

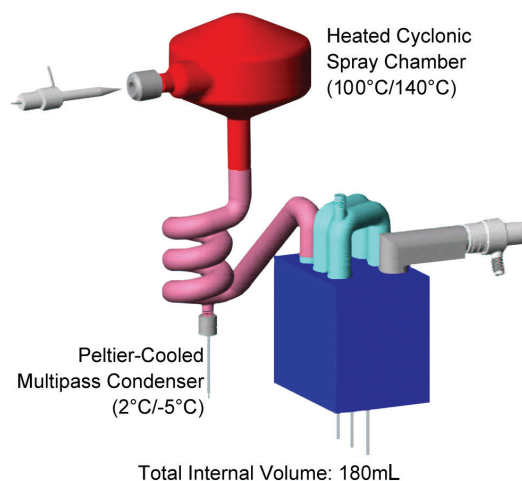


apex IR

Isotope Ratio Sample Introduction System

Highest performing ICPMS sample introduction system developed for Isotope Ratio analysis

- **O-ring-free quartz flowpath**
 - Heated cyclonic spray chamber and Peltier-cooled condensing system for enhanced transport efficiency
 - Additional mixing chamber further enhances stability
- **Increases sensitivity** by 3x to 10x, depending upon sample flow rate
- **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** (10-400 $\mu\text{L}/\text{min}$)
- **Low memory effects**
- **Small size, easy installation**
- **Optional membrane desolvation**



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

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:

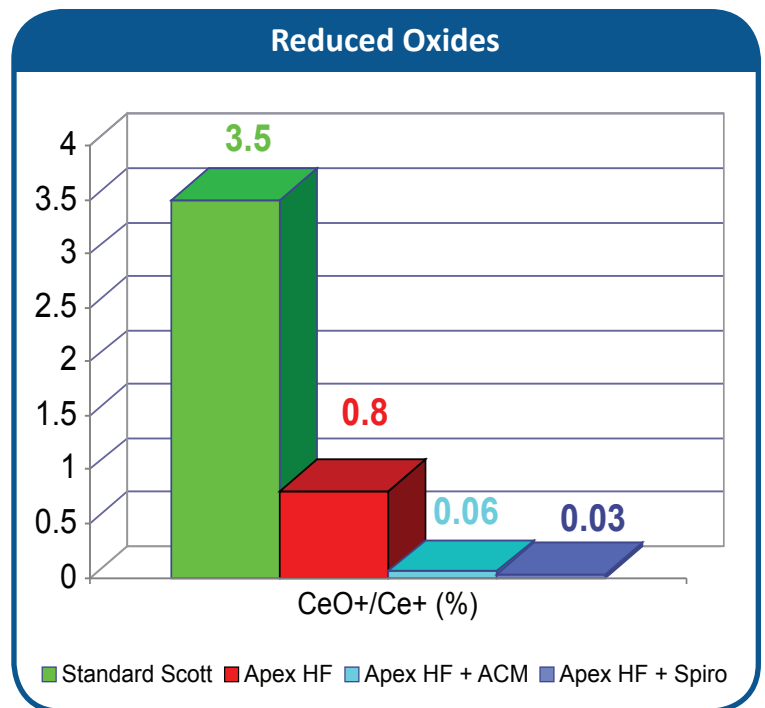
- **Spiro TMD** Heated Macro-Porous membrane
- **ACM** Cooled Micro-Porous membrane



Spiro TMD Module



ACM Module



Reduced Oxides

The addition of the ACM or Spiro can further dramatically reduce the amount of water vapor in the aerosol, reducing oxide interferences.