


# Everything you need to ensure your success in pesticide analysis—now and beyond.

That's what we provide you and your laboratory. Start-to-finish workflows to help regulatory, agricultural and environmental testing laboratories meet the challenges of today and the future requirements of tomorrow in pesticide residue testing. From sample input to data output, we help you and your organization comply with future regulations the world will no doubt face. It's a single provider solution that reduces start-up time costs, and provides compelling productivity and a host of efficiency enhancements. So you get the job done as you protect your investments now and well into the future. Whether you are a start-up or established laboratory, adding new analytical capabilities or setting the next standards in keeping our environment safe, we have you covered. Regardless of staff or laboratory expertise, our solutions are designed to make it easier to obtain reliable, unambiguous, high-quality test results. All from a single, trusted supplier. Thermo Fisher Scientific.



**RAISING**  
tomorrow's bar  
in environmental  
pesticide analysis.

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A Thermo Fisher Scientific Brand



# Bringing a brighter **TOMORROW.**

We all know compliance standards and regulations will continue to evolve. As will environmental threats. Year-to-year, country-to-country.

But what if the equipment your lab arms itself with today would meet tomorrow's demanding needs as well?

That's the concept behind the Thermo Scientific™ portfolio. GC-MS to LC-MS to IC-MS. The instruments, software, applications, columns, consumables.

A truly leading edge approach to your toughest environmental analysis challenges for trace contaminants, even in complex matrices.

The result? At Thermo Fisher Scientific, we're dedicated to thinking beyond today's challenges to well into the future. That means that you not only protect the environment today, but also tomorrow, keeping your investment sound. That's certainly helping to bring a brighter tomorrow.

## Protecting the future.





# Powerful workflow solutions for ever-evolving pesticide residues analysis.

## Thermo Scientific Pesticide Analysis Solutions

What you need for what the world demands. Sample input to data output for complete pesticides analysis. With a solid portfolio from GC-MS to LC-MS to IC-MS instrumentation including software, columns and consumables for your most important applications. Everything designed to go beyond standard analysis — because so much rides on everything you do. Not just pesticides detection and analysis, but saving bottom lines as well.





## Sample preparation and consumables

Walk-away automation and intuitively designed consumables for improved productivity



Sample Preparation Solutions

Thermo Fisher Scientific provides a wide range of sample preparation solutions with formats and selectivity to target drinking, ground, surface and waste water sample extraction.



Automated Solid-Phase Extraction

The Thermo Scientific™ Dionex™ AutoTrace™ 280 Solid-Phase Extraction Instrument provides walk-away capability and is suitable for U.S. EPA 500, 600 and 1600 Methods.



Accelerated Solvent Extraction Systems

The Thermo Scientific™ Dionex™ ASE™ 150/350 Accelerated Solvent Extraction instruments provide automated extraction of environmental contaminants from solid and semi-solid matrices including soils, sediments, sludges, and tissues.  
[thermofisher.com/ASE](http://thermofisher.com/ASE)



GC and GC-MS Consumables

Consumables including vial liners, septa, ferrules, and syringes have been thoroughly tested on Thermo Scientific™ GC and GC-MS systems to ensure the optimum level of performance.



LC Columns

Thermo Scientific offers a comprehensive range of LC columns and accessories that meet the requirements of challenging environmental analyses.  
[thermofisher.com/lc-columns](http://thermofisher.com/lc-columns)



GC Columns and Consumables

The Thermo Scientific™ TraceGOLD™ product line offers a range of high-quality range of high quality gas chromatography columns designed to ensure optimum system performance.  
[thermofisher.com/gc-columns](http://thermofisher.com/gc-columns)



# Sample introduction

Sampling automation to maximize throughput



TriPlus RSH Autosampler

## Automated Headspace

The TriPlus RSH™ Headspace Autosampler is a powerful sample handling solution that lets you automate and accelerate organic volatile determinations to increase sample turnaround and reduce cost per analysis. Ideal for environmental applications.



TriPlus 300  
Headspace Autosampler

## TriPlus 300 Headspace Autosampler

Brings together a number of autosampler capabilities that expand productivity, performance, and versatility for GC and GC-MS applications. In particular, the system's automated, high-precision sample handling reduces manual labor and downtime.



EQuan MAX Plus

## EQuan MAX Plus™ LC-MS

Thermo Scientific™ EQuan MAX Plus™ systems provide turnkey liquid chromatography/mass spectrometry LC-MS solutions for the analysis of trace contaminants in environmental waters. Using the system's high throughput, labs can automate many of the sample preparation steps, reducing preparation time and the possibility of human error.



Purge and Trap

## Purge and trap system compatibility

The ability to analyze volatile organic compounds is a vital part of environmental contaminant monitoring. Analysis of VOCs in soils and waters requires seamless transfer of the low molecular weight compounds into the GC-MS system. Our GC, GC-MS Purge and Trap configurations are available with Tekmar, OI Analytical and other popular manufacturers.



## Sample analysis

Chromatography separations for routine pesticide detection and quantitation

Successful detection, identification, and quantitation of pesticides starts with successful separations. Some classes of pesticides are more amenable to separation by gas, liquid or ion chromatography. While others can be separated using multiple techniques. Whatever the method, our environmental analysis experts offer support and guidance to help determine which solution best meets your needs today and tomorrow.



**TRACE 1310**  
Gas Chromatography system

The Thermo Scientific™ TRACE™ 1310 Series GC system combines versatility and exceptional GC and GC-MS performance for an ideal system for pesticide laboratories at any stage. This system features a full touch screen for instrument control and status monitoring. The modular design of Instant Connect injectors and detectors allows reconfiguration and easy maintenance of the GC within minutes, reducing instrument downtime.

[thermofisher.com/trace-1310](http://thermofisher.com/trace-1310)



**Vanquish UHPLC system**

Designed with innovative technology and fine detail, the Thermo Scientific™ Vanquish™ UHPLC system delivers a new standard in Ultra High Pressure LC. More results with better separations and easier interaction simultaneously, without compromise. This fully integrated system features high sample capacity for high-throughput workflows, industry-leading pumping performance, amazingly low signal-to-noise. [thermofisher.com/hplc-uhplc](http://thermofisher.com/hplc-uhplc)



**Dionex ICS-5000 HPIC System**

For ion analysis, nothing compares to a Thermo Scientific™ Dionex™ ion chromatography (IC) system. Whether you have just a few samples or a heavy workload, whether your analytical task is simple or challenging, we have a solution to match your performance and price requirements. Recent innovations include high pressure systems, 4 micron columns and capillary systems and columns and more. As the technology leader in IC for over 40 years, you can feel confident you're getting the best in our IC systems, consumables, service and support.

[thermofisher.com/ICS-5000](http://thermofisher.com/ICS-5000)



# Sample analysis

Comprehensive mass spectrometry for pesticide analysis

Thermo Scientific triple quadrupole GC and LC mass spectrometry systems set the standard for sensitive, specific quantitation and identification of targeted compounds. More demanding functionality for combined targeted and untargeted screening applications is supported using the high resolution accurate mass capabilities of the Orbitrap technology platforms. Sensitivity and selectivity with outstanding productivity and reliability mean there's a solution for every pesticide analysis challenge.

## Ionic Pesticides



Dionex ICS-5000+HPIC system

## GC Amenable Pesticides

### Routine quantitation



ISQ LT Single Quadrupole  
GC-MS system

### Routine quantitation using SRM



TSQ™ 8000 Evo  
Triple Quadrupole GC-MS/MS system  
[thermofisher.com/qqq-gc-ms](http://thermofisher.com/qqq-gc-ms)

### Quantitative, unknown screening



Q Exactive™ GC Orbitrap™  
GC-MS/MS system  
[thermofisher.com/QExactiveGC](http://thermofisher.com/QExactiveGC)

## LC Amenable Pesticides

### Routine quantitation using SRM



TSQ™ Endura / Quantiva Triple  
Quadrupole LC-MS/MS

### Quantitative, unknown screening



Thermo Scientific™ Q Exactive™ Focus  
[thermofisher.com/QE-focus](http://thermofisher.com/QE-focus)



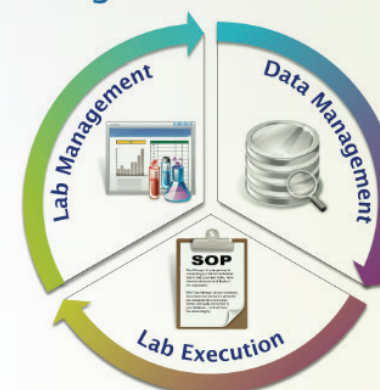


# Data management, analysis and reporting

Simplify method development, automate data acquisition, and ensure the greatest possible information is extracted from every piece of data with our superbly intuitive, application-specific software solutions.

Exceptional software to power your lab into the future of pesticide analysis.

## Thermo Scientific Integrated Informatics



### Routine quantitation

Laboratory Information Management Systems (LIMS) offers a secure system to efficiently manage and track incoming environmental samples throughout a laboratory facility. The features of the system allow data and results from multiple analytical techniques to be seamlessly compiled for final reporting with archival capabilities that enable instant access to complete historical sample analysis details.

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### Chromeleon CDS Software

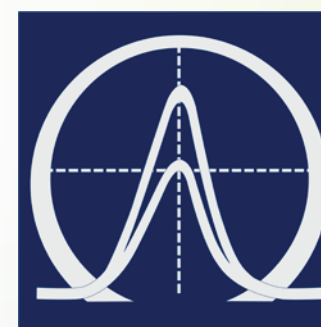
Dionex Chromeleon CDS software unifies workflows for chromatography and routine quantitative MS analysis, providing full integration of our gas chromatography (GC/GC-MS) and liquid chromatography (LC/LC-MS) instruments. Quickly and easily process and report chromatography and MS data in one application. Run your analyses in an enterprise environment, from method creation to library based compound identification and data analysis.

[thermofisher.com/Chromeleon](http://thermofisher.com/Chromeleon)

### TraceFinder™ Software

Our Thermo Scientific™ TraceFinder™ software is an easy-to-use, workflow-driven software for labs performing quantitation, targeted, and non-targeted analysis using both GC-MS and LC-MS. Specifically designed for quantitative analysis, TraceFinder software increases productivity with powerful method development, simplified data acquisition, comprehensive data review, and extensive reporting features including custom report options.

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**TraceFinder**  
The Power to Know

