


Instruments that work

nu plasma 1700

MULTI-COLLECTOR ICP-MS



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ICP-MS

The Nu Plasma 1700™ plasma source multi-collector mass spectrometer is a unique large dispersion high-resolution multi-collector ICP MS.

The large geometry enables resolutions of >5000 (10% valley) while maintaining peak flats for high precision and accurate simultaneous isotopic measurements.

Each of its sixteen Faraday detectors and three ion counting multipliers has independent variable high-resolution slits allowing different resolutions on individual detectors.

Features

Double-Focusing Mass Spectrometer

Employing variable dispersion ion optics (patented) in combination with a multiple collector system

High Resolution and Pseudo Resolution Capability

Separation and partial separation of polyatomic interferences

State-of-the-Art Ceramic Faraday Detectors

With long-term field proven active inner surfaces

Triple Multiplier Detector System

Full size discrete dynode ion counting multipliers

High Abundance Deceleration Filter

Improves abundance sensitivity by an order of magnitude

Unique Pumping Configuration

Providing maximum protection of vacuum integrity and pump lifetime

Ground Potential Operation

Providing easy access for service and maintenance procedures

High Ionisation Efficiency ICP Source

Combined with a supersonic beam-sample interface and enhanced interface pumping configuration

Laminated Magnet

High precision 24-bit and temperature compensated Hall probe control

State-of-the-Art Electronics

Purpose designed and built, with full monitoring of all instrument parameters and power supply status

Open Access Software Policy

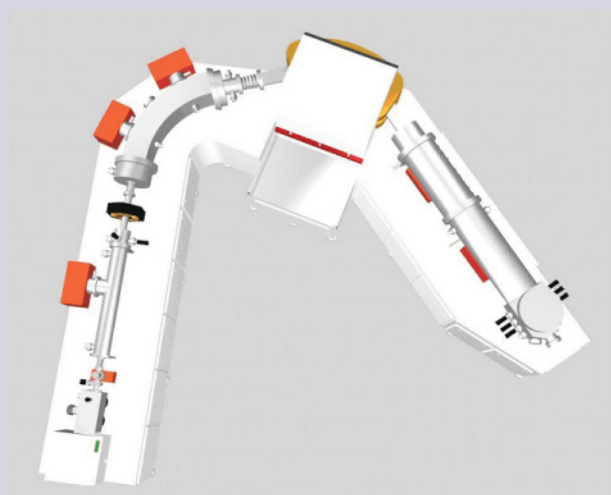
Intuitive and comprehensive operating software with free upgrades for the lifetime of the instrument

Compatible with Third Party Accessories

Including laser ablation systems, autosamplers and other sample preparation devices

Variable Dispersion Ion Optics

The Nu Plasma 1700 utilises Nu Instruments unique patented Zoom Optics, removing the necessity for employing a full suite of adjustable collectors. This greatly increases the reliability of the collector array and allows instantaneous switching between collector configurations.



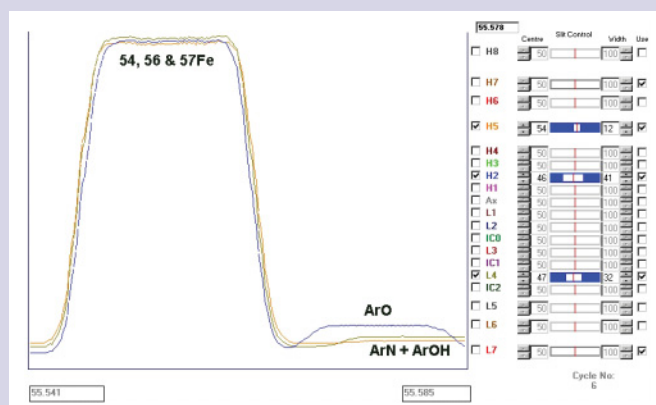
Collector System

A fixed array of ten Faraday collectors with an additional six adjustable position Faraday collectors is provided. Within the Faraday collector array, three ion-counting multipliers are interspersed. Each collector position has independently adjustable defining slits, adjustable both in width and central position.



High Resolution

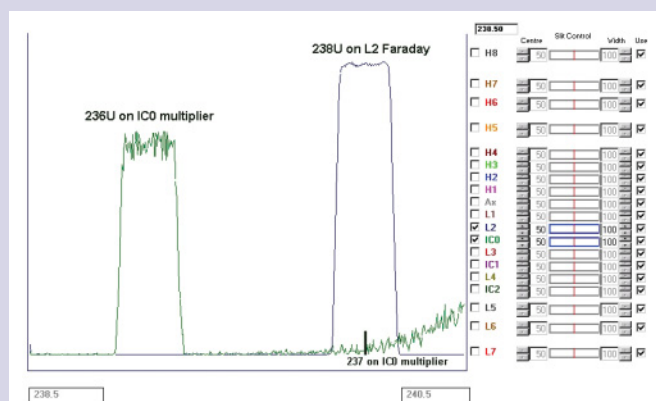
True high resolution (10% valley) of >5000 can be obtained whilst maintaining flat top peaks. Variable resolutions can be achieved on independent collectors where necessary, allowing the highest flexibility and precision for multi-collector high-resolution isotope ratio measurements.



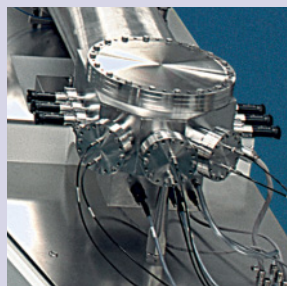
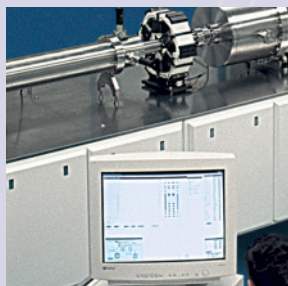
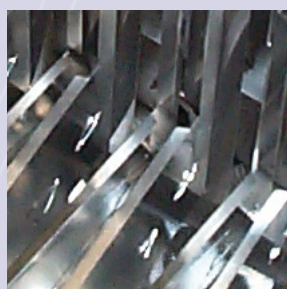
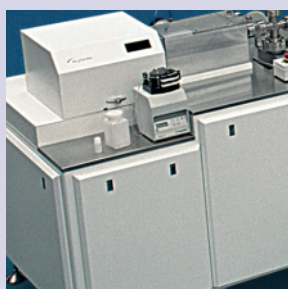
Full Resolution of Fe Isotopes from Interferences

Abundance Sensitivity

The unique features of the Nu Plasma 1700 allow the collector slits to be closed without loss of beam transmission resulting in lower measured abundance sensitivity but maintaining 'flat top' peaks. This abundance sensitivity can be obtained on all collectors and is not limited to collectors situated behind a high abundance filter. An additional filter is available which can be located in front of a single multiplier and improves the abundance sensitivity by an order of magnitude.



Abundance Sensitivity of Nu 1700



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