



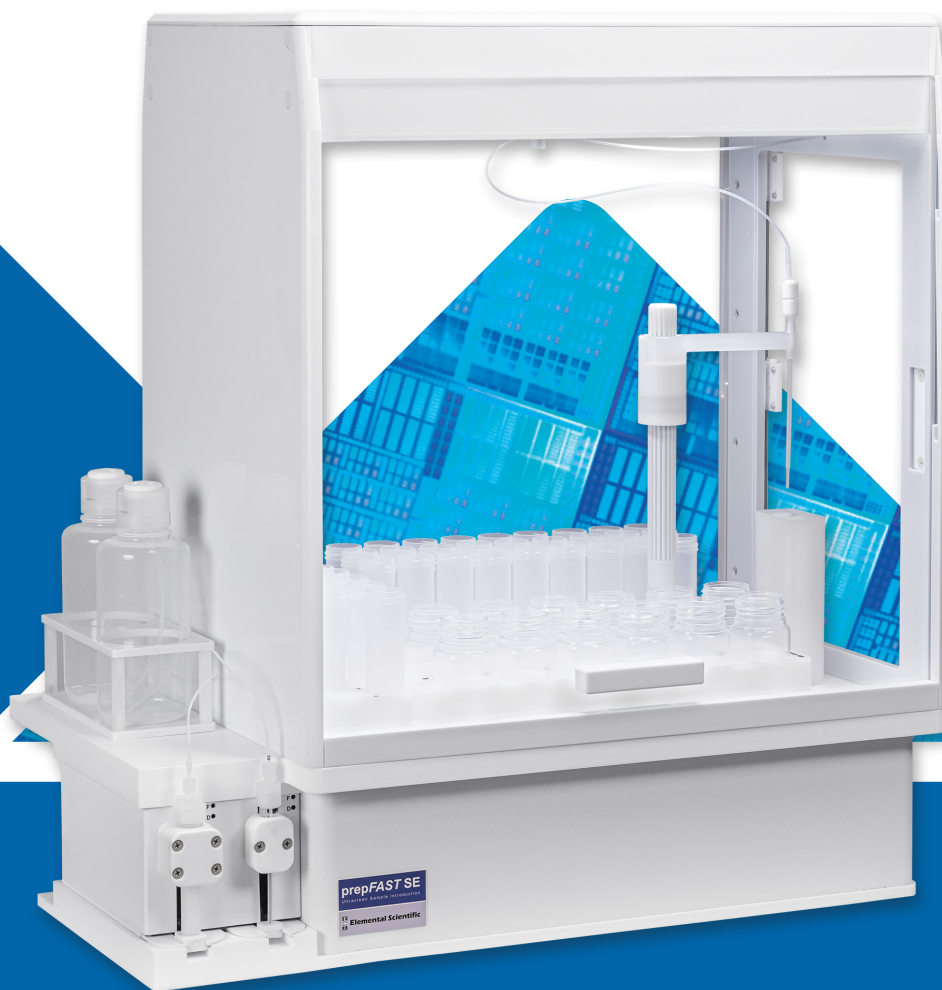
**Elemental Scientific**



**Learn More**

# **prepFAST SE**

Benchtop System for Automated Sample Introduction of  
Ultrapure Chemicals



ICP | ICPMS

## Automated Analysis of Undiluted Ultrapure Chemicals

The prepFAST SE provides automated and precise introduction of neat ultrapure chemicals featuring syringe sample delivery. The system can be configured with multiple options to tailor performance for your most challenging semiconductor-grade chemical analyses.

- Ultraclean Fluoronetic Autosampler with inert PTFE deck
- Integrated, exhausted enclosure with three-sided access for a clean sample environment
- High precision, syringe-driven sample uptake and delivery

### Fluoronetic Autosampler

- Probe arm fully encapsulated in fluoropolymer for maximum chemical resistance – no exposed metal anywhere in sample area
- Magnetically coupled linear drive for long lifetime
- DXCi autocorrecting autosampler – goes to the correct position, even when temporarily obstructed
- Continuous flowing UPW rinse
- Small benchtop footprint
  - prepFAST SE 2DX (2 large racks, 4 micro racks)

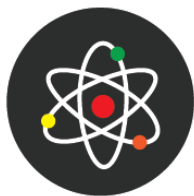
### Syringe-Driven Sample Introduction

- Eliminates fluctuations in sample flow rate common with natural aspiration
- Software controlled flow rates for each chemical
  - <50  $\mu\text{L}/\text{min}$  up to 400  $\mu\text{L}/\text{min}$
- Precise uptake and analysis of small volume samples
- High speed washout of nebulizer & spray chamber between chemical types
- Automated external calibration, MSA calibration, & QC spiking

## Fluoronetic Drive Delivers



**Superior Chemical/  
Corrosion Resistance**



**Chemically Inert  
Non-contaminating**



**Magnetic Coupling  
Eliminates Metal  
Components**



**Intelligent  
Autocorrection Always  
Finds Sample Position**

# prepFAST SE

## prepFAST SE 2DX Features Diagram

### Air Shower

- Customer supplied gas flow provides protective air barrier across openings
- ULPA filtration optional

### Ultraclean Enclosure

- Three side easy access doors
- Longitudinal exhaust manifold in sample deck
- Fumes removed at sample level

### AutoAlign Arm

- Self-realigns after encountering capped sample tube
- Metal-free fluoropolymer probe aligner

### UPW and Calibration Solution

### PFA Sample Containers

- <1 mL up to 500 mL

### Syringe Driven

- Precise ultrapure sample uptake and delivery

### Compact Inert Valves

### Fluoronetic Drive

- True fluoropolymer mechanical action
- Magnetically coupled linear drive
- Chemically resistant & long-lived

### FluoroProbe

### Dual Pumped Rinse Station

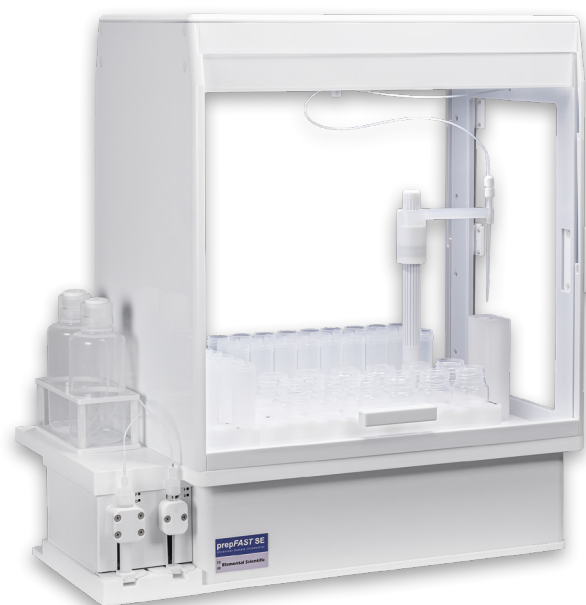
- Ultra-low cross-contamination
- Independently pumped for low rinse consumption

### PTFE Autosampler Deck

### Optional Flowing UPW

## prepFAST SE Options

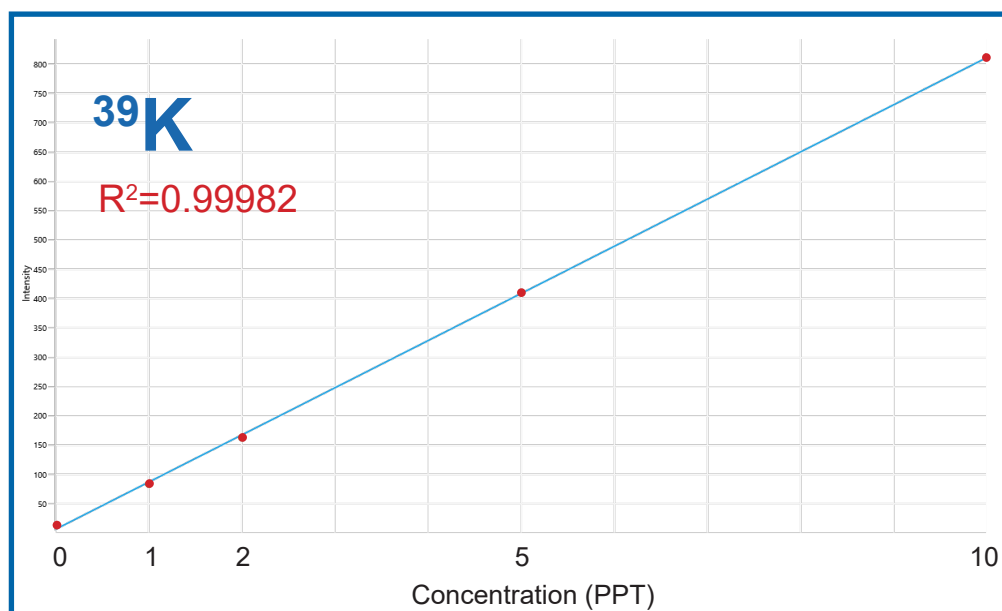
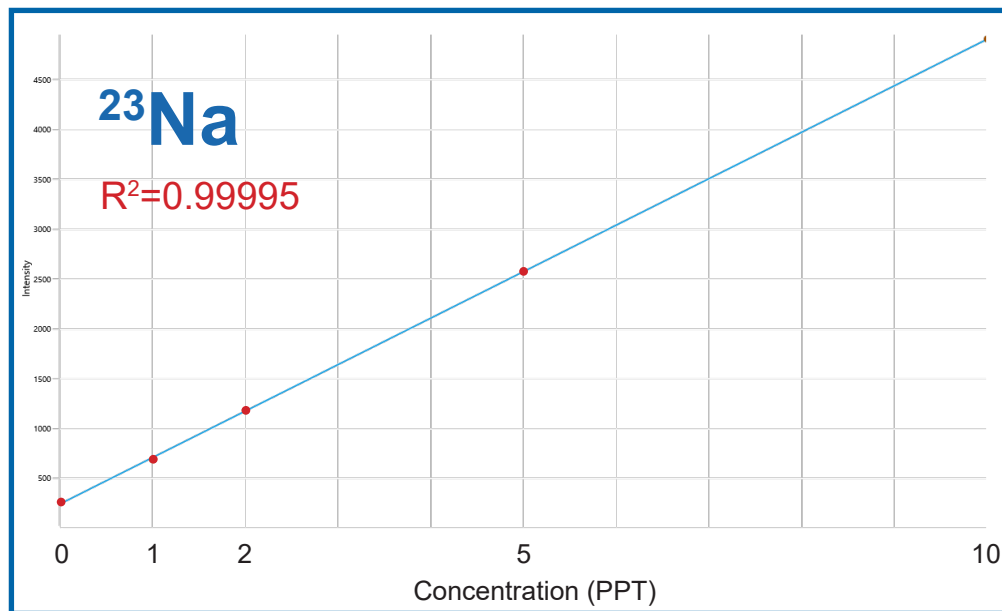
- Clean air shower with ULPA filtration
- Leak Sensors
- Valve for automated introduction of ICPMS tuning solutions
- UPW Intake Manifold and compact UPW valve
- Configurable with many PFA sample containers:
  - Micro sample vials (<1 mL)
  - 15, 30, & 60 mL vials
  - 100, 250, & 500 mL bottles



prepFAST SE 2DX

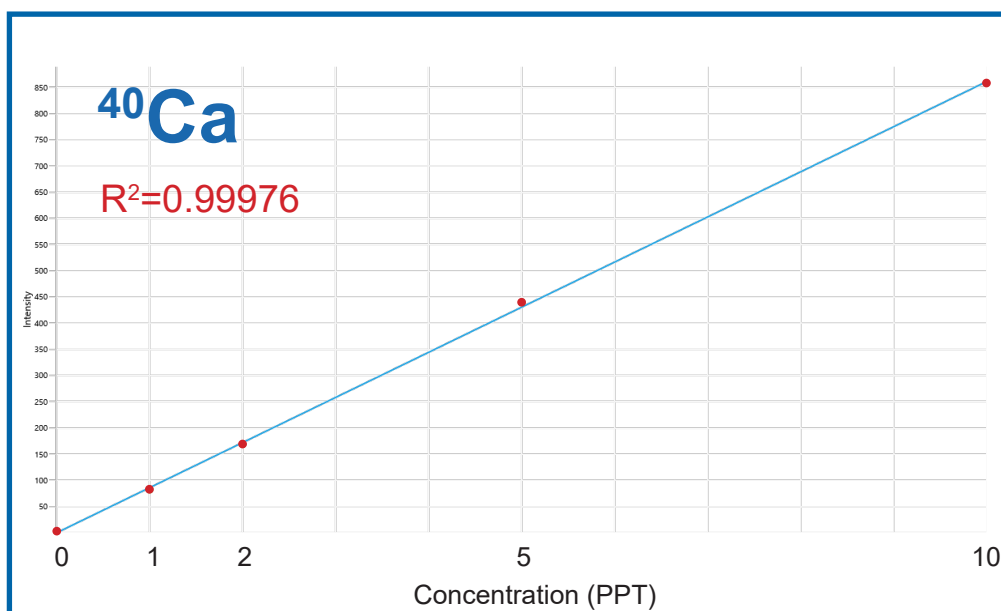
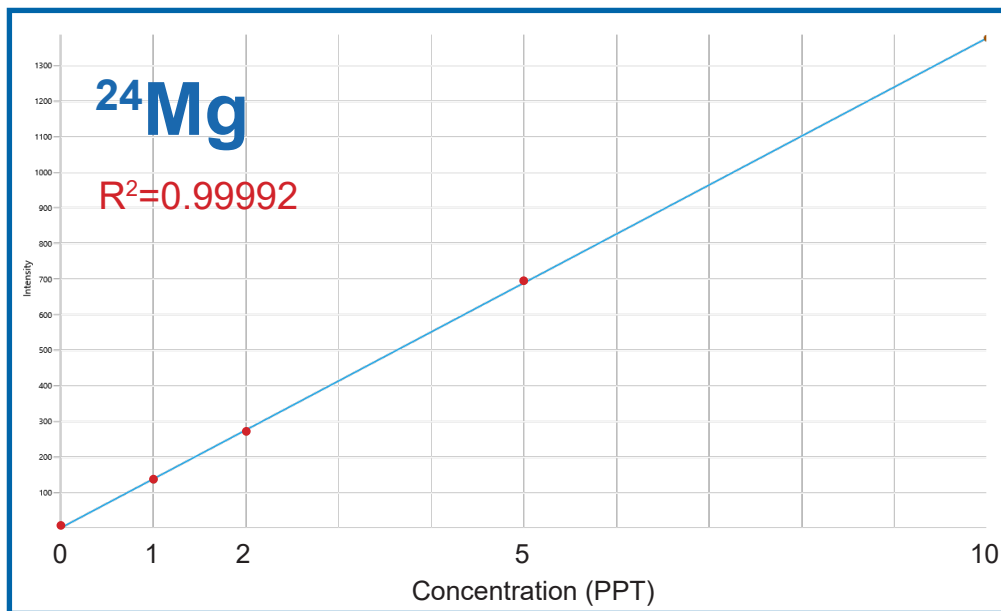


## prepFAST SE Autocalibration – Na, K, Ca, Mg at 1, 2, 5, & 10 PPT in UPW



The prepFAST SE fully automates the inline preparation of calibration standards, eliminating contamination from manual dilutions. Supports both external and method of standard additions calibration techniques.

# prepFAST SE



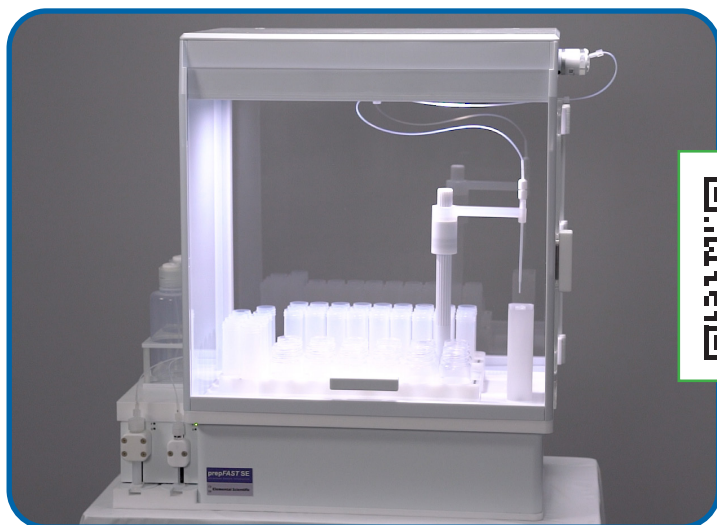
## prepFAST SE Sample Capacities



Syringe delivery of samples provides reliable and reproduceable sample introduction and eliminates issues common with natural aspiration.

		prepFAST SE 2DX
		PF-SE-2FNXS
Large Racks – Max Sample Capacity	# Rack Positions	2
	125 mL bottles (SR)	24
	50 mL tubes	52
	15 mL tubes	120
	8 mL tubes	180
Micro Racks – Max Sample Capacity	# Rack Positions	4
	15, 25, 30 mL vials	40
	1, 2, 4, 12 mL vials	84
	1, 2, 4 mL vials	160
	1 mL vials	240

# prepFAST SE



**See it in  
Action!**

prepFAST SE 2DX model configured for semiconductor grade ultra-pure chemical analysis.





**Elemental Scientific**

[www.icpms.com](http://www.icpms.com)

© Elemental Scientific | +1 402-991-7800 | [sales@icpms.com](mailto:sales@icpms.com) | 7277 World Communications Drive | Omaha, NE 68122

B-22321-1

