



EXPEC 6000 Series
ICP-OES

Stable and Reliable

EXPEC 谱育科技
TECHNOLOGY

A member enterprise of
Focused Photonics Inc.

Stable and Reliable

EXPEC 6000 ICP-OES

The inductively coupled plasma optical emission spectrometer of EXPEC 6000 series is a new full-spectrum direct-reading ICP-OES product launched by Hangzhou EXPEC Technology Co., Ltd. based on years of experience in the development of spectral instruments, incorporating the high-reliability radio frequency power supply, stable constant temperature two-dimensional spectrophotometer system spectroscopic system, high-speed CCD sensor for refrigeration and anti-spill design, easy-to-use torch chamber and sampling system, and combining with the original FSC spectral correction technology, thus providing stable performance and good experience for users.

Classical echelle two-dimensional spectroscopic system

Stable and reliable full-digital self-excited all-solid-state RF power supply

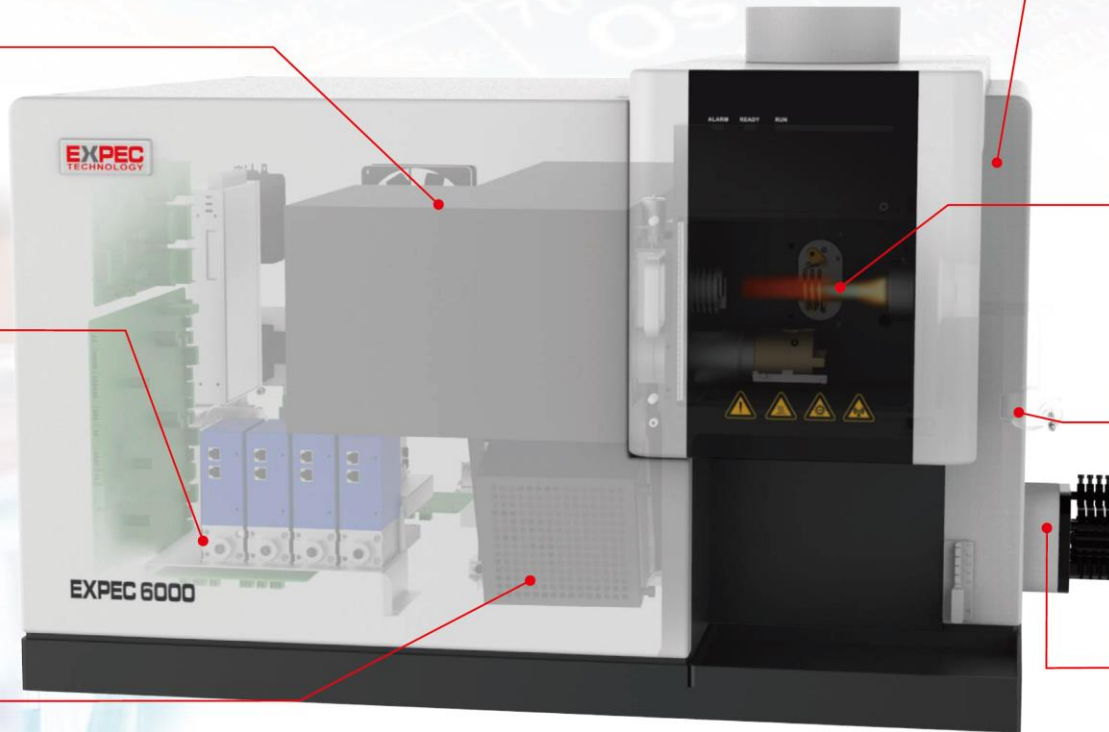
Visual torch observation
Two-way/vertical (optional),
easy maintenance

Diluent gas function can be added for high-salt samples

High-precision 12-rotor 4-channel peristaltic pump

Multi-channel mass flow controller to ensure the stability of argon gas in each channel

Deep-refrigeration research-level CCD data acquisition



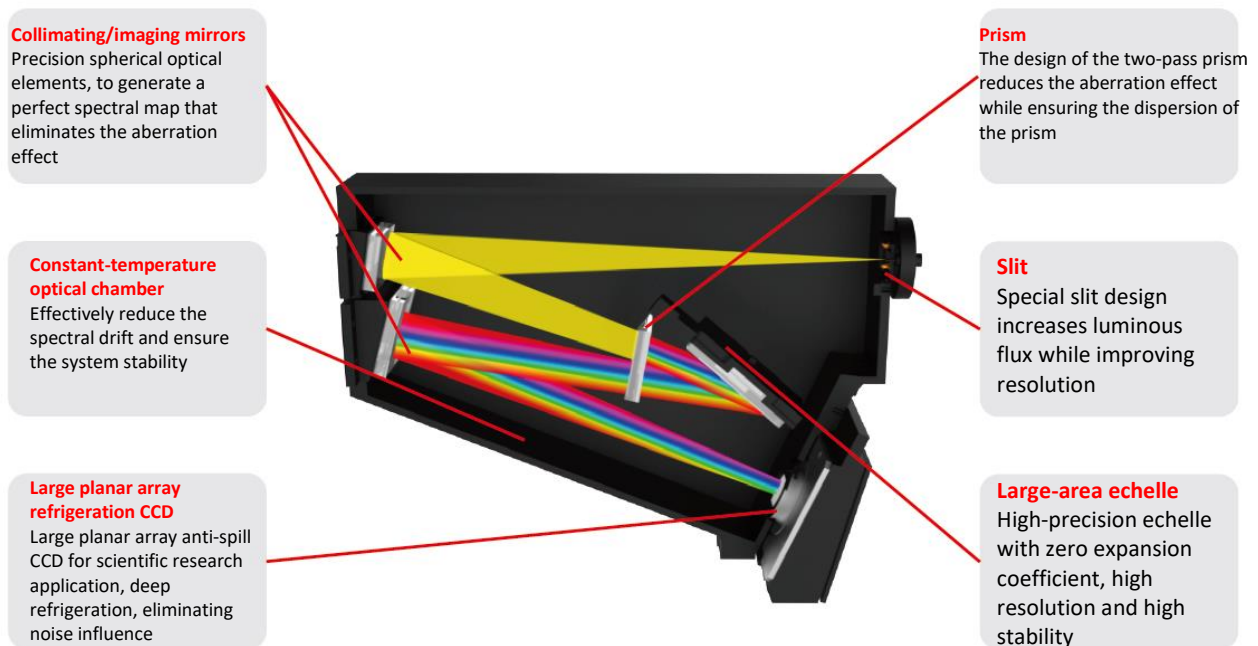
- **Stable classic optical system**

- ◆ **Classical echelle two-dimensional spectroscopic system**

- ◇ Thermal balance optical chamber with rapid response and constant temperature ensures the instrument stability
- ◇ The distributed sealed argon filling design based on fluid mechanics simulation enables the optical system to quickly create a high-purity argon atmosphere, and realize ultraviolet analysis, saving time and argon
- ◇ The semi-isolated design of the host and the optical system balances the heat exchange, helping the optical system accommodate the changes in the external environment
- ◇ Vehicle applications, stable and reliable
- ◇ Patented FSC real-time drift correction algorithm for micro-drift correction

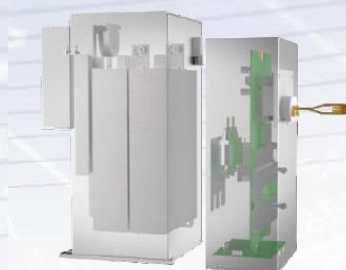
- ◆ **Back-illuminated high-speed CCD acquisition device**

- ◇ High UV response, requiring no UV fluorescent coating
- ◇ Megapixels for a high-resolution experience
- ◇ Three-stage TEC refrigeration design, reduce noise and obtain better dynamic range
- ◇ Professional anti-spill design, allowing to analyze the high and low contents simultaneously



- Stable and reliable full-digital self-excited all-solid-state RF power supply

- ◆ Brand-new frequency conversion design to realize automatic matching of plasma loads
- ◆ Self-excited RF power supply, providing a wider power range
- ◆ Water-cooled design, rapid heat dissipation, effectively improving reliability
- ◆ Internal power and temperature interlocking protection
- ◆ Power stability < 0.1%

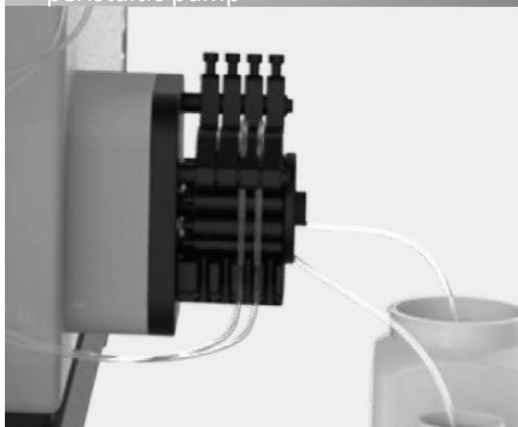


Full-digital self-excited all-solid-state RF power supply

- Stable sampling system

- ◆ Multi-channel mass flow controller, precisely controlling argon in each channel, with a control accuracy of 0.01 L/min, thus ensuring the stability of measurement data
- ◆ High-precision 12-rotor 4-channel peristaltic pump ensures stable sample injection, allowing to add internal standard solution, and standard addition solution as required, which is conducive to the analysis of complex samples
- ◆ Full-split torch, self-collimating installation mode, suitable for different applications, only requiring to replace the center tube, greatly reducing the costs

High-precision 12-rotor 4-channel peristaltic pump



Multi-channel MFC



- Allow to extend various attachments

Autosampler



Hydride generator

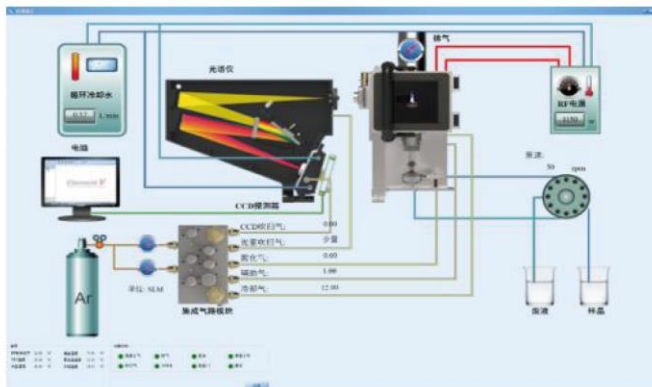


Organic sampler

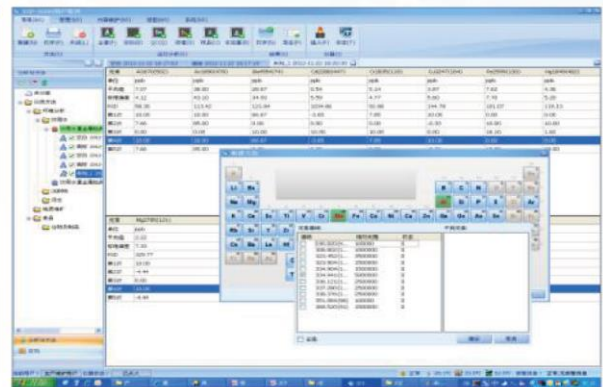


● Stable and efficient Element V software system

- ◆ A complete method library is used as the basis, reducing the time for users to find new methods
- ◆ Rich processing techniques, supporting various analysis methods such as the standard addition method, internal standard method, qualitative and semi-quantitative, interfering element correction, etc.
- ◆ Patented self-adaptive integration algorithm, achieving better sensitivity for both high and low contents
- ◆ With powerful extension functions, it interfaces with the automatic sampling, sequential sampling, and database systems, to meet the analysis and testing needs of modern laboratories
- ◆ Remote support



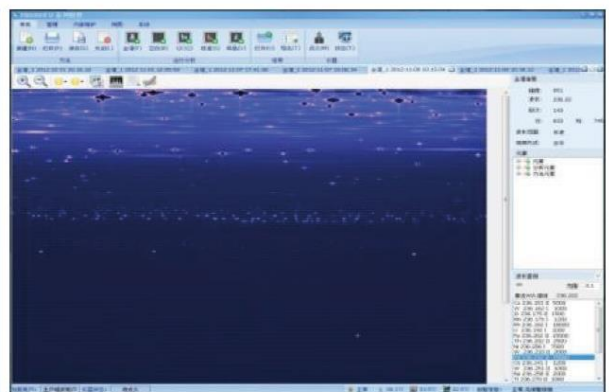
Instrument status information graph: real-time display of status information



Windows-style interface



Method library: method backup and import



Full spectrum and subarray controls

● Product series

Model	Features	Application fields
EXPEC 6000 Type D	Horizontal torch for dual observation	It is suitable for fields requiring high sensitivity, featuring the great universality
EXPEC 6000 Type R	Vertical torch for radial observation	It is suitable for applications with complex matrices, such as metal, oil, geological and mineral samples

● Full-automatic heavy metal analysis system

- ◆ Scalable full-automatic sample pretreatment system, with high throughput, and easy to detect a large number of samples
- ◆ People-oriented, protecting health and saving time
- ◆ Scalable online continuous monitoring

Proven analytical technology	Automatic ignition and automatic optimization of instrument	Automatic generation of standard curve, and automatic quality control	Automatic dosage judgment of standard solution	Automatic shutdown to ensure safety
Mature element analysis technology based on ICP-MS and ICP-OES.	During sample digestion, the main machine is automatically started, optimized, and ready for analysis.	The standard solution is automatically introduced, and the quality control supports multiple options such as the detection limit, standard sample, blank, etc., to fully ensure the reliability of the data.	Ultrasonic sensors are used to detect the liquid volume, identifying the dosage of standard solution intelligently.	The equipment is automatically turned off after the experiment, to ensure the safety, and there is no need to wait for the end of the experiment.



Reliable digestion technology	Automatic acid addition and standard addition	Automatic capping and cap removal	Automatic volume determination and mixing	Automatic sample introduction
The heat transfer is uniform and fast, and the high-precision temperature control system is used, greatly	Automatic acid addition and standard addition are supported, a number of Teflon material pipelines are provided,	Full automatic capping is available, making digestion safe; full automatic cap removal is	Accurate ultrasonic sensor ensures the accuracy of volume determination and realizes 1% constant volume accuracy control within the	After the volume determination, the instrument automatically filters and inject samples without manual sample

improving parallelism of digestion.	the of	allowing to add the nitric acid, hydrochloric acid, hydrofluoric acid, and Proline acid, thus keeping the experiment safe.	used to discharge acid mist for the smooth digestion.	range of 5-50 ml; bubbling and mixing functions are used to ensure the uniformity of the solution.	transfer
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Series products of EXPEC Technology



EXPEC 3500 Series GC-MS



SUPEC 7000 Series ICP-MS



EXPEC 5210 Series LC-MS/MS



Full-automatic heavy metal analysis system



EXPEC 6500 Series ICP-OES



EXPEC 1370/1330 Series NIR



SUPEC 5000 Series permanganate index

Hangzhou EXPEC Technology Co., Ltd.

No. 2466 Keji Avenue, Qingshanhu Street,
Lin'an District, Hangzhou City, Zhejiang
Province

Zip code: 311305

Tel.: 0571-85012185

Website: www.puyukeji.cn

E-mail: puyu_service@fpi-inc.com

Hotline: 400 700 2658

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