

NO INTERFERENCE BETWEEN YOU AND GREAT DETECTION



Introducing the multi-quadrupole NexION 5000 ICP-MS – perfect for biomonitoring applications.

In the past 20 years, there has been increasing interest in the role of trace elements in human health. Some elements are notoriously toxic, even at low levels, while others are essential to life. As a result, it's important to monitor the level of these elements in biological fluids and tissues. Recently, more elements have come to the forefront due to their usage in medical implants or from environmental exposure. So it's crucial for these labs to use trace-elemental techniques, such as ICP-MS, to characterize low concentrations of these analytes in an ever-changing analytical landscape.

Our NexION® 5000 multi-quadrupole ICP-MS is the ideal instrument for these types of analyses, delivering unsurpassed interference removal, analytical accuracy, and performance, with:

Superior Interference Removal

In this four-quadrupole system, the ion beam is shaped and directed within Q0 (Quadrupole Ion Deflector) and filtered in Q1 (first Transmission Analyzer Quadrupole). The reaction is controlled in Q2 (Quadrupole Universal Cell), and the resulting ions are separated in Q3 (second Transmission Analyzer Quadrupole). This multi-quadrupole setup, in combination with triple quad technology, allows the system to deliver less than 1 ppt BECs in hot plasma.

Excellent Stability

Our free-running 34-MHz RF generator delivers fast impedance matching to rapidly adjust to changing sample matrices, while the wide-aperture cones of the Triple Cone Interface offer unparalleled resistance to clogging. And you can use pure gases, such as pure NH_3 , for predictable and reproducible reactions.



Unmatched Matrix Tolerance

The NexION 5000 ICP-MS is perfect for laboratories that need low detection limits and BECs in a variety of different matrices, from aqueous to organic, from blood to intravenous fluids.

Lowest Maintenance

In biomonitoring, uptime is key to keeping your lab running at peak performance. That's why our NexION 5000 system eliminates virtually all maintenance requirements, for unsurpassed instrument uptime.

Nothing Interferes with Accuracy

The cutting-edge NexION 5000 ICP-MS combines the simplicity of a reaction/collision cell with multi-quadrupole technology that transcends traditional triple quad. And with the industry's best interference removal technologies in combination with Extended Dynamic Range, the NexION 5000 ICP-MS ensures the accurate determination of low and high levels of analytes in matrices such as urine, blood, serum, saliva, and tissue, in a single analytical run – perfect for biomonitoring.

■ Four Quadrupoles

Provide the best ion beam control, capable of suppressing and eliminating the spectral interferences found in complex samples.

■ Quadrupole Ion Deflector (QID)

Optimizes the range of masses transmitted into the first transmission quadrupole, improving sensitivity and eliminating photons and neutral species.

■ Transmission Analyzer Quadrupoles (Q1 and Q3)

Provide equal mass resolving capabilities and can work in MS/MS, Mass Shift or Scanning modes.

■ Universal Cell Technology (UCT)

Actively discriminates between analyte ions and reaction byproducts, creating a controlled reaction for the best interference removal.

■ Triple Cone Interface with OmniRing™

Operates in extraction, focusing, or cold plasma modes for outstanding detection limits.

■ 34-MHz RF Plasma Generator

This unique technology can handle the toughest matrices and solvents.



A COMPLETE ICP-MS SOLUTION

The multi-quadrupole NexION 5000 ICP-MS transcends current market offerings and delivers solutions to address even the most demanding trace-element analysis challenges. Plus, the NexION 5000 system offers:

- User-friendly Syngistix™ software (with built-in methods) that makes complex triple-quad workflows simpler
- Consumables and supplies designed with your instrument in mind, manufactured with the highest quality materials
- OneSource® Laboratory Services, with teams of trained scientists and engineers who bring their real-life knowledge to you, plus compliance and education services

The NexION 5000 multi-quadrupole ICP-MS: Performance to the power of four

For more information, visit www.perkinelmer.com/nexion5000

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