



## IR CARBON SULFUR ANALYZER

## IR CARBON SULFUR ANALYZER

IR Carbon Sulfur Analyzer is developed for the accurate and safe analysis of carbon and sulfur in inorganic samples. It can rapidly and accurately conduct content determination of carbon and sulfur in materials like steel, iron, alloy, nonferrous metals, etc. This is a high-tech product that integrates optical, electrical, computer, and analytical technology into one.

Used in Mining, Construction Material, Food, Geology, Commercial Inspection, Automotive, Aviation, Steel Products, Minerals, Non-Ferrous Metals, Non-Ferrous Metal Alloys, Inorganic Materials, Research.

Also known as Laboratory IR Carbon Sulfur Analyzer.

## 400 IR CARBON SULPHUR ANALYZER



It can fleetly and exactly measure the carbon and sulfur in steel, iron, alloy, nonferrous metals, and other materials.

**Radio circuit:** The design of high-duty radio circuit and the application of 2.5KVA HF pliotron, frequency : 20MHz. Military-purpose ceramic vacuum tubes and ceramic vacuum capacitors.

**HF control circuit:** It is used for automatic detection of the electromagnetic valve, the elevation or descent of cylinder and the performance of HF unit. Automatic overtime/overflow alarming system enables the HF furnace to work under normal condition.

**The optional current/voltage/power regulator for furnace temperature control:** It is applicable to samples of various materials.

**Gas path:** The high precision flow controller ensures the stability of gas flow as well the gas intake system (such as electromagnetic valves, unions, cylinder hoists) for automatic leakage detection. Dual standard correction for solid and gas.

**De-dusting unit:** The combustion head self-cleaning device effective for reducing the influence of dust for the result of analysis; ash removing system for the inlet. 0.4  $\mu$ m submicron metal filter secures thorough separation of dust from gas and can be used for a long time with no need of the ultrasonic cleaner.

**Analysis channel:** Providing channel management features, the carbon and sulfur channels are free to increase, delete and edit, no limit.

**Analysis function:** Analysis of the dynamic data, sampling every 20 times, improving the analysis sensitivity and analysis accuracy, providing sample management features, it can edit the sample name and logo, also can increase and delete samples, the software provides a user management system, the administrator setting different user permissions.

**Data processing function:** Adopt ACCESS data pool store the analysis results, can store all data and curve, Query the analysis results optionally, query according to the time, sample name, logo and operator. Provide some function as data storage, blank deduction, setting parameter, choosing channel, statistics, and curve Compare etc. In the software can create the work curve of carbon and sulfur, realizing the curve fitting.

**Self-diagnose function:** System diagnosis function, can test furnace head and the gas chamber sealing by the software.

Wide measuring scope, strong anti interference, multiple function.

## SPECIFICATIONS

Model	BANA-401	BANA-402
Working Environment	Room temp: 10°C to 30°C, relative Humidity less than 75%	
Carbon Measurement Range	w(C) 0.0005% - 6.0000% (can be extended to 99.999%)	w(C) 0.0001% - 10.0000% (can be extended to 99.999%)
Sulphur Measurement Range	w(C) 0.0005% - 0.5000% (can be extended to 99.999%)	w(C) 0.0001% - 3.5000% (can be extended to 99.999%)

Carbon Analysis Pool	One pool	Low carbon pool and high carbon pool
Sulphur Analysis Pool	one pool	High sulphur pool could be added (Optional)
Carbon Analysis Precision	RSD<1%	RSD<0.5%
Sulphur Analysis Precision	RSD<1.5%	RSD<1%
Time of analysis	25 to 60 seconds, could be adjusted. Around 35 seconds usually	
Sensitivity (The minimum readings)	C/s 0.1 ppm	
Electronic scale	Precision of read: 0.0001g	
Operational Software	WINDOWS XP English operating software	
Display function	The Carbon sulfur has a curve respectively	
Printing function	Print mode is diversification, provides two print modes of laboratory and testing, also can design printing formats	
Sample weight	0.5 g	

## ACCESSORIES

Accessory Code	Name	1
1600906006	High frequency automatic inductive combustion furnace	1
1600906007	Electric Balance	1
1600906008	Computer	1
1600906009	Printer	1



BANA-401



BANA-402

## BANA-403 IR CARBON SULPHUR ANALYZER



Advanced User-Friendly interface.

Automatic Diagnosis System

Linearization calibration technology.

Long MTBM (Mean Time Between Maintenance)

Quick and efficient procedure reduces the cycle time and enables the user to enjoy a stress free operation environment.

High Throughput.

Whole machine adopts modular design, highly integrated electronics circuits.

Fully automatic cleaning system with noiseless and vacuum-free dust removal.

Fast and easy maintenance.

## SPECIFICATIONS

Model	BANA-403
Carbon Measurement Range	0.00001% - 99.99999%

Sulphur Measurement Range	0.00001% - 99.99999%
Carbon Analysis Precision	RSD≤0.5%
Sulphur Analysis Precision	RSD≤1%
Carbon Detection Point	C Pond (can add low C Pond)
Sulphur Detection Point	S Pond (can add low S Pond)
Carrier Gas	Oxygen: Purity ≥99.5% , Pressure: 0.18 MPa ±5%
Operation Gas	Oxygen: Purity ≥99.5% , Pressure: 0.18 MPa ±5%
Time of analysis	20 to 60 seconds adjustable (Usually 35 seconds)
Sensitivity (The minimum readings)	C/s 0.1 ppm
Dimension	540x600x800 mm
Weight	80 kg
Sample weight	0.5 g
Power Supply	AC 220 V ±5%, 50 Hz ±2%



**Biolab Scientific Ltd.**

Trillium Executive Center, East Tower, 675 Cochrane Dr, Markham, Ontario L3R 0B8, Canada

Email: [info@biolabscientific.com](mailto:info@biolabscientific.com) | Website: [www.biolabscientific.com](http://www.biolabscientific.com)