



INDUCTIVELY COUPLED PLASMA EMISSION SPECTROMETER BJN1I1 (BICP-703)

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BJN111

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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	BJN111
Old Model	BICP-703
RF Power technical parameter	
- Circuit type	solid-state RF power supply, with function of automatch
- Frequency	27.12 MHz $\pm$ 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.



Biolab Scientific Ltd.

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

Email: info@biolabscientific.com | Website: www.biolabscientific.com