



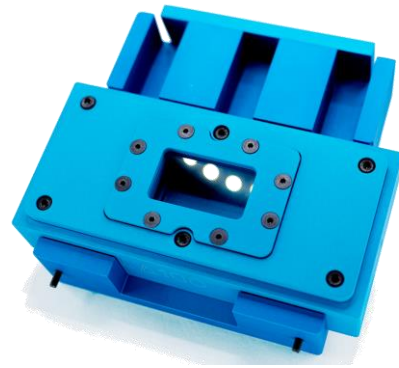
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innovators in isotopes

Introducing the IsoScell

The worlds first optimised IRMS laser cell

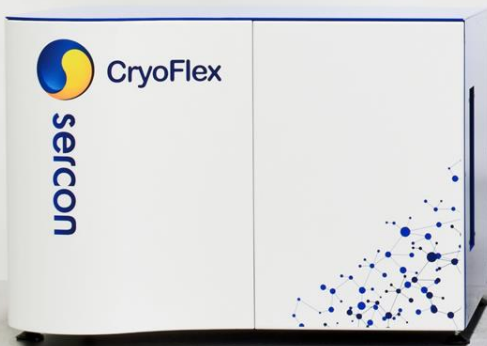
The performance of hyphenated laser ablation – isotope ratio mass spectrometer (LA-IRMS) systems is impacted by the cell of the laser. Traditionally, laser ablation systems have been optimised for the more commonly used inductively coupled plasma (ICP-MS) analysers, which require relatively large flow rates. In the absence of a laser cell optimised for the low flow rates typical of IRMS analysers, previous measurements have been prone to high blanks and variable baselines.

A new, bespoke laser ablation interface from Sercon overcomes these issues, it is custom-made for LA-IRMS measurements, enabling a low flow through the sample cell and low blanks.



The Sercon ethos of continuous development and collaboration within the IRMS and associated communities is well demonstrated with the design and optimisation of this bespoke interface, the IsoScell is the product of a collaboration between industrial and academic partners*.

The IsoScell is optimised for use with the Sercon HS2022, the most sensitive small radius IRMS on the market, and the Sercon CryoFlex, the flexible cryogenic trace gas trapping system. These hyphenated systems offer the user ultimate control and enable measurements which are both precise and accurate.



COLLABORATE · CREATE · INNOVATE



Features & Benefits

- Optimised inner geometry enables superior gas flow lowering overall consumption
- Low cell volume allows enhanced sample collection increasing sensitivity
- Optimized post sample flushing gives maximum sensitivity whilst maintaining a blank of $<1e^{-9}nA$
- Flexible design allows both stainless steel and aluminium sample holders in a range of sizes including microscope slides to be utilised
- Shorter analysis times due to optimised aerosol collection and transfer giving higher sample throughput
- The IsoScell can be installed into most OEM laser systems with the correct mounting hardware
- The IsoScell gives optimised and superior application performance, especially when combined with the Sercon HS2022, the most sensitive small radius IRMS on the market

*Developed by Terra Analytic SRL