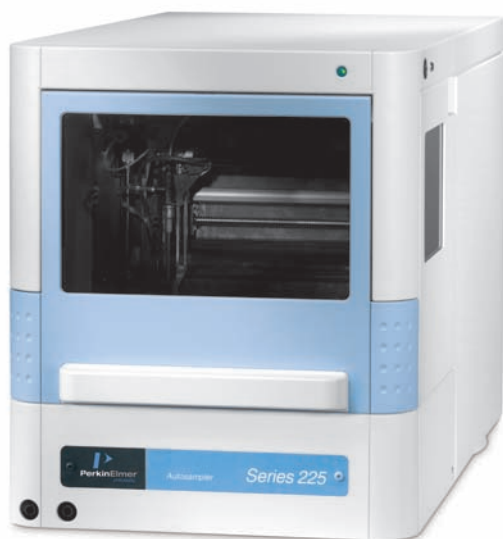


Series 225 LC Autosampler

Exceeding productivity expectations



Accelerate your productivity with advanced quantitation

Automation, speed and flexibility are key factors in driving laboratory productivity improvements. Whether your lab is working with semi-preparative applications, or with low-volume analytical assays, you'll benefit from the extensive programming flexibility of the Series 225 Liquid Chromatography (LC) Autosampler. It provides a wide variety of operation modes to address diverse workflows and application needs. With random access to individual samples, sample protection with thermostating and 24/7 operation, the PerkinElmer® Series 225 Autosampler exceeds the highest productivity expectations for a next-generation liquid chromatography autosampler.

The Series 225 Autosampler is uniquely designed to match the needs of advanced quantitation. Automated sample management routines such as derivatization and dilution, internal standard addition and a highly-efficient μ L-Pickup injection mode provide walk-away solutions that save valuable operator time and increase laboratory efficiency.

Key Benefits

- ▶ High injection-to-injection throughput with remarkably low carryover
- ▶ Excellent precision and linearity over a wide range of injection volumes
- ▶ Superior Peltier cooling/heating option supporting the full range of trays offered
- ▶ Small footprint with open architecture for superior user accessibility
- ▶ Built-in derivatization, dilution and internal standard addition capability
- ▶ Wide variety of injection modes to support varied sampling needs

If you need high throughput and high speed, the Series 225 Autosampler is designed for exceptionally low injection cycle time between samples, from any sample position – whether you are using vials or microtiter plates, with either shallow or deep-well formats.

The Series 225 Autosampler is an integral part of the Series 200 family of High Performance Liquid Chromatographs (HPLC) and can be fully integrated with any Series 200 HPLC system configuration. The unit is fully controlled by PerkinElmer's Chromatography Data Systems for complete data traceability and automation. And complete IQ/OQ protocols for the Series 225 Autosampler are available to assist you in the qualification process.

So, take a look at the Series 225 Autosampler – it truly sets the standard in automated sample processing. Incorporate the Series 225 Autosampler into your Series 200 HPLC system – its compact and stackable design provides extraordinary performance, efficiency and the most reliable automation for your laboratory.

Tackle your workload with high throughput and precision

The Series 225 Autosampler is fast. With a best-in-class injection cycle time of only 8 seconds, no time is wasted in tackling large workloads. This autosampler is designed for large sample batches, supporting a wide variety of tray types, including shallow and deep-well microtiter

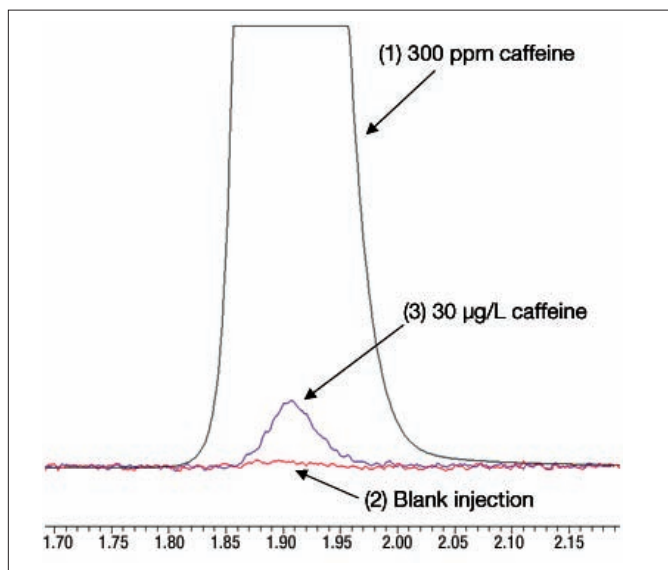


Figure 1. Demonstration of exceptionally low carryover (<0.01%) by injections of 300-mg/L caffeine (1) immediately followed by solvent blank (2). Subsequent injection of 30-µg/L caffeine (3) confirms detection at level equivalent to 0.01% of peak (1).

plates. Specialized trays are also available with dilution tanks and larger vial positions for calibration standards and derivatization reagents.

Don't worry about carryover. Exceptionally low carryover – typically less than 0.01% – eliminates the concern of precision or accuracy being compromised by previous-sample carryover. Keeping the injector clean requires special attention to detail – a side-bore non-coring needle and dual-flush wash station with air-drying function are coupled with streamlined flushing routines.

Outstanding repeatability, injection-to-injection. Detailed attention to electro-mechanical design, materials of construction and precision assembly results in best-in-class injection repeatability. Typical area precision achieved is 0.3% RSD or below, even for 5-µL injections.

Choose your injection mode. Full-Loop, Partial-Fill and µL-Pickup modes of injection provide flexibility to optimize your injection method according to your sample characteristics, sampling needs and data-quality objectives. And don't waste sample – our efficient µL-Pickup mode allows as little as 1 µL to be injected without wasting any sample material.

Our highly-accessible injection valve makes changing loops or columns fast and easy. And for biomolecular applications, the autosampler is available with a fully biocompatible flow path to maintain the integrity of your bio-reactive analytes.

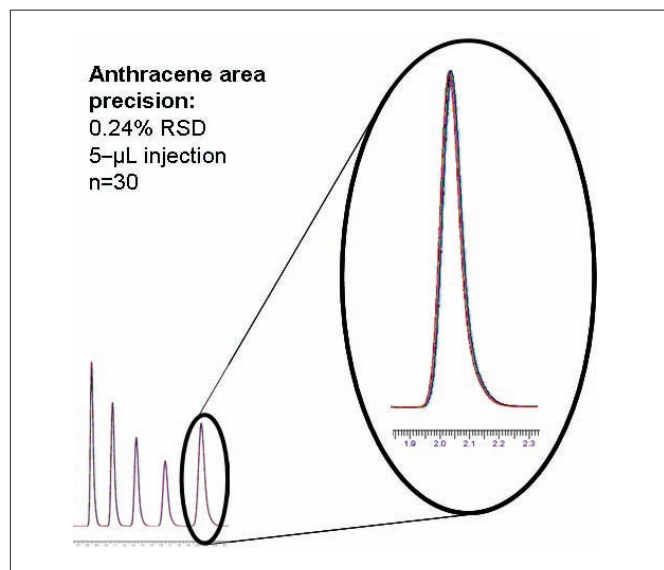


Figure 2. Overlay of 30 repeated injections demonstrates excellent area precision.

Let the Series 225 Autosampler do the work

Carry out automated dilution and derivatization without additional hardware or labor costs – everything you need is included as part of the standard unit. Transfer the contents of one vial to another to add an internal standard or marker, or to dilute a series of samples to a specified concentration before injection. And do it automatically.

Let the Series 225 Autosampler prepare your samples. Serial dilution is made easy with automated transfer of a specified amount of liquid between any two vials. Dilution is completely automated as part of the sample-run sequence itself. For those samples requiring specialized pre-column derivatization techniques such as OPA or FMOC, up to five reagents can be mixed together in a single sample vial. You can even control

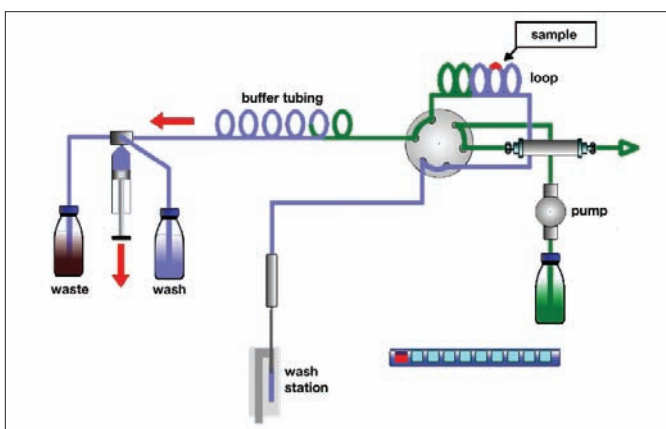


Figure 3. μ L-Pickup mode for efficient and precise injection of very low volumes with no sample waste.

the mixing cycles, reaction time and the exact time of injection, overcoming challenges with chemistries which might have rapid kinetics or particularly reactive products.

Let the Series 225 Autosampler generate your standards. Automated preparation of a standard dilution series can be done from a single stock standard. A variety of specialized sample trays are available with positions for larger calibrant vials or convenient dilution tanks. Excellent linearity assures that your calibrations are accurate, so you can be confident of your results.

Let the Series 225 Autosampler manage the heat. For those applications where temperature control is important, Peltier thermostating can ensure that a predefined temperature is maintained throughout the duration of an automated routine. Sample-chamber cooling can reduce sample degradation or eliminate errors from evaporative losses which might occur during an extended duration of a large sample batch. Heating can be used to facilitate sampling of excessively viscous sample types, or for optimizing derivatization or GPC applications.

Peltier cooling and heating within a range of 4°C to 40°C is available for each and every tray type supported by the autosampler. The exceptional cooling capacity allows the temperature in the sample compartment to reach 4°C \pm 2°C even when the ambient temperature of the lab is as high as 25°C. This powerful cooling option is available built-in direct from the factory – or our factory-trained service engineers can upgrade your existing Series 225 Autosampler in the field with either cooling or heating capability as your needs grow in the future.



Figure 4. Ready access to your samples is made easy with a convenient hinged door. Front side panels remove quickly for loop or needle changes and for maintenance.

Dedicated support

At PerkinElmer, we recognize that your investment requires confidence in us, in our products and in our support services. With over 30 years experience providing liquid chromatography solutions, and over 1000 factory-trained professionals serving more than 125 countries worldwide, PerkinElmer is your most trusted single source for instrument care and repair, validation services, software and hardware upgrades, training and more. From the moment you contact us, you'll discover our commitment to providing the best solutions to your analytical problems.

Our technical specialists are available to help you select the right HPLC systems and modules to meet your analytical needs. And our commitment to you doesn't end with your instrument purchase. We believe the best-in-product quality deserves the best-in-product support. That's why we offer on-site service installation and qualification (including IQ/OQ) of equipment, and training courses on instrument operation and maintenance in your lab or at our many worldwide technical centers.

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



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

©2008 PerkinElmer, Inc. All rights reserved. The PerkinElmer logo and design are registered trademarks of PerkinElmer, Inc. PerkinElmer is a registered trademark of PerkinElmer, Inc. or its subsidiaries, in the United States and other countries. All other trademarks not owned by PerkinElmer, Inc. or its subsidiaries that are depicted herein are the property of their respective owners. PerkinElmer reserves the right to change this document at any time without notice and disclaims liability for editorial, pictorial or typographical errors.