

HUMAN HEALTH

ENVIRONMENTAL HEALTH

# INNOVATION FOR IMPROVING QUALITY OF LIFE

## Analytical Sciences Products and Services

Atomic Spectroscopy, Chromatography, Molecular Spectroscopy,  
Consumables, Services & Informatics





SAFE PRODUCTS.  
SECURE SURROUNDINGS.  
CLEAN ENERGY.



# HEALTHY PEOPLE HEALTHY PLANET

At PerkinElmer, we're taking action to improve the health and safety of people and their environment. PerkinElmer conceives

and delivers scientific solutions, software and services to meet our society's ever-changing needs. We're committed to transforming risk into safety, mystery into knowledge and ideas into action for a healthier today and a better tomorrow.

The need and demand for air and water quality monitoring and remediation continues to rise. Food safety and quality for a growing global population are critical issues that require solutions that deliver accuracy, precision, and rapid turnaround speeds. The measurement of volatile, semi-volatile and metal components in petrochemicals is important in laboratory, quality control and process monitoring. Instrument configurations meeting the needs of ASTM® and other specialized methods are required. Scientists in today's pharmaceutical and biotech laboratory environments require speed, flexibility, and compliance in the discovery, development and manufacturing of pharmaceuticals.

Collaborating with customers to identify risks, discover and monitor the things that matter most—from safer drinking water to cleaner air, faster research to cleaner fuels—is imperative to executing our mission. From critical research to environmental testing and product safety, we're actively engaged in enhancing quality of life all around the world. PerkinElmer's proud history dates back to the 1930s. Our legacy of scientific advancement, operational excellence and continual expansion, from Boston to Beijing, is the foundation of our mission to improve environmental health.

## ATOMIC SPECTROSCOPY

Whether it's inductively coupled plasma mass spectrometry (ICP-MS), optical emission spectroscopy (ICP-OES), atomic absorption (AA) spectroscopy, or all three, rely on PerkinElmer to help you with instrument choices, options and great results.



NexION® 300 ICP-MS

### NexION ICP-MS: Do things the way you want

Engineered to deliver a level of stability, flexibility and performance never before seen in an ICP-MS instrument, the NexION® 300 systems represent the first truly significant and revolutionary industry advancement in recent memory.

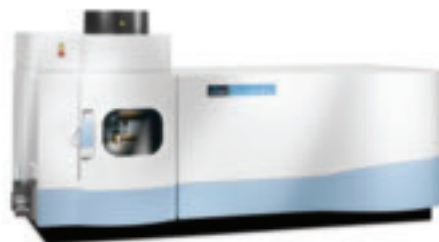
For the first time ever, a single ICP-MS instrument offers both the simplicity and convenience of a collision cell and the exceptional detection limits of a true reaction cell.

- Patented Universal Cell Technology™ (UCT) lets analysts choose the most appropriate technique for a specific sample or application.
- Superior accuracy and detection limits, faster analysis times, and an easier, more customizable operator experience.
- Triple Cone Interface and Quadrupole Ion Deflector Signal keeps responses stable hour after hour.

### Optima – ICP-OES Systems

Optima™ systems have the optimized design required to ensure accuracy, improve method development and consistently deliver the correct answer faster. Available with a range of performance capabilities, Optima offers an ideal solution for laboratories with moderate to heavy sample loads.

- Complete family of solutions to meet a variety of performance, productivity and budgetary needs.
- Dual-view optical system ensures the widest working range in a single method.
- Vertical torch model delivers economical option for specialized applications.
- Versatile wavelength selection for analysis flexibility.
- Superior optics and excellent RF stability make it easy to meet U.S. EPA and DIN regulations.
- Enhanced sample throughput and performance with simultaneous background correction.



Optima™ 7300 ICP-OES

## Consumables, Accessories and Supplies: Better Solutions for Demanding Applications

Every day you count on PerkinElmer to provide you with solutions that deliver reliable performance, productivity and value. Our complete portfolio of consumables, supplies and accessories helps you meet your routine and demanding measurement challenges. We invest heavily in testing and validating our products to ensure you receive accurate, repeatable results, on-time, every time.

- Complete portfolio of sample preparation, graphite tubes, standards, lamps, torches, cones and glassware.
- Easy online ordering allows you to get the product you want, when you want.



## AAAnalyst – Atomic Absorption Spectrometers

This advanced line of atomic absorption (AA) spectrometers maximizes AA performance for even the most difficult samples.



AAAnalyst™ 200 AA

- Complete offering (flame, graphite furnace or combined) delivers exceptional flexibility.
- Rugged designs can handle the toughest matrices.
- Modular parts are easily replaced so there is no downtime.
- WinLab32™ software is easy to learn and use.

## SMS 100 Automated Mercury Analyzer

The SMS 100 performs mercury analysis on solid samples without the need for complex digestions or preparations.



SMS 100 Mercury Analyzer

- No sample preparation with analysis completion in only 5 minutes.
- Extremely low detection limits to meet both EPA and ASTM® methods.

## Software

Our long history in atomic spectroscopy has given us the opportunity to develop unparalleled software, making it easy to automate atomic spectroscopy applications.

The performance of atomic spectroscopy systems from PerkinElmer allows today's laboratory to meet their ever-changing application challenges. Below are examples of market specific applications where PerkinElmer provides a solution to meet our customers' needs. For more information, go to [www.perkinelmerapplications.com](http://www.perkinelmerapplications.com).

### For Safer Food

AOAC methodologies easily implemented on PerkinElmer AA, ICP, and ICP-MS technologies.

### For Cleaner Water

Highest throughput for EPA Methods 200.7 and 200.8 for Drinking Water, as well as EN-71.

### For Purer Pharmaceuticals

Help you meet trace metals regulations in pharmaceuticals and dietary supplements using methodology such as USP 232.

### For Better Detection in Petrochemicals

Leader in lubricant analysis with high-throughput ICP systems. Lowest level of silicon detection in hydrocarbons.

# CHROMATOGRAPHY

Labs of all sizes, in all industries, have come to depend on PerkinElmer for their instrument, software or support needs—whether they utilize GC, GC/MS, LC, UHPLC or LC/MS.



Flexar™ FX-15 UHPLC

## Flexar UHPLC and HPLC: For ease and reliability, there's only one choice.

When you need outstanding performance, reliability, low maintenance and the ability to perform conventional LC or the latest UHPLC there's only one choice.

- Pumping system operates up to 18,000 psi at maximum flow rate; fully compatible with conventional LC methodology/columns and the latest ultra small particle column technology...no modifications necessary to switch from one mode to another.
- Flexible design; adapts to your working environment not the other way around.
- Simple dual ball/check valve pump design requires little preventative maintenance.
- Flexible automatic liquid sampling with many sample/tray types; and delivers extremely low sample carryover.

## Flexar SQ 300 MS: Verify. Quantify. Simplify.

Designed for both HPLC and UHPLC applications, this is the ideal LC detection solution for people seeking a fast and powerful system to help them improve laboratory workflow and decision making ability.



Flexar™ SQ 300 MS

- Interchangeable snap in probe design—makes utilizing an LC/MS in a multi-user, open access environment practical.
- Super-soft ionization makes determining molecular weight straightforward and reliable.
- Fast scanning makes it fully compatible with UHPLC.

## Clarus® Gas Chromatographs: Simply better chromatography solutions.

The foundation for PerkinElmer's diverse and extensive portfolio of gas chromatography solutions, the industry leading Clarus 680 GC, or its siblings the 580 or 480, offer state-of-the-art technical innovation. Combined with virtually unlimited configuration flexibility, superior performance and operational simplicity, Clarus allows you to do more with less and do it better.

- The most advanced GC oven with fast cool down increases productivity three-fold.
- 108 sample position liquid automatic sampler.
- Innovative Swafer™ micro-flow technology for improved analysis results and operational simplicity.
- Industry leading TurboMatrix™ headspace or thermal desorption samplers help to dramatically streamline analysis workflow by minimizing or eliminating time consuming sample preparation.

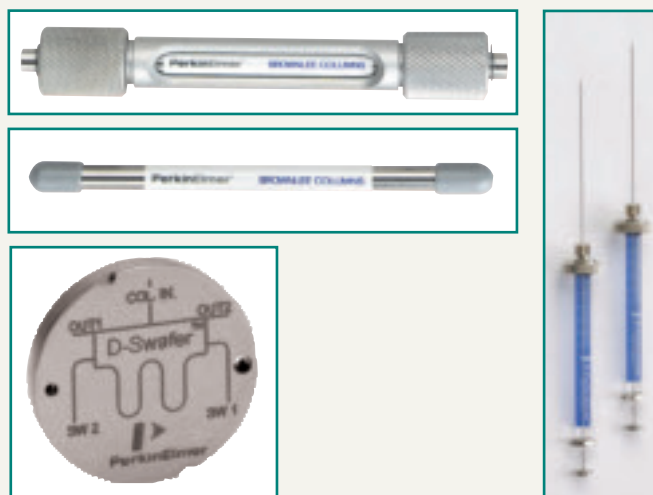


Clarus® 680 GC with TurboMatrix™ HS-40

## Consumables, Accessories and Supplies: Better Solutions for Demanding Applications

Only PerkinElmer is committed to providing you with solutions that deliver reliable performance, productivity and value. We are continuously expanding and improving our portfolio of consumables, supplies and accessories to help you meet your routine and demanding measurement challenges.

- From convenient sample packs to innovative Swafer™ technology, we have the solutions to advance your laboratory.
- We invest heavily in testing and validating our products to ensure you receive accurate, repeatable results, on-time, every time.



## Clarus GC/MS

Coupled to the powerful Clarus GC, PerkinElmer's single quadrupole mass spectrometer delivers solid robustness, reliability and analytical performance.



Clarus® 680 GC/MS

- Plug-and-play source for straightforward operation and ease of maintenance
- Broad mass range (1-1200 amu) and fast scanning (up to 12,500 amu/sec)
- With Clarus 680 GC, the greatest sample analysis throughput of any GC/MS system

The flexibility offered by Chromatography systems from PerkinElmer allows today's laboratory to meet their ever-changing application challenges. Below are examples of market specific applications where PerkinElmer provides a solution to meet our customers' needs. For more information, go to [www.perkinelmerapplications.com](http://www.perkinelmerapplications.com).

### For Safer Food

Analysis of melamine and cyanuric acid in food to meet FDA regulations.

Quality assurance of pesticide residues in fruits and vegetables and PAH in fish.

Contamination of volatiles such as benzene in beverages.

### For Cleaner Water

Dramatically improved analysis throughput for EPA Methods 524/525, 624/625 and 8260/8270.

Determination of disinfectant by-products in drinking water.

Rapid analysis of toxics in wastewater.

### For Purer Pharmaceuticals

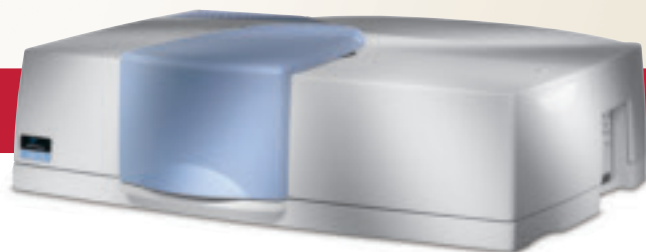
Automate the analysis of residual solvents in bulk pharmaceuticals by US and European Pharmacopeia methods.

### For Better Detection in Petrochemicals

Increase sample throughput for simulated distillation and DHA Methods ASTM® D2887, D3710, D5399, D6352, D6729, D6730 and more.

## MATERIALS CHARACTERIZATION

From the measurement of DNA purity to characterization of the most advanced engineered materials, we provide the widest range of solutions available from one company.



LAMBDA™ 1050 Spectrophotometer

### UV/Vis, UV/Vis/NIR and Fluorescence Spectroscopy

The LAMBDA™ series of spectrophotometers are recognized worldwide for their quality, dependability and unique sampling capabilities. From the high performance LAMBDA 1050 with its unique three detector design, to the LAMBDA 25, 35, 45 family of mid range UV/Vis systems, solutions are available to meet your most demanding applications. Industry gold standard LS55 Fluorescence Spectrometer provides application solutions from molecular biology to material science.



LAMBDA™ XLS UV/Vis

- Systems to meet all Pharmacopeia requirements.
- 21 CFR Part 11 compliant software option.
- Widest array of sampling accessories for coatings, liquids or solids.

### FT-IR, FT-IR Imaging & Microscopy and Raman Spectroscopy

Choose the Spectrum™ series of Near-, Mid- or Far-IR Fourier Transform FT-IR spectrometers, microscopy and imaging systems for superior spectroscopic performance and design and industry innovation.



Spectrum 400 FT-IR

- Spectrum 65, 100. From the university lab to the busy QC/QA lab the ideal platform that grows with your needs.

- Spectrum 400 Dual range FT-IR. Switch between ranges in seconds. Designed to meet your most demanding analysis needs.
- Spectrum Spotlight™ family from semi-automated microscopy to full chemical imaging platforms.

From the automated RamanStation™ 400 to the transportable IdentiCheck, we offer solutions for the lab or the field that meet your application needs.

- Raman Microscopy configurations for micro sampling.
- Fiberoptic probe for remote analysis.
- Libraries to speed the identification of unknown substances.



RamanStation™ 400



## Consumables, Accessories and Supplies: Better Solutions for Demanding Applications

We maintain an unparalleled portfolio of consumables, supplies and accessories that run the full spectrum of materials characterization applications. From routine sample identification to advanced hyphenated techniques, we provide you with solutions that deliver reliable performance, productivity and value.

- Flexible, online ordering system allows you to browse our wide selection of solutions and choose the best fit for your laboratory.
- Complete portfolio of lamps, kits, cells, and connectors for you to choose.



## Thermal Analysis Solutions

A comprehensive portfolio of techniques and products including TGA, DSC, DMA and STA technologies to meet the needs of the busy material scientist. From research grade instruments to manufacturing workhorses there is a cost effective solution to meet your needs.

- Pyris® 1 TGA, the gold standard in thermal gravimetric analysis



DSC 8500

- DSC 8000 series double furnace power compensated design for the highest level of stability.
- New autosampler allows unattended operation to speed analysis time.
- Fast scanning to 750 °C/min heating, ballistic cooling to 1000 °C/min.
- HyperDSC®—Never miss another critical glass transition.
- Unique Hyphenated techniques, from one vendor, supported by one vendor.
  - TGA/IR, TGA/GC, TGA/GC/MS,
  - DSC/Raman

The breadth of Materials Characterization systems from PerkinElmer allows today's laboratory to meet their ever-changing application challenges. Below are examples of market-specific applications that PerkinElmer provides a solution to meet our customers' needs. For more information, go to [www.perkinelmerapplications.com](http://www.perkinelmerapplications.com).

### For Safer Food

Supporting AOAC methodology for the analysis of Total isolated trans Unsaturated Fatty Acids in fats and oils.

Identification of raw materials and contaminants.

Analysis of laminated packaging materials.

### For Cleaner Water

EPA method analysis for metals and other contaminants.

Wastewater confirmation.

Oil in water determination.

### For Purer Pharmaceuticals

Compliant software and validations for complete traceability.

Systems to meet the requirements of all Pharmacopeias.

Identification of counterfeit materials.

### For Better Detection in Petrochemicals

Bio-Diesel Fame analysis by ASTM® D7371 method.

Red dye in diesel fuel by ASTM® 6258.

Used oil analysis supporting ASTM® methods D7412, D7414, D7415, D7418, E2412 as well as JOPA methodology.

Polymer characterization for new material development.



## COMPREHENSIVE LABORATORY SERVICES

Over ten years ago OneSource launched multi-vendor service for lab instruments. Today, with more than 1,350 service engineers and nearly 200,000 multi-vendor instruments under contract around the world, we are the leading provider of comprehensive multi-vendor laboratory services in the industry.

### OneSource – A Game-Changing Model for Instrument Services

PerkinElmer's OneSource laboratory services go beyond just "fixing" instruments. OneSource incorporates service as part of your business equation—making service your partner in improving efficiency and reducing costs in your labs. We manage your assets and provide you with the business intelligence you need to optimize operations.

OneSource's break-through multi-vendor model for instrument services, pioneered more than a decade ago, has delivered cost and operational efficiency in labs both large and small; supporting facilities with 10 pieces of equipment to ones with more than 100,000. The business model can scale from a single lab to regional facilities across multinational companies. Industries we serve include pharmaceutical, biotech, clinical, consumer goods, petrochemical and others.

The multi-vendor concept consolidates service for all lab instruments, regardless of the type or original equipment manufacturer (OEM). In the process, OneSource streamlines administration, offloads the time consuming details of managing labs, improves instrument uptime and curbs costs.

Multi-vendor services extend beyond instrument repair to:

- lab instrument qualification
- real-time asset tracking
- asset management
- warranty management
- lab relocation
- instrument lifecycle history

### A Proven Track Record

Laboratories once burdened with micromanaging a variety of service providers discover that OneSource laboratory services save their most precious resources: time and money.

- Cost Savings, OneSource services generally result in cost savings on average of 10% to 15%.
- Average response time drops from days with an OEM service model to hours with OneSource.
- Instrument downtime plummets from multiple days with a traditional service model to just a few hours with OneSource.

### A New Resource for Business Intelligence

OneSource's documentation and databases combine with our web-based query tools and reporting to enable educated business decisions on your assets, such as instrument utilization and end-of-life decisions.

- Online Dashboard. A single data system offering end-to-end asset management, analysis and reporting, including service costs for each instrument, uptime, compliance status, asset use and more. Easy to use query tools provide the timely data key for decisions affecting instrument purchase, redeployment or disposition.
- UniTRAC Asset Tracking. Real-time asset management of your instruments; where they are located, and how they have been employed. Inventory time drops from days to minutes and email alerts keep you informed about critical instrument events.

*"Our partnership with OneSource has exceeded our every expectation; the OneSource team has consistently found ways to help us be more successful and has redefined what we expect in a vendor relationship."*

–Senior Vice President, Global Strategic Sourcing, Top 5 Pharmaceutical Company

*"Although we were initially skeptical OneSource has proven that they can deliver a one day response and fix rate for all of our laboratory instrumentation."*

–Procurement Manager, Environmental Laboratory

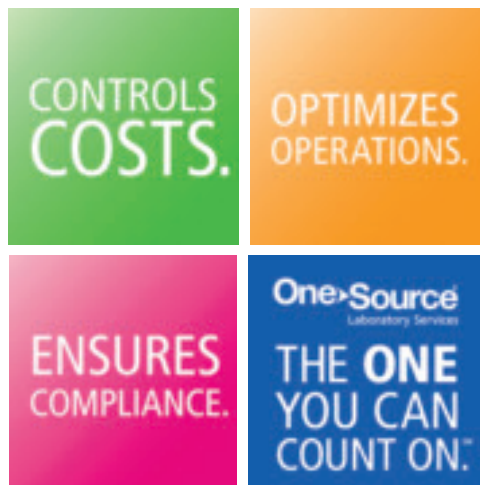


### **The One You Can Count On—No Matter Where You Are Or What You Do.**

Whether you need service for one instrument or in labs worldwide, we offer services around the globe.

- More than 1,500 trained and certified field service engineers and service personnel around the world to meet the needs of laboratories everywhere.
- More than 15 years of multi-vendor repair and qualification service experience.
- More than 400,000 multi-vendor equipment under our care.

**One Contact. One Contract. One Solution.**



### **OneSource Laboratory Services. The Industry's Most Comprehensive Portfolio:**

- On-Site Services
- Laboratory Lifecycle Management
- Repair & Maintenance
- Qualification, Validation & Calibration
- Asset Management
- Laboratory Relocation
- Asset Disposition
- And many more...

### **Manufacturers We Service:**

- Agilent Technologies, Inc.
- Applied Biosystems, Inc.
- Dionex Corporation
- PerkinElmer, Inc.
- Shimadzu Corporation
- Thermo Fisher Scientific Inc.
- Varian, Inc.
- Waters Corporation
- And many more...

## LABWORKS LIMS: Collect, Analyze and Report

PerkinElmer has been delivering Laboratory Solutions across industries for over 70 years. As one of the original suppliers of commercial Laboratory Information Management Systems, we understand the important role that LIMS play in getting the right data to the right people to make the right decisions.

It is difficult to control what you cannot see or measure. With LABWORKS™, you have the tools to collect, analyze, and report on your processes and products. High-level throughput and backlog reports, schedules, and operational summaries are built into LABWORKS. In addition, LABWORKS provides easy access to performance history, comments, special information, and documents. Need to make decisions from a remote location? Our zero-footprint web client provides access to your LIMS so that you can review and act on current information.

PerkinElmer understands that a successful LIMS implementation requires a team of subject matter experts who understand the business dynamics of your industry, the information infrastructure of your site, and the operational workflow of your analytical laboratory. Our product and service portfolio and history demonstrate a depth of experience that few providers can match. As a Six Sigma company, PerkinElmer also understands how to analyze your workflows and look for opportunities to improve them.

LABWORKS LIMS manages more than data. It manages time, resources, and risk. It improves visibility both inside and outside the laboratory, using our zero-footprint WebTop to keep the people and systems that collect, analyze, and use laboratory information connected.

[www.perkinelmer.com/labworks](http://www.perkinelmer.com/labworks)

## Chromera: The powerfully easy CDS

Chromera® combines powerful functionality with unmatched ease of use for a more streamlined data handling experience. It's the first Chromatography Data System (CDS) developed keeping specific UHPLC in mind. Any task you wish to perform is only one or two clicks away. And every page is optimized to allow for maximum integration of information.

### Powerful Functionality

- Device description technology automatically changes the user's view to reflect the configuration you've selected.
- Method editing can be done in real-time with immediate feedback.
- Run time can be extended during analysis to simplify your method development process.

### Unmatched Ease of Use

- Modular design and intuitive "one-click" navigation make operation simple and data easy to locate, regardless of the skill level.
- Interface provides "hands-on" control of instruments – just like using the front panel of the instrument itself.

### Helpful Wizards

- Automatically enters data when clicking on any point in your chromatogram.
- Automatically pause a sequence so you can check parameters and make any adjustments needed.
- Reporting "wizard" provides a wide range of templates as well as the ability to truly customize your own reports.

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For a complete listing of our global offices, visit [www.perkinelmer.com/ContactUs](http://www.perkinelmer.com/ContactUs)

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