



IC-50 Super Ion Chromatograph System

Introduction

The IC-50 Super Ion Analysis System is an open multifunctional chromatography platform that can be flexibly configured with a quaternary gradient pump ion chromatograph, an MSS-2 multifunctional sample preparation system with all-PEEK flow channel, a post-column derivatization system, a high-throughput autosampler, and other accessories such as optional interfaces for connecting detectors such as atomic fluorescence (AFS) and ICP-MS.

It can be used as a typical ion chromatograph for routine sample analysis, as well as for the detection of complex matrix samples or ultra-trace ions; it can also be used as a completely inert biological system for the separation and detection of sugars, amino acids, nucleic acids and proteins; in addition, moreover it can be combined with ICP-MS to provide a metal-free separation system for high-salt matrix elimination and multi-element speciation analysis.

Features

The IC-50 quaternary gradient pumps offer the widest range of applications and the greatest flexibility in eluent composition (e.g. gradients of sodium acetate, methanol or acetonitrile), which is essential for the separation and detection of sugars and amino acids.

Independently driven dual piston serial pump provide stable high pressure and small pressure pulsation. Fully inert PEEK pump head and flow path, compatible with 0-14 pH eluent, built-in plunger cleaning function.

Digital conductivity detector, standard measuring range is 0-100,000 $\mu\text{S}/\text{cm}$, fully automatic range conversion, no manual setting required.

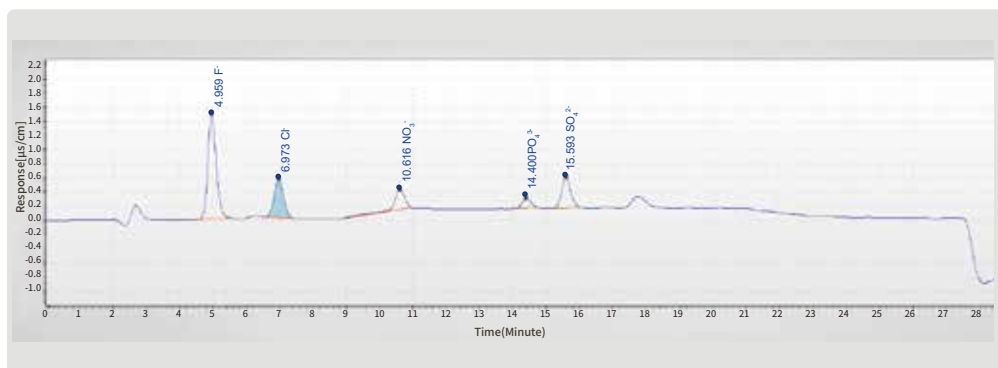
- ◆ Conductivity detector with resolution down to 0.001 nS/cm.
- ◆ Thermostated cell, temperature resolution up to 0.001°C.
- ◆ The conductivity cell can withstand pressure up to 10Mpa or higher
- ◆ Controlled external water addition mode of the suppressor.
- ◆ One or more different types of detectors can be configured to meet the need for different analytes and the need for comparing different detectors for the same analyte.
- ◆ Expandable with additional accessories and hyphenated technologies.

Specifications

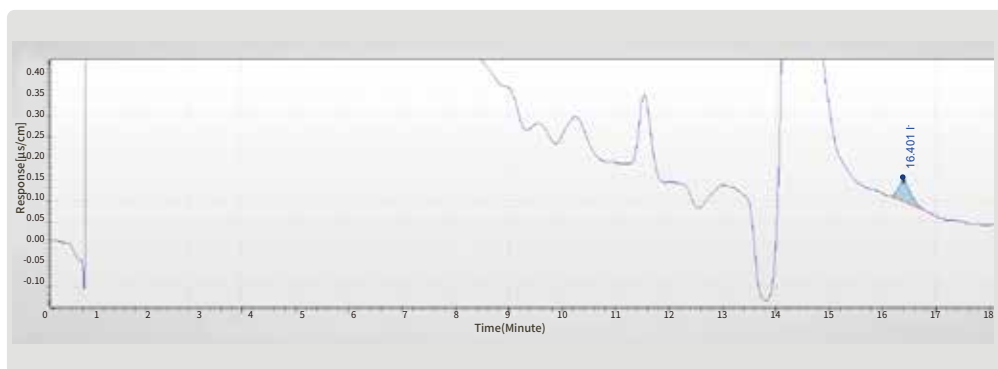
<i>Model</i>	<i>IC-50</i>
Application areas	Marine, environmental, food, pesticide residues, semiconductor, geological, pharmaceutical impurities, biological, cosmetics, drinking water, and other fields.
Detection Limit	ppt level
Flow Rate Range	0.01-5.00 mL/min (standard), 0.01-20.00 mL/min (optional, in 0.01 mL/min increments).
Flow Rate Accuracy	<0.1%
Pressure Range	0~6000psi (42MPa)
Pressure Pulsation	<0.1%
Temperature Range	Room temperature +5°C to 80°C
Temperature Stability	±0.1°C
Software	EasySpec Workstation provides Instrument control and data acquisition/storage/processing, such as Chromatographic peak integration, qualitative analysis by retention time, peak area and concentration calculations, half-peak width calculation, and signal-to-noise ratio calculation.
Power Supply	220V ±10%, 50Hz
Instrument Dimensions	Desktop design, modular assembly, 602mm * 525mm * 830mm (LWH)
Instrument Weight	67kg

Applications

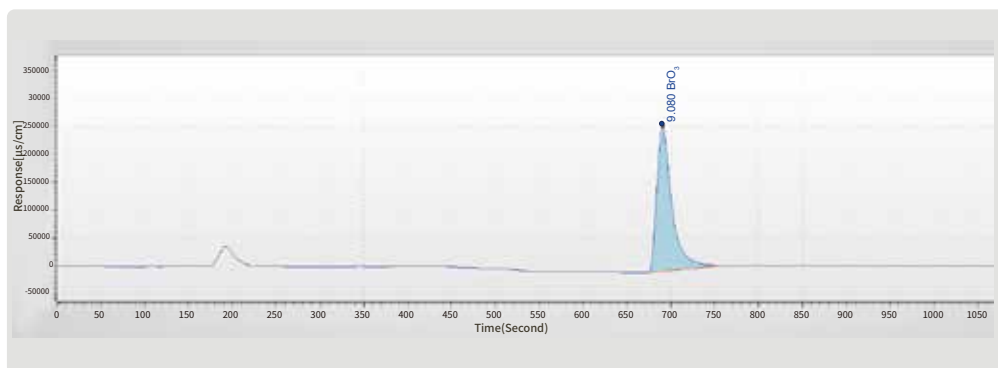
Detection of anions in boric acid solution (nuclear power industry)



Detection of Iodine in seawater (two-dimensional chromatography)



Nitrite salt derivatization method: Nitrite salts in seawater (post-column derivatization)



Detection of fluoride in urine

