



# HPLC SYSTEM

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# Introduction



**SHANGHAI YUKE** is a high-end chromatography manufacturer that currently collaborates extensively with several leading chromatography companies in the US and Japan. It is a leader in the manufacturing of high-end chromatography equipment in China.

Yuke provides customers with highly cost-effective liquid chromatography systems widely used in pharmaceuticals, scientific research, food, environmental protection, disease control, inspection and quarantine, and petrochemical industries.

We have established strong cooperative relationships with numerous emerging markets, such as Russia, India, South America, the Middle East, Central Asia, and Vietnam.

# HPLC-6400 HPLC System



Solvent organizer

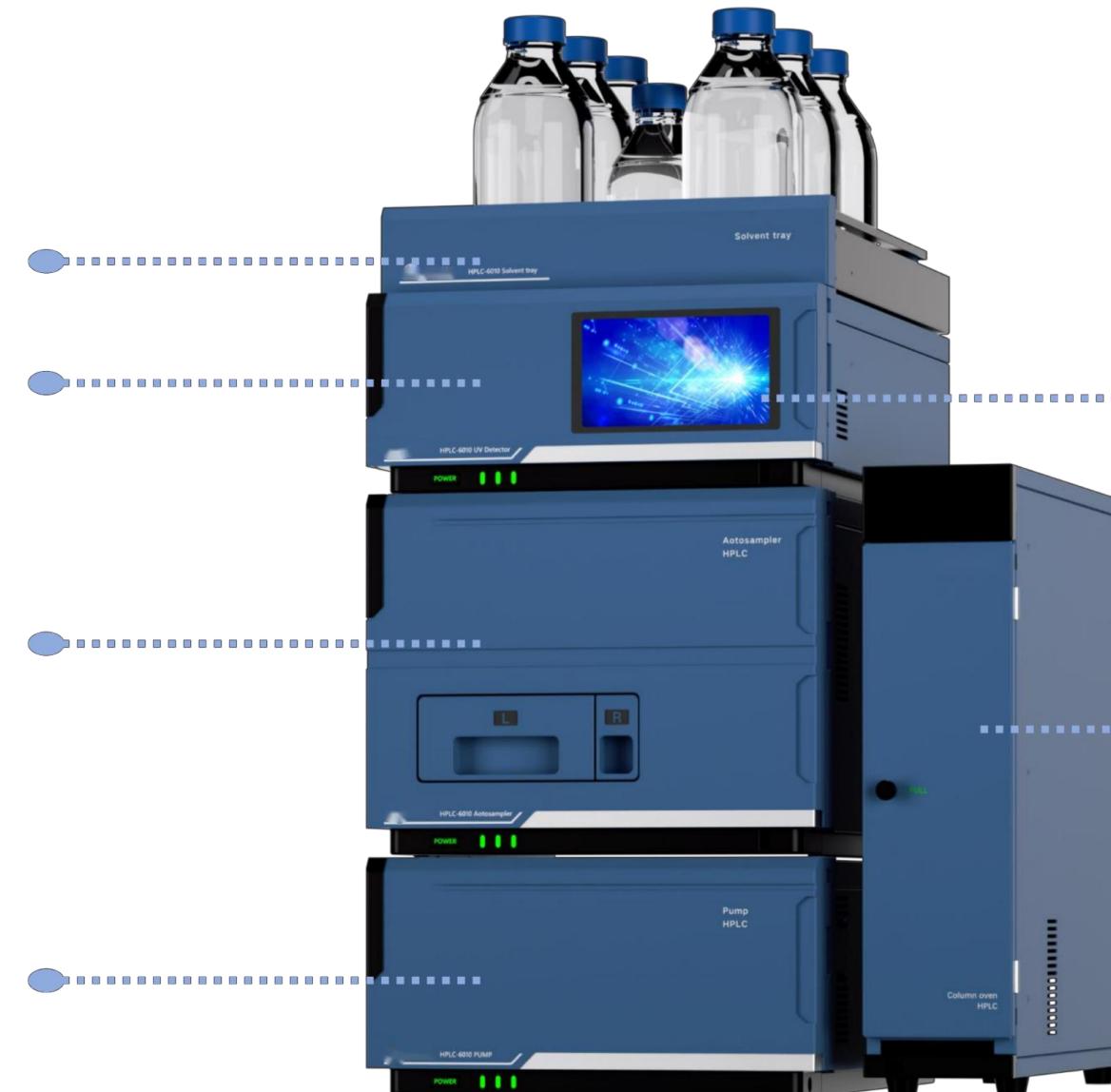
Dual wavelength UV  
detector

Automatic sampler

High-pressure  
infusion pump

central controller

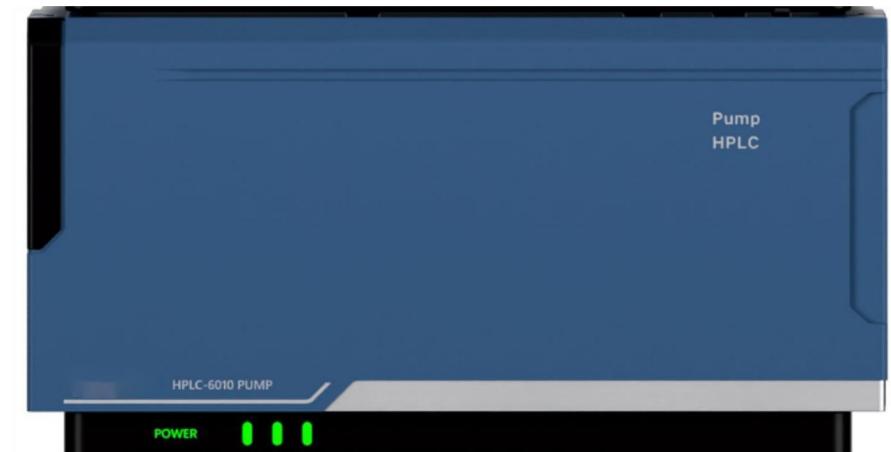
Vertical column oven



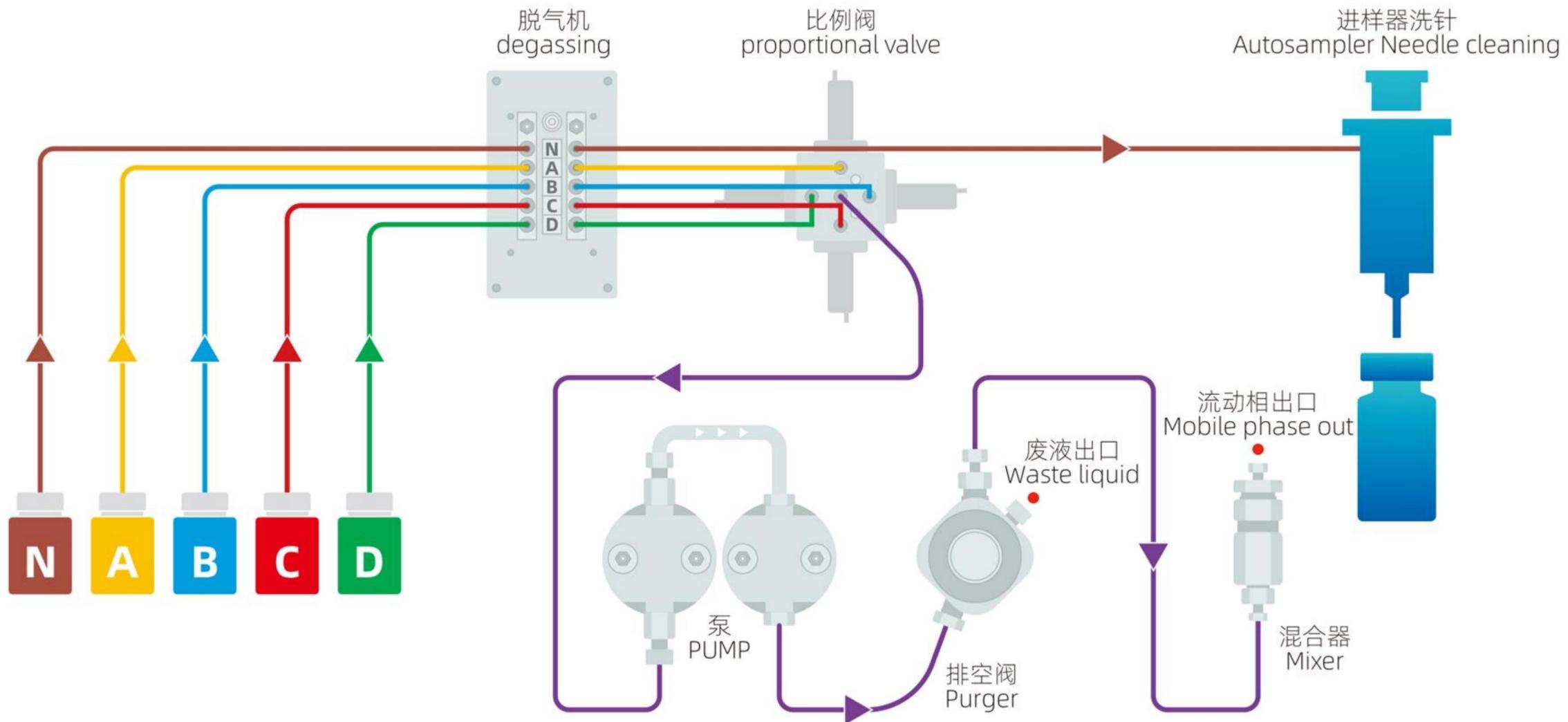
## Product Features: Quaternary Low-Pressure Infusion Pump



1. Quaternary low-pressure solvent management system
2. Chromatographic pump: Integrated independent plunger, integrated parallel infusion pump
3. Integrated leak management: Leak sensor (standard) and safe leak handling
4. pH range: 1~14
5. Gradient mode: Quaternary low-pressure mixing
6. Degassing system: Built-in imported 5-channel degasser
7. Flow rate range: 0.001~10.000 mL/min, increment of 0.001 mL
8. Maximum operating pressure: 80 MPa
9. Flow rate precision:  $\leq 0.06\%$  RSD
10. Flow rate accuracy:  $\pm 0.2\%$
11. Gradient accuracy:  $\pm 0.2\%$
12. Gradient precision:  $\pm 0.05\%$  RSD
13. Mixing accuracy:  $\pm 0.2\%$
14. Mixing precision:  $\leq 0.05\%$  RSD
15. Pump seal cleaning: Equipped with an automatic cleaning system, cleaning frequency can be programmed



# Four-channel low-pressure infusion pump workflow diagram

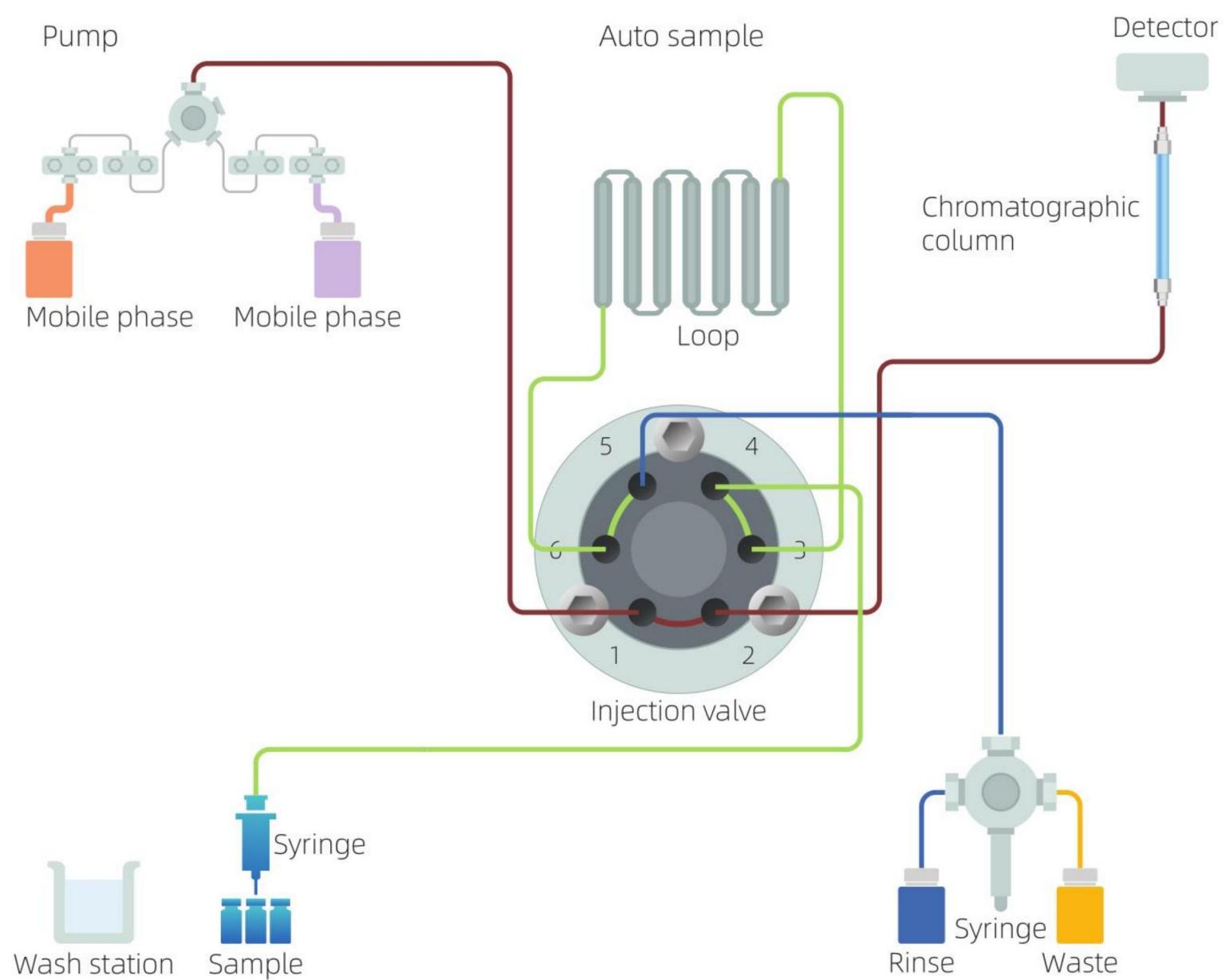


# Product features: Automatic sample injector

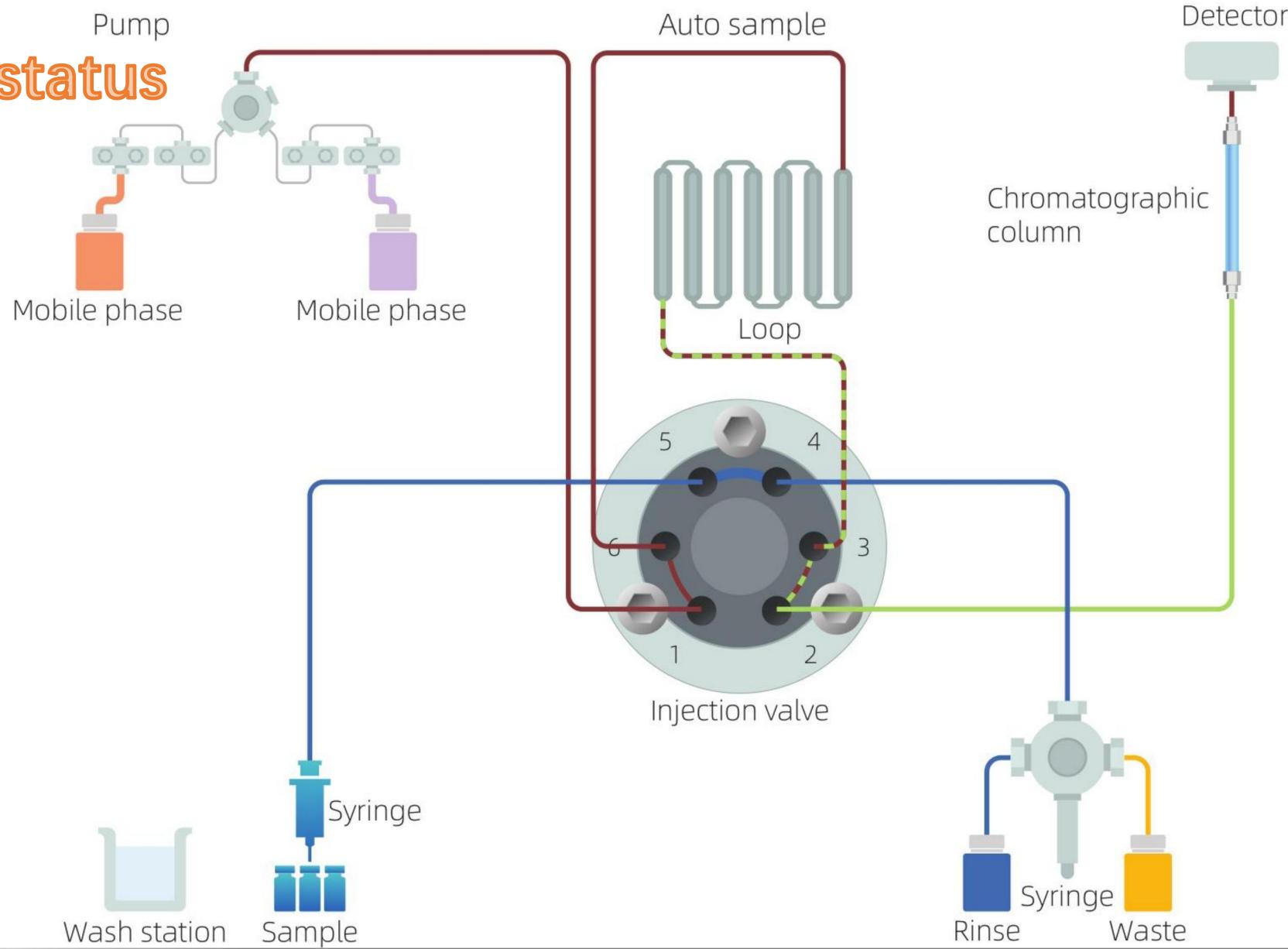
1. Injection Mode: Adopts a 3-axis linkage working mode for faster and more precise operation.
2. Quantitative Synchronization: Injection synchronization between the pump and injector improves retention time reproducibility.
3. Maximum Sample Capacity: 180 positions, 1.5 mL sample vials
4. Injection Linearity: >0.999
5. Injection Precision: ≤0.25% RSD
6. Injection Speed: Fastest 6s
7. Injection Needle Cleaning: Independent 2-position needle washing trough, integrated, active, and programmable settings
8. Sample Cross-Contamination (Sample Carryover): ≤0.002% (UV)
9. Injection Volume: 0.1~20 $\mu$ L
10. Sample Chamber Temperature Range (Optional Cooling Version): 4°C~40°C, Increment: 0.1°C
11. Advanced Sample Manager Functions: Automatic dilution, automatic addition, and pre-loading



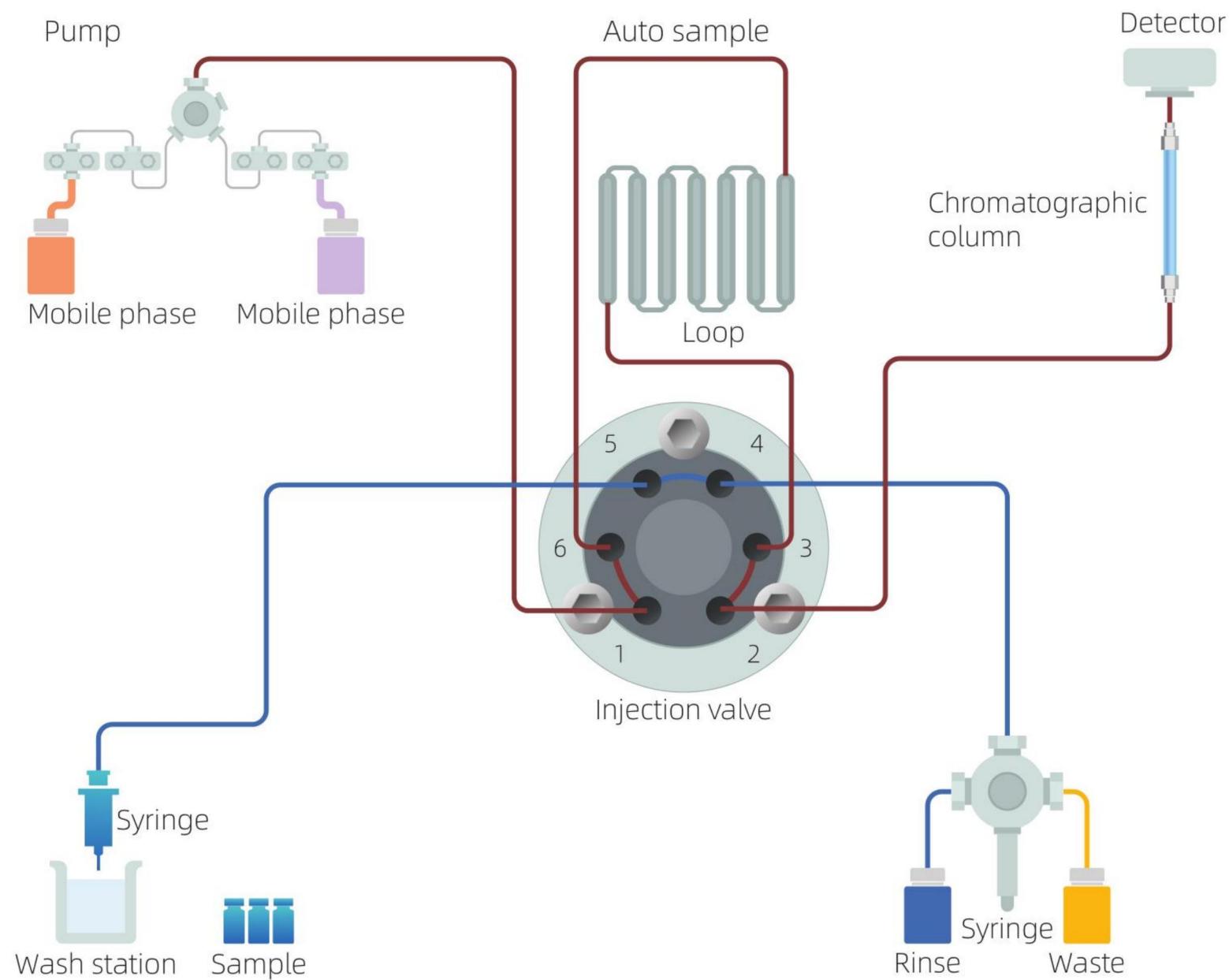
# Injection status



# Injection status



# Needle cleaning status



# Product features: Column oven

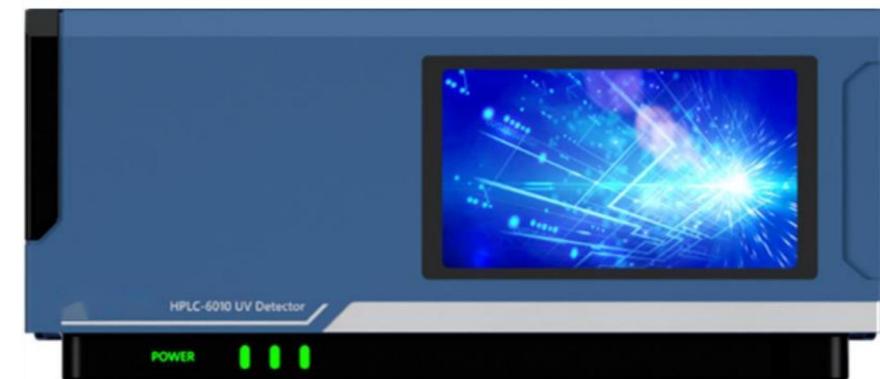
1. Semiconductor ceramic direct temperature control method
2. Temperature range: Room temperature + 3.0°C~115.0°C,  
Increment: 0.1°C (cooling version optional)
3. Temperature accuracy:  $\pm 0.1$  °C
4. Temperature stability:  $\pm 0.1$  °C
5. Accommodates three 250mm standard chromatography columns  
simultaneously
6. Standard configuration includes automatic shutdown (power off)  
after injection completion, with leak detection alarm and thermal  
protection automatic power cut-off.



## Product Features: Dual-Wavelength UV Detector



1. Wavelength Range: 190~800nm
2. Wavelength Accuracy:  $\pm 1$  nm (using erbium filter)
3. Baseline Noise:  $\pm 5 \times 10^{-6}$  AU
4. Baseline Drift:  $\leq 1.0 \times 10^{-4}$  AU/hr
5. Linear Range: 2.0 AU
6. Light Source: Deuterium lamp and tungsten lamp
7. Flow Cell: Optical waveguide total internal reflection flow cell, Cell length: 10 mm, Cell volume: 10  $\mu$ L (analytical cell)
8. Flow Cell Pressure Resistance: 8.5 MPa
9. Allows integration of the maximum absorption wavelength values of all components into a single chromatogram, eliminating the need to set wavelengths individually to find the maximum absorption wavelength value for each component.
10. Features the ability to create a spectral library of standard substances.



# Product Features: Chromatography Workstation



1. Equipped with a 7-inch touchscreen central control system for convenient operation and real-time display of the entire instrument status.
2. Original manufacturer's source code level, fully English version, including online help in English.
3. Utilizes database software.
4. Users log in with a username and password; each user has their own username, password, and permissions, ensuring data independence and preventing interference between users.
5. Operation wizard mode and online help function: simply follow the instructions to perform the corresponding functions.
6. Data security: Complies with cGMP/GLP and 21 CFR Part 11 regulations, featuring electronic records and electronic signatures. Includes the function to assign user access permissions.
7. Report format editing and layout: Results can be presented in single reports and comprehensive reports.
8. Raw data and results can be exported to other software (such as Excel) in multiple ways.
9. Calculates chromatographic peak consistency using solvent angle and noise angle, and performs purity analysis of chromatographic peaks to determine the presence of co-eluting substances (with PDA detector).

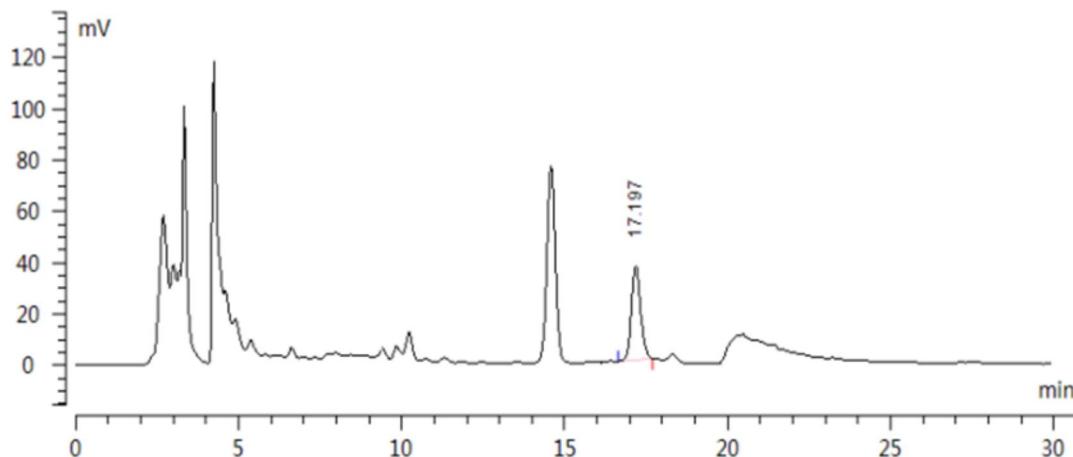
# Installation Site



# Installation Site

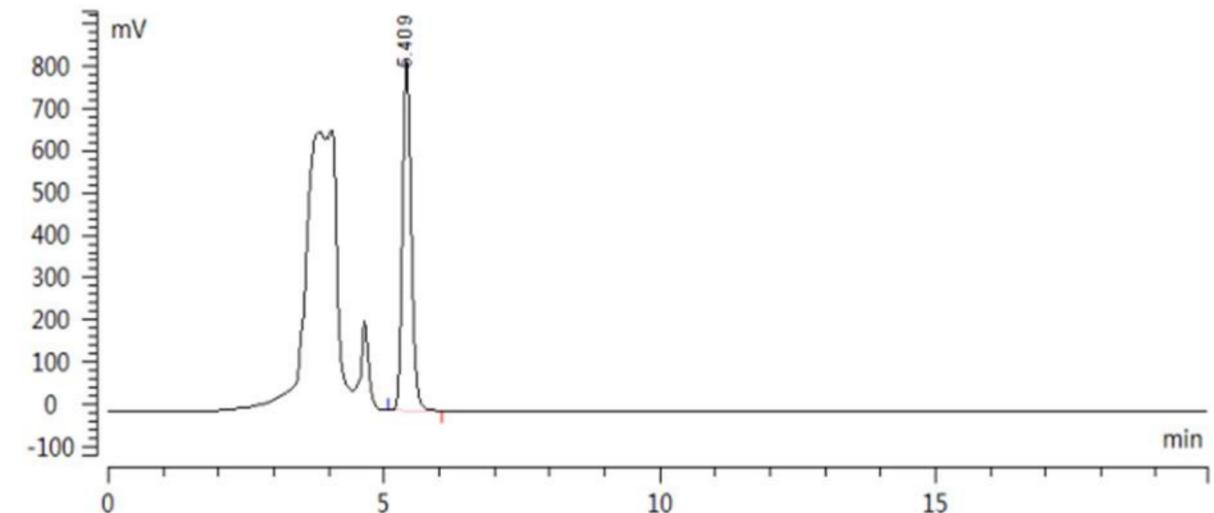


# Sample test graph



No	保留时间(min)	峰面积(mV*s)	峰宽(min)	半峰宽(min)	峰高(mV)	面积百分比(%)	理论塔板数(USP)	拖尾因子(USP)
1	17.197	724.642	0.461	0.297	36.522	100.000	22284	1.084
2								

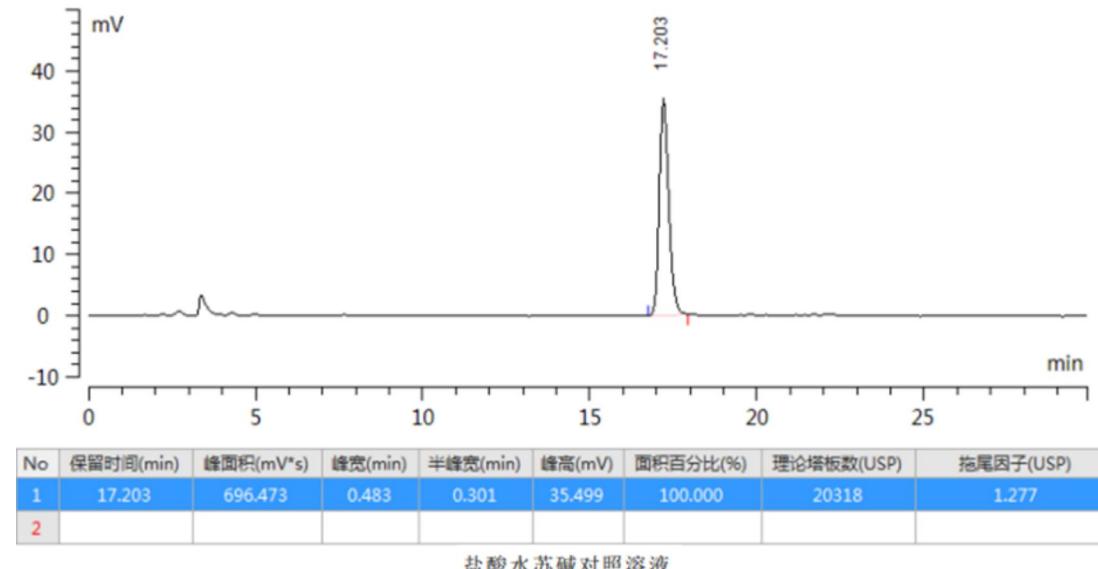
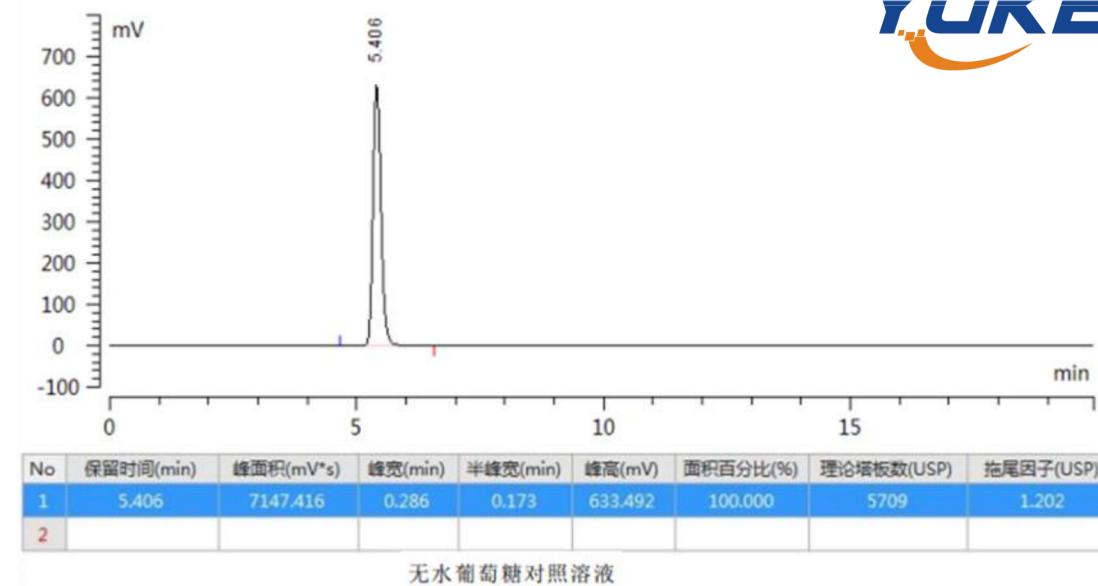
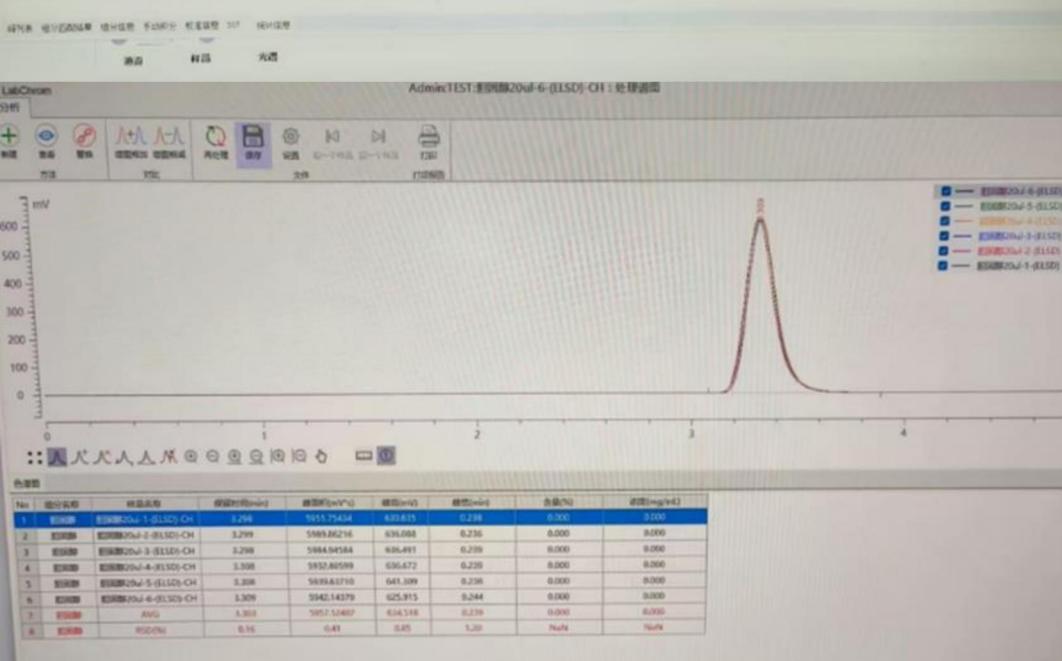
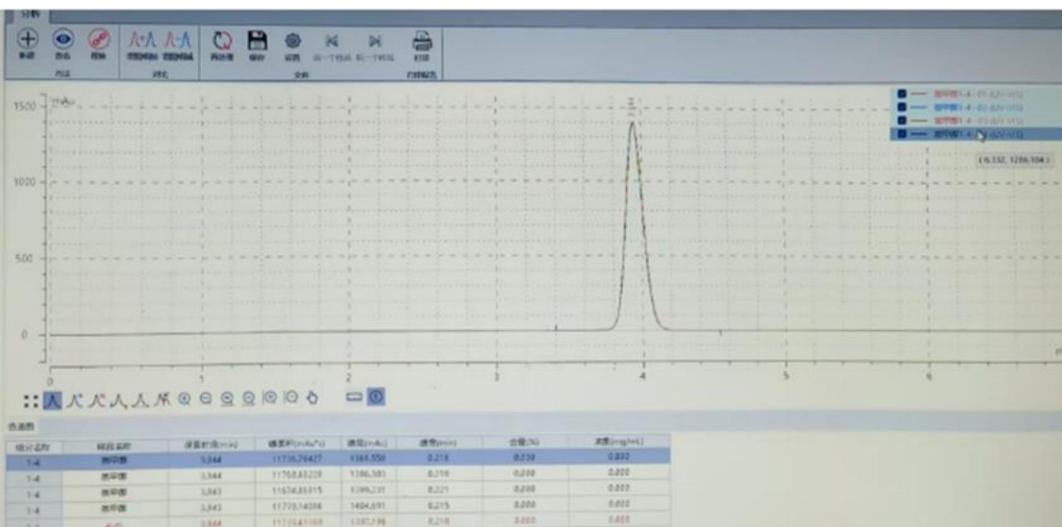
益母草颗粒样品图谱



No	保留时间(min)	峰面积(mV*s)	峰宽(min)	半峰宽(min)	峰高(mV)	面积百分比(%)	理论塔板数(USP)	拖尾因子(USP)
1	5.409	9124.953	0.285	0.166	834.616	100.000	5744	1.176
2								

茯苓  $\beta$  - (1→3) 葡聚糖

# Third-party measurement Graph





**Shanghai Yuke---Your loyal Partner !**

**THANKS!**  
**谢谢！**