



NO INTERFERENCE
BETWEEN YOU
AND BETTER THROUGHPUT



NexION® 1000 ICP Mass Spectrometer

For research use only. Not for use in diagnostic procedures.


PerkinElmer®
For the Better

Patented Universal Cell Technology™

Switch from one mode to another

Standard Mode



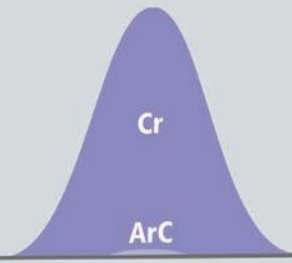
Ideal for high throughput applications

Collision Mode



Removes polyatomic interferences
Effective for both quantitative and semi-quantitative analyses

Reaction Mode



Superior detection limits
Maximized interference removal

THE PERFECT
ICP-MS SYSTEM
FOR WHATEVER
MODE YOU'RE IN

EXCEPTIONAL SPEED AND OPERATIONAL SIMPLICITY MAKE YOUR LAB MORE EFFICIENT THAN EVER BEFORE

In the high-pressure world of high-productivity labs, turnaround time is key. And with the increasing concern for the safety of our food, water, and pharmaceuticals, and with the presence of nanoparticles in the products we use every day, today's labs need to meet both productivity goals *and* stringent regulatory requirements – efficiently, and at a low cost per sample.

And now there's an ICP-MS system that's as focused on high throughput as you are.

Meet the NexION® 1000 ICP-MS, the ideal high-throughput system for running routine, multielemental, trace-level analyses that meet regulatory standards – and that works within your budget.

The NexION 1000 ICP-MS features our exclusive Universal Cell Technology™, which enables single-gas switching between Collision and Reaction modes for efficient interference removal, while its Extended Dynamic Range measures major and trace elements in the same sample *in one run*. The Triple Cone Interface and Quadrupole Ion Deflector make operation – and cleanup – a snap, and Syngistix™ software's preset methods get everyone up to speed fast.

The NexION 1000: It's taking ICP-MS throughput to the limit.



LAB EFFICIENCIES: WHAT YOU VALUE MOST IN AN ICP-MS

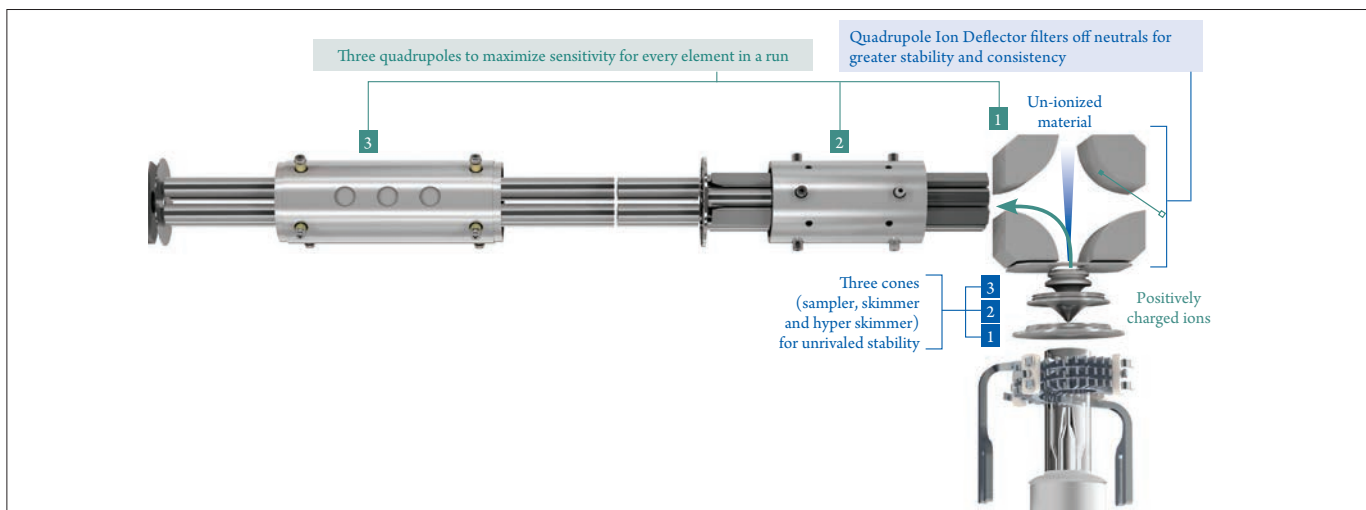
The NexION 1000 ICP-MS system's technical innovations are what set it apart from traditional systems – making it the high-throughput solution for high-capacity environments.

Powerful interference removal for best detection limits

Our second-generation Universal Cell Technology enables you to remove interferences for best-in-class throughput and real confidence in your data. With three modes of operation – Standard, Collision, and Reaction – it combines the simplicity of a Collision cell and the efficiency of a Reaction cell in a single instrument. Adding to that efficiency, the system uses a single gas channel to switch between modes, for interference removal without the delays inherent in cell gas-switching technologies.

Concentrate on results, not maintenance

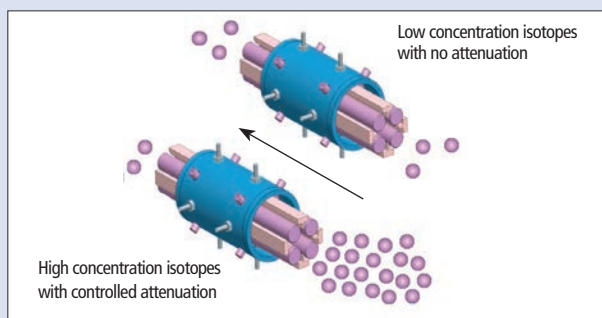
The NexION 1000 ICP-MS is all about uptime: LumiCoil™ technology requires no water or gas cooling and never needs cleaning or maintenance, while its unique, tightly controlled ion path creates the cleanest analytical environment in the business – with virtually no maintenance requirements. And the patented combination of the Triple Cone Interface and Quadrupole Ion Deflector provides effective control and focuses the ion beam, requiring absolutely no cleaning and delivering exceptional uptime.



The NexION 1000 is the lowest maintenance ICP-MS on the market.

Analyze accurately—and efficiently—every time

The system's Extended Dynamic Range (EDR) feature adjusts signal transmission to enable you to measure high and low concentrations in the same run. This extends your dynamic range up to 12 orders of magnitude and optimizes productivity – all while extending the lifetime of the detector.



EDR controls the number of ions passing through the Universal Cell on an isotope-by-isotope basis.

Analyze high-dissolved solids with confidence

With our All Matrix Solution (AMS) sample introduction system, you can run samples with high total dissolved solids without manual dilution. This “clean dilution” enables you to handle these samples without the need to use expensive, high-purity diluents. The solid-state free-running RF generator delivers a robust plasma, enabling excellent stability for high throughput.



AMS system minimizes the need for dilution prior to analysis.

ICP-MS THAT'S ALL ABOUT PRODUCTIVITY



■ Small Footprint

Compact design (81 cm wide by 69 cm deep by 75 cm high) saves valuable bench space.

■ Full-Color Plasma View

Enables firsthand visual inspection of components (including sampler cone, torch, and load coil), optimizes plasma sampling depths, and simplifies organics analysis.

■ Free-Running RF Plasma Generator

Handles all your tough matrices and requires no consumables, while LumiCoil technology needs no cooling or maintenance.

■ Triple Cone Interface

Eliminates most cleaning and maintenance with a tightly focused ion beam that gets rid of sample deposition on external components.

■ Quadrupole Ion Deflector

Completely removes un-ionized material, giving you zero-maintenance, no-replacement-cell technology that maximizes uptime and productivity.

■ Universal Cell Technology

Allows you to select your ideal method of interference removal and detection limits; combines Collision and Reaction modes using a single gas for exceptional throughput and data reliability.

■ Simultaneous Dual Mode Detector

Provides the fastest data acquisition rates in the industry (10 times faster than leading competitive systems, or 100,000 data points per second) for superior analysis times and single-particle/cell ICP-MS capability.

Peripherals to Add Performance

From sample digestion to sample prep, from advanced automation to everyday consumables, we have everything you need to get the most from your instrument, your analyses, and your laboratory.



SOFTWARE THAT BRINGS OUT THE BEST IN YOUR ANALYSES

Powerful, intuitive Syngistix™ software is the cross-platform solution that mirrors your workflow. Everything is designed to make it easy for your scientists to get up to speed quickly, with left-to-right, icon-based navigation guiding you through your routine – from startup to analysis to data reporting.



Fast, easy startup

Syngistix software makes startup and optimization simple. Its SmartTune™ Express module checks specification and tuning procedures prior to each run to ensure that all requirements are met for a fast startup and accurate results. You also receive alerts when preventive maintenance is due, and the instrument control panel displays real-time information so you can monitor the entire system at a glance.

Method development made simple

The Syngistix method development environment enables you to select the elements you want to measure and the software helps pick the right masses, based on isotopic abundance and possible interferences. Its preset methods eliminate the need for method development in a wide variety of applications, while the TotalQuant™ module lets you quickly estimate the concentrations of all elements in a sample, all at one time.

Analysis that's fast and accurate

With Syngistix software, flexible quality control checks monitor everything from calibration to internal standard responses, for data reliability even during unattended runs. The Scheduler feature further increases workflow efficiency and data reliability by enabling you to schedule optimizations and procedures, including autostart, shutdown, and sample analysis. Meanwhile, before your run, the Reviewer can display the sample run list – including method and sample types – in a convenient dialog box for additional confirmation.

Results where and when you want them

The software's Reporter feature displays single- and multiview calibrations during a run, providing real-time data on detection limits and background equivalent concentrations. What's more, the Logbook enables you to review the instrument's performance history in one panel – so you can check parameters for specific days and monitor and compare performance data on the fly.

Expand Your Expectations of a Lab Services Provider

Optimize your NexION 1000 ICP-MS with our comprehensive suite of services from PerkinElmer OneSource® Laboratory Services. From instrument service and repair to analytics and optimized scientific workflows, OneSource Laboratory Services provides all the tools you need to increase your lab efficiencies and get more out of your ICP-MS.

OneSource[®]
Laboratory Services

THE HIGH-THROUGHPUT SYSTEM FOR THE WORK YOU DO



With the increased concern for the safety of our food and water supply, our soil, and our pharmaceuticals, and the growing need to mitigate the risks inherent in nanomaterial used in our products, the burden on testing labs to expedite analyses is growing astronomically. And you can tailor your NexION 1000 system to specialized workflows to handle your most pressing applications.

Environmental testing, made fast and simple

Whether it's drinking water, effluents, wastewater, sediments, or soil, the NexION 1000 ICP-MS is the single best solution for high-throughput testing of trace elements in environmental samples. Its single-gas combination of Collision and Reaction modes provides interference removal without the time delays associated with cell gas switching. It can run high total dissolved solid samples with no manual dilution, using the built-in AMS system, and it detects low- and high-concentration elements in the same run, thanks to per-isotope electronic dilution capabilities.

Ensuring that what we eat is good *and* good for us

To ensure the safety of our food supply worldwide, companies are increasingly having to identify and characterize contaminants at a stage early enough to mitigate any potential risk. As a result, a large number of samples of the same or different matrices have to be routinely analyzed. Either way, the NexION 1000 ICP-MS's All Matrix Solution enables food producers to run a large number of samples in the most efficient and effective way possible.

Your prescription for reliable screening of elemental impurities

To protect patients from the adverse effects of elemental impurities in pharmaceuticals, specific regulations such as USP chapters <232>/<233> and ICH Q3D have been implemented. To address these demanding regulations, the NexION 1000 ICP-MS with Syngistix software features unique method templates for fast, accurate measurement of metals in pharma products at the limits defined by USP <232>. Plus, with Syngistix Enhanced Security™ capabilities, your lab has all the tools to comply with 21 CFR Part 11.

Nanoparticles and single cells have nowhere to hide

With the prevalence of nanomaterials in every aspect of daily life, their characterization becomes increasingly important. With the NexION 1000 system, you benefit from the specificity, resolution, sensitivity, and a data acquisition rate of up to 100,000 points/sec to handle your nanoparticle detection challenges. These same attributes are critical for the detection of metals in single cells, helping you understand the impact of modern medicine at the single-cell level.

THE MOST TRUSTED NAME IN ELEMENTAL ANALYSIS



From AA to ICP-OES and ICP-MS, we've been at the forefront of elemental analysis for more than 50 years.

Join forces with us and give your laboratory the benefits of cutting-edge instrumentation, consistently excellent consumables, and the industry's largest, most trusted service and applications support network.

The first to bring together the simplicity of a Collision cell and the detection limits of a true Reaction cell in the same ICP-MS instrument, we continue to push the boundaries of this technology. And with the NexION 1000 system, we've taken ICP-MS throughput and efficiency to the limit, enabling you to meet both your productivity goals and the most stringent regulatory requirements.

For more information, visit perkinelmer.com/NexION1000

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