BioLAB

PRODUCT CATALOG

INDUCTIVELY COUPLED PLASMA EMISSION SPECTROMETER BICP-703

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INDUCTIVELY COUPLED PLASMA EMISSION SPECTROMETER BICP-703

INDUCTIVELY COUPLED PLASMA EMISSION SPECTROMETER

Inductively coupled plasma atomic emission spectroscopy (ICP-AES) is very sensitive technique in emission spectroscopy that measures the mass percentage of the metals in the metal/polymer nanocomposites by exciting its metal atoms/ions by using a plasma and analyzing the emission wavelength of the electromagnetic radiation.

Full spectrum direct reading. Precision constant temperature,35 ± 0.1 °C,Distributed nitrogen purging, normal purging 1.8 L/min, fast purging 3.8 L/min.

SPECIFICATIONS

Model	BICP-703
RF Power technical parameter	
- Circuit type	solid-state RF power supply, with function of automatch
- Frequency	27.12 MHz ± 0.05%
- Frequency Stability	< 0.1 %
- Power Output	800 W - 1500 W
- Power Output Stability	< 0.3 %
- Escaped RF radiation	30 cm away from the instrument, electric field: E < 2V/m
Sampling System Technical Parameter	
- Output working coil inner diameter	25 mm
- Torque tube	Three concentric, external diameter 20 mm
- Coaxial nebulizer	Outer diameter 6 mm
- Double barrel atomizing chamber	Outer diameter 34 mm
Gas Flow Controls	
- Plasma Argon Flowmeter	(100-1000) L/h (1.6-16 L/min)
- Auxiliary Argon Flowmeter	(100-100) L/h (0.16-1.66 L/min)
- Carrier Argon Flowmeter	(100-100) L/h (0.16-1.66 L/min)
- Pressure Maintaining Valve	0 - 0.4 MPa
- Cooling Water	Temperature: 20-25 °C, Rate of Flow >5 L/min, Hydraulic Pressure >0.1 Mpa
Technical index of spectrometer	
- Grating	Middle step grating, 52.67 lp/mm, 64 sparkle angle
- Wavelength range	160-1000 nm
- Numerical aperture	F < 8, ultra-high luminous flux to ensure the detection limit and sensitivity of the instrument
- Resolution	< 0.0065 nm @ 200 nm
- Astigmatism	Equivalent background concentration of 10000 ppm Ca solution at As 189.042 nm <2 ppm
- Light chamber	Precision constant temperature, ±0.1 °C, Distributed nitrogen purging, normal purging 1.8 L/min, fast purging 3.8 L/min
Testing device technical specifications	
- Detector	CID
- Target Size	27.6 mm x 27.6 mm, 1024 x 1024 addressing detection units
- Reading mode	Non-destructive read (NDRO), full reading (FF) and arbitrary read integral (RAI)

Alt Name	Inductively Coupled Plasma Emission Spectrometer

APPLICATIONS

Environmental, Metallurgical, Geological, Petrochemical, Pharmaceutical, Food safety.

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