

COMPANY PROFILE

& PRODUCT CATALOG



WE SERVE CUSTOMERS IN THE FOLLOWING SECTORS



Academic



Pharmaceutical
Manufacturer



Food & Agriculture



Manufacturing



Chemicals



Environmental
Analysis



Nanomaterials



Food Science



Physical Chemistry



Commercial Testing
Laboratories



Biology/Life
Science



Polymer



Agrochemical
Analysis



Oil & Gas



Pharmacology



Natural Product

COMPANY OVERVIEW

NEXUS Analytics Group has over 30 years of experience in the analytical and scientific industries. In 2017, Nexus Analytics Group became members of the Melchers Group of Companies. It is a privately owned company based in Bremen, Germany, established in 1806. The Group has offices in most Asian countries with a focus on Greater China and South-East Asia.

PT Melindo Dipta was established in 1981 in Jakarta to handle and develop the businesses of C. Melchers GmbH & Co. Bremen, Germany for the Territory of Indonesia. In 2021 the company changed its name to PT Melchers Melindo Indonesia.

As a leader in the distribution and support of scientific research products in South East Asia, Nexus Analytics represents renowned manufacturers from around the world in providing current and next-generation technologies.



BRAND OVERVIEW



Particle Metrix is a leading company in the development, production, and sale of particle analysis instruments that utilize Nanoparticle Tracking Analysis (NTA) technology. With extensive expertise in micro- and nanoparticle characterization, the company provides innovative solutions for both scientific and industrial applications

Bettersize Instruments is a leader in China in the particle sizing business, offering products that range from basic to advanced research equipment for material analysis, spanning from nanometers to millimeters. We are committed to providing the best analytical instruments, comprehensive solutions, and exceptional customer service, supporting scientists, researchers, and engineers worldwide in understanding material properties and improving production efficiency



Thermo Fisher Scientific continues to advance science by providing high-quality chemicals for research, production, healthcare, and science education. Rely on us for an unparalleled selection of chemicals, including reagents, solvents, analytical standards, specialty chemicals, and a wide range of supporting solutions—along with exceptional customer service.

For over 50 years, Edinburgh Instruments has been developing and manufacturing spectroscopic instruments for both academic and industrial markets. It all started as the first spin-out company at the UK's earliest university research park at Heriot-Watt University, located just outside Edinburgh, Scotland. Since then, we have grown into a global leader, continually advancing the field of molecular spectroscopy.



NEMIS Technologies has taken the lead in setting new standards for microbiological excellence in food safety and environmental monitoring. We are committed to simplifying procedures to ensure safe food production, understanding that the use of the right screening tools is vital in preventing the spread of dangerous bacteria.

BRAND OVERVIEW



Tinius Olsen systems are designed for use in Research, Quality Control and Education sectors providing the strength and performance of materials, components and devices. All are designed to support productivity, repeatability and traceability in manufacturing environments. Through its proactive input in developing international test standards, Tinius Olsen testing system complies with relevant ASTM, ISO, EN, JIS, GB and GOST Standards, meeting client's strategic needs

AtomTrace, founded in 2014 as a start-up from the Central European Institute of Technology, is a leading innovator in the field of material analysis using the Laser Induced Breakdown Spectroscopy (LIBS) technique. Our company is committed to the commercialization of promising technologies emerging from advanced research and development. We specialize in delivering cutting-edge solutions for material analysis, leveraging years of expertise in laser spectroscopy and analytical chemistry



PS Analytical stands as a global leader in offering analytical solutions for critical environmental elements, such as mercury, arsenic, selenium, antimony, bismuth, and tellurium. Since its founding in 1983 by Prof. Peter B. Stockwell, PSA has earned worldwide recognition for its expertise in developing sophisticated analytical systems used across diverse industries and applications, including water, soil, sludge, effluent, and gas analysis.

KPM Analytics enables companies to effectively manage product quality and brand value. We are a global leader in scientific instrumentation, focused primarily on analyzing critical quality parameters in the food, agricultural, industrial, environmental, and clinical industries. We provide a comprehensive range of products and services to uniquely solve our customers' problems.



BEL Engineering® s.r.l. is a leading company from Italy specializing in the development of Precision Electronic Scales and laboratory scientific instruments. Committed to in-depth scientific research and technology, BEL Engineering ensures that every stage of production—ranging from mechanics and electronics to software and design—is fully integrated, providing comprehensive quality control for each product manufactured.

BRAND OVERVIEW



ERLAB is a company specializing in air filtration technology to ensure a safe and clean laboratory environment. With a focus on protecting against chemical, biological, and particulate pollution, ERLAB offers innovative filtration solutions that reduce the risk of exposure to hazardous materials in laboratories. Its products are designed to address the challenges faced in various fields of research, including chemistry, biotechnology, and medical research.

Qmagnetics is a leading company specializing in the design and development of cutting-edge magnetic resonance technology. With a strong focus on compact, high-performance benchtop NMR systems designed to deliver precise and reliable results, Qmagnetics provides innovative solutions that cater to a wide range of applications, from research and education to the industrial and pharmaceutical sectors.



Amphasys is a high-tech company focused on the development and application of innovative single-cell analysis solutions. With a mission to unlock the full potential of cellular applications, Amphasys offers simple, innovative, and mobile cell analysis technology based on chip technology, enabling accurate and efficient measurement and analysis of cells. This technology can be applied across various industrial sectors, from scientific research to industrial production.

Biokar diagnostics is a division of the Solabia group, with a strong expertise in microbiological diagnostics. Our know-how is anchored in 50 years of continuous engagement to develop, manufacture and distribute culture media, reagents and supplements for laboratories in different sectors.



SCION Instruments is a leading provider of high-performance chromatography solutions, offering a comprehensive range of products including Gas Chromatographs (GC), Gas Chromatography-Mass Spectrometers (GC-MS), Liquid Chromatographs (LC), and Compass Chromatography Data Systems (CDS). The company leverages the legacy of two renowned brands—Chrompack and Varian—in the field of chromatography, having been acquired by the Techcomp Group in 2014.

BRAND OVERVIEW



Genizer is committed to advancing nanohomogenizer technology. We offer high-pressure homogenizers, liposome extruders, sanitary heat exchangers, diamond interaction chambers, and high-pressure gauges that are compatible with other brands of high-pressure homogenizers and pumps.

OMVE has been committed for over three decades to designing, developing, and providing innovative small-scale processing equipment. Initially focused on laboratory and pilot applications in the liquid food industry, the company has rapidly expanded to meet the liquid processing needs across various related sectors, including beverages, dairy products, sauces, food ingredients, and more.



Ionplus AG is a global leader in the development and manufacturing of advanced scientific instruments. With over 30 years of research experience, Ionplus offers the best solutions for radiocarbon (^{14}C) analysis and Accelerator Mass Spectrometry (AMS) applications. The instruments developed by Ionplus are designed to provide high reproducibility, stability, and accuracy, enabling users to generate top-quality data.

NanoMagnetics Instruments (NMI), established in 1998, has grown into one of the leading manufacturers of Scanning Probe Microscopes (SPMs) and measurement systems for various scientific and technological applications. The company markets its products worldwide with the support of distribution partners located in strategic locations across the globe. With a team of over 60 experienced professionals, NMI handles the entire process in-house, from system design and development to manufacturing, assembly, integration, and testing. NMI is dedicated to meeting customer needs by offering both standard products and customized solutions.



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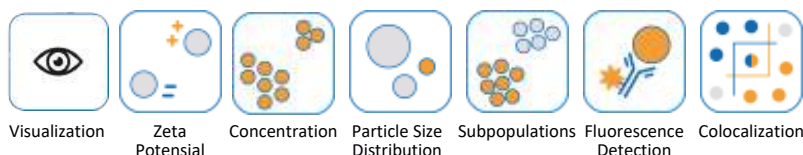
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ZetaView



ZetaView is a nanoparticle tracking analysis (NTA) instruments for measuring hydrodynamic particle size, zeta potential, concentration and fluorescence. ZetaView is available in several models designed to meet diverse research and analysis needs, including **MONO**, **QUATT**, and **TWIN**.

ZetaView is a multi-parameter technique



Key Features & Benefit

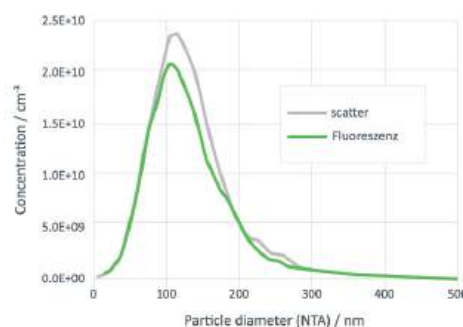
- ◆ **Scanning NTA** - automated measurements are taken at 11 positions through the sample cell, providing a thorough and robust interrogation of sample, without need for additional accessories
- ◆ **Fixed cell assembly design** - greatly enhanced performance and less susceptibility to errors
- ◆ **Auto-alignment & auto focus** - the optical setup is automatically optimized by the software, saving the user time preparing the instrument for use and removing subjective user input bias
- ◆ **Fast Measurements** - analysis of over 2,000 particles in as little as 60 seconds
- ◆ **Quick and simple cleaning** - cleaning between samples requires only a quick flush. The new fixed cell design allows very quick access to the measuring cell with a bayonet lock
- ◆ **Intuitive Software** - Traffic-light system gives an instant indication of whether the sample is at a suitable concentration for measurement and indicates the dilution footprint and data files
- ◆ **Fluorescence Analysis** - fluorescence NTA measurements allow interrogation of subpopulations in the sample. A sensitive CMOS camera, up to 11 selective filters, and low bleaching performance yield high fluorescence sensitivity

Key Applications

Bio - Nanoparticle

Extracellular Vesicle (EVs)
Exosomes
Liposomes & Micelles
Protein Agglomerates
Viruses & Virus-like-particles (VLPs)
Drug Delivery
Fluorescent-labelled NPs

Examples - Characterization of EVs



BeNano Series

The **Benano Series** is widely applied in academic research and manufacturing processes across various fields, including but not limited to pharmaceuticals, nanomaterials, household chemicals, foods and beverages and academia.

Features

- ◆ 671 nm solid-state laser with 50 mW output power
- ◆ APD (Avalanche Photodiode) detector providing exceptional sensitivity
- ◆ Automatic adjustment of laser intensity based on the samples scattering ability
- ◆ Intelligent result evaluation algorithm that minimizes interference from impurities



Benefits

- ◆ Measures **nano-sized samples down to 0.3 nm across a wide concentration range up to 40%** with DLS backscattering (173°) detection technology
- ◆ **A minimum sample volume of 3 µL** saves valuable samples with the capillary sizing cell
- ◆ Achieves robust and consistent data for **samples with low electrophoretic mobility** utilizing PALS (Phase Analysis Light Scattering) technology
- ◆ Performs rapid and precise **tests under different temperatures** with the programmable temperature control system

Parameter and Technologies



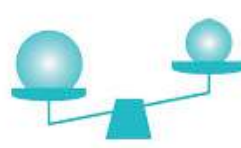
Particle Size

Dynamic Light Scattering
(DLS)



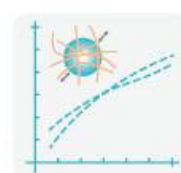
Zeta Potential

Electrophoretic Light
Scattering (ELS)



Molecular Weight

Static Light Scattering
(SLS)



Rheological Properties

DLS Microrheology



BAT-1 Autotitrator

The **BAT-1 autotitrator** is an ideal accessory for the BeNano Series, enabling automatic analysis of zeta potential as a function of pH and determination of the isoelectric point (IEP) of a colloidal system.



Bettersizer S3 Plus

The **Bettersizer S3 Plus** combines laser diffraction and dynamic image analysis in one instrument. It can measure the size and shape of particles from 0.01 μm to 3500 μm . Its exceptional sensitivity for either ultrafine particles or oversized particles, and unsurpassed resolution, make it the most powerful size and shape analyzer for enthusiastic researchers who conduct top scientific research.

Evolutionary Technologies

◆ Patented DLOI (Dual Lenses & Oblique Incidence) System: Laser Diffraction,

Laser diffraction technology for routine particle size analysis remains the method of choice across various industrial sectors. The Bettersizer S3 Plus applies the patented DLOI system, which is designed based on the Fourier structure to guarantee the accurate measurement of ultrafine particles from 0.01 μm .

◆ Dual-Camera System: Dynamic Image Analysis

Dynamic image analysis can strengthen your understanding of materials with comprehensive shape or morphological information that is independent of laser diffraction. Individual particles with specific geometric properties such as agglomerates, crushed particles, and foreign particles can be effectively tracked through the dual-camera system.

◆ Groundbreaking Combination: Laser Diffraction with Dynamic Image Analysis

The Bettersizer S3 Plus integrates laser diffraction and dynamic image analysis into one instrument to simultaneously characterize particle size, size distribution, and particle shape over a wide dynamic range. Working in tandem, users can gain a deeper understanding of material behavior to fasten the troubleshooting process and method development process.

Accessories



BT-A60, A durable, automatic, and high-throughput sampling system designed for automatic measurement for either dry or wet sample.



BT-803 - A large volume automated dispersion unit suitable for measurements with aqueous dispersants as the media or where large quantities of samples are required for better representation.



BT-80N - A solvent-resistant dispersion unit designed for measurements with the organic solvents as the media or where only a small-volume sample is available.

Bettersizer 2600

The **Bettersizer 2600** utilizes proven Laser Diffraction Technology to measure particle sizes ranging from 0.02 to 2,600 μm . Its modular design provides versatile functionality, with the dynamic imaging module enabling combined laser and imaging tests. This extends the measurement range to 3,500 μm while allowing for both particle size and shape analysis. Additionally, the system's flexible dispersion modules support both dry and wet dispersion methods, catering to a wide range of measurement needs.



Features

- ◆ Seamless transition between wet and dry dispersion units
- ◆ Patented laser diffraction technologies ensure precise sizing
- ◆ Modular dual-camera imaging system for detailed shape analysis
- ◆ Integration of laser diffraction and dynamic imaging techniques
- ◆ Capable of measuring Refractive Index (RI)

Benefits

- ◆ Covers a wide particle size range from 0.02 to 3500 μm
- ◆ Provides comprehensive insights through size and shape analysis
- ◆ Displays real-time particle sizes and images
- ◆ Offers user-friendly operation
- ◆ Determines the Refractive Index of unknown samples

Accessories



Wet Dispersion Modules

Dry Dispersion Modules

Imaging Module



Bettersizer ST

The **Bettersizer ST** is a fully automated and integrated particle size analyzer with a smart operation system by wet dispersing. Optimized for the industrial QC process, the Bettersizer ST provides stable and reliable testing results with minimum user intervention. The compact footprint saves valuable workspace for factories and laboratories.

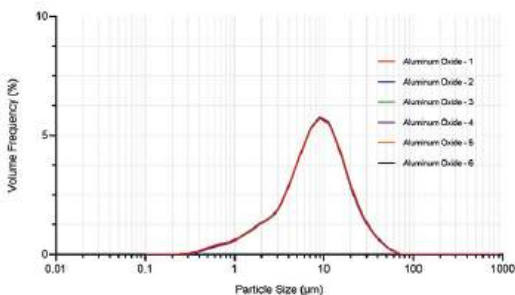
Features

- ◆ **Excellent accuracy** ensured by patented DLOS (Dual Lens Optical System)
- ◆ **Outstanding repeatability** for reliable testing results
- ◆ **Intuitive software** provides an optimal measurement experience
- ◆ **Compact and robust design** saves workspace and reduces maintenance frequency

Benefits

- ◆ **Ease-of-Use**
- ◆ **Robustness**
- ◆ **Cost-Efficiency**
- ◆ **Low-Maintenance**

Applications Example



Sample Name	D05 (µm)	D10 (µm)	D50 (µm)	D90 (µm)	D95 (µm)
Aluminum Oxide - 1	1.337	2.211	8.693	22.30	29.10
Aluminum Oxide - 2	1.352	2.212	8.655	22.24	29.27
Aluminum Oxide - 3	1.364	2.260	8.789	22.59	29.50
Aluminum Oxide - 4	1.444	2.309	8.809	22.69	29.66
Aluminum Oxide - 5	1.360	2.233	8.744	22.42	29.39
Aluminum Oxide - 6	1.388	2.251	8.738	22.35	29.31
RSD	2.77%	1.63%	0.66%	0.78%	0.66%

With its exceptional accuracy and repeatability, the Bettersizer ST is an ideal QC tool for a wide range of applications and industries

Typical Applications



Pharmaceuticals



Abrasives



Mining and Minerals



Battery



Ceramics

BeVision Series



BeVision S1



BeVision M1



BeVision D2

BeVision Series particle size and shape analyzers include three models: BeVision D2 for dynamic image analysis of dry and free-flowing granules; BeVision M1 for automatic static image analysis and cleanliness analysis; and BeVision S1 for classic static image analysis.

Precision in Particle Vision

	Static Image Analysis		Dynamic Image Analysis
	BeVision S1	BeVision M1	BeVision D2
Measurement range	1 - 3,000 µm	1 - 10,000 µm	30 - 10,000 µm
Particle shape analysis	●●●	●●●	●●●
High-resolution for narrow distributions	●●●	●●●	●●●
Accuracy for broad distributions	●	●●	●●●
Reproducibility	●	●●	●●●
Small sample volume for a single analysis	●●●	●●	●
Undersized particles detection	●●●	●●	●
Oversized particles detection	●	●	●●●
Simple operation and measurement efficiency	●●	●●●	●●●
Individual particle analysis	●●●	●●●	●●

Typical Applications



Agriculture



Pharmaceuticals



Abrasives



Mining and Minerals



Biology



Chromatography Solvents

Maximize your chromatography performance with Thermo Scientific chromatography solvents. Our products are designed to meet various challenges in chromatography analysis, including LC, GC, UHPLC-MS, and more. We offer solvents, blends, and reagents in different purity grades, sizes, and packaging tailored to your laboratory needs.

**The Fisher Chemical product range includes over 4,400 products.
A selection of our most essential products from this range**

- ◆ **UHPLC-MS Optima™:** Ultra-high purity solvents specifically qualified for Mass Spec instrumentation
- ◆ **LC-MS Optima:** High purity solvents specifically qualified to meet the stringent purity requirements of LC-MS
- ◆ **LC-MS:** Solvents qualified for routine LC-MS applications
- ◆ **UHPLC-UV:** Solvents qualified for routine UHPLC-UV applications
- ◆ **HPLC Gradient grade:** Solvents qualified for routine Gradient grade Liquid chromatography
- ◆ **HPLC grade:** Solvents qualified for routine Liquid chromatography
- ◆ **Solvents qualified for Gas chromatography**
- ◆ **Solvents for Analysis, Certified AR**
- ◆ **Solvents, SLR, Extra-pure grade**
- ◆ **Acids & Reagents for Trace Elemental Analysis**
- ◆ **Acids & Bases for Analysis, Certified AR**
- ◆ **Salts for analysis & SLR, Extra-pure grade**
- ◆ **Buffer NIST Standard Solutions & Concentrated**



Applications



Pharmaceuticals



Chemicals



Nanomaterials



Bioscience



Polymer

RM5 Raman Microscope

A compact benchtop Raman microscope with automation and ease of use at its core. Combining robust and proven building blocks with modern optical design considerations results in an instrument with uncompromised spectral resolution, spatial resolution, and sensitivity.

Key Features & Benefit

- ◆ **Truly Confocal** – with variable slit and multiple position adjustable pinhole for higher image definition, better fluorescence rejection and application optimisation
- ◆ **Integrated Narrowband Raman Lasers** – up to 3 computer controlled lasers for ease of use, enhanced stability and reduced footprint
- ◆ **5-Position Grating Turret** – for unrivalled spectral resolution of 1.4 cm^{-1} (FWHM) and optimisation over the full spectral range 50 cm^{-1} - 4000 cm^{-1}
- ◆ **Integrated Detectors** – up to 2, including high efficiency CCD, EMCCD and InGaAs arrays for low noise, increased speed, high sensitivity and wide spectral range
- ◆ **Internal Standards and Auto-Calibration** – to ensure the highest quality data at all times
- ◆ **4-Position Raman Filter Turret** – fully automated notch and edge filters to match the Raman range to excitation laser wavelength
- ◆ **Ramacle® Software** – one powerful software package for complete system control, data acquisition, analysis and ease of upgrade
- ◆ **Upgradeable** – easy to upgrade as your research needs develop

Applications



Pharmaceuticals



Chemicals



Nanomaterials



Bioscience



Polymer



RMS1000 Raman Microscope

The **RMS1000** is a multimodal open architecture confocal microscope. It has been designed so it can be adapted to almost any modern state-of-the-art Raman application and beyond; including Photoluminescence Microscopy, Fluorescence Lifetime Imaging (FLIM) and more.

Key Features & Benefit

- ◆ **Multimodal Measurements** – multimodal imaging techniques to take your research beyond Raman such as FLIM, PLIM, SHG, and more
- ◆ **Integrated and External Lasers** – up to 5 internal computer-controlled lasers for ease of use and reduced footprint. External laser integration for advanced Raman and Fluorescence measurement
- ◆ **Two Spectrograph Options** – standard compact and long focal length spectrographs available for ultimate resolution, sensitivity, and stray light rejection
- ◆ **Four Simultaneous Detectors** – up to 4 detectors can be installed, including high efficiency TE-cooled CCDs, EMCCDs, InGaAs, PMTs and more
- ◆ **Truly Confocal** – multiple position pinhole for high spatial resolution, fluorescence and background rejection and application optimisation
- ◆ **Five-Position Grating Turrets** – for unrivalled spectral resolution from $<0.1 \text{ cm}^{-1}$ and coverage over 5 cm^{-1} - $30,000 \text{ cm}^{-1}$
- ◆ **Internal Standards and Auto-Calibration** – to ensure the highest quality data you can trust, at all times
- ◆ **Ramacle® Software** – One powerful software package for complete system control compatible with all techniques from data acquisition to data analysis

SPECTROFLUOROMETER FS5

Compact high-sensitivity spectrofluorometer adaptable to a wide range of research and analytical applications



The FS5 is a fully integrated, purpose-built spectrofluorometer. Suited for analytical and research laboratories, the FS5 can handle the speed of routine analysis and the sensitivity of demanding research requirements.

- ◆ **2-in-1 Spectrometer:** Measure both absorption and fluorescence spectra in a single instrument
- ◆ **High Sensitivity:** Photon counting detection, with a signal-to-noise ratio of 10,000:1, provides exceptional sensitivity for the detection of weak fluorescence signals
- ◆ **Adaptable:** Tailor to your requirements, from a dedicated spectral fluorometer to an all-in-one characterisation platform with time-resolved fluorescence and quantum yield
- ◆ **Automated Acquisition:** Maximise your lab productivity with the FS5 Fluoracle software Batch feature to create automated sample measurement sequences
- ◆ **Near-Infrared Detection:** Extend the measurement range out to 1700 nm by adding a NIR detector, ideal for studying NIR-emitters, such as quantum dots and upconversion nanoparticles
- ◆ **Plug & Play Sample Modules:** Auto-recognised sample modules that can be swapped in seconds, enabling a rapid transition between different sample formats and measurement types

Applications



Nanotechnology



Analytical Science



Materials



Bioscience



Environmental



Drug Discovery



Quality Control



FLS 1000

PHOTOLUMINESCENCE SPECTROMETER FLS1000

A NEW ERA IN PHOTOLUMINESCENCE



The FLS1000 is a state-of-the-art, modular photoluminescence spectrometer for the most demanding applications in Photophysics, Photochemistry, Material Sciences and Life Sciences.

- ◆ **Ultimate Sensitivity:** Highest sensitivity on the market, with a signal-to-noise ratio of 35,000:1, ensures that the weakest photoluminescence signals can be detected.
- ◆ **Modular Design:** Customise the configuration to suit your specific research requirements; select from different light sources, detectors, and sample holders to create the optimal configuration
- ◆ **NIR & MIR:** Characterise NIR and MIR emitters with a wide range of infrared detector options with sensitivity out to 5500 nm
- ◆ **Upgradability:** Upgrade your system with additional modules as new research needs arise, protecting the investment and keeping the equipment at the cutting edge of your research
- ◆ **Automation:** Equipped with advanced Fluoracle® software for comprehensive control of experiments, data acquisition, analysis, and time-saving automation features
- ◆ **Micro-Spectroscopy:** Transform the FLS1000 into a powerful photoluminescence microscope with the MicroPL Upgrade; enabling high-resolution mapping of microscopic samples

Applications



Nanotechnology



Analytical Science



Materials



Bioscience



Environmental



Drug Discovery



Quality Control



DS5 UV-Vis Spectrophotometer

The DS5 UV-Vis Spectrophotometer is a high performance dual beam instrument suitable for many analytical applications where accurate measurements are key to your results

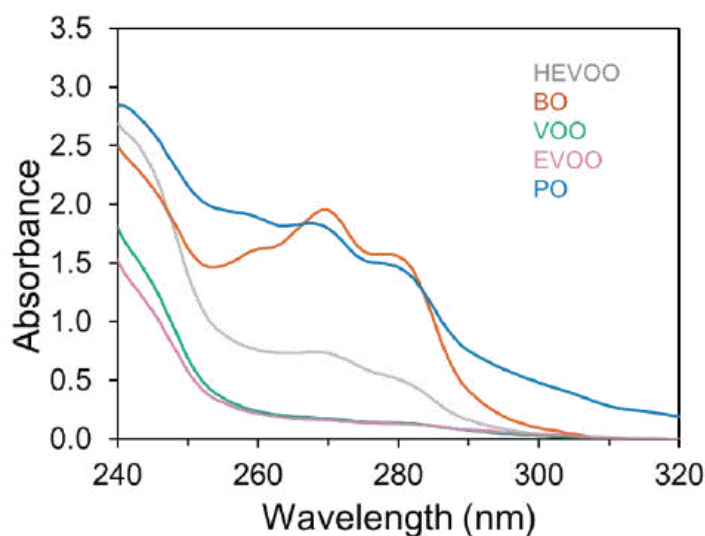
Key Features

- ◆ **Variable bandpass options:** 0.5, 1.0, 1.5, 2.0 or 4.0 nm over the range 190 nm – 1100 nm
- ◆ **Fast scanning:** up to 6,000 nm/min to aid sample analysis throughput
- ◆ **Automatic accessory recognition:** when connected to the DS5
- ◆ **Optional Visacle® software:** for easy PC control
- ◆ **Touchscreen interface:** intuitive menus and functions for ease of use for standalone control
- ◆ **Multiple Data Storage Options:** USB, SD card and internal data storage for convenient retrieval of methods and results

Core Features

UV Absorption Spectra

The DS5 covers the UV range down to 190 nm with an absorbance range > 3. This makes measuring samples high UV absorption possible, such as the edible oil spectra plotted below.



Applications



Microbiology



Petrochemistry



Materials
Science



Life Science



Food &
Agriculture



Pharmaceutical
Research



Quality Control

Applications



Nanomaterials



Pharmaceutical



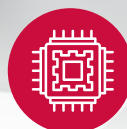
Chemicals



Bioscience



Polymers



SemiConductors



Forensics

FTIR SPECTROMETER

A Modern Instrument That Is Both Versatile and User-Friendly



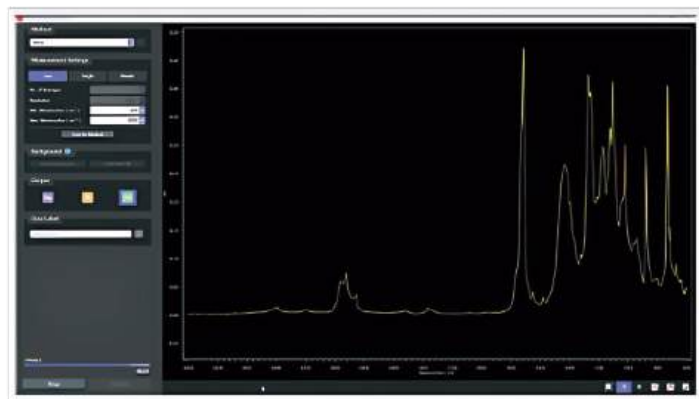
The **IR5** is the perfect choice for analytical and research applications such as polymer, semiconductor, and pharmaceutical samples, offering simple operation as well as fast and accurate results. IR absorption, transmission, reflectance, and infrared photoluminescence can all be measured in the IR5 using only one software package, Miracle™

Key Features

- ◆ **Outstanding Performance** – High sensitivity and spectral resolution
- ◆ **Photoluminescence** – Fourier Transform Photoluminescence upgrade with a choice of laser source
- ◆ **Configurable** – Option for a second detector giving higher sensitivity at selected spectral ranges
- ◆ **User-friendly** – Simple to operate and suitable for all user levels, from beginner to advanced
- ◆ **Maintenance-Free** – No maintenance required with moisture control technology
- ◆ **Miracle Software** – Modern, powerful and intuitive software designed specifically for the IR5

Miracle Software

Miracle™ software package is designed specifically for the IR5 FTIR spectrometer with a focus on ease of use and smooth workflow. Miracle controls every aspect of your experiment, from instrument setup to data acquisition, analysis and reporting, ensuring intuitive operation at every step.





TRANSIENT ABSORPTION SPECTROMETER LP980

The LP980 makes fast and accurate transient spectra and lifetimes accessible to any user

About The LP980

As a fully computer-controlled turn-key system, the LP980 sets the standard for technical performance in transient absorption / laser flash photolysis. Comprehensive software allows for astonishing ease of use and the modular design concept enables maximum flexibility, with unrivalled measurement modes all in one instrument:

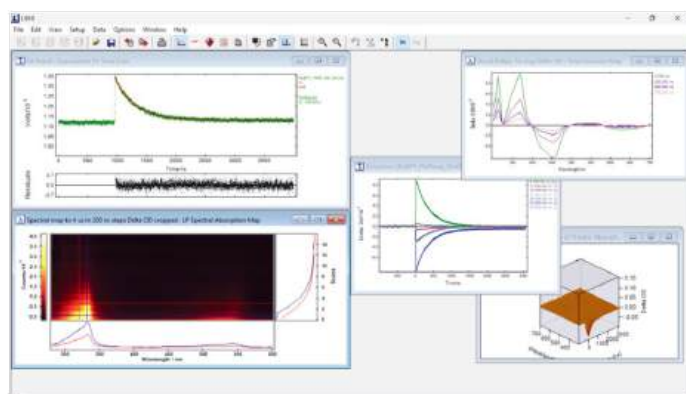
- ◆ **Transient Absorption (TA)**
- ◆ **Laser-Induced Fluorescence (LIF)**
- ◆ **Photon Counting Phosphorescence**

Key Advantages of LP980

- ◆ **All-in-One spectrometer:** Transient Absorption and Laser-Induced Fluorescence
- ◆ **Transients can be measured up to 2.55 μm :** to cover a wide range of samples and sample types
- ◆ **Integrated ICCD:** Transient spectra is measured within one laser flash
- ◆ **Advanced Software:** Complete control of all components and measurements

L900 Software

The L900 software package streamlines every aspect of the LP980, from parameter optimisation and data acquisition to analysis and control of third-party accessories. With everything integrated into a single, user-friendly platform, there's no need for additional upgrades.



N-LIGHT™ LISTERIA MONOCYTOGENES

Monitoring the environment around food production is crucial to avoid pathogen contamination *Listeria monocytogenes* only in 24 hours. Results in 4 simple steps



✓
AOAC-RI validation on stainless steel, ceramics and plastic surfaces

✓
Validated against ISO 11290-1:2017

✓
Superior specificity and sensitivity compared to other rapid methods

✓
Proprietary enrichment with phages for the most specific and reliable est

✓
Only detects live pathogens

✓
Next day results with a 10 second readout

SIMPLE, SAFE AND RAPID ON-SITE PATHOGEN TESTING



SAMPLE



TRANSFER



INCUBATE



ACTIVATE



MEASURE

Product Code	Description	Quantity
00001	NEMIS Bench Top Luminometer BTL1	1
00002	NEMIS Dry Block Heater DBH1-24-230V	1
00009	N-Light <i>Listeria monocytogenes</i>	50
00011	N-Light Sterile Dry Swab with separate PBS Buffer	50

THE MEANINGFUL RISK MANAGEMENT TOOL TO FREE YOUR MIND

N-LIGHT™ SALMONELLA RISK

Monitoring the environment around food production is crucial to avoid pathogen contamination *Listeria monocytogenes* only in 24 hours. Results in 4 simple steps



✓
AOAC-RI validation on stainless steel, ceramics and plastic surfaces

✓
Validated against ISO 6579-1:2017

✓
Superior specificity and sensitivity

✓
Proprietary enrichment with phages eliminates competing microflora

✓
Next day results with a 10 second readout

✓
Detects *Salmonella* spp. and potential contamination niches

SIMPLE, SAFE AND RAPID ON-SITE PATHOGEN TESTING



SAMPLE



TRANSFER



INCUBATE



ACTIVATE



MEASURE

Product Code	Description	Quantity
00001	NEMIS Bench Top Luminometer BTL1	1
00002	NEMIS Dry Block Heater DBH1-24-230V	1
00014	N-Light <i>Salmonella</i> Risk	50
00026	N-Light Sterile Dry Swab with separate PBS Buffer	50

THE MEANINGFUL RISK MANAGEMENT TOOL TO FREE YOUR MIND

N-LIGHT™ ESCHERICHIA COLI

Our E. coli rapid test is part of the N-Light environmental monitoring series that enables pathogen detection in food processing and production facilities without high capital investment or the need for a laboratory. This test was developed with user-friendliness and versatility in mind, serving as a hygiene indicator on factory surfaces, tools, production machines and for employee hand hygiene. While avoiding the inconvenience of agar plates and cumbersome sample preparation, the E. coli rapid test provides reliable results after only 16 hours.

Results within 16 hours
with a 10 second readout

Superior
specificity and
sensitivity

Detects live
Escherichia coli
bacteria

SIMPLE, SAFE AND RAPID ON-SITE PATHOGEN TESTING



SAMPLE



TRANSFER



INCUBATE



ACTIVATE



MEASURE

Product Code	Description	Quantity
00001	NEMIS Bench Top Luminometer BTL1	1
00002	NEMIS Dry Block Heater DBH1-24-230V	1
00029	N-Light <i>E. coli</i> tubes	50
00026	N-Light Sterile Dry Swab with separate PBS Buffer	50

THE MEANINGFUL RISK MANAGEMENT TOOL TO FREE YOUR MIND

N-LIGHT™ ATP

The N-Light™ ATP solution is based on the detection of adenosine triphosphate (ATP) - a molecule that provides energy for cellular processes and is present in all organic matter. From human skin, through animals and plants, all the way to bacteria and fungi, all metabolically active (living) cells, contain high level of ATP. Thus, ATP molecule is a perfect indicator of general hygiene to distinguish whether your environment was properly cleaned

Immediate result or stored for up to 2h at room temperature

Superior specificity and sensitivity

Detects Adenosine Triphosphate molecule

CLEANLINESS AND SAFETY ALL-IN-ONE WITH THE N-LIGHT™ ENVIRONMENTAL MONITORING PLATFORM

SAMPLE

TRANSFER

ACTIVATE

MEASURE

Product Code	Description	Quantity
00001	NEMIS Bench Top Luminometer BTL1	1
00031	N-Light <i>ATP</i> Tes tubes	50
00041	N-Light™ sterile dry swabs with breaking point	50

THE MEANINGFUL RISK MANAGEMENT TOOL TO FREE YOUR MIND

Melt Flow Indexers MP1200

The MP1200 features the latest in melt flow measurement technology and allows operators to quickly and easily set up and perform melt flow tests: according to ASTM D1238, ISO 1133-1 & 2, and other international and industrial specifications.

Key Features

- ◆ Three-zone band heater
- ◆ Touch-screen control
- ◆ Motorized weight lifting device with Programmable Piston Displacement Transducer
- ◆ Powerful data analysis and control software
- ◆ Quick die release
- ◆ USB connectivity
- ◆ Tapered weight design
- ◆ Optional Selectable weight system
- ◆ Auto cutter option
- ◆ Pneumatic cleaning option



Hardness Testers

Rockwell, Vickers, Micro Vickers, Brinell or Universal, semi-automated through to fully automated, Tinius Olsen has a hardness tester to meet your needs.

Tester configuration options include manual or motorized X/Y tables, Z-axis, multiple indenter positions, multiple objectives with anti-collision system and overview cameras in support of test piece positioning.

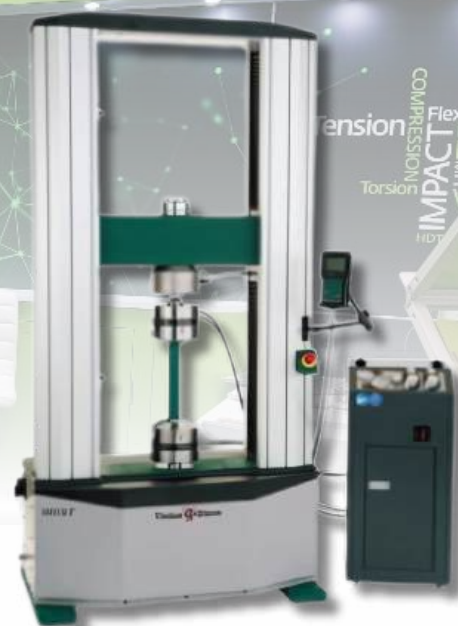


Horizon Software

- ◆ Searchable database of international test standards
- ◆ Standards from ASTM, ISO, EN, BS DIN and many more
- ◆ Ability to customize the test setup using a standard as a template

Universal Testing Machines

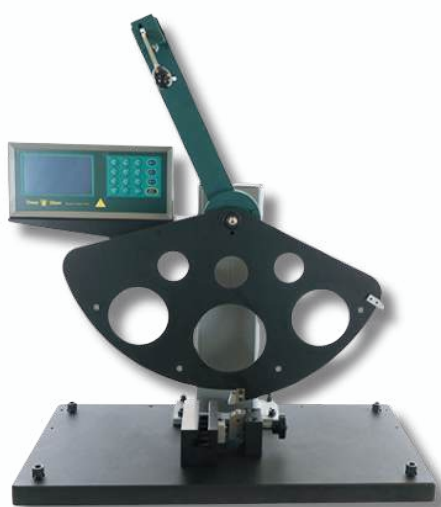
The ST series of electromechanical testing machines from Tinius Olsen is designed to test a wide range of materials, including, but not limited to: plastics, films, paper, packaging materials, filter material, adhesives, foils, food, toys, medical devices and components, in tension, compression, flexure, shear, and peel.



Key Features

- ◆ Accuracy of better than 0.2% of the reading from 0.2-100% of the load cell capacity
- ◆ Built-in Pneumatic Supply
- ◆ Controller Interfaces; Virtual, Tethered and Bluetooth connected Interfaces
- ◆ Accessory and Device Connectivity
- ◆ T Slots to keep the testing area as open, uncluttered and flexible as possible

Impact Testers



These machines measure impact resistance using either Charpy or Izod configurations without requiring a complete pendulum change. The tests comply with ASTM D256, ISO 179, ISO 180, ASTM D6110, ASTM D4812, ASTM D4508, ASTM D950, and similar standards

Key Features

- ◆ Aerodynamic compound pendulum
- ◆ Selectable energy units of J, in.lbf, ft.lbf, kgf.m and kgf.cm
- ◆ Break type input options of complete, hinge, partial, non-break and necking



Geology



Metallurgy



Polymer Production



Food Industry



Agriculture



Pharmacology



LIBS M-Trace

A compact mobile device for the fast elemental analysis using LIBS. Brings the fully automated analysis including 3D sample surface scan and chemical mapping. Pull it out of the trunk, activate, and analyze. The in-field analysis – this is the purpose of the M-Trace.

Key Features

- ◆ Multielemental analysis (including light elements Li, Be, B, C, Na, Mg, Al, Si, K, Ca)
- ◆ Spatial chemical imaging (in the heatmap form)
- ◆ Depth profiling
- ◆ 3D sample scan
- ◆ Gas purging (He, Ar, etc.) and fume extraction
- ◆ Vacuum and Cryo-LIBS supported
- ◆ Qualitative and Quantitative (libraries and sample homogeneity required) analysis
- ◆ Portable device ready for outdoor and indoor applications
- ◆ Friendly UI and simple operation via Wi-Fi tablet (optionally PC via LAN)

Geology

Metallurgy

Polymer Production

Food Industry

Agriculture

Pharmacology



LIBS Sci-Trace

Sci-Trace is a configurable LIBS setup designed to provide to the researchers maximum possibilities for their LIBS experiments.

Sci-Trace consists of an instrumentation cabinet and the LIBS Interaction Chamber mounted on an optical breadboard.

Key Features

- ◆ **Configurable spectroscopic system** - Possibility of selecting a combination of the interaction chamber, lasers, detection system, equipment, setups for LIBS techniques, Double-Pulsed LIBS, LIBS+LIFS and eventually other spectroscopic techniques - such as NIR Spectroscopy, Raman, etc.
- ◆ **Designed by scientists for scientists** - Designed to be opened and ready for various researcher's extensions and experiments. Allows to fully concentrate on the LIBS method and its results rather than troubleshooting and system building.
- ◆ **Intuitive control** - Integrated software for control of all the setup elements – from sample manipulation through adjustment of all active setup elements to spectra collection and processing.
- ◆ **Robust and reliable** - Individual configurations and components were selected based on our broad experience with LIBS analysis and instrumentation. Thus mutual compatibility of the individual components is guaranteed.
- ◆ **Plug-in concept** - Easy system expansion by the user, wide spectrum of modules: components of the interaction chamber, lasers, spectrometers, detectors, mass flow controllers etc. The user simply joins the new module into the setup and activates the corresponding software plug-in.

Millennium Merlin Mercury Analyzer

- ◆ A versatile analyzer to measure mercury in all types of material
- ◆ The analyzer combines the advantages of vapour generation technique which removes most chemical interferences with the sensitivity and selectivity of atomic fluorescence spectrometry which allows mercury analysis down to sub ppt detection limits with 107x linearity



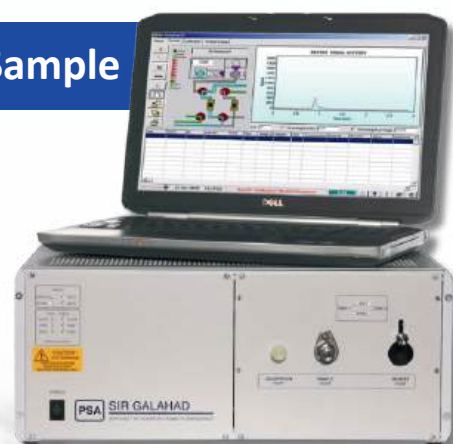
Millennium Excalibur System



- ◆ Is able to measure Arsenic, Selenium, Antimony, Bismuth, Tellurium in solid, sludges, liquids, blood, seafood, crude, oil and natural gas
- ◆ A unique features of the Millennium software is the ability to use one computer to control multiple instruments analyzing different elements.
- ◆ Ability to extend analytical capability to mercury

Sir Galahad Mercury Analyzer in Gaseous Sample

- ◆ Is specifically designed for measuring mercury in gaseous samples at both online & offline installations
- ◆ Mercury is measured using atomic fluorescence detection which allows absolute detection levels of below 0,1 picogram.





SPECTRASTAR™ XT-R NIR

The SpectraStar XT-R Near-Infrared (NIR) Analyzer offers outstanding accuracy and reliability for rapid compositional analysis of solid, slurry or liquid samples. Typical constituents measured are moisture, protein, and fat, as well as more difficult parameters such as sugars, fibers, ash, lignin and fatty acids.

Key Advantages of SpectraStar XT-R

- ◆ **High Accuracy and Reliability:** Built on a scanning monochromator platform with a high signal-to-noise ratio
- ◆ **Ready-to-Use Calibrations:** Includes calibrations from **Aunir (Ingot Calibration)** and **Unity Calibration** for various raw materials and finished products
- ◆ **TRUE ALIGNMENT® Spectroscopy (TAS) Technology:** Automatically corrects for changes due to temperature fluctuations, shocks, or lamp replacements to ensure stable results
- ◆ **Fast and Easy Analysis:** Delivers results in less than a minute with an intuitive 17-inch touchscreen interface
- ◆ **Robust and Versatile Design:** Suitable for both laboratory and production environments

Key Features & Benefit

- ◆ **Wide wavelength range (680-2600 nm)**
- ◆ **Supports custom calibration development**
- ◆ **Compatible with laboratory information management systems (LIMS)**
- ◆ **Cloud-based data management via KPMLink Server**



MicroBalance Series Mu 26i

The new micro balance series "Mu" with 0,001mg resolution



- ◆ Max capacity 12,1 g with resolution 0,001 mg
- ◆ 5 inch touch screen indicator that makes easy the operation and the navigation through the balance functions
- ◆ Double wind shield for enhanced ventilation and temperature variation protection
- ◆ Bench ioniser included with the balance to eliminate static charges
- ◆ Automatic internal calibration

SemiMicro Balances - HPB Series

the new series of semiMicro HPB balances with a resolution of 0.01 mg



- ◆ Electromagnetic force restoration weighing system
- ◆ Highly-integrated weighing cell
- ◆ Automatic internal calibration
- ◆ Efficient filtering to deliver quick and accurate results
- ◆ LCD with backlight with adjustable contrast
- ◆ Large glass draught shield with 3 sliding doors for easy access to the items being weighed
- ◆ Plastic protection cover for keypad

Micro-spectrophotometer Series

Micro-spectrophotometer can quickly and accurately detect nucleic acid, protein and cell solution

- ◆ Direct detection of high concentration samples without dilution, maximum detection concentration up to 4500 ng/μL (dsDNA)
- ◆ Android system, 7-inch capacitive touch screen, optimized APP software
- ◆ High resolution CCD array detector, 5 s can complete the detection and display the results
- ◆ Long life pulse xenon lamp light source



OPTICAL INSTRUMENTS

Biological Microscope



BIO1 series Microscopes represent the best choice to enter into the world of Microscopy. Infact these microscopes can reach magnifications up to 1000x. They have coaxial focus knobs, stage with sample-holder and Abbe condenser.

USB Hi-resolution cameras can be mounted on all models, monocular, binocular, trinocular, through the adapters.

Stereo Microscope



STMPRO series include professional Stereo Zoom microscopes, suitable for many applications in Industry and Laboratory field. A wide choice of accessories such as, for example, additional objectives, eyepieces, XY traslators, LED and fiber optics illuminators, universal stands, make this series of microscopes professional tools for every type of observation.

Fluorescence Microscope



Fluorescence microscope is equipped with plan-achromatic Infinity optics objectives and a Epi Fluorescent illuminator. The extra wide field 10x/22 eyepieces allow inspection of a large part of specimen at same time. It can mount phase contrast objectives too, as optional.

Ductless Filtering Fume Hoods

- ◆ Erlab Exclusive filtration technology combining activated carbon and HEPA/ULPA to adapt to the manipulation
- ◆ AFNOR Meets NFX 15. 211/ANSI Z9.5-2012 filtration efficiency standard (class 1 and 2)
- ◆ Real time sensor to detect main filter saturation with solvent, acids or formaldehyde
- ◆ Safety filter in case of main filter saturation
- ◆ Air face velocity permanent monitoring



Captair 633 smart

5 fts Ductless fume hood with smart sensors and filtration system. Dimension 1620 x 750 x 1332 mm



Captair 714 smart

6 fts Ductless fume hood with smart sensors and filtration system. Dimension 18190 x 750 x 1332 mm

Green Fume Hood



The GreenFumeHood from Erlab, featuring the latest filtration technology, has become increasingly popular in advanced laboratories, rivaling traditional extraction fume hoods in effectiveness. Equipped with the next-generation Neutrodine Unisorb filter, this technology was developed over five years and has been tested hundreds of times under real-world conditions.

Neutrodine Unisorb significantly enhances vapor retention capacity, particularly for polar VOCs with low molar mass and boiling points, which are typically difficult to capture using traditional activated carbon filters.

Ductless filtering chemical storage cabinets

- ◆ Exclusive Erlab filtration technology
- ◆ Filtration performances tested in accordance with AFNOR NF X 15 211
- ◆ Real time sensors to detect main filter saturation with solvents, acids or formaldehyde*
- ◆ Connect with eGuard™ for real-time status, notifications and alerts*
- ◆ Secured storage



Captair 632B Smart & Midcap

Underbench Ductless Filtering Chemical Storage.
Storage capacity up to 50 bottle/500 ml



Captair 834 Smart & Midcap

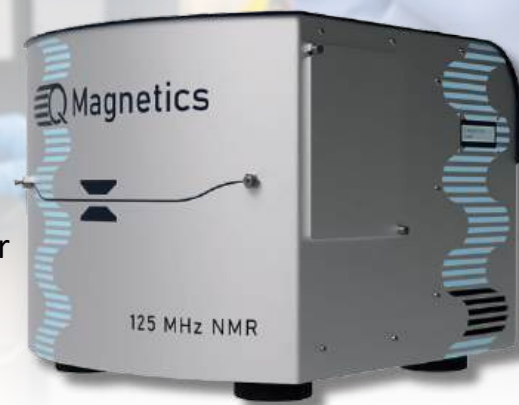
2 Doors Ductless Filtering Storage Cabinet With RFID
Door Smart Lock. Storage capacity up to 160
bottle/500ml

Laboratory Air Filtration System



Halo P Smart air purification station is installed in the ceiling, saving space and staying out of the user's way. Directly connected to the building's power supply, the **Halo P Smart** air purification station cannot be unplugged. Designed for continuous 24/7 operation, it effectively purifies large volumes of air in real time throughout the room.

The QM-125 is a single-channel, 125 MHz permanent-magnet benchtop proton NMR spectrometer designed for high-performance, hyphenation, and ease of accessibility at the lowest cost per MHz of any NMR spectrometer

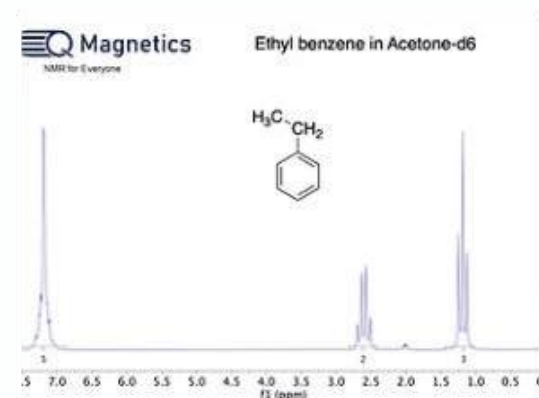
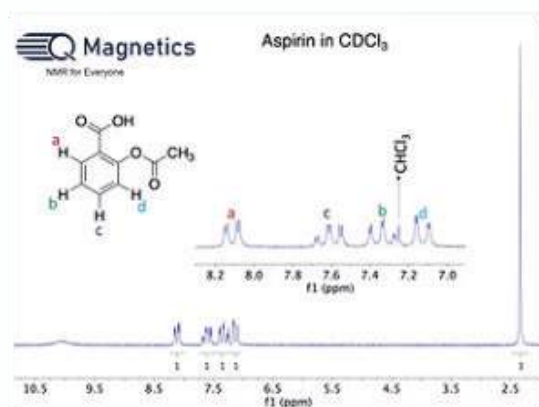


Key Features & Benefit

- ◆ **125 MHz Single-Channel**, The QM-125 is the only benchtop NMR at 125 MHz. It is designed to deliver high performance ¹H-NMR data at the highest resolution possible with or without deuterated solvents.
- ◆ **3 T Permanent Magnet**, Q Magnetics' permanent magnet technology provides an industry leading 3 Tesla field strength. It is stable magnet that does not require cryogenic temperature to maintain
- ◆ **Flow Path Ready**, Sample-after-sample data collection is fast and easy. The highly inert fluorocarbon flow path is usable with virtually any aqueous or organic solvent. Integrate into any sample-delivery-by-flow method or inject your sample with a syringe for walkup convenience
- ◆ **Fast Integration**, The QM-125 is ready for implementation in dynamic applications such as reaction monitoring by NMR. Integrate NMR into any larger system with a variety of semi-automated capabilities
- ◆ **Robust & Reliable**, The QM-125 requires little-to-no maintenance with reliable long-term usage and high-throughput capabilities. Its small footprint and low weights makes it easily accommodated on any table top, fume hood, or mobile platform.

Highlighted Applications

- ◆ Small molecule structure verification
- ◆ Small-volume samples
- ◆ Low-concentration samples
- ◆ Reaction monitoring
- ◆ Undergraduate teaching labs





Cell Analyzer



The novel **Ampha X30** opens a new era of cell analysis: simultaneous measurement of cell count and cell viability, and in addition crucial information about the status of the cells, like metabolic activity. Based on Impedance Flow Cytometry, no dyes, no markers, and no incubation are required. Results are available after minutes – including sample preparation! With one instrument and four different chip sizes of the microfluidic chip the whole range of cells can be measured: bacteria, human and animal cells, algae, yeast, and others like somatic cells in milk.

Key Advantages of The Ampha X30

Unique

With **the Ampha X30** all cell types can be analyzed with one instrument, using chips with different channel diameters. The cells are not harmed by the measurement and due to the absence of dyes and markers, the cells can be recovered and reused, e.g., for sorting or tissue culture.

Efficient

One chip lasts for 1000 measurements and no markers or dyes are required which reduces the operational cost. In addition, no incubation time is needed which shortens the whole measurement to few minutes – from sample preparation until the result.

Flexible

The instrument is highly flexible and can be used for online analysis via a bypass of the reaction solution. The sample can be pumped from the reactor directly through the microfluidic chip and back into the reactor. The sophisticated software thereby facilitates measurement and data analysis and integrated wizards promote a simple workflow.

Your Benefits

- ◆ No Labeling, no staining, no incubation
- ◆ No calibration
- ◆ Short sample preparation, short measuring times, immediate results
- ◆ Cell sizes between 1 μm and 50 μm
- ◆ Highly sophisticated software for operation and data analysis



Pollen Analyzer



The Ampha Z40 is a new high-end laboratory instrument for pollen analysis and succeeds the proven Ampha Z32. It covers all needs for efficient pollen analysis from plant breeding to seed production. An innovative technological platform ensures accurate analysis of pollen viability and pollen concentration in just one measurement

Key Advantages of The Ampha Z40

Universal

The Ampha Z40 Pollen Analyzer allows to measure pollen of all relevant plant species ranging from vegetables and row crops to ornamentals and trees. Amphasys provides detailed application recommendations and support for more than 250 species

Efficient

The information provided by the **Ampha Z40** can be used along all stages from early research in plant breeding up to commercial seed production: to improve doubled haploid (DH) plant production, for line selection in breeding, to optimize pollen storage, pollination protocols and female to male ratio, for routine pollen quality control in commercial seed production

Flexible

The Ampha Z40 is the high-end pollen analyzer which covers all requirements for research as well as for routine measurements. The possibility to adapt protocols and settings in a flexible way to match the requirements of specific research topics makes it an ideal tool for in-depth analyses: creation of own protocols, manual gating strategies, free variation of settings, adaption of buffer solutions

Pollen Analysis - Areas of Use



Research



Breeding



Seed Production



Production Research

Innovative Solutions for Microbiological Testing!

Biokar Diagnostics is a global leader in microbiology solutions, offering high-quality culture media, selective supplements, and rapid detection kits for various industries, including food safety, pharmaceuticals, and environmental testing. Our commitment to innovation, accuracy, and international standards ensures reliable and efficient laboratory testing.

Key Advantages of Biokar Diagnostics

- ◆ Globally Recognized Standards (ISO, FDA, AFNOR)
- ◆ Improves Laboratory Efficiency & Productivity
- ◆ Reliable, Accurate, and Easy-to-Use Solutions
- ◆ Comprehensive Microbiology Solutions for Various Industries

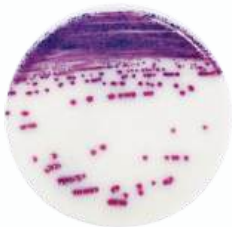
Microbiological Product



Dehydrate Culture Media

- ◆ Laurylsulfate-Tryptose Broth PC : BK010HA
- ◆ VRBG Agar PC : BK011HA
- ◆ TRYPTO-CASEIN SOY BROTH (TSB) PC : BK046HA
- ◆ Trypto-casein Agar PC : BK047HA
- ◆ Buffered Peptone Water (20 g/L) 5Kg PC : BK131GC
- ◆ Plate count agar PC : BK144HA
- ◆ Chromogenic Coliform Agar (CCA) 500gr PC : BK204HA

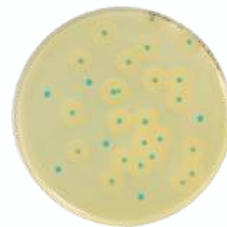
Alternative Methode for Pathogen Testing



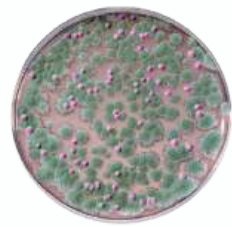
Iris Salmonella®
Detection Method for
Salmonellae



COMPASS® Bacillus Cereus Agar & COMPASS® Bacillus Plus Agar
Enumeration of Bacillus Cereus



COMPASS® Listeria Agar
Detection of Listeria Spp. and
Listeria Monocytogenes



Symphony Agar
Enumeration of Yeasts
& Molds

Dehydrate Culture Media

- ◆ TRYPTO-CASEIN SOY BROTH (TSB)
- ◆ Trypto-casein Agar
- ◆ Buffered peptone water (20 g/L)
- ◆ Thioglycollate Broth with resazurin



Suplemen and Kits

- ◆ PALCAM selective supplement
- ◆ Polymyxin B selective supplement
- ◆ Rabbit Plasma Fibrinogen (RPF) supplemen
- ◆ Sterile Egg yolk emulsion with Potassium tellurite
- ◆ Sterile Egg Yolk Tellurite Enrichment



CONFIRM' Salmonella is a latex agglutination test that allows for the confirmation of presumed positive colonies of Salmonella, after purification. CONFIRM' Salmonella is also used as a means of confirmation in the context of the rapid, alternative method of Salmonella detection (IRIS Salmonella®), without a purification step, directly from a characteristic magenta colony isolated on IRIS media.



CONFIRM' Salmonella Latex agglutination kit



Gas Chromatography

Gas chromatography can be used for a wide range of applications and industries. In fact, it is a widely used technique across most industries. The SCION 8500 Gas Chromatograph is the most versatile platform, delivering superior performance and productivity for any application. Gas chromatography offers the obvious advantage of enabling the identification of unknown substances within compounds, allowing for a deeper understanding of their properties.

Key Features & Benefit

- ◆ Ultimate flexibility/configurability.
- ◆ Fast ramping over (150°C/minute)
- ◆ Three channel architecture, with up to 3 injection ports and 4 detectors (including MS)
- ◆ 10" High resolution full-colour touchscreen, 16 languages supported
- ◆ Electronic Flow Control (EFC), up to 21 channels at 0.001psi resolution.
- ◆ Flexibility to add samplers, valves, valve oven, backflush and column switching capabilities, etc. Programmed and controlled and through CompassCDS

Autosampler



8900 Triple Quadrupole GC-MS



- ◆ Fastest triple quadrupole GC mass spectrometer on the market (30,000 Da/s, 1000 MRM/s)
- ◆ Robust, for the analysis of real samples at high sensitivity
- ◆ The most sensitive GC-TQMS available
- ◆ Small footprint without compromise on quality
- ◆ Active focusing Q0
- ◆ Compound-based scanning software
- ◆ Easy method development tools

Applications

Vitamin Analysis | Food Safety | Environmental Analysis |
Pharmaceutical & Cosmetics Analysis



HIGH PERFORMANCE LIQUID CHROMATOGRAPH

A robust design maximises uptime and productivity levels whilst minimises cost of operation. The SCION 6000 Series offers an array of automation options for workflow optimisation, making our lab experience the best and easiest possible

Key Value

- ◆ **High-Precision Gradient:** The SCION 6100 pump, equipped with High Frequent Mode (HFM), suppresses liquid pulsation, ensuring superior gradient reproducibility and accurate retention times.
- ◆ **Precise Injection & Low Carry-Over:** The SCION 6210 Autosampler features a high-precision syringe and optimized washing protocols, ensuring high injection accuracy and minimal carry-over.
- ◆ **Optimal Chromatography:** The SCION 6310/6320 column oven, with Peltier-based heating and cooling, delivers sharp peaks with excellent symmetry and accommodates up to three analytical columns.
- ◆ **Superior Detector Performance:** A selection of UV, DAD, Fluorescence, and Refractive Index detectors, designed for stability, precision, and high sensitivity.

AMINO ACID ANALYZER

Key Value

- ◆ **Reliable & Ready-to-Use Solution** - High sensitivity with a detection limit as low as 8 pMol and optimal peak resolution
- ◆ **Easy to Use & Manage** - Interactive LCD for direct control, method creation, and storage with multi-language support
- ◆ **Productive, Stable & Efficient**
 - Fast analysis: 30-50 min (hydrolysate), 70-180 min (physiological samples)
 - Long-term stability, reduced buffer usage, and durable columns & filters



UltraGenizer Pilot-Scale



35 L/hr
Max. flow rate

60,000 psi
Max. pressure

15 mL
Max. sample volume

Ultra High Pressure Homogenizer

The UltraGenizer series high-pressure microfluidics homogenizers are a new generation equipped with diamond interaction chambers, these highly flexible pilot-scale devices feature a simple and elegant design. With a single pump system, the pressure can be adjusted flexibly from 0 to 60,000 psi

Features

- ◆ **Efficient** - more uniform particle size distribution
- ◆ **Flexible** - Flow range: 12~35 L/hr, suitable for medium-scale production continuous
- ◆ **Scale** - Working pressure up to 60,000 psi ensure stable homogenization
- ◆ **Intelligent** - PLC real-time monitoring of flow, temperature, and pressure
- ◆ **Safe** - Hygienic stainless steel and pharmaceutical-grade surface treatment
- ◆ **Economical** - Affordable price for genuine microfluidics technology
- ◆ **Quiet** - Operating noise below 60 dB does not affect personnel

Application

- ◆ **Cosmetics** - Active ingredient encapsulation and product homogenization
- ◆ **Pharmaceutical** - Nanoemulsions, liposomes, nanoparticles, fat emulsions
- ◆ **Medical Aesthetics** - Injectable collagen, dermal filters
- ◆ **Food** - Modification of biomolecules, nutrient lipid encapsulation
- ◆ **Biotechnology** - Vaccine adjuvants, cell distribution
- ◆ **Fine Chemicals** - CMP polishing slurries, nanoxide dispersion
- ◆ **New Energy** - Hydrogen fuel catalysts, graphene

NanoGenizer



Applications

Nanoemulsion | Cell Disruption | Nanodispersion |
Deagglomeration | Liposome

Nano High Pressure Homogenizer

The NanoGenizer is a user-friendly, laboratory-scale high pressure homogenizer that is designed for laboratory R&D and small-scale production at ultra-high pressure. It's powered by a single phase electrical outlet. No need for compressed air or hydraulic oil. Maximum working pressure up to 3,062 bar (45,000 psi). It utilizes microfluidication **Diamond Interaction Chamber** technology, and can be widely used in the pharmaceutical, biochemical, cosmetics, food and dairy industries among others. It can also support experimentations from particle size reduction to cell disruption, nano emulsions, nano dispersions, liposome and more.

Unique Benefits

- ◆ **Energy efficient** - 1/2 energy loss of the most homogenizers
- ◆ **Small** - Integrated design delivers the light weight and small dimensions
- ◆ **Smart** - Controlled inlet volume \pm 0.1mL; Auto stop with time & volume
- ◆ **Silent** - Noiseless performance
- ◆ **Strong** - ~100 mL/min at 30,000 psi
- ◆ **CE** - compliant and RoHs compliant

Diamond Interaction Chamber, Microfluidic Technology



Unique Benefits

- ◆ **Core Part of NanoGenizer Series**
- ◆ Electro polishing and inner Passivation for pharmaceutical application
- ◆ Y-Type & Z-Type
- ◆ Material: 316L S/S and Diamond

Applications

Liposome | Lipopolyplex | Sterile Filtration | Lab Pilot | Manufacture



Liposome HandExtruder

Unique Benefits

The Genizer Extruder is designed to produce unilamellar populations of liposomes and lipopolyplex by the extrusion of a multilamellar liposome suspension. A multilamellar sample is forced repeatedly through polycarbonate filters with a defined pore size, and the smaller liposome 50nm-120nm with homogeneous size is produced.

- ◆ **Sanitary** - 316L Stainless Steel
- ◆ **Efficient** - micron pore supporting maximize the pressure and lower the contamination
- ◆ **Compatibility** - GMP and FDA compliant

Overview



Back-Side



Applications

Dairy | Still drinks | Alcoholic drinks | Fats & Oils | Ice Creams | Nutraceuticals | Soups & Sauces

HTST /UHT HEAT TREATMENT

The **HT220DSI** system integrates both indirect & direct heating processes, with or without a homogenizer, in one system. The automation technology facilitates the operation to control three pumps (product pump, homogenizer and DSI outlet-pump) with a single click using the touch screen.

Features and Benefits

- ◆ User-friendly
- ◆ Low maintenance cost
- ◆ Sanitary & aseptic design
- ◆ Easy access for maintenance
- ◆ Automatic CIP/ SIP
- ◆ High level of automation

Working Principle

Three stages can be distinguished during the system's operation: sterilization, production and cleaning (CIP). The sterilization (SIP) cycle involves heating the system to a specific temperature (typically 121°C) for a set duration (usually 20 minutes) to effectively eradicate microorganisms. After the SIP cycle the system is ready for processing. The system will stabilised at the set temperature profile with running water, after which production can be started. Following production, the system should be cleaned (CIP) by using the cleaning program

Radiocarbon Dating and Accelerator Mass Spectrometry



MICADAS (Mini Carbon Dating System)

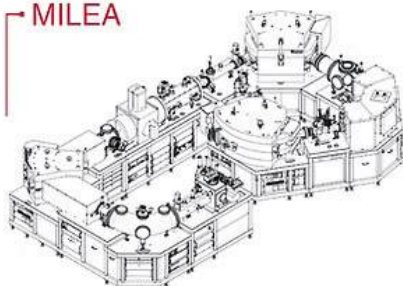
Mini Carbon Dating System is Ionplus' flagship Accelerator Mass Spectrometry (AMS) system designed specifically for radiocarbon (^{14}C) analysis. With advanced technology and an innovative design, MICADAS offers high precision, energy efficiency, and minimal infrastructure requirements, making it an ideal solution for ^{14}C research laboratories.

Key Features

- ◆ Simple and fast tuning
- ◆ High measurement stability over long time
- ◆ Fully automated gas measurements with GIS
- ◆ Fast magazine changes for continuous measurements without breaking the vacuum or cooling down any part of the ion source
- ◆ Low space requirements through very compact design
- ◆ Extremely low power consumption of 2.5 kW
- ◆ Fully air-cooled system, no cooling water needed
- ◆ Hybrid cesium negative sputter ion source for solid and gas cathodes
- ◆ Vacuum insulated accelerator terminal without any moving parts, no SF6 needed
- ◆ Minimal maintenance

Ionplus AMS Instruments

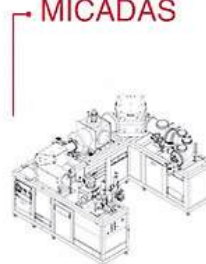
MILEA



MILEA light



MICADAS



LEA





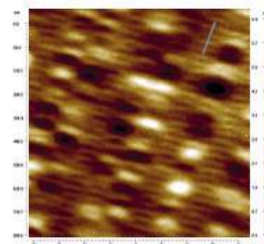
High Performance Atomic Force Microscopy

hpAFM is an advanced atomic force microscope that brings a new level of performance, functionality, design and capability. It's designed to minimize the time to get best results. Whether you can work in liquid or in air conditions, it is for everyone from material science to life science. hpAFM offers excellent features such as alignment-free design, closed loop flexure scanner, decoupled z scanner, 10 MP video microscope and flexible operating modes.

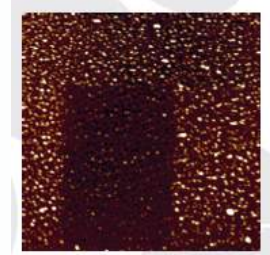
Operating Modes

- ◆ Contact Mode AFM
- ◆ Lateral Force Microscope (LFM)
- ◆ Dynamic Mode AFM & Phase Imaging
- ◆ Non-contact Mode AFM with digital PLL
- ◆ Liquid AFM
- ◆ Magnetic Force Microscope (MFM)
- ◆ Electrostatic Force Microscope (EFM)
- ◆ Scanning Tunnelling Microscopy (STM)
- ◆ Piezo Response Force Microscopy (PRFM)
- ◆ Conductive AFM (CAFM) / Scanning Spreading Resistance Microscopy (SSRM)
- ◆ AFM Lithography (Scratching)
- ◆ Force Modulation Mode
- ◆ Kelvin Probe Force Microscopy (KPFM)
- ◆ Nano Mechanical Imaging (NMI)
- ◆ Electro Chemical AFM (EC-AFM)
- ◆ Nanoindentation
- ◆ Advanced PFM

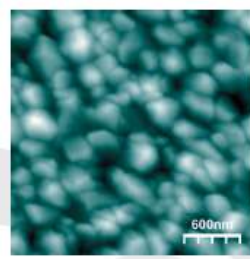
Examples



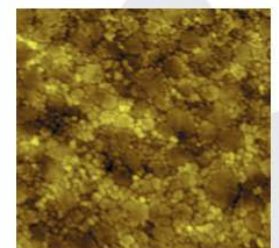
HDD



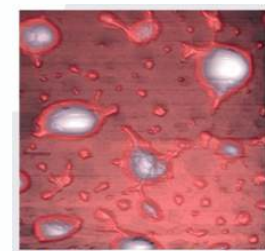
Topography of BCFO 10 x 10 μm



Copper coated HOPG in EC-Cell



LCMO 3 x 3 μm



Phosphorylcolamine Coated line 30 x 30 μm



Vibrating Sample Magnetometer (VSM)

NMI Vibrating Sample Magnetometer combines high sensitivity (5×10^{-7} emu), excellent repeatability and simple handling. NMI-VSM is has an ergonomic design and software that facilitates the researcher's use. VSM Drive Head is designed for easy and simple replacement of samples.

Measurements Parameters

- ◆ VSM oscillation frequency (calibrated): 1-100Hz
- ◆ VSM oscillation amplitude range of 0.1 mm – 5mm
- ◆ Sample size up to 6mm diameter
- ◆ RMS sensitivity 5×10^{-7} emu
- ◆ High stability per day
- ◆ Excellent reproducibility

Sensitivity Parameters



Hall Effect Measurement System (HEMS)

NMI – Hall Effect Measurement System (HEMS) device Performs electrical characterization of semiconductor, organic conductor and metal oxide materials. These materials developed with nanotechnology methods are used in the development of chip technology, the development of solar cells, the development of material science, space technology, defense industry.

- ◆ Carrier density-temperature charts
- ◆ Mobility- temperature charts
- ◆ Temperature - resistance measurement
- ◆ Current-voltage characteristics
- ◆ Hall mobility measurement
- ◆ Hall coefficient measurement
- ◆ Resistance measurement

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Particle Analysis

Function:

- ◆ Particle analysis is a crucial technique used to measure and study the characteristics of particles in various materials, whether in liquid, solid, or gaseous forms.

Applications:

- ◆ Particle size and distribution of polymers, colloids, biomacromolecules, etc.

Sample Requirement:

- ◆ Powder and Liquid



Zeta Potensial Analysis

Function:

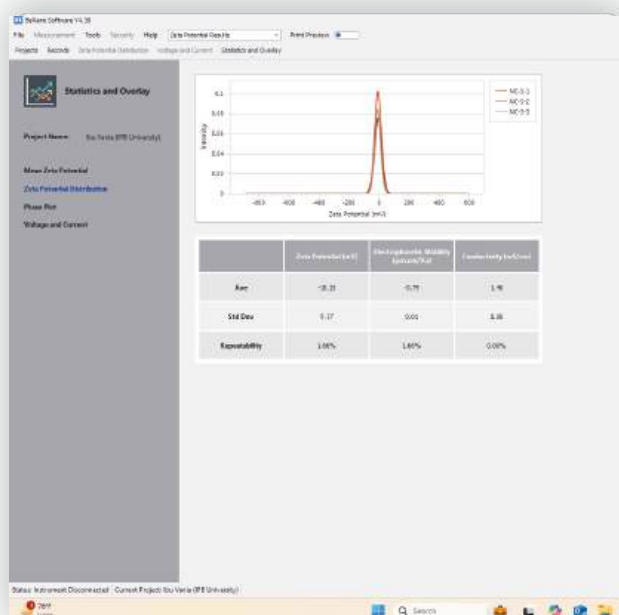
- ◆ Zeta potential is a key parameter in colloidal science that measures the electric potential at the shear plane of a particle in a suspension. It provides insights into the surface charge and stability of particles in a liquid medium

Applications:

- ◆ Particle suspensions, including colloids, proteins, nanometals, etc

Sample Requirement:

- ◆ Liquid



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We offer customized training and seminar for customers with differing backgrounds to enhance your application knowledge and the know-how of the instrument. Training courses include both theoretical and practical hands-on sessions.



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- ◆ Instruments upgrades and refurbishing service
- ◆ Re-location services
- ◆ Instrument IQ/OQ/PQ
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