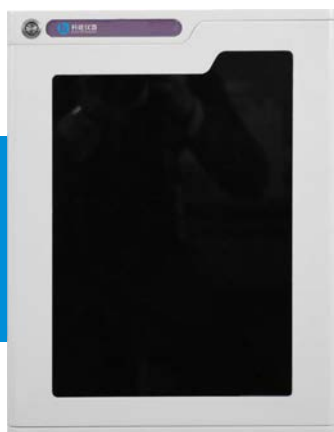




IC 700

Ion Chromatograph

INTRODUCTION

IC700 ion chromatograph can be used for anion detection in samples: F^- 、 Cl^- 、 NO_2^- 、 PO_4^{3-} 、 Br^- 、 NO_3^- 、 SO_4^{2-} 、 SO_3^{2-} 、 BrO_3^- 、 ClO_3^- 、 ClO_2^- anion analysis; The cations in the samples were detected, Li^+ 、 Na^+ 、 NH_4^+ 、 K^+ 、 Mg^{2+} 、 Ca^{2+} and other cations were analyzed. The packing of ion chromatography column is different from traditional ion exchange chromatography column. The resin has high cross-linking degree and low exchange capacity, and the sample volume is very small. The eluent is transported by plunger pump for on-line automatic continuous conductivity detection.

PERFORMANCE CHARACTERISTICS

1. Split block structure mode

Split mode has good anti-interference and extensibility. And it can be equipped with UV/visible detector, electrochemical detector or pH, conductivity module, to meet the unconventional sample analysis, multiple data analysis at the same time, to achieve one machine multi-function.

2. High sensitive circuit

The machine adopts industrial electrical components and advanced shielding technology to improve the detection sensitivity and stability of the instrument, which can meet the diversified testing needs of users.

3. Automatic signal acquisition system

The injection valve is linked with the host circuit to realize the automatic recognition of signals when the valve changes position, and start the software analysis function to avoid the error caused by manual operation.

4. Channel activation system

When the machine is shut down for a certain period of time, the flow path is automatically started regularly to flush each system component to avoid pipeline crystallization and achieve the purpose of maintenance.

5. Intelligent constant temperature system

During detection and analysis, the separation column is kept constant temperature to ensure good separation effect. Under low temperature condition (including shutdown condition) automatically start and heat up to the ideal temperature suitable for storing separation column, prolong the service life of separation column.

TECHNICAL PARAMETERS

1. Constant temperature conductivity detector

- Pentapole conductance cell: PEEK material, ring type passivation 316 stainless steel electrode;
- Pool volume $\leq 0.8\mu\text{L}$;
- Resolution $\leq 0.0020\text{ns}$;
- Temperature control range: $+5^{\circ}\text{C} \sim 60^{\circ}\text{C}$, temperature control accuracy: $\pm 0.01^{\circ}\text{C}$, temperature compensation: $1.7\%/^{\circ}\text{C}$;
- Detection range: $0 \sim 30000\mu\text{S}/\text{cm}$, output voltage $-5000 \sim 5000\text{mV}$;
- Baseline noise: superior to national standard; baseline drift: superior to national standard;

2. Ion chromatography peak pump

- Maximum working pressure: 36MPa
- Flow range: $0.001\text{--}9.999\text{ml}/\text{min}$ To adjust the flow by $0.001\text{ml}/\text{min}$ step;
- Flow accuracy: 0.1%
- Flow repeatability: $\text{RSD} < 0.1\%$

3. Flow system

The joints and flow channels are Peek materials, with good generality, can use strong acid and alkali mobile phase, can be 100% compatible with organic solvent, convenient for users to analyze complex samples, and can be replaced at will separation column and suitable eluent. Improve the system's pressure resistance and eliminate the hidden danger of leakage.

4. High pressure six way valve, high pressure resistance, no leakage, flexible sample switching, strong acid and alkali corrosion resistance.

5. Ion chromatographic column

High efficiency anion column, suitable for analysis of F^- , Cl^- , NO_2^- , PO_4^{3-} , Br^- , NO_3^- , SO_4^{2-} , SO_3^{2-} , BrO_3^- , ClO_3^- , ClO_2^- and other anions. High efficiency cationic column, meet the analysis of Li^+ , Na^+ , NH_4^+ , K^+ , Mg^{2+} , Ca^{2+} and other cations.

6. Anion and cation suppressor

Continuous automatic regeneration electrochemical suppressor, high suppression capacity, automatic online regeneration, long life, simple operation, fast balance, good repeatability, no need to use any consumables.

7. Test technical parameters

- Separation ability
Anions such as F^- , Cl^- , NO_2^- , PO_4^{3-} , Br^- , NO_3^- , SO_4^{2-} , SO_3^{2-} , BrO_3^- , ClO_3^- and ClO_2^- were detected and analyzed at the same time. Cations such as Li^+ , Na^+ , NH_4^+ , K^+ , Mg^{2+} , Ca^{2+} were detected and analyzed at the same time.
- Minimum detection limit
 $\text{Cl}^- \leq 0.0005\text{ppm}$ $\text{Li}^+ \leq 0.005\text{ppm}$
- Analysis reproducibility (accuracy)
Qualitative repeatability $\leq 0.4\%$; Quantitative repeatability $\leq 1.0\%$

8. Instrument linearity $\geq 10^3$

9. Data processing system

- Full Chinese/English display, with electronic version of the operation demonstration video, convenient for users to master familiar.
- Support Windows 98/2000/XP/Win7 and other operating systems, can be transmitted through USB or COM digital signal; It has two modes of single channel workstation and double channel workstation, which can simultaneously complete data acquisition and processing of anion and anion.
- Simple operation, intuitive and easy to understand, spectrum data intelligent processing, can display spectrum, retention time, peak height, peak area, concentration quantitative calculation, calibration curve production, printing spectrum data, etc.
- Spectral data automatic storage, providing data view, batch printing, results summary, operation management and other functions.
- Equipped with excellent performance of 24 bit analog-to-digital conversion device, to provide high resolution and high sensitivity detection.