

Product Overview

General Lab Equipment

Yooning - Centrifuge, Grinder, and Shaker - China

Centrifuges include:

- MC-15K Micro High Speed Centrifuge (500 - 15,000 rpm)
- CF-1524 High Speed Centrifuge (500 - 15,000 rpm)
- CF-1524R Refrigerated Centrifuge (500 - 15,000 rpm)
- MP-2500 Microplate Centrifuge (2,800 rpm)
- **And many others**



Micro Hi-Speed



Hi-Speed



Refrigerated



Microplate

Grinders include:

- BM-2100 Ball Mill (0.1-30 mm / ~5 μ m)
- Grinder-96 High Throughput Homogenizer (0.1-30 mm / ~5 μ m)
- SH-6 Sample Homogenizer (0.1-5 mm / ~5 μ m)
- **And many others**



Ball Mill



Hi-throughput



Homogenizer

Shakers include:

- CS-200E Orbital Shaker
- NS-16 Incubator Shaker (RT +5°C - 60 / 50 - 300 rpm)
- RS-100 Rocker Shaker (10 - 100 rpm)
- **And many others**



Orbital Shaker



Incubator Shaker



Rocker Shaker

Peristaltic Pump, Environmental Test Chamber, Glassware Washer, Ice Maker, Certified Weights (DIN EN ISO 9001), and Many Others....



Peristaltic Pump



Env. Test Chamber



Glassware Washer



Ice Maker



Certified Weights

General Lab Equipment

Steroglass - Industrial Scale Rotary Evaporator - Italy



CE II 2G Ex h IIB T□Gb



Strike 300 w/ transparent protective shield

Strike 100 ATEX Rating

Strike 100 of 50L, 100L capacity

Langee - Ultrasonic Bath - China

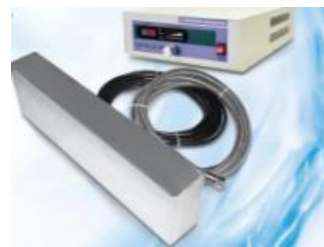
No matter what size your sample is, you can do it in **ONE** ultrasonic bath (user provides bath). Of course, you can also choose dedicated ultrasonic system that suits your needs!



Multi-frequency Bath



Power Adjustable Bath



Immersion Ultrasonic Vibration Plate:
Put the ultrasonic device in a big bath to accommodate samples of all sizes

One bath suits samples of ALL sizes

Ortoalresa - Centrifuge - Spain

If you need quick delivery, say a week or two, this is your choice. We offer more than 30 models of centrifuges that work with various sample nature in different sizes of sample tubes.

Our centrifuges are used in laboratories of hospital, clinical, microbiology, blood, research, quality control, and oil & petroleum, etc....



High Capacity



Biological Sample



Floor Stand

AirClean - Ductless Fume Hoods - USA

If you are looking for ductless fume hoods for protecting lab operators and people outside your lab, and yet still saves electrical energy, AirClean's product is your choice.

Airclean offers more than 100 models / versions of ductless fume hoods and walk in clean rooms. You could easily be convinced that one of their products suit your needs well.

Reminder: Unlike others, AirClean ductless fume hoods are pre-assembled in factory to make sure there are no leaks for fumes escaping out into the workspace.



Chemical Workstation



PCR Work Station

General Lab Equipment

Misc - Freezer & Refrigerator - Misc

Products include:

- Vaccine Storage Cold Room (-5 ~ 8°C)
- Ultra Cryogenic Cold Room (options of -40°C, -60°C, and -90°C)
- Biomedical Deep Freezer/Refrigerator (options of -10°C ~ -25°C and -20°C ~ -40°C)
- Smart Ultra Cold Freezer (-80°C) with 13.3" LCD Display
- Cryogenic Ultra Cold Freezer (options of -25°C ~ -60°C and -40°C ~ -86°C)
- Refrigerator (2°C ~ 8°C)
- Blood Bank Refrigerator (4°C)



Vaccine Storage



Ultra Cryogenic Cold (Walk in)



Biomedical Deep Freezer



Cryogenic Ultra Cold Freezers



Refrigerator



Blood Bank Refrigerator

- Cryogenic Storage Chest Freezer (-150°C)
- Large Vaccine Refrigerator and Freezer for Hospital (2°C ~ 8°C; -25°C ~ -40°C options)
- Hi-Speed Centrifuge with Safety Lock
- Hi-Capacity Refrigerated Centrifuge
- CO₂ Incubator
- **Many others.....more than 100 models**



Cryogenic Chest Freezer



Vaccine Storage for Hospital



Hi-speed Centrifuge



Hi Capacity Refrigerated Centrifuge



CO₂ Incubator

Sample Preparation

Ashmar Scientific - Sample Prep Systems - China

Wide range of sample preparation systems are available. These include:

- **Solid Phase Extractor:** High recovery; Both manual and automatic with positive or negative pressure.
- **Concentrator:** Fully automatic, with both positive and vacuum purging pressure. Maximum sample of 36, each could be processed with specific conditions.
- **Forced Solvent Extractor:** Processed with pressurized pressure at elevated temperature. Offers both parallel (up to 8 samples) and sequential (up to 26 samples) extraction.
- **Liquid Handling System (FlexStation P4)** automatic setting calibration standards.
- **Automatic pH measuring Station** (up to 60 samples).
- **Automatic multi-sample Homogenizer** (up to 36 samples).
- **Multi-sample vortex mixer** (up to 48 samples).



SPE



Concentrator



Vacuum Concentrator



Forced Solvent Extractor



pH Measuring Station



FlexStation P4



Homogenizer



Mixer

HRH - Fully Auto QuEChERS System - China

Though QuEChERS pesticide residue preparation method is widely employed, it is very labor-intensive, inefficient, error-prone and poorly reproducible when large number of samples have to be processed. Fully automated QuEChERS system integrates multiple functions including automated solvents /salt /ceramic homogenizer feeding, shaking, vortexing, centrifuging, ice bath and precision pipetting. It can handle 40, 60 and 120 samples in single batch. With simple operation and no personnel involvement, it can avoid manual errors, ensure accuracy and stability of detection, realize fully automated detection and improve test efficiency. The design complies with both China and foreign testing protocols.



Fully Auto QuEChERS System

SAJ - Supercritical Fluid Extractor & Dryer - China

Supercritical CO₂ behaves like n-hexane. So, it could extract organic analytes from complex sample matrix and much faster. The extracted analyte is so clean that could be analyzed readily by GC or HPLC.

With the help of little amount of alcohol, excess water could be driven out (dried) together with alcohol. Resulting in very dry materials. It is specially designed for drying delicate biologicals or electronic parts (e.g. Wafers and MEMS) without causing any damages.



Floor Stand SFE



Supercritical Fluid Dryer

Direct Analysis in Real Time (DART)

Misc - Chemical Ionization & Quad Mass Spectrometer - Technical Talk

Quad MS: Electron Impact + Analyte → Lots of Fragments (needs NIST Library to help)

Chemical Ionization: Reagent Ion + Analyte → Analyte Ions (with minimum fragments)

Reagent Ions used: Hg^+ , Xe^+ , Kr^+ , H_3O^+ , NO^+ , O_2^+ , NO_2^+ , NO_3^+ , O^- , O_2^- , OH^- , CH_3CO_2^- , NH_4^+ , Br^- , I^- , etc.....

Because the small amount of analyte fragments existed (after the chemical ionization reaction), the method is best suitable to analyze multi-component gas system (e.g. ambient VOC measurement, odor and breath analysis).

There are two types of Chemical Ionization Mass Spectrometers. These are CI-MS and CI-TOFMS. Currently, all commercial products are CI-TOFMS. Because of the large number of signals are produced by TOFMS at the same time, the analysis is not that simple. On the other hand, the much higher resolution provided by TOFMS let the analysis simpler. With the advent of Artificial Intelligence, CI-TOFMS would be the mainstream of analyzing complex gas systems.



Austria



Swiss



Austria



New Zealand



UK



NightLight - NIR (On-Line Monitor) - China

Near InfraRed (NIR) Spectrometer is the first scientific instrument ever used AI to conduct data analysis. At that time, no one called it as AI. Tens of thousands of samples are used to build a statistical model to reflect the quality of agricultural and natural products (such as milk, soybean, wheat and rice, etc). Products from this young company had out-sold all major NIR suppliers from Europe and USA.



On-Line Process NIR

Z-Spec - HDXRF (Food & Soil) Analysis - USA



HDXRF for Soil

When X-ray is irradiated to a sample, electrons are excited to higher energy level, and then fall back to their ground state and give out fluorescence signals. These energy signals are characteristic to a particular element and the strength of the signals are related to the concentration of that particular element. Therefore, XRF is both a quantitative and qualitative tool.

Because of the high concentration of elements in alloys, requirement of irradiation efficiency is not that critical. For low level heavy metal contamination of food and soil, a special designed High Definition XRF (HDXRF) irradiation mechanism is needed.

Scensor - XRF (Alloy Identification) - China



Alloy Identification

Yooning - Nucleic Acid Quantification Microphotometer & Thermal Cycler - China

Most popular products include:

- FD-100 Fluorometer
- **3-in-1 Combination Rotor Centrifuge** (1.5/2.0 ml or 0.5 ml or 0.2 ml sample tubes & 0.2 ml PCR tube strips)
- **NanoOne** & NanoOne S / **NanoAccu S** & NanoAccu Microspectrophotometer
- **Gradient PCR & Microplate PCR**



Fluorometer



Combination Rotor Centrifuge



Gradient PCR



Dual-Block PCR



NanoOne



NanoAccu S

Aero Laser - H₂O₂ Measurement - Germany.

Pharmaceutical: To ensure the sterility in production area, the area is decontaminated with vaporized H₂O₂. The H₂O₂ fog is then removed from the air by air exchange until a predetermined concentration threshold is reached. For vaccines or enzymes, concentration of 20 - 50 ppb is required. This H₂O₂ monitor is the tool of choice for detecting such low concentration.



H₂O₂ Monitor

TSI - Respirator Fit Tester, Auto Filter Tester - USA

PortaCount™ Respirator Fit Tester is a quantitative respirator fit tester that supports respiratory protection programs throughout the entire fit test process; from training and mask selection through compliance

8130A Automated Filter Tester continues to be the best solution for testing particulate respirator filters, disposable filtering face pieces, and a wide assortment of filter media. TSI filter testers have been used in quality control and manufacturing by leading filter and filter media manufacturers and reference test institutes around the world for more than 20 years due to their proven durability and reliability, which is valued in demanding manufacturing environments and QA/QC laboratories.



Respirator Fit Tester



Auto Filter Tester

AirClean - Medical Containment Systems for Hospitals - USA

Products include:

- Ductless Endoscopy Workstation
- Endocavity Ultrasound Probe Workstation
- TEE Probe Soaking Station
- TEE Probe Storage Cabinet
- Ultrasound Storage Cabinet
- Endoscope Storage Cabinet
- Neutralizer Station



Berthold - Bioanalytics - Germany

in vivo imaging

Two systems specially designed for imaging **plant and small animals**.

Tube Luminometers

Characterized by an outstanding **sensitivity** combined with unmatched **flexibility**.

Zoom HT high-throughput microplate washer & Automated ELISA Systems

5-in-1 provides the same functionality as five individual instruments in a footprint as a stand-alone-reader.



In vivo imaging



Tube Luminometer



Hi-Throughput Washer



5 - in-1 Auto Elisa System

Charles River - Bacteria Endotoxin Test - USA

Endosafe® Nexgen-PTS™ is a rapid, handheld spectrophotometer designed to deliver real-time quantitative endotoxin analysis at point of sample collection in as little as 15 minutes.

Endosafe® Nexus 200™ is an automated robotic instrument, capable of testing up to 120 samples and performing serial dilutions in a fully enclosed system.



Endosafe™ Nexus-PTS



Endosafe™ Nexus 200

Rad Source - Irradiation Systems - USA

Blood Irradiator: Patented X-ray irradiation technology effectively and routinely **inactivates the immune cells** in donor blood, which diminishes the risk of developing TA-GVHD for the recipient.

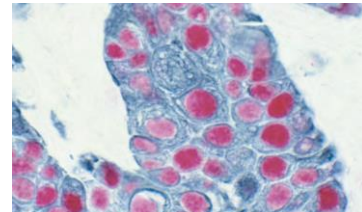
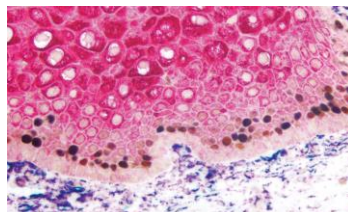
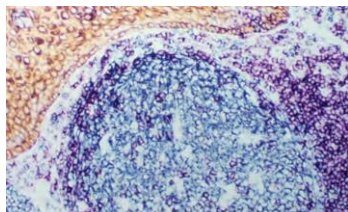
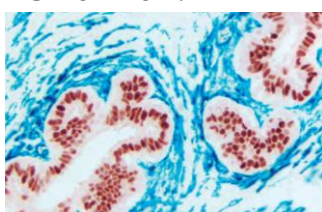
Biological Irradiator: A cutting-edge research tool designed to provide precise and reliable **irradiation for a wide range of life science applications**. With advanced features and user-friendly interface, the radiators are an ideal solution for researchers seeking to advance their work in fields such as cancer research, immunology, gene therapy and others.....



Small Animal (L), Cell (C), Blood (R) Irradiation Systems

Vector Lab - ImmunoHistoChemical (IHC) - USA

Vector Lab has **continuously advanced the accuracy, sensitivity, and reproducibility of the IHC assay**-expanding our portfolio with cutting-edge products (**VECTASTAIN Elite ABC Kit**) to support every step of the IHC workflow.



Environmental Science & Technology

TSI / Casella / MSP - Aerosol Science & Technology - USA

If you are doing **serious** Aerosol Researches, SMPS (Scanning Mobility Particle Sizing System) from TSI is the tool you need most.

But on the other hand, if you want to apply research results to our daily life, Casella's personal air sampler would be the **perfect** tool for you.

MSP's cascade impactors provide precise size-segregated particle collection for aerodynamic diameters ranging from 10 nm to 10 μ m. Available in configurations with 3 to 13 stages and flow rates of 2, 10, 30, or 100 L/min, these impactors enable detailed particle size distribution analysis. The number of stages directly influences size resolution, ensuring high-quality data for quantitative analysis.



DustTrak



SMPS System



Personal Air Sampler



Dedicated Cascade Impactors

Arizona - H₂S & Hg Analyzer - USA

If you need to measure H₂S and Hg in ambient air to low ppb level, Arizona's devices would be your **ONLY** choice.

DMT - Climate & Weather Research - USA

The Mini Micro Pulse LiDAR (MiniMPL) is a small form factor, low-power, elastic backscatter lidar. This ground-based instrument determine the altitude of clouds and to detect atmospheric aerosols. Pulses of energy are transmitted into the atmosphere; the energy scattered back to the transceiver is collected and measured as a time-resolved signal, thereby detecting clouds and aerosols in real time.



Mini Micro Pulse LiDAR



Hg & H₂S Analyzer

Aero Laser - HCHO, NO_x & CO Analyzers - Germany

If you need to measure formaldehyde and CO to **low ppb** level, you need to consider Aero Laser's Formaldehyde and **ultra-fast response** CO analyzer.



HCHO (L), NO_x (Top) & CO Analyzers (Bottom)

mPower - Multi-Gas Detector - USA

- Over 30 interchangeable sensor options, measures VOC, combustibles, CO₂ and many others
- Up to 6 gas measurements using combination sensors
- Real-time gas concentration readings with alarm status

AquaRead - Portable Water Analyzer - UK

It can be used in both for comprehensive spot monitoring or in permanent deployments. It features a diameter of only 55mm making it the smallest self cleaning Aquaprobe to date.



Multi-Parameter Gas Analyzer



Water Analyzer

Semicon, Nano & Surface Science

CIQTEK - NMR, EPR, SEM, TEM & Nitrogen Vacancy (NV) Microscopy - China

Products include:

- NMR: Magnetic Field ~9.39 Tesla; Resolution <0.0005Hz; 400 MHz & 600MHz superconducting magnet
- Scanning Electron Microscope (SEM, FIB-SEM, FE-SEM)
- Transmission Electron Microscope (TEM)
- Electron Paramagnetic Resonance (EPR/ESR)
- Scanning NV Microscope
- Widefield NV Microscope
- **Many Others.....**



NMR



TEM



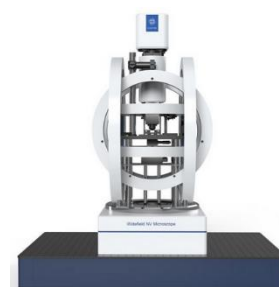
EPR/ESR



Scanning NV Microscope



Hi-Resolution FESEM



Widefield NV Microscope

Aero Laser - H₂O₂ Measurement - Germany

Semiconductors: As the semiconductor industry pushes the boundaries of miniaturization and efficiency, the purity of ultrapure water (UPW) used in production becomes increasingly critical. The AL2021 H₂O₂ monitor ensures that the water used in the creation of semiconductors is free from H₂O₂ residues, safeguarding the integrity of these microscopic marvels.

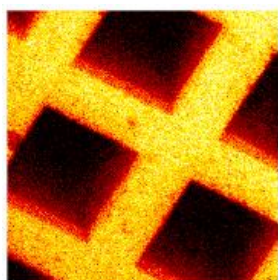


H₂O₂ Monitor for UPW

Kore - TOF-SIMS - UK

Providing surface analysis with imaging and chemical mapping (with optional profiling).

- Mass resolution >3000 m/δm
- Sensitivity > 1x10⁹ atoms/cm²
- Spatial resolution ≤ 0.5 µm
- Affordable TOF-SIMS technology
- High sensitivity
- 25kV liquid metal ion gun



Copper grid with 12.7µm repeat unit

Applications

- Failure analysis at mm scale
- Microstructure surfaces
- Surface contamination
- Surface Chemistry
- Patterned devices (semiconductor, etc)
- Trace analysis (ppm in surface)



Surfacseer I

PhysiChem - Gas & Vapor Absorption Analyzer - China

Surface characterization technologies include:

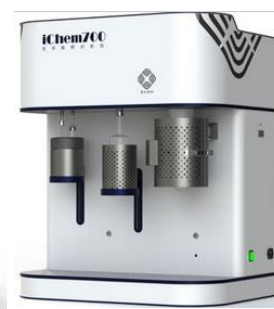
- Helium Pycnometer
- Physisorption Analyzer
- Chemisorption Analyzer
- Capillary flow Porometer
- Porosity Analyzer
- Sample Preparation



Helium Pycnometer



Physical & Chemical Sorption



Food, Feed, Beverage & Natural Products

Steroglass - Auto Titrator, Water Activity Meter, Multi-Parameter Analyzer - Italy

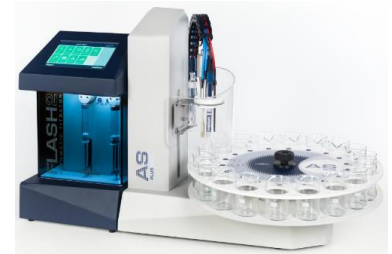
The **FLASH2 Automatic Titrator** satisfies with simplicity and precision in most common titration protocols such as acid-base, redox, argentometric, complexometric:

- pH and Titratable Acidity, Chlorides, Vitamin C In wine, food and beverages;
- pH, Conductivity, Alkalinity, Chloride, Hardness in water
- Titratable Acidity and Peroxides in edible oils;
- SO₂ Free, Total and Combined in wine;
- Nitrogen / Protein as Kjeldhal method;
- Residual sugar as Fehling method;

Wherever it is necessary to study the **shelf life of a product** in order to **determine its risk of microbial development** and therefore its shelf life over time, **aWLife** is the ideal solution.



Water Activity Meter



Flash2 Auto-Titrator

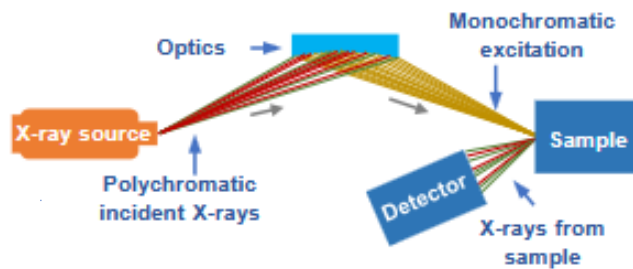


Multiparameter Analyzer

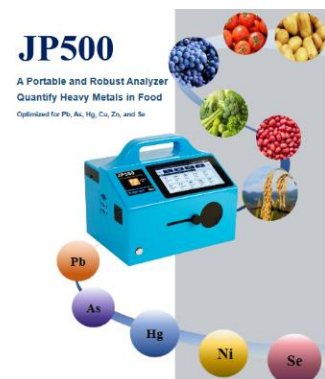
HYPERLAB SMART is a compact and versatile multiparameter analyser designed to perform in complete automation the enzymatic and colorimetric analyses necessary to control the winemaking processes and the quality of the wine itself.

Z-SPEC - Heavy Metals in Food & Agricultural Products - USA

This Food Safety analyzer is powered by the patented HDXRF® technology, JP500 is designed to quantify heavy-metal elements in food & agricultural products rapidly and precisely. Its excellent performance meets the challenge of reliably measuring extremely low-level Pb, As, Hg, Cu, Zn, and Se.



Patented HDXRF Technology



SAJ - Pilot Scale SFE Processing - China

Supercritical Fluid Extraction (SFE) is a technology that uses a supercritical fluid as an extraction medium to extract a component from the sample matrix. Carbon dioxide (CO₂) is the most commonly used supercritical fluid.

SAJ also offers **Lab Scale SFE** for customer to perform ordinary sample prep or fine tune the extraction condition for Pilot Scale SFE.

Pilot Scale SFE comes with a standard 30L (29.7L) vessel, and could be expanded to 60L, 90L, and 120L when needed.



Pilot Scale SFE (90L)

NineLight - Lab & Mobile NIR - China

DA60 uses a gold-plated holographic fixed concave grating to split light, a diode array detector to detect and process optical signals at the same time. It is suitable for the rapid and nondestructive analysis of the components of samples in various forms, such as whole grain, powder, liquid, paste, etc.

DA60 is available in both laboratory and portable modes, and can be used in the laboratory as well as in the production site and the field.



Lab & Mobile NIR

Petrochemical Science & Technology

PAC - Petroleum (Oil & Gas) Analyzers - Europe & USA

ASTM Compliance Products include:

- SIMDIS Analyzer (determination of true boiling point data from naphtha up to crude oil samples)
- Viscometer & Density (Fastest and Most Versatile Viscometer and Density Meter)
- Freeze, Viscosity & Density (measures freeze point, viscosity and density)
- Cloud & Pour Point (with ultra-low temperature capabilities)
- Reformulyzer® M4 (multi-dimensional separation)
- Viscometer (patented sensor technology)
- Flash Point (Pensky Martens method)
- Atmospheric Distillation
- Vapor Pressure



Viscometer & Density



Distillation



Vapor Pressure



Flash Point



Specialized GC



Freeze, Viscosity & Density



Cloud & Pour Point



Viscometer

Z-Spec - HDXRF (S in Marine Fuel) Measurement - USA

Sulphur in Marine Fuel driven by HD XRF® platform ensure sulphur compliance for IMO 2020 & ECAs. Since 2015, SECA restricted emissions to 0.1% of sulphur content within 24 nautical miles from shores. On January 1, 2020, the International Maritime Organization's (IMO) revised MARPOL Annex VI rule went into effect, which further lowered the maximum global sulphur cap for emissions from 3.50% to 0.50%. The Emission Control Areas (ECAs) remains at the 2015 level of 0.10% sulphur content. To ensure compliance with both regulations, merchant ships need to strictly monitor sulphur content in fuel. Z-SPEC's Sea16 was designed to meet these needs with easy, rapid, and precise sulphur analysis.



HDXRF Analyzer for S in Marine Fuel

Aero Laser - Total HydroCarbon (THC) in H₂ - Germany

In the rapidly advancing world of hydrogen energy, the quest for its purity is an imperative issue. As the industry strides towards a cleaner, more sustainable future, the HydroPRO (THC in H₂) analyser emerges as a vital analytical tool to ensure the highest purity levels in hydrogen.



Total Hydrocarbon (THC) in H₂ Analyzer

Chromatography Science & Technology

GAMSTEK - LC MS/MS/MS - China

Detection limit and linear range

Inject reserpine of different concentrations, and calculate the linear correlation coefficient R between the response area and the concentration. Our instrument meets a 10-fold signal-to-noise ratio:

- Minimum detection limit: < 1.4 fg
- Detection linearity better than 0.999
- Linear range better than 6 orders of magnitude

MassNova Software

- Supports high/low molecular weight configuration
- Supports device network IP address
- Supports all system configuration
- Supports log/Account management and other functions
- Spectrum results can be quantitatively analyzed in real time



Noise and sensitivity/accuracy and stability:

Inject reserpine solution of appropriate concentration, use MRM acquisition mode, collect ions $609 > 195$, obtain mass chromatogram, calculate $S/N = Hm/z \div H$ Noise:

- Noise area 2.1
- Peak intensity 3.696×10^6
- Signal-to-noise ratio 2.864×10^6
- Mass accuracy: < 0.01% amu
- Mass stability: ± 0.1 amu/24h



Ion Source

- Brand new appearance, exclusive design
- Equipped with dual ceramic heating rods, higher ionization efficiency
- Higher ion response, lower detection limit
- Flexible switching between ESI/APCI, easy operation



Quadrupole

- Precision assembly, with comprehensive error better than 2 μm
- Ceramic gold-plated surface, anti-pollution and anti-oxidation
- Ceramic base, insulation, anti-interference
- Tooling accuracy better than 1 μm

Restek - Chromatography Consumables & Accessories - USA

- Certified Reference Materials
- GC & GC-MS Columns
- HPLC & LC-MS Columns
- SPE Cartridge
- SLE
- SPME
- Sampling Canister
- **Many others**



Super Clean Gas Filter



GC Column



Guard Column



LC-MS Arrow Column

Misc - Standard Gas & Liquid Generator - Misc

Gas Standards: Getting a gaseous reference standard is always a big headache before running daily analytical experiments. But there is a solution with this **Calibration Gas Generator**.

Liquid Standards: As always, setting up calibration curves for your daily GC or HPLC work is a **BIG** headache. With the FlexStation P4, you set up calibration curves easily because of its automation.



Reference Material (L: Gas & R: Liquid) Generation

Guyline (Asia) Ltd.

Rm 1611, Eastern Harbour Centre, 28 Hoi Chak Street, Quarry Bay, Hong Kong

Tel: (852) 2856 0605

Fax: (852) 2811 3379

E-mail: admin@guyline-asia.com

Website: www.guyline-asia.com

香港 . 北京 . 上海 . 广州 . 深圳 . 成都 . 武汉 . 长沙 . 长春