Portable, On-line and Laboratory
Water Analysis Systems

One source, infinite solutions

for water quality analysis

Thermo
SCIENTIFIC

Complete solutions for water analysis

The lack of clean drinking water and rise in environmental water pollution are a growing global concern. Our portable, on-line and laboratory instruments provide the most accurate and precise technologies for water quality monitoring. We work with our clients to create a healthier, safer, and cleaner environment for everyone by helping to guarantee clean drinking water through environmental monitoring, preserving raw water sources, and ensuring the optimal operation of both industrial and municipal water purification processes.

Every aspect of human society is intertwined with water. From natural water resources such as streams, rivers, lakes, and seas, to water used for industrial purposes, such as electrical power and smelting, to drinking water for everyday life. We provide the tools necessary to analyze contaminants in all forms of water, from drinking, waste, surface and ground water, to properly monitor water purification processes so that you can make the right decisions for your analysis needs.

We also provide world-class technological services, achieving a one-stop service from sampling to final data collection and reporting. We cover a range of analysis and testing processes, including sample collection, preservation, sample transfer, preparation, instrument analysis, and data management. Our portfolio consists of a broad range of applications including standard physical and chemical indicators of water quality as well as methods to test for microorganisms, organic/inorganic chemical contaminants, and radioactive and biological toxicity.

Our outstanding products provide accurate, reliable results for lab, field, and industrial processes. Professionals throughout the water industry, from electrical power production to petrochemical manufacturing and municipal wastewater treatment rely on our products for general physical and chemical indicators of water quality.

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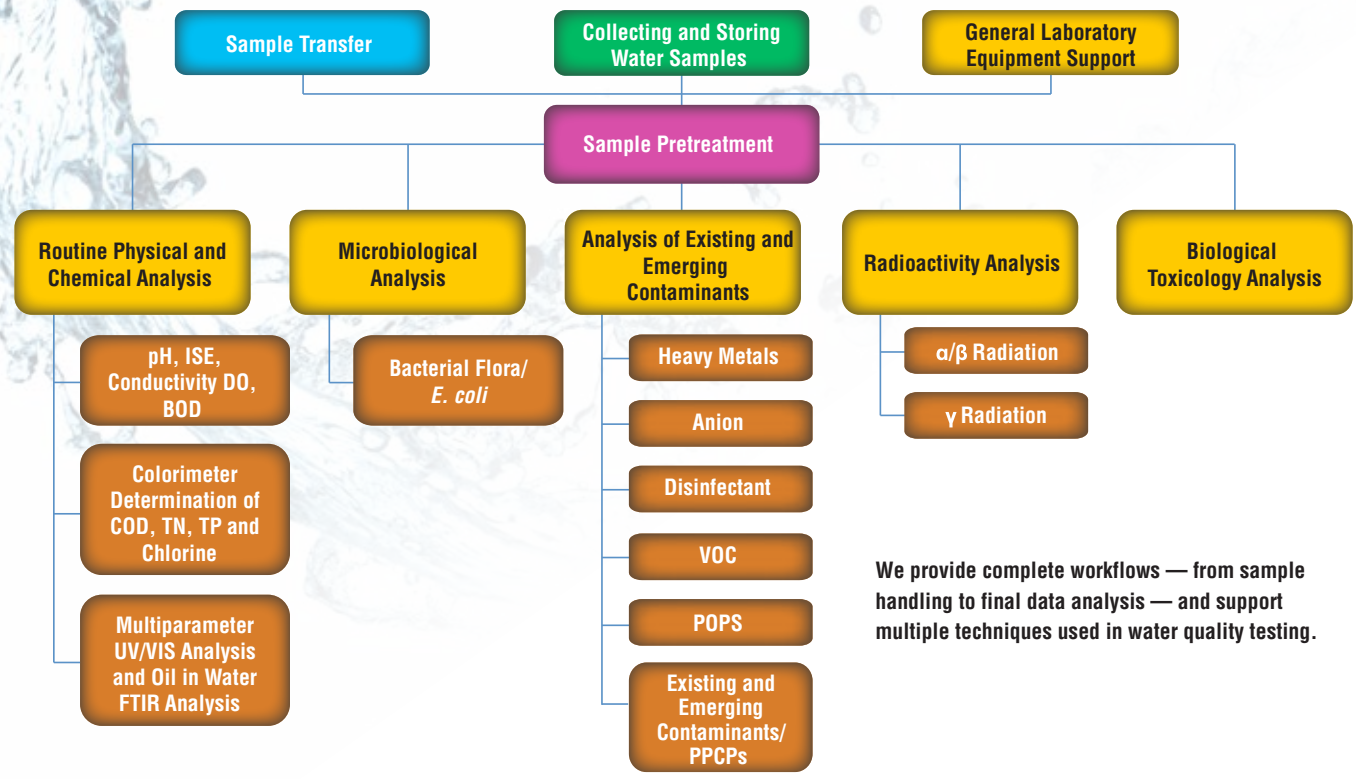


We provide complete workflows — from sample handling to final data analysis — and support multiple techniques used in water quality testing.

Sample storage, transfer and general laboratory equipment

Thermo Scientific™ Revco™
High Performance
Laboratory Refrigerators

Water quality analysis is one of the most common types of laboratory analysis. It is performed in a wide variety of markets, including the environmental, pharmaceutical and food and beverage industries, as well as by a large spectrum of laboratories such as government facilities, privately owned laboratories and contract manufacturers.

With a vast portfolio of laboratory equipment, we can help clients achieve convenient sample transfer, processing, and storage when working in the laboratory. Our high-performance laboratory refrigerators are adjustable between +2 °C and +8 °C and appropriate for everything from routine sample storage to large-scale biological sample storage.

In addition, we provide a complete range of product options of sample transfer equipment. Our pipettes can help you make accurate standard solutions and measure and dilute samples with unparalleled precision, guaranteeing exact analysis.

Laboratory water purification systems are the foundation of most testing work. Water impurities have a large effect on the physical, chemical, and microbiological analysis of samples. We provide a variety of water purification systems, satisfying experimental requirements on many levels, including routine laboratory analysis, chromatography, spectroscopy, mass spectrometric analysis, and the strict requirements for the analysis of pathogenic microorganisms. Our products comply with the strictest national regulations, including the ASTM.

In addition, we provide a variety of general laboratory equipment and high-quality laboratory supplies, including incubators, centrifuges, ovens, orbital shakers, water baths, and microplate readers.

Thermo Scientific™ Barnstead™
Ultrapure™ Water Purification Systems

Microbiological testing

Water quality, particularly microbial contamination in drinking water, plays a significant role in water safety. Pathogenic microorganisms in drinking water can potentially cause widespread human infection. In Africa and other developing regions, pathogen infested drinking water is the largest obstacle to providing potable water. Millions of children die every year from drinking contaminated water.

Microbiological monitoring of drinking water focuses on six main areas: total bacterial count, total coliforms, thermo-tolerant coliforms, *E. coli*, Giardia lambria, and Cryptosporidium.

This monitoring mainly involves routine culture methods, including membrane filtering, multiple-tube fermentation, and enzyme substrate techniques.

Recent developments in molecular biology have led to new methods for detecting bacteria in water based on EUSA and PCR technologies. We provide the instruments, equipment, and supplies needed for all of these methods for these new, highly adopted techniques.

Thermo Scientific™ Multiskan™ GO Full-Wavelength Microplate Spectrophotometer

Thermo Scientific™ MaxQ™ Shakers

Thermo Scientific Multidrop Combi Automatic Reagent Dispenser

Thermo Scientific PCR Solutions in Under 10 Hours!

By using rapid sample enrichment, our super efficient magnetic bead purification PCR method dramatically reduces detection times

Enzyme-Lined Immunosorbent Assay (ELISA) Workflow

Most standard monitoring methods for coliform microorganisms generally require culturing in an incubator for several days. Due to the specifity of the reaction, using ELISA to analyze microorganisms in water samples can greatly enhance analysis sensitivity.

Electrochemistry and colorimetry

With over 50 years of innovation including the world's first commercially available ion-selective electrode, Thermo Scientific™ Orion™ products are recognized worldwide for water quality instruments that serve environmental, water/wastewater, food and beverage, pharmaceutical, and many other general laboratory markets.

Thermo Scientific Orion products such as the VERSA STAR™ and Star™ A benchtop and portable meters, ROSS™ and LogR™ electrode technology, and Sure-Flow™ and optical RDO™ technology, allow customers to meet high quality standards.

Our subsidiary brand, Eutech Instruments, is a leading ISO9001-certified company established in 1990, dedicated to the design and manufacture of sensor-based instruments for water quality analysis. Well recognized for best-in-class pocket pHTestrs™ instruments, Eutech also specializes in benchtop and portable instrumentation, including the first Windows™-based pH instrument, part of the Fisher Scientific™ accumet™ electrochemistry product family.

Our core water quality products for field and laboratory use include: instruments, electrodes and consumables for pH, ion selective (fluoride, ammonia, and nitrate), conductivity, TDS, Resistivity, dissolved oxygen, BOD, colorimetry (COD, phosphorus, nitrogen and free/total chlorine) and turbidity. More information can be found at www.thermoscientific.com/water

Orion Star A pH Meters

Orion VERSA STAR Advanced Electrochemistry Meters

accumet XL150 pH Meter

Thermo Scientific™ Orion™ AQUAfast™ Turbidity Meters

Orion ROSS pH Electrode

Orion AQUAfast COD Colorimeters

UV-Vis spectrophotometry

UV-Vis spectrophotometers play an extensive role in environmental water quality monitoring. Standard methods for surface water analysis test water quality indicators with UV-Vis spectrophotometers. Our spectrophotometer products consist of four major series. Simple visible range spectrophotometers run from the technician-friendly Thermo Scientific™ SPECTRONIC™ 200 and GENESYS™ 20 instruments to the Thermo Scientific Orion AquaMate 7000 product that comes equipped with methods to run a wide range of popular water analysis kits. For more sophisticated analyses, choose the AquaMate 8000 UV-Vis or the research-capable Thermo Scientific™ Evolution™ UV-Visible instruments.

Evolution UV-Vis Spectrophotometer

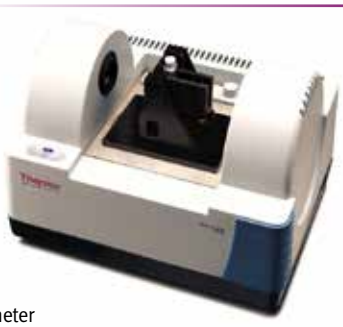
Orion AquaMate
UV-Vis Spectrophotometers

FT-IR spectrometry

Oil-in-Water Analysis Applications with Infrared Spectrometry

Fourier transform infrared spectrometry (FT-IR) is an optimal method to analyze oil-in-water. Thermo Scientific infrared spectrometry products carry out multiwavelength oil-in-water monitoring without the need to perform complex pretreatment of water samples, meeting the standard hygiene requirements for drinking water.

SPECTRONIC 200 Vis Spectrophotometer



Thermo Scientific™
Nicolet™ iS5 FT-IR Spectrometer

On-line industrial water quality testing

The Thermo Scientific™ Orion™ and AquaSensors™ product lines offer a complete portfolio of on-line water quality analysis instruments applicable in the electrical power, drinking water, municipal sewage, industrial wastewater, and semiconductor manufacturing and drug production industries. With both electrochemical and colorimetric capabilities, we offer reliable products for measuring and monitoring pH/ORP, Sodium, Fluoride, conductivity, resistivity, TDS, turbidity, suspended solids, residual chlorine, dissolved oxygen (DO), ozone (O_3), temperature, and other water quality parameters. Our instruments include the Thermo Scientific™ AquaPro™ Multi-Input Intelligent Process Analyzer, a sophisticated and highly flexible analysis platform for a wide range of process applications.

Thermo Scientific™ AquaSensors DataStick™ Measurement Systems simplify analytical measurements by designing digital sensors that connect directly to PLCs, HMIs and PC-based SCADA systems. We offer both the AquaSensors DataStick series and the standard Thermo Scientific™ Alpha™ series on-line analyzers.

Comprehensive water quality monitoring can be carried out at every point in the production process by installing our on-line water quality monitoring meter, guaranteeing production safety and compliance with emission standards.

Thermo Scientific™ Dionex™ Integral™ on-line Ion Chromatography (IC) and Liquid Chromatography (LC) systems offer a wide range of applications, from research to large-scale production. Thermo Scientific™ Dionex™ Chromeleon™ Process Analytics (PA) software allows for accurate remote control of a variety of attachments as well as real-time capture of test data. Integral systems can be used with water production, power plant condensate and boiler water quality analysis, environmental water quality analysis, and industrial wastewater monitoring.

AquaPro Multi-Input Intelligent Process Analyzer

Dionex Integral System

Sample pretreatment for organic chemical contaminant analysis

Automated Solid-Phase Extraction

The Thermo Scientific™ Dionex™ AutoTrace™ 280 Solid-Phase Extraction instrument is a fully automated, on-line SPE that can be used to carry out automatic extraction and concentration of organic contaminants, up to 20 liters, from a wide variety of water samples including drinking water, surface water, ground water, water produced from hydraulic fracking and wasterwater.The Dionex AutoTrace 280 SPE instrument is capable of positive pressure loading, accurately adjusting loading volumes by controlling flow rate to obtain optimum accuracy and reproducibility. In addition, the Dionex AutoTrace 280 instrument uses six independent pumps to achieve simultaneous six-channel loading. On average, the sample loading takes ~10 to 15 minutes, substantially reducing sample pretreatment times. The Dionex AutoTrace 280 instrument meets the U.S. EPA environmental analysis standards, and when compared with traditional liquid extraction techniques, the Dionex AutoTrace 280 SPE instrument saves even more sample pretreatment time than negative pressure solid-phase extractors.

Dionex AutoTrace 280 SPE Instrument

Liquid Sampling, Headspace Sampling and Solid-Phase Microextraction

Headspace sampling refers to the process by which samples (either in liquid or solid state) are brought into thermal equilibrium with the gases above in a hermetic static system. The gases above the sample are then extracted for analysis. Headspace sampling is mainly used to analyze volatile organic compounds in environmental soil and water.

Solid-phase microextraction refers to the process by which a coated SPME fiber head is placed into a liquid sample or headspace gas to carry out adsorption. When adsorption equilibrium is attained, the fiber head is removed and inserted into a gas chromatographic injection port. The substances adsorbed onto the coating can be desorbed by heating. Solid-phase microextraction can be used to analyze volatile and semivolatile organic compounds in environmental water samples.

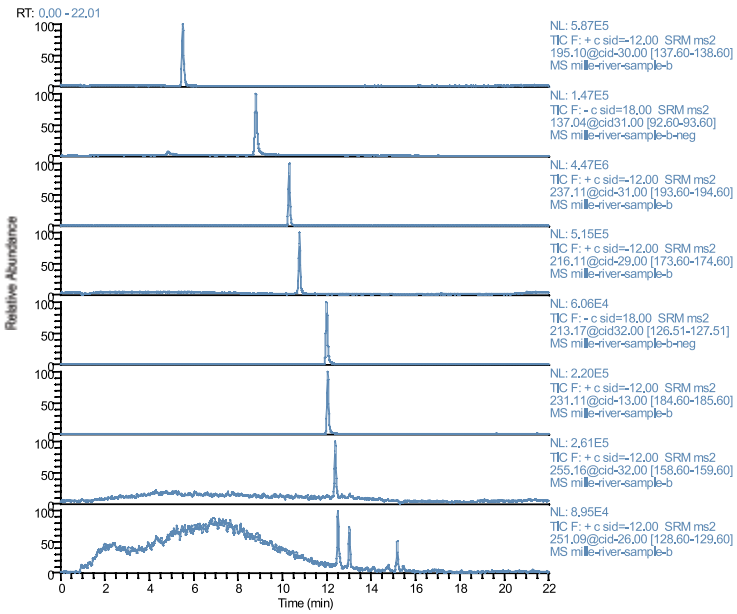
TriPlus RSH Autosampler

The Thermo Scientific™ TriPlus™ RSH Autosampler successfully integrates three modes: liquid, headspace, and solid-phase microextraction sampling. This autosampler can automatically switch between modes based on sampling requirements, thereby achieving perfect uniformity with operation and enhancing laboratory efficiency.

Analysis of existing and emerging chemical contaminants

Residue from personal care products and drugs, as well as natural toxin residues, are new issues in water contamination. The recently introduced Thermo Scientific™ EQuan MAX Plus™ system is an automated, high-throughput LC-MS solution for water analysis. This platform is highly suitable for the qualitative and quantitative analysis of emerging environmental contaminants, such as environmental water, drinking water or pesticides in drinking water, drugs, personal care products, and perfluorinated organic compounds.

Microcystin is a natural toxin produced by cyanobacteria, a water contaminant that poses a serious threat to human health. Thermo Scientific on-line, high-performance, solid-phase extraction, dual ternary liquid chromatography systems can measure trace amounts of microcystin toxins. This simple yet reliable method greatly reduces sample pretreatment time, essential for high throughput laboratories. A Thermo Scientific™ Dionex™ UltiMate™ 3000 LC system, coupled with a Thermo Scientific TSQ Series Mass Spectrometer boasts exceptional selectivity, thereby lowering requirements for sample pretreatment. Additionally, the mass spectrometer can be used for quantifying and qualifying numerous microcystin toxins in complex matrices.



Small inorganic molecule traces deteced by mass spectrometry.

UltiMate 3000 LC System and Thermo Scientific™ TSQ Quantum Ultra™ Mass Spectrometer

EQuan MAX Plus System

Analysis of volatile/semivolatile organic compounds

Organic Contaminant Analysis—GC and GC/MS Solutions

Complete Solutions For All Your GC and GC-MS Needs

TRACE 1300 Series GC

- Multiple Injection Ports
- Multiple Monitors
- LVI Technology
- Column Evaluation
- Retention Time Locking

ISQ GC-MS

- Vacuum Locking
- "S" Shaped Prescreener
- High Sensitivity
- PPINICI

ITQ Series GC-MS

- Multistage MS
- PQD Technology
- ACE Technology
- PPINICI

TSQ Quantum XLS Ultra GC-MS

- Low fg Sensitivity
- Ultra-Selective Reaction Monitoring (U-SRM)
- Unsurpassed Analyte Selectivity
- Single reaction monitoring (SRM)

DFS GC-MS

- Full Scan
- High Stability

One of the most common requirements with water quality analysis is measuring VOCs. There are many different classes of VOCs, categorized based on chemical composition. Routine items in the GB 3838 surface water quality standard are divided as follows: 12 halogenated hydrocarbons, 6 BTEXs, 6 chlorobenzenes and monochlorobenzenes, 1 vinyl chloride, and 1 ethylene oxide.

GC and GC/MS are some of the most common ways to perform standard tests, which include headspace sampling, purge and trap, and extraction and concentration methods. We provide rapid, reliable instrumental analysis methods for more than 40 volatile and semivolatile organic contaminants found in environmental water. These methods include the simple and easy-to-use gas chromatography methods and accurate and reliable GC/MS methods, all of which meet national standards for Class 1 EPA methods.

The Thermo Scientific™ TRACE™ 1300 Series GC provides the utmost convenience and functionality, and is compatible with all types of injector ports and monitors. The Thermo Scientific™ ISQ™ Single Quadrupole GC-MS offers rugged and reliable performance and nonstop productivity, making it ideal for even the busiest laboratories. The ISQ GC-MS is suitable for the analysis of many organic contaminants, including residual pesticides, VOCs, SVOCs, and polycyclic aromatic hydrocarbons. The ISQ GC-MS can analyze most of the 109 indicators in surface water and is currently the most important tool for analyzing drinking water supply sources. The Thermo Scientific™ TSQ Quantum XLS Ultra™ Triple Quadrupole GC-MS has highly selective reaction (H-SRM) analysis capabilities, able to significantly improve both qualitative and quantitative accuracy. In addition, the TSQ Quantum XLS Ultra works at extremely high speeds at high levels of precision, making it the ideal tool for determining the levels of contaminants such as residual pesticides, PCBs, and PAHs found in environmental samples. The TSQ Quantum XLS Ultra is currently used extensively for the analysis of residual pesticides in food and environmental samples and can greatly expand your laboratory application capabilities.

Analysis of volatile/semivolatile organic compounds

Thermo Scientific™ SureStop™ Vials

GC Columns

GC Consumables

Derivitization Reagents

Chromatography Columns and Consumables

From sample preparation to separation and analysis, discover the most comprehensive array of chromatography consumables to help you achieve repeatable, predictable results – separation after separation. Our comprehensive portfolio and experience in application and method development will guide you through any challenge – on any instrument.

SureStop vials

For the most demanding applications SureStop vials, designed with the Advanced Vial Closure System (AVCS) provides assured sample integrity and minimizes possible interferences at the highest sensitivity.

- Consistent sealing
- Optimal cap alignment
- AVCS design improves autosampler compatibility
- AVCS design indicates properly tightened closure
- Self leveling feature assures level closure and optimal septum compression
- Eliminate the effects of over-tightening, including septum displacement and tilted caps

www.thermoscientific.com/surestop

Thermo Scientific™ TraceGOLD™ GC columns

Providing a leap forward in GC column technology, this novel range of products offers guaranteed GC column performance giving you the following:

- Ultra-low bleed
- Superior inertness
- Excellent reproducibility

www.thermoscientific.com/columnsforgc

Thermo Scientific GC consumables

We have a range of high quality GC consumables to give you confidence in your GC results time after time. From injection port consumables such as liners, septa and ferrules, to gas filters for impurity removal and syringes for autosampler and manual applications, we have a range of consumables to ensure ultimate system performance.

www.thermoscientific.com/gcconsumables

Thermo Scientific derivatization reagents

A range of high quality derivatization reagents is offered for both GC and LC applications, as well as derivatization grade solvents:

- GC derivatization reagents
- GC derivatization grade solvents
- HPLC derivatization reagents
- Thermo Scientific™ Reacti-Therm™ Heating and Evaporation System

www.thermoscientific.com/gcreagents

Analysis of volatile/semivolatile organic compounds

Polycyclic aromatic hydrocarbons (PAHs) are compounds with carcinogenic or mutagenic effects. In 1976, the U.S. EPA listed the control of 16 PAHs as contaminants with high priority. With over 30 years of chromatography expertise, the performance of UltiMate 3000 series allows for greater flexibility and application with fully integrated LC and LC/MS capabilities. The new x2 dual gradient pump series (DGP) enhances resolution, sensitivity, speed, precision and reliability. Additionally, you can double your throughput when you operate these systems in series and parallel mode with dual ternary gradient pumps. Additionally, on-line SPE-LC purification can be used for automated sample preparation and analysis, with 2D-LC being an exceptional way to separate complex samples.

UltiMate 3000 LC systems provide super efficient liquid phase compatibility, further expanding the system's high-performance analysis capabilities

Optimum Quantitative Configuration Solutions for Dioxins—From Screening to Confirmation

According to Standard HJ 77.1-2008, Determination of PCDDs and PCDFs – Isotope Dilution HRGC – HRMS, issued by the Department of Environmental Protection in 2008, dioxins are known to be one of the most carcinogenic organic chemical contaminants. Researchers around the world use a high-resolution mass spectrometry (HRMS) analysis method to measure environmental dioxin-like compounds.

The Thermo Scientific™ DFS™ High Resolution GC/MS System is the first dual focusing high performance magnetic sector mass spectrometer. The DFS is a reference instrument for analyzing both polybrominated and polychlorinated dioxin-like substances and boasts the lowest detection limits of all instruments on the market to date, producing reliable results that can withstand any regulatory testing. Quantitative software specially designed for isotope dilution methods allows users to calculate total equivalents (TEQs) for concentration or toxicity in compliance with the regulatory requirements set forth in the U.S. EPA 1613, Japan JIS K 0311/0312, and EU EN 1948 standards.

Additionally, the Thermo Scientific™ TSQ Quantum XLS Ultra™ triple quadrupole MS is the highest performing GC-MS/MS instrument available, with unsurpassed matrix selectivity, analytical performance and lab productivity, making it the ideal low-cost dioxin screening tool. The DFS HRGC-MS and the TSQ Quantum XLS Ultra GC-MS/MS ideally complement each other and fully meet the quantitative requirements for low-level dioxins of even the busiest laboratories, from screening to confirmation.

Complete POPs Analysis Process

Effective Screening and Reliable Confirmation

GC-GC/MS

GC/HRMS

Accelerated Solvent Extraction

Anion and cation analysis

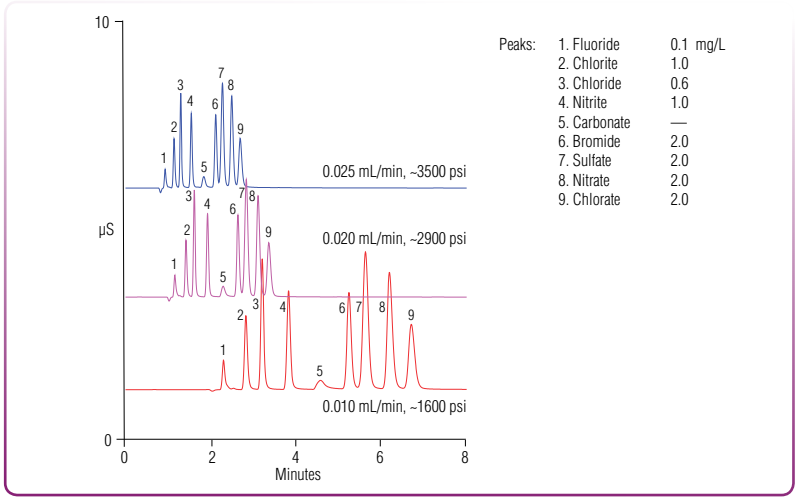
Thermo Scientific Dionex Ion Chromatography Product Line

Thermo Scientific Dionex products are committed to improving quality monitoring methods to help maintain global water resources. As the industry leader in the ion chromatography market, our IC systems are used extensively in a variety of water quality analysis processes, including:

- Routine anion testing—the most common ion chromatography application in the water analysis industry
- Perchlorate testing—a persistent environmental contaminant, IC testing for perchlorate is accepted by regulatory agencies as the most reliable and effective analysis method
- Routine cation testing—used to test for the presence of alkali metal and alkaline earth metal ions in environmental and industrial waters
- Metal speciation—used to determine organic and inorganic ion species to evaluate toxicity in water samples

Analysis of disinfectants and disinfection byproducts

The sterilization process is essential in guaranteeing the quality of drinking water. Harmful bacteria in drinking water can be eliminated by using special disinfectants. The majority of disinfectants use liquid chlorine, chlorine dioxide, or ozone. Chlorine itself is toxic, but when using liquid chlorine as a disinfectant, a series of trihalomethane contaminants are also produced. Ozone is highly toxic with a short half life. Bromate is formed during the ozonation of water that contains naturally occuring bromide. Bromate, however, is also a carcinogen. Chlorine dioxide is currently the most recommended of the three chemicals for use as a disinfectant. Its disinfectant byproducts mainly include hypochlorite and chlorite. Bromate is regulated by all industrialized nations and is typically analyzed by ion chromatography or via IC-ICP-MS.



Fast analysis of inorganic Anions on a Dionex IC system using Thermo Scientific™ Dionex™ IonPac™ AG18-4µm and AS18-4µm columns.

Heavy metal analysis

We offer a variety of analytical solutions for the determination of high, low, and even trace amounts of heavy metal elements in environmental water. The Thermo Scientific™ iCE™ 3000 Series Atomic Absorption Spectrometers can be configured for any flame or graphite furnace atomizers, satisfying the requirements of the vast majority of standard heavy metal analysis methods. The iCE 3000 Series AAS are compact, easy to use, and provide exceptional sensitivity making them the most reliable heavy metal analysis tools currently available.

The Thermo Scientific™ iCAP™ 7000 Series ICP-OES provide simple and rapid multi-element analysis capabilities, covering everything from major to trace element analysis. This full range of direct-reading ICP spectroscopy instruments are vital tools for environmental monitoring. The high performing iCAP 7000 Series ICP-OES is ideal for busy environmental laboratories.

The Thermo Scientific iCAP Q ICP-MS is currently the most powerful testing method in heavy metal analysis, capable of processing small to trace quantities of the vast majority of elements in the periodic table. In addition to its rapid and accurate analysis capabilities, the iCAP Q ICP-MS has the lowest quantitative limits (as low as ppt) and the widest dynamic range. The ground-breaking design simplifies the user experience and dramatically improves laboratory efficiency.

Furthermore, HPLC/IC ICP-MS can be used for the species analysis of arsenic, mercury, and other elements, as well as for supplementing current water quality analysis methods.

Our Mass Spectrometry Center in Bremen, Germany, also provides a variety of high-end magnetic mass spectrometry and isotope mass spectrometry products in response to even more rigorous element analysis requirements.

iCE 3000 Series AA

iCAP 7000 Series ICP-OES

iCAP Q ICP-MS

Radioactive and biological toxicity testing

Radiation Testing

We are a global supplier of highly regarded radiation testing and safety instruments. Our radiation measuring products include measurement systems for Alpha, Beta and Gamma Radiation in water.

The Thermo Scientific™ RadEye™ HEC is designed for simultaneous alpha and beta monitoring of standard size water sample filters with an Alpha/Beta Scintillation detector.

The RadEye B20 Lab Kit is a portable field monitoring kit that can be used for measuring alpha/beta/gamma radiation in small water samples or on water sample filters.

The RadEye SX gamma food monitor uses a large 2"×2" sodium Iodide detector for the best efficiency and the ability to look at user defined gamma energy windows for specific isotopes when measuring marinelli type liquid samples of a larger volume.

The RadEye PRD-S Gamma Food Monitor System uses the RadEye PRDs efficient internal gamma detector to monitor liquid samples in a stackable shielding kit that can monitor two samples at one time.

All of the RadEye systems automatically log data results that can be downloaded live or later to a PC via cable or Bluetooth connection. The RadEye family offers a variety of solutions for the measurement of radiation in water samples as well as wide range of radiation monitoring capabilities for many applications.

Aquatic Biological Toxicity Monitoring

Biological toxicity is another important aspect to consider in assessing water toxicity. We come into contact with 40 to 80 thousand different types of chemicals every day, revealing that simply using chemical monitoring techniques to carry out water quality testing is not enough to assure safety. Integrated toxicity testing based on biological toxicity research has become the optimum method of analysis. This quantifies the direct effects of water on living organisms, such as luminescent bacteria, algae, large eggs and fish, creating a method of detection. With the development of toxicology studies, testing and research methods for toxic substances have also gradually developed from the level of living organisms to the cellular level in order to enhance test sensitivity and speed and lower testing costs. Recently, researchers have begun using High Content Technology to assess water toxicity. The U.S. EPA is currently using High Content Technology to carry out assessments of the toxicity of chemical substances in order to establish t standards. This has already become part of the ToxCast project, a project devoted to classifying priority toxic environmental chemicals.

RadEye PRD-S
Gross Gamma
Food Monitor

RadEye B20
First Responder
Laboratory Kit

Thermo Scientific™ ArrayScan™
High Content Readers

Complete products and applications for water analysis

Our Products	Surface Water, Ground Water/ Precipitation	Drinking Water, Bottled Water	Agricultural Water	Urban Water Supplies, Recycled Water	General Water Quality Testing in Industrial Processes	Industrial Discharge, Wastewater Discharge
General Laboratory Products						
Laboratory Refrigerators	•	•	•	•		•
Pipettes	•	•	•	•		•
Pure Water Instruments	•	•	•	•		•
Microbiology Testing Instruments						
Incubators	•	•		•		
Magnetic Bead Purification Systems		•		•		
Quantitative Fluorescent PCRs		•		•		
Bacterial Culturing	•	•		•		
Microplate Readers		•		•		
Radiation Measuring Instruments						
α/β Radioactivity Testing	•	•		•	•	•
γ Radioactivity Testing	•	•		•	•	•
On-line/Portable Water Quality Monitoring Instruments						
Portable/Benchtop Electrochemical Products	•	•	•	•	•	•
Portable/Benchtop Colorimeters	•	•	•	•	•	•
On-Line Ion Chromatography					•	
On-Line Electrochemical Products				•	•	•
On-Line Radiation Monitoring Systems						•
Sample Pretreatment Equipment						
Accelerated Solvent Extraction	•	•	•	•		
Automatic Solid-Phase Extraction	•	•	•	•		
Laboratory Analysis Instruments						
Atomic Absorption Spectrometry	•	•	•	•		•
Plasma Atomic Emission Spectrometry	•	•		•		•
Plasma Mass Spectrometry	•	•		•		
UV-Vis Spectrophotometers	•	•	•	•	•	•
Infrared Spectrometers	•		•			•
Ion Chromatography	•	•	•	•		•
Gas Chromatography	•	•	•	•		•
GC/MS	•	•	•	•		•
Triple Quadrupole GC/MS	•	•				
High-Resolution Magnetic GC-MS	•	•				
HPLC	•	•		•		
Triple Quadrupole LC-MS	•	•		•		
Ion Trap LC-MS	•	•		•		
Orbitrap™ High-Resolution LC-MS		•		•		

Data and laboratory information management

Thermo Scientific award-winning Informatics Solutions are used at water and environmental businesses around the world, helping them respond to critical challenges and provide viable solutions. Our complete software portfolio helps our customers make the world a healthier, cleaner and safer place, and includes:

- Laboratory Information Management System (LIMS)
- Chromatography Data System (CDS)
- Scientific Data Management System (SDMS)
- Spectroscopy Software

Laboratory Information Management Systems

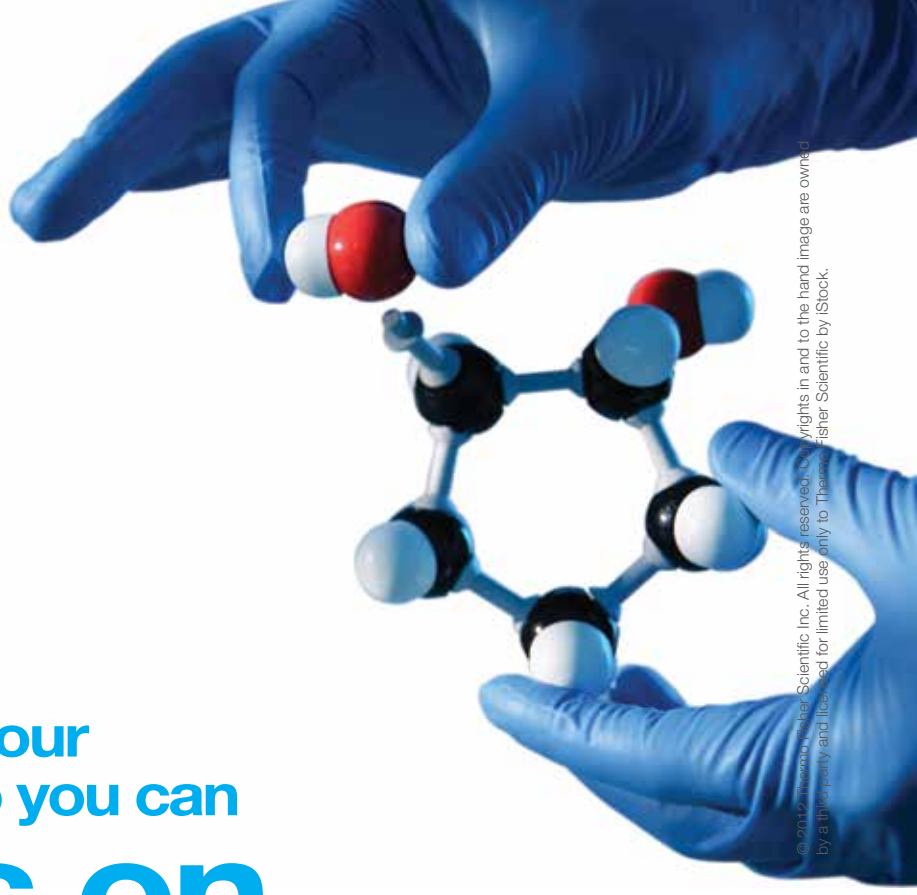
Finding solutions to the increasing challenges within the water and environmental industries is critical to day-to-day operations. Our solutions respond to today's data management challenges and have built-in industry-specific functionality to provide the utmost flexibility and ease-of-use. Our portfolio also includes integration tools and services to connect your LIMS to your entire laboratory, as well as other parts of the business, in order to provide you with key metrics and information that are critical to business operations and help you make faster, more informed decisions. Laboratories that analyze drinking water and wastewater must regularly test the quality of drinking water and sewage to guarantee public safety and ensure that water composition meets regulatory requirements. Our LIMS ensures accurate, timely test results that are essential to maintaining environmental standards, and is the foundation for meeting performance standards required by the EPA and other regulatory agencies.

Chromatography Data Systems Software—Simply Intelligent

The Chromeleon 7.2 Chromatography Data System (CDS) software is the first CDS platform that supports mass spectrometer instrument control and data processing with all main front-end separation techniques (LC, GC, IC) in an enterprise environment. Chromeleon 7.2 CDS gives superior data processing, intuitive graphical user interface and automation capabilities, boosting your overall lab productivity.

Solutions for Laboratory Information Management Systems

Unity lab services



we support your laboratory so you can

focus on the science

Discover more time for research. Discover a better way to work.
Discover Unity Lab Services.

Our customized programs simplify laboratory service and support into a single solution to increase efficiency, reduce costs and improve productivity.

Focus your resources on innovation, not service, and rely on our service professionals to deliver the support you need, when you need it.

Let our expertise complement yours.

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About Thermo Fisher Scientific

We are the world leader in serving science. Our mission is to enable our customers to make the world healthier, cleaner and safer. We provide products and services through three premier brands – Thermo Scientific, Fisher Scientific, and Unity Lab Services – which offer a unique combination of innovative technologies, convenient purchasing options and a single solution for laboratory operations management.

Thermo Scientific

Think Thermo Scientific for superior analytical instruments, laboratory equipment, software, services, consumables and reagents. Find better workflow solutions spanning sample preparation, sample analysis, and data interpretation.

www.thermofisher.com

Fisher Scientific

Our family of global service brands provides a complete portfolio of laboratory equipment, chemicals, supplies and services for research, safety, healthcare and science education.

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