



The Agilent 9500 ICP-MS

The easiest **smart decision** you can make



The Agilent 9500 ICP-MS delivers true triple quadrupole ICP-MS performance without the complexity

Designed for routine and advanced laboratories, the 9500 ICP-MS combines powerful interference removal with simplified operation. Its proprietary Dual-Cell System, featuring Advanced Helium Mode and Air mode, helps deliver fast, accurate results across complex sample types, while OpenLab ICP-MS software simplifies setup, analysis, and reporting.

Advanced Helium Mode (AHM)

AHM replaces multiple collision-cell modes with one high-performance mode. It combines strong interference removal with improved ion transmission, and by reducing gas-switching and stabilization delays, AHM typically delivers >33% reduction in acquisition time for routine analysis.

Air cell

Air mode uses ambient air for ICP-MS/MS oxygen on-mass and mass-shift reactions, helping resolve difficult on-mass interferences without additional oxygen cylinders, gas cabinets, or related safety infrastructure.

Air mode supports low BECs for challenging elements such as P, S, As, and Se, utilizing ICP-MS/MS performance while keeping workflows practical for routine labs.

>33% reduction in acquisition time

>33% reduction in sample acquisition time

Single measurement in Advanced Helium Mode, replacing no gas, Helium and High Energy Helium tune modes.

20x higher sensitivity for low mass elements

20x higher sensitivity at low masses in AHM

DCS maintains ion transmission even for low-mass elements (Li, Be, B, etc.) in Helium collision cell for vastly improved abundance sensitivity.

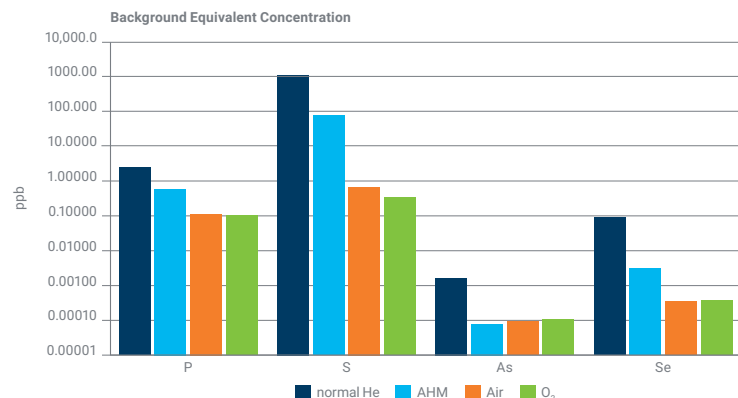


Figure 1. BEC of Air mode with respect to conventional He mode, new Advanced Helium Mode and oxygen mode.

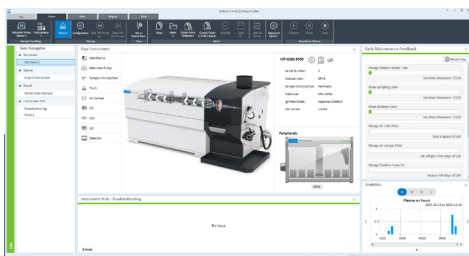


Figure 2. OpenLab ICP-MS software Instrument Hub dashboard view

The Agilent 9500 ICP-MS advantage

- Proprietary DCS combines AHM and Air cell for simpler, more powerful interference removal
- AHM replaces multiple tune modes, cutting acquisition time by >33%
- Air cell uses ambient air for oxygen mass-shift reactions, avoiding additional reactive gas infrastructure and safety burden
- ICP-MS/MS performance delivers interference-free results you can trust across complex matrices
- OpenLab ICP-MS software makes triple-quad performance feel effortless, simplifying every step
- Designed to reduce re-runs, improve productivity, and make ICP-QQQ more accessible to every lab.

OpenLab ICP-MS software

OpenLab ICP-MS is designed for daily laboratory workflows, with an intuitive layout for new and experienced users. Automated tools simplify method development and routine operation. Existing single quadrupole ICP-MS methods can be converted for the 9500, while Method Advisor and preset methods support setup with less reliance on expert knowledge.

Guided diagnostics, IntelliQuant data screening, and streamlined reporting help users move from setup to confident results. Building on Agilent ICP-MS MassHunter, OpenLab ICP-MS is the next-generation software platform for Agilent ICP-MS instruments.

Routine productivity gains

Routine methods can run in a single Advanced Helium Mode, reducing sample analysis time by replacing multiple tune modes used in traditional ICP-MS workflows. This removes gas-switching and simplifies method setup while providing powerful interference removal.

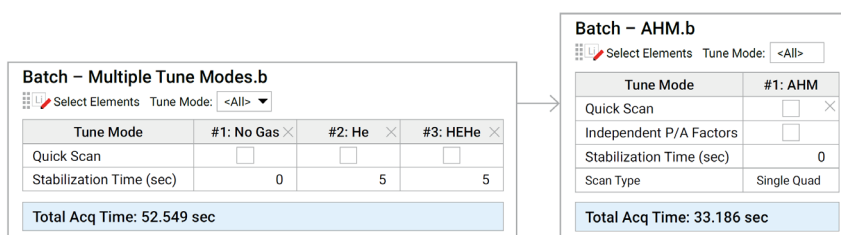


Figure 3. Drinking water analysis method comparison between the Agilent 7900 and 9500. AHM mode provides a 37% acquisition time saving, from 53 to 33 s, with single mode simplicity.

Long-term stability with AHM and Air mode

The 9500 enables stable high-salinity analysis using on-line reverse dilution, AVS MS discrete sampling and optimized rinsing. Excellent stability across 130+ EPA 6020 analyses was achieved, with ppt-level MDLs for 27 elements and 90–110% recoveries in ~140 s per sample.

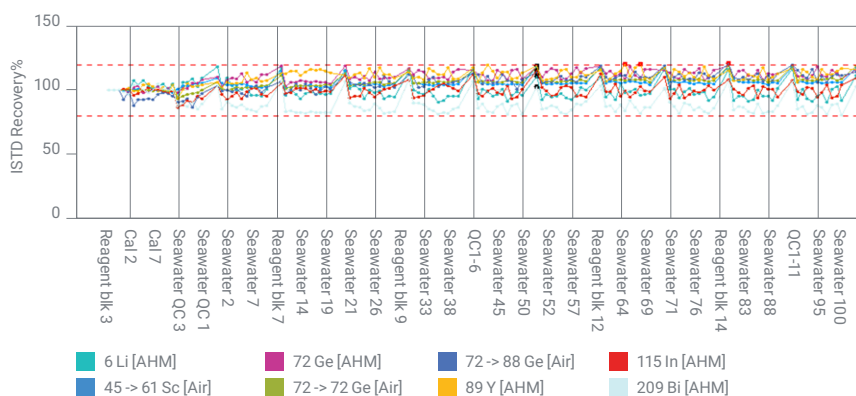


Figure 4. ISTD stability over 100 injections of undiluted seawater samples.

Learn more about the Agilent 9500 ICP-MS

www.agilent.com/chem/9500icpqqq

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