

# Product Overview

## Separation Science



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# Let Us Empower Your Results.

The one thing all laboratories need to be successful is results they feel confident in. Since 1936, millions of samples worldwide have been analyzed using LECO instruments for elemental analysis, gas chromatography, hardness testing, and more. We work with our customers to find the right solution for the type of sample analysis they are doing, helping them to achieve data that is clear, consistent, and accurate. But our commitment to the customer doesn't end when our instruments are delivered.

LECO is dedicated to enhancing the user experience long after the sale by offering thorough training on our instruments and technology, accessibility to instrument service programs that keep your instruments in top working order, and access to friendly service and support to ensure you are getting the most out of your purchase – support that will empower your laboratory for success.



# Separation Science Products



**1936:** Carl Schultz founds the Laboratory Equipment Company, and introduces the first rapid carbon determinator for the steel industry.

**1973:** LECO introduces the industry's first line of complete solutions for metallurgical analysis.

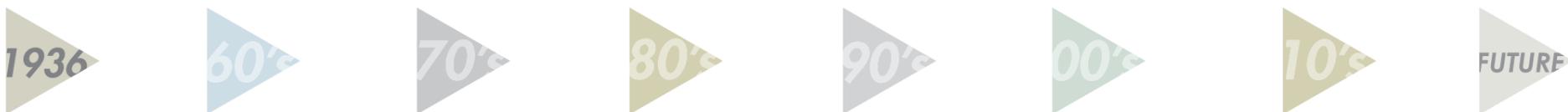
**1979:** The SC-32, the industry's first automated sulfur analyzer, replaces the tedious ESCHA wet chemistry method.

**1997:** The PEGASUS® GC-TOFMS, one of the first time-of-flight mass spectrometers in the marketplace, is released by LECO.

**2006:** LECO unveils its Global Support Center, a 50,000 square foot service and training facility.

**2012:** LECO opens the Elizabeth S. Warren Technical Centre, dedicated to the research and development of innovative instrumentation and equipment for the separation science product line.

**2016:** LECO celebrates 80 years of innovation by introducing the Pegasus BT, a new benchtop GC-TOFMS.



**1967:** LECO's first international presence is established with the formation of the Export Division in Germany.

**1976:** LECO's first protein determinator, the NP-28, is introduced to the organic and food markets.

**1983:** The TGA Moisture/Ash series is introduced. The Carl E. Schultz Technical Center opens as a state-of-the-art Research and Development center.

**2000:** LECO introduces the TC-600 and CS-600 series, the first instruments of their kind with built-in Windows®-based software.

**2011:** CORNERSTONE® platform is launched, providing faster, more intuitive operation, including touch-screen capabilities, for new LECO analytical products.

**2014:** Cornerstone Mobile, an optional remote viewing feature, is introduced, allowing users to view data for select instruments, plots, and instrument status from a smartphone, tablet, or desktop computer.

**2018:** Continued growth and expansion sparks the opening of the new Robert J. Warren Customer Experience Center, a 64,000 sq foot facility with multiple laboratories ideal for customer demonstrations and presentations.

## GCMS GCxGC-TOFMS GCxGC High Resolution GCMS



### PEGASUS® BT GC-TOFMS

- Industry-leading sensitivity helps you find and quantify an unlimited number of analytes, while proprietary deconvolution algorithms yield clean, high quality spectra.
- A complete historical record of all components for each sample is retained for future data mining.
- The tried-and-tested reliability and durability of our Pegasus brand in a convenient benchtop unit.

### PEGASUS® BT 4D GCxGC-TOFMS

- Enhanced sensitivity by coupling our benchtop Pegasus BT with our high performance GCxGC thermal modulation system
- Ability to interrogate challenging samples where the best sensitivity is needed
- Unique and powerful ChromaTOF® brand software simplifies quantitation and analyte identification with features such as Non Target Deconvolution® (NTD®), Target Analyte Find, library searches, and more
- StayClean® ion source eliminates the need for source cleaning

### GCxGC-ECD/FID

- Ideal for quality control, production, and research
- Enhanced chromatographic separation power is excellent for petroleum, flavor, and fragrance applications
- Easy-to-use ChromaTOF brand software simplifies component identification
- Available with either FID or ECD

### PEGASUS® GC-HRT+ GC-TOFMS

- The highest performance TOF mass spectrometer for the GCMS market.
- Folded Flight Path® (FFP®) technology allows users to achieve resolutions of up to 50,000.
- Employs ChromaTOF software with automated High Resolution Deconvolution® (HRD®) and formula generation for seamless identification of unknowns, plus compatibility with standard GCMS libraries.
- Spectral Analysis Toolkit harnesses the power of Mass Defect, Van Krevlen, and RDBE plots to take your unknown analysis to a new level.
- 1 ppm mass accuracy identifies unique molecular formula.
- Encoded Frequent Pushing® (EFP®) contributes to increased sensitivity, expanded dynamic range, and much more.

### PEGASUS® GC-HRT+4D GCxGC-TOFMS

- Combining the highest performance GCxGC and TOF on the market gives users an unprecedented ability to interrogate complex samples.
- Find more analytes than ever before and identify components with the ultimate confidence.
- With mass accuracies of 1 ppm and peak capacities at least two times greater than anywhere else in the marketplace.
- The industry's most established GCxGC systems; thermal modulation with liquid nitrogen or cryogen-free versions
- Chemical Ionization source (HR-CI) provides the same mass accuracy and high resolution on pseudo-molecular ions which complements the traditional Electron Ionization source (HR-EI) to provide comprehensive characterization of unknowns.
- Integrated software platform acquires data, controls all hardware, and analyzes and reports results with a high level of automation; tailored to get the most out of HR data.