

ICP10

Description:

ICP10 maintains rapid Analysis , high sensitivity, wide dynamic range and high stability, achieves smaller device size and higher integration. It also adds a new inflation device to the light chamber, making the power on/off process more convenient. The operation is simple and the analysis is precise, providing users with an efficient solution for sample elemental analysis.



Key Features:

Rapid Analysis : High Sensitivity: Wide Dynamic Range:
Simultaneous Analysis of Multiple Elements:
Automated Control: Durable Design: Easy Maintenance:

Applications

Environmental monitoring, Mineral analysis, Metal smelting, Food safety,
Meeting the needs of all industries.

Specifications

Dimensions (w x d x h in cm)	150 x 50 x 107
---------------------------------	----------------

Weight (kg)	235
Power	Single phase, 4-5.5 kW, 28 A, 220/240 V, 50/60 Hz
Spectrometer	1-m Czerny-Turner monochromator, argon purged, thermostated
Grating	configured upon request I: 2400 lines/mm, ion-etched holographic master, 80 x 110 mm
	Option II: 4320 lines/mm used in first order
	Option III: 3600 lines/mm used in first order
	Option IV: 2400 lines/mm used in first order
Optics	
Wavelength range	I: 160 - 800 nm
	II: 160 - 530 nm
	III: 160 - 442.5 nm
	IV: 160 - 800 nm
Wavelength drive	Wavelength indication error $\leq \pm 0.03$ nm, reproducibility ≤ 0.003 nm
Resolution	7/9/10/16 pm for configuration I/II/III/IV
Detector	Photomultiplier Tube (PMT)
Detection mode	Single channel
Read out	Digital display
ICP generator	Vacuum tube RF generator, frequency stabilized; reflected power control
Frequency (MHz)	40.68
Power (Watt)	4000-5500
Load coil	water cooled
Torch	fully demountable
Argon flow (L/min)	11.5-12.5
Sample introduction	thermoregulated sample compartment; radial plasma orientation; Quick-release torch clamp
Operating system and software	Compatible with Windows 7, Windows 10, and Windows 11
Computer	Intel(R) Celeron(R) G6900, 8 GB DDR4, 4 MB Intel® Smart Cache, 3.40 GHz, Intel® UHD Graphics 710 keyboard, mouse, laser printer
Short term precision (RSD for 10 replicates)	$\leq 1.5\%$
Long term precision (RSD for 4 hours)	$\leq 2.0\%$
Sensitivity	
Detection limits (mg/L):	Zn 213.856 nm ≤ 0.003
	Mn 257.610 nm ≤ 0.002
	Ba 455.403 nm ≤ 0.001

	Ni 231.604 nm \leq 0.01
	Cr 267.716 nm \leq 0.007
	Cu 324.754 nm \leq 0.007
Minimum spectral bandwidth Mn 257.610 nm	Better than national Class A standard Mn 257.610 nm spectral bandwidth (FWHM): \leq 0.015 nm
Accessories	Quartz Torch for Oil Analysis, Oil-Cooled Spray Chamber, Quartz Nebulizer for Oil Analysis