



ANALYTICAL INSTRUMENTS GROUP

# SIRIUS 500

LABORATORY OPTICAL EMISSION SPECTROMETER



[www.gnr.it](http://www.gnr.it)

# About us

**GNR**, thanks to its 40 years of experience, is a worldwide market manufacturer of advanced analytical instruments, developing procedures of analysis for various applications, supplying the corresponding laboratory equipment and providing consulting and Customer support worldwide, through its well established sales and post-sale network.

**GNR** projects and manufactures Optical Emission Spectrometers (OES) and Rotating Disc Electrode Optical Emission Spectrometers (RDE-OES) for the measurement of elemental composition of metal alloys and the analysis of contaminants, additives and wear metals in oils and lubricants, coolants and hydraulic fluids.



GNR Head Office and Production Site is located in Agrate Conturbia (Novara), near Lago Maggiore; 20 minutes from MALPENSA Airport.



**GNR** designs and produces X-Ray Diffractometers (XRD) and X-Ray Fluorescence Spectrometers (XRF) for the study of material structure and elemental composition for both academic and industrial applications.

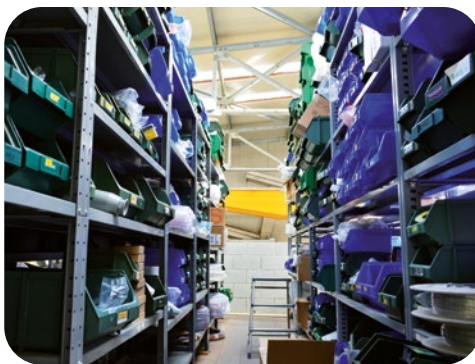
## Certified Company

Highest quality in our products and services is a core value for **GNR**.

Full commitment is dedicated to support our quality system in the overall process and continuous improvement is fundamental to guarantee GNR compliance to the internationally accepted quality management standard ISO 9001.



GNR periodically organizes at its facility courses and training for technicians and agents as well as seminars and demonstrations.



Thanks to an extensive network of agents GNR provides technical support and delivers spare parts worldwide.

In relation to the process of continuous development, GNR reserves the right to change specifications of the instruments without previous notice at any time; the real ones will always be those shown in the final order confirmation.



### Laboratory Optical Emission Spectrometer

**SIRIUS 500** is the new optical emission spectrometer designed and manufactured by GNR.

Based on **CMOS technology** and **EOS Software**, this brand-new metal analyzer covers the complete spectrum of elements in ferrous and not ferrous materials; it is powerful, fast, easy-to-use spectrometer equipped with specific application packages for all requirements.

**SIRIUS 500**, adopting CMOS with high sensibility to ensure the best luminosity together with a wavelength of 119nm to 850nm, allows to analyze oxygen in Cu pure matrix or gaseous elements (N, O, H) into Ti matrix or N in Co matrix and Ni matrix.

**SIRIUS 500** is offered to the market with Argon purged system fully suitable not only for general purpose applications but for also more demanding and heavy-duty applications in order to better satisfy customer needs and market compliance.

Spectrometer is equipped with EOS® Software that makes analysis quicker and more accurate with a state-of-the-art and intuitive user interface designed to meet the needs of metallurgical users with different level of expertise.

The result is a completely new instrument with the possibility to cover the entire spectrum of elements in ferrous and not ferrous with very low detection limits.



### Technical Specifications

#### Sirius 500

##### Optical System

Detector	High Sensibility CMOS
Wavelength	119 – 850 nm
Optical Chamber	Argon Purged

##### Dimensions

Width/height/depth	540 mm / 1275 mm / 790 mm (without workstation)
Weight	140 kg

##### Electronics

Power	100 – 240 V AC, 50 / 60 Hz
Consumption	Max 400 W / Operating mode 80 W source on
Frequency	100 – 1000 Hz
Voltage	100 – 240 V

##### Readout System

Microsoft® Windows® user interface  
 EOS® GNR proprietary SW  
 Personal Computer Embedded



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## Highlights and applications

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- Outstanding analytical performance using CMOS detector
- Wide range of analysed Elements and Alloys
- Fe, Al, Cu, Ni, Zn, Ti, Mg, Co, Pb, Sn
- Low Nitrogen in Fe Matrix
- Sodium / Lithium in Al Matrix
- Soluble and Insoluble content in Low Alloy Steel
- Oxygen in Cu pure matrix
- Gaseous elements (N, O, H) into Ti matrix
- N in Co and Ni matrix
- Reduced measurement time
- New EOS® SW with different results formats
- Options: external workstation, adapters, spare parts kit, consumables, sample preparation devices

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## GNR Service

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- Training: Understand your analyser and its features
- Online Remote Help Desk: Troubleshooting at your fingertips
- Certification and maintenance: Keep your spectrometer in line with international regulations
- Spare parts and consumables: Extensive stock availability of spare parts, consumables and accessories
- Warranty plans: Protect your investment subscribing extended maintenance plan
- Maintenance: Effective and fast recovery operations conditions



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