

Gas Auto-Sampler (AS-110)

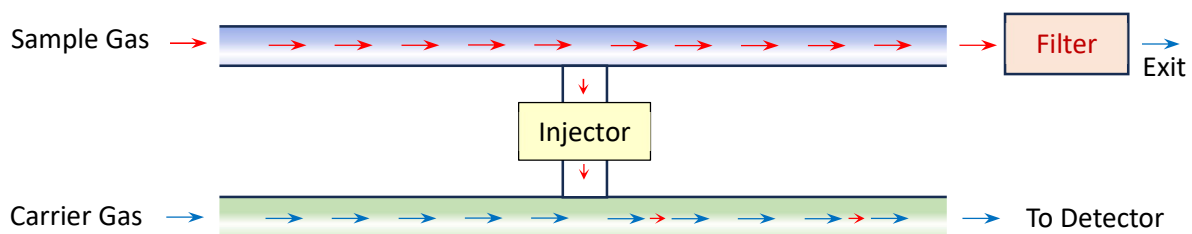
Automated Sampling

More Accurate Measurement



The TOF Tech Gas Auto-sampler (GAS-110) automates the sampling of gaseous samples from cylinders, ambient air, or reservoirs for analysis on an Ion Mobility Spectrometer (IMS) or other sensors. This stand-alone device mixes a fixed volume of the sample with a carrier gas that enters the detector, ensuring precision. The mixing ratio is customizable based on the application, sample concentration, and detector sensitivity.

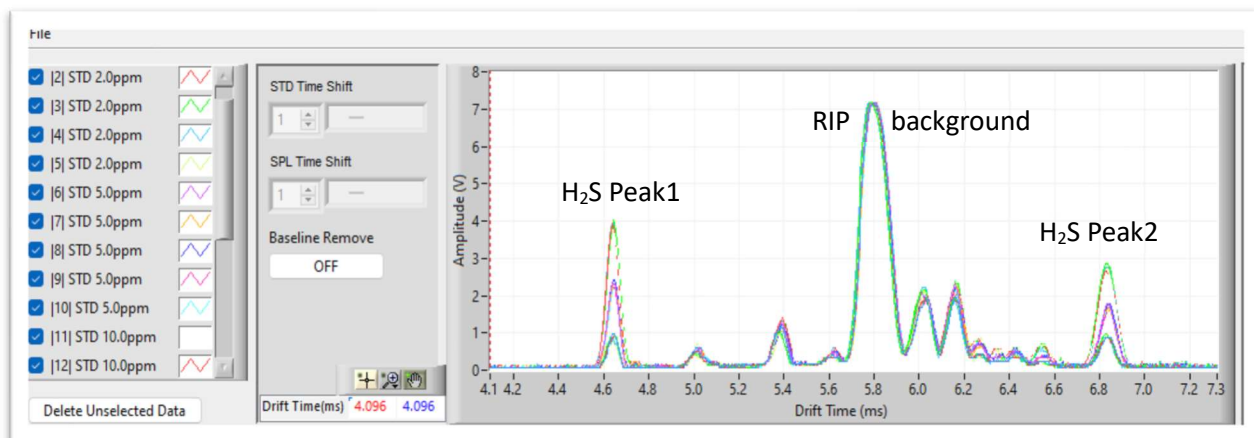
The software offers options for both manual and automatic injection, allowing users to set their desired sampling frequency.



The Gas Auto-sampler is a stand-alone device that uses an innovative design to deliver precise volume of sample to the IMS, independent from the sample flow and pressure, through an inert bridge, eliminating adsorption along the sample path. The system performs a purge step between each sample injection to minimize cross-contamination.

Precision and Accuracy

Standard gas samples of H₂S at 2, 5, and 10 ppm were introduced to the auto-sampler. Each sample was injected five times, and ion mobility spectra were recorded. The reactant ion peak remained consistent across all spectra, while the analyte peak varied.

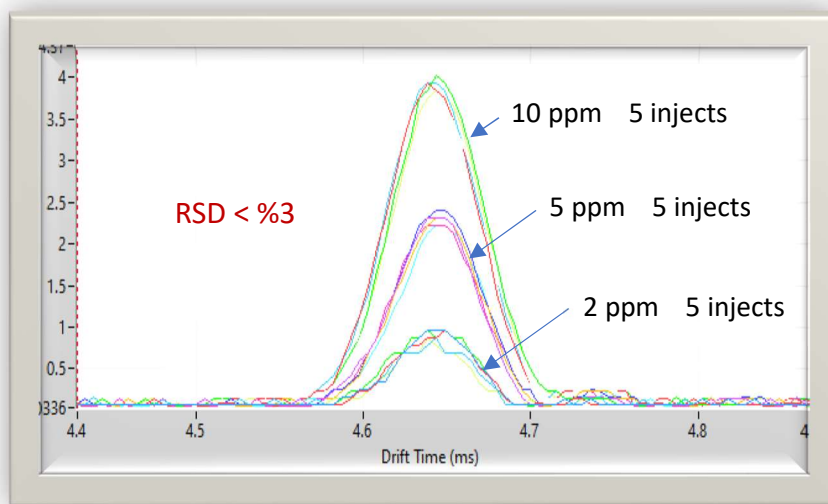


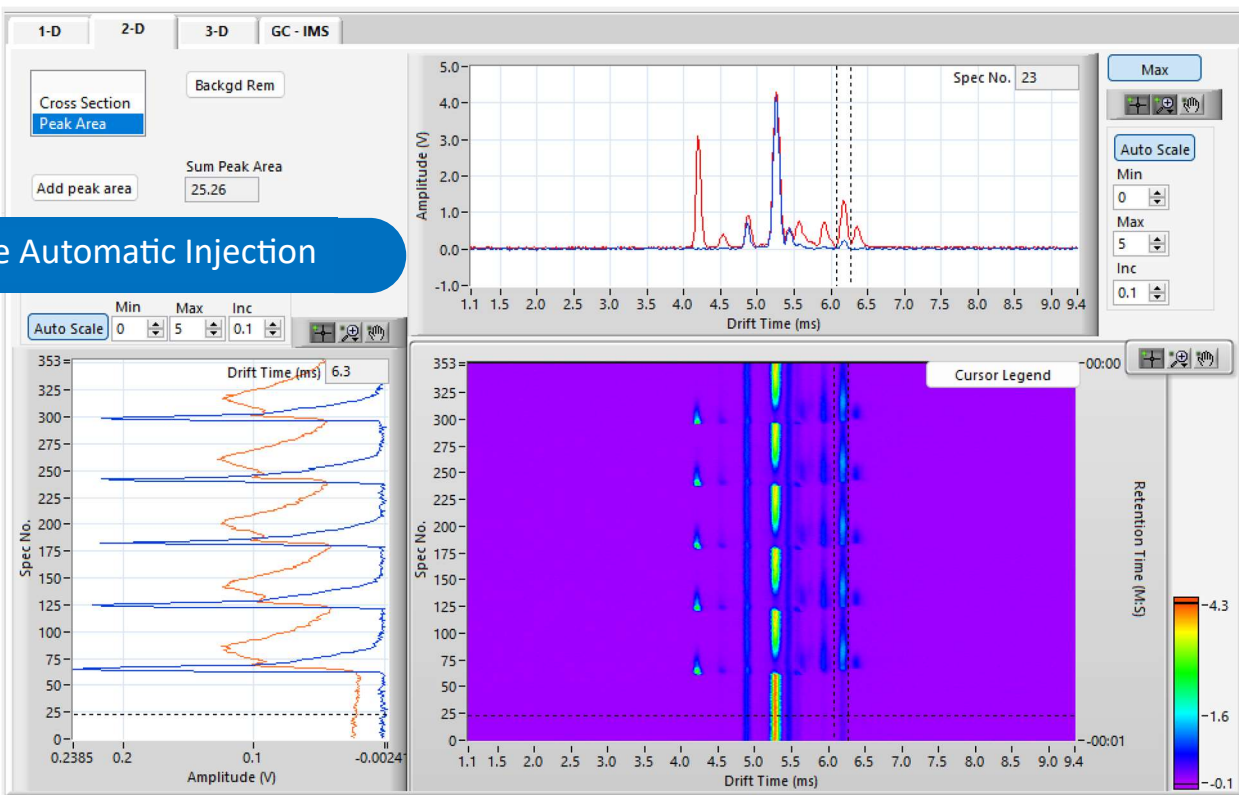
The analyte peaks at each concentration exhibited similar intensities with a Relative Standard Deviation (RSD) of less than 3%.

Advantages

- No need to repetitive time-consuming tasks
- Saving time and money
- Faster sample analysis
- Increased efficiency
- Accurate sampling
- More precise
- User-Friendly
- Consistent

Repeatability





Repetitive Automatic Injection

Product Specifications and Features

- Compatible with IMS-500
- Compatible with VisIMS software in advanced mode
- Maximum sample pressure: 140 psi
- Injects 10 μ L sample
- Mixing Ratio up to 1:100
- Gas purge to minimize cross-contamination
- Special material and tubing for corrosive components such as H₂S
- Exchangeable filter to absorb toxic samples
- Flowmeter for carrier gas and sample gas
- Pressure regulator for the sample gas
- Manual or Automatic injection option
- Injects 5 times with 10 second intervals (custom designs are available upon request).

Applications

- Gas and Oil Refinery
- Petrochemical Industry
- Air quality monitoring
- Chemical Production Lines
- Analytical Laboratories
- Online monitoring of gas composition



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