

The S2 PICOFOX redefines portable spectroscopy, delivering uncompromising sensitivity and accuracy wherever you need it. This transportable Total Reflection X-ray Fluorescence (TXRF) spectrometer empowers you with sub-ppb detection limits and the flexibility to perform analyses both in the laboratory and on-site in the field.

The S2 PICOFOX overcomes the limitations of conventional analytical equipment. Its design eliminates the need for cumbersome gases or external cooling media, making it truly independent and ready for immediate deployment in diverse environments. Imagine the possibilities: real-time environmental monitoring, rapid on-site contamination assessments, and immediate quality control in remote locations – all with laboratory-grade precision.

FEATURES

- True Portability for In-Field Element Analysis
- Fast Time to Result
- Unrivalled Sub-ppb Limits of Detection
- Analysis of Nanogram to Microgram Sample Amounts
- Simultaneous Multi-Element Trace Analysis, Including Halogenides Like CL
- Simplified Quantification Without Daily Calibration
- Versatile Application Across Diverse Sample Types
- Low Operating Cost, No Consumables or Maintenance

APPLICATION

- On-Site Environmental Monitoring
- Rapid Industrial Quality Control
- In-Field Geological and Mining Exploration
- Forensic Investigations at the Scene
- Archaeological and Conservation Fieldwork
- Remote Clinical and Biological Sample Screening
- Agricultural Analysis in the Field



Technical Specifications

Element Range	Mo excitation: Al to U (with exception of Nb to Ru)
Concentration	ppb to 100%
Detection limit	< 2 pg Nickel
Sample Types	Liquids, suspensions, powders, particles, metals, thin layers, tissues, wipes, filters etc.
Sample Volume	Liquids and suspensions from 1 µl to 50 µl Particles up to 100 µm in diameter, powders up to 10 µg
Sample Carrier	25 quartz and 100 acrylic glass carriers (30 mm diameter) included in delivery
Sample Changer	Manual version for single samples Automatic version with cassette for up to 25 samples
X-ray Tube	50 W metal-ceramic, max. 50kV, 1 mA
Z-ray Optics	Multilayer monochromator
Detector	Peltier-cooled XFlash® Silicon Drift Detector No need for liquid nitrogen 60 mm ² detector area Energy resolution < 149 eV at 100 kcps (Mn Ka)
Interface	Data exchange by RS232 serial interface Sample changer with RS232 (automatic version)
Mains	100/240 V, 50/60 Hz, max. power consumption 180 W
Size	11 in x 23.2 in x 17.7 in (300 mm x 590 mm x 450 mm)
Weight	86 lbs. (39 kg)
Accessories	Washing cassette for sample carriers Sample cassette for 25 carriers Starter set for TXRF (pipettes, tips, tubes, mortar, spatula)

CALL GEOTECH TODAY

(800) 833-7958

Geotech Environmental Equipment, Inc.

2650 East 40th Avenue Denver, Colorado 80205

(303) 320-4764 FAX (303) 322 7242

email: sales@geotechenv.com website: www.geotechenv.com

Request
Information

System Configurations		
	S2 PicoFox 200	S2 PicoFox 400
Basic System		
Benchtop housing with Sample Changer, Control unit with electronics, HV generator	✓	✓
Sample Changer Specification	single	automatic
Excitation		
Air-cooled X-ray tube, Mo target, 50 W	fine focus tube	micro focus tube
Multilayer monochromator, 17.5 keV	flat	curved
Detector		
XFlash® Silicon Drift Detector, liquid nitrogen-free, 60 mm ² , < 149 eV	✓	✓
Extensions		
	✓	✓
Gas purge system for nitrogen	-	optional
Computer		
Configured notebook, International Package	✓	✓
Software		
Measurement software S2 PicoFox Control	✓	✓
Super Bayes Quantification routine	✓	✓
Measurement job editor for automatic sample changer	-	✓
Sample Tools		
Set of 25 quartz discs	✓	✓
100 disposable sample discs, diameter = 30 mm	✓	✓
Sample cassette for 25 discs	-	✓
Washing cassette	✓	✓
Sample container for 1 disc, set of 25	✓	✓
Tool for sample centering	✓	✓

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