



 *nu instruments*  
Instruments that work

*Noblesse™*

NOBLE GAS MS



*Noblesse*<sup>™</sup>

NOBLE GAS MS

Nu Instruments introduce the latest in noble gas mass spectrometry design. Working with existing noble gas users, Noblesse<sup>™</sup> has been developed with ease-of-use, reliability and flexibility in mind. Utilising the patented zoom optics derived from the successful Nu Plasma MC-ICP-MS, Noblesse<sup>™</sup> has the capability to measure several noble gas isotopes simultaneously and to change measurement configurations instantaneously, without the need to move collectors.

## Features

High Efficiency Nier Source

Multi-Collector Options

Minimal Internal Volumes

Laminated Magnet

Total 'Dry' Pumping Technology

Small Footprint

Unique Patented Electrostatic Zoom Optics

State-of-the-Art, Purpose Built Electronics

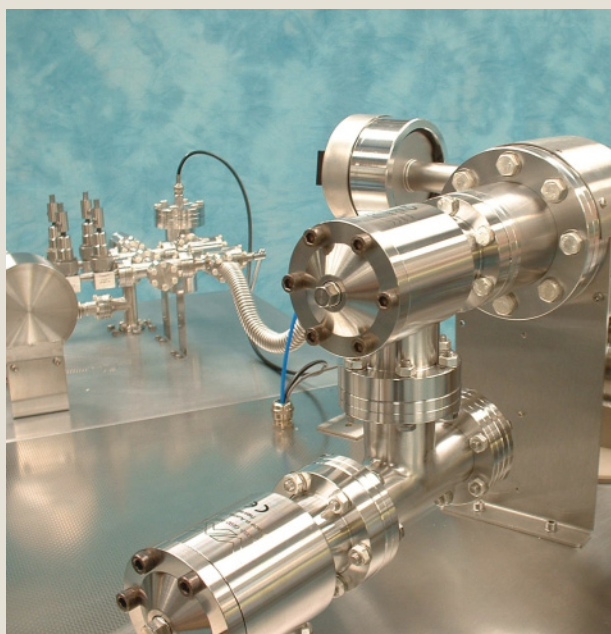
Fully Bakeable to >300°C

Intuitive Control Software Operating under Windows

Compatible with Third Party Accessories

## Source

Noblesse™ incorporates a new design of high efficiency Nier source. Filament emission, beam steering and focusing are all fully computer controlled. A unique retractable source housing allows easy access to the source and straightforward replacement of the filament.



## Zoom Optics

The zoom optics allow a fixed multi-collector system to be installed with no moving parts providing simplicity, maximum reliability and minimum volume.

Applying different voltages to the zoom optics changes the dispersion of the instrument, allowing different isotopes configurations to be measured simultaneously in the multiple collectors.

In addition, the zoom lens easily corrects for any image aberrations and has the ability to rotate the image plane eliminating any requirement for movement of the magnet.

## Multi-Collector

The standard multi-collector design incorporates a single Faraday detector in addition to two ion counting multipliers. Discrete dynode ion-counting multipliers have been selected for their excellent stability and linearity, however the design has been kept flexible to allow alternative collector configurations to be considered.

## AURORA™ - Single Collector Noble Gas MS

Based on the successful Noblesse™ range of Multi-Collector Noble Gas Mass spectrometer, the Aurora™ has a simplified collector system comprising a single Faraday detector and a single ion counting multiplier.

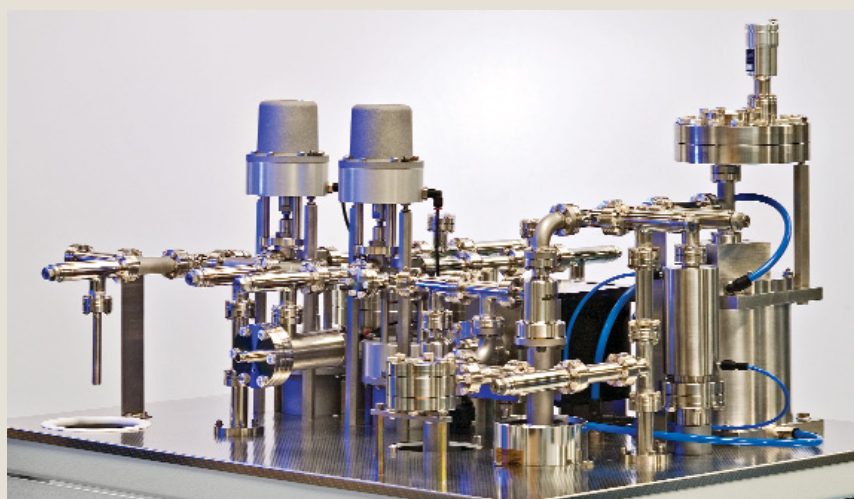
Aurora™ maintains many of the advances made with Noblesse™ including excellent peak shapes making it ideal for peak switching applications; the unique retractable ion source design allows easy service; and excellent performance and reliability.

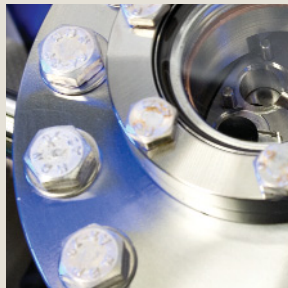
## Optional Sample Preparation System

Nu Instruments offer an all-metal sample preparation system for connection to the Noble gas mass spectrometer for use by itself or as an interface between the user's systems and the mass spectrometer inlet.

The standard arrangement comprises a resistance furnace, with a 12-sample carousel, a sample cell for the user to integrate with their own laser and a pair of gas reservoirs and calibrated volumes, to enable known quantities of reference gas to be admitted into the mass spectrometer.

The complete system is manufactured to rigorous UHV standards, and has been designed to have the smallest possible volume, whilst maintaining reasonable gas conductance, so as to ensure the lowest possible blank levels for the analyses.





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