Solutions for
Food Analysis

LECO

EMPOWERING RESULTS

Solutions for Food Analysis

Determining Quality and Safety

Recent scares in the safety of our foods have put new pressure on countries and producers to ensure that the integrity of our food supply remains intact. Imported, exported, and domestic food products are under global scrutiny, and LECO addresses these issues with instruments that can analyse and verify the quality of dairy products, meats, cereals, poultry, beer, and wine. From raw foods to final consumer-ready products, LECO instruments offer fast, accurate testing and productivity-enhancing features like autoloaders.

FP828 Nitrogen/Protein Elemental Analysis

The FP828 makes it possible to achieve fast results in organic matrices from food to fuels. The dual-stage furnace system operates at temperatures up to 1,050 °C with pure oxygen to ensure the complete combustion of all organic samples, without requiring additional metal oxidizing reagents or other carrier gases. A variety of features, including automated sample loaders, increase sample throughput while maintaining a low cost-per-analysis.

- Rapid 2.8 minute analysis times for diverse organic matrices
- 500 mg nominal sample mass
- Extended reagent lifetimes maximize lab efficiency and lower operating costs
- Complies with AOAC, ASTM, ISO, AACC, and ASBC-approved methods of analysis
- Additional configurations – carbon/nitrogen

928 Series Elemental Analysis for Macro Samples

By incorporating state-of-the-art hardware with an on-board touch-screen software platform, the 928 Series allows you to easily handle the most demanding sample applications. Macro sample mass capability (up to 3 grams for Nitrogen/Protein, regardless of sample carbon content) with rapid cycle times and a resulting low cost-per-analysis make the 928 Series ideal for a variety of food, feed, and soil applications.

- Rapid determination of macro sample sizes (up to 3 grams) in as little as 5 minutes
- Extended reagent lifetimes maximize lab efficiency and lower operating costs
- Rugged design meets the demands of difficult applications
- Complies with AOAC, AACC, AOCS, and ASBC methods of analysis

TGM800 Thermogravimetric Moisture

The TGM800 is a high precision, automated thermogravimetric moisture determinator that utilises a direct method for replacing tedious loss-on-drying techniques. It is applicable to a wide variety of sample matrices including food, feed, milled, and agricultural materials.

- Flexible method settings enable configuration of system to match manual loss-on-drying test methods
- Measure up to 16 samples at a time with optimized drying time using mass constancy end point recognition
- Precise oven temperature ramping and set point control up to 175 °C

TGA801 Moisture / Ash / Volatile Matter

The TGA801 is your total solution for fast and robust macro thermogravimetric constituent analysis. Determine weight loss as total moisture or ash in various organic materials. The TGA801 is perfect for a variety of industries and applications – including feeds, milling products, and foods.

- Automated thermogravimetric analysis batch of up to 19 samples
- Determines multiple constituents such as moisture/ash and LOI from a single sample
- Optimized analysis time using automatic end point recognition based upon sample mass constancy

PEGASUS® BT GC-TOFMS

The tried-and-tested reliability and durability of our *Pegasus* brand in a convenient benchtop unit gives you more uptime, improved chemical data, and an increase in overall productivity and efficiency.

- StayClean® ion source virtually eliminates the need for source cleaning
- Industry-leading sensitivity helps you quantify at SIM levels while attaining full scan mass spectra
- A complete historical record of components for each sample is retained for future data mining

PEGASUS® BT 4D GC×GC-TOFMS

The *Pegasus* BT 4D provides enhanced sensitivity by coupling our benchtop *Pegasus* BT with our high performance GC×GC thermal modulation system.

- GC×GC improves all areas of analysis, increasing S/N producing clean spectra, and separating more components
- Ability to interrogate challenging samples where the best sensitivity is needed
- *StayClean* ion source virtually eliminates the need for source cleaning
- Flux™ flow modulator option does not require cryogens and is easy to setup, saving the user time and resources in their lab

PEGASUS® GC-HRT+ (High Resolution TOFMS)

Developed to withstand the rigor of modern analytical demands, High Resolution TOFMS technology provides high-performance MS capabilities, including acquisition speed, mass accuracy, accurate relative isotopic abundance, mass resolution, and dynamic range, all available simultaneously. Folded Flight Path® (FFP®) technology, available exclusively from LECO, provides the needed path length (up to 40 m) to achieve high performance resolution, along with the stability to guarantee excellent mass accuracy.

- *Folded Flight Path* technology enables resolution of up to 50,000, mass accuracies less than 1 ppm, and acquisition rates up to 200 spectra/second
- The Multi-Mode Source™ (MMS™) allows users to easily produce and compare aligned data from multiple modes of ionization (EI, PCI, and ECNI)
- LECO's exclusive ChromaTOF® brand software utilises Automated Peak Find through High Resolution Deconvolution® (HRD®) for unparalleled identification
- Encoded Frequent Pushing® (EFP®) contributes to increased sensitivity and expanded dynamic range

PEGASUS® GC-HRT+ 4D

The combination of High Resolution and TOFMS GCxGC in LECO's *Pegasus* GC-HRT+ 4D provides users with the unprecedented ability to investigate complex samples and identify unknown analytes. In the energy and fuels sector you will be able to find more analytes than ever before.

- Mass accuracies of 1 ppm and chromatographic potential at least two times greater than any mass spectrometer currently available on the marketplace
- The Multi-Mode Source™ (MMS™) allows users to easily produce and compare aligned data from multiple modes of ionization (EI, PCI, and ECNI)
- The industry's most established GCxGC systems; thermal modulation with liquid nitrogen or cryogen-free versions

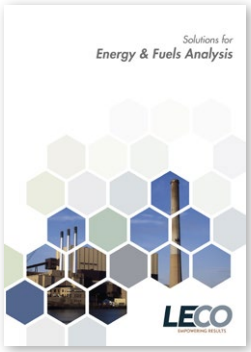
QuadJet™ SD

LECO comprehensive two-dimensional gas chromatography (GCxGC) with FID or single channel detector is ideal for solving analytical methods which require superior chromatographic power over traditional GC. When you need to separate and accurately quantify halogenated pesticides, or any safety or quality-related compound, LECO's GCxGC options deliver unparalleled separating power and up to an order-of-magnitude increase in peak detectability.

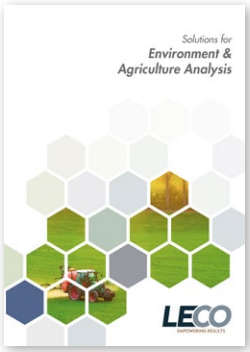
- More affordable, non-mass spectrometer option
- Consumable-free thermal modulator packages also available, eliminating the need for costly refrigerants
- Integrated ChromoTOF® brand software with total automated system for maximum productivity

Additional LECO Solutions are also Featured in the Following Market-Centred Brochures

Metals
209-205-001



Energy & Fuels
209-205-002



Environment & Agriculture
209-205-005

Metabolomics
209-240

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