ICP-7760HP

ICP-7760HP Simultaneous ICP-OES

Product features

- All the elements in the sample can be collected synchronously in the full spectrum range, and the analysis results of all the elements to be measured can be obtained in a few minutes the soonest possible,definitely full spectrum direct reading is realized.
- Detection time is sharply shortened, argon consumption is minimized, and the operation cost is greatly reduced.
- Qualitative analysis can be realized without preparing standard solution.
- Under the condition of very limited sample quantity, full element detection of unknown samplescan also be achieved.
- The sample spectral signal can be collected first, and then analyze elements afterwards.
- The background signal and the spectral signal of the element to be measured are collected synchronously, which improves the analysis accuracy.
- The position of the light source and the observation height are rapidly optimized through motor drive control to obtain the strongest spectral signal.
- Optimize instrument parameters and analysis parameters quickly by monitoring spectral signals in real time.

High resolution medium step spectroscopic system

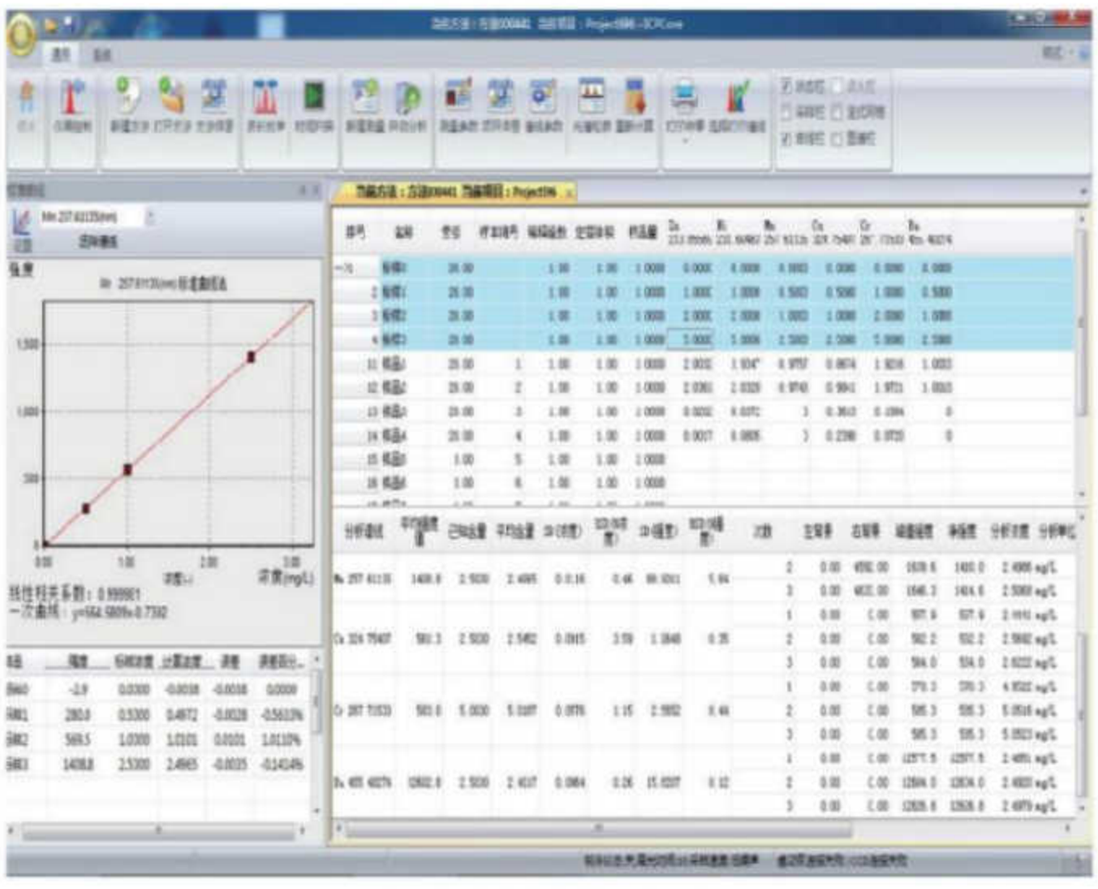
The most widely used medium step two-dimensional spectroscopic technology is adopted, and the spectral resolution is 0.007nm @ 200nm. It can completely deal with the serious spectral interference in ICP spectrometer, greatly reduce the error caused by spectral interference, and meet the needs of detecting various complex samples. Covering the full spectrum range, it can flexibly select any analytical spectral line.effectively avoid spectral interference according to the interference,and reduce various tedious spectral correction operations.

Excellent light source stability

The key to the stability of the analysis data lies in the stability of the light source. The solid-state generator designed and developed with the patented RF signal source can also ensure stable output power when measuring various complex substrates through the real-time closed-loop control technology. All three channels of argon of ICP light source use high-precision MFC (mass flow controller), which isfully automatically adjusted by software to ensure that the source has high stability when the instrument runs for a long time.

CCD Megapixel Spill Prevention Scientific CCD

With a megapixel CCD, the pixel resolution is less than3pm, more spectral data can be collected in the spectral contour, and the qualitative and quantitative accuracy is greatly improved.ICP spectrum contains strong argon spectrum and strong light spectrum of major elements.The CCD adopts spill prevention design to effectively avoid the pollution of these strong signals to weak signals. Deep refrigeration technology is used to further reduce the dark current of the sensor, which can effectively improve the signal-to-noise ratio and greatly reduce the detection limit in trace analysis.



Data processing interface

Full optical path nitrogen purging

Using inert gas to purge the monochromator, on the one hand, it reduces the absorption of ultraviolet spectrum by air, on the other hand, it can prevent the damage of CCD caused by condensation or frost caused by refrigeration. The purge gas flow can be adjusted freely, which can effectively shorten the purge time and save gas consumption.

Qualitative function

It is not necessary to prepare standard solution and establish a method to conduct rapid qualitative analysis for unknown samples.Under stable analvsis conditions,semi quantitative accuracy can be achieved.

The injection system has high stability and wideapplication range

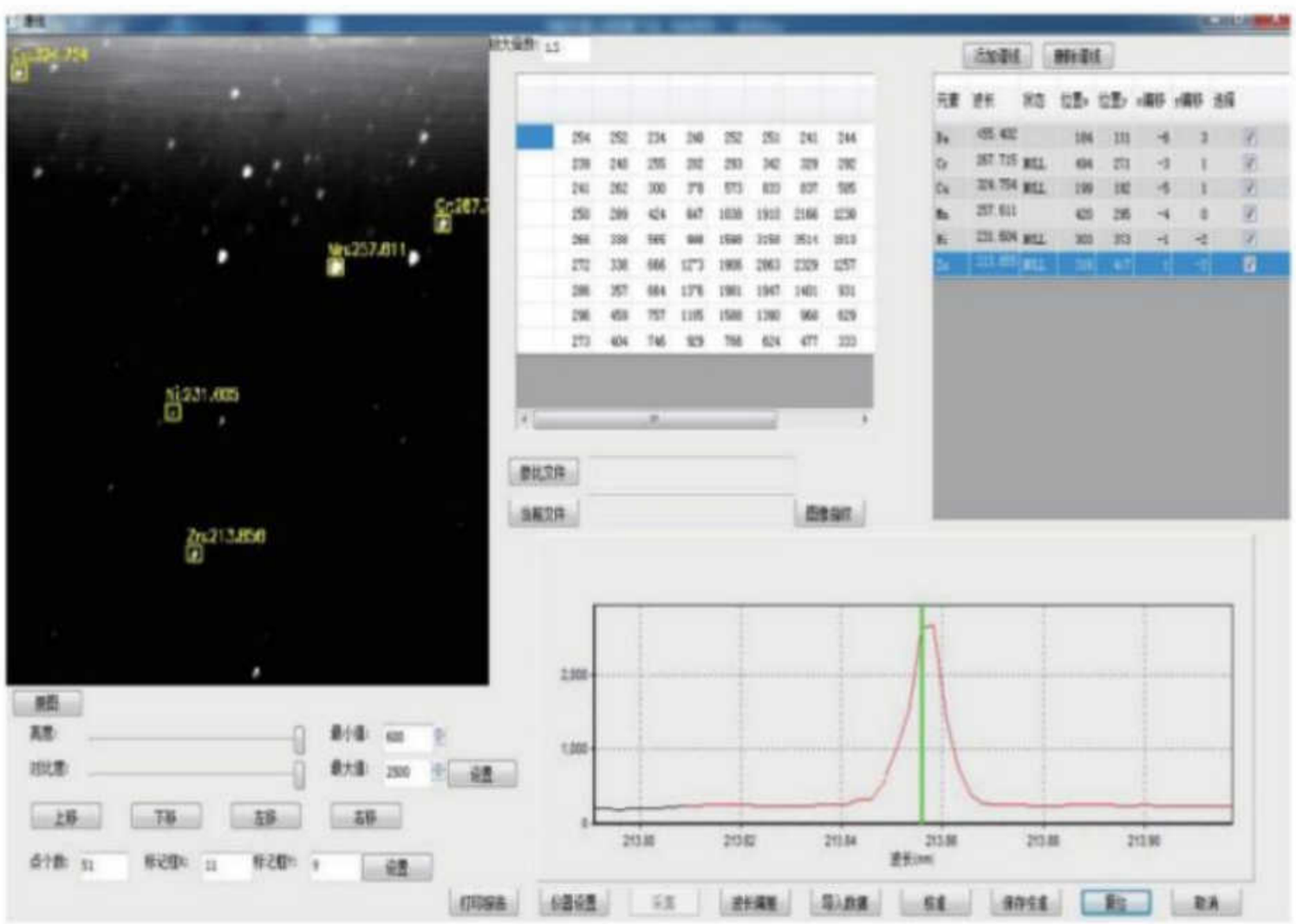
The 12 roller high precision peristaltic pump is adopted for sample injection, with small pulse and high analysis precision.Various types of atomizers, atomizing chambers and torch tubes can be selected to meet the needs of analyzing various samples.

Excellent long-term stability

The monochromator adopts the internal cavity type integral constant temperature control, which greatly reduces the drift caused by ambient temperature fluctuations. In the process of testing operation, thereare no moving parts in the instrument, ensuring high qualitative and quantitative accuracy during long operation.

Scope of application

Geology, metallurgy, rare earth separation, rare earth magnetic materials, medicine and health, environment,biology, ocean, petroleum, chemical industry, nuclear industry, agriculture, water quality and other scientific fields are widely used.



Spectrum calibration interface