

PORTABLE DEUTERIUM OXIDE SAMPLER

Model ~ D₂O-STA & D₂O-FTA

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



**D₂O-S-TA SAMPLER
WITH DISPLAY**

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**

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- **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:** D₂O-STA - approx. 8.2 in x 13.4 in x 13.4 in (267 x 340 x 340 mm)
- **Weight:** Approx. 22lbs (10 kg)

- **OPTIONAL FLOW THROUGH FEATURE**



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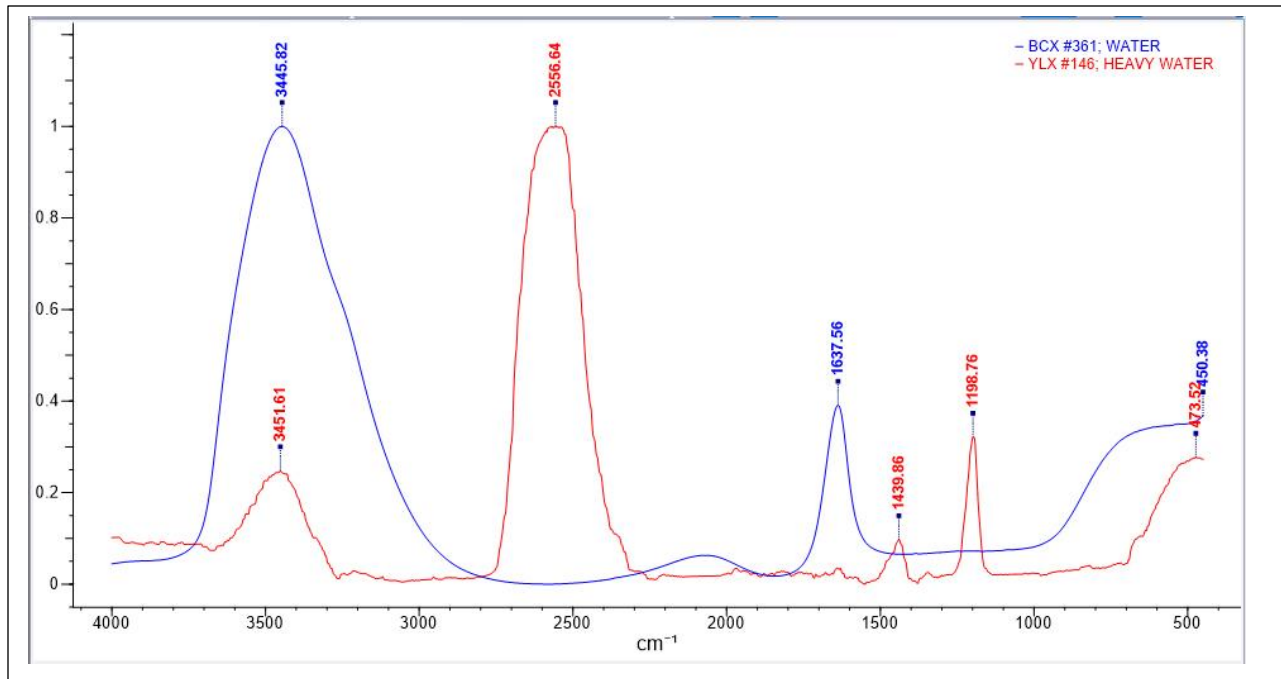
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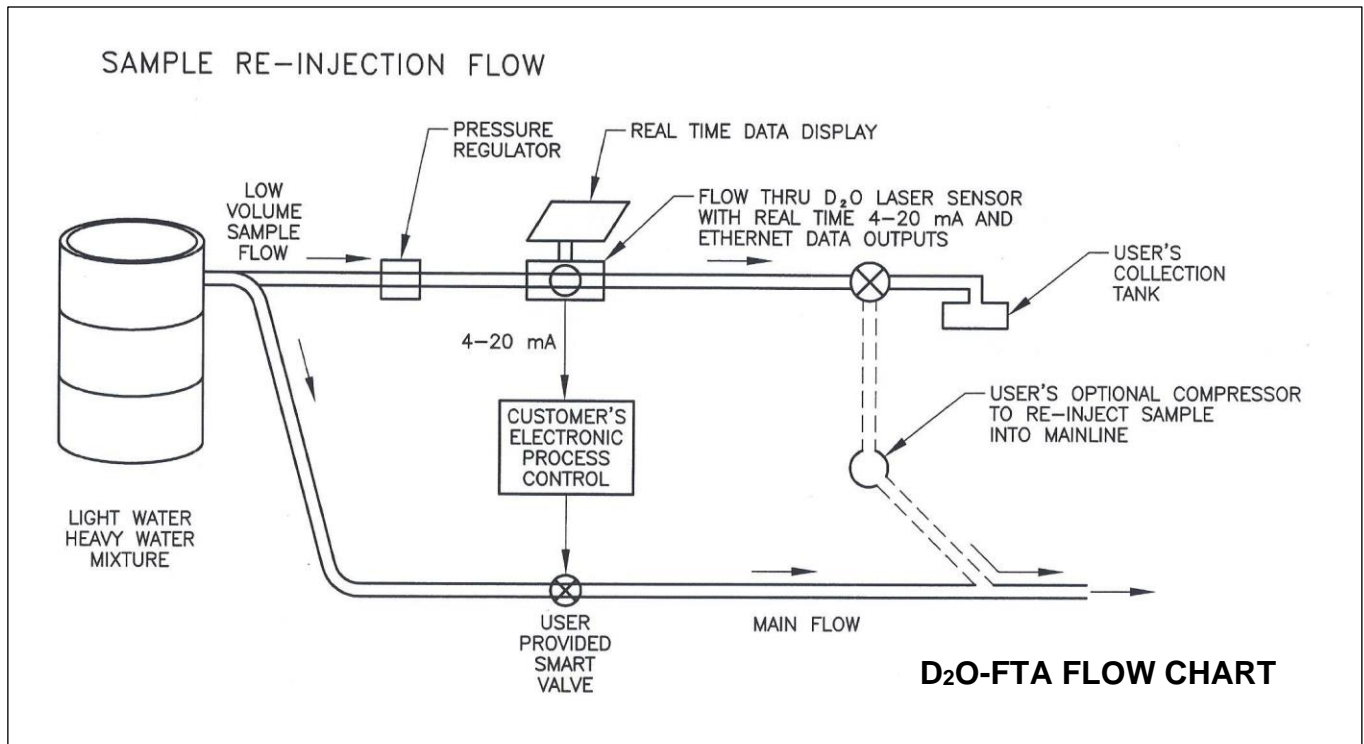
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DEUTERIUM OXIDE GRAPH EXAMPLE



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