



Mined Materials & Metals

LECO Corporation: Delivering the Right Results

LECO Corporation has been a leader and innovator in analytical instrumentation since 1936. This technological drive has led to some of the industry's fastest, most accurate, and cost-effective laboratory instrumentation in the world. Market-driven, technologically advanced and application-innovative, LECO brings more technology to more industries that need better, faster answers.

Mined Materials & Metals—Measuring Quality and Strength



Maintaining the quality, strength, and performance of raw materials or finished metals has been the legacy of LECO products. With a global reputation for rapid, accurate analysis in iron, steel, alloys, refractory metals, and ores, LECO instruments have become the brand leader for these markets. LECO builds its instruments with an eye towards maximizing throughput and productivity. Integrated sample preparation and handling, advanced software, automated cleaning and more—our instrumentation allows you to maximize your investment.



Carbon/Sulfur Elemental Analysis

The CS Series combines a proven combustion technique with state-of-the-art technology for wide-range measurement of carbon and sulfur in metals, ores, ceramics, and other inorganic materials. Our latest generation of carbon/sulfur instrumentation features an on-board software platform powered by a touch-screen interface to increase usability and lower cost-per-analysis.

- Quick, accurate, and affordable determination for both production control and research
- Calibration, analysis, evaluation, and diagnostic functions accessible via user-friendly software
- Rapid sample combustion with high-efficiency induction furnace improves cycle time
- Integrated robotic process automation available



Oxygen/Nitrogen/Hydrogen Elemental Analysis

The ONH family of analyzers is designed for wide-range measurement of oxygen, nitrogen, and hydrogen content of inorganic materials, ferrous and nonferrous alloys, and refractory materials. A custom software interface developed for touch-screen operation provides complete access to instrument control, analysis settings, diagnostics, reporting, and more.

- Ideal for production, research, and quality control environments
- State-of-the-art infrared and thermal conductivity detectors with no moving parts and no manual adjustments
- High-efficiency cooling system reduces need for external cooling
- Optional automation for furnace cleaning and sample loading





Glow Discharge Spectrometers

Performing bulk and/or quantitative depth profile analysis on solid, conductive, and non-conductive samples, LECO puts reliable analysis of bulk material and surface treatments in the hands of production personnel. Benefits of our atomic emission spectrometers include freedom from metallurgical history and matrix effects, low gas consumption and fewer calibration standards, linear curves, narrow emission lines, wide dynamic range, and SmartLine® Remote Diagnostics.

- Instruments for performing bulk sample analysis or quantitative depth profiling
- Separation of sputtering and excitation
- Linear calibration curves with wide dynamic range
- Less self absorption and no material re-deposition
- Atomic emission consists primarily of ground state atom lines, resulting in fewer lines and reduced interferences
- Freedom from metallurgical and chemical history
- Excitation by DC and/or RF sources



RC612 Carbon and Water

The RC612 provides fast, reliable carbon and water determination. This state-of-the-art instrument determines various forms of carbon while accurately determining hydrogen/moisture content in a wide variety of organic and inorganic materials. A small footprint, external PC with easy-to-use operating software, and increased instrument robustness are all a part of the advanced instrument design.

- Streamlined and efficient plumbing for faster maintenance and improved flow path
- Components easily accessible to the operator thanks to ergonomic shells
- State-of-the-art furnace control system allows temperature ramping from ambient to 1100°C
- A compact and enclosed furnace system with easily accessible combustion tube increases instrument safety and reduces maintenance time



DH603 Hydrogen

Get fast, high-precision residual, diffusible, and total hydrogen determination with the DH603. This state-of-the-art instrument determines the amount of residual hydrogen (or diffusible and residual hydrogen when equipped with the optional integrated sample piercer) present in ferrous alloys. A small footprint, external PC with user-friendly operating software, and increased instrument safety and robustness are all a part of the advanced DH603 design.

- Newly designed furnace system is more robust, stationary, and housed within the ergonomic shell for decreased maintenance and improved reliability and safety
- Streamlined and efficient plumbing for faster maintenance and improved flow path
- State-of-the-art furnace control system allows temperature ramping from ambient to 1100°C
- Components easily accessible to the operator thanks to ergonomic shells
- A variety of evacuated pin tubes and diffusible samplers are available for quick and easy hydrogen determination of molten metals
- Optional integrated diffusible piercer features long-life needles and seals for improved reliability and precision



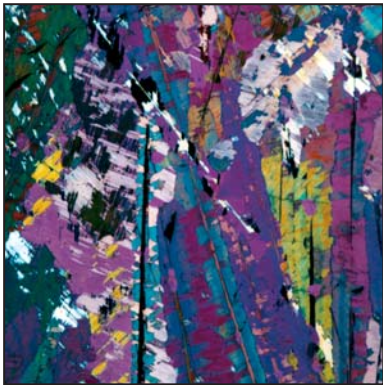


Metallographic Sample Preparation

Excellent sample preparation is the cornerstone of proficient materials inspection. LECO provides you with a solid line of metallographic sample preparation products to ensure better quality samples right from the start.

Equipment for Sample Preparation

- MSX-Series Sectioning Machines
- GPX-Series Grinder/Polishers
- SS-1000 Grinder/Polisher
- BG-Series Belt Grinders
- GR-20 Disc Grinder
- PR4X Mounting Press
- PR-32 Mounting Press
- PR-25 Mounting Press



Microstructural Analysis

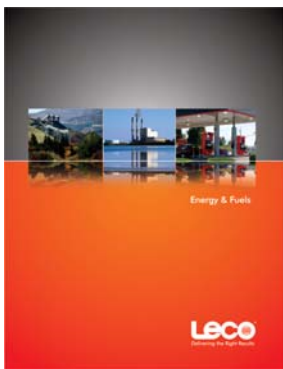
LECO provides you with the right tools needed for high-performance metallurgical examination, research & development, and quality control. With a full range of optical equipment and accessories to choose from, our team of specialists will go the extra mile to get you where you need to be.

Equipment for Microstructural Analysis

- Olympus® GX-Series Metallographs
- Olympus BX-Series Upright Microscopes
- Olympus SZX2-Series Stereo Microscopes
- LDC-Series Digital Microscopes
- IA44 Image Analysis/Management System
- A variety of Digital Cameras
- AMH43 Automated Hardness Tester
- ConfiDent™ 2 Video Measuring System
- LM-Series Microindentation Testers
- LV-Series Macro-Vickers Testers
- LCR/LR-Series Rockwell Type Testers
- PAX-it™ Digital Image Management System



Additional LECO solutions are also featured in the following market-centered brochures.



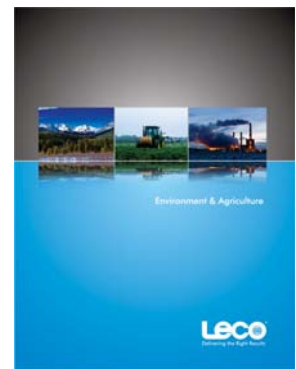
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