstation with the addition of an S10 Autosampler. Ruggedly designed, the S10 features corrosion-resistant components to ensure long-term reliability, reproducibility, and precise performance.

## ICP consumables and supplies

**Nebulizers/Spray Chambers** – Scott/Cross Flow and Cyclonic/Meinhard options available.

**Injectors** – Full selection of alumina, quartz, and sapphire versions.

**PerkinElmer Pure Standards** – More than 300 single- and multi-element standards, each with a certificate of analysis documenting quality, stability, and reliability.

**Torches** – Exclusive, one-piece, demountable quartz models designed for quick, easy replacement.



## Expand Your Expectations of a Lab Services Provider

Optimize your Avio 200 ICP-OES with our comprehensive suite of services from PerkinElmer OneSource® Laboratory Services. From instrument service and repair to analytics and optimized scientific workflows, OneSource Laboratory Services provides all the tools you need to increase your lab efficiencies and get more out of your ICP. Far beyond the traditional model of a laboratory services company, OneSource Laboratory Services becomes an integral part of your business, providing a high level of technical support and scientific expertise. Expect more from your laboratory services provider and discover our comprehensive set of tools to help empower your science and drive your business.

**OneSource**  
Laboratory Services

# THE MOST TRUSTED NAME IN ELEMENTAL ANALYSIS

From AA to ICP-OES and ICP-MS, we have been at the forefront of elemental analysis for more than 50 years. Join forces with us and give your laboratory the benefits of cutting-edge instrumentation, consistently excellent consumables, and the industry's largest and most trusted service and knowledgeable support network.

With thousands of installed instruments throughout the world, PerkinElmer has the experience and resources needed to offer you the best in ICP-OES.

With the Avio 200, we're once again pushing the boundaries of ICP instrumentation, providing a platform that gives you:

- Ten times faster startup – minutes vs. hours
- Half the argon consumption of other ICP systems
- 100% sample matrix flexibility

Discover the ICP that offers unsurpassed matrix tolerance and the lowest argon consumption on the market. Finally, there's a solution that gives you exactly what you need in terms of capability and affordability.



For more information, visit [perkinelmer.com/avio200](http://perkinelmer.com/avio200)

PerkinElmer, Inc.  
940 Winter Street  
Waltham, MA 02451 USA  
P: (800) 762-4000 or  
(+1) 203-925-4602  
[www.perkinelmer.com](http://www.perkinelmer.com)



For a complete listing of our global offices, visit [www.perkinelmer.com/ContactUs](http://www.perkinelmer.com/ContactUs)

Copyright ©2016-2017, PerkinElmer, Inc. All rights reserved. PerkinElmer® is a registered trademark of PerkinElmer, Inc. All other trademarks are the property of their respective owners.

012729C\_01

PKI