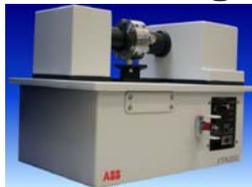


# IRGAS High Pressure Gas Analyzer



## Applications

- Research Studies
- Hydrocarbons
- Moisture Analysis
- Corrosive and Toxic Process Gases
- Process Gases

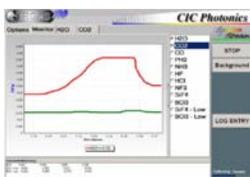
## System Specifications

System Components  
Bomem WorkIR Spectrometer  
CRV High Pressure Gas Cell

Sensitivity Range  
Pressure dependent, contact CICP

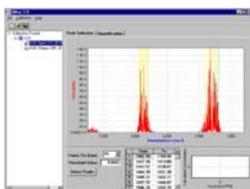
Pressure Range  
150 to 2000 psi

Temperature Range  
0°C to 300°C

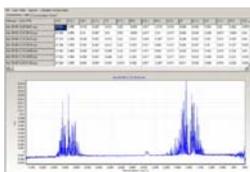


## About IRGAS HPA

CIC Photonics, Inc. is dedicated to providing today's growing industries with the highest sensitivity and fastest time response instrumentation. Our analyzers are used worldwide in a variety of different arenas, and although CIC Photonics has a set of core systems, we pride ourselves on truly meeting the needs of our customers by adapting the core analyzers to their specifications.



Our IRGAS High Pressure Gas Analyzer incorporates a rugged FTIR spectrometer with a stainless steel high pressure gas cell. This combination produces an analyzer that can handle some of the most demanding applications. The IRGAS High Pressure Gas Analyzer is ideal for applications requiring high pressure analysis and has rapid gas exchange due to its low internal volume.



Included with the IRGAS High Pressure Gas Analyzer is CIC Photonics patented SPGAS analytical software package. This package does everything from concentration tracking and hardware managing to allowing the user to recalculate previously collected data within minutes. The limits of detection (LODs) for the IRGAS HPA are pressure dependent, please contact us for LODs.

Each IRGAS system is incorporated with CIC Photonics patented SPGAS analytical software package. This package includes the following patented softwares: IRGAS 100 or IRGAS 100 with SpectraStream, Qmax, Configuration Manager, and Reprocessing Tool. These programs provide a unique solution to analytical problems. All of the programs are extremely user friendly so that the programs can be operated by anyone regardless of skill level. The IRGAS 100 software provides real-time monitoring of species concentration, while also having the capabilities to control various hardware components within the system. Some of the hardware components that can be managed by the software are valves, pressure transducers, temperature controllers, etc....

Working with the SPGAS software, SpectraStream allows the user to view changes in species concentrations within seconds of the changes happening through the program's Fast Concentration Tracker by decreasing the response time that is typically associated with FTIR.

The systems calibrations are generated in the Qmax program which permits the user to easily generate calibrations and/or add new species to preexisting calibrations. In addition to creating new calibrations, Qmax can be used to apply correction factors to current calibrations.

The IRGAS Configuration Manager is a program that contains all of the information regarding the system in one central location. In the Configuration Manager the user can find various parameters for the system that can be altered to their needs.

Our most recent program added to the software package is the Quantification Reprocessing Tool. This program allows the user to recalculate data that had been previously collected. Instead of having to recollect data for temperature and pressure changes, a user can enter the new parameters in the Quantification Reprocessing Tool and the program will recalculate the data with the new parameters. As well as recalculating new parameters it can reprocess using new calibration files that have more or less species being quantified. The Quantification Reprocessing Tool can also be used to determine the accuracy of a calibration file and help to determine the correction factor needed for calibrations. Collected spectra can also be displayed and viewed sequentially in the Quantification Reprocessing Tool allowing the viewer to see slight changes in the spectra.

### **Analyzer Options**

- Digital Analog Output
- Valving Manifold
- Automated Manifold
- Computer
- Script Editor Software (runs automated manifold)
- Moisture Reduction Stack
- Cabinet/Rack Mount
- Additional Analyzers (O<sub>2</sub>, H<sub>2</sub>, THC, etc.)
- Multipoint Monitoring
- Heated/Unheated Sampling Systems