

LEAVE INTERFERENCES BEHIND WITH MS/MS

Agilent 8900 Triple Quadrupole ICP-MS



PUT YOUR ICP-MS RESULTS BEYOND DOUBT.

The 2nd generation Agilent 8900 ICP-QQQ has a unique tandem MS configuration, so can operate in MS/MS mode to control reaction chemistry in the collision/reaction cell. This leads to more consistent, reliable and accurate results in demanding applications in industrial and research laboratories.

The Agilent 8900 also works superbly in helium collision mode, and has robustness and productivity to match Agilent's market-leading quadrupole ICP-MS systems, making it the world's most powerful and flexible multi-element analyzer.

Superior performance

- Accurate trace-level analysis of previously "difficult" elements, Si, P, S, Cl...
- Resolution of isobaric overlaps, beyond capability of high-resolution ICP-MS
- Fast TRA for reliable analysis of nanoparticles, including SiO_2 and TiO_2

Unparalleled flexibility

- Innovative Method Wizard automates method development, including for nanoparticle analysis
- Unique MS/MS scan modes aid research and method development
- Sample introduction and collision/reaction cell configurations to suit any application

Proven ICP-QQQ Technology

Since the launch of Agilent's unique 8800 ICP-QQQ in 2012, triple quadrupole ICP-MS has enabled hundreds of labs around the world to do more than ever before:

- Monitor lower levels of contaminants in advanced materials and high-purity semiconductor process chemicals
- Quantify unknown proteins and peptides, by measuring the sulfur and phosphorus heteroelements
- Characterize silica and other nanoparticles in complex environmental, food and biological samples, even at the sub-50 nanometer scale
- Accurately determine selenium, arsenic and their species at lower levels in complex sample matrices



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The MS/MS advantage for reaction gas methods

ICP-QQQ provides superior control of interferences by operating in MS/MS mode. An additional mass filter (Q1), placed before the collision/reaction cell, prevents non-target masses from entering the cell. With MS/MS, reaction chemistry is controlled and consistent, so analyte ions or product ions are measured free from interference, even in complex and variable samples.

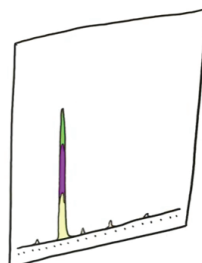
Conventional quadrupole ICP-MS (ICP-QMS)



No mass filter before cell.
All ions enter the cell.

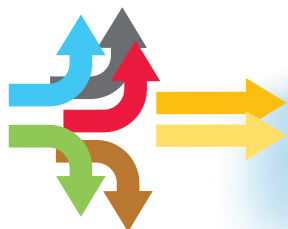
Reaction Cell

Reaction chemistry varies with sample composition. Non-target ions can pass through cell or may react to form new product ions at the target analyte mass.



Many different ions and product ions can contribute to the measured signal, leading to variability and inaccuracy.

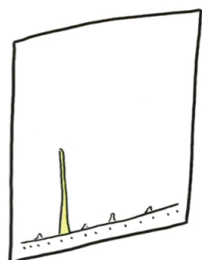
Agilent triple quadrupole ICP-MS (ICP-QQQ) with MS/MS



Quadrupole mass filter (Q1) rejects all non-target masses before the cell.

Reaction Cell

Analyte and on-mass interferences are separated by consistent and predictable reaction chemistry.



Only the target analyte ions/product ions contribute to the measured signal, so results are accurate and reliable.

For more information:
Contact your local Agilent
representative or visit:

www.agilent.com/chem/8900icpqqq

This information is subject to change without notice.

© Agilent Technologies, Inc. 2016
Published June 1, 2016
5991-6994EN



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