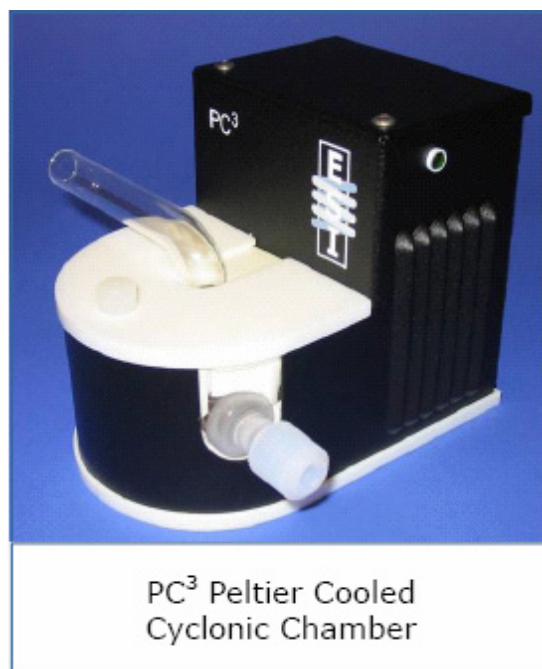


# PC<sup>3</sup> / PC<sup>3</sup>-SSI

## Sample Inlet System

Thermally stabilized inlet system for ICP-MS

The PC<sup>3</sup> is a compact Peltier Cooled inlet system which incorporates the ESI cyclonic spray chamber. The peltier within the PC<sup>3</sup> can be air or water cooled, as such the system can be connected to any ICP-MS. The PC<sup>3</sup> reduces the water vapour loading on the plasma resulting in enhance stability and performance. The spray chamber can incorporate any 6 mm nebulizer and is ideally suited to the PFA-ST Microflow nebulizer.



PC<sup>3</sup> Peltier Cooled  
Cyclonic Chamber

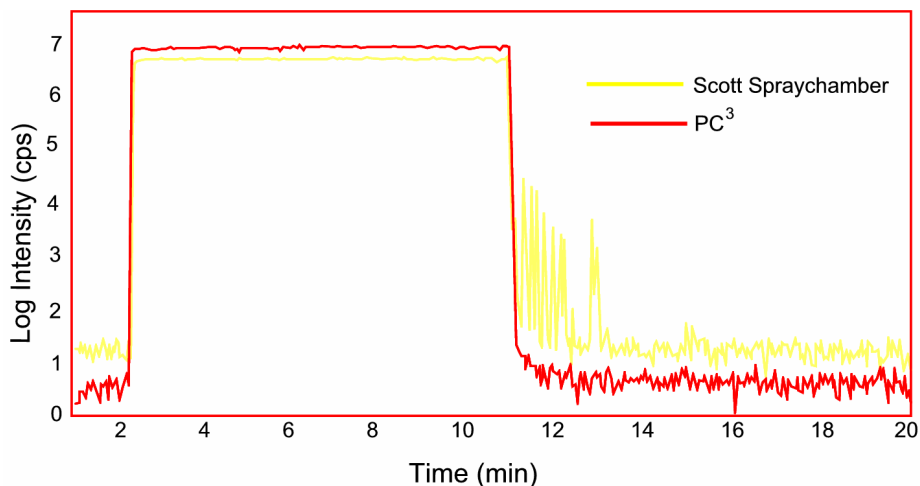
### PC<sup>3</sup> Advantages:

- Thermal stabilization of spray chamber improves long-term stability
- User-selected control of spray chamber temperature (+2 °C/ -5 °C) for aqueous or organic solvents.
- Optional oxygen gas port for organic solvent analysis.
- Interchangeable quartz, polypropylene and borosilicate cyclonic spray chambers available.
- Fast rinse-out using PFA-ST nebulizer and O-ring-free quartz cyclonic spray chamber.
- Reduced oxides
- No separate chiller required
  - - No antifreeze required
  - - No algae growth
  - - No water lines
- Robust, with very little maintenance reducing the chance of accidental breakage
- Long lifetime
- Very low maintenance

Elemental Scientific Inc.  
2440 Cuming St.  
Omaha, NE 68131 USA  
[www.elementalscientific.com](http://www.elementalscientific.com)

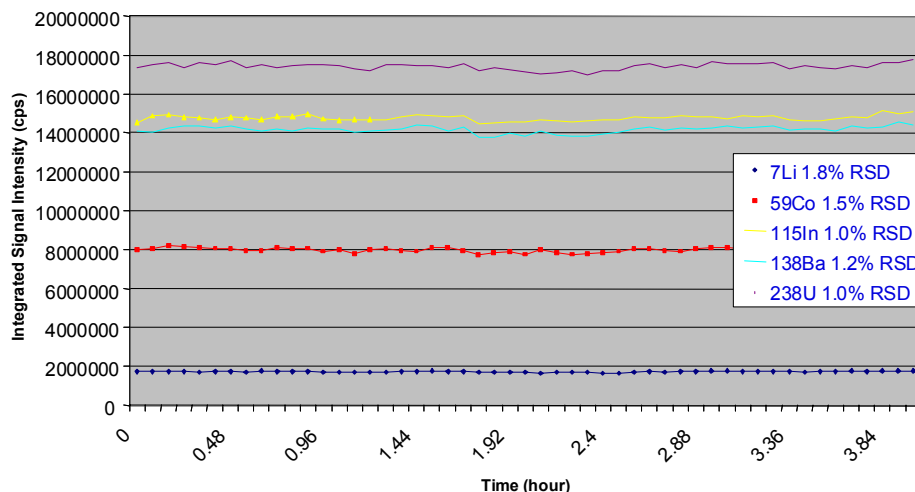
Phone: 402.991.7800  
Fax: 402.991.7799  
Email: [esi@icpms.com](mailto:esi@icpms.com)





The PC<sup>3</sup> will rinse out 5 orders of magnitude, 10ppb to 1ppt, of analyte in less than 30 seconds compared to the 3 minutes it takes the standard Scott spray chamber.

The cooled spray chamber reduces the amount of solvent reaching the plasma, this not only improves long term stability but will also reduce oxide levels from 3% with a standard spray chamber to 1% with the PC<sup>3</sup>



The PC<sup>3</sup>-SSI incorporates a dual spray chamber which further homogenizes the sample aerosol stream giving improved stability. Ideal for high precision Isotope Ratio analysis.



PC<sup>3</sup> with SSI spray chamber

Isotope	Standard Inlet	PC <sup>3</sup>	PC <sup>3</sup> -SSI
Co-59	1.03%	0.92%	0.53%
In-115	1.32%	1.08%	0.40%
Ba-138	0.96%	0.90%	0.48%
U-238	1.16%	0.93%	0.34%

Short term signal stability, 20 min analysis time n = 10

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Omaha, NE 68131 USA

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Fax: 402.991.7799  
Email: esi@icpms.com