

依利特 



 **Classical 3200**

(U)HPLC System



Classic Professional Efficient Trustworthy

Doing professional things with professional people, keeping the original intention and being solid and certain is the philosophy that Elite people have been abiding by. Over the past twenty years, the belief of "being the domestic flagship in the field of liquid chromatography" has supported the forward momentum of Elite, relying on the accumulation of technology, exquisite technology, excellent quality and fine service, Elite has presided over the drafting of the national standard of liquid chromatograph and provided more than 10,000 sets of HPLC systems for pharmaceuticals, scientific research, universities, food, petrochemicals, environmental protection, testing and other institutions nationwide. More than 10000 sets of HPLC systems.

Elite always takes high-tech products as the core, both inside and outside, soft and hard, with stylish design and full sincerity, to create more efficient and professional new products of the times. The newly developed EClassical 3200 high performance liquid chromatography system meets the constantly upgraded regulatory requirements and redefines the appearance design of domestic liquid phase, perfects the automaticity, continuity and integrity of the analysis process, demonstrates the stability of laboratory results, and meets the feasibility of low-cost and high-efficiency operation of laboratories.

The EClassical 3200 HPLC system is worthy of your trust. Welcome to experience the precision, quality and beauty of the EClassical 3200.

Classic, inherited product reliability for more accurate and consistent results.

Professional, national standard technology leader, making more effective and applicable.

Efficient, perfectly superb compatibility makes more convenient and easier.

Classic inheritance, professional technology, compatibility and super efficiency

Classic technology

- The design of metal transparent material and breathing lamp perfectly combines technology and fashion elements, making the instrument framework a new design language.
- The left and right symmetrical beam line design inside the column makes the flow path in a ring layout and has the storage function.
- The black surface material is resistant to conventional HPLC solvent corrosion.

Automatic ultra accurate

- The "dark" array technology of light path is used to realize the automatic calibration of dark current.
- The automatic control of the lens switching mechanism and the dynamic variable slit device is realized by using the control circuit, which realizes the automatic real-time calibration of the data signal and improves the accuracy of the detection results.

Flexible efficient

- Through the highly integrated solvent switching system, the high-pressure binary can have the function of double high-pressure binary, even double four high-pressure, which makes the complex work simple.
- The automatic dilution and derivatization function of the autosampler makes the experiment easier.
- Use for ultra performance liquid chromatography.
- Use as the front end of mass spectrometry.

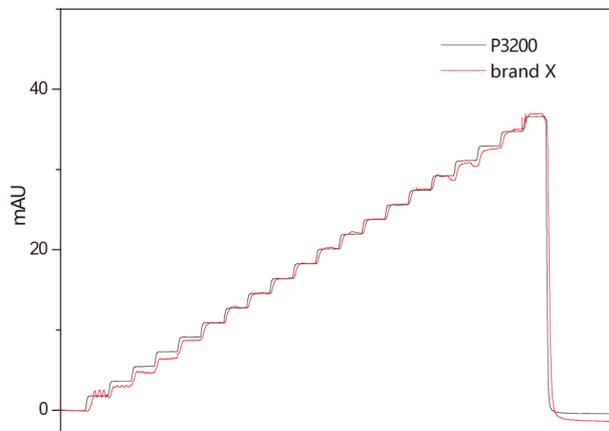
Long term high precision

- The innovative double seal floating plunger and the motor driven cam drive plunger realize the accurate transmission of fluid. With the new drive control method, the infusion pulsation of the system is reduced, and the durability and precision of the instrument are improved.
- Intelligent high-precision cam detection device, ingenious design, reasonable layout, matching can simulate the actual working situation of the push rod structure, improve and ensure the validity of detection data.
- Double contrast loop leakage sensor and perfect guide groove design make leakage alarm more accurate and timely.

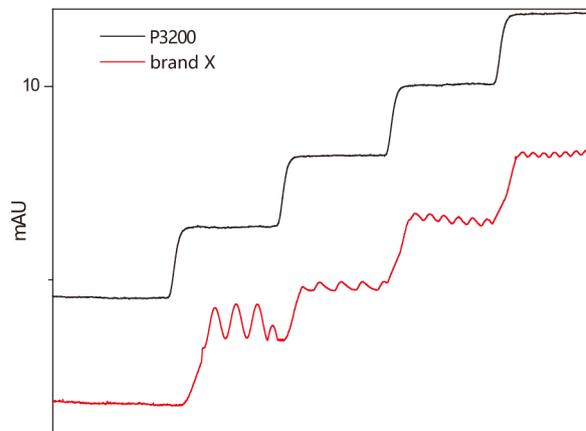


Easy composition and perfect baseline

During the experiment, when the absorbance difference between AB and ab phases is large at the set wavelength, the baseline regular fluctuation is easy to appear in low proportion mixing. E3200 high pressure constant flow pump adopts patented pulsation damper and gradient mixer, which greatly reduces pulsation and improves mixing effect. Even at the limit ratio of 1:99, it has perfect baseline performance.

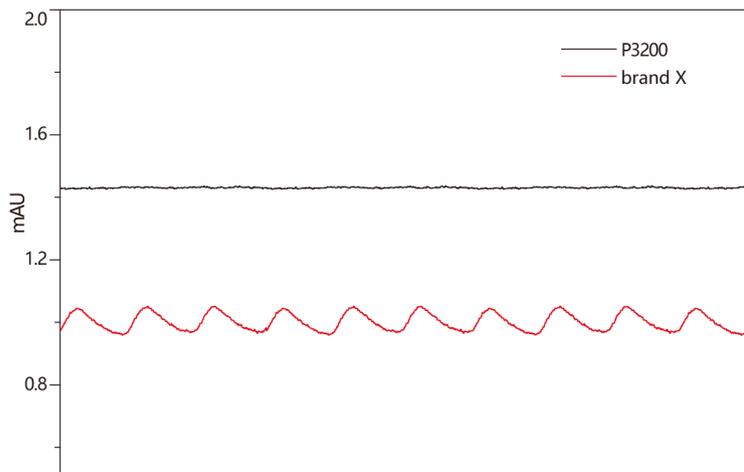


Comparison of 1% ~ 20% small scale baseline pulsation



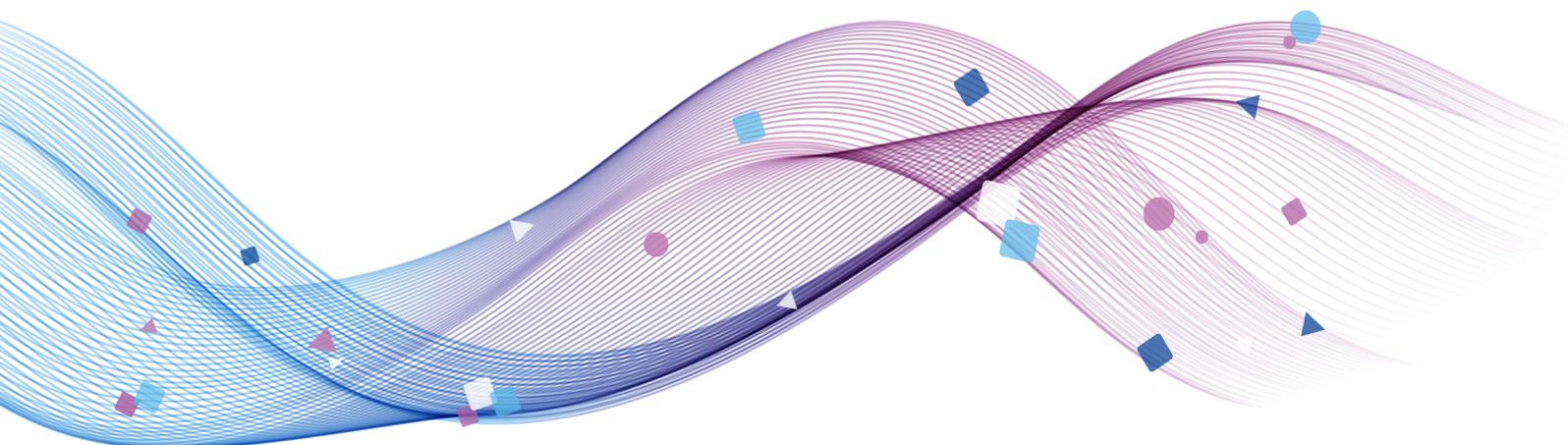
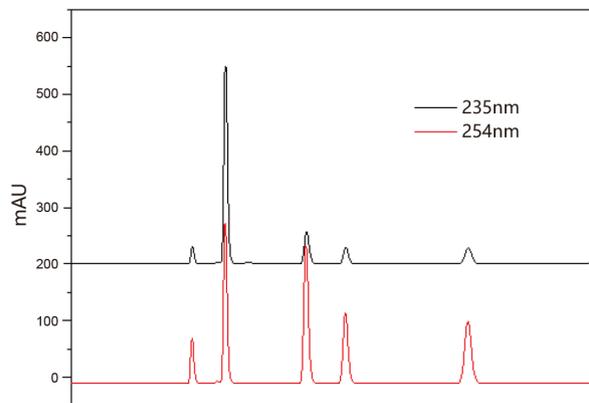
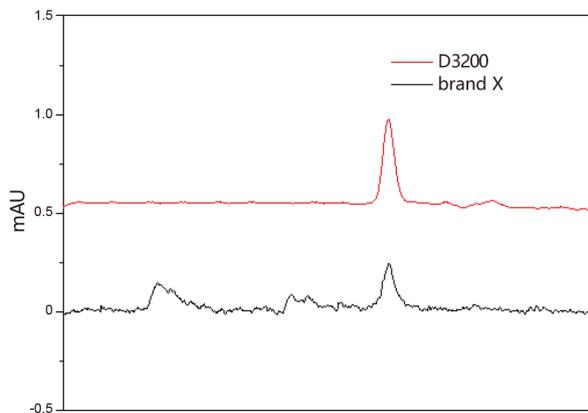
Comparison of 1% ~ 5% small scale baseline pulsation

mobile phase:
2% acetone aqueous solution:H₂O=1:99
detector: UV254nm
flow: 1.0mL/min
temperature: room temperature
pressure: No back pressure



Easy to be sensitive and knows you better

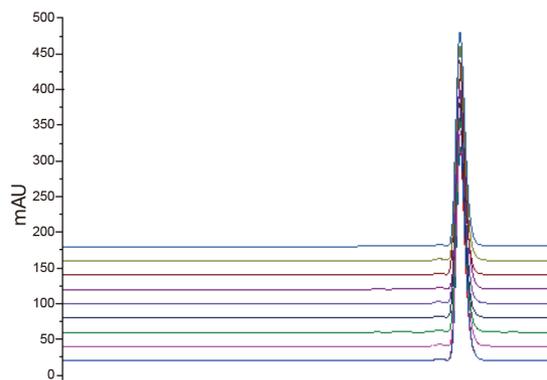
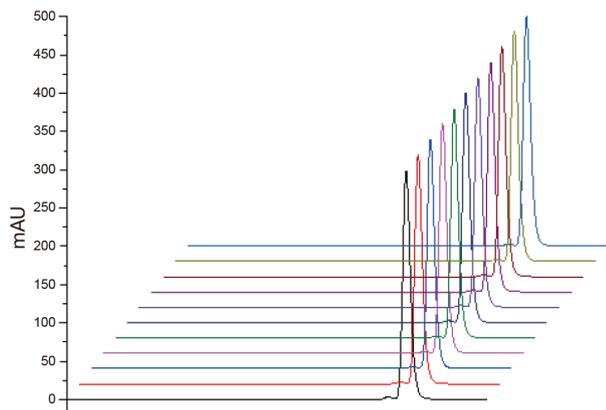
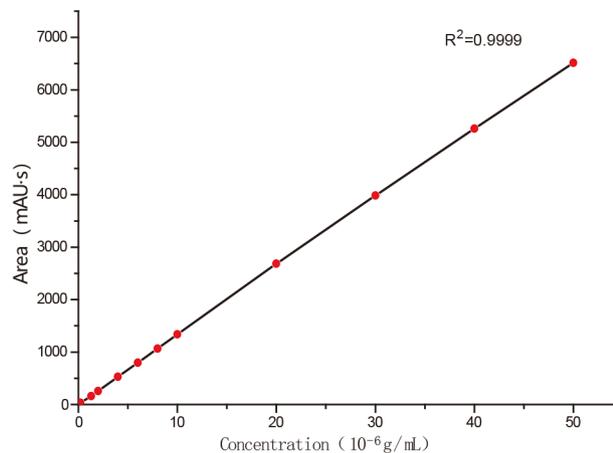
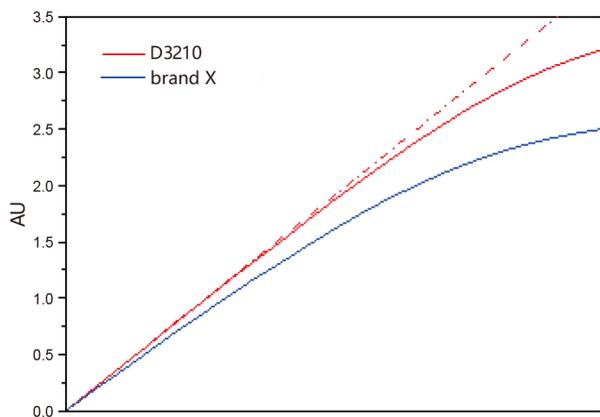
It is often encountered in experiments that different analysis methods and different detection environments have different sensitivities. E3200 system's independent new detection pool, unique air duct system and micro step driver control the static angle of the unique technology, while achieving high precision, high sensitivity, low noise, low drift performance, so that the laboratory analysis work to achieve twice the result with half the effort.



Easy analysis and stable for quantitative

The data acquisition system adopts 24 bit high-precision AD conversion chip, with high data acquisition accuracy and wide linear range, up to 2.5AU, which can meet the requirements of high concentration and micro quantitative analysis at the same time.

0.1-50 μ L The injection volume reached $R^2=0.9999$, both in micro injection and large volume injection.



RSD of peak area was 0.09%

Super housekeeper and smooth communication

Kromstation Chromatographic data workstation chromatographic data workstation is the LC system workstation software independently developed by Yilite company, which conforms to CNAs certification. Kromstation can control liquid chromatography with personal computer and complete various operations. It has powerful functions such as database, audit tracking, GLP, data archiving and backup, electronic signature, permission setting, network management, etc. in the process of use, the interface is simple and easy to use.

Safety

The screenshot displays the '用户管理' (User Management) window. It includes sections for '用户信息' (User Information) with fields for name, ID, and password, and '用户权限' (User Permissions) with checkboxes for various system functions like '系统控制' (System Control) and '数据备份' (Data Backup).

Complete

The 'GLP选项' (GLP Options) dialog box is shown with several options checked: '允许色谱图GLP模式', '色谱图文件不可覆盖', '放弃采集后生成色谱图', '登录对话框中禁用用户列表', and '询问文件变更原因'. The '确定' (OK) and '取消' (Cancel) buttons are visible at the bottom.

Convenient

The '签名' (Signature) dialog box is shown with fields for '选择用户' (Select User), '用户验证' (User Verification), '签名用途' (Signature Purpose), '时间' (Time), and '密码' (Password). Below it, a 'KromStation Report' window displays a detailed audit trail for a specific operation, including user, time, and system details.

Efficient

The screenshot displays the chromatogram analysis interface. It includes a chromatogram plot with peaks labeled '1' and '2'. Below the plot is a table of peak data. A '积分处理' (Integration Processing) dialog box is open, showing options for analysis method, baseline, and reporting.

峰号	保留时间 [min]	峰面积 [AU]	峰高 [AU]	峰宽 [min]					
1	1.817	1.098	2.033	0.069	0.103	1.72	1.79	2.09	
2	2.397	2.308	2.603	0.061	0.103	1.72	1.79	2.09	
3	3.469	3.244	3.709	0.079	0.124	2.40	2.44	2.59	
4	4.076	3.719	4.342	0.090	0.163	1.70	1.70	2.09	
5	5.737	5.342	6.040	0.126	0.214	1.79	2.40	2.59	

Traceable

The screenshot displays the audit trail interface. It shows a list of operations with columns for time, user, system, and operation type. Several rows are highlighted in red, indicating specific actions like '打开积分处理' (Open Integration Processing) and '积分处理' (Integration Processing).

Performance Specification of P3200 pump

Flow Rate	0.001-10.000mL/min (Step:0.001mL/min)
Flow accuracy	≤±0.2%
Flow stability	RSD≤0.06%
Max Pressure	70MPa
Pressure display error	±0.3MPa
Pressure pulsation	≤0.1 MPa
Gradient composition range	0-100%,0.01% delta
Gradient mixing accuracy	≤±0.5%, does not vary with backpressure
Gradient composition accuracy	≤0.1% RSD
Communication mode	UDP
Dimension/Weight (Long by wide by high)	450×350mm×180mm/18kg
Power Supply	110-220V,50-60Hz
Power	300W

Performance Specification for O3200 column oven

	O3210	O3220
Temperature range	Ambient temperature+5°C~99°C	Ambient temperature+5°C~85°C
Accuracy	±0.1°C	±0.1°C
Precision	≤0.1°C	≤0.1°C
Communicate mode	485line/UDP	485line/UDP
Dimension/Weight (Long by wide by high)	120×65×570mm/4.2kg	435×137×450mm/11kg
power supply/Power	AC220V±10%,50Hz/110W	AC110-220V,50-60Hz/130W

Performance Specification of D3230 detector

Number of arrays	512
Light resource	Deuterium lamp
Array resolution	1.2nm
Spectral resolution	2.4nm(slit100μm)
Wavelength range	190-800nm
Wavelength accuracy	±1.0nm
Dynamic short-term noise	≤±1.0×10 ⁻⁵ AU
Dynamic baseline drift	1.0×10 ⁻⁴ AU/h
Linearity range	≥2.0AU
Detection pool withstand pressure	1000psi
Detection pool	Analytcs pool:10mm 11μL
	Semi-micro pool:5mm 2.5μL
Analog signal output range	-0.5-2.5AU
Communication mode	UDP

Performance Specification of S3200 sampler

Injection range	0-100μL(Standard), 1-2000μL (Matching)
Capacity	2mLSample vials 120bits; 1mLSample vials 210bits; compatible 4.0mLSample vials and 96-well plate
Sample residue	<0.002%
Injection repeatability	RSD<0.2%
Max Pressure	45MPa
Injection speed	10s or less
Dimension/Weight	440×378×180mm (Long by wide by high) /13kg
Power Supply	110-220V,50-60Hz
Power	30W

Performance Specification of D3200 detector

Wavelength range	190nm-800nm
Light resource	Deuterium lamp and Tungsten lamp
Noise	$\leq \pm 0.25 \times 10^{-5} \text{AU}$
Wavelength accuracy	$\pm 1.0 \text{nm}$
Sampling frequency	5-80Hz sadjustable (Single wavelength mode)
	A wavelength of 1.0s (Dual wavelength mode)
Wavelength repeatability	$\leq \pm 0.1 \text{nm}$
Max Pressure	1500psi
Spectral bandwidth	8nm
Minimum detection concentration	$1 \times 10^{-9} \text{g/mL}$
Drift	$\leq 0.5 \times 10^{-4} \text{AU/h}$
Linearity range	$\geq 2.5 \text{AU}$ (Customizable 3.0AU)
Detection pool	Analytics pool: 10mm 11 μL
	Semi-preparation pool: 5mm 2.5 μL
Time constant	0.1s-5.0s adjustable
Dimension/Weight	440×378×160mm (Long by wide by high) /10kg
power supply/Power	110-220V, 50-60Hz/100W

Application Examples

■ Zhi Mu Saponin BII in Zhi Mu Drinking Tablets

Column: SinoChrom C8 5 μ m 4.6mm \times 250mm

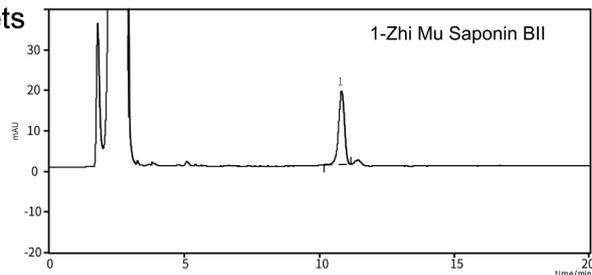
Mobile phase: Acetonitrile/Water =25/75

Flow rate: 1.0mL/min

Detector: ELSD

Injection volume:10 μ L

Column temperature:30 $^{\circ}$ C



■ Acetate in hemodialysis concentrate

Column: Supersil ODS2 5 μ m 4.6mm \times 250mm

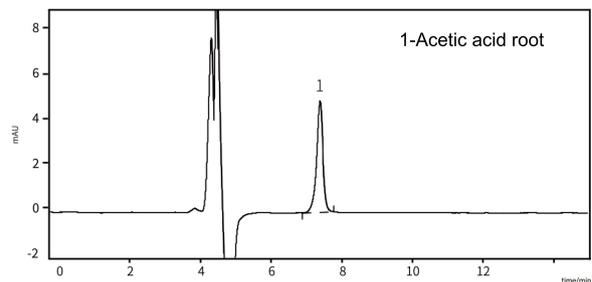
Mobile phase: Acetic acid root:10mmol/L Potassium phosphate (pH=2.3)/ Methanol solution=90/10

Flow rate:0.6mL/min

UV:220nm

Injection volume:10 μ L

Column temperature:35 $^{\circ}$ C



■ Zinc pyrithione in shampoo

Column :SinoChrom ODS- BP 5 μ m 4.6mm \times 250mm

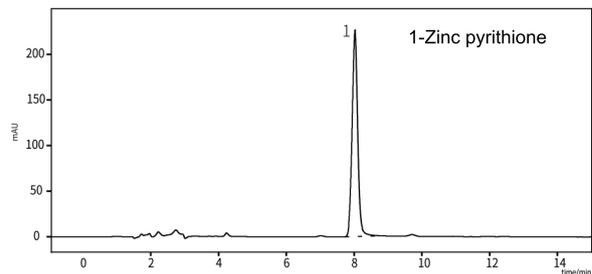
Mobile phase: Acetonitrile/Water solution (0.01mol/L Potassium phosphate and 0.0005mol/LEDTANa₂, Adjustment with phosphoric acid pH=4.0) =30/70

Flow rate:1.0mL/min

UV:230nm

Injection volume:5 μ L

Column temperature:25 $^{\circ}$ C



Application Examples

■ Colorant brilliant blue, para blue

Column: Supersil ODS2 5 μ m 4.6mmX250mm

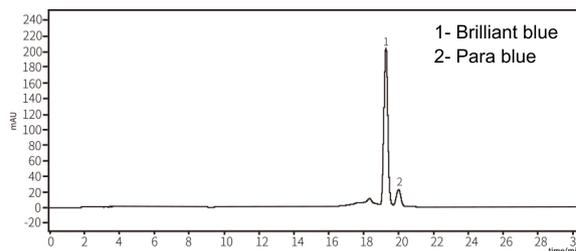
Mobile phase A: Methanol; B: 1.42g Disodium hydrophosphate and 1.36g Potassium phosphate dissolved in 1000mL of water; Gradient elution

Flow rate: 0.8mL/min

UV: 254nm

Injection volume: 10 μ L

Column temperature: 40°C



■ Glyphosate

Column: Supersil SAX 4.6mmX 250mm

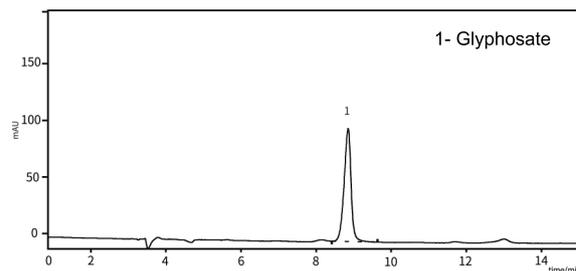
Mobile phase: 6.8g Potassium phosphate dissolved in 1000mL pure water, Adjustment with phosphoric acid pH=2.52

Flow rate: 1.0mL/min

UV: 195nm

Injection Volume: 30 μ L

Column temperature: 22°C



■ Amino acid

Column: Supersil Coreshell

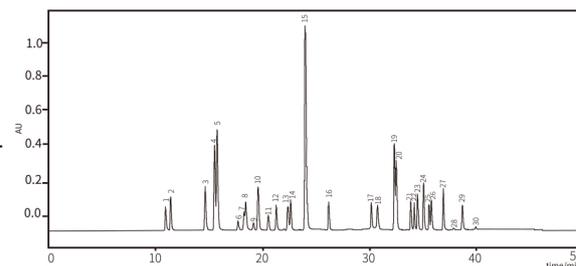
Mobile phase: A: 50mM Sodium acetate aqueous solution (pH adjusted to 6.0); B: Methanol / Acetonitrile/Water = 45/45/10 (VNM); Gradient elution

Flow rate: 0.7mL/min

Detection wavelength: Excitation 230nm, Emission 450nm

Injection volume: 10 μ L

Column temperature: 30°C





About Elite

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