



Portable Deuterium Oxide Sampler

Model: D₂O-STA and D₂O-FTA

**D₂O-S-TA Sampler
with Display**

Features

- Portable
- Detects Deuterium Oxide in Water
- Infrared Spectrometry
- Attenuated Total Reflectance (ATR)
- Touch Panel Display
- D₂O-STA with TA Specific Software
- AC Power with Rechargeable Battery Back Up
- Quick-Snap Sampling Module
- 10-Year Laser Warranty
- Small and Lightweight
- Computer Interface
- **Optional:** Flow Through Feature—D₂O-FTA

Application

Water. Liquid, or Gas sampler for Deuterium Oxide concentration. Use in a lab, NPP, glovebox, fume hood, etc. Model D₂O-STA has a 10 year-warranty on defects on parts or laser.

Description

- Easy setup.
- No sample preparation required.
- Measures quantity of regular water mixed with heavy water (Deuterium Oxide).
- Small size allows positioning inside glove box or fume hood.

Technical Associates provides and supports a portfolio of fully integrated solutions for accurate analysis of liquid gas and solid substances including the optimal analytical FT-IR technology to identify, measure, categorize substances in many applications such as R&D, QC and process control.

FT-IR spectrometers offer many advantages over other analysis techniques. Most importantly, a drastic reduction of the time needed for data acquisition, component specificity and sensitivity.



TECHNICAL ASSOCIATES OVERHOFF TECHNOLOGY

7051 ETON AVENUE, CANOGA PARK, CALIFORNIA 91303

PHONE: 818-883-7043 | FAX: 818-883-6103

SALES@USNUCLEARCORP.COM | TECH-ASSOCIATES.COM | USNUCLEARCORP.COM

DIVISIONS OF



USNUCLEARCORP

OTCQB-UCLF

Portable Deuterium Oxide Sampler

Model: D₂O-STA and D₂O-FTA

Specifications

Detector:	High sensitivity temperature-controlled DLaTGS detector. (Deuterated lanthanum triglycine sulfate).
QuickSnap™	Easy sampling module: Platinum-ATR: Single reflection ATR with monolithic diamond, soldered in tungsten carbide hard metal for highest mechanical and chemical robustness; optional heating function.
Life Time:	>10 years
Optics:	Sealed and desiccated; Mirrors: Gold coated for highest efficiency in the Mid-IR spectral range; KBr windows and beamsplitter; Optics with ZnSe beamsplitter and ZnSe windows Option "High Humidity"
Calibration Laser:	Diode laser with high wavenumber accuracy and precision
Life Time:	>10 years) and low power consumption.
Wavenumber Precision:	Repeatability <0.0005 cm ⁻¹ @ 2,000 cm ⁻¹ (standard deviation of 10 repeated measurements)
Wavenumber Accuracy:	<0.05 cm ⁻¹ @ 2,000 cm ⁻¹
Photometric Accuracy:	Better than 0.1% T
Spectral Range:	350 – 8,000 cm ⁻¹ with standard KBr beam splitter 500 – 6,000 cm ⁻¹ option: High Humidity" ZnSe optics
Spectral Resolution:	Better than 2 cm ⁻¹ , optional better than 0.75 cm ⁻¹ free adjustable resolution from 0.75 cm ⁻¹ to 256 cm ⁻¹
Measurement Time:	1 min, spectral resolution 4 cm ⁻¹
Measurement Ratio:	D₂O – H₂O – any ratio up to 100% Optional: H₃ in D₂O – any ratio up to 100%
Power Requirements:	Standard rechargeable batteries. Optional AC
Computer interface:	Integrated touch panel pc (Option), remote control via WLAN (Option , e.g. for use in glove box)
Operating System:	Windows 7, Windows 10
Dimensions:	D ₂ O-STA - approx. 8.2 in x 13.4 in x 13.4 in (267 x 340 x 340 mm)
Weight:	Approx. 22lbs (10 kg)



TECHNICAL ASSOCIATES OVERHOFF TECHNOLOGY

7051 ETON AVENUE, CANOGA PARK, CALIFORNIA 91303

PHONE: 818-883-7043 | FAX: 818-883-6103

SALES@USNUCLEARCORP.COM | TECH-ASSOCIATES.COM | USNUCLEARCORP.COM

DIVISIONS OF

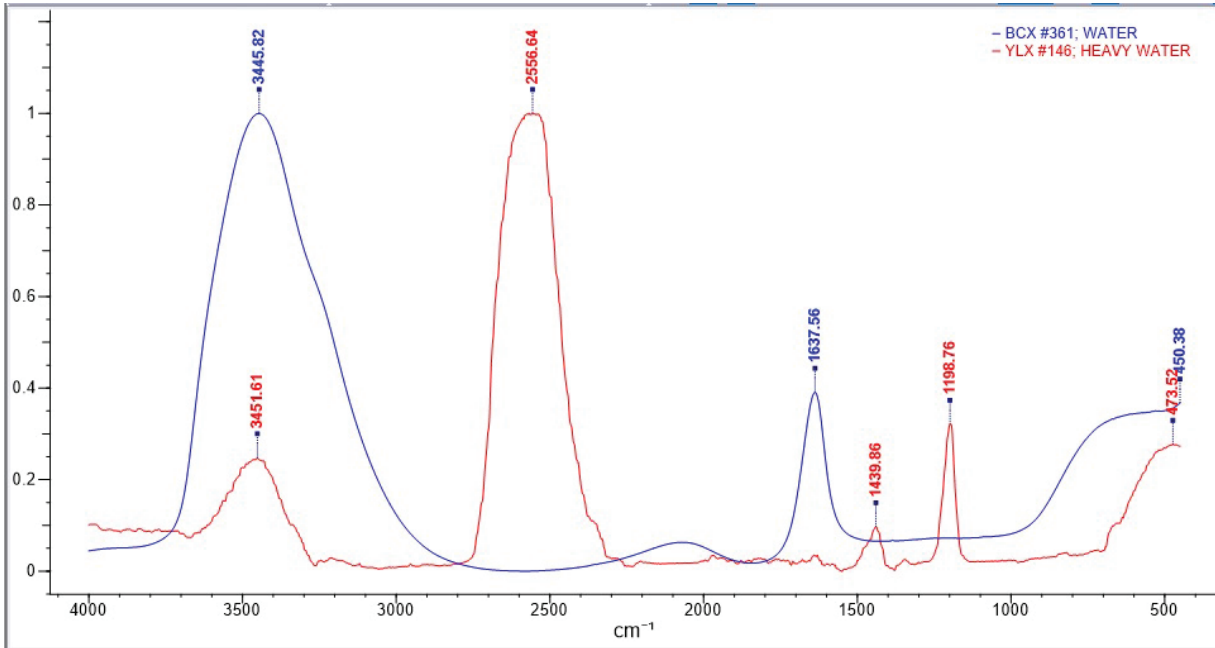


USNUCLEARCORP

OTCQB-UCLF

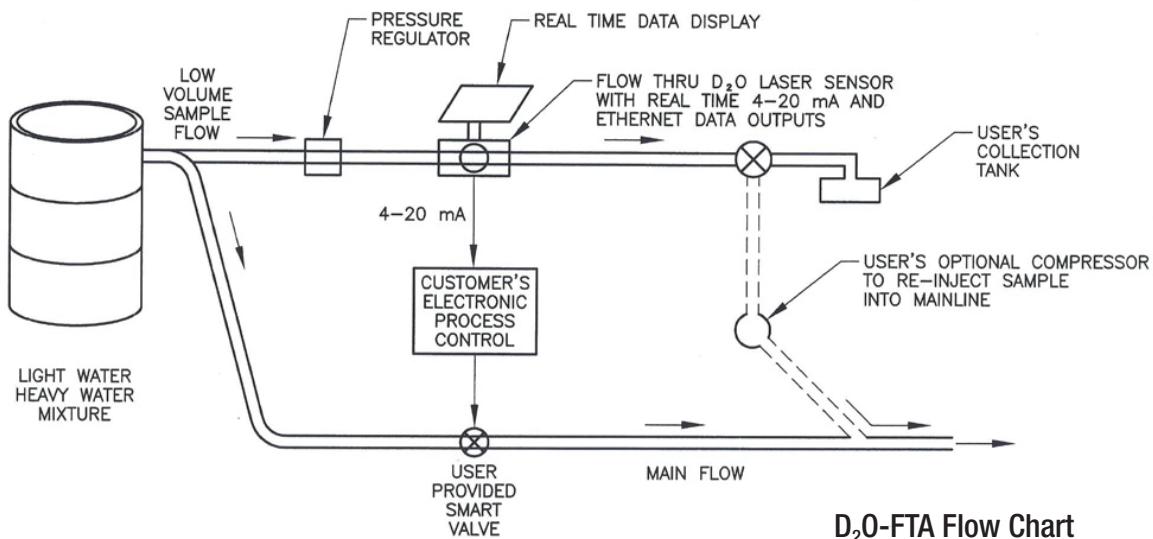
Portable Deuterium Oxide Sampler

Model: D₂O-STA and D₂O-FTA



Deuterium Oxide Graph Example

SAMPLE RE-INJECTION FLOW



D₂O-FTA Flow Chart




TECHNICAL ASSOCIATES OVERHOFF TECHNOLOGY

7051 ETON AVENUE, CANOGA PARK, CALIFORNIA 91303

PHONE: 818-883-7043 | FAX: 818-883-6103

SALES@USNUCLEARCORP.COM | TECH-ASSOCIATES.COM | USNUCLEARCORP.COM

DIVISIONS OF
 USNUCLEARCORP
OTCQB-UCLC