

FAST-TRACK YOUR METALS ANALYSIS WITH THE AGILENT 7800 ICP-MS

The Measure of Confidence

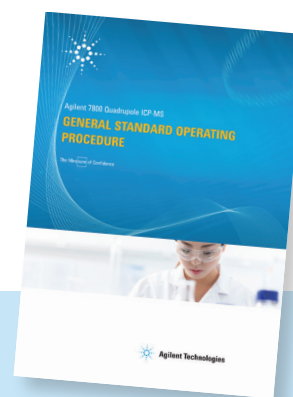
Solution-Ready Agilent 7800 Quadrupole ICP-MS

When Pre-set Methods and productivity tools combine with high-performance ICP-MS, the results are extraordinary

ICP-MS is the accepted technique for routine trace element analysis across a wide range of applications and sample types. From environmental monitoring, food and consumer product testing, to biological tissues, metals, materials, and geological sample analysis, ICP-MS is relied on around the globe,

In many of these industries, the analysis is performed according to standard methods or regulations, and so the analytical requirements and performance criteria are prescribed. However, samples may vary significantly, and so instrument robustness and matrix tolerance are essential requirements. At the same time, staff in busy contract laboratories may have to operate several techniques. Therefore, simplicity of method setup and ease of operation are key to efficient laboratory workflow.

The new Agilent 7800 ICP-MS comes with Pre-set Methods for common applications, and an innovative Method Wizard to simplify method setup for new sample types. Together with auto-optimization tools, and a standard operating procedure (SOP), ICP-MS has never been easier to use.



Elemental Impurity analysis with the Agilent 7800 ICP-MS

SOP includes:

- General method scope
- Typical operation workflow
- Controlling interferences
- Sample preparation
- Pre-set Method parameters
- Routine maintenance
- Troubleshooting guide

For more, go to:

www.agilent.com/chem/7800icpms



Agilent Technologies

Accurate, reliable, quantitative results using high matrix introduction (HMI) technology and helium (He) mode

High or variable matrix samples are measured in many applications. Thus, for simple routine analysis, the ICP-MS must not only tolerate such samples, but continue to produce accurate results without requiring extensive changes to method settings.

The HMI technology on the 7800 ICP-MS reduces the sample matrix load on the plasma. HMI lets you analyze much higher matrix levels routinely (up to 3% total dissolved solids (TDS)). In addition to reducing the need for sample dilution, HMI minimizes signal suppression due to the matrix loading. Therefore, variable high matrix samples can be measured accurately against simple aqueous standards, removing the need for matrix matching.

Simplify metals analysis workflow

- Standard operating procedure
- Auto-optimization tools
- Pre-set Methods and Method Wizard
- Built in QC, tune, and sample analysis reports
- Optional ISIS 3 for fast discrete sampling

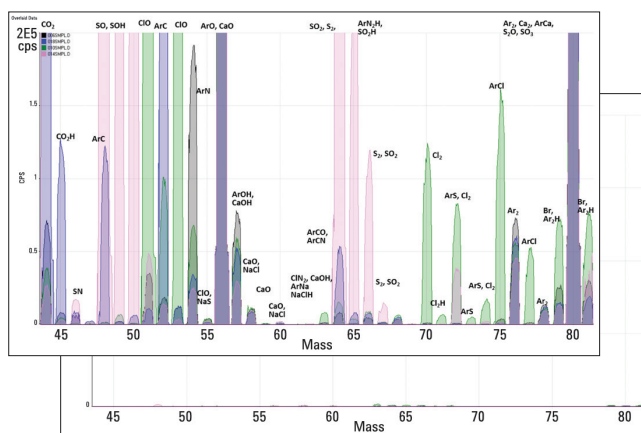
High throughput discrete sampling

The Agilent Integrated Sample Introduction System (ISIS 3) provides high throughput discrete sampling (DS) for the 7800 ICP-MS, reducing sample run times to <90 s, without compromising interference removal in He mode for complex samples.

He mode for interference removal

The Agilent octopole-based ORS collision/reaction cell, optimized for He collision mode, has revolutionized ICP-MS analysis of complex samples.

He mode on the 7800 ICP-MS reduces all polyatomic ions, using a single set of consistent cell conditions, and so methods can be developed and transferred easily. As well as avoiding the use of matrix-specific or analyte-specific cell conditions, required when reactive cell gases are used, He mode also removes the need for interference correction equations. This eliminates the errors that frequently occur with correction equations, and simplifies method development, as the same cell mode can be used for variable samples.



He cell mode: Background spectrum of mixed-matrix blank containing N, Cl, S, and C.

Top: No-gas mode; all peaks are potentially interfering polyatomic ions from matrix

Bottom: He mode; all polyatomic interferences are removed

For more information, go to:
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