



Simultaneous Zeeman Atomic Absorption

Z-2000 Series

Leeman Labs, in partnership with Hitachi High-Technologies, has introduced the Z-2000 Series of Zeeman-corrected atomic absorption spectrometers. This partnership adds an exciting dimension to the product offerings from both companies and has resulted in innovative new products, which were launched at the Pittsburgh Conference, March 2004, in Chicago, Illinois.

“Leeman Labs partners with Hitachi High-Technologies – the result, innovative products and unyielding commitment to quality and reliability”



Z-2000 Zeeman Flame/Furnace AA

The Z-2000 Series consists of:

- Z-2000 Zeeman Flame/Furnace Tandem AA
- Z-2300 Zeeman Flame AA
- Z-2700 Zeeman Graphite Furnace AA

Z-2000 Zeeman Flame/Furnace Tandem AA Features:

- **Superior Analytical Performance** – The Polarized Zeeman approach to background correction delivers low noise and superior stability for both flame and furnace atomization. With the innovative optical design of the Z-2000, measurement of analyte signal and background signal occurs simultaneously eliminating co-incident noise and transient errors. Furthermore, Zeeman correction is applicable to all wavelengths from 189 – 900 nm. Now, accurate background correction is available for alkali and alkaline earth elements - giving superior analytical performance across the entire range of elements by AAS.
- **Instantaneous Flame/Furnace Conversion** – With the Z-2000 both atomizers are always in the optical path. Even better, the furnace autosampler, which is built permanently into the instrument itself, provides direct access to the furnace cuvette. No matter what the last analysis was, the Z-2000 is ready for the next – flame or furnace.
- **Automatic Setup of Analytical Conditions** - The Z-2000 is equipped with a library of instrument conditions for all elements analyzed by atomic absorption. Creating a new method automatically inserts the optimal conditions for each element. At the start of the analysis, the Z-2000 optimizes each instrument parameter.

- **Short Start-up Time** – With some flame atomization systems, optimization and warm-up time can take longer than the sample analysis. Not with the Z-2000! Both atomizers are always in place and aligned, the flame burner is water-cooled for instantaneous equilibration and Zeeman correction compensates for lamp drift during warm-up.

Z-2300 Flame AA Features:

- **Superior Analytical Performance** – The Polarized Zeeman Method delivers low noise and superior stability for both flame and furnace atomization. With the innovative optical design of the Z-2000, measurement of signal and background correction occur simultaneously eliminating co-incident noise and transient errors.
- **Superior Analytical Performance for all elements** – Zeeman correction is applicable to all wavelengths from 189 – 900 nm. Now, accurate background correction is available for alkali and alkali earth elements – giving superior analytical performance across the range of elements.
- **Easy to learn, Easy to use** – **Analysis Assist** provides expert intelligence to help develop new methods, optimize conditions, and run analysis sequences. **Easy Start** automatically starts readings after the signal has stabilized. **Real Time QC** asks for programmed quality control samples even in manual analyses. **Audio Prompts** guide the analyst through each step of the analysis
- **Automated Flame Setup** – Optimum flame conditions for each element are provided in the instrument library. Flame ignition is automatic. After ignition, stored conditions are established.



Z-2700 Graphite Furnace AA Features:

- **Superior Analytical Performance** – The Polarized Zeeman Method delivers low noise and superior stability for furnace atomization. With the innovative optical design of the Z-2700, measurement of signal and background correction occur simultaneously eliminating co-incident noise and transient errors.
- **Integrated Autosampler** – The furnace autosampler, which is built permanently into the spectrometer, provides direct access to the furnace cuvette. Changing graphite cuvettes no longer requires removing and re-aligning the autosampler. High capacity sample racks are available.



To receive a comprehensive brochure on the **Z-2000 Series**
 email: LeemanLabsinfo@Teledyne.com or call 1-800-634-9942 (or 1-603-886-8400)
 or visit our website at www.LeemanLabs.com