

*ELITE*



**E**Classical 3200

(U)HPLC System



## **Classic Professional Efficient Trustworthy**

At Elite, "doing professional work with professional people" is more than a phrase - it is our enduring commitment. For three decades, our mission to be China's flagship in liquid chromatography has driven us forward. Through continuous technological advancement, refined craftsmanship, unwavering quality, and meticulous service, Elite has led the drafting of national standards for liquid chromatography. We have supplied over 10,000 HPLC systems to pharmaceutical companies, research institutes, universities, and testing organizations across the food, petrochemical, environmental, and other key sectors.

We remain focused on high-tech innovation, balancing robust performance with elegant design. Our goal is to create efficient, professional instruments for the modern laboratory. The newly developed EClassical 3200 HPLC System embodies this vision. It meets evolving regulatory demands, redefines the aesthetics of domestic HPLC, and enhances the automation, continuity, and integrity of the analytical workflow. The system delivers stable, reproducible results and supports cost-effective, high-efficiency laboratory operations.

The EClassical 3200 is the reliable foundation you can trust for your analytical needs. We invite you to experience the precision, quality, and refined design of the EClassical 3200.

**Classic: Built on proven reliability for more accurate and stable result.**

**Professional: A leader in national-standard technology for more effective and applicable solutions.**

**Efficient: Excellent system compatibility for a more convenient and streamlined workflow.**

# EClassical 3200 HPLC System

A Trusted HPLC: Classic Heritage, Professional Technology, Superior Compatibility, and Exceptional Efficiency

## Classic Technology

- The use of metallic transparent materials and breathing indicator lights seamlessly blends technology with modern aesthetics, establishing a new design language for instrument framing.
- An internal cable management system within the symmetrical left and right uprights creates a streamlined, loop-style flow path layout.
- The black surface material offers excellent resistance to corrosion from conventional HPLC solvents.

## Automated Ultra-Precision

- Utilizes optical "dark" array technology for automatic dark current calibration.
- Implements automated control of the lens-switching mechanism via the control circuitry, enabling real-time calibration of data signals to enhance detection accuracy.

## Flexible & Highly Efficient

- A highly integrated solvent switching system allows a high-pressure binary configuration to perform as a dual high-pressure binary or even dual quaternary system, simplifying complex workflows.
- The autosampler's automated dilution and derivatization functions streamline experimental procedures.
- Suitable for UHPLC.
- Compatible for use as a front-end mass spectrometry.

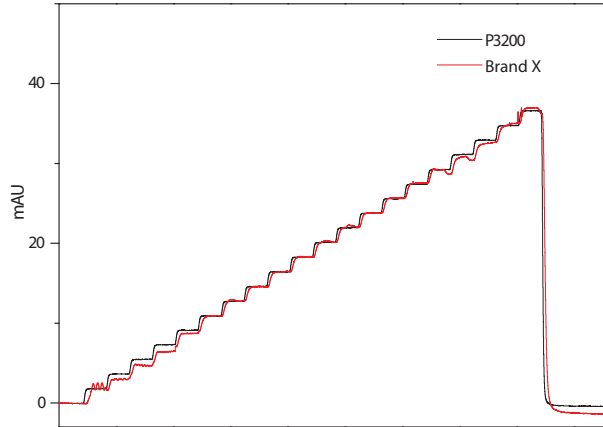
## Long-Term High Precision

- Features an innovative dual-seal floating plunger driven by a motor-controlled cam for precise fluid delivery. Coupled with a novel drive regulation method, it reduces system flow pulsation, enhancing instrument durability and precision.
- An intelligent high-precision cam detection device, with its clever design and rational layout paired with a push-rod structure that simulates real working conditions, ensures the validity of detection data.
- A dual-comparison circuit leak sensor combined with a well-designed drainage channel enables more accurate and timely leak alarms.

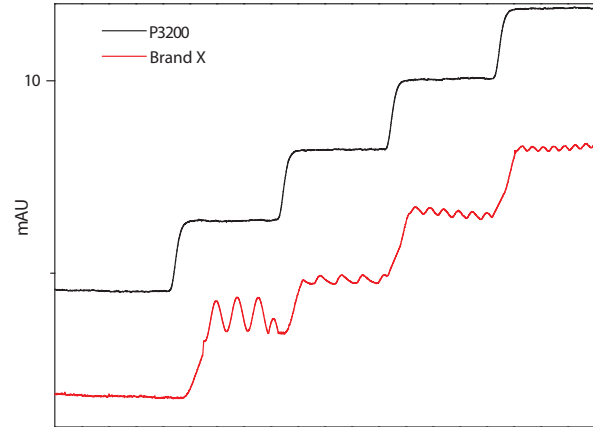


## Precise Proportioning, Flawless Baseline

In HPLC analysis, noticeable differences in UV absorbance between the A and B phases at the selected wavelength can lead to regular baseline pulsation during low-ratio mixing. The E3200 High-Pressure Constant-Flow Pump features a patented pulsation damper and gradient mixer that significantly reduces pulsation and enhances solvent mixing. This ensures a stable, flawless baseline even at challenging ratios as extreme as 1:99.

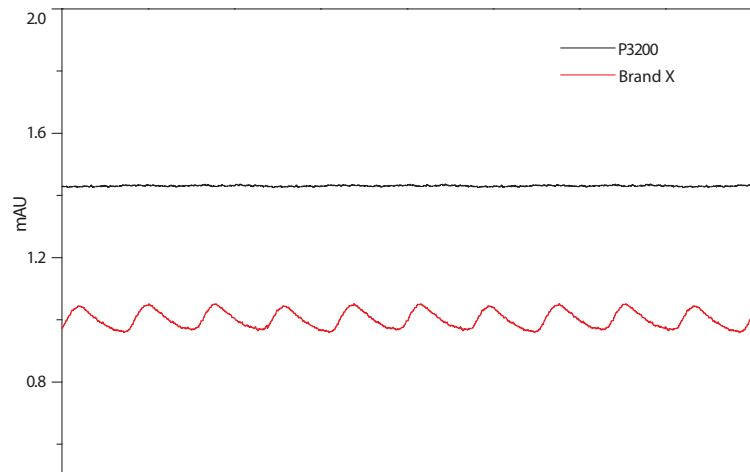


Superior baseline stability at low proportions (1%–20%)



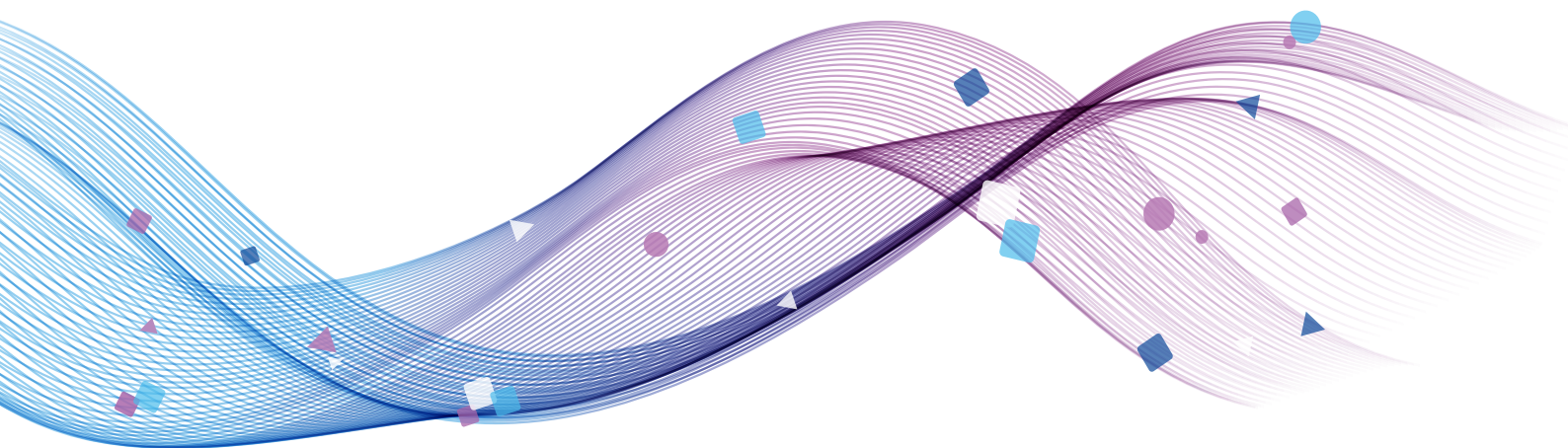
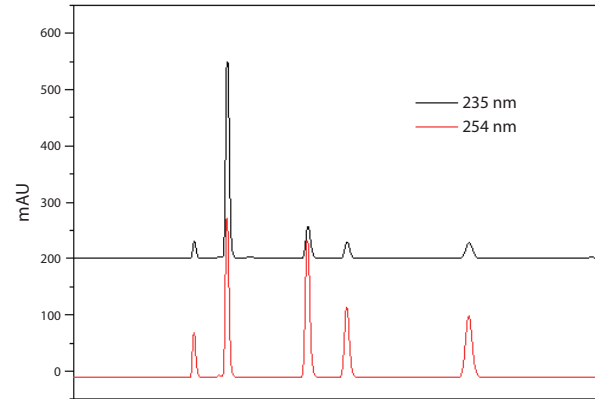
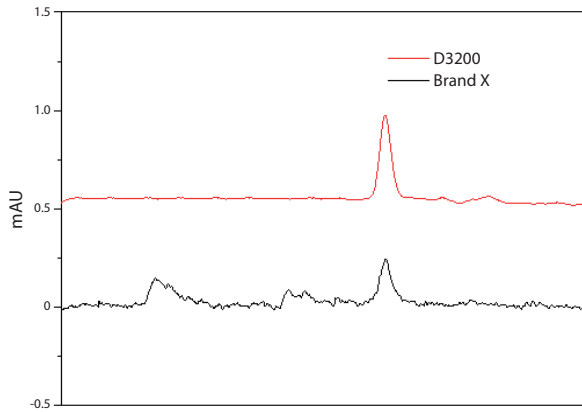
Precise proportioning performance in step test (1%–20%)

Analysis Conditions  
Mobile phase: 2% acetone aqueous solution:  
 $H_2O = 1:99$  (v/v)  
Detector: UV at 254 nm  
Flow rate: 1.0 mL/min  
Temperature: ambient  
Pressure: back pressure: none



## Sensitive Response, Intelligent Perception

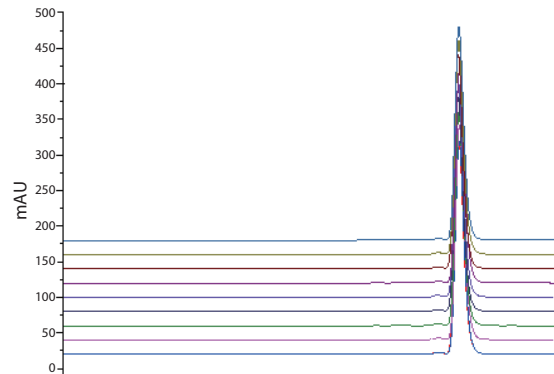
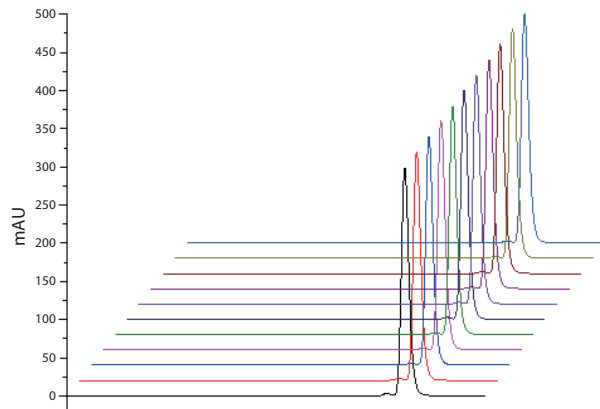
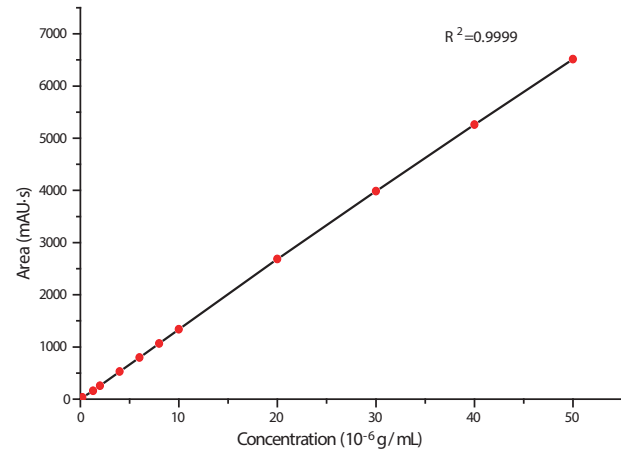
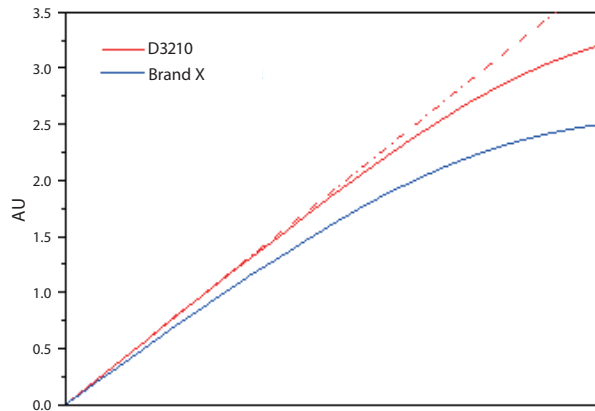
In analytical work, sensitivity can vary with different methods and conditions. The E3200 system incorporates a newly designed flow cell, an optimized thermal management system, and micro-stepping motor control for precise positioning. Together, these technologies deliver high precision, high sensitivity, low noise, and minimal baseline drift - enabling your lab to achieve more with less effort.



## Easy Analysis, Stable Quantification

The data acquisition system incorporates a 24-bit high-precision ADC, delivering excellent accuracy and a wide linear range of up to 2.5 AU. It supports both high-concentration and trace-level quantitative analysis.

Linear performance of  $R^2 = 0.9999$  is maintained across an injection volume range of 0.1–50  $\mu\text{L}$ , for both micro-volume and large-volume injections.



RSD of peak area: 0.09% (n = 11)

## A User-Friendly and Efficient Manager



Kromstation chromatographic data workstation is the LC system control software independently developed by Elite Instruments. It complies with CNAS certification requirements. Kromstation enables control of LC via a PC and supports comprehensive system operation. The software features a full suite of functions including database management, audit trail, GLP compliance, data archiving and backup, electronic signature, user permissions, and network administration - all within an intuitive, user-friendly interface.

**Safe**

The screenshot displays the '用户管理' (User Management) interface. It includes fields for '用户名' (Username), '密码' (Password), '确认密码' (Confirm Password), '角色' (Role), '最小长度' (Minimum Length), and '默认天数' (Default Days). Below are sections for '系统权限' (System Permissions) and '用户权限' (User Permissions) with various checkboxes for different system and user functions.

**Efficient**

The screenshot shows a chromatogram with peaks labeled '1' and '2'. Below the plot is a table of results:

保留时间 (min)	峰面积 (AU)	峰高 (AU)	峰宽 (min)	峰对称性	峰纯度 (%)	峰识别
1.011	1.499	2.033	0.062	0.061	0.103	172.170
2.397	2.306	2.603	0.061	0.103	0.103	240.424
3.469	3.261	3.729	0.079	0.134	0.134	240.424
4.076	3.729	4.242	0.090	0.163	1.179	329
5.737	6.342	6.049	0.126	0.214	1.179	349
总计						604.249

Below the table is a '批处理' (Batch Processing) dialog box with options for '分析' (Analysis), '检索' (Search), '积分' (Integration), and '打印' (Print).

**Complete**

The screenshot shows the 'GLP选项' (GLP Options) dialog box. It includes checkboxes for '允许色谱图GLP模式' (Allow Chromatogram GLP Mode), '色谱图文件不可覆盖' (Chromatogram Files Cannot be Overwritten), '抛弃采集后生成色谱图' (Generate Chromatogram after Discarding Acquisition), '登录对话框中禁用用户名列表' (Disable User List in Login Dialog), and '询问文件变更原因' (Ask for Reason for File Change). A '文件变更原因不得为空' (File Change Reason Cannot be Empty) warning is also present.

**Convenient**

The screenshot shows the login and signature interface. It includes a '签名' (Signature) dialog box with fields for '选择用户' (Select User), '用户描述' (User Description), '签名用途' (Signature Purpose), '时间' (Time), and '密码' (Password). Below is a 'Kromstation Report' window showing a list of users and their signatures.

**Traceable**

The screenshot shows the '审计' (Audit) interface. It displays a list of audit records with columns for '时间' (Time), '用户名' (Username), '角色' (Role), '系统' (System), '工段' (Shift), '操作' (Operation), and '备注' (Remarks). The records are sorted by time, showing various system operations like '打开系统' (Open System) and '打开数据库' (Open Database).



**About Elite**

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