BioLAB

PRODUCT CATALOG

INDUCTIVELY COUPLED PLASMA EMISSION SPECTROMETER BICP-701

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INDUCTIVELY COUPLED PLASMA EMISSION SPECTROMETER

BICP-701

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.

Standard. 3600 line grating: (190 nm ~ 500) nm; 2400 line grating: (190 nm ~ 800) nm.

SPECIFICATIONS

Model	BICP-701
RFPower 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 - 1200 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	(10-100) L/h (0.16-1.66 L/min)
- Carrier Argon Flowmeter	(10-100) 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
Spectrometer	
- Optics	Czerny-Turner type
- Focal length	1000 mm
- Grating	Ion Beam Etching Holographic Grating, 3600 L/mm or 2400 L/mm
- Reciprocal linear dispersion	0.26 nm/mm
- Resolution	≤ 0.007 nm (3600 line grating); ≤ 0.015 nm (2400 line grating)
- Wavelength range	3600 line grating: (190 nm ~ 500 nm); 2400 line grating: (190 nm ~ 800 nm)
- Minimum pace of stepping motor	≤ 0.0006 nm
- Exit Slit	12 μm
- Entrance Slit	10 μm
Photoelectric Converter Performance	

- Photomultiplier tube specification	R293/R928
- Negative HV on PMT	0 - 1000 V
- Stability	< 0.05 %
Alt Name	Inductively Coupled Plasma Emission Spectrometer

APPLICATIONS

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

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