




شرکت ابزار طب
وارد کننده تجهیزات
آزمایشگاهی - تشخیصی - علمی
تاسیس ۱۳۶۳

تهران، خیابان مطهری، خیابان فجر، پلاک 38
021-88832100
021-88321727
021-88321728

 www.abzarteb.com

 [abzar.teb](https://www.instagram.com/abzar.teb)

Skyray Instruments



- ▶ Superior performance
- ▶ Faster analysis
- ▶ Easier operation
- ▶ Lower running cost

ICP-3000

Inductively Coupled Plasma Optical Emission Spectrometer





ICP-3000

Inductively Coupled Plasma Optical Emission Spectrometer



تهران، خدایان مطهری، خدایان فخر، پلاک 38
021-88832100
021-88321727
021-88321728
www.abzar.teb.com
abzar.teb



ICP-3000 Inductively Coupled Plasma Optical Emission Spectrometer is powerful simultaneous full—spectrum direct-reading spectrometer designed to trace elemental analysis in various samples with excellent analytical precision and accuracy. ICP2060 has wide wavelength range of 190nm to 800nm with 2400 line grating. The instrument features superb optical system, full automation as well as powerful analysis software with auto-matching.

Application fields

- Metallurgical industry: analyze As, Bi, Pb, Sb, Sn and other elements
- Geological mineral industry: analyze Ca, Mg, Na, Fe, Cu, Mn, Zn, Co, Ni, Au, Ag and other elements in the rock samples
- Biological and chemical industries
- Petrochemical and metallurgic industries: Analysis of 30+ elements in crude oils- Fe, Na, Mg, Ni, V, Ca, Pb, Mo, Mn, Cr, Co, Ba, As, etc.
- Pharmaceutical, Health and Food safety

Features

- Advanced CID detector and Full-frame Imaging entire ICP-OES spectrum can be analyzed(165-900 nm)
- Fast analysis, analyzing 5-8 elements per minute
- Intuitive Software controls all parts of the instrument
- Fast auto-matching
- Automatic cooling water system





ICP-3000

Inductively Coupled Plasma Optical Emission Spectrometer

Complete automation

ICP-3000 features full PC-Control and automation

Peristaltic pump

High precision 12 roller 4 channel peristaltic pump provides smooth and stable sample introduction

Automatic - gas flow control

Advanced mass flow controller (MFC) controls carrier gas, plasma gas and auxiliary gas and ensures the stability of the sample introduction system and stable light source.

Precise wavelength positioning

Precise automatic wavelength calibration algorithm completes the measurement without additional peak calibrations, ensuring an accurate measurement at minimum measurement time.

Fast, accurate auto-matching

The load terminals employs the full-automatic matching technology with fast matching and high precision while achieving maximum power output

Ultra-fast analysis speed

ICP3000 can set suitable integration time for all analytical lines in one exposure to achieve optimal measurement, or acquire the intensity integral value in the end of the exposure to enable faster analysis

Stable solid-state RF power

Compact Solid-state RF power delivers reliable performance with power stability and safety

Powerful software analysis function

Easy to use ICP3000 advanced software features qualitative, semi-quantitative and quantitative analysis, intelligent optimization, flexible full-spectrum research, strong offline reprocessing, intelligence background correction and interference cancellation algorithms

Sample introduction system

Sample introduction system is equipped with several nebulizers/spray chambers, optional high solids nebulizer and hydrogen fluoride-resistant are available as special order items . Optional Auto sampler simplifies analysis.

Superb optical system

Echelle-prism polychromator maximizes the flux while enabling excellent spectral resolution. Ultra-low stray light design reduces background interference and improves the detection limits.

Excellent performance detector

Advanced CID detector and Full-frame Imaging capture entire ICP-OES spectrum can be analyzed (165-900 nm).Excellent linear dynamic range allows measurement of weak emission signals together with strong emission signals while providing flexibility to choose the ideal wavelength



تهران، خیابان مطهری، خیابان فجر، پلاک 38

021-88832100
021-88321727
021-88321728
www.abzarteb.com
abzar.teb



ICP-3000

Inductively Coupled Plasma Optical Emission Spectrometer

Spectrometer Specifications

Grating: 52.67 lp/mm, 64° blaze angle, Zerodur® substrate (produced by SCHOTT-Germany) with near zero thermal expansion coefficient
 Prism: Ultra-pure Corning UV fused silica, transmittance 99.6% at 170nm.
 Wavelength range: standard 175nm-900nm, optional DUV optical components extend wavelength range to 165nm 900nm
 Focal Length: 430 mm
 Resolution: 0.0068nm@200nm
 Optical Chamber: Precise thermostat 35±0.1 C;
 N purge: normal purge 2L/min, fast purge 4L/min
 Stray light: Equivalent background concentration of 10000ppm Ca solution

RF Generator

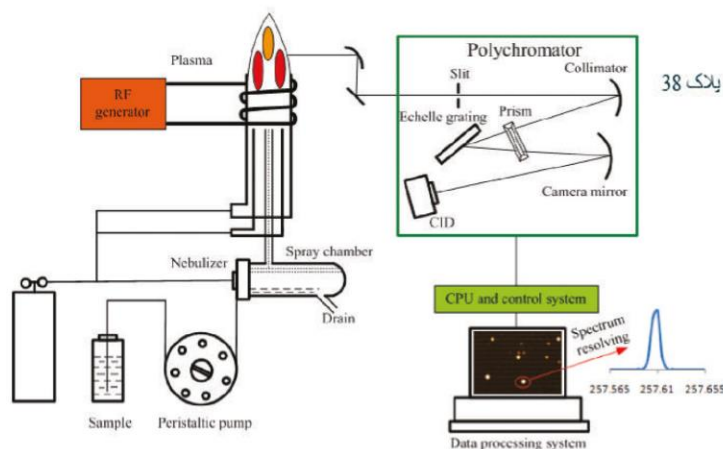
Input/Output Power: AC 220V-input,
 20A 700-1600W-output
 Stability: Frequency- < 0.05%, output power- <0.1%
 Working Frequency: 27.12MHz
 Accuracy: 2W

Detector Specifications

Detector Type: Charge injection detector (CID)
 Pixel Size: 27 x 27, Random Access Integration (RAI)
 Read mode: Full frame readout (FF), Random Access Integration (RAI) with non-destructive read (NDRO)
 Linear dynamic range 10⁸
 Wavelength response range: 165nm-1000nm
 Quantum efficiency: No coating-up to 35% within 200nm UV region
 Detector Cooling: High efficiency triple stage thermoelectric cooling device maintains the detector at -45C

Other Specifications

Analysis Speed: Single CID readout time- 2ms, analysis for all elements can be achieved within one minute
 Detection Limits: 1ppb-10ppb for most elements
 Stability: relative standard deviation RSD <0.5% (<1% within 2 Hours)
 Size: 130cm x 84cm x 74cm



شرکت ابزار طب
 وارد کننده تجهیزات
 آزمایشگاهی - تحقیقاتی - علمی
 تاسیس ۱۳۶۳

تهران، خیابان مطهری، خیابان فجر، پلاک ۳۸

021-88832100
 021-88321727
 021-88321728
 www.abzar.teb.com
 abzar.teb



ICP-3000

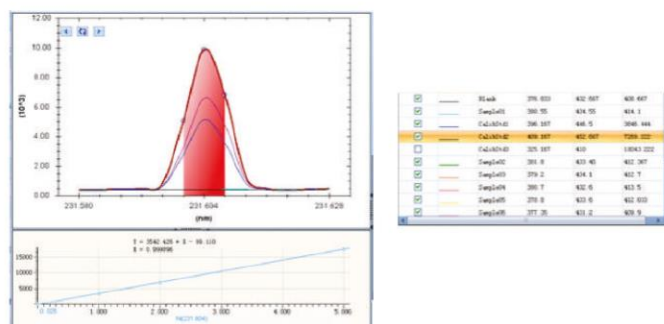
Inductively Coupled Plasma Optical Emission Spectrometer

Analysis Software

Specifying individual pixel or subarray region for quantitative analysis



Methods and data set management, re-processing, auto or manual real-time background correction



شرکت ابزار طب
ورد کننده تجهیزات
آزمایشگاهی - تشخیصی - علمی
تأسیس ۱۳۶۲

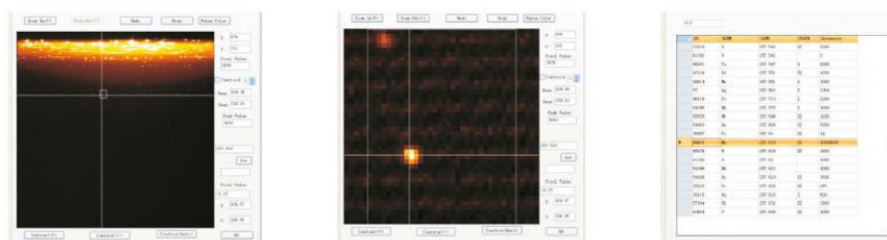
تهران، خیابان مطهری، خیابان فجر، پلاک ۳۸

021-88832100
021-88321727
021-88321728

www.abzarteb.com
abzar.teb

Full frame spectrum mode

Qualitative & semi-quantitative analysis of the elements-showing complete emission spectra, intensity, auto-peak identification and interactive spectral library



Skyray Instruments

شرکت ابزار طب
وارد کننده تجهیزات
آزمایشگاهی - تحقیقاتی - علمی
تأسیس ۱۳۶۳



تهران، خیابان مطهری، خیابان فجر، پلاک 38



021-88832100

021-88321727

021-88321728



www.abzarteb.com



abzar.teb



Skyray Instruments USA, Inc
1717 N. Akard Street, Ste 2520
Dallas, Texas, 75201 USA

+1 972 638 9035
www.skyrayinstruments.com
sales@skyrayinstruments.com

• Spectroscopy • Chromatography • Mass Spectrometry

Skyray Instruments specializes in the R&D, manufacturing and sales of analytical and measuring instruments in Spectroscopy, Chromatography and Mass Spectrometry fields. Our Products include X-ray Fluorescence Spectrometry, Atomic Absorption Spectrometry, Gas Chromatography, Inductively Coupled Plasma Spectrometry, Mass Spectrometry and many others

Skyray has been providing customers around the world with reliable and affordable Scientific Instruments for more than 20 years

Product description and specifications in this document are subject to change without notice. Copying, distributing or any use of material contained in this document for any commercial purpose without permission from Skyray Instruments USA, Inc is prohibited.
Printed in USA