



SPECTROGREEN

ICP-OES ANALYZER



A new view of analyzer
technology and value



This compact new ICP-OES solution brings innovation, efficiency, and affordability to routine laboratory testing – for environmental analysis and beyond.



The new SPECTROGREEN inductively coupled plasma optical emission spectrometry (ICP-OES) analyzer introduces a real performance breakthrough.

Its unique radial dual side-on interface (DSOI) technology represents a brand-new approach to the critical question of plasma view design. It provides twice the sensitivity of conventional radial-plasma-view instruments. And it equals the sensitivity of newer vertical-torch dual-view systems – while avoiding their complexity and headaches. All at an affordable price!

Its design also builds on more than 30 years of acknowledged innovation and unsurpassed support from SPECTRO – one of the world's leading suppliers of analytical instruments.

For users performing routine environmental and other analyses, who need top-flight performance without complications, SPECTROGREEN just became the spectrometer of choice.

Double your sensitivity without sacrificing simplicity!

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SPECTROGREEN ANALYSIS ADVANTAGES

- Up to 2x gain in sensitivity
- Solid simplicity and ease of use
- Ensured durability and reliability
- Fast analysis for high productivity
- Excellent affordability
- Compact footprint
- Minimized maintenance



ENVIRONMENTAL APPLICATIONS AND MORE

Its exciting new DSOI capability gives the SPECTROGREEN analyzer significant advantages in determining trace element concentrations and handling samples with challenging matrices – including certain wastewaters, soils, and sludges, as well as petrochemical, chemical, high-salts, and metal samples.

The results are excellent for routine analyses across numerous user groups, such as

- Environmental & agronomy
- Consumer product safety
- Pharmaceuticals
- Chemical/Petrochemical
- Foods



LOW COST OF OWNERSHIP

The new SPECTROGREEN analyzer offers a competitive price/performance ratio – and perhaps the lowest operating expenses in its class. It saves on consumables with a low-purge optic design: only 0.5 liters of argon per minute, compared to 3 to 6 liters for other analyzers. (Or choose the innovative UV-PLUS option for no-purge savings averaging \$3000 per year!) Finally, it requires no added cooling – eliminating the need for expensive, breakdown-prone external chillers.





In plasma viewing, “dual” usually denotes both radial and axial views. Example: to increase sensitivity, some newer vertical-torch dual-view instruments complement their radial view via a second periscope-coupled axial view interface above the plasma. However, this adds significant light loss, interferences, contamination, and thermal stressing of interface components.

By contrast, with new SPECTROGREEN dual side-on interface technology, “dual” refers to a single radial view – but one that’s effectively doubled. DSOI uses two optical interfaces to capture emitted light from both sides of a vertical plasma, with only a single extra reflection, for added sensitivity. This avoids the above vertical-torch dual-view problems.

Additionally, SPECTRO’s ORCA optical technology further maximizes light throughput, stability, and sensitivity.

The SPECTROGREEN analyzer provides best-in-class performance for UV elements. In fact, it averages twice the sensitivity of a conventional radial-view model across the whole spectral range from 165 to 770 nanometers. Forget deciding between viewing modes, or making multiple analyses of the same sample. You get the entire wavelength range you need with a single analysis. That’s a critical advantage for high-productivity laboratories.

Plus SPECTRO’s new GigE readout system and onboard signal processing enable full spectrum transport in less than 100 milliseconds and sharply boost overall processing speeds, for faster analysis. This enables shorter sample-to-sample times. Result: more samples per hour.

Revolutionary new viewing technology

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BENEFITS OF THE NEW DSOI VIEW

- No typical axial-view interferences
- No contamination of the optical interface
- No thermal stress on components
- One analysis for all required wavelengths
- Fastest analysis times
- Minimal maintenance intervention



NEW STABILITY, ACCURACY, AND POWER

The SPECTROGREEN analyzer offers further improvements as well. Thermal stabilization of the optical system eliminates the need for subzero cooling. And state-of-the-art, low-noise linear array CMOS detectors avoid any blooming effect, allowing accurate measurement of trace concentrations – even near very high emission signals. So the best emission lines can be used, setting new benchmarks for sensitivity and accuracy with virtually any matrix or sample composition.

Additionally, the latest LDMOS 1700 W generator helps analyze difficult sample matrices in lower dilutions to lower limits of detection. Extremely agile, LDMOS systems eliminate the need for a mechanical high-frequency-matching network – adding power and robustness – while their high efficiency makes external cooling unnecessary. So the SPECTROGREEN system stays cool and trouble-free while delivering fast warmup (often less than 10 minutes) for higher productivity.



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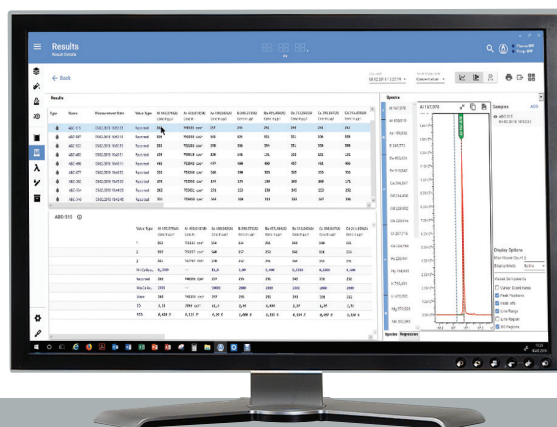
Clean, compact design

Continuously keeping it simple, the instrument's design makes all sample introduction components readily visible and accessible, and offers a short, optimized fluid path. It occupies less benchtop depth than any other ICP analyzer, with space in front for an autosampler

Upgraded, easy software

New SPECTRO ICP Analyzer Pro operating software delivers a simply intuitive SPECTROGREEN experience. Streamlined workflows are backed by a modular plug-in architecture to customize the interface for each user's needs. Even with large amounts of data, processing speeds are ultrafast – up to 1500x faster than with previous database systems. Specific protocols such as U.S. EPA 200.7, CLP ILM 5.3, and CLP ISM 2.3 are included. Version and user management, combined with excellent audit trail functionalities, makes the analysis process fully transparent and traceable.

The SPECTROGREEN analyzer delivers confident operation, solid security, and ensured traceability. From inexperienced operators to high-volume production labs to challenging scope changes – this package handles them all, with unsurpassed ease and speed.



Advanced analyzer family

The new SPECTROGREEN joins SPECTRO's suite of high-performance ICP-OES analyzers.

The SPECTRO GENESIS spectrometer offers entry-level "plug & analyze" operation, a wide dynamic range, high throughput, and surprising affordability.

Like SPECTROGREEN, the SPECTROBLUE TI analyzer is engineered for midrange use in industrial or environmental applications, with twin-interface plasma observation for even greater sensitivity.

The SPECTRO ARCOS ICP-OES analyzer offers ultimate performance for the most demanding analyses in industry and research. Its unique MultiView option provides both axial-view and radial-view plasma observation without compromise.



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

**SPECTRO****AMETEK**

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