

# apex IR

## Isotope Ratio Sample Introduction System

The Apex IR has been developed for Isotope Ratio analysis. It has an o-ring-free quartz flow path and includes an additional mixing chamber that further homogenizes and stabilizes the sample aerosol stream, resulting in a more stable signal from the ICP-MS.

Sample transport efficiency is enhanced by nebulizing liquid samples into a heated cyclonic spray chamber using a special version of the PFA MicroFlow nebulizer. A low-volume three-stage Peltier-cooled desolvation system is incorporated for on-line removal of solvent vapor.

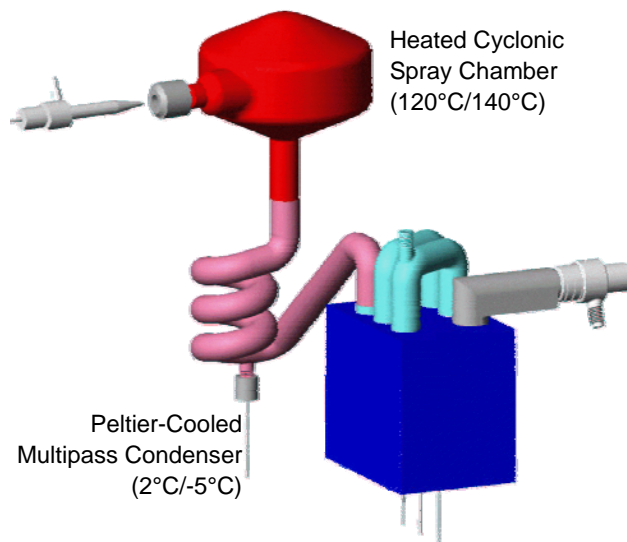
- ▲ **Increases sensitivity** by 3x to 10x, depending upon sample flow rate
- ▲ Enhanced stability, most stable system on the market
- ▲ **ppq BECs**
  - self-aspirating PFA nebulizer
  - inert, o-ring-free flow path
- ▲ **Fast rinse out** enables high sample throughput
- ▲ **Couples with nebulizers having a wide range of liquid flow rates** (10-700  $\mu\text{L}/\text{min}$ ).

### Low memory effects

- ▲ **Small size, easy installation**
- ▲ **Optional membrane desolvation**



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Total Internal Volume: 180ml

Preset dual temperature settings for heater and cooler. Patented flow path design ensures rapid wash-in / wash-out.

US Patent # 6864974

## Optional Membrane Desolvation

The addition of the ACM or Spiro can further dramatically reduce the amount of water vapor in the aerosol, reducing oxide interferences. Two membrane units are available for use with the Apex systems:

**Spiro TMD** Heated Macro-Porous Teflon<sup>®</sup> membrane.

**ACM** Cooled Micro-Porous Nafion<sup>®</sup>



Spiro TMD Module



ACM Module

