

SOLUTIONS
AND SERVICES
FOR BETTER
RESULTS





UNIQUE DETECTION CAPABILITIES TO UNDERSTAND OUR ENVIRONMENT

Our environment is becoming increasingly fragile – and we all have a role in sustaining it. Whether your work is to prevent the pollution of our air, water and soil or ensure that our food supply is safe and real, PerkinElmer is here to work with you. With our unique detection capabilities and the most innovative user interfaces, you can have an unprecedented level of simplicity and control of your lab operations.

This reference is designed to provide you with an overview of our broad range of solutions and services across multiple techniques, including the software and supplies that enable high performance and efficiency in your lab. These are solutions that ultimately help you protect our environment, our food supply and the health of our families.



FOR A CLEANER ENVIRONMENT

Environmental Monitoring

From radioactive and organic contaminant monitoring to trace and toxic metals and chemicals determination, we deliver essential insights with unmatched expertise, systems and comprehensive services required to monitor for harmful contaminants in air, water and soil and to keep your labs running efficiently and smoothly.

Renewable Energy Development

From the exploration of new energy sources to quality assurance of advanced materials used in alternative energy technologies, we partner with you to help maximize quality and optimize precision throughout your process while helping you stay compliant amid the evolving regulatory landscape.



FOR SAFER PRODUCTS

Food Quality, Nutrition & Safety

The production and transport of food is complex and consumers are eating a variety of food from around the world. Rely on us to guide you in meeting food and beverage testing requirements with solutions that rapidly deliver accurate results and comprehensive services.

Cannabis Testing

Analyzing cannabis can be challenging – setting up a laboratory, developing methods to ensure maximum throughput of samples, generating client reports, and preserving data integrity. As rules and regulations evolve in this rapidly growing industry, we offer turnkey solutions that meet current regulations and maximize your lab's productivity.

Pharmaceutical Development & Manufacturing

To ensure high-quality, safe and non-counterfeit drugs reach the market quickly and effectively. Our offerings help to improve product quality and reduce costs by providing comprehensive solutions and lab services to ensure optimized operations and increased productivity.



FOR BETTER DETECTION

Industrial

We provide organizations responsible for manufacturing and testing materials with solutions targeted to a wide range of applications. These solutions help support proactive monitoring and issue prevention, regulatory compliance, reliable quality and improved productivity without introducing risk.

Consumer Goods

Globalization of the supply chain has caused a significant increase in the number of products imported and exported globally. Our solutions detect the presence of potentially dangerous materials in toys and consumer products.

CHROMATOGRAPHY AND MASS SPECTROMETRY

Clarus GC and GC/MS

Our Clarus® GC systems feature proprietary autosampler technology, a superfast oven cool-down, a wide-range flame ionization detector (FID), and a capillary injector with decreased reactivity, all which provide the high performance and greater efficiencies analytical labs require across a wide range of applications. The Clarus SQ 8 GC/MS delivers both unsurpassed sensitivity and unparalleled stability, offering detection limits never seen before, using the Clarifi™ detector and a unique SMARTsource™.

**TurboMatrix Sample Handling**

Our market leading TurboMatrix™ headspace, headspace trap and thermal desorbers are the clear choice for any volatile sample analysis. Plus, our full-featured rail-based MultiPrep autosampler offers more choices, including Solid Phase Microextraction (SPME), Syringe Headspace and Liquid Handling techniques. Regardless of GC brand or model you can have access to PerkinElmer proven technology in sample handling and introduction.

**Flexar HPLC and UHPLC**

With our Flexar™ platform, you can choose a traditional HPLC instrument or the Flexar FX-20 UHPLC for high sensitivity requirements while getting the maximum throughput. Plus, we have a broad array of autosamplers and detectors, including the most optically advanced PDA detector on the market, plus the consumables and support for optimal performance.

**QSight LC/MS/MS**

High sensitivity, throughput and productivity are what sets the QSight™ LC/MS/MS apart from traditional triple quadrupole solutions. The QSight system is designed for high sensitivity food safety and environmental applications, including cannabis testing. Its unique patented technologies deliver lower cost per analysis, higher throughput, and decreased sample prep time – all in a compact form factor. Running on the Simplicity™ 3Q software platform, this innovative system is also easy-to-learn and use. Our QSight triple quad is paired with the equally capable QSight LX50 UHPLC system, delivering all the sensitivity and specificity you need for demanding applications.

**Torion T-9 Portable GC/MS**

At a total weight of only 14.5 kilogram / 32 pounds, our one-of-a-kind Torion® T-9 portable GC/MS is designed to carry in the field and is ideal for rapid screening of chemicals, such as environmental volatiles and semivolatiles (VOCs/SVOCs), explosives, chemical threats, and hazardous substances. The Torion T-9 is also easy to operate and delivers fast, accurate, lab quality results to enable remedial action.

**Chromatography Data Systems**

For both GC and LC instruments, we offer Chromatography Data Systems (CDS) software designed to fit your laboratory workflow and maximize productivity. With our scalable CDS software you can acquire, process, report and review data quickly, securely – for both regulated and non-regulated methods – in standalone to multi-user environments.

CONSUMABLES, SUPPLIES AND ACCESSORIES HIGHLIGHTS

Our extensive line for chromatography and mass spectrometry systems include gas filtration systems, capillary columns, as well as sample preparation SPE columns and cartridges, and QUebers. New to our line of accessories, is the TurboMatrix Thermal Desorber Tube Oven for a faster, easier, more cost-efficient way to re-condition your glass or stainless steel tubes, up to 20 at a time.



ATOMIC SPECTROSCOPY

NexION 2000 ICP-MS

The NexION® 2000 is a very versatile ICP-MS, featuring an array of advanced technologies that combine to offer unique benefits to laboratories, both large and small: the most powerful interference removal for the best detection limits; the highest flexibility regardless of matrix; the lowest-maintenance requirements for ICP-MS.

NexION 1000 ICP-MS

The NexION® 1000 is the ideal ICP-MS for high-throughput testing labs running routine, multi-elemental, trace-level analyses that meet regulatory standards - that works within your budget. It provides exceptional speed, operational simplicity, and improved laboratory efficiency.

Avio 500 ICP-OES

The Avio® 500 is a truly simultaneous, dual view, and compact ICP-OES. It utilizes a vertical plasma and is engineered to handle even the most difficult, high-matrix samples without dilution, delivering productivity, performance, and faster return on your investment.

Avio 200 ICP-OES

The smallest ICP on the market, the Avio® 200 offers high performance, efficient operation, reliable data, and low cost of ownership by delivering: the lowest argon consumption of any ICP, the fastest ICP startup, superior sensitivity and resolution for all elements of interest, and the widest linear range with dual viewing technology.

PinAAcle 900 Series AA

The PinAAcle™ 900 series of atomic absorption (AA) spectrometers brings AA performance to new heights. Available in flame, furnace or combination models, PinAAcle instruments offer exactly the level of performance you need with the smallest footprint of any combined flame/graphite furnace AA system on the market.

PinAAcle 500 Flame AA

The PinAAcle™ 500 offers superior durability, longer life, lower maintenance costs, and the fastest return on investment of any flame atomic absorption (AA) spectrometer. Plus, it's the world's first completely corrosion-resistant flame AA, designed to withstand the harshest environments and most corrosive samples.

Syngistix Cross-Platform Software

Designed to offer a harmonized user experience across PerkinElmer's AA, ICP and ICP-MS platforms, Syngistix™ software features a unique icon-based design that simplifies navigation and walks the user through every analysis – from setting up to acquiring data to reporting results. Flexible and intuitive, it mirrors your workflow with a left-to-right arrangement of analytical steps. Other benefits include built-in methods, Enhanced Security™ option for 21 CFR Part 11 compliance, and application-specific modules.

**CONSUMABLES, SUPPLIES AND ACCESSORIES HIGHLIGHTS**

From sample digestion ovens to autosamplers, automated FIAS systems to graphite tubes, cones, torches, nebulizers and standards, our consumables, supplies, application packs, and compatible systems are designed and tested to enhance the performance, productivity and reliability of your PerkinElmer atomic spectroscopy instrument. Our Titan MPS™, a closed-vessel microwave digestion system available in 8-vessel and 16-vessel configurations, is built to deliver simple, safe, cost-effective microwave sample preparation.



MOLECULAR SPECTROSCOPY

Spotlight 150i, 200i and 400

The Spotlight™ IR systems are designed for scientists specializing in materials, pharmaceuticals, academia, forensics, biomedical and biomaterials whose samples demand higher sensitivity and simpler analysis and workflows. From automated setup to complete characterization in rapid time, these systems deliver quick, high quality results. We offer two FT-IR options with the Spotlight systems: Spectrum Two™ and Frontier™.

**Spectrum Two FT-IR/NIR Family**

With the combination of superb performance and low maintenance design, the Spectrum Two™ family (Spectrum Two FT-IR and Spectrum Two N™ FT-NIR) of spectrometers is suited to everyday analyses. Thanks to their robust, compact and transportable design, they can be used by everybody, everywhere. Highly portable with optional wireless connectivity and handheld PC control, they are at home both in the field and in the laboratory.

**Frontier FT-IR/FT-NIR/FT-FIR**

The wide range of near-, mid- and far-IR spectrometers for superior performance can meet any IR challenge —from high performance everyday measurements to the most advanced analysis. Multiple techniques can be used at the touch of a button with the unique automated spectral range changing capability. Fully adaptable, Frontier can be expanded as analytical requirements and research goals evolve. Simply switch the sampling accessory to address multiple applications with a single instrument.

**LAMBDA 265/365/465 UV/Vis**

This family of benchtop-friendly UV/Vis instruments enables you to handle your current sample workload, then expand as your lab's business changes and grows. With their simple interfaces and intuitive software, training costs are minimized – and uniform global integration is an achievable goal. The LAMBDA 265 Photodiode Array (PDA) provides accurate and affordable results. LAMBDA 465 is an ultra-fast PDA ideal for rapid reaction samples. The LAMBDA 365 is a compact, versatile, easy-to-use double-beam UV/Vis system. With both basic and advanced software platforms available, the LAMBDA 365 and 465 offer solutions to satisfy 21 CFR Part 11 compliance.

**LAMBDA 850 UV/Vis and LAMBDA 1050 UV/Vis/NIR**

The high-performance LAMBDA 850 UV/Vis and LAMBDA 1050 UV/Vis/NIR instruments provide unmatched flexibility and performance. The unique platform concept and multi-detector configurations allow use of the widest range of accessories to support application needs now and into the future. From optical materials to the most advanced nanomaterials research, the LAMBDA 850 and 1050 instruments will meet your needs.

**FL 6500 and FL 8500 Fluorescence Spectrometers**

Whether looking for a high-energy pulsed Xenon light source that will preserve the integrity of your sample (FL 6500™), or a high-sensitivity source for testing diluted or small samples (FL 8500™), our revolutionary fluorescence spectroscopy instruments provide the speed and accuracy you need right at your fingertips.



THERMAL ANALYSIS

DSC 4000/6000/8000/8500

Our differential scanning calorimetry platforms include the single-furnace DSC 4000 and DSC 6000 "workhorses" that perform like champions as well as the double-furnace DSC 8000 for greater sensitivity and accuracy. With the addition of autosampling and second-generation HyperDSC® technology in the DSC 8500, you can get great DSC results faster than ever before.

**STA 6000/8000**

Compact and rugged, our STA 6000/8000 simultaneous thermal analyzers deliver high performance for both research and routine applications. The STA is used for compositional analysis and kinetic studies enabling the analysis of transitions in materials as well as calibration with palladium standards for fuel cell, ceramics, catalysis applications, coal and challenging academic research. Our high performance STA 8000 has a built-in mass flow controller and operates from 15 °C to 1600 °C under a range of conditions.

**DMA 8000**

Our DMA 8000 is one of the most flexible and cost-effective dynamic mechanical analysis systems available today, ideal for advanced research and routine quality testing in the polymers, composites, pharmaceutical, and food industries. It provides a wealth of information on mechanical properties such as modulus, energy dissipation and material stability under a variety of conditions including under UV, humidity and in solution.

**TGA 4000/8000**

For researchers and scientists who characterize materials, the world is becoming increasingly complex. But the solution isn't: Our TGA 4000/8000™ thermogravimetric analyzers give you complete control over your sample environment and deliver high throughput and reliability, even unattended. Plus, advanced hyphenation technology works beautifully with FT-IR, MS, GC/MS, and other systems for better understanding of evolved gases.

**Hyphenated Technology**

Hyphenated technology couples two or more instruments together to gain insights previously unseen by either technique on their own. Often referred to as Evolved Gas Analysis, our TGA and STA instruments can be coupled to FT-IR, MS, or GC/MS systems to provide insights into the gases released from a reaction either by evaporation, boiling, separation or from combustion. Sample modification testing is also possible by coupling our UV instruments with either DSC or DMA technology.

**CONSUMABLES, SUPPLIES AND ACCESSORIES HIGHLIGHTS**

We offer a complete selection of accessories, consumables, supplies and specialty solutions for all your FT-IR, FT-NIR, UV, UV/Vis, UV/Vis/NIR, Thermal, Elemental and Fluorescence instrumentation. When it comes to your Hyphenated system, we can supply precisely what you need to implement a complete hyphenation solution for your lab.



Over 25 Years of Expertise

Your lab produces massive amounts of digital data that you need to sift through, analyze, visualize, and share. The productivity of your lab depends on the integration and automation of processes combined with efficient workflow management.

Ensemble, PerkinElmer's Informatics platform, creates a collaborative, knowledge-driven environment that accelerates the flow and exploitation of information throughout the organization. We bring over 25 years of expertise to the marketplace, having developed innovative technologies that have shaped the informatics landscape such as pioneering chemical drawing software, electronic laboratory notebooks, LIMS and instrument integration applications.

The screenshot shows a software interface with a table of plate data and a heatmap below it.

Plate ID	Plate Format	Plate Name	Plate Alias	Dilution Factor	Min RFU	Max RFU	EC50	Hill Slope	Error of Est	Prog	Date of Measurement
PL-000000	ELISA	Plate Descript.		200	19920.07	89200.95	4.63	1.82			
PL-000000	ELISA	Plate Descript.		200	19920.07	89200.95	4.63	1.82			

Sample	1	2	3	4	5	6	7	8	9	10	11	12
A	0.12	0.24	0.25	0.15	0.05	0.03	0.07	0.90	0.31	1.50	0.42	0.02
B	4.11	0.76	0.25	0.31	0.01	0.01	1.20	1.50	2.14	1.47	0.90	0.30
C	2.90	0.21	0.43	0.53	0.02	0.03	1.17	1.06	1.40	2.90	1.92	0.22
D	0.39	0.40	0.36	0.64	0.02	0.02	0.76	0.77	1.80	1.90	0.90	0.04
E	0.10	0.00	0.69	0.28	0.00	0.01	1.03	0.52	1.14	7.26	0.98	0.06
F	0.01	0.03	1.02	0.42	0.01	0.04	1.19	2.74	1.64	2.84	1.07	0.07
G	0.01	0.00	0.90	0.60	0.02	0.01	2.20	2.71	10.09	2.80	0.78	0.04
H	0.03	0.00	0.46	0.17	0.02	0.03	1.40	1.64	0.03	0.93	1.52	0.18

Ensemble for R&D

Supports a wide range of workflows, including free-form, chemistry, formulation, biology screening, bioanalytical, and research LIMS. E-Notebook allows organizations to share data, maintain security and efficient archiving, and provides a full audit trail and 21 CFR 11 compliance. Users easily enter content from Word®, Excel®, PowerPoint®, Acrobat® PDF, ChemDraw and structured data in lists and tables.



The screenshot shows a software interface for 'Preparation of HPLC Reference Standard'. It includes sections for 'HPLC Standard 1 Overview' and 'Weighing Steps'. The 'Weighing Steps' section contains several input fields and buttons:

- Standard ID: 1000095 (Inventory Check)
- Standard Status: Active
- Standard Expiry Date: 2015-11-23 00:00:00
- Balance ID: Balance 0234 (Calibration Check)
- Balance Status: Calibrated
- Standard Weight: [input field] mg
- Standard Amt Remaining: 100.00 mg (Update)

Ensemble for QA/QC

Fully meets the needs and requirements of laboratories doing routine testing. iLAB™ LES eliminates paper, automates, controls, and documents test execution and ensures adherence to laboratory procedures. LimsLink™ reduces errors and costs by automating data transfer between instruments, instrument data systems and informatics systems.

ChemDraw®

The chemical drawing industry leader includes stereochemistry recognition and display, ChemNMR with spectral prediction and display, and Name=Struct to interconvert structures and IUPAC names. Now also available on iPad®.



TIBCO Spotfire® Analytics platform

Empowers scientists to explore their data freely: to visualize instantly, mashup, interact with, and share data at any level of detail. The software helps users answer pressing questions, uncover answers to questions they didn't know they had, and anticipate what happens next, without requiring special queries from IT.

OneSource Laboratory Services – The One you can count on™ to increase productivity, gain efficiency, and drive overall business improvement

Information Services

Where Information Technology Meets Science

OneSource helps customers bridge the gap between lab instrumentation and Information Technology (IT).

- Platform deployment, monitoring and security
- Data validation, back-up and storage

Instrumentation

Optimize Laboratory Instrumentation

OneSource provides customizable service plans designed for all technologies and for all manufacturers in addition to PerkinElmer instruments. Engineers provide support on-site and at PerkinElmer's Service Repair Centers.

- Experts in preventative maintenance and multi-vendor instrument repair
- Priority 24-hour response
- Complete suite of lab relocation services

Compliance

Reduce Risk

OneSource ensures customers have laboratory-wide compliance for Instruments and Software through both traditional and automated protocols designed to meet regulatory requirements.

- Simplified instrument and software qualification process
- Leaders in 21 CFR Part 11 and GAMP5 validation practices



Scientific Services

Extend Scientific Value

OneSource provides customers with optimal workflow solutions by employing efficiency-by-design models to accelerate science through strategic optimization of laboratory tasks.

- Full solution deployment – instrumentation, informatics, on-site scientific staffing and training
- Deep level of instrumentation expertise with continuous data trending and predictive maintenance

Analytics

Harness the Power of Data

With OneSource Asset Analytics and Informatics solutions lab managers can analyze asset inventory data to see a 360 degree view of the lab.

- Interactive multiple data dashboard view of laboratory asset data
- Smartphone mobile app to view data while on-the-go

For more information about our solutions, contact your local PerkinElmer representative.

PerkinElmer, Inc.
940 Winter Street
Waltham, MA 02451 USA
P: (800) 762-4000 or
(+1) 203-925-4602
www.perkinelmer.com

For a complete listing of our global offices, visit www.perkinelmer.com/ContactUs

Copyright ©2014-2018, PerkinElmer, Inc. All rights reserved. PerkinElmer® is a registered trademark of PerkinElmer, Inc. All other trademarks are the property of their respective owners.

008846D_01

PKI