SPECTROBLUE FMX36
ICP-OES

Where price and performance meet perfection
SPECTROBLUE

The compact, midrange ICP-OES solution that brings a new class of performance to routine laboratory analysis — now updated with a powerful new generator.

It capitalizes on more than 30 years of benchmark service by SPECTRO inductively coupled plasma optical emission spectrometers. That heritage can be found in its Paschen-Runge optical system, providing unmatched optical resolution and sensitivity.

But SPECTROBLUE also utilizes revolutionary UV-PLUS gas purification technology, as well as a breakthrough OPI-AIR interface that avoids costly, complicated external water cooling. And it’s available in three rugged, ultra-reliable versions engineered for everyday use in industrial or environmental applications. Combined with a new, high-powered solid-state generator, the result is analytical perfection.

NEW POWER SOURCE

The latest SPECTROBLUE brings next-generation plasma power to midrange spectrometers. Its new laterally diffused metal oxide semiconductor (LDMOS) generator delivers up to 1700 W of proven power.

EXCELLENT MATRIX COMPATIBILITY

High power gives SPECTROBLUE great agility — for high matrix compatibility. Samples can be analyzed in lower dilutions, for lower limits of detection. Combined with the system’s advanced optics, its power reserves enable ultra-precise analysis at the highest plasma loads.

LONGER LIFETIME

Finally, this generator is extremely robust and trouble-free. Its innovative air-cooled system operates without external cooling, delivering low running costs. Unlike traditional generators, this new unit has no parts subject to wear — minimizing time and expense.

FASTER WARMUP TIME

Traditional tube-based generators take up to 30 minutes to stabilize after startup. SPECTROBLUE’s new solid-state generator stabilizes much more quickly. In less than 10 minutes it’s ready to start measuring samples for most applications. Compared to previous models, SPECTROBLUE delivers quick warmups for high productivity.
The SPECTROBLUE optical system delivers the most direct path to cost-effective results.

SPECTRO has refined and perfected its benchmark optical platform with SPECTROBLUE’s advanced confocal optical system, featuring optimized Paschen-Runge assembly (ORCA) and aluminum half-shell technology. It combines compact dimensions; simple, robust construction; minimized volume; and a direct high-transmission path for maximized light throughput. The system delivers a resolution of 8 picometers (pm) in the important range of 165 to 285 nm, and 16 pm for higher wavelengths. In this way line-rich spectra can be more easily processed. A twin-interface version, SPECTROBLUE TI, enables automatic axial and radial plasma observation and is available for environmental applications. Overall results: improved measurement accuracy and fewer expensive re-tests.

In addition to exceptional performance, SPECTROBLUE comes equipped with SPECTRO’s UV-PLUS gas purification system. The hermetically sealed optical chamber circulates its argon atmosphere via a small membrane pump through a specialized cleaning device, ensuring excellent long-term stability and availability. Best of all, no expensive gas is consumed.

SPECTRO SMART ANALYZER software supplies a simple yet comprehensive user interface with intuitive controls. This simplified, flexible system provides familiar MS Outlook look and feel, one-click operation of routine functions, and customizable views. Operators without extensive training can take advantage of SPECTROBLUE’s unique analytical capabilities, using the smart user interface. In simplest mode, an intuitive app provides a quick overview of the instrument and current process. Manual, prompted manual, and automatic modes are available according to user preference and proficiency. Dialogs are restricted to a single level for perfect clarity and swift decision-making.

Software functions are divided into categories, linked via a central navigation panel. Within each category, only relevant buttons and selections are displayed. Each screen is clearly designed and usually self-explanatory. A single click switches between categories, making control of this sophisticated ICP-OES spectrometer simple.

SPECTRO helps ensure uninterrupted performance and maximum ROI over a spectrometer’s life via AMECARE services. Machine-to-machine (M2M) support allows proactive alerts, backed up by client connection with a remote SPECTRO service expert’s PC.

- Perfect sensitivity and resolution
- Perfect stability, durability, and reliability
- Perfect simplicity and ease of use
- Perfect cost of ownership
- Perfect fit for your lab
**SPECTROBLUE**
Three versions to suit both industrial and environmental uses

SPECTROBLUE is available with three different versions of its plasma interface, depending on intended use.

**SPECTROBLUE EOP: axial interface**
SPECTROBLUE EOP’s axial plasma viewing provides high sensitivity and low detection limits ideal for superior analysis of trace elements in industrial and environmental applications. A SPECTRO service engineer can easily perform an AMECARE performance upgrade in the field that converts a SPECTROBLUE EOP model to TI functionality.

**SPECTROBLUE EOP: axial interface**
SPECTROBLUE EOP’s axial plasma viewing provides high sensitivity and low detection limits ideal for superior analysis of trace elements in industrial and environmental applications. A SPECTRO service engineer can easily perform an AMECARE performance upgrade in the field that converts a SPECTROBLUE EOP model to TI functionality.

**SPECTROBLUE SOP: radial interface**
Equipped for standalone radial plasma viewing, the SPECTROBLUE SOP is ideal when low detection limits are of less importance than accuracy and precision at higher sample concentrations. This model offers superior precision and excellent tolerance for high saline and organic fractions. It’s also well-suited for analyzing suspensions and slurries.

**SPECTROBLUE TI: twin interface**
The SPECTROBLUE TI provides accurate determination of alkali/earth alkali elements in a complex alkali/earth alkali matrix, increases linearity and further improves the instrument’s already good dynamic range. This makes it ideal for environmental applications such as analyzing sodium, potassium, or calcium in wastewater or soil matrices. SPECTROBLUE TI automatically performs both axial and radial viewing of the plasma during the same measurement.

**Comprehensive family**
The new SPECTROBLUE joins SPECTRO Analytical’s advanced suite of ICP-OES analyzers:

The SPECTRO GENESIS spectrometer sets a new standard for entry-level ICP-OES performance. With simple “plug & analyze” operation, a wide dynamic range, high throughput, and surprising affordability, it’s a great alternative to sometimes troublesome flame atomic absorption (AAS) technology.

The SPECTRO ARCOS ICP-OES analyzer offers ultimate performance for the most demanding analyses in industry and research. Its maximum-power LDMOS generator delivers up to 2000 W. Its unique MultiView option provides both axial-view and radial-view plasma observation without compromise. And its design ensures exceptionally low operating costs over a long service life.

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