

[illegible]

A collage of three images. The top left shows a blue DNA double helix with several red, spherical virus-like particles attached to it. The top right shows a mechanical device with two large white wheels and a black body, positioned over a graph with a red and green cross. The bottom right shows a blue background with white circles of varying sizes.

Analytical, Environmental, Material Testing & Life Sciences Equipment



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CEO Message



"Maxtech Corporation" is one of the leading and well recognized companies in Pakistan for the supplies of Scientific, Analytical, Environmental Monitoring, Materials Testing and Life Sciences Instruments. We focus on Public Sectors as well as on Industrial Market Sectors within territory of the Pakistan.

Treasuring more than 32 years of experience in the quality instrumentation, Maxtech is able to provide extensive and comprehensive after-sales-services in addition to supply of Scientific instruments.

We at "Maxtech Corporation" are committed to remain at the forefront in supplying of the world's top ranked and advanced engineering and technologies. We achieve this goal by proudly representing the world's leading scientific and technology manufacturers in their respective fields. We market and sell state-of-the-art scientific products, services, and innovative technologies having strong brand names with significant domestic and international market position.

We always plan for improvement, effective marketing, and superior performance to provide better services because we plan on the Voice-of-the-Customer. Our robust, repeatable process always yields superior quality, prompt delivery and cost effectiveness which satisfy our customers beyond their expectations. We dedicate our efforts to serve you, with confidence, through a unique combination of Sales-Service-and-application support.

We believe you will designate "Maxtech Corporation" as your preferred technology vendor for the supply of Scientific, Laboratory, Field analysis and In-Situ measuring instruments.

We are deeply grateful to all our customers for their continued support.

We thank you and remain at your disposal.

Faithfully yours,
Ghulam Mujtaba
Chief Executive

MAXTECH PRODUCTS AT A GLANCE

ANALYTICAL DIVISION

Coulometric Karl Fischer
Titrators

Potentiometric
Volumetric Titrators

Gas Chromatography

TOC Analyzers

Organic & Inorganic
Elemental Analyzers

Nitrogen & Protein
Analyzers

Kjeldahl Digestion &
Distillation Systems

Soxhlet Rapid Extraction
System & Acid Hydrolysis

Advanced Fiber Analysis

Stable Isotope Ratio Mass
Spectrometer (IRMS)

Nuclear Magnetic
Resonance (NMR)

Confocal Microscope
Raman Spectroscopy

Pharmaceutical & Biological
Raman Spectrometer

Atomic Force
Microscope (AFM)

Batch Chemistry
Chemical Reactors

Flow Chemistry
Chemical Reactors

Hotplates, Serial Flask
Heaters

Laboratory Shaker

ENVIRONMENTAL DIVISION

Ambient Air Quality
Monitoring System (AQMS)

Portable Stack Gas
Analyzers

Trace Gas Analyzers

Continuous Emission
Monitoring System (CEMS)

Vehicular Emission
Analyzers

Water Quality
Monitoring

MAXTECH PRODUCTS AT A GLANCE

Radiation Measurement

Gloss Measurement

Infrared Radiation Thermometer

Stack Dust Monitoring

Tunnel and Traffic Monitoring for Visibility/Air Flow /Luminance and Gas Monitoring

Aerosol Neutralizer & Electrostatic Precipitator

PM Monitor

Emission Sampling System (ESS)

Laser Infrared Gas Spectrometer

MATERIAL TESTING DIVISION

Universal Testing Machines (UTM) (5N to 100kN)

Digital and Mechanical Force Gauges

Food Texture Analyzer

Paper, Board and Packaging Testing Equipment

Co-efficient of Friction Testing Machine

Harness Testers for Rockwell, Brinell and Microharness Testing

LIFE SCIENCES DIVISION

Surface Plasmon Resonance (SPR) System

OUR PRINCIPALS

HORIBA
Process & Environmental

HORIBA

Horiba provides a wide range of technologies to measure air, water and soil quality since late 1970s. Thanks to its measurement technologies that comply with environmental regulations around the world. Horiba manufactures and sells Air Quality, Emission Monitoring, Process Analyzers, Process Water, Water Pollution, Thermometer, Gloss Checker and Radiation Monitor.

RENISHAW
apply innovation™

RENISHAW

Renishaw is a global, high precision metrology and healthcare technology group. Renishaw is one of the worlds pioneer companies in manufacturing of the Raman Spectroscopy. Renishaw produces a wide range of Raman Spectroscopy instruments including Raman microscopes, portable analyzers and bench-top systems.

 **elementar**
EXCELLENCE IN ELEMENTS

ELEMENTAR

Imagine the power of over 120 years of experience in the development and manufacturing of Elemental analyzers. Elementar is the world's leading manufacturer of analytical instrumentation measuring carbon, nitrogen, sulfur, hydrogen, oxygen, or chlorine in organic and most inorganic material.

 **Ellutia**
Chromatography Solutions

ELLUTIA

Ellutia is a leading independent manufacturer of innovative Gas chromatography instruments. Formerly Cambridge Scientific Instruments Ltd, formed in 1994, the company became Ellutia Chromatography Solutions in 2010 and now has divisions in the UK, USA and Germany.

 **SYRRIS**

SYRRIS

Syrris is a world leader in high quality, innovative products for research and development chemists and chemical engineers. Syrris is a world-renowned company for the production of Batch and Flow Chemistry Systems. Syrris is based in Royston, UK with over 50 distributors worldwide who offer technical assistance and support.

 **Gerhardt**
Analytical Systems

GERHARDT

Gerhardt is one of the world's leading suppliers of laboratory equipment and methods for analyzing feed and food Since 1846. Gerhardt systems are used in determination of Nitrogen, Protein, Fat and Fiber, Chemical Digestion, Distillation, Extraction, Hydrolysis and Heating & Drying.

OUR PRINCIPALS



ELEKTROCHEMIE HALLE

ECH

ECH Elektrochemie Halle GmbH was founded in 1992 and is based in the Germany. ECH Elektrochemie Halle GmbH is developing and manufacturing individual analytical methods. ECH offers world's best coulometric Karl Fischer Titrators and Potentiometric Volumetric Titrators.



**OXFORD
INSTRUMENTS**

Oxford Instruments plc founded in 1959 is a United Kingdom manufacturing and research company. Oxford Instruments Magnetic Resonance benchtop NMR spectroscopy and time domain (TD-NMR) relaxometry solutions enable novel research and optimize quality control.



ICSPI

After nearly 10 years of research and development at the University of Waterloo, ICSPI commercialized the world's first single-chip atomic force microscope (AFM). ICSPI products have reset the expectations for AFM and nanoscale metrology.



AMETEK

Chatillon and Lloyd Instruments are just some of the world-renowned brands manufactured and supplied by AMETEK Sensors, Test & Calibration. A comprehensive range of Materials Testing Machines, Force Measurement Machines, Digital Force Gauges, Torque Gauges, Grips, Fixtures, Load Cells and Accessories.



RDM

RDM Test Equipment is a British manufacturer and distributor of Packaging and Material Testing equipment. RDM is the world's leading manufacturer of Heat Sealability, Seal Strength & Hot Tack Heat Sealers for the Lab, Pilot Plant & Production, Physical Strength & Material Properties, Permeation of Barrier Materials, Package Integrity, Surface & Optical Properties, Sample Preparation and Laboratory Equipment.



**NICOYA
LIFESCIENCES**

At Nicoya, the mission is to improve human life by helping scientists succeed and Surface Plasmon Resonance (SPR) is the way to do it. SPR is an Optical Biosensing Technology using Label-Free technique, applied to detect characteristics and quantification of biomolecular interactions.

OUR VALUED CLIENTS



ELLUTIA LIMITED - UK



Gas Chromatography Solutions

Autosamplers

Detectors

Ellution

Gas Chromatograph 200 Series GC

Innovative compact single channel GC



- Compact and great for mobile use
- Uses minimal power, therefore more environmentally friendly
- Costs less but still produces the same high-quality solution
- Maintains full GC control with Ellution software
- Low service maintenance & low cost of spare parts

Gas Chromatograph 500 Series GC

Perform conventional, fast and ultra-fast chromatography



500 Series Gas Chromatograph is a unique new concept in gas chromatography. The instrument can perform conventional, fast and ultra-fast GC, removing the requirement for multiple systems. This is the only GC machine that can offer this flexibility for the customer.

- Unique temperature programmable injector Can be used as conventional split-splitless or with rapid temperature ramping
 - Perform conventional and Fast Chromatography using compact air blown oven and patented low energy heat recovery heating system to deliver industry standard performance
 - Perform ultra-fast chromatography using directly heated columns
 - Full colour touch screen display
 - Full GC control with Ellution Software

Autosamplers



Ellutia's range of autosampler products can provide customers with a unique solution whether they require an automatic liquid sampler, a smaller sampler or syringe recognition.

EL2000H Headspace Sampler: Ideal solution for headspace injection.

EL3000A Liquid Autosampler: Automatic liquid autosampler designed for gas-chromatographic techniques.

EL3100A Liquid Autosampler: Automation for processing up to 15 samples unattended. Can be configured to serve up to two injectors

EL3200A liquid autosampler: 209 2mL sample vials.

PAL 3 Autosamplers: Range of Rail Autosampler Options.

ELLUTIA LIMITED - UK



Detectors 800 Series TEA



- Explosives analysis and carcinogenic nitrosamine testing
- Identify and Analyse N-Nitro, N-Nitroso and Nitrogen Containing Compounds
- Monitoring air borne nitrosamines; Thermosorb-n
- Chemical stripping glassware system for total nitrosamine analysis
- Nitrosamine in Food; Nitrosamines in Malt & Beer; Nitrosamines in Rubber
- Airborne Nitrosamines; Trace Explosives Analysis; Nitrosamines in Children Toys
- Nitrosamines in Pharmaceuticals

Detectors Thermosorb-N (Air Sampling)



- Sampling Cartridge for monitoring levels of Airborne Nitrosamines
- Artifact trap and nitrosation inhibitor
- Solid sorbent
- Disposable
- Flow rates between 0.2 and 4 L./min

Ellution

Ellution Chromatography Data Station



- Advanced Chromatography Software Package developed in conjunction with DataApex
- Ellution makes collecting and processing data from one of our instruments simple and then generating reports easy, thanks to the clear structure and intuitive graphical user interface
- Full Control of Ellutia Gas Chromatographs is included as standard to make it an advanced & integrated piece of software

Ellutia's Applications

Ellutia's products can be found in a wide range of industries, used across market sectors including:

- | | | | |
|-----------------------|-------------------------|---------------------|----------------------|
| • Agro-chemical | • Environmental testing | • High purity gas | • Permeation testing |
| • Brewing and malting | • Food testing, | • Materials testing | • Toy production |
| • Cosmetics | • Forensic laboratories | • Natural gas | • Residue Solvents |
| • Education | • Fertilizers | • Packaging testing | • Refineries |

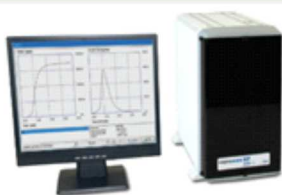
ECH ELEKTROCHEMIE HALLE GmbH - GERMANY

ECH



The industry favorite Aquamax Coulometric Karl Fischer Titrators and Volumetric Potentiometric Titrators are now made in Germany.

aquamax KF PRO OIL



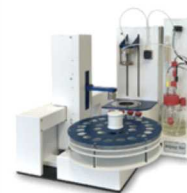
Water determinations in
petroleum products according
to ASTM D6304

aquamax KF Plus



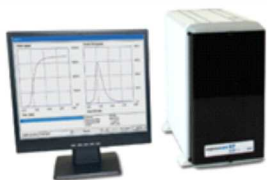
In-lab ppm water
content

aqua 40.00 Vario Head Space Module



Automated ppm water in
liquids and solids

aquamax KF PRO LPG



Water determination
in LPG & Gases

aquamax KF Online



On-line water
determinations in
petroleum products

aqua HT1300 40.00



High temperature oven

aquamax KF Portable



On-site ppm
water content

aquamax KF Reagents



Single shot Karl
Fischer Reagent



ECH ELEKTROCHEMIE HALLE GmbH - GERMANY

ECH



Titramax VT TAN/TBN



Determination of Total Acid Number (TAN).

Total Base Number (TBN) of oils and fats.

Suitable for analysis of:

- transformer oils
- natural and artificial fats
- mineral oil products
- lubricants
- food fats (e. g. olive oil, butter)

Conform to standards:
ASTM D 664, DIN 51558, IEC 62021-1,
Pharmacopoeia, (TAN) ASTM
D 2896, ASTM D 4739, ISO 3771,
UOP 269 (TBN)

Titramax VT WATER



Volumetric Water Determination in Liquid.

Suitable for analysis of:

- Water in alcoholic and similar liquids
- Methanol
- Isopropyl alcohol
- Glycol
- other organic liquids

Conform to standards:
ASTM D 4377, ASTM D 6869, ASTM E 203,
DIN 51777, IP 356, IP 471, ISO 10336,
ISO 6296, Pharmacopoeia

Titramax VT SULPHUR



Hydrogen sulphide and mercaptan sulphur in hydrocarbons and oils.

Suitable for analysis of:

- transformer oils
- natural and artificial fats
- mineral oil products
- lubricants
- food fats (e. g. olive oil, butter)

conform to standards:
ASTM D 3227, ISO 3012,
UOP 163, UOP 212

Titramax VT BROMINE



Suitable for analysis of:

- Petroleum distillates
- Gasoline (including leaded, unleaded, oxygenated fuels)
- Kerosene • Distillates in the gas oil range • Commercial propylene trimer and tetramer
- Butene dimer • Mixed nonenes, octenes, heptenes • Olefinfree hydrocarbons or mixtures

Conform to standards:
ASTM D 1159, ASTM D 2710
and ASTM D 5776

Titramax VT ALKALINITY



Suitable for analysis of:

- drinking water
- surface water
- seawater
- technical waters
- boiler water
- cooling water

Conform to standards:
ASTM D 1121, DIN EN ISO 787-4,
DIN ISO 125, ISO 10539



C. GERHARDT GmbH & CO. KG - GERMANY



PRODUCT HIGHLIGHTS

DUMATHERM® N Pro		NITROGEN / PROTEIN ANALYSIS ACCORDING TO DUMAS <ul style="list-style-type: none"> Unique auto sampler technique Eco-friendly consumables Rapid reference results Favourable operating costs Numerous applications: Liquid, pasty, solid samples
KJELDATHERM® TURBOTHERM VACUOUSOG		BEST IN CLASS KJELDAHL DIGESTION SOLUTIONS <ul style="list-style-type: none"> Reproducible digestion conditions Efficient heating and cooling Transparent & traceable processes acc. to ISO 17025 Different user levels Data log
VAPODEST®		BEST IN CLASS KJELDAHL DISTILLATION SYSTEMS <ul style="list-style-type: none"> Modern, powerful, reliable distillation units Transparent & traceable processes acc. to ISO 17025 Kjeldahl analysis in line with ISO, AOAC, GAFTA, EC, DIN, EPA, ASTM
FIBRE THERM®		ADVANCED FIBRE ANALYSIS <ul style="list-style-type: none"> Crude fibre ADF ADF_{OM} NDF NDF_{OM} aNDF_{OM} Unique FibreBag filtration technology Standardized filtration conditions Batch handling, small footprint
HYDROTHERM		UNRIVALED TOTAL FAT SOLUTION <ul style="list-style-type: none"> Widely recognized Weibull-Stoldt/- Berntrop method First automatic hydrolysing system Acid hydrolysis made safe and rapid
SOXTHERM®		<ul style="list-style-type: none"> Rapid solid/liquid extraction 4 times faster than Soxhlet Resource-efficient solvent recycling All-rounder for numerous further applications in environmental labs, textile and chemical industry
LABOSHAKE		LABORATORY SHAKER <ul style="list-style-type: none"> Large shakers with orbital / reciprocal motion Incubator shaker Versatile accessories for shaking platforms
THERMO		CLASSIC APPARATUS AND SERIAL HEATERS <ul style="list-style-type: none"> Digestion / distillation apparatus Extraction apparatus Crude fibre apparatus and hydrolysis apparatus Serial heating benches, glass dryer



C. GERHARDT GmbH & CO. KG - GERMANY



INDUSTRY ANALYTICAL SYSTEMS



FISH LAB



FEED LABORATORY



CONTRACT
LABORATORY



MILK LABORATORY



MEAT LAB



GRAIN LABORATORY



OILSEED
LABORATORY



WINE LABORATORY



BREWERY AND
MALTING
LABORATORY



ENVIRONMENTAL
LABORATORY



AGRICULTURAL
LABORATORY



FOOD LAB



BIOMASS
LABORATORY



ANALYSIS & PROCEDURE



NITROGEN
DETERMINATION



PROTEIN
DETERMINATION



FAT DETERMINATION



FIBER
DETERMINATION



CHEMICAL
DIGESTION



DISTILLATION



EXTRACTION



HYDROLYSIS



SHAKE



HEATING & DRYING



ELEMENTAR ANALYSENSYSTEME GmbH, GERMANY



- Analyzers for CHNSO-X Elemental Analysis,
- TOC & Water Analysis,
- Nitrogen / Protein Analysis,
- Stable Isotope Ratio Mass Spectrometry,
- Inorganic Elemental Analysis (CONHS),
- Optical Emission Spectrometry (OES)

Product portfolio

Organic Elemental Analysis

Organic Elemental Analysis are designed to offer industry-leading versatility in elemental analysis. Thanks to proprietary Advanced Purge and Trap (APT) technology even the most challenging C:N elemental ratios of up to 12,000:1 can be reliably measured. Optional conversion kits make it possible to upgrade every instrument at any time for special applications.

				
	UNICUBE®	vario EL cube	vario MACRO cube	vario MAX cube
Elements	CHNS and O or Cl with multiple modes			N, CN, CNS
Max. C content	14 mg (50 mg in CN mode)	40 mg	150 mg	500 mg
Sample weight (for soils with 1% C)	< 0.5 g	< 1 g	< 1.5 g	< 5 g



UNICUBE® trace

- Detection limit of 10 ppm N
- Low total cost of ownership
- Integrated 120 position autosampler as standard



rapid OXY cube®

- Industry-leading performance
- Blank-free oxygen detection
- 1,450 °C furnace temperature for matrix-independent results
- Integrated 120 position autosampler as standard



trace SN cube

- Industry-leading performance and versatility
- Detection limit of 6 ppb for sulfur
- Detection limit of 15 ppb for nitrogen
- For liquids, LPG, gas and solid samples



LPG Module

- 20 µl sample loop, multiport valve and heated tube
- Injection of LPG without soot formation



Gas Module

- Injection of gaseous samples up to 60 bar
- 20 ml gas loop volume



rapid CS cube

- Fast analysis time
- Integrated 60 position autosampler as standard
- Chlorine determination as an option

ELEMENTAR ANALYSENSYSTEME GmbH, GERMANY



N/Protein Analysis

N/protein analyzers use the high-temperature combustion method according to Dumas, which has clear advantages over Kjeldahl regarding laboratory safety, sample throughput, labor time, amount of chemical waste and thus cost-per-analysis. Analyzers for the determination of N/protein are dedicated instruments serving today's customer needs in regards to price-per-sample, throughput and sensitivity.



rapid N exceed®

- Lowest cost per sample
- Inexpensive CO₂ as carrier gas
- EAS REDUCTOR® for up to 2,000 samples
- Fastest analysis (3-4 min.)



rapid MAX N exceed

- Simplified sample preparation
- Argon as carrier gas (helium optional)
- EAS REDUCTOR® for over 1,000 samples
- Advanced crucible technology with automatic ash removal

TOC & Water Analysis

TOC analyzers offer fast and easy determination of total organic carbon in water and solids. Packed with innovative technologies and features, the robust design guarantees highest possible uptime and unrivaled performance for routine operation.



accuray® series

- Optimized UV/persulfate digestion for trace TOC analysis
- Large reactor and injection volumes up to 40 ml
- Best price-to-performance ratio
- Option for TOC, ROC and TIC in solids
- Options for TN and TP in water



enviro TOC

- Customized for TOC in environmental water and wastewater
- 60-position autosampler for 40 ml EPA vials
- Unique matrix separation with SALTRAP
- Optional automated sample feeding for solids
- Choice between integrated CLD and EC cell for TN_x determination



vario TOC cube

- Choice between two IR detectors for trace and standard TOC analysis
- Industry-leading performance and versatility
- Optional automated sample feeding for solids
- External CLD for trace TN_x analysis



soli TOC® cube

- Precise temperature programming with fast heating rates
- Optional carrier gas switching for better separation of ROC and TIC
- Option to determine nitrogen simultaneously
- Advanced crucible technology with automatic ash removal

ELEMENTAR ANALYSENSYSTEME GmbH, GERMANY



Inorganic Elemental Analysis

The innovative inductar® series was developed for easy and accurate analysis of carbon, sulfur, oxygen, nitrogen and hydrogen in inorganic materials. Temperatures up to 3,000 °C are reached by the long-living solid-state induction furnace, which is necessary for the analysis of high melting materials. Thus, together with high performance detectors, accurate and reliable results are guaranteed. Furthermore, customers can enjoy easy sample analysis with high sample throughput.



inductar® CS cube

- Minimized dust and debris makes tedious cleaning needless
- Advanced crucible design for secure unattended 24/7 operation
- Semi-automated or fully automated sampler with up to 89 positions



inductar® ONH cube

- First ONH analyzer with a solid-state induction furnace
- Simultaneous analysis of oxygen, nitrogen and hydrogen possible
- Instruments with H-, OH- and ON-only configurations also available



inductar®EL cube

- World's first 5 element analyzer for the analysis of CS/ONH in inorganic materials
- Sample feeding technology from the top allows the analysis of 5 elements with only one instrument
- Solid-state induction technology for extra-long furnace lifetime

Optical Emission Spectrometry (OES)

Spark OES is the most reliable and established analytical technique to determine the mass fraction or identification of metals and their alloys. OES analyzers from Elementar meet the highest requirements of the metal industry, from production control to research and development, from the inspection of incoming or outgoing materials to scrap sorting.



ferro.lyte®

- For fast, precise metal analysis and on-site identification in laboratory quality
- Revolutionary operation of the software for quick and easy navigation
- Simple reporting thanks to data export at the push of a button
- Precise nitrogen analysis in duplex thanks to innovative CONLYTE® technology (patent pending)

ELEMENTAR ANALYSENSYSTEME GmbH, GERMANY



Stable Isotope Analysis

For more than 40 years, Elementar is developing and manufacturing Stable Isotope Ratio Mass Spectrometer (IRMS) instruments in Manchester, UK. In conjunction with a comprehensive range of complimentary inlet systems, the IRMS solutions provide high performance measurements of carbon, hydrogen, oxygen, nitrogen and sulfur isotopes in solid, liquid and gaseous samples.

Stable Isotope Ratio Mass Spectrometers

New xION isotope ratio mass spectrometer platform is the smallest 5 kV instrument available on the market thanks to the uniquely designed ion optics and integrated centrION CF gas handling system. Combined with ionOS® software the xION platform combines exceptional analytical performance with powerful automation and intelligence.

isoprime vision Solutions



- Comprehensive, tailor-made solutions for routine stable isotope analysis
- Smallest IRMS footprint on the market
- Fully automated system setup and performance checks
- ionOS® advanced IRMS software

isoprime precisION



- High performance IRMS system with excellent sensitivity, accuracy and precision
- Simultaneous measurement of up to 10 ion beams for multi-collector experiments
- ionOS® advanced IRMS software
- Dual Inlet configuration optional

EA Inlets

EA-IRMS solutions are the most technically advanced available and offer innovative technologies for best analysis results. With our unique APT technology for separating and focussing gas mixtures as well as the zero-blank ball valve sample introduction system, analyses are straightforward, no matter how complex the samples.

vario ISOTOPE cube



- Industry-leading accuracy and precision thanks to APT technology
- Capable of analyzing materials with a C:S ratio of >5,000:1
- Excellent analysis of large sample sizes up to 30 mg (abs) carbon
- Reliable results, even for low-microgram samples
- Patented ball valve for blank-free sample transfer

vario ISOTOPE select



- Entry-level elemental analyzer for $\delta^{15}\text{N}$, $\delta^{13}\text{C}$ and $\delta^{34}\text{S}$ analysis of organic materials
- Reliable results for sample sizes up to 7 mg (abs) carbon
- Patented ball valve for blank-free sample transfer
- Tool-free routine maintenance
- Integrated autosampler with up to 240 positions

vario PYRO cube®



- OH and CNS isotope ratio analysis all in one universal instrument
- Industry-leading accuracy and precision thanks to APT technology
- Matrix-independent, reliable results thanks to patented backflush technology, with exceptional separation of N_2 and CO
- Capable of analyzing materials with a C:S ratio of >5,000:1

iso TOC® cube



- Only truly integrated TOC-IRMS system for analysis of dissolved organics
- Eliminates the need for sample extraction and purification
- High temperature combustion of recalcitrant compounds yields 100 % C and N recovery
- Exceptional dissolved organic carbon and bound nitrogen isotope analysis

ELEMENTAR ANALYSENSYSTEME GmbH, GERMANY



Chromatography Inlets

Compound specific isotope analysis is a powerful technique which allows complex mixtures of organic compounds to be separated and then isotopically analyzed. Compound separation is done via GC or LC techniques prior to fractionation-free real-time conversion of the compound to gaseous phase. Our systems offer exceptional sensitivity and chromatography.



GC5

- Online measurement of $\delta^{13}\text{C}$, $\delta^{15}\text{N}$, $\delta^2\text{H}$ and $\delta^{18}\text{O}$ in compounds separated by GC
- Agilent 7890B GC with split/splitless, PTV or on-column injectors
- High temperature $\delta^2\text{H}$ pyrolysis of compounds at 1,450 °C
- Optimized to maintain chromatographic integrity

LiquiFace

- Liquid chromatography interface for $\delta^{13}\text{C}$ measurements
- Fractionation-free wet chemical oxidation at 90 °C
- Direct injection mode for bulk isotope measurements
- Excellent chromatography performance



iso CHROM® LC

- The only LC-IRMS interface to use high-temperature combustion to convert separated compounds to CO_2
- Robust analysis and significantly improved maintenance intervals
- Exceptional chromatography performance
- Ideal for high throughput LC-IRMS analysis



Headspace Analysis

Headspace analysis is a technique whereby samples for isotopic analysis are prepared into septum sealed vials or flasks. This includes atmospheric gases, breath, fluids and carbonate materials. These systems perform automated sampling, purification and concentration of the analytical species of interest allowing high precision, high sensitivity analysis of a broad range of sample types.

iso FLOW

- Headspace analyzer for a broad range of sample matrices
- UltiTrap™ technology provides dynamic separation of sample gases
- Carrier He flow controlled by a digital high precision MFC
- 180-position heated sample tray with ± 0.1 °C stability up to 90 °C
- Direct drive pump for precise delivery of acid (optional)



iso FLOW GHG

- Cryogenic pre-concentration system for analysis of atmospheric concentrations of CO_2 , N_2O and CH_4 greenhouse gases
- Perform high-sensitivity analysis of nitrate via 'bacterial denitrification' technique
- Optional 1,500 °C furnace for $\delta^{13}\text{C}$ analysis of CH_4



Dual Inlet Analysis

Dual inlet technology is the ultimate solution for those applications looking for the highest possible precision and sensitivity for isotope analysis of pure gases. This is due to the unique ultra-low volume change-over valve which performs multiple comparisons between sample and reference gas to drive down analytical precision. Our dual inlet system has the smallest footprint making it an ideal choice for busy laboratories.

iso DUAL INLET

- High precision pure gas analyzer
- The only dual inlet instrument capable of extremely high precision measurements of carbonate and water samples
- Micro-volume cryogenic cold-finger makes analysis of very small (5 µg) carbonate samples possible
- The world's highest precision ^{18}O analysis of water samples
- Extremely compact benchtop system



ELEMENTAR ANALYSENSYSTEME GmbH, GERMANY



Software

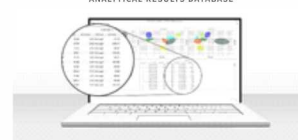


lyticOS® Software Suite

will support you through fast and robust data processing of the most complex samples.

ArDB

ArDB is an intuitive software tool for developing databases of analytical results and generating powerful visualizations and analytics



Markets



Chemicals

The precise quantitative determination of the elements carbon, hydrogen, nitrogen, oxygen, and sulfur in diverse substances is the foundation and core market of the Elementar product portfolio. Universal instruments for almost unlimited applications regarding substances like

- Chemicals
- Pharmaceuticals
- Petrochemicals
- Biochemicals
- Environmental substances



Agriculture

Elementar is a pioneer in Dumas combustion analysis for the determination of nitrogen and protein content in macro samples in the gram range. The Dumas method is currently replacing the classical wet chemical Kjeldahl digestion method as the standard procedure. Fast and straight-forward N/protein analysis as well as CN or CNS in

- Food and feed
- Biomass
- Chemicals
- Starch etc.
- Soil
- Fertilizer



Environmental

For monitoring of water quality or recyclability of residual materials – there is no way around TOC. Measurement of organically bound carbon and nitrogen in

- Ultra-pure water
- Suspensions
- Fresh water
- Solids
- Wastewater
- Ocean water



Energy

The analysis of CHN and S is a standard procedure for determination of calorific value, environmental impact and purity of fossil as well as renewable fuels like

- Coal
- Gasoline
- Biomass
- Refined products
- Waste



Forensics

Understanding a sample's origin with stable isotope analysis brings powerful insight across numerous forensic applications:

- Sports doping
- Archaeology
- Anthropology
- Forensic medicine
- Food authenticity



Materials

Innovative ideas, combined with state-of-the-art technologies optimize our instruments for the analysis of inorganic materials like

- Steels
- Cast irons
- Non-ferrous metals
- Ceramics
- Other inorganic materials

OXFORD INSTRUMENTS MAGNETIC RESONANCE - UK

Nuclear Magnetic Resonance (NMR)

NMR
Spectrometers

QC/QA
Analysers

Rock Core
Analysers

OXFORD
INSTRUMENTS



NMR Spectrometers

X-Pulse - Bringing broadband to the benchtop

X-Pulse is a revolution in the flexibility of benchtop NMR spectroscopy. A unique modular design combines fully tuneable broadband X-nuclei capability, flow chemistry, sample automation, reaction monitoring and variable temperature with superior spectral resolution. X-Pulse provides the widest range of NMR chemical analysis for research, development quality control and teaching on the bench in your lab.



X-Pulse NMR Spectrometer Broadband

- World's only broadband benchtop NMR system
- 60MHz broadband NMR spectrometer
- Allows you to freely tune between a wide range of X-Nuclei in a single benchtop NMR instrument
- Resolution <0.35Hz (50%) / <10Hz (0.55%)
- Sensitivity: 130:1 for 1% Ethyl Benzene
- X-Channel: fully tuneable ^{29}Si – ^{31}P
- Pulsed field gradients as standard (>0.5T/m)
- Variable temperature option (0°C – 65°C)
- Flow NMR option
- No cryogenics
- Easy to use
- Standard 5mm OD NMR tubes

X-Pulse NMR Spectrometer Dual-X

- Allows the analysis of up to 4 NMR active nuclei in a single instrument
- Resolution <0.35Hz (50%) / <10Hz (0.55%)
- Sensitivity: 130:1 for 1% Ethyl Benzene
- X-Channel: select 2 nuclei from ^{13}C , ^{31}P , ^7Li , ^{29}Si , ^{11}B , ^{23}Na , and more
- Pulsed field gradients as standard (>0.5T/m)
- Variable temperature option (0°C – 65°C)
- Flow NMR option
- No cryogenics
- Easy to use
- Standard 5mm OD NMR tubes
- Fully upgradable to X-Pulse broadband

X-Pulse NMR Spectrometer HF

- Exceptional sensitivity single channel benchtop NMR system
- Resolution <0.35Hz (50%) / <10Hz (0.55%)
- Sensitivity: 200:1 for 1% Ethyl Benzene
- Pulsed field gradients as standard (>0.5T/m)
- Variable temperature option (0°C – 65°C)
- Flow NMR option
- No cryogenics
- Easy to use
- Standard 5mm OD NMR tubes
- Fully upgradable to
- X-Pulse broadband or X-Pulse Dual-X

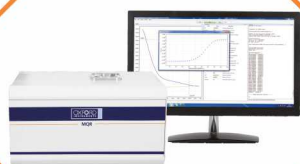
OXFORD INSTRUMENTS MAGNETIC RESONANCE - UK

OXFORD
INSTRUMENTS



X-Auto

- X-Auto is a 25 position automatic sample changer • Maximise the efficiency of your benchtop NMR • Use varying length (minimum 20 cm) or non standard tubes • All controlled from within the SpinFlow software • Easy to install • Automatic sample detection to simplify loading and unloading
- Add or remove samples whenever you need to, even during running queues • Customise experiments using the full flexibility of the advanced mode • Add single or multiple experiments with a single click



MQR - TD-NMR Research system

High Performance Time Domain NMR Research System Research & Develop applications

- Based on relaxation, diffusion and gradient measurements • High performance research system 20MHz TD-NMR digital spectrometer • Designed for applications based on relaxation and/or diffusion measurements.
- The system includes a high performance digital spectrometer, 20MHz (0.47T) permanent magnet, and a choice of interchangeable 10, 18 and 26mm probes. • 20MHz TD-NMR research system • T1 and T2 diffusion measurements
- Data analysis options including 2D data sets • User programmable with open data environment • 20MHz operating frequency
- real-time user interface • Advanced data analysis software • Bipolar 1-d pulsed field gradients option • 3-axis pulsed field gradients option

NMR QC/QA Analysers

MQC+ Benchtop Analysers

MQC+ Benchtop Analysers: Easier, faster, more accurate quality assurance; Next generation benchtop NMR, today.

The MQC+ benchtop Nuclear Magnetic Resonance (NMR) analyser measures oil, water, fluorine and solid fat in a variety of samples and is typically used for quality assurance and quality control. It also measures the physical properties of materials such as polymer crystallinity/density and molecular weight.

Available in three versions:

01

MQC+23

for smaller samples and high sensitivity applications.

02

MQC+5

is used for large samples.

03

MQC+F

is used to measure fluorine in toothpaste and minerals.



MQ-Auto: To increase laboratory productivity and efficiency, MQC+ analysers can be used with the MQ-Auto sample automation system. that extends the working time of the MQC+.

OXFORD INSTRUMENTS MAGNETIC RESONANCE - UK

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INSTRUMENTS



T-D NMR

MQC+ Oilseed Analyser: Determining oil and water in seeds (ISO 10565), and residues after crushing (ISO 10632).

MQC+ Fat Analyser: Time Domain NMR is used for Accurate Analysis of Food to measure oil (and water), solid fat content and droplet size.

MQC+ Solid Fat Analyser: The melting profile (Solid Fat Content vs. temperature) is an important property of edible oils and fats used in the food industry.

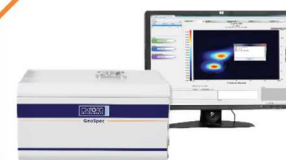
MQC+ Spin Finish Analyser: Synthetic fibers such as polyamide, polyester and nylon are sprayed with an oil-based coating (spin finish or OPU) to reduce static electricity and friction as well as enhance other physical characteristics. Determination of the coating levels is vital for optimizing the manufacturing process.

Rock Core Analysers

GeoSpec Benchtop NMR

Faster, More Accurate Benchtop NMR Rock Core Analysis

- Core sample analysis of porosity, permeability free and bound fluid and T2 cut-off
- Three Analyser models are available operating at 2, 12 and 20MHz • Handling samples from ½ to 6 inches' diameter • Measures Capillary Pressure • Fluid Typing • Flow, or distribution of the fluids
- Pore Size Distribution; porosity • Pore Throat Distribution & Wettability • Basic Petro-Physical parameters (porosity, BVI, FFI, CBW and T2 cutoff)



Applications



Agriculture & Food



Batteries



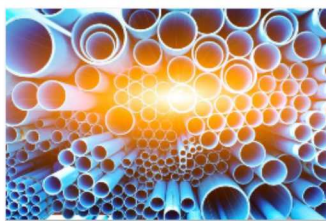
Chemicals



Education



Pharma



Polymers



Rock Core Analysis



Textiles

RENISHAW PLC - UK

RENISHAW
apply innovation™



Raman Spectroscopy



Precision engineered Raman spectroscopy systems made for experts who demand fast and accurate data. Renishaw PLC produce a wide range of Raman spectroscopy instruments including Raman microscopes, portable analysers and bench-top systems.



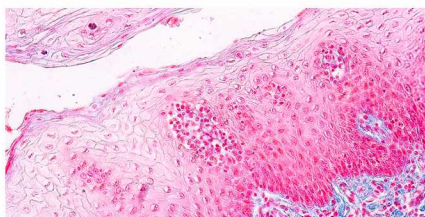
Applications

You can perform both quantitative and qualitative molecular analysis with our Raman spectroscopy systems. They have an extensive range of applications, in many fields.

Our high-sensitivity spectrometers make it easy to chemically analyse solids, liquids and gases.

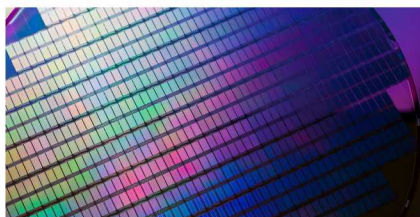
They are an invaluable tool for material identification and verification.

Explore the many application areas listed below or contact us with your specific requirements.



Life Sciences

- Life sciences home
- Cells
- Tissue
- Micro-organisms
- Plant biology



Materials Sciences

- Materials science home
- Carbon and nanotechnology
- Semiconductors
- Photovoltaics
- Battery technology



Chemical Sciences

- Chemical sciences home
- Pharmaceuticals
- Polymers
- Chemicals
- Catalysis



Analytical Sciences

- Analytical sciences home
- Art and heritage
- Forensics
- Contamination



Earth Sciences

- Earth sciences home
- Geology
- Gemmology

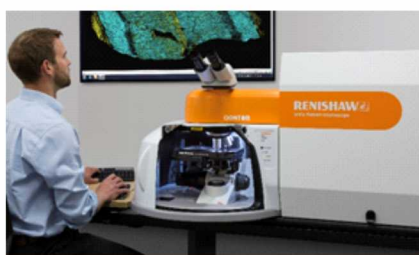
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Raman Instruments

- inVia™ confocal Raman microscope
- inVia™ InSpect confocal Raman microscope
- RA802 Pharmaceutical analyser
- inLux™ SEM Raman interface
- inVia™ Qontor™ confocal Raman microscope
- Virsa™ Raman analyser
- RA816 Biological analyser
- Hybrid Raman System
- WiRE™ Software



INVIA™ CONFOCAL RAMAN MICROSCOPE

Designed, developed and refined over more than two decades, Renishaw's research-grade inVia Raman microscope delivers the best data in the shortest time and is available in a range of configurations.

Salient Features:

- Research-grade microscope
- High-performance Raman spectrometer
- Gives chemical phase and bonding images
- Fully automated alignment and calibration
- High signal throughput
- High spectral resolution and stability
- High Spatial Resolution
- High spectral performance
- Multiple laser wavelength options from UV-Vis-IR Range
- Highly efficient optical design
- Speed and sensitivity
- Enables you to look at weak Raman signals
- LiveTrack focus-tracking technology



INVIA™ QONTOR™ CONFOCAL RAMAN MICROSCOPE

The inVia Qontor sees the addition of Renishaw's latest innovation, LiveTrack™ focus tracking technology, which enables users to analyse samples with uneven, curved or rough surfaces. Optimum focus is maintained in real time during data collection and white light video viewing.

Salient Features:

- Keep your view of the sample in focus while you survey it under manual control
- Little or no sample preparation is required
- View Raman chemical images in 3d and see both the chemistry and topography
- No need for a time-consuming surface pre-scan
- Maintain focus during heating/cooling and during very long measurements
- LiveTrack focus-tracking technology



INVIA™ INSPECT CONFOCAL RAMAN MICROSCOPE

Renishaw PLC best-selling confocal Raman microscope optimised for use in forensic laboratories for trace analysis.

Salient Features:

- Identify particles, fibres and materials
- Trace Fingerprint Residue
- Analyse paint smears from vehicle collisions
- Identify narcotics
- Detect counterfeits
- Identify traces of explosives
- Gunshot Residues
- Differentiate pen and printer inks, and determine the sequence with which lines cross on questioned documents
- Document forgery
- Highly specific identification
- Differentiate chemical structures
- Identify Materials Like, hard crystalline powders, ceramic shards and glass chips.

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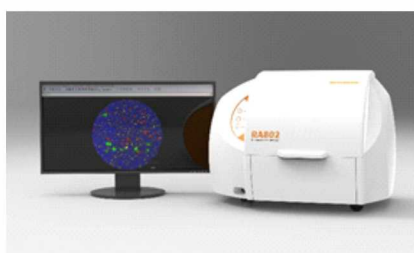


VIRSA™ RAMAN ANALYSER

It is a transportable system with fibre-optic-coupled probes. It is suitable for both micro and macro Raman analyses and delivers the power of research-grade Raman.

Salient Features:

- Remote probes capable of automatic focus-tracking
- Flexible remote sampling
- Multiple laser wavelength options
- Microscopic and bulk analysis
- Robust and transportable system
- spectroscopic analysis away from the confines of the laboratory microscope
- LiveTrack™ focus-tracking technology
- High performance portable fibre coupled Raman system
- High spatial resolution
- Live white light sample viewing for accurate sample targeting
- Motorised x/y/z stack that enables accurate objective positioning for single point or mapping purposes
- Work with objective lens pointing downwards or horizontally

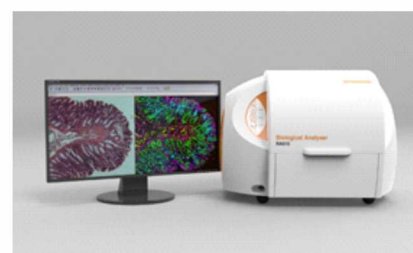


RA802 PHARMACEUTICAL ANALYSER

Designed exclusively for the pharmaceutical industry, it is a high throughput Raman spectrometer that gives rich chemical information whilst being easy to use.

Salient Features:

- Generate a comprehensive chemical images of sample surfaces
- LiveTrack™ focus-tracking technology
- Better understand pharmaceutical formulations
- Perform root cause analysis
- 150 times faster than conventional methods
- Determining content uniformity
- Rapid polymorph identification
- Characterising the polymorphism
- Tackle polymorphism
- Identify counterfeit medicines



RA816 BIOLOGICAL ANALYSER

Designed specifically for biological and clinical use, the RA816 Biological analyser can be used to identify and assess biochemical changes associated with disease formation and progression.

Salient Features:

- Distribution and amount of biochemical species within biological samples
- Easy to use hardware and software
- No need for stains or labels
- Minimal to no sample preparation
- Obtain full range of biochemical information
- Enables you to identify and assess biochemical changes
- No sample preparation
- LiveTrack focus-tracking technology
- Classification of brain glioma tumours
- Monitoring transdermal drug delivery
- Non-invasive optical technique

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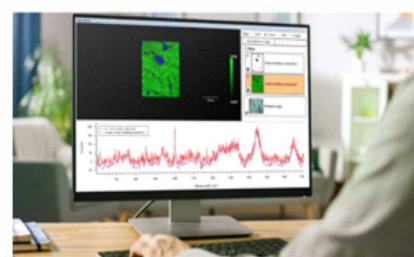
INLUX™ SEM RAMAN INTERFACE

The inLux SEM Raman interface brings high-quality Raman functionality to your SEM chamber. Now you can collect Raman spectra that can produce images in 2D and 3D whilst simultaneously imaging in SEM. It brings high-quality Raman functionality to your scanning electron microscope (SEM)



HYBRID RAMAN SYSTEMS

Increase the capabilities of your Renishaw Raman microscope by coupling it to other analytical systems from a wide range of manufacturers. You can analyse your sample with two or more techniques without having to transfer it between instruments. you can be confident that you are analysing the same point with both techniques.



WIRE™ SOFTWARE

Windows®-based Raman Environment (WiRE) software is the true power behind our Raman instruments. It controls the acquisition of Raman data and provides users with dedicated data processing and analysis options. Use WiRE to identify an unknown spectrum, remove background interference or determine the distribution of particles in megapixel-sized Raman images.



Key Raman Technologies by Renishaw PLC



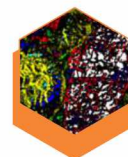
LiveTrack™

The ultimate sample surface/interface tracking technology



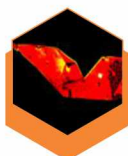
Particle Analysis

This identifies particles, reports on their morphology parameters, and then guides the inVia Raman microscope to chemically identify them



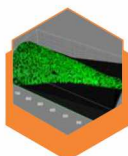
StreamLine™

Fast, gentle, large area mapping



StreamHR™

Fast, high resolution mapping



Surface™ & FocusTrack™

Sloping sample? No problem



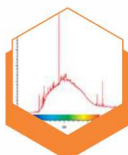
Full automation

Fully automated Raman products



Spectrum Search

Uses custom search algorithms to identify pure components and mixtures



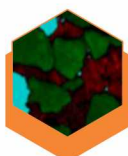
SynchroScan™

Your range and your resolution



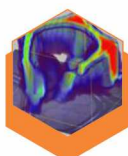
Correlate™

Combine imaging techniques and compare Raman with other images



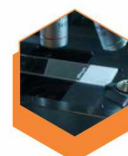
StreamLine™ Slalom

Analyse the whole surface with Raman



EasyConfocal™

Eliminate out-of-focus light



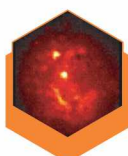
High speed encoded stage

Your sample is in safe hands



Kinematic mounts

Swap with ease and accuracy



True Raman Imaging™

Rapid surveying of samples by direct imaging

ICSPI CORPORATION - CANADA

icspi



Atomic Force Microscopy (AFM)

BENCHTOP

nGauge AFM
REDUX AFM

FIELD

VERTEX AFM

nGauge AFM

Nanoscale imaging has never been easier

- ✓ 3D nanoscale images in 3 clicks
- ✓ Collect topography, morphology, film thickness, roughness and phase data
- ✓ Simple benchtop set-up and plug-and-play operation
- ✓ Ultra-durable probes capable of hundreds of scans
- ✓ Based on piezo-resistive sensor
- ✓ No Vibration control, Laserless, No laser alignment
- ✓ Install time of only 5 minutes with training time of 1 hour only



REDUX AFM

3D images with nanoscale resolution

- ✓ 3D nanoscale images in just 1 click
- ✓ Fully automated and Continuous operation
- ✓ Collect topography, morphology, film thickness, roughness and phase data
- ✓ Simple benchtop set-up and plug-and-play operation
- ✓ Ultra-durable probes capable of hundreds of scans
- ✓ Based on piezo-resistive sensor
- ✓ No Vibration control, Laserless, No laser alignment
- ✓ Automated XY sample positioning
- ✓ Simple tip cartridge changes every 1,000 scans
- ✓ No more tedious tip changes required



ICSPI CORPORATION - CANADA

icspi



VERTEX AFM

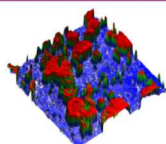
Infinite Sample AFM

- Infinite sample size
- Wireless
- Portable
- Battery operated
- Field applications
- Remote operation
- Online process control
- Nanoscale resolution 3D metrology
- Fast scans - 80 sec
- Non-destructive Mounting orientation (vertical, horizontal)

BENCHTOP

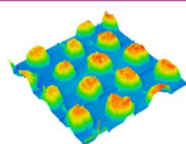
AFM
Application
Notes

Benchtop AFM Application Notes



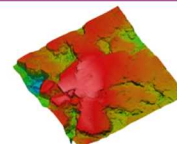
Polymers and Composites

Collect nanoscale topography data of polymers, co-polymers and composites with extremely high spatial resolution.



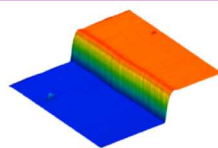
Microfabrication

Thin-film and structure characterization in 3D at the nanoscale.



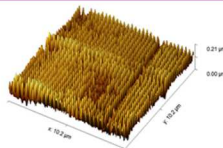
Metals and Minerals

Determine surface finish, investigate morphology and characterize grain structure.



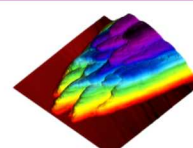
Film Thickness, Step Heights and Coatings

Quickly measure film thickness and step heights of thin films, coatings, gratings and more, with extremely high resolution.



Nanoimprint Lithography

Inspect molds and patterned substrates and verify critical dimensions and roughness.



Biology and Life Science

Gain insights into the structure of biological materials with minimal sample preparation.

SYRRIS LIMITED - UK



Chemical Reactors

Orb

Jacketed Reactor System

Orb Pilot

Pilot-scale Modular Jacketed Reactor

Atlas HD

Automated & Modular Jacketed Reactor

Asia

Award-winning Flow Chemistry Range

Orb

Designed with simplicity and flexibility in mind, Orb is the jacketed reactor system combining high performance and excellent value.



Orb Pilot

Orb Pilot is a pilot-scale modular jacketed reactor for scaling up of batch processes and offers multiple setups in one footprint.

Atlas HD

An automated and modular jacketed reactor platform range that offers supreme flexibility and seamless interchangeability of jacketed reactors from 50 mL to 5 L.

Atlas HD Pre-configured Systems

Atlas HD Crystallization

Allows crystallization processes to be monitored and controlled as well as performing sonocrystallization or sonomilling techniques.



Atlas HD Reaction Calorimeter

An easy-to-use, high-performance calorimetry system. Using either Heat Flow Calorimetry (HFC) or Power Compensation Calorimetry (PCC), it can generate power and enthalpy graphs quickly and easily.



Atlas Cryo Reactor

A compact, high-performance, ultra-cold cooling module for round bottom flasks. Requiring only mains power, it rapidly cools reactions to process temperatures as low as -80°C .



Atlas Potassium 3 Bar Pressure System

A modular 3 bar pressure reactor system that can be controlled automatically or manually. Available with reactor volumes from 100 mL to 3 L that can be changed in minutes without the need for tools.



SYRRIS LIMITED - UK



Atlas Sodium 200 Bar Pressure System

Designed for applications where elevated pressures (up to 200 bar) or temperatures (250 °C as standard, >300 °C as an option) are required e.g. hydrogenations, carbonylations, etc.



Atlas Flasks and Vials

A range of essential tools for small scale chemistry in round bottom flasks and vials, providing fine control and enabling chemists to be more productive.



“At Syrris, we have a very simple philosophy—our products are designed for chemists like you and the way you work.”

Asia

Asia is an award-winning flow chemistry range from Syrris. Designed by chemists for chemists, it enables the widest variety of chemical reactions and ultimate ease of use.

Asia Pre-configured Systems

Asia Starter Flow Chemistry System

Ideal for chemists eager to begin using flow chemistry as well as for academics looking to introduce flow chemistry to their group.



Asia Photochemistry System

Makes novel continuous photochemistry applications accessible without the limitations of traditional batch requirements.



Asia Electrochemistry Flow Chemistry System

For easy access to electrochemical reactions in continuous flow, enabling selectivity and transformations impossible by other techniques.



Asia Cold Flow Chemistry System

Enables safe chemical reactions under cryogenic conditions (e.g. exothermic organometallic reactions).



SYRRIS LIMITED - UK



Asia Discovery Flow Chemistry System

Capable of running flow experiments that require limited quantities of starting material or expensive reagents.



Asia Process Optimization Flow Chemistry System

Ideal for converting a batch chemistry reaction to a flow chemistry process and varying parameters for reaction optimization.



Asia Nanoparticle Flow Chemistry System

Performs nanoparticle synthesis in flow with fast and reproducible mixing, excellent heat transfer and accurate temperature control.



Asia Scale-Up Flow Chemistry System

For easy scale-up of reactions from milligram to multi-gram quantities using flow chemistry.



Asia Premium Flow Chemistry System

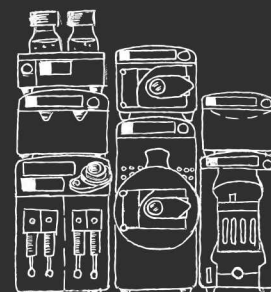
Features a full range of Asia modules and enables standard flow chemistry operations as well as advanced use.



The Syrris flow family

The Syrris flow chemistry product range spans scales from the lab through the pilot plant to manufacturing.

Modular, lab-scale flow chemistry systems.



1 μ L/min to 10 mL/min flow rate*



-100 to +250 °C temperature



Up to 20 bar pressure

HORIBA LIMITED - JAPAN

HORIBA
Process & Environmental



Ambient Air Quality Monitoring System



AP-370 Series Ambient Trace Gas Analyzer

This analyzer continuously measures components required by air pollution monitoring. In addition to air pollution monitoring, it best supports trace gas monitoring that requires continuous analysis with high accuracy.

- Nitrogen oxide
- Sulfur dioxide
- Carbon monoxide
- Hydrocarbon
- Ozone ● Carbon dioxide



APSA-370/CU-1 H₂S (hydrogen sulfide) Monitor

This monitor measures H₂S concentration by oxidizing H₂S and analyzing the resulting SO₂ gas. The monitor is best for monitoring H₂S atmosphere inside a clean room of a semiconductor plant or similar applications.

- Hydrogen sulfide



APNA-370/CU-2 NH₃ (ammonia) Monitor

This monitor measures NH₃ concentration to monitor NO_x from oxidation catalysis, which is suitable for monitoring exhaust gases from manufacturing plants and odors caused by naturally occurring ammonia gas.

- Ammonia
- Nitrogen oxide



PX-375 Continuous Particulate Monitor with X-ray Fluorescence

Mass concentration and elemental concentration of particulate matter (PM) are measurable by this one single instrument, on-line and automatically. As a countermeasure of air pollution problem, it is possible to estimate the emission source of PM.

- Mass concentration and elemental concentration of particulate matter (PM2.5, PM10, TSP)

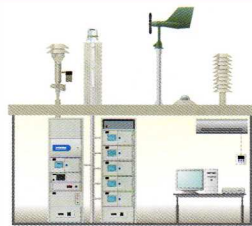
Trace Gas Monitoring



APDA-371 Ambient Dust Monitor

This Particulate matter contaminates our atmosphere in various ways. It can for instance be generated by different industrial production processes, waste combustion, coal mining or automobile exhausts. The APDA-371 automatically measures and records airborne particulate concentration levels (in milligrams or micrograms per cubic meter), using the industry-proven principle of beta ray attenuation.

- Particulate Matter (2.5)
- Particulate Matter (10)



Air Quality Monitoring System

The Air Quality Monitoring System (AQMS) is a facility to measure wind speed, direction, other weather parameters, concentration of air pollutants (such as SO₂, NO_x, CO, O₃, THC, etc), and particulate matters continuously all year round.



Mobile Air Pollution Monitoring Laboratory

This is an air pollution monitoring vehicle equipped with all necessary measuring equipment for environmental assessment and research on pollution problems at various locations.



GA-370 Trace Gas Monitor

This monitor provides constant, ultra high-sensitivity and high-precision monitoring of trace impurities (CO, CO₂ and CH₄) for quality control at gas manufacturing facilities.

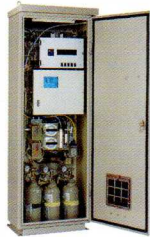
- Carbon monoxide
- Carbon dioxide
- Methane

HORIBA LIMITED - JAPAN

HORIBA
Process & Environmental



Gas Measurement



ENDA-5000 Series Stack Gas Analyzer

This analyzer continuously measures stack gas with high accuracy; simultaneous measurement of five components in flue gas is also possible. Meets a wide range of needs such as measurement of emissions from waste incineration plants or boilers.

- Nitrogen oxide Sulfur dioxide
- Carbon monoxide
- Carbon dioxide
- Oxygen



ENDA-7000 Series Stack Gas Analyzer

This stack gas analyzers are designed to continuously measure the concentrations of NO_x, SO₂, CO, CO₂, O₂, and NH₃ in stack flue gas streams. The model is offered in dozens of combinations based on your measurement.

- Nitrogen oxides
- Sulfur dioxide
- Carbon monoxide
- Carbon dioxide
- Oxygen
- Ammonia



ENDA-9000 Series Stack Gas Analyzer

This analyzer continuously measures the concentration of NO_x, SO₂, CO, and O₂ in stack gases from the boilers and furnaces of thermal power plants, etc.

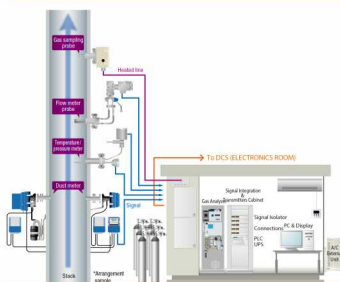
- Nitrogen oxide
- Sulfur oxide
- Carbon monoxide
- Oxygen



ENDA-C9000 Series Stack Gas NH₃/NO_x/O₂ Analyzer

This analyzer is for monitoring and controlling equipment at power plants that require management, for example, the monitoring of denitration catalyst degradation, the control of injected amounts of NH₃, and the prevention of ammonium sulfate crystallization.

- Ammonia
- Nitrogen oxide
- Oxygen



CEMS Continuous Emission Monitoring System

An integrated system to measure fuel flow, dust, and concentrations of air pollutants such as SO₂, NO_x, CO, CO₂, THC and O₂ in accordance with the applicable regulations for the emission source.



TX-100 Tunable Laser Gas Analyzer

This analyzer uses a probe inserted in a stack to measure hydrogen chloride concentrations and moisture content. Suitable for monitoring refuse incineration facilities and controlling hydrogen chloride removal processes in cement and petrochemical industries.

- Hydrogen chloride
- Moisture content



GI-700 series Stack Gas Analyzer

This stack gas analyzer is designed to continuously measure the concentrations of nitrogen oxides (NO_x), sulfur dioxide (SO₂), carbon monoxide (CO), carbon dioxide (CO₂), oxygen (O₂), and ammonia (NH₃) in stack flue gas streams.

- Nitrogen oxides
- Sulfur dioxide
- Carbon monoxide
- Carbon dioxide
- Oxygen
- Ammonia



PG-300 Portable Gas Analyzer

This portable gas analyzer measures each component in combustion gas with high accuracy.

- Nitrogen oxide
- Sulfur dioxide
- Carbon monoxide
- Carbon dioxide
- Methane
- Oxygen

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Process & Environmental



Gas Measurement



**NZ-3000
Zirconia O₂ Analyzer**

This analyzer measures oxygen concentrations by inserting a probe into the flue of a power plant boiler, packaged boiler, industrial furnace or various combustion equipment.

- Oxygen



**EM-D5100
Dust Concentration
Opacity Meter**

This meter continuously measures dust concentrations in combustion gas from thermal power plants or waste incineration plants.

- Dust
- Opacity



**PLGA-1000
Process Laser Gas
Analyzer**

This Analyzer is designed to measure hydrocarbons and other gases contained in process gases at petrochemical plants. It measures low concentrations of acetylene (C₂H₂) and carbon dioxide (CO₂) contained as impurities in high concentration methane (CH₄) and ethane (C₂H₆).

- Acetylene
- Carbon dioxide



**51 Series
Explosion-Proof Process
Gas Analyzer**

This is a continuous gas analyzer best for analysis of combustible gases or analysis of gases in an explosive environment. Supports measurements in various chemical plants, such as petroleum refining plants.

- Carbon monoxide
- Carbon dioxide
- Methane
- Hydrogen
- Oxygen, etc.

Radiation Measurement



**VA-5000 Series
Multi Component
Gas Analyzer**

This analyzer meets diverse needs by analyzing different kinds of combustion gases to address environmental problems and by supporting energy development, etc.

- Carbon monoxide ● Carbon dioxide ● Nitrogen oxide ● Sulfur dioxide ● Methane ● Nitrous oxide ● Oxygen ● Ammonia, etc.



**VA-5000 (Siloxane)
Siloxane Analyzer**

This Siloxane Analyzer continuously measures siloxane concentration in gases with high sensitivity. It is tunable according to the type of cyclic siloxane to be measured.

- Siloxane
- Carbon dioxide
- Methane



**VA-5000 WM Series
Multi-Component
Gas Analyzer**

Wall mounted type of Multi-Component Gas Analyzer VA-5000 series. Compact design enables installation in limited space. Embeddable into the customer's sampling systems and to the control devices.

- Carbon monoxide ● Carbon dioxide ● Nitrogen oxide ● Sulfur dioxide ● Methane ● Nitrous oxide ● Oxygen ● Ammonia, etc.



**PA Series
Environmental Radiation
Monitor**

This is a portable monitor that allows easy and accurate measurement of gamma rays.

- Y (gamma) rays

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Infrared Radiation Thermometer



IT-545 Series Handheld Type Non-Contact Infrared Thermometer

This is an easy-to-use portable thermometer with the highest level of accuracy in the industry. Useful for various experiments and maintenance, food temperature management, etc.

- Temperature



IT-480 Series Stationary Type Non-Contact Infrared Thermometer

This infrared thermometer with industry-leading* accuracy can be used for the temperature control of production lines, devices and plants in various factories. It can also be used for a wide range of other purposes, including research and development and experiments, by connecting to a Windows* personal computer.

- Temperature



IT-270 Built-in Type Infrared Thermometer

This built-in type Infrared thermometer with industry-leading* accuracy in a small footprint. Measurement temperature, wavelength selection and viewing characteristics can be customized to meet various needs.



IT-470F-H Built-in Type Infrared Thermometer

Built-in type, non-contact infrared thermometer with industry-leading* accuracy. It contributes to improve process stabilization, for which requires high accuracy temperature measurement, such as semiconductor and FPD production.

Gloss Measurement



IG Series Gloss Checker

This gloss checker provides easy measurement of surface gloss levels, by quantifying the surface appearance visual inspection. Ideal for automotive coating inspections, floor waxing coating inspections, etc.

- Gloss

Water Quality Monitoring



AH-151 pH Meter with Auto Calibration Function

The meter significantly saves efforts involved in maintenance work thanks to the automatic chemical washing and calibration of reference solutions. The amount of calibration solution needed is less than 1/5 of the amount used by HORIBA's conventional models, which helps reduce running costs.

- pH



TW-100 Water Distribution Monitoring

Installed at a water supply facility or at the end of a water supply pipe, this equipment automatically monitors daily water quality check items.

- Turbidity Chromaticity
- Residual chlorine
- Water pressure
- pH
- Electric conductivity
- Water temperature



T1-TOCADERO Series On-line TOC Analyzer

This is the Highest analytical precision with short measuring time. Catalyst-free high-temperature process at 1200°C with "Fast Change Technology. Most modern hardware components. Minimal material requirements and support costs. Highest processing quality. Convincing cost of ownership.

- Total Organic Carbon

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Water Quality Monitoring



HT-110 Online TOC-Analyzer

This analyzer is designed to measure total organic carbons in pharmaceutical water based on ultraviolet oxidation with differential conductivity. Conforming to United States Pharmacopeia (USP), it can continuously measure low-level TOC in water for injection, etc.

- Total organic carbon



OCMA Series Oil Content Analyzer

This meter measures a wide range of electric conductivity, from that of manufacturing water up to 500 mS/cm, for advanced concentration management. The lineup of conductivity sensors includes conventional insertion sensors as well as flow-through sensors developed to have improved cleaning and sanitary properties.

- Electric conductivity



U-50 Series Multi-Parameter Water Quality Checker

Many items can be measured simultaneously with one probe. This portable checker is best for outdoor use, such as measurements of river water, lake water, well water, and ground water.

- pH ● Dissolved oxygen
- Electric conductivity
- Turbidity ● Oxidation-reduction potential
- Salinity
- Specific gravity of seawater
- TDS ● Water temperature
- Water depth ● GPS



48/96 Series Panel Mount Type Water Quality Analyzer

This is a panel mount type analyzer used inside a control room for monitoring water quality of sewage, industrial effluents, various manufacturing processes, etc.

- pH ● Electric conductivity
- Dissolved oxygen
- Electric resistivity
- Residual chlorine, etc.



HE-960HI Sanitary Conductivity Meter (Wide-Range Type)

This meter measures a wide range of electric conductivity, from that of manufacturing water up to 500 mS/cm, for advanced concentration management. The lineup of conductivity sensors includes conventional insertion sensors as well as flow-through sensors developed to have improved cleaning and sanitary properties.

- Electric conductivity



HE-960CW 2-Channel Sanitary Conductivity Meter

This is an ideal conductivity meter for the quality control of water, from pure water to water with a conductivity of up to 2,000 pS/cm. The USP 645 water-quality determination function makes it ideal for the control of pharmaceutical water, such as water for injection, in the pharmaceutical industry. The lineup of electric conductivity sensors includes flow-through sensors with improved cleaning and sanitary properties suitable for use in the pharmaceutical and food industries.

- Electric conductivity



PM-96C Peracetic Acid Concentration Monitor

This is a measuring instrument for the continuous measurement of the concentration of peracetic acid used for sterilization in food and beverage processing. It requires no reagent and no maintenance.

- Concentration of peracetic acid



HA-961 Single-Wavelength Absorption Spectrometer

This spectrometer monitors impurities in chemicals. It enables the numerical control of changes in chemicals in terms of absorbance and also enables in-line measurements in equipment. It can be configured easily.

- Concentration of ozone in pure water

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Water Quality Monitoring



**H-1 Series
Industrial Water
Quality Analyzer**

This is an outdoor type analyzer supporting various water treatment processes from service water to waste water treatment.

- pH ● Oxidation-reduction potential (ORP) ● Dissolved oxygen ● Fluoride ion concentration ● Electric conductivity ● Electric resistivity ● Activated sludge (MLSS) ● Turbidity ● Residual chlorine, etc. ● Ammonium



**CODA-500
Automatic COD Monitor**

This monitor measures chemical oxygen demand (COD) of industrial effluents, river water, lake water, seawater, etc. Thanks to the small amount of reagent* necessary to run the device, running costs have been reduced.

- Chemical oxygen demand

* 1/10 (as compared to our conventional product)



**OPSA-150/CW-150
Organic Pollutant Monitor**

This monitor supports a wide range of uses, from monitoring organic pollutants in industrial effluents or source water to monitoring organic matter in process lines. Outputting converted COD values is also possible.

- Organic pollutant

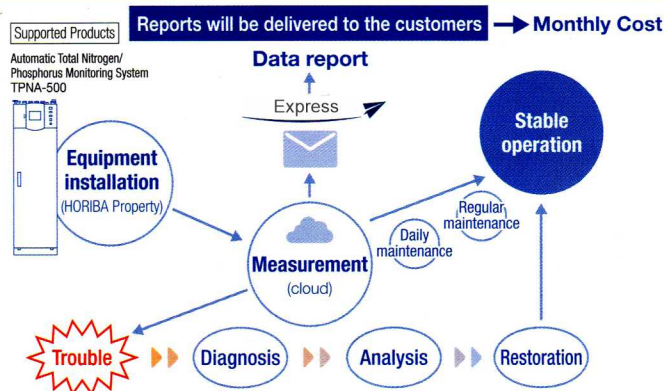


**TPNA-500
Automatic Total Nitrogen/
Phosphorus Monitoring System**

This system measures total nitrogen and total phosphorus in industrial effluents, river water, lake water, enclosed coastal seawater, etc. Combination with a UV monitor enables simultaneous measurement of three components - total nitrogen, total phosphorus and chemical oxygen demand (COD).

- Total nitrogen
- Total phosphorus

A New Generation Water Quality Management Solution



The equipment will be installed at the customer's designated site, and the obtained "value" will be reported to the customer. As HORIBA monitors the equipment status regularly, conduct daily maintenance, and perform troubleshoot to resolve and restore the system when errors occur, the measurement value obtained will be highly reliable. In addition, all the customer has to do is to receive the report submitted by HORIBA. As a result, the manifestation of an efficient water quality management becomes hassle-free.

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FORCE GAUGES

DIGITAL FORCE GAUGES



DFE3 Series Digital Force Gauges

The new generation of digital force gauges for force measurement, specially designed for easy-to-use force gauges with functionality that can help them optimize processes and save time.



DFX II Series Digital Force Gauges

Low-cost digital force gauge, ideal for applications in basic peak force measurement. This digital force gauge is available in 10 lbf, 50 lbf, 100 lbf and 200 lbf.



DFS II R ND Series Digital Force Gauges (Non-dedicated)

A Remote non-dedicated digital force gauge. Combining it with a torque sensor this force gauge turns in to a torque measurement device.



DFS II R Series Digital Force Gauges (Dedicated)

Available with a remote SLC load cell, dedicated to the unit to offer the ability to test in locations where a fixed and integral load cell is impractical.

MECHANICAL FORCE GAUGES



DG Series

The DG Series is an excellent, economical solution for tensile or compression testing up to 500 lbf (2.5 kN).



LG Series

The LG Series is an excellent, economical solution for tensile or compression testing.

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ERGONOMIC FORCE GAUGES



MSE100 Series

Simple-to-use, ergonomically designed mechanical instrument ideal for muscle strength evaluations and job task analysis.



DMG Series

Physical, occupational and sports applications, and general patient assessment in family, neurological, and orthopedic practices.

HYDRAULIC FORCE GAUGES



Model 329

This compact hydraulic force gauge from Erichsen is designed primarily for occasional force checks.



Model 332

This high-quality hydraulic force gauge from Erichsen is intended for permanent fitting into machines and installations.



Model 338

This robust hydraulic force gauge from Erichsen is designed for permanent installation as well as for occasional force checking.



Model 343

This hydraulic force gauge from Erichsen can be used when there is a need to fit a link through the body of the load cell.

MATERIAL TESTERS

Manual Test Stands



MT Series

The MT Series is a manual test stand for force measurement applications up to 500 lbf (2.5 kN) capacities. The test stand can be bench mounted, wall mounted, or positioned horizontally.

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Motorized Test Stands



TCM Series

The TCM series is well adapted for production environments. This low cost, motorized, ergonomic tester attached with our Chatillon DF Series digital force gauges makes tensile, compression, peel, and flexural testing of your samples an easy task.

Universal Test Machines

Up to 5 kN



LS Series - Up to 5 kN

Easy-to-use universal testing machines ideal for materials testing up to 5 kN (1124 lbf). The machines use high-accuracy interchangeable YLC Series load cells for tension, compression and cycling through zero-force measurements, and they have an accuracy of $\pm 0.5\%$ from 1% to 100% of load cell value. Applications: Plastic, Rubber, Electronics, Textiles, Wood, Packaging, Medical Devices and Cosmetics.

Universal Test Machines

Up to 5 kN



Cs2 Series - Up to 5 kN

The CS2 Series are high quality digital force testing machines optimized for production and laboratory testing of applications up to 5 kN (1100 lbf). These force testing machines are an excellent choice for simple testing.

Applications: Plastic, Rubber, Packaging, Pharma, Cosmetic, Electronics and Wood.

Universal Test Machines

Up to 100 kN



LD Series (bench mounted)

Ease of use and superior flexibility. These universal materials testing machines are ideal for testing applications up to 100 kN (22480 lbf) and are designed for both routine quality control testing, automated testing and for performing complex multi-stage testing. Applications: Plastic, Rubber, Wood, Packaging, Construction Materials, Metals and Automotive parts.

Application Specific Testers

Polymer Testers



Density Columns - Density Measurement

Davenport density measuring columns are designed to measure the density of solid materials such as plastics.

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Texture Analyzers



Ta1 Texture Analyzer

The TA1 texture analyzer is an easy-to-use, cost-effective solution to evaluate the textural properties of a wide range of products.

Friction Testers



Ft1 Friction Tester

The FT1 friction tester is a perfect choice to easily measure static and kinetic coefficients of friction.

Hardness Testers



Mt91 Series - Rockwell Microhardness Testers

Modular and cost-effective solution for applications requiring advanced microhardness testing functionality, such as complex case depth traverses.



KB Series - Brinell Hardness Testers

The KB Series are lightweight, portable Brinell hardness testers ideal for virtually any size or shape of metal specimen.



Pin Brinell - Brinell Hardness Testers

The Pin Brinell testers from Newage are cost effective instruments using calibrated shear pins to control the amount of load applied.



Versitron Rockwell Hardness Tester

Perform Rockwell hardness testing in only 4 seconds with the unique Versitron Rockwell hardness testing system.



B.O.S.S. Optical Scope - Brinell Hardness Testers

Includes a high resolution video scanning head and imaging software that ensures a fast and accurate reading of Brinell impressions.



HiLight Optical Scope - Brinell Hardness Testers

Optical scope featuring a high intensity LED light source providing excellent contrast for measuring your Brinell impressions.

AMETEK INC - USA

AMETEK®



Harness Testers



Optical Pocket Scope - Brinell Hardness Testers

The optical pocket scope is ideal for economy applications. This versatile scope features a 20X magnification, pre-focused lens and a narrow nose piece.

EXTENSOMETERS



Video Extensometers: The VE1 is a high precision video extensometer that uses a non-contacting optical measurement based on a digital camera and real time image processing to measure longitudinal and transversal strain during tensile tests.

Long Travel Extensometers: Long travel extensometers are ideal for use when testing high-elongation materials. We supply two different long travel extensometers; one for plastic and rubber and one for rigid, semi-rigid and ductile materials.

Deflection Gauge Extensometers: A wide range of deflection gauge extensometers are ideal to measure deformation in three- and four-point bend tests and in compression testing applications. It offers a wide range in many shapes and sizes.

Contacting Extensometers: A wide variety of general purpose contacting extensometers in exactly the size you need. These extensometers are designed for accurate strain and extension measurement of a wide range of materials up to a maximum sample thickness of 25 mm.



Grips and Fixtures for Force Gauges



Chisel Point Adapters

Adapters for a wide range of materials such as foods, plastics and soft metals.



Point Adapters

Point adapters for compression and puncture.



V Notch Adapters

V notch adapters for compression.



Flat Adapters

Flat adapters for compression.



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Grips and Fixtures for Force Gauges



Hooks, Stationary
Stationary hooks for tensile testing.



Hooks, Swivel
Swivel hooks for tensile testing.



Hooks, Clasp
Clasp hooks for tensile testing.

Grips and Fixtures for Test Stands



Adapters
Adapters for grips, fixtures and load cells.



Bending/Flexural Jigs
Bending grips/flexural grips for 3-point and 4-point bending.



Bollard Grips
Bollard grips for a wide range of samples such as yarn, fibre and thread.



Compression Plates
Compression plates for compression testing.



Eccentric Roller Grips
Eccentric roller grips for flat samples such as rubber, plastic film and paper.



Hydraulic Grips
Hydraulic grips with single or double actuator.



Peel and Friction Grips
The peel and friction grips come in different designs and are ideal for peeling samples at 90°, 180°, performing T-peel and COF.



Pincer Grips
Pincer grips for small component parts.



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Grips and Fixtures for Test Stands



Pneumatic Grips

Pneumatic grips for all types of samples.



Ribbon & Webbing Grips

Ribbon and webbing grips with split C-design.



Scissor Grips

Scissor grips for flat samples such as foils, plastic film and rubber.



Thread Head Grips

Thread head grips for machined dumbbells with metric threads.



Wedge Grips

Wedge grips for testing the tension of plastic and metals.



Vice Grips

Vice grips for all types of samples.

Food Grips and Fixtures



Bakery Testing

Test your bakery ingredients through to finished products.

Food Grips and Fixtures



Cereals Testing

Test the crispiness, firmness and flexural strength of your cereal products.



Confectionary & Snacks Testing

Test the hardness, crispiness and stickiness of your boiled sweets, snacks or chocolate.



Meat, Poultry and Fish Testing

Test the firmness and cutting strength of your meat, poultry or fish.



Fruit and Vegetables Testing

Test the firmness and extrusion properties on your fruit or vegetables.

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Food Grips and Fixtures



Dairy Testing

Test the cutting resistance, viscosity, spreadability and gel strength of your cheese, yoghurt, butter or sauces.



Pasta, Rice and Noodles Testing

Test the firmness, elasticity and stickiness of your pasta, rice or noodles.



Gels Testing

Test the bloom strength of your gels.



Pet Food Testing

Test the hardness and bending strength of your pet foods.



Cosmetics Testing

Test the consistency, spreadability and bending strength on you cosmetics products.



Packaging Testing

Test the top load, friction and tearing strength of your packaging.

Accessories



Load Cells and Sensors

Our high-quality load cells and sensors are used for materials testing and force measurement all over the world.

Accessories



Pogos

Pogo systems are available for all single column and dual column bench test stands.



Splinter Shields

Splinter shields are available to protect the user when testing brittle samples which are liable to fragment.



Thermal Cabinets

High-precision heating and combined heating and cooling thermal cabinets are available in two models.



Furnaces

For high temperature test applications, it offers furnaces for use with all dual column test stands.



RDM TEST EQUIPMENT LIMITED - UK



Laboratory & Production Heat Sealers



Medical Heat Sealers



Seal / Peel Strength



Co-Efficient of Friction/Slip



Hot Tack Seal Strength



Pulp, Paper, Carton and Board Testing



Thickness Measurement



Physical Testing



Permeation - Barrier Materials





RDM TEST EQUIPMENT LIMITED - UK



Package Integrity - Destructive



Package Integrity - Non-Destructive



Adhesive & Label Testing



Ink Rub & Abrasion



Sample Preparation



Roll Hardness Testers



Gloss / Haze / Opacity / Densitometer



M.A.P. / Headspace Gas



Laboratory Ovens



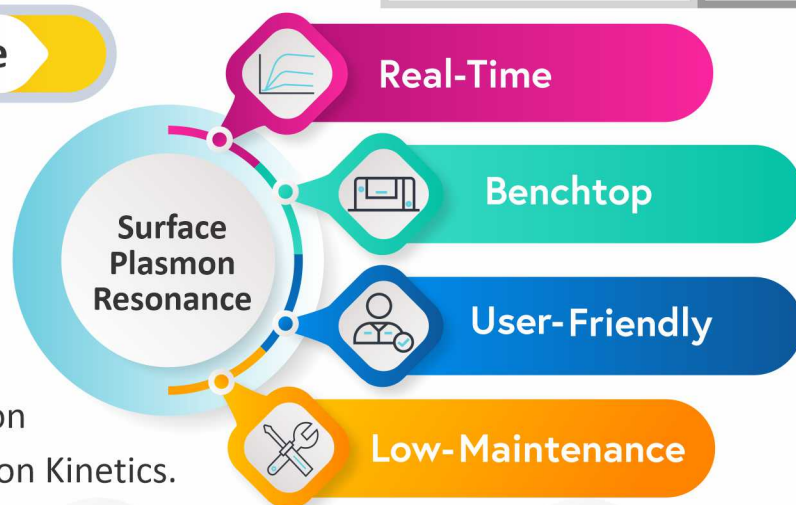
NICOYA LIFESCIENCES INC - CANADA

 nicoya



Surface Plasmon Resonance

SPR is an Optical Biosensing Technology using Label-Free technique, applied to detect characteristics and quantification of biomolecular interactions. It allows determination of both Binding Affinity and Reaction Kinetics.



Applications

- Kinetics/Affinity Characterization
- Kinetics/Affinity Screening
- Competition Assays
- Yes/No Binding
- Concentration Analysis
- Thermodynamics
- Epitope Mapping/Binning

Compatible With

- Proteins
- Antibodies
- Nucleic Acids
- Aptamers
- Small Molecules (application dependent)
- Carbohydrates
- Lipids
- Cells
- Viruses
- Nanoparticles

Sensors & Surface Chemistries

- Carboxyl
- NTA
- Streptavidin
- Biotin
- Protein A
- Amine
- Liposome Binding
- Hydrophobic
- Gold



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SPR Instruments

OpenSPR System

(Obtain publication-quality binding kinetics & affinity data on your benchtop)

The world's only benchtop surface plasmon resonance (SPR) instrument. It provides high quality, label-free interaction analysis for a fraction of the cost of existing solutions.



Hardware

No of Channels	2
Injection	Semi-Automated
Autosampler	Optional upgrade to OpenSPR-XT
Sample Volume	Injection volume + 50 μ L

OpenSPR-XT System

(Integrated with robust autosampler)

OpenSPR-XT is built with our cutting-edge and affordable nanotechnology biosensor platform. It has been seamlessly integrated with our robust autosampler system to allow for fully automated, 24/7 operation.



Hardware

No of Channels	2
Injection	Automated
Sample Volume	200 μ L
Sample Capacity	2x 96 well plates
Unattended Run Time	24 hours

Alto System

(The first ever Digital microfluidics -powered SPR system, with 120 hours unattended run time)

The world's first SPR instrument to integrate digital microfluidics (DMF) with nanotechnology-based biosensors. DMF technology enables all fluidics to be disposable, allowing for precise handling of 2 μ L sample volumes, crude sample compatibility and zero fluidics maintenance.



Hardware

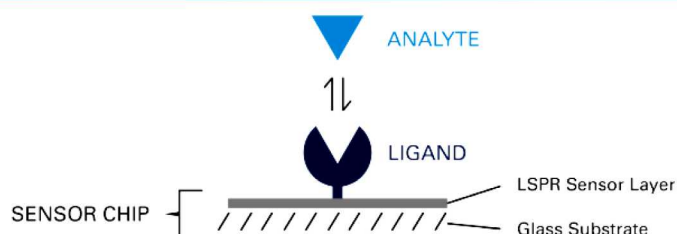
Association Rate (kon)	Up to 1×10^9 1/M*s
Dissociation Rate (koff)	1×10^{-5} –1.0 1/s
Affinity Range (KD)	1×10^{-12} – 1×10^{-4} (M)
Core Detection Technology	Localized SPR fiber optic biosensors
Data Channels	16
Analytes	Up to 64 analytes/cartridge
Sample Volume	2 μ L
Reference:Standard	1:1 standard - any combination possible
Dilutions	Automated serial dilutions
Interaction time	30 sec - 4 hours
Unattended Run Time	24 hours

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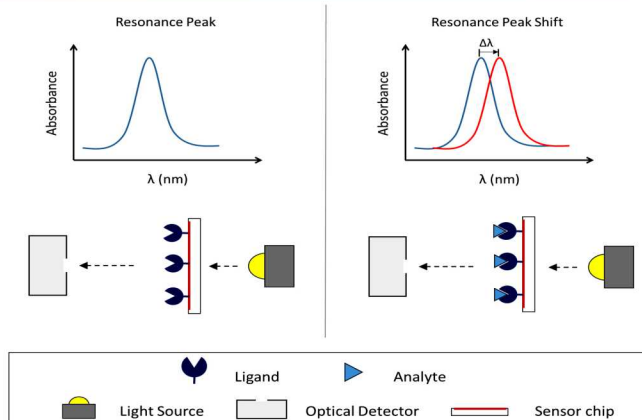


Label-Free Interaction Analysis

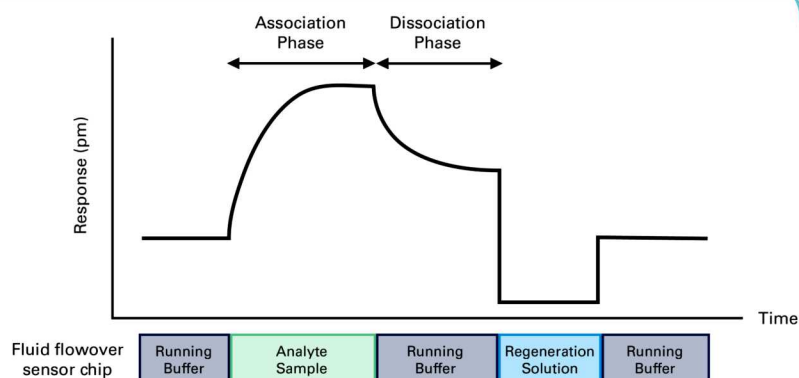
A cross-section of a ligand-analyte interaction occurring on an SPR sensor.



SPR detects binding events by measuring small changes in the wavelength of the absorbance position.



Binding Kinetics: Analyte Binding Curve





ANALYTICAL DIVISION



ENVIRONMENTAL DIVISION



MATERIAL TESTING DIVISION



LIFE SCIENCES DIVISION

MAXTECH CORPORATION

Analytical, Environmental, Material Testing & Life Sciences Equipment

📍 Suite # 26, Sharf Mansion, 16 Fatima Jinnah Road,
Lahore-54000, Pakistan

☎ 0092-42-36371818, 0092-42-36313903

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