

RELEASE**IC-ICP-MS Analyzer for Speciation Analysis**

While total elemental content can be analyzed by ICP-MS, speciation analysis of trace elements is ideally performed by a Thermo Scientific IC-ICP-MS system. The speciation analyzer includes a metal-free IC system with high resolution ion exchange columns and simple online connectivity, together with high sensitivity ICP-MS and integrated software.

Dionex™ Aquion™ Ion Chromatography (IC) System

Perform basic ion analysis reliably. Simple, compact platform with straightforward operation for budget-limited labs. This basic IC system features dual-piston pumping, electrolytic suppression, high sensitivity and set-and-forget convenience. Contamination-free, trouble-free IC with durable PEEK flow paths, which are compatible with the full range of IC eluents. Enjoy ease of use, fast start up times and reliable, stable performance for demanding applications in environmental, food safety, and academic laboratories. The system comes with Thermo Scientific™ Chromeleon™ Chromatography Data System (CDS) software for automation and data handling.

Single Quadrupole Inductively Coupled Plasma Mass Spectrometry (SQ-ICP-MS)

Simplicity, productivity and robustness for routine labs.

With comprehensive interference removal for assured data accuracy and intuitive workflows to boost productivity, this single quadrupole (SQ) ICP-MS will expand your analytical capabilities.

Comprehensive interference removal assures data accuracy, while our innovative helium Kinetic Energy Discrimination (He KED) technology enables measurement of all analytes in a single mode.

Our highly effective QCell collision/reaction cell, combined with unique flatpole design reduces BECs even further than He KED alone, through the clever, dynamic application of low mass cut off (LMCO).

Intuitive Thermo Scientific™ Qtegra™ Intelligent Scientific Data Solution™ (ISDS) software delivers all the support features essential to any lab, while containing all the flexibility needed to achieve the most challenging applications.



IC-ICP-MS Speciation Analyzer

Speciation Analysis

Distinguishing between chemical forms of an element is critical for multiple industries, including the food, environmental, and pharmaceutical sectors. In the past, measuring the total amount of an element was sufficient. Unfortunately, the effects of an element extend far beyond its absolute amount. Different forms of an element can exhibit very different physicochemical properties, including varying toxicities. The process of separation and quantification of different chemical forms of an element, more specifically termed speciation analysis, delivers a better understanding of the environmental or health-related impact associated with a particular sample. Speciation analysis can be split into two components: separation of individual ionic species by ion chromatography (IC), and trace elemental detection and quantification using inductively coupled plasma mass spectrometry (ICP-MS). This combined method is termed ion chromatography inductively coupled plasma mass spectrometry (IC-ICP-MS).

Benefits of IC-ICP-MS

- Metal-free IC separates the individual species without contributing trace metal contamination.
- IC-ICP-MS acts as a highly sensitive and element-specific detection system.

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