

**ELITE**



**E**Classical 3200L

UHPLC System



## CLASSIC DESIGN, PROFESSIONAL PERFORMANCE, EFFICIENT OPERATION, TRUSTED RELIABILITY

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. Relying on deep technological accumulation, exquisite craftsmanship, and superior service, Elite has presided over the drafting of the national standard for LCs. We have provided more than 10,000 HPLC systems to pharmaceutical, research, academic, food, petrochemical, and environmental organizations across China.

Elite consistently prioritizes high-tech innovation at its core. By balancing aesthetics with performance and hardware with software, we create efficient, professional products with sincere craftsmanship. The EClassical 3200L UHPLC system is a comprehensive upgrade of the EClassical 3200. While maintaining high efficiency and precision, it introduces new cooling and Super injection functions along with system-wide EMC compliance. The accompanying Kromstation workstation has also been upgraded, delivering a full enhancement in both functionality and intelligence compared to its predecessor.

Experience UHPLC you can trust. We invite you to discover the speed, precision, and accuracy of the EClassical 3200L.

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.

# ENDURING PRECISION, COMPREHENSIVE QUALITY

Classic Design, Professional Performance, Efficient Operation, Trusted Reliability



# EClassical 3200L

The EClassical 3200L UHPLC is a comprehensive upgrade of the EClassical 3200. It features multiple column oven control modes for enhanced thermal precision and an "Super Injection" mode that significantly accelerates the analytical workflow. Additionally, the integrated cooling function ensures the stability and integrity of biological samples, while system-wide EMC compliance provides robust resistance against electromagnetic interference, ensuring consistent instrument performance.

## Superior Precision and Accuracy

- High-precision self-calibrating ADC and an advanced optical path system significantly enhance the Signal-to-Noise Ratio (SNR).
- Automatic wavelength calibration with optimized deuterium lamp energy management.
- Simultaneous digital and analog signal output for enhanced versatility.
- Patented compact flow cell design with optional temperature control.
- Simultaneous dual-wavelength detection for improved analytical accuracy.

## Maximum Efficiency and Speed

- Patented inlet design and unique cleaning protocols ensure ultra-low sample carryover.
- Sample tray cooling function enhances analysis stability.
- Supports "Super Injection" mode, enabling sampling in under 1 second.



## EClassical 3200L

### Smart Automation and Convenience

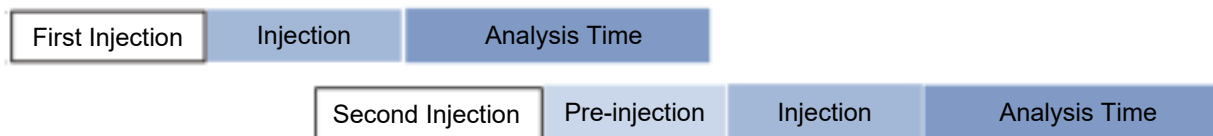
- The 3200L column oven features multiple control modes: Heating, Cooling, and Intelligent. In Intelligent mode, the system automatically toggles between heating and cooling based on the ambient temperature.
- Peltier-based temperature control combined with air circulation enables faster cooling.
- Accommodates up to six standard 4.6 × 250 mm columns or three 8 mm GPC columns.
- Optional selection valve enables unattended switching for up to six columns. Additionally, an optional 2-position/6-port or 2-position/10-port valve supports dual-system switching.

### Robust Stability and Pressure Resistance

- Patented low-pulsation, high-precision, tandem dual-plunger high-pressure constant-flow pump, designed to minimize pulsation.
- Specialized seal design enables a maximum pressure resistance of up to 130 MPa, meeting the requirements for diverse analytical applications.
- Multi-stage microporous mixing combined with a labyrinth-design mixer ensures superior homogeneity and further reduced pulsation.

## Faster Injection Speed

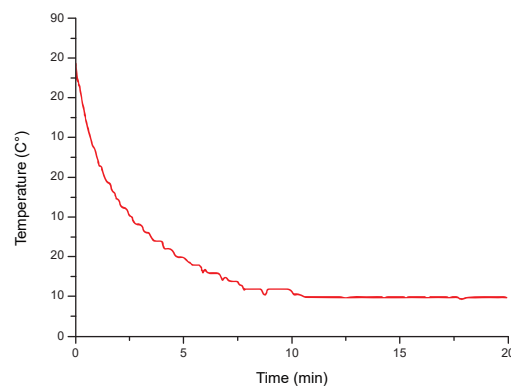
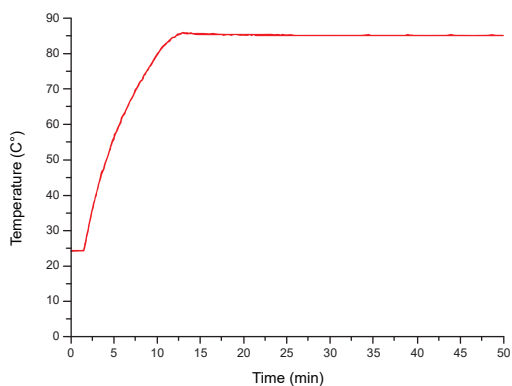
The EClassical 3200L UHPLC system features an "Super Injection" mode. By utilizing pre-injection settings, the injection cycle can be reduced to as little as 1 second, significantly accelerating the overall analytical workflow.



#	Status	Run	SV[Inj.]	EV[Inj.]	I/V	Inj. Volume	Sample ID	Sample	Sample Type	File Name	Storage Location	Instrument Method	Analysis Method	Calibration Method	Report Method	Print To PDF
1		3	3	2	10			Unkn...	%eq_%R_茶-无损-%n	E3200L.茶	E3200L.E3200L-...	E3200L.E3200L-...	E3200L.无	E3200L.default	<input type="checkbox"/>	
2		3	3	2	10			Unkn...	%eq_%R_茶-有损-%n	E3200L.茶	E3200L.E3200L-...	E3200L.E3200L-...	E3200L.无	E3200L.default	<input type="checkbox"/>	

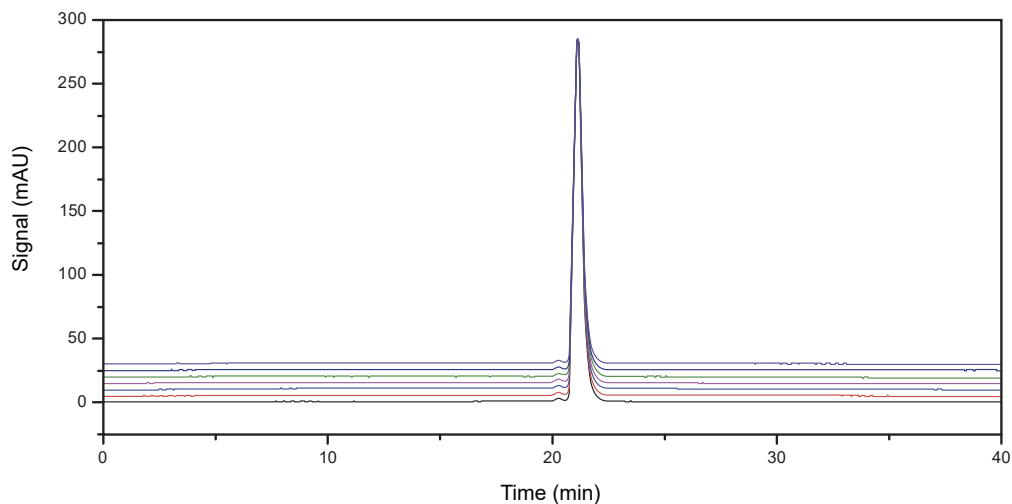
## Rapid Cooling

The column oven utilizes a Peltier element with forced air circulation for precise temperature control and rapid thermal response. At ambient temperature, heating rates reach up to 6.7 °C/min, while the accelerated cooling function brings the temperature from 35 °C down to 5 °C in less than 10 minutes.



## Superior Reproducibility under Ambient Conditions

When the analytical temperature is close to ambient, the intelligent temperature control mode automatically toggles between heating and cooling based on the real-time temperature of the column oven chamber.



## Excellent Retention Time and Peak Area Reproducibility (7 Consecutive Injections at 20 °C)

No.	Retention Time (min)	Peak Area
1	20.114	701.658
2	20.117	699.273
3	20.115	702.141
4	20.114	699.365
5	20.115	699.194
6	20.115	699.106
7	20.116	700.873
Mean	20.115	700.23
RSD (%)	0.05	0.19

## Enhanced Flow Stability

The system delivers exceptional accuracy and stability even at low flow rates (0.1 mL/min).

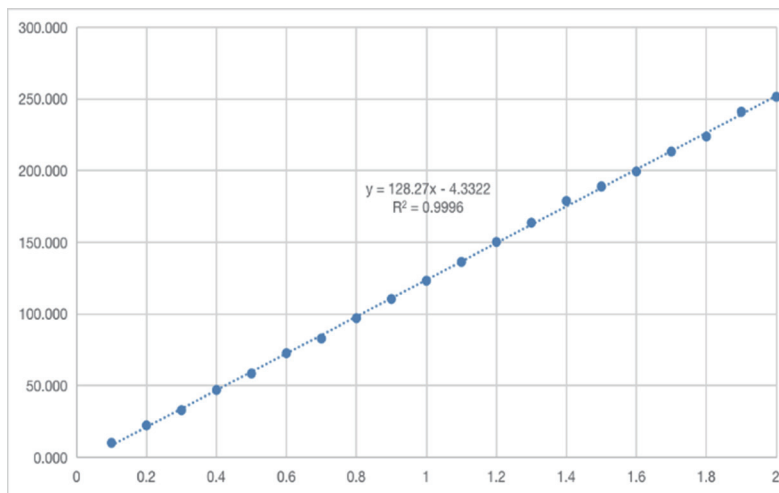
Using deionized water as the mobile phase at a flow rate of 0.1 mL/min, eleven consecutive measurements were recorded using a digital flow meter to determine the Mean and RSD values.

Flow Rate Stability Results at 0.1 mL/min

Flow Rate Setpoint (mL/min)	0.1
Mean Flow Rate (mL/min)	0.1002
Relative Error (%)	0.1545
RSD (%)	0.06

## Superior Injection Accuracy

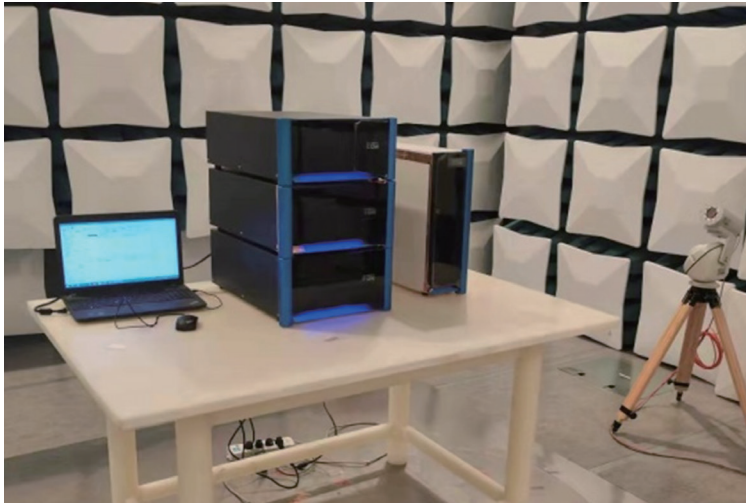
Ensures high accuracy even for micro-volume injections (0.1–2 µL).



Continuous micro-volume injections (0.1–2 µL) demonstrate excellent linearity, with a correlation coefficient ( $R^2$ ) exceeding 0.999, ensuring high accuracy across diverse injection volumes.

# EMC Compliance

System-wide electromagnetic compatibility (EMC) ensures the equipment operates reliably within its intended electromagnetic environment while preventing interference with external systems.



大连产品质量检验检测研究院有限公司  
Dalian Product Quality Inspection and Testing Institute Co., Ltd.  
**检验报告 (TEST REPORT)**  
W20220100549

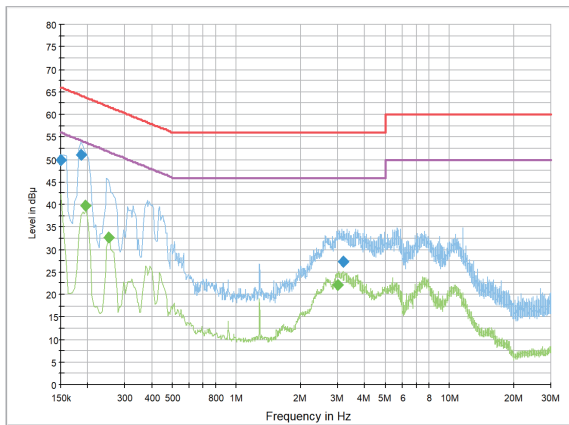


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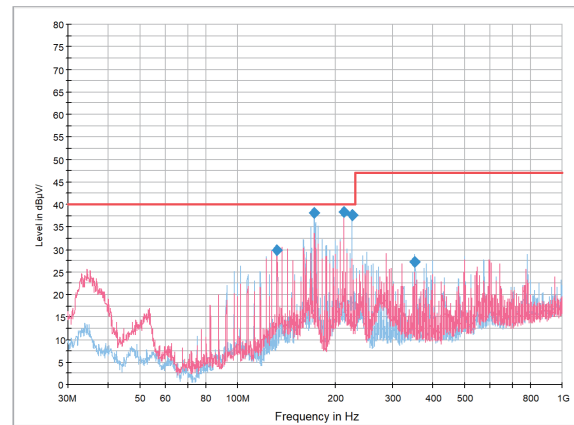
电磁兼容检测项目及结论  
EMC Test Summary

序号 No.	试验项目 Test Items	单项结论 Results
1	传导发射 Conducted Emission	合格 Passed
2	辐射发射 Radiated Emission	合格 Passed
3	谐波发射 Harmonic distortion	合格 Passed
4	电压波动和闪烁 Voltage fluctuations and flicker	合格 Passed
5	静电放电 Electrostatic Discharge	合格 Passed
6	射频电磁场辐射 Radiated RF electromagnetic fields	合格 Passed
7	电快速瞬变脉冲群 Electrical fast transients / bursts	合格 Passed
8	浪涌 Surges	合格 Passed
9	射频场感应的传导骚扰 Conducted disturbances induced by RF fields	合格 Passed
10	在电源供电输入线上的电压暂降、短时中断和电压变化 Voltage dips, short interruptions and voltage variations on power supply input lines	合格 Passed
11	工频磁场 Power frequency magnetic fields	合格 Passed


Conducted Emission Measurement Curves



Radiated Emission Measurement Curves



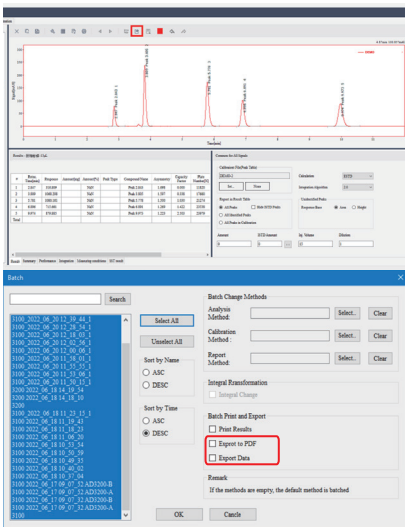
# Kromstation Workstation

 The newly upgraded Kromstation 3.0 workstation utilizes a mainstream MySQL database management system, offering a compact footprint, high flexibility, and rapid command execution, along with enhanced security, reliability, and scalability.

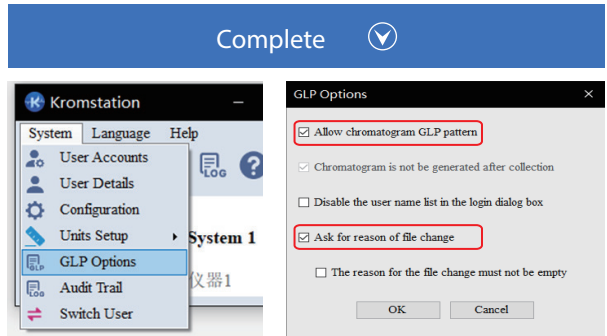
**Safe**



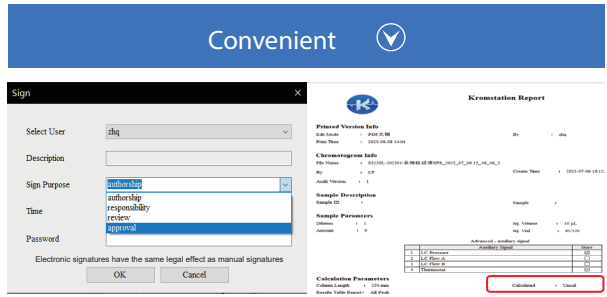
**Efficient**



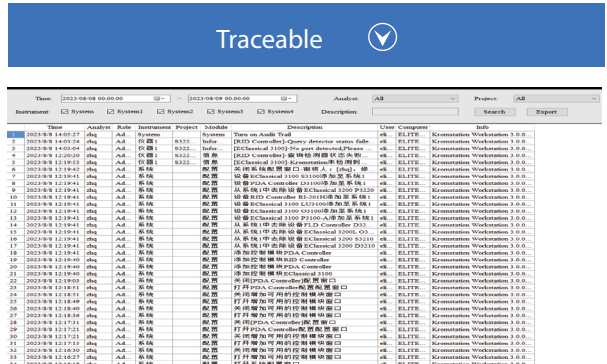
**Complete**



**Convenient**

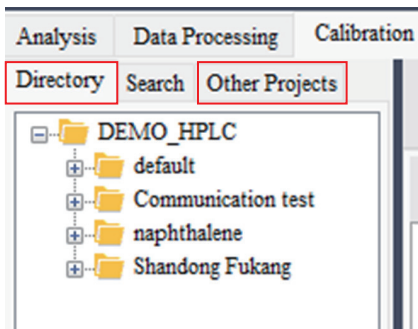


**Traceable**



## Cross-Project Data Access

Supports viewing, processing, and retrieving data from external projects.

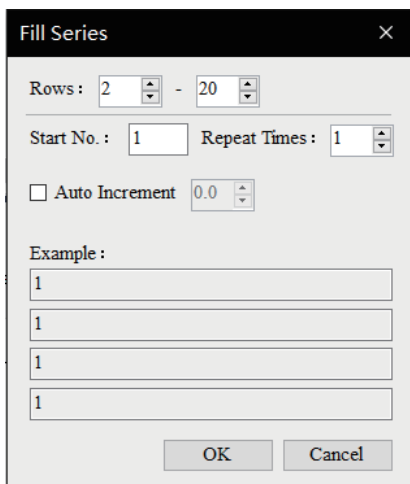


## Sequence Filling

New "Insert rows" function (up to 999 rows);

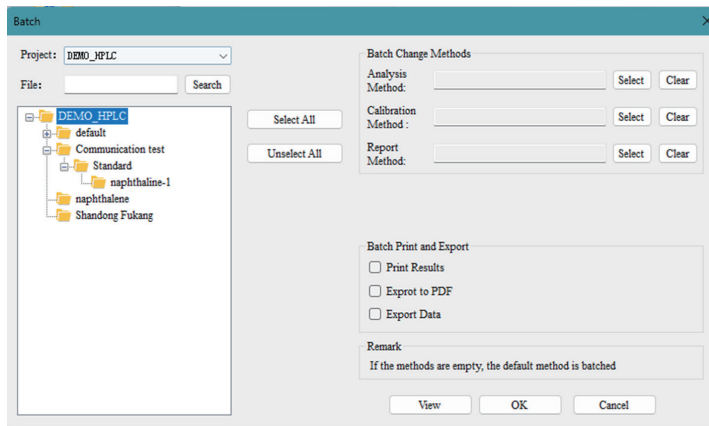
Support the filling of vial positions, injection numbers, volumes, sample IDs, and chromatogram names.

Supports single-row and multi-row copy/paste within the sequence;



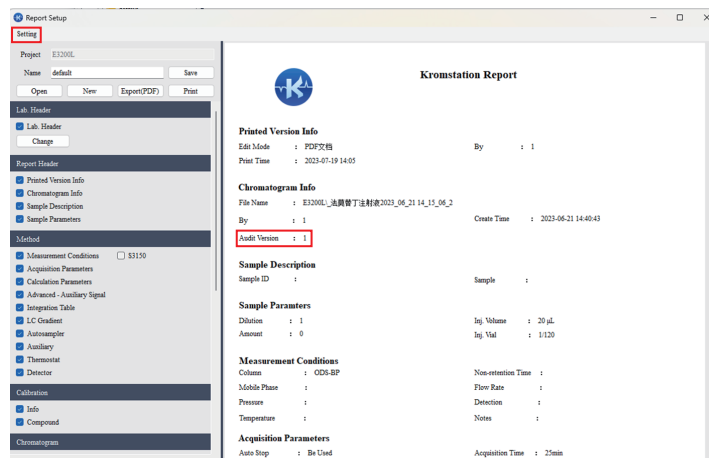
## Data Structure

Chromatogram display switched to tree view



## Report Format

Features include customizable text sizing and formatting, configurable placement for parameters and charts, and integrated audit versioning: "0" for original, incremented by 1 for each subsequent edit.





**About Elite**

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