



ICP SPECTROMETER LD-LICP-B10

www.labodam.com | info@labodam.com

ICP Spectrometer LD-LICP-B10 is an instrument which measures elements in ppb levels with least interference and reduces the time taken for analysis by detecting 5 to 6 elements in 1 min. Excellent analytical precision, high optical resolution, fully automated, wide wavelength range with 2400 line grating, powerful analysis software, high performance solid-state RF system, high accuracy etc. are some of the characteristic features. The equipment consists of a Scott-type spray chamber, quartz torch, spectrophotometer with Czerny-Turner monochromator, detector with photomultiplier tube and data processing system which allows multi-element measurement along with high resolution. It finds applications in environmental, food safety, metallurgy, pharmaceutical etc. fields.

Features

- Highly advance optical design
- Holographic grating for minimum scattering of light
- Correction of spectral interference to improvise detection
- System controlled torch movement for optimized position
- System controlled mass flow controller for carrier gas, auxiliary gas and plasma gas
- 27.12 MHz RF generator for efficient ionization
- Auto-coupling system
- Peristaltic pump for stable flow rate and drainage of sample
- Argon gas cylinder last up to 8 hours Auto-sampler can be provided

- **Software Details**
- Allows selection of multiple elements and parameters for analysis
- Faster Calibration function
- Correction of background interference
- Report generation with single button press
- Many exports option
- Real-time graphical display of instrument status
- Plasma ignition with one button press
- Large database to select spectral lines according to requirement

Applications

It used for quantitative and qualitative analysis of elements in the given sample. Various fields like petrochemicals, pharmaceuticals, agriculture, environmental, food industry, metallurgy, processing industry etc. require it for several operations.

Specifications

Model No.	LD-LICP-B10	
Monochromator Specifications	Optical type	Czerny turner
	Resolution	≤ 0.015nm (3600 line grating) ≤ 0.030nm (2400 line grating)
	Focal length	1000 mm
	Grating specifications	huge holographic grating with 3600 L/mil or 2400 L/mil and 80 mm × 100 mm of ruling area
	Wavelength range	195 to 500 nm for 3600 line grating 195 to 800 nm for 2400 line grating
Solid State Power Specifications	Frequency	27.12 MHz Frequency stability: < 0.05%
	Spray chamber	Scott double pass spray chamber
	Output power	800 W to 1600 W, adjustable with power efficiency more than 65%
	Output power stability	≤ 0.05%
	Induction coil	25 mm × 3 ID (ID-internal diameter), equipped with three concentric quartz torch tubes 35 mm ED (ED-external diameter)
Technical Specifications	Suitable sample content range	Liquid sample: 0.01 ppm to several thousand ppm Solid or power sample: 0.001% to 70%
	Repeatability	short-term stability- RSD ≤ 1.5% Long-term stability: RSD ≤ 2%
	Test speed	5 to 8 elements / min
	Limits of detection (LOD, µg/L) for most elements	1ppb to 10ppb
Control Circuit	Photomultiplier tube specification	R212 / R928
	Negative high voltage	-50 to -1000 V
	Circuit measuring range	(10 ⁻¹² to 10 ⁻⁴) A
	Signal acquisition	VF conversion

Working Environment	Temperature for storage and transportation	15°C to 25°C
	Humidity for storage and transportation	≤ 70%
	Power Stability	220 ± 10V; 50 to 60 V
	Humidity	≤ 70%
	Temperature	15°C to 30°C
Other Details	Packaging Dimension and Gross Weight (4 case)	1st case: 188 × 111 × 105 / 348 kg 2nd case: 60 × 60 × 55 / 25 kg 3rd case: 59 × 67 × 97 / 80 kg 4th case: 38.5 × 38.5 × 63 / 47 kg

Standard Accessories

Accessories No.	Accessories Name
1	Gas pressure regulator
2	Water cooling system
3	Voltage stabilizer
4	ICP 2060T power cable
5	Copper cable for ground
6	Sampling system: nebulizer, spray chamber, plasma torch

Optional Accessories

- Auto-sampler