Automating clean sample introduction

Agilent Technologies provides a fast, flexible and high precision autosampler specifically for ultratrace analysis. The I-AS Clean Autosampler is specifically designed for Agilent ICP-MS, and enables the unmatched sensitivity of Agilent ICP-MS instruments to be fully realized.

The autosampler is ideal for semiconductor applications and any application involving the ultratrace analysis of elements where laboratory contamination may present a problem, for example, clinical applications and the measurement of seawater at ambient levels.

The I-AS is fully supported by the ICP-MS MassHunter software, giving fully integrated control.

Designed specifically for ultra clean analysis

The I-AS has been designed so that no moving parts pass over the sample vials. In fact, the articulated sampling arm lifts and rotates out of position as the sample tray moves. The precision control motors ensure very fast sample-to-sample times, while maintaining superb accuracy.

The non-metal materials used in the manufacture of the I-AS further minimize the risk of trace metal contamination of samples from autosampler components; for example, the sample arm is made of plastic and the probe of fluororesin. In addition, a rugged clear plastic cover encloses the sample tray preventing contamination from airborne particulates.

The I-AS features a continuously flowing rinse port so that the probe is always rinsed with fresh wash solution. Efficient rinsing, which is achieved by peristaltic pump action, eliminates the risk of cross contamination during a long sample sequence.
Ease of access ensures ease of use

The easy-access, open sample introduction area of Agilent ICP-MS systems allows the small footprint I-AS to be positioned near the nebulizer ensuring optimum use of space. The short tubing length from probe to nebulizer, keeps dead volumes to a minimum and provides excellent productivity by offering minimum sample uptake and washout times. Furthermore, the close location of the autosampler allows use of self aspirating nebulizers—ideal for low flow, high precision applications.

Features of the Agilent I-AS Clean Autosampler

• Covered autosampler for use with Agilent ICP-MS.
• Non-metal arm—no metal or drive mechanism moves over sample vials.
• Continuously flowing rinse port under peristaltic pump control for probe wash.
• Choice of sample tray arrangements. Small and large sample volumes are accommodated.
• 3 × 100 mL standard or wash bottles.
• Designed for all semiconductor applications and any ultratrace analysis of commonly occurring elements.
• Made using anti-corrosion and HF resistant materials.
• Fully automated QA/QC control procedures available using the optional Intelligent Sequencing Software.

Flexible sample capacities and tray sizes for diverse ultratrace applications

Sample volumes smaller than 1 mL up to 50 mL can be accommodated with three extra large volume positions for standards, blanks and/or quality control solutions. Alternatively, the large volume bottles can be used to contain an organic or alkali solvent as an extra wash solution. If the sample tray is removed from its usual position, a single sample position becomes available for the user to add a 100 mL sample bottle.

Wide choice of tray sizes

• 89 × 6 mL vials (Type A)
• 53 × 18 mL vials (Type B)
• 18 × 50 mL vials (Type C)
• 79 × 1.5 mL vials + 10 × 18 mL vials (Type D)
• 79 × 6 mL vials + 10 × 18 mL vials (Type E)
• 15 vials up to 48 mm outer diameter x 55 mm high (Type F)

The sample trays and the main body of the I-AS are finished with the same, hard wearing and durable coating as all Agilent ICP-MS instruments.

Specifications

Dimensions: width 290 mm (11.4 in), depth 360 mm (14.2 in), height 220 mm (8.7 in), height 280 mm (11.0 in) including probe
Weight: 5 kg (11 lbs)
Single sample position: a diameter of 55 mm or less and a height of 126 mm or less.
Communication: RS232C+USB cable
Power requirements: 100–120 VAC, 50/60 Hz, 1 A or 200–240 VAC, 50/60 Hz, 0.5 A
Supported instruments: 7700 ICP-MS, 7800 ICP-MS, 7900 ICP-MS, 8800 ICP-QQQ, 8900 ICP-QQQ

Genuine Agilent Supplies Deliver Best Performance

Agilent supplies for the I-AS Clean Autosampler are designed to give flexibility in sample handling and maintain the high performance of your system.

Learn more at www.agilent.com/chem/AtomicSupplies or refer to:
Agilent’s Spectroscopy Supplies Catalog, 5991-5455EN

For more information:
Contact your local Agilent representative or visit:
www.agilent.com/chem

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© Agilent Technologies, Inc. 2016
Published June 1, 2016
5998-2992EN