

analytix

Supplier of Analytical Instrumentation



Analytix Product Portfolio



## ANALYTIX LIMITED

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Analytix Ltd supplies laboratory sample preparation systems and analytical instrumentation for the chemical and life science fields. The product range includes:

- Microwave systems for digestion, extraction, ashing, and synthesis
- Pyrolysis systems for thermal sample preparation
- Thermal desorption and headspace systems
- Purge & trap instrumentation
- Mercury analysers
- MicroGC gas analysers
- Nitric oxide analysers
- General laboratory systems – chillers, rotary evaporators, hotplates, and digiblocks

The GE Sievers NOA-280i is the most versatile nitric oxide analyser available with applications including liquid analysis, gas phase measurements, exhaled breath measurements both on-line and offline, and nasal measurements both on-line and off-line. Data collection and reporting are conducted with GE NOAnalysis PC software.



## NITRIC OXIDE ANALYSIS SYSTEMS

### Liquid ample analysis

The NOA-280i in conjunction with the purge system accessory measures nitric oxide and its reaction products, nitrite, nitrate and nitrosothiols, in virtually any biological fluid including: cell culture media, plasma, sera, urine, cerebral-spinal fluid, bronchial-alveolar lavage, perfusates, and tissue homogenates.

### Exhaled breath measurements

The NOA-280i can be used for a wide range of exhaled breath measurements including on-line, off-line, and tidal breathing, all with biofeedback mechanism for reproducibility. Measurements are to ATS guidelines with the flexibility to define specific flow rates and data collection for specific research investigations.

### Headspace analysis

Analysis of nitric oxide in headspace of samples such as cell cultures and enzyme systems is performed in less than one minute with data collected through the PC based software or from the front panel of the analyser. Long term trend studies are also possible using the GE PLOT software.

### Nasal measurements

The ability to measure nasal nitric oxide both on-line and off-line is now possible with the Analytix nasal measurement device. The portable unit permits easy collection of samples in the community that are later analysed in the laboratory using the NOA-280i analyser. The off-line collection system conforms to ATS guidelines for nasal NO measurements.

## LabTech LABTECH SYSTEMS



### Rotary evaporators

The rotary evaporators include digital displays to monitor and control rotation speed and temperature, motorised vertical lift in all models, evaporation flasks up to 3 litres, on line sample addition, and optional vacuum and cooling systems. A standalone heating bath guarantees maximum safety in operation and easy maintenance.



### DigiBlocks

DigiBlocks with 16 to 54 sample places and temperatures from ambient to 450°C for the digestion of samples and evaporation of acids and solvents. Reduce laboratory costs through the use of disposable digestion tubes coupled with innovative heater design that provides energy savings of 75% over traditional hotplates.



### Hotplates

Labtech hotplates range from low cost heating stirrers for routine applications to large heating surfaces up to 600mm x 400mm for extraction, evaporation, acid distillation, and digestion. The systems are supplied with a range of surfaces from aluminium, stainless steel, porcelain enamel, and a range of high resistant coatings.



### Chillers

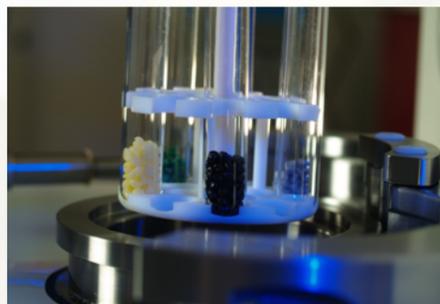
LabTech manufactures a complete line of recirculating water chillers to match all laboratory needs. The state-of-the-art water systems ensure accurate and constant cooling conditions. Every water chiller is provided with an electronic display to monitor and control the temperature via PID technology with a stability of  $\pm 0.1^\circ\text{C}$ .





## MILESTONE SYSTEMS

*Milestone is a leading manufacturer of microwave systems. The breadth of their microwave technology has expanded to cover a range of techniques, including microwave accelerated digestion, extraction, ashing, evaporation, and organic synthesis, as well as instrumentation for clean chemistry.*



### Digestion

Microwave sample preparation is the technology of choice for trace and ultra-trace metals analysis. High temperature, closed vessel acid digestion prepares samples much faster than traditional methods, uses less acid, and retains even volatile elements and it is possible to easily digest even the toughest organic or inorganic sample matrix.



### Extraction

Microwave extraction systems can simultaneously process multiple samples in a matter of minutes. Closed vessels are used to heat the extraction solvent above its atmospheric boiling point that increases the solubility of the analyte of interest and lowers the viscosity of the solvent, allowing it to better penetrate the matrix.



### Ashing

Ashing is a time consuming procedure and often requires hours to be completed. Microwave assisted ashing offers dramatically reduced ashing times from hours to minutes with higher sample throughput and faster heating rates. Built in exhaust systems remove fumes safely from the laboratory ensuring more safe working conditions.



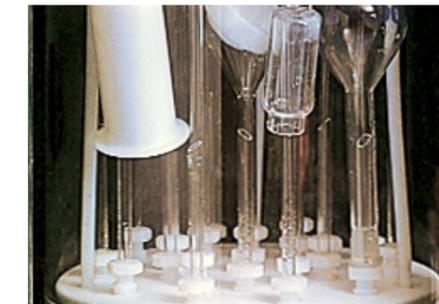
### Mercury analysis

The Milestone direct mercury analysers effortlessly analyse liquid and solid samples with a detection limit of 0.0015ng Hg. No sample preparation is required and the analysers run on air. Analysis is completed in 5 minutes independent of matrix with a choice of single shot autoinjector or 40 place autosampling system.



### Synthesis

Microwave-enhanced synthesis allows chemists to generate higher yields faster with increased purity, and to scale experiments up reliably from milligrams to larger quantities without the need to alter reaction parameters. It also offers more precise control over conditions of temperature and pressure than any previous technology.



### Clean chemistry

An innovative and complete line of systems and accessories for control and reduction of the analytical control blank that will improve results in trace and ultra-trace elemental analyses. These instruments are dedicated to acid purification, ultratrace cleaning of vessels, and reduction of contamination from vessel surfaces.





## SUPERCRITICAL FLUID EXTRACTION SYSTEMS

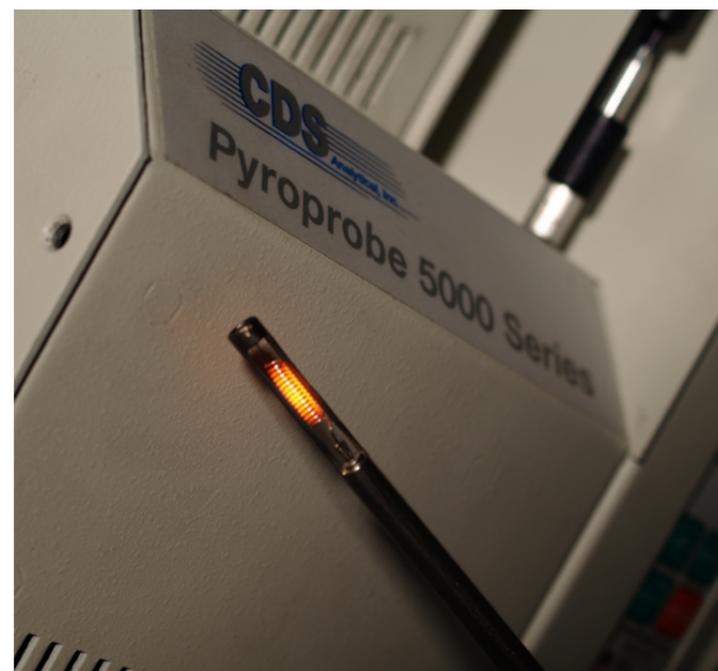
SFT manufactures equipment for supercritical fluid extraction (SFE), supercritical fluid reaction chemistry (SFR), and related high pressure applications. Products include a series of instruments from entry level to small scale pilot processing, a phase monitor for supercritical fluid phase and solubility studies, and high pressure chemical reactor systems for investigations into pressurised chemical reactions or processing problems.

### Extraction systems

The entry level extraction systems possess many features typically found in more costly SFE equipment and can be used for a variety of applications from routine analytical work to basic process development. The systems are additionally well suited to the needs of colleges and universities who want to investigate the feasibility of applying supercritical fluid techniques to a wide variety of analytical and processing problems.

### High pressure chemical reactors

The high pressure chemical reactors are designed for researchers who are interested in investigating the feasibility of pressurised chemical reactions or processing problems in their laboratories. From small scale basic reactors to full feature research grade reactors, the systems can be configured to suit all applications from screening to process development.



CDS Analytical is a leading global provider of innovative thermal sample preparation instrumentation for the analytical laboratory. For over 35 years the exclusive focus has been on conceiving, designing, manufacturing, and supporting leading edge instruments. CDS offers a complete suite of diverse front-end GC equipment including pyrolysers, purge and trap, headspace, and thermal desorption systems.



## PYROLYSIS SYSTEMS

### Standard pyrolyser systems

The CDS pyrolysis systems are compatible with any GC and can be used for standard pyrolysis of liquids or solids, reactant gas studies, slow-rate pyrolysis, evolved gas analysis, and thermal desorption of large sample amounts. Analytical runs may be programmed for up to eight steps per sample up to 1400°C, with automatic control of the on-line valve, interface temperature, GC ready sensing and GC start for each step.

### High pressure pyrolysis and catalyst reactor systems

Studies of new materials such as various biomass feed stock, require an understanding of how these materials break down in a reactor at varying conditions often in the presence of a catalyst and reactant gases. The high-pressure catalyst pyrolyser allows study of both high temperature & pressure on a small scale in the laboratory before undergoing the time and expense of scaling up to a pilot reactor.

### Autosampler systems

The pyrolyser autosamplers provide hands-free analysis of up to 36 samples. Solid, viscous liquid and powder samples are analysed directly, eliminating the need to perform lengthy sample extractions or derivatisations. Pyrolysis can be conducted in both inert and reactant gases and in the presence of a catalyst.



Agilent Technologies is a renowned leading provider of chromatography instrumentation including GC, and GCMS systems. The MicroGC gas analyser is a portable, rugged, and compact laboratory quality gas chromatograph that provides fast precise gas analysis in seconds. The system can be used in the laboratory, at-line, or on-line with up to four independent analytical channels.



## MicroGC GAS ANALYSER



### Standard analyser

The standard analyser can be customised with options including column modules and optimised sample conditioning to achieve greater sensitivity and performance. The small size and weight of the system makes it easy to carry between analysis sites and can be reconfigured for new applications with the user installable plug and play channels.



### Specific application analysers

The analysers are available as application specific pre-configured systems that are available with fast delivery from stock and arrive with final test data, pre-loaded analysis methods, and documentation. Pre-configured analysers currently available are for biogas (pure biogas and biogas with hydrocarbon streams), natural gas (LPG and NGL), and refinery gas.



### Process systems

The process control analysers can be used for applications requiring unattended, around-the-clock measurements. The system is available as a free standing unit or in a 19" rack mounted chassis. Applications include analysis of natural gas, biogas, refinery gas, stack gas, trace sulphur, oxygenates, halogenates, fuel cell development, and specialty gas production.



### Portable systems

The portable systems enable remote analysis for applications such as field perimeter monitoring, drilling locations, and measurements at natural gas pipelines and metering stations. The case includes user refillable built-in gas cylinders and rechargeable batteries providing up to eight hours of productive field time. Instrument control, and data analysis.

