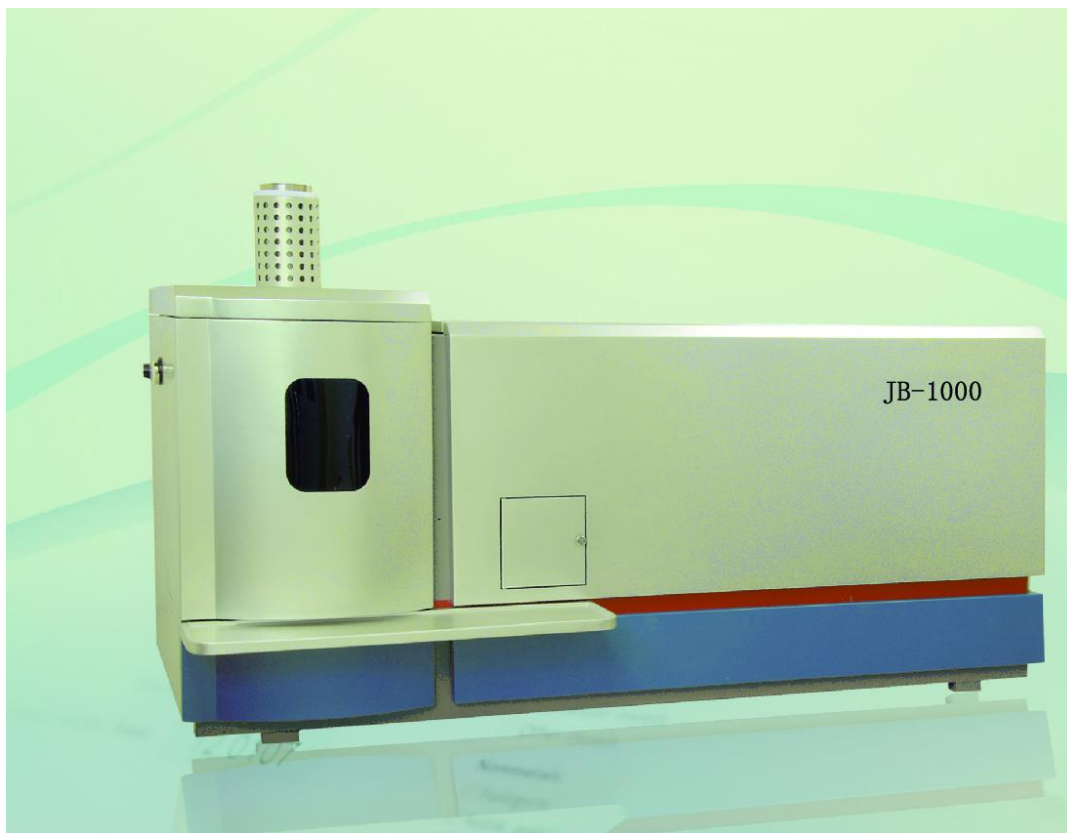


**NAME:** Inductively coupled plasma single channel scan Atomic Emission Spectrometry  
**TYPE:** JB-1000 ICP



#### company introduce

Wuxi Jiebo Electrical Technology Co., LTD. is the professional manufacture factory for analytical instrument with solid technical strength. The model JB-1000 Type Inductively coupled plasma single channel scan Atomic Emission Spectrometry is a large precisional and analytical instrument that complex light, machine, electricity and computer all-in-one.

The ICP can measurate elements more than seventy that diversified from microanalysis to constant analysis. It is wide-ranging application in geologic, metallurgy, thulium, plating, cement, oil, chemical, environmental detection, coloured metal, physic sanitation, food, geononics, scientific research, college and mine factory etc. It is not only good selling within the similar goods in our country but also have good reputation in international market.

It is the honesty that our company based on. Relying on the strong after-selling service system, our client can incisively use the instrument performance to the advantage, that can satisfy the requirement of the quick and exact analysis performance of clients and avoid the trouble after selling.

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### Main characteristics:

- 1、 The Self-sustaining radio frequency generator with power controlling makes the output power steady.
- 2、 The design of the optimization optical reducing mottle light ,the high reticle ion etch holographic grating guarantee the high resolving power.
- 3、 Adoptation of importation step motor and low modulus big-gear transmission framework guarantee scan precision.
- 4、 Adoptation of intelligentize data transmission system heighten the analysis speed.
- 5、 Adoptation of the Windows operating system of good operating system make the instrument operation convinient.
- 6、 Adoptation of two grating for interconvert satisfy demanding of different users.

### Standard configure

#### 1、 mainframe

name	quantity	specifications
RF generator	1	40MHz, 800-1200W
Sample introduction system	1	Concentric quartz tubes、 nebulizer、 atomization champer、 sealed water bottle
Scan spectrophotometer	1	750mm&1000mm
Inspecting system	1	The F/V switch circuit controlled by single-chip
Software of instrumental operating	1	The English Windows operating system with compact disc
Illumination and configure list	1	

#### 2、 Fittings

concentric quartz tubes、 nebulizer、 atomization champer、 sealed water bottle

#### 3、 Accessories

Name	model
Automatic temperature-controlling cooling system	AC-2500 or AC-1500
High-precision alternating current	10KW
Computer	
Printer	
Line mercury-arc lamp resource	Simulate test saving Argon dosage

## Technique index

### Sample introduction system

- 1、 Quartz tubes:  $\Phi$ 20mm three concentric type
- 2、 Nebulizer:  $\Phi$ 6mm coaxial type
- 3、 Atomization chamber:  $\Phi$ 35mm double canister type
- 4、 Plasma gas flow: 100-1000L/h
- 5、 Assistant gas flow: 6-60L/h
- 6、 Carrier gas volume: 6-60L/h
- 7、 Carrier gas pressure: Maximum 0.3Mpa

### Radio frequency generator

- 1、 Circuit type: Self oscillate circuit,coaxial-cable output, matching tune
- 2、 Work frequency: 40MHz
- 3、 Frequency stability: <0.1%
- 4、 Power output: 800-1200W
- 5、 Power output stability: <0.2%
- 6、 Power supply: 220V 25A

### Scanning spectrophotometer

- 1、 Light way system: Czerny Turner type
- 2、 Focus: 750mm、 1000mm
- 3、 Grating: Ion etch holographic grating,  
reticle density 3600line/mm&2400line/mm.  
reticle area (80x100)mm
- 4、 Resolving power:  $\leq 0.008\text{nm}$
- 5、 Scan wavelength range: 3600line/mm scan wave length range:195 nm-500nm  
2400line/mm scan wave length range:195nm-800nm
- 6、 Scan step distance: 0.0006nm
- 7、 Scan repeat quality:  $\leq 0.0006\text{nm}$

### Inspection system

- 1、 The F/V switch circuit controlled by singlechip
- 2、 Sampling time: 100ms-10s
- 3、 Photomultiplier Tube: R212UH
- 4、 PMT negative high voltage: 200-990V, stability  $\leq 0.05\%$

### Equipment technical index:

- 1、 Analytic speed: Over 10 element per minute
- 2、 Precision: Relatively standard deviation  $\text{RSD} \leq 2\%$ (short time stability)
- 3、 Stability: Relatively standard deviation  $\text{RSD} \leq 3\%$ (one hour measure)
- 4、 Measure line range:  $\geq 5$  scalar class
- 5、 Inspect lowest limit: Typical element inspect limit reference below table

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### Software analysis way

#### 1、 Searching zero class

Searching zero class is instrument inspect orientation basic gist. The instrument auto zero class wave length revise and Confirm the instrument orientation zero before boot-strap every time.

#### 2、 Upbuild analysis way

After startup program, first according to the classification which is ready to be measured, user maybe take it from means interface element-circling period table and then choose that element chart line and relatively operation parameter. The user upbuild a suit of better analysis means which can greatly improve work efficiency.

#### 3、 Wave chart analysis

Adopt chart line that it has added in the means to process peak-searching task, the software can automaticly search chart line peak value, if the chart map has multupal peaks the user can choose it manuualy, that can get rid of disturbing element outside chart line.

#### 4、 Standard curve

The standard curve is the base of the quantified mearurement to sample products, commonly thing, should be choice high standard content and low standard content to upbuild a standard curve, the ready element content is the basis of this curve measure the intension to figure out the element concentration .

#### 5、 Sample measure

The sample measure is the basis of standard curve equation, search ready measure element photic intensity corresponding strength value, the corresponding strength value units may be use percent content % or ppm to show.

#### 6、 Data output

The measure result data can be seen or printed out in system.