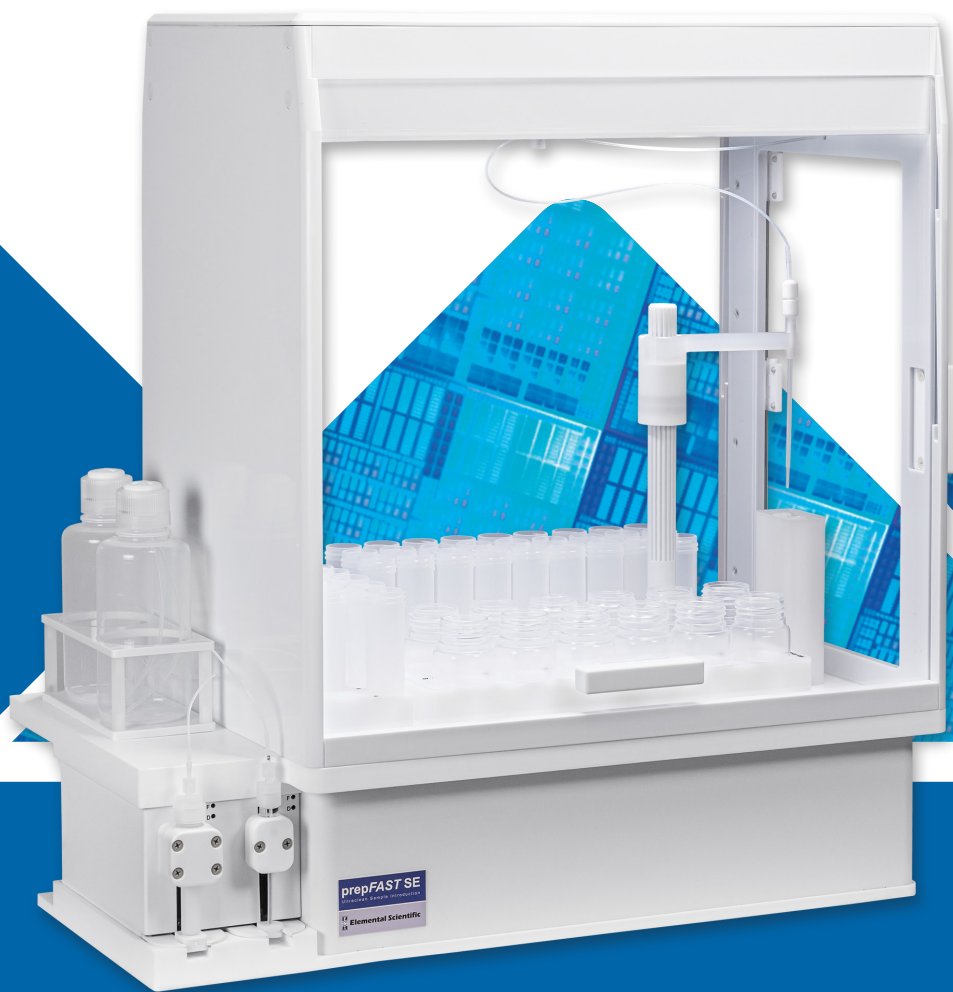




Elemental Scientific

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, available in two models
 - prepFAST SE micro (2 micro racks)
 - prepFAST SE 2DX (2 large racks, 4 micro racks)

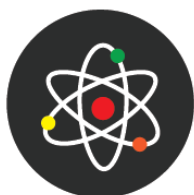
Syringe-Driven Sample Introduction

- 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

Fluoronic Drive

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

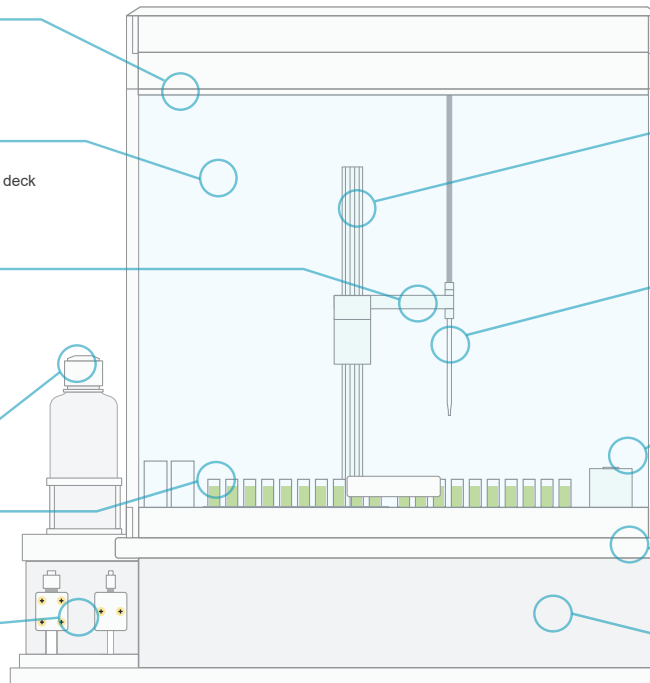
FluoroProbe

Dual Pumped Rinse Station

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

PTFE Autosampler Deck

Optional Flowing UPW



prepFAST SE Options

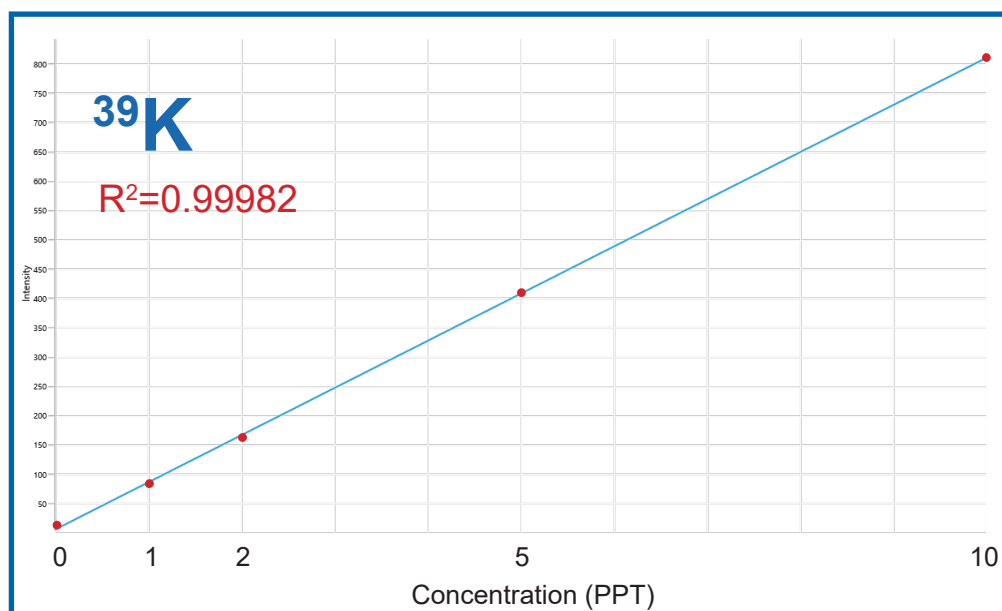
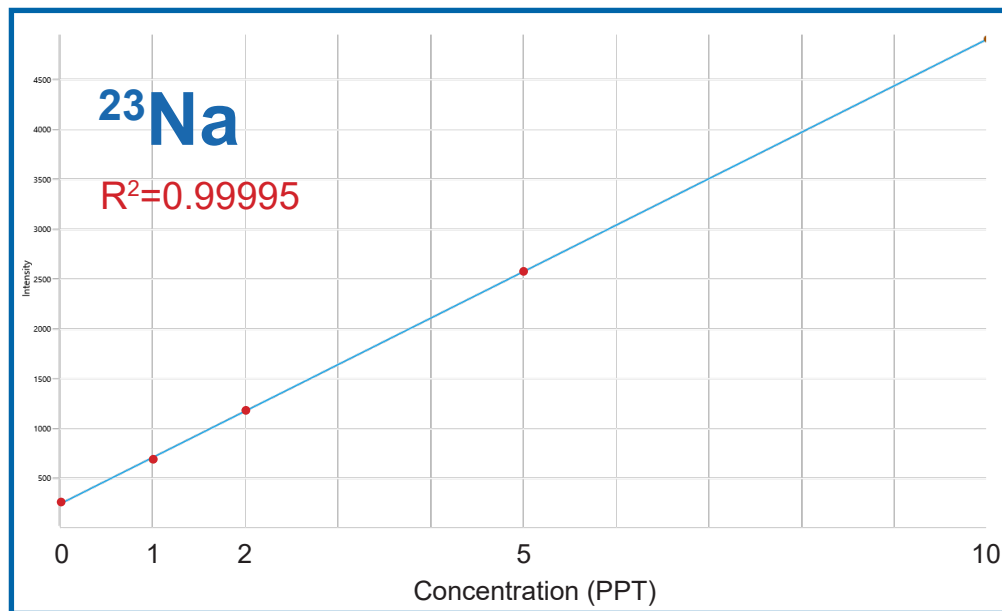
- Clean air shower with ULPA filtration
- Leak Sensors
- Valve for automated introduction of ICPMS tuning solutions
- UPW Intake Manifold and compact UPW valve
- Configurable with many PFA sample containers:
 - Micro sample vials (<1 mL)
 - 15, 30, & 60 mL vials
 - 100, 250, & 500 mL bottles



prepFAST SE micro

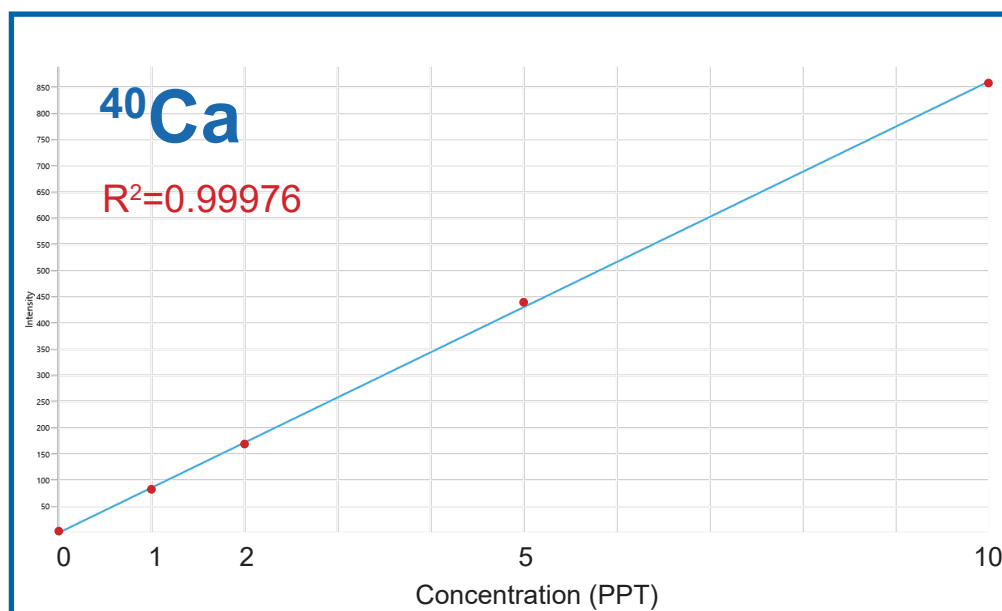
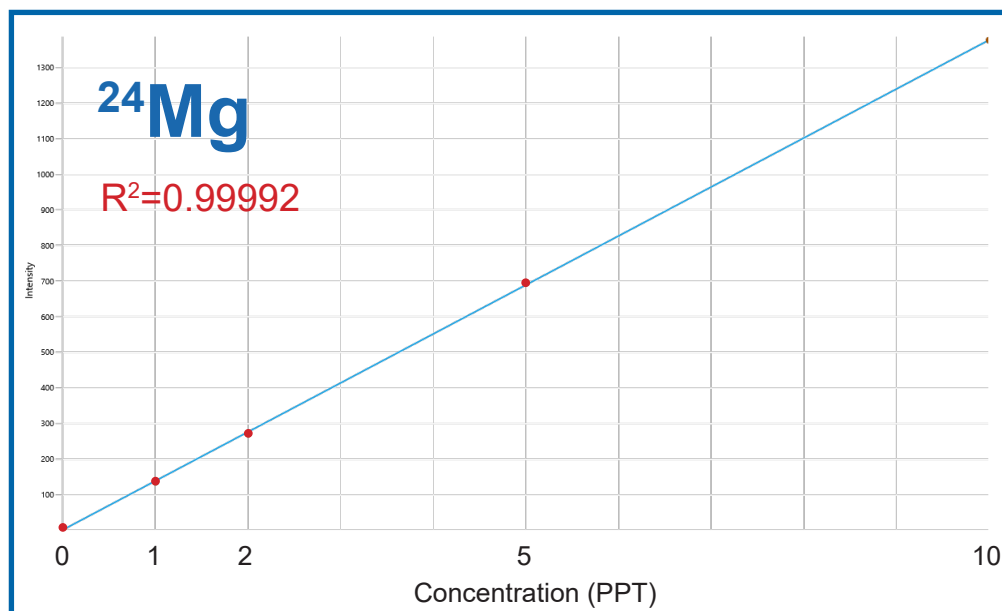
prepFAST SE 2DX

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



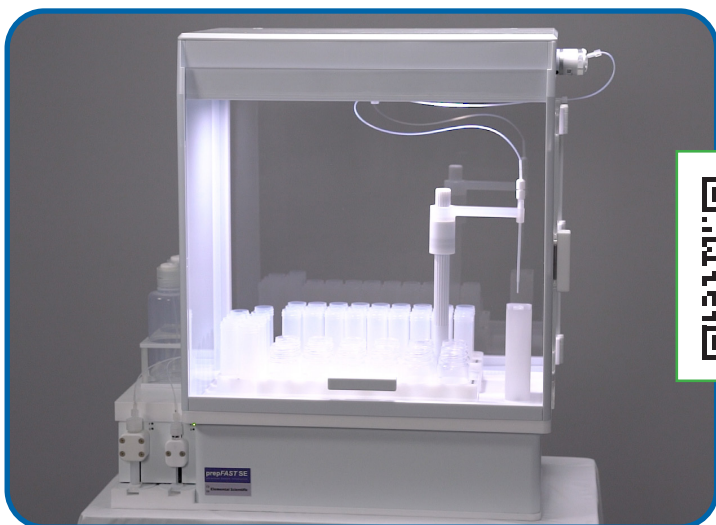
prepFAST SE Models and Sample Capacities



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

	prepFAST SE micro	prepFAST SE 2DX
Part Number	PF-SE	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	2	4
15, 25, 30 mL vials	20	40
1, 2, 4, 12 mL vials	42	84
1, 2, 4 mL vials	80	160
1 mL vials	120	240

prepFAST SE



**See it in
Action!**

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



Elemental Scientific

www.icpms.com

© Elemental Scientific | +1 402-991-7800 | sales@icpms.com | 7277 World Communications Drive | Omaha, NE 68122

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