SPECTRO
AMETEK

# SPECTROGREEN

## ICP-OES ANALYZER






Technology, value, and versatility
to fit your unique analysis needs



**This newest compact, midrange ICP-OES solution brings innovation, versatility, and affordability to a wide array of routine laboratory analyses.**







The latest SPECTROGREEN ICP-OES analyzer now comes in three versions for maximum versatility. Choose the ideal performance for your specific application:

**SPECTROGREEN TI:** this newest model offers a proven *twin-interface* approach, automatically combining both axial and radial plasma views. This optimizes sensitivity, linearity, and dynamic range, while avoiding matrix effects like EIE.

**SPECTROGREEN DSOI:** unique radial *dual side-on interface* provides twice the sensitivity of conventional radial views. And it equals the sensitivity of newer vertical-torch dual-view systems — while avoiding their complexity and headaches.

**SPECTROGREEN SOP:** furnishes a dedicated radial, *single side-on interface* for stability and precise performance where the added sensitivity of the DSOI is not needed.

For users performing most routine analyses who need top-flight functionality without complications — at an affordable price — SPECTROGREEN just became the spectrometer of choice.

Double your performance without sacrificing simplicity!

# SPECTRO**GREEN**

### SPECTROGREEN ANALYSIS ADVANTAGES

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




### A WIDE ARRAY OF APPLICATIONS

Between its TI, DSOI, and SOP versions, SPECTROGREEN delivers ultra-reliable analyses — of everything from trace elements in challenging matrices such as certain wastewaters, soils, and sludges to organic, high-salts and metal samples, to higher concentrations. Choose the right version to suit your application.

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

- Environmental & agronomy
- Consumer product safety
- Pharmaceutical
- Chemical/petrochemical
- Food



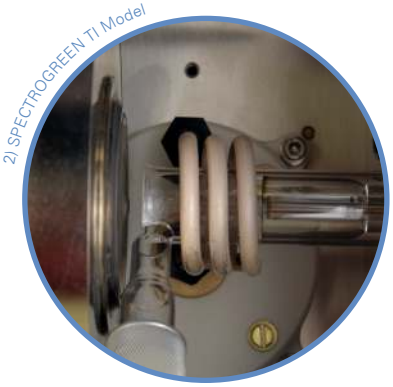




### LOW COST OF OWNERSHIP

The new SPECTROGREEN analyzer offers a competitive price/performance ratio — and perhaps the lowest operating expenses in its class. It saves on consumables with the innovative UV-PLUS technology for no-purge savings averaging $3000 per year! Finally, it requires no added cooling — eliminating the need for expensive, breakdown-prone external chillers.





2) SPECTROGREEN TI Model



3) SPECTROGREEN SOP Model



1) SPECTROGREEN DSOI model

1) The new DSOI technology captures the advantages of vertical-torch dual-view systems — without their troubling disadvantages.

2) A dual-view system manages to observe light both axially and radially.

3) A radial-view system looks at a slice of light across the width of the plasma.

The SPECTROGREEN SOP model "looks across" the plasma from the side, avoiding matrix effects and prioritizing the highest precision and accuracy over the highest sensitivity. The SPECTROGREEN TI model looks both across the plasma and from end to end, via its twin interface. So it can offer the highest sensitivity for trace elements, as well as freedom from matrix interferences plus good accuracy for challenging environmental matrices. Both models utilize well-proven technologies.

The SPECTROGREEN DSOI model uses a newer, truly unique approach. Its two optical interfaces capture emitted light from both sides of a vertical plasma — with only a single extra reflection, for added sensitivity. This avoids problems presented by some recent vertical-torch dual-view models, such as significant light loss, interferences, contamination, and thermal stressing of interface components.

So SPECTROGREEN DSOI 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. You get the entire wavelength range you need with a single analysis: a critical advantage for high-productivity laboratories.

Additionally, SPECTRO's ORCA polychromator optical technology further maximizes light throughput, stability, and sensitivity for all SPECTROGREEN models.

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

# SPECTRO**GREEN DSOI**

### BENEFITS OF THE 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, PRECISION, AND POWER

The SPECTROGREEN analyzer offers further improvements as well. Thermal stabilization of the optical system above room temperature level eliminates the need for sub-zero 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 intense matrix lines. So the best emission lines can be used, setting new benchmarks for sensitivity and precision 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.






Methods
Neo-Flex
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MATERIALS ANALYSIS DIVISION
SPECTRO

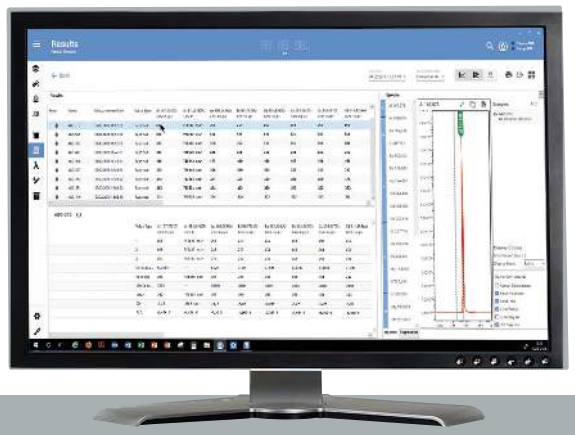
### Clean, compact design

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. The integration of a touch monitor saves additional bench space, making the complete system extremely compact.

### 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

As one of the world´s leading suppliers of analytical instruments, for more than 40 years SPECTRO has provided continuous innovation and new solutions for elemental analyses across a wide range of applications. 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.

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.

AMECARE®
PERFORMANCE SERVICES
AMETEK®

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.

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