Elemental Scientific

Apex HF

High efficiency PFA Teflon[®] sample inlet system for ICP

The Apex HF uses a high-purity PFA Teflon[®] flow path to provide resistance to hydrofluoric acid. The Apex HF is recommended for many geochemistry and semiconductor applications where samples containing HF are analyzed. An optional membrane desolvation module allows the Apex HF to be used with or without membrane desolvation depending on the user's application.



- Improves detection limits 3—7 fold depending on flow rate.
- Supplied with New PFA MicroFlow nebulizers resulting in minimum spiking and rapid rinse out.
- Minimal static effects.
- HF resistant PFA Teflon[®] sample flow path.
- User selectable sample flow rates from 20—400µL/min.
- Dual preset temperature settings for heater (105°C/140°C) and cooler (-5°C/2°C).
- Analysis of volatile analytes such as Boron and Mercury possible.
- Nitrogen addition control.
- Simple to clean and maintain.
- Integrated 4 channel drain pump.
- Upgrade with membrane desolvation.

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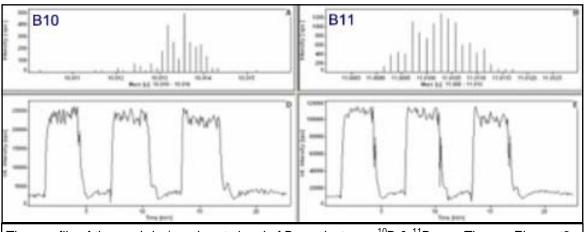
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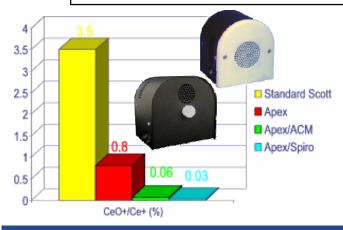
The Apex HF is over 90% efficient at introducing analyte to the plasma, resulting in dramatic improvements in sensitivity and LOD.

Sensitivity comparison (1µg/L) Apex HF vs. Crossflow Nebulizer Elan DRC II					
	Mg (24)	ln (115)	Ba (138)	Ce (140)	Pb (208)
CrossFlow	10091	27470	26366	21499	12885
Apex HF	207329	265083	302756	246960	183914

The patent pending flow path design, ensures rapid wash-in / wash-out of analyte signals, including memory prone volatile elements such as Boron.



Time profile of the wash-in / wash-out signal of Boron isotopes ¹⁰B & ¹¹B on a Thermo Element2 using the Apex HF sample inlet system.



Optional membrane desolvators:

- ACM—Cooled Nafion[®] membrane
- Spiro TMD—Heated Teflon[®] membrane

are available to further reduce solvent loading of the plasma, reducing solvent derived polyatomic interferences.

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