

**A guiding enterprise of separation materials
and techniques for chromatography.**

ACHIEVING THE BEST

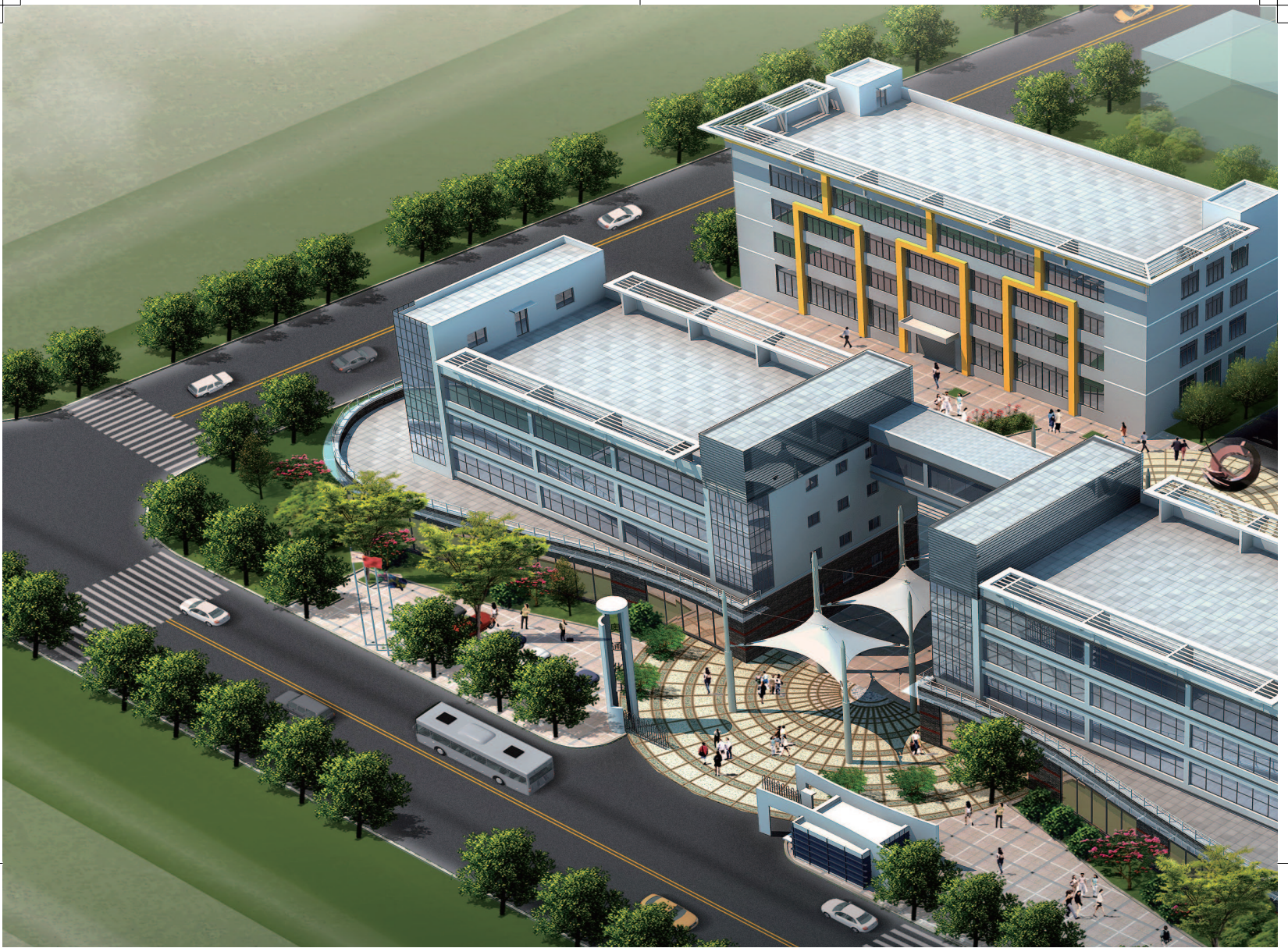
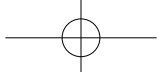
ACCHROM

--dedicated to separation science



ACCHROM

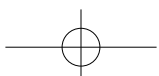


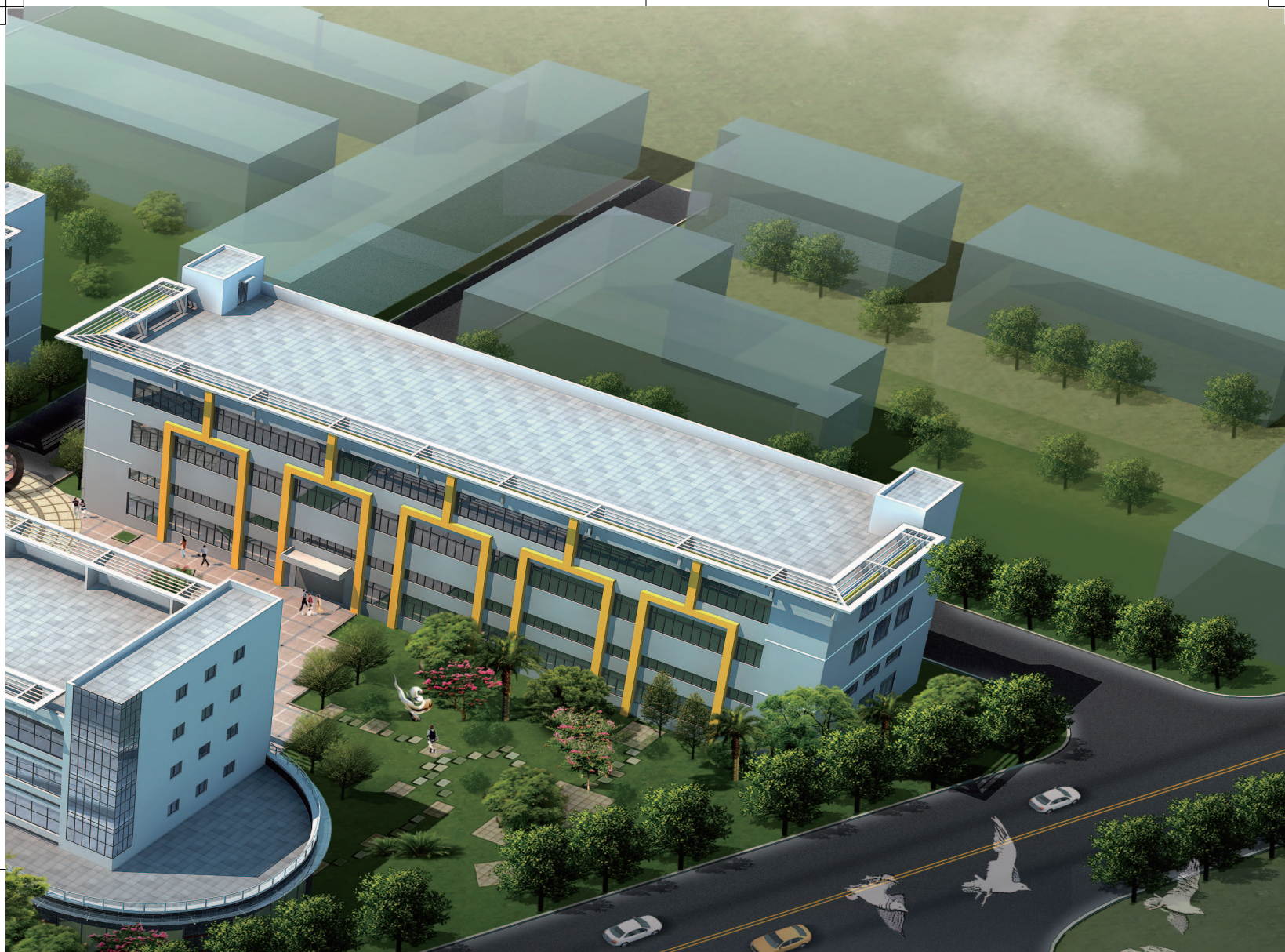
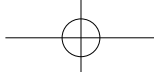


Acchrom

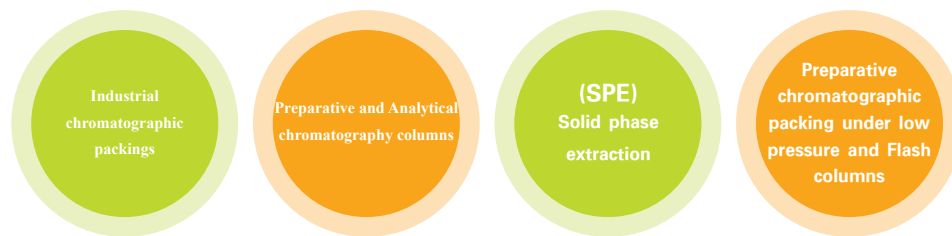
A China Chromatography Company

- Integrated with research, manufacture, sales and service
- Patents and independent intellectual property rights
- Chinese brand in chromatographic industry
- Leading the chromatographic separation technology



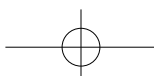


Method development services

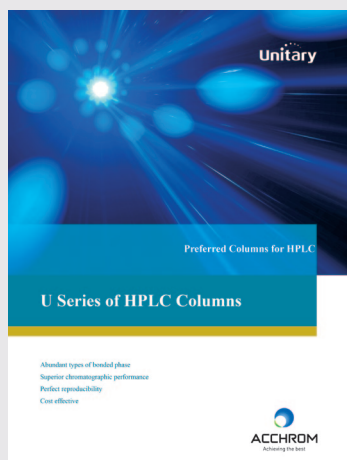


Acchrom focus on

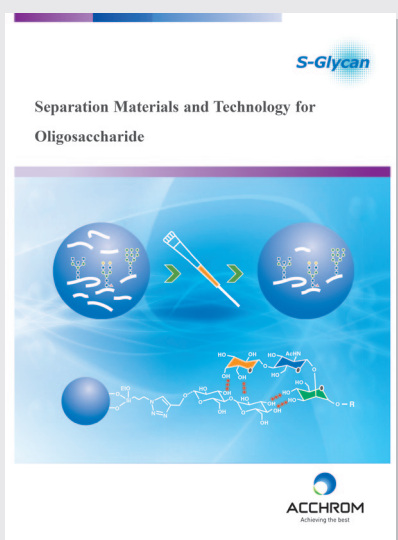
- research/production/sale of the chromatographic materials
- solution for industrial chromatographic separation purification
- separation analysis method development
- research/production/sale of preparative and analytical chromatography columns
- research/production/sale of SPE cartridges
- research/production/sale of preparative chromatographic packing under low pressure and Flash columns



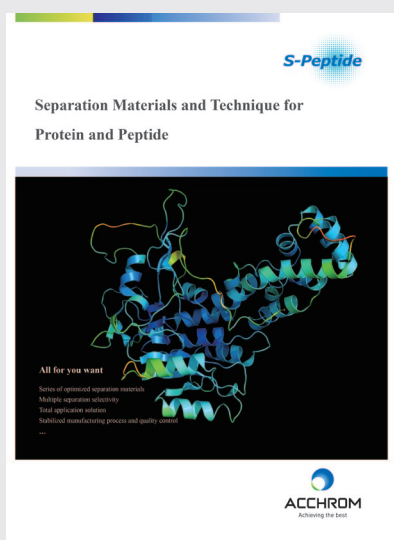
Products and Solution



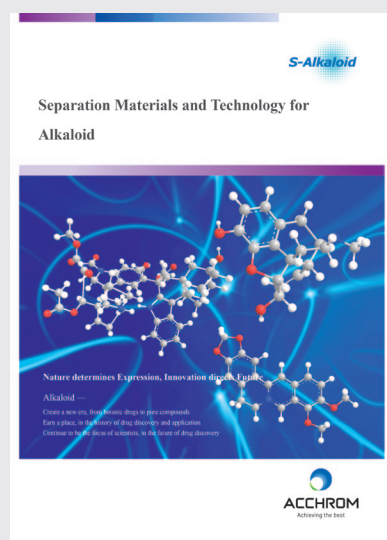
U series columns



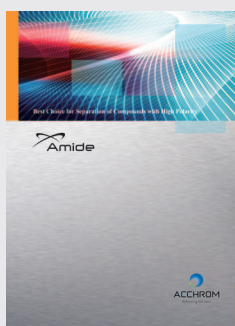
S-Glycan chromatographic materials and separation technology



S-Peptide chromatographic materials and separation technology



S-Alkaloid chromatographic materials and separation technology



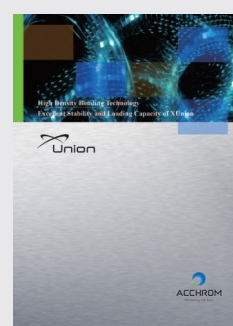
XAmide



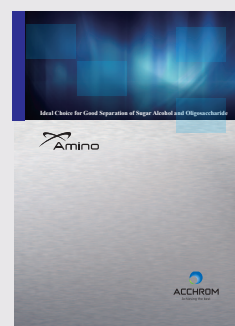
XCharge



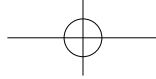
XAqua



XUnion



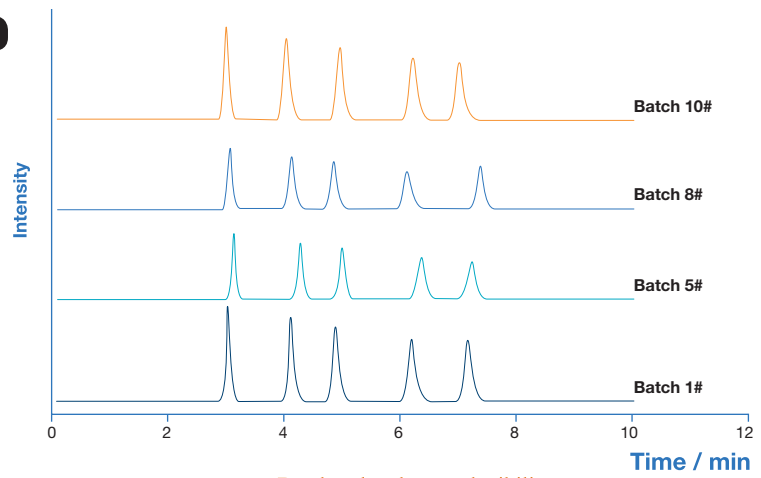
XAmino



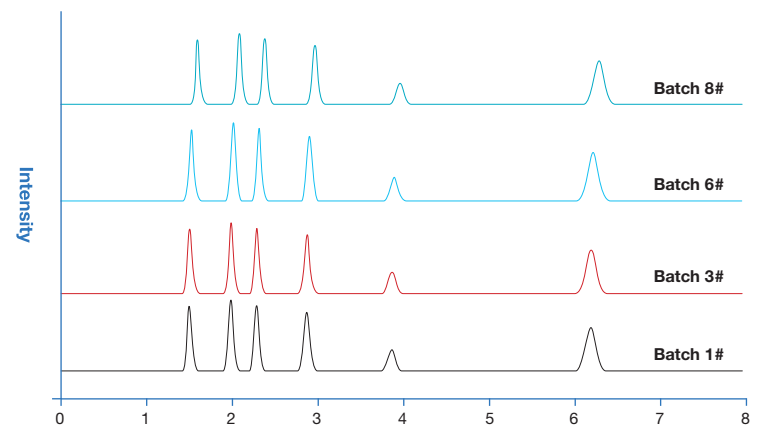
Consistent quality Multiple function Unique property

Excellent product quality resulting from :

- Design concept
- Technical feature
- Process control
- Personnel quality
- Service consciousness



Batch to batch reproducibility








Batch to batch reproducibility



Abundant Types of Bonded Phase

U series of HPLC columns based on ultra-pure spherical porous silica (purity > 99.999%) are prepared via the unique surface modification techniques. U series columns consist of universal reversed-phase mode, classical normal-phase mode and emerging HILIC mode. To meet the requirements of analysis and preparation, 5 μm and 10 μm packings are available. U series of reversed-phase columns are prepared by monolayer bonding and unique dual end-capping technique of Acchrom, while NPLC and HILIC columns are prepared via the three-point bonding technique. These unique bonding techniques guarantee excellent chromatographic performance of U series of columns.

U series of HPLC column types and basic parameters

Chromatographic mode	packing	bonding structure	particle size	pore size	surface area	end-capping
reversed-phase	C18	 $-\text{O}-\text{Si}-(\text{CH}_2)_{17}-\text{CH}_3$	2.8μm 5 μm, 10 μm	100 Å	320 m ² /g	Y
	C8	 $-\text{O}-\text{Si}-(\text{CH}_2)_7-\text{CH}_3$	2.8μm 5 μm, 10 μm	100 Å	320 m ² /g	Y
normal-phase / HILIC	Silica	 $-\text{OH}$	5 μm, 10 μm	100 Å	320 m ² /g	N
	Amino	 $-\text{O}-\text{Si}-\text{NH}_2$	5 μm, 10 μm	100 Å	320 m ² /g	N
	Diol	 $-\text{O}-\text{Si}-\text{O}-\text{CH}_2-\text{CH}_2-\text{OH}$	5 μm, 10 μm	100 Å	320 m ² /g	N

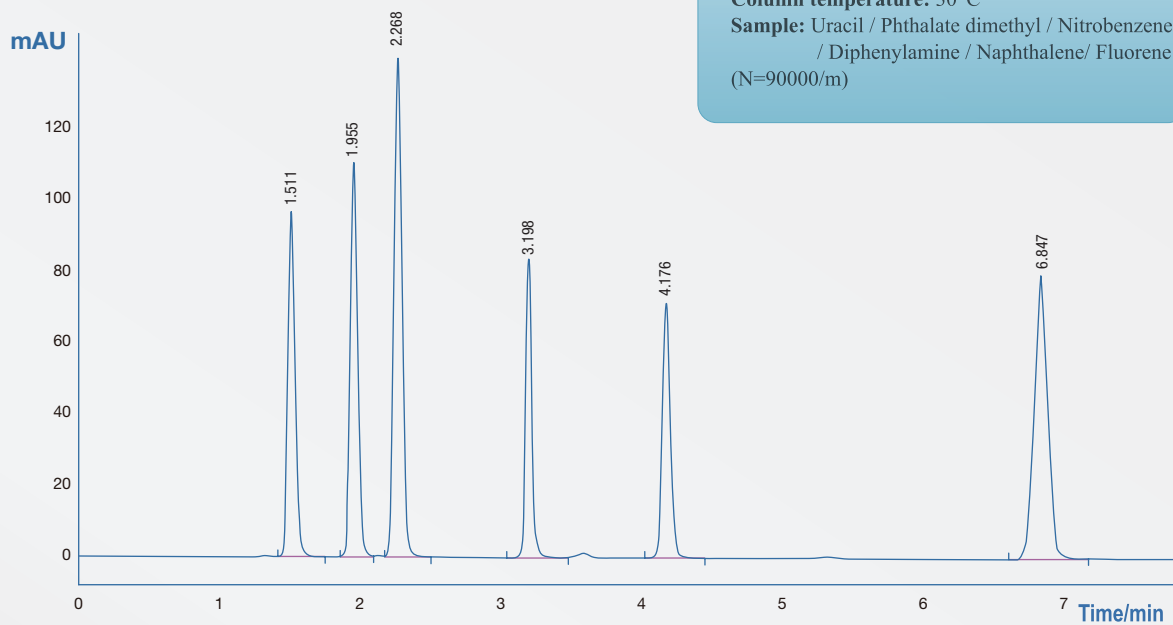


ACCHROM

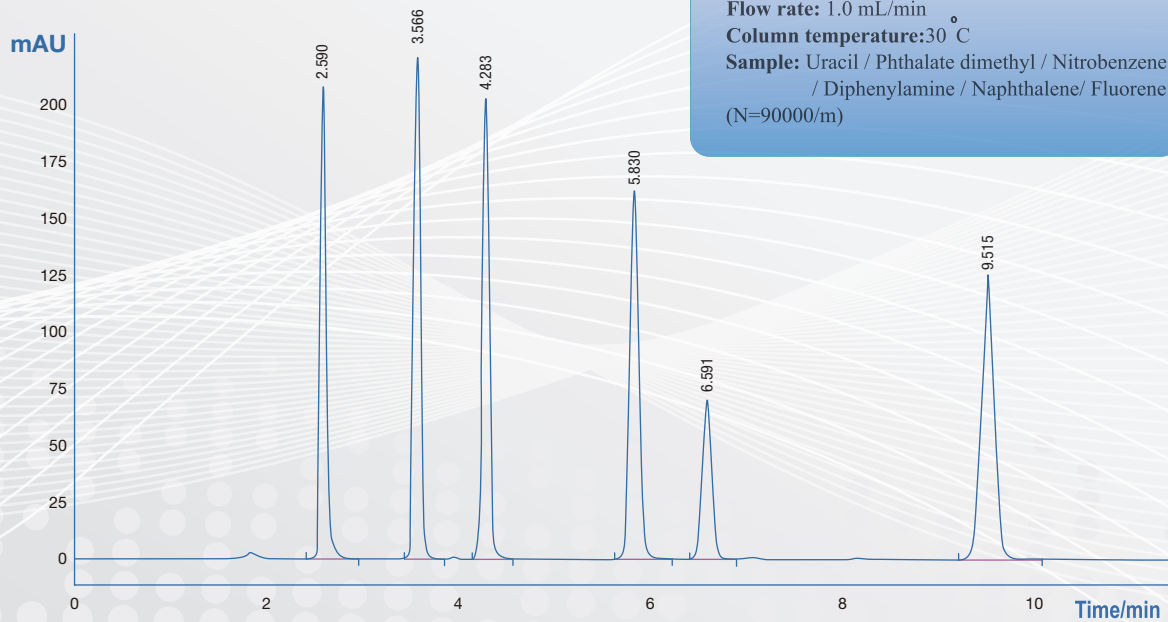
High Column Efficiency

Benefit from the unique surface bonding techniques under the strict process control, U series of HPLC columns provide high column efficiency, superior peak shape, excellent resolution.

Column: Unitary C18
Size: 150 mm×4.6 mm i.d., 5 μm
Mobile phase: A:methanol, B:water
A/B (85/15, v/v)
Flow rate: 1.0 mL/min
Column temperature: 30 °C
Sample: Uracil / Phthalate dimethyl / Nitrobenzene
/ Diphenylamine / Naphthalene/ Fluorene
(N=90000/m)



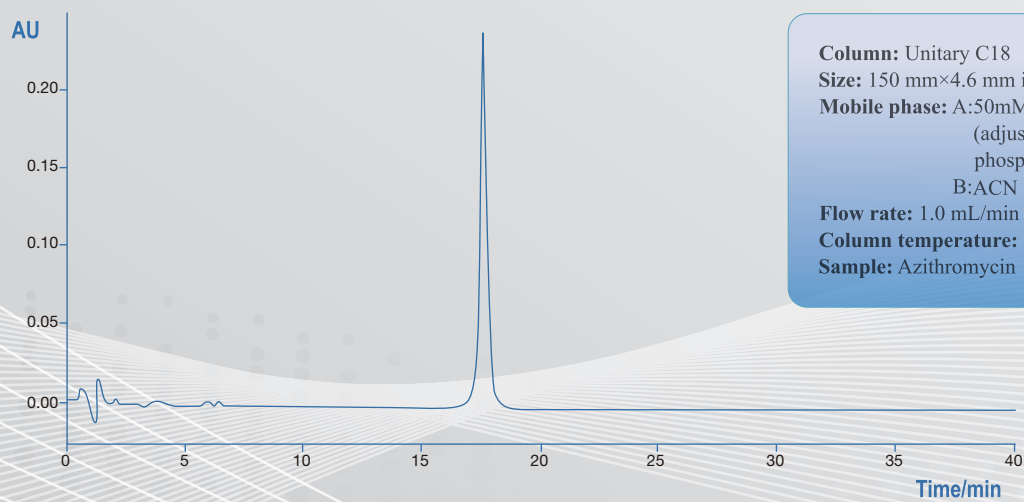
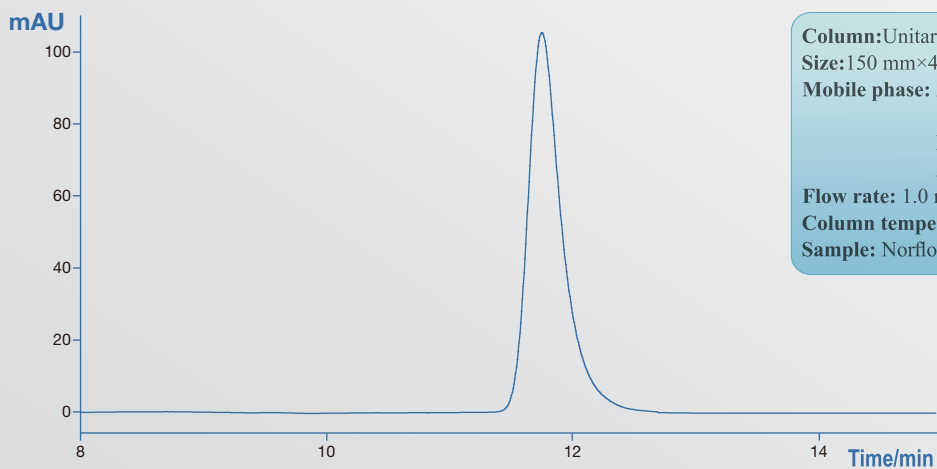
Column: Unitary C8
Size: 150 mm×4.6 mm i.d., 5 μm
Mobile phase: A:Methanol, B:Water
A/B (75/25, v/v)
Flow rate: 1.0 mL/min
Column temperature:30 °C
Sample: Uracil / Phthalate dimethyl / Nitrobenzene
/ Diphenylamine / Naphthalene/ Fluorene
(N=90000/m)



Universal Chromatography Retention Characteristics

U series of HPLC columns are the classical and universal bonding phase and their separation selectivity are similar to other commercial columns. Thus, it is feasible for users to employ in standard methods or transfer the developed methods using U series of HPLC columns.

U series of HPLC columns use the classical bonding and the unique dual end-capping techniques to weaken the surface activity of packings. So they could well provide effective separation with superior peak shapes, even in the separation of quinolone and macrolide antibiotics, which fully afford to the routine analysis and pharmacopoeia standards.



Order Info

Tel: 400-650-3365

C18

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	100Å	2.1mm x 50mm	11190310205
		2.1mm x 100mm	11190310210
		2.1mm x 150mm	11190310215
		3.0mm x 50mm	11190310305
		3.0mm x 100mm	11190310310
		3.0mm x 150mm	11190310315
		4.6mm x 100mm	11190310510
5µm	100Å	4.6mm x 150mm	11190510515
		4.6mm x 250mm	11190510525
		10.0mm x 150mm	11190511015
		10.0mm x 250mm	11190511025
10µm	100Å	4.6mm x 150mm	11191010515
		4.6mm x 250mm	11191010525
		10.0mm x 150mm	11191011015
		10.0mm x 250mm	11191011025
		20.0mm x 150mm	11191012015
		20.0mm x 250mm	11191012025

C8

Particle Size	Pore Size	Column Specification	Part Number
5µm	100Å	4.6mm x 150mm	11220510515
		4.6mm x 250mm	11220510525
		10.0mm x 150mm	11220511015
10µm	100Å	10.0mm x 250mm	11220511025
		4.6mm x 150mm	11221010515
		4.6mm x 250mm	11221010525
		10.0mm x 150mm	11221011015
		10.0mm x 250mm	11221011025
		20.0mm x 150mm	11221012015
		20.0mm x 250mm	11221012025

Silica

Particle Size	Pore Size	Column Specification	Part Number		
2.8µm	100Å	2.1mm x 50mm	11520310205		
		2.1mm x 100mm	11520310210		
		2.1mm x 150mm	11520310215		
		3.0mm x 50mm	11520310305		
		3.0mm x 100mm	11520310310		
		3.0mm x 150mm	11520310315		
4.6µm	100Å	4.6mm x 100mm	11520310510		
		4.6mm x 150mm	11520310515		
		4.6mm x 150mm	11520510515		
5µm	100Å	4.6mm x 250mm	11520510525		
		10.0mm x 150mm	11520511015		
		10.0mm x 250mm	11520511025		
		10µm	100Å	4.6mm x 150mm	11521010515
				4.6mm x 250mm	11521010525
				10.0mm x 150mm	11521011015
		10.0mm x 250mm	11521011025		
		20.0mm x 150mm	11521012015		
		20.0mm x 250mm	11521012025		

Diol

Particle Size	Pore Size	Column Specification	Part Number
5µm	100Å	4.6mm x 150mm	11300510515
		4.6mm x 250mm	11300510525
		10.0mm x 150mm	11300511015
10µm	100Å	10.0mm x 250mm	11300511025
		4.6mm x 150mm	11301010515
		4.6mm x 250mm	11301010525
		10.0mm x 150mm	11301011015
		10.0mm x 250mm	11301011025
		20.0mm x 150mm	11301012015
		20.0mm x 250mm	11301012025

Amino

Particle Size	Pore Size	Column Specification	Part Number
5µm	100Å	4.6mm x 150mm	11110510515
		4.6mm x 250mm	11110510525

S-Glycan

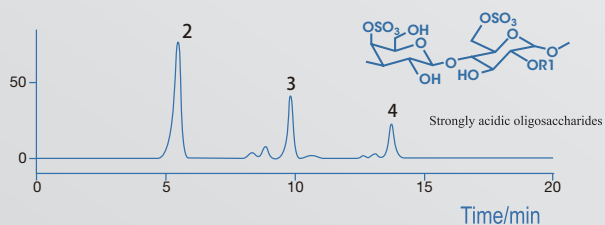
Unique Novel Separation Materials

In consideration of specific advantages of HILIC for separation of highly hydrophilic compounds, two kinds of HILIC stationary phase including amide-modified stationary phase (Click Amide) and maltose-bonded silica material (Click Mal) have been developed by Acchrom for the separation and purification of oligosaccharides with high resolution.

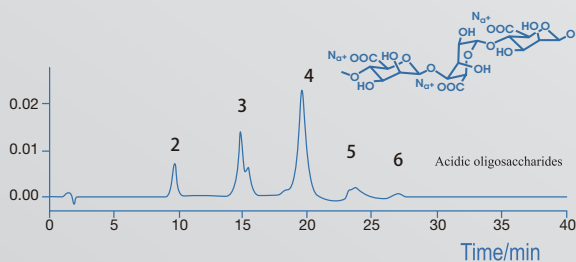
- High resolution: unique structure of bonded phase with excellent separation
- Wide applicable scope: suitable for most kinds of oligosaccharides
- Wide range of molecular weight: applicability for oligosaccharides of DP2-DP50
- Good affinity and selectivity: capability of effective enrichment for oligosaccharides and glycopeptides

Click Mal for separating variety of oligosaccharides

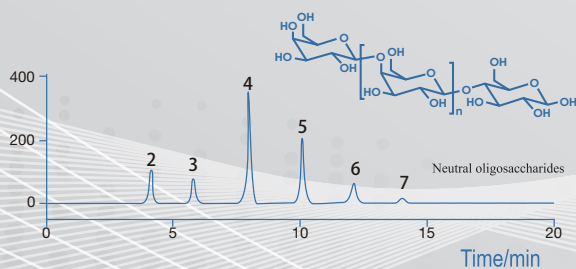
The first universal chromatographic column dedicated to separating of acidic, basic and neutral oligosaccharides. The separation of different types of oligosaccharides can be realized without change of columns.



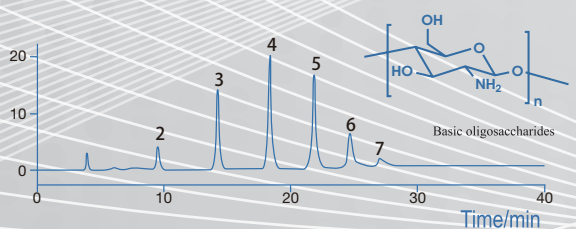
Column: Click Mal
Size: 150 mm×4.6 mm i.d., 5 μm
Mobile phase: A: 100 mM ammonium formate solution (pH 3.2)
B: Acetonitrile
Gradient: 0~20 min, 70%B~50% B
Flow rate: 1.0 mL/min
Column temperature: 30 °C



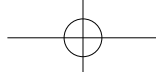
Column: Click Mal
Size: 150 mm×4.6 mm i.d., 5 μm
Mobile phase: A: 100 mM ammonium formate solution (pH 3.2)
B: Acetonitrile
Gradient: 0~30 min, 70%B~50% B
Flow rate: 1.0 mL/min
Column temperature: 30 °C



Column: Click Mal
Size: 150 mm×4.6 mm i.d., 5 μm
Mobile phase: A: Water; B: Acetonitrile
Gradient: 0~20 min, 70%B~60% B
Flow rate: 1.0 mL/min
Column temperature: 30 °C



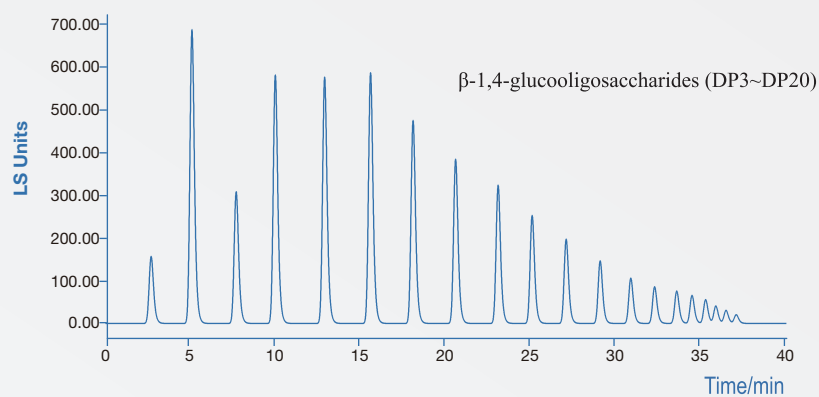
Column: Click Mal
Size: 150 mm×4.6 mm i.d., 5 μm
Mobile phase: A: 100 mM ammonium formate solution (pH 3.2)
B: Acetonitrile
Gradient: 0~30 min, 70%B~50% B
Flow rate: 1.0 mL/min
Column temperature: 30 °C



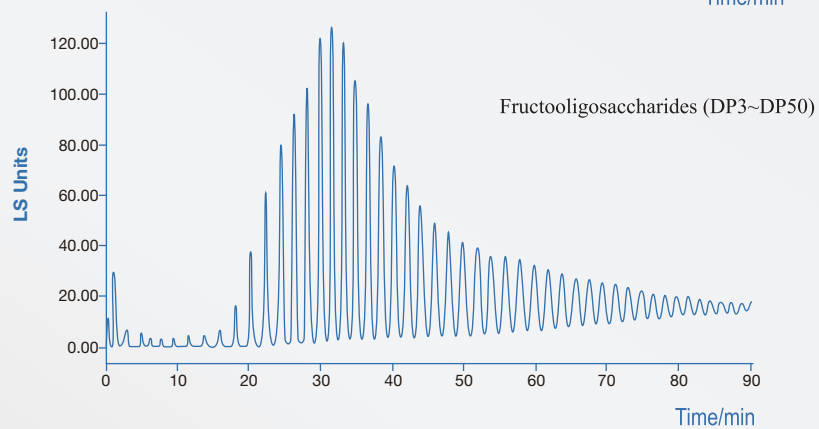
ACCHROM

◎ Click Mal column for the separation of oligosaccharides with high degree of polymerization (DP)

Applicable for oligosaccharides with wide range of DPs: oligosaccharides of DP2-DP50 can be well resolved.



Column: Click Mal
Size: 150 mm×4.6 mm i.d., 5 μ m
Mobile phase: A: Water; B: Acetonitrile
Gradient: 0~40 min, 70%B~50% B
Flow rate: 1.0 mL/min
Column temperature: 30 °C



Column: Click Mal
Size: 150 mm×4.6 mm i.d., 5 μ m
Mobile phase: A: Water; B: Acetonitrile
Gradient: 0~60 min, 70%B~50% B;
60~90 min, 50% B
Flow rate: 1.0 mL/min
Column temperature: 30 °C



S-Glycan

Order Info

Tel: 400-650-3365

Click Xlon

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	100Å	2.1mm x 50mm	12270310205
		2.1mm x 100mm	12270310210
		2.1mm x 150mm	12270310215
		3.0mm x 50mm	12270310305
		3.0mm x 100mm	12270310310
		3.0mm x 150mm	12270310315
		4.6mm x 100mm	12270310510
		4.6mm x 150mm	12270310515
200Å	200Å	2.1mm x 50mm	12270320205
		2.1mm x 100mm	12270320210
		2.1mm x 150mm	12270320215
		3.0mm x 50mm	12270320305
		3.0mm x 100mm	12270320310
		3.0mm x 150mm	12270320315
		4.6mm x 100mm	12270320510
		4.6mm x 150mm	12270320515
5µm	100Å	2.1mm x 150mm	12270510215
		3.0mm x 150mm	12270510315
		4.6mm x 150mm	12270510515
		10.0mm x 150mm	12270511015
200Å	200Å	2.1mm x 150mm	12270520215
		3.0mm x 150mm	12270520315
		4.6mm x 150mm	12270520515
		10.0mm x 150mm	12270521015

Click Amide

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	100Å	2.1mm x 50mm	12250310205
		2.1mm x 100mm	12250310210
		2.1mm x 150mm	12250310215
		3.0mm x 50mm	12250310305
		3.0mm x 100mm	12250310310
		3.0mm x 150mm	12250310315
		4.6mm x 100mm	12250310510
		4.6mm x 150mm	12250310515
200Å	200Å	2.1mm x 50mm	12250320205
		2.1mm x 100mm	12250320210
		2.1mm x 150mm	12250320215
		3.0mm x 50mm	12250320305
		3.0mm x 100mm	12250320310
		3.0mm x 150mm	12250320315
		4.6mm x 100mm	12250320510
		4.6mm x 150mm	12250320515
5µm	100Å	2.1mm x 150mm	12250510215
		3.0mm x 150mm	12250510315
		4.6mm x 150mm	12250510515
		10.0mm x 150mm	12250511015
200Å	200Å	2.1mm x 150mm	12250520215
		3.0mm x 150mm	12250520315
		4.6mm x 150mm	12250520515
		10.0mm x 150mm	12250521015



ACCHROM

Click Mal

Particle Size	Pore Size	Column Specification	Part Number
2.8 μ m	100Å	2.1mm x 50mm	12260310205
		2.1mm x 100mm	12260310210
		2.1mm x 150mm	12260310215
		3.0mm x 50mm	12260310305
		3.0mm x 100mm	12260310310
		3.0mm x 150mm	12260310315
		4.6mm x 100mm	12260310510
5 μ m	100Å	4.6mm x 150mm	12260310515
		2.1mm x 150mm	12260510215
		3.0mm x 150mm	12260510315
		4.6mm x 150mm	12260510515
		10.0mm x 150mm	12260511015



S-Peptide

- Sharp chromatographic peak and high resolution for LC/MS
- High orthogonality for resolving the complex separation problems
- Peptides clustering effect to achieve effective enrichment for protein and peptide
- Various kinds of separation materials to provide flexible selections

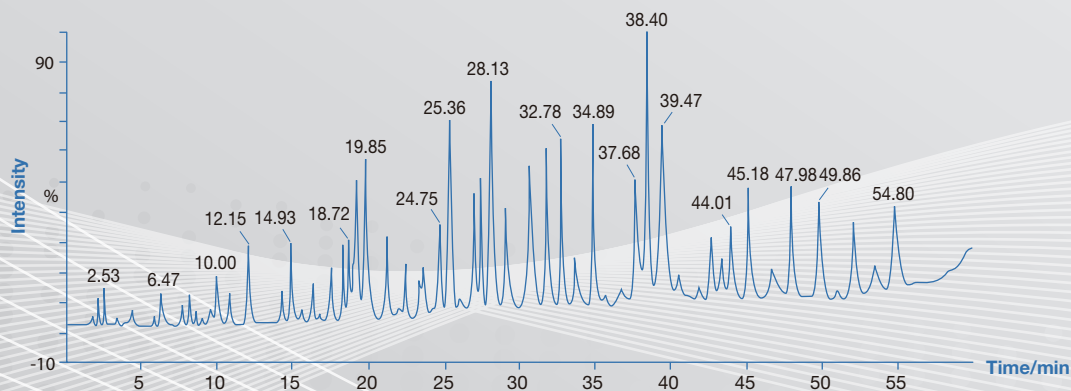
Bio-C18 Reverse-phase Chromatography Column

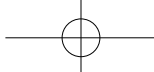
RPLC has been widely applied in peptides separation for a long time owing to its good selectivity, wide applicability, high repeatability and easy selection of mobile phase. Although most low molecular weight proteins and peptides can be separated in RPLC, RPLC technology is insufficient for the separation of peptides owing to the varieties of peptide chains, ionic property, hydrophobicity, complex sources and compositions.

Polar hydrophilic groups have been introduced in reversed-phase bonded silica based on the unique “polar-copolymerized approach” by Acchrom. It has the hydrophobicity selectivity of RPLC and the polar selectivity.

- Bio-C18 column presents sharp chromatographic peaks and high resolution for LC/MS analysis.

Column: Bio-C18, 150 mm×2.1 mm i.d., 5µm
Mobile phase: A: Acetonitrile (containing 0.1%TFA)
B: Water (containing 0.1%TFA)
Gradient: 0~60 min, 5%A~50%A
Flow rate: 0.2mL/min
Column temperature: 30 °C
Sample: BSA trypsin solution

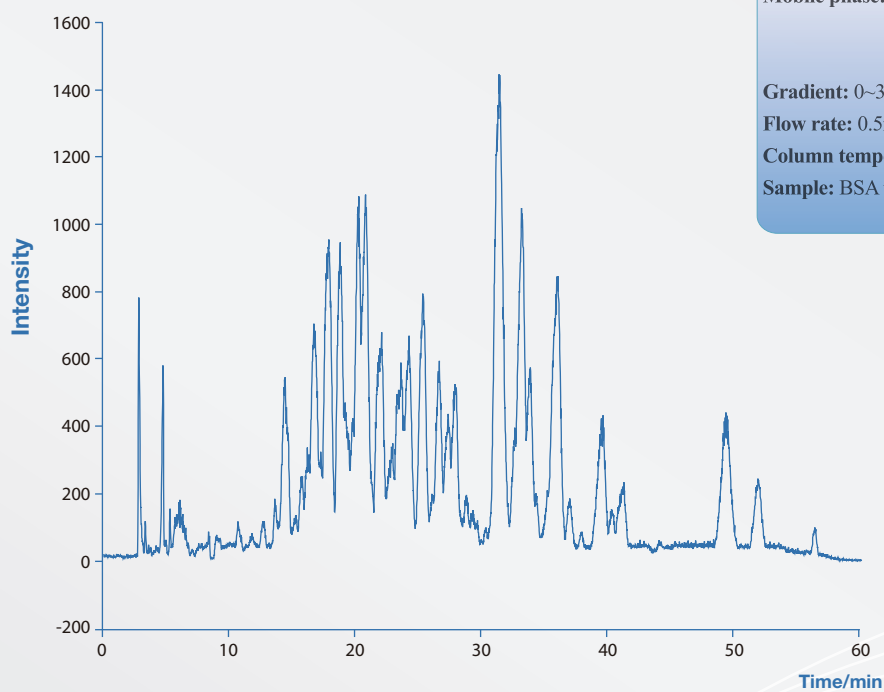




ACCHROM

Series of HILIC mode columns

HILIC, as a supplement to RPLC, has been generally applied in peptides separation in recent years. HILIC has good orthogonality with RPLC due to their distinct separation mechanism. Acchrom Technologies Corp. has developed a series of silica gel-based with the functions of zwitterion (Bio-Amphion) and amide (Bio-Amide). These materials can be applied in the separation and purification with high resolution of peptides, which can provide technology basis for the quality control and purification of peptide pharmaceuticals



Column: Bio-Amide, 150 mm×4.6 mm i.d., 5 μm
Mobile phase: A: 10 mM ammonium formate solution (pH 3.2)/Acetonitrile (20/80,v/v)
B: 10 mM ammonium formate solution (pH 3.2)
Gradient: 0~30 min, 100%A~85%A
Flow rate: 0.5mL/min
Column temperature: 30 °C
Sample: BSA trypsin solution (trypticphosphorylase B digests)



www.acchrom.com

S-Peptide

'Bio' Series of Mixed-Mode Columns

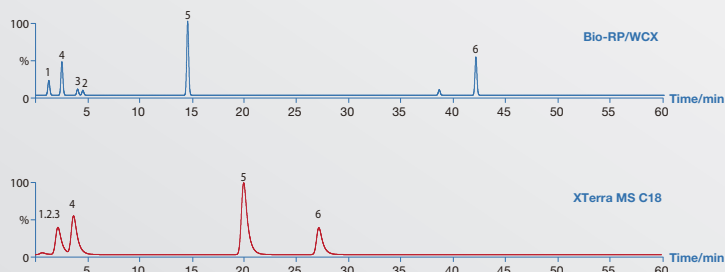
The effective separation of protein and peptides cannot be realized by sole RPLC mode, especially for complex protein and peptides samples. In comparison, mixed-mode chromatography has higher separation selectivity owing to its two or more separation mechanisms.

Acchrom has developed a series of mixed-mode columns for protein and peptides separation, which combines RPLC mode and ion-exchange mode onto one material. Then ion-exchange and polar groups introduced allows better selectivity for various properties of peptides and proteins separation relative to conventional C18 stationary phase.

Better Selectivity and Peak Shapes

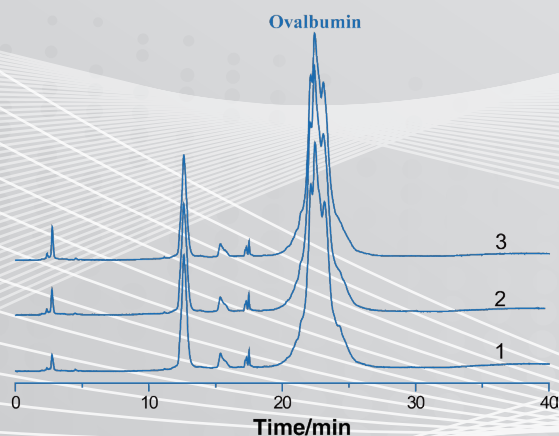
Ion-exchange and polar groups introduced onto Bio-RP/WCX allows better selectivity than conventional C18 column

Column: Bio-RP/WCX, XTerra MS C18
Size: 150 mm × 2.1 mm i.d., 5 μm
Mobile phase: A: 20 mM ammonium formate solution (pH 6.5)
B: Acetonitrile
Gradient: 0~50 min, 5%~34%A
Flow rate: 0.2 mL/min
Column temperature: 30 °C
Sample: 1: Glu - Glu;
2: Lys - Gly;
3: Gly - Gly - His;
4: Leu - Gly - Gly;
5: Phe - Gly - Gly - Phe;
6: Arg - Val - Tyr - Ile - His - Pro - Phe

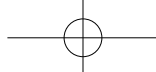


Good Stability

Bio-C8 column demonstrates excellent resolution and repeatability of glyco-peptides separation. This column is employed in separation and purification of ovalbumin and it is favorable for structure identification of protein isoforms.



Column: Bio-C8, 150 mm×4.6 mm i.d., 5 μm
Mobile phase: A: Water(containing 0.1% TFA)
B: Acetonitrile(containing 0.08%TFA)
Gradient: 0~5 min, 10%B
5~15 min, 10%~45%B
15~30 min, 45%~55%B
30~45 min, 55%~80%B
Flow rate: 1 mL/min
Column temperature: 30 °C
UV: 280 nm
Sample: Commercial ovalbumin (Grade V), 50 μg/mL
Injection volume: 100 μL



ACCHROM

Order Info

Tel: 400-650-3365

Bio-C8

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	100Å	2.1mm x 50mm	15220310205
		2.1mm x 100mm	15220310210
		2.1mm x 150mm	15220310215
		3.0mm x 50mm	15220310305
		3.0mm x 100mm	15220310310
		3.0mm x 150mm	15220310315
5µm	100Å	4.6mm x 100mm	15220310510
		4.6mm x 150mm	15220310515
		2.1mm x 150mm	15220510215
		3.0mm x 150mm	15220510315
		4.6mm x 150mm	15220510515
		10.0mm x 150mm	15220511015

Bio-C18

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	100Å	2.1mm x 50mm	15190310205
		2.1mm x 100mm	15190310210
		2.1mm x 150mm	15190310215
		3.0mm x 50mm	15190310305
		3.0mm x 100mm	15190310310
		3.0mm x 150mm	15190310315
5µm	100Å	4.6mm x 100mm	15190310510
		4.6mm x 150mm	15190310515
		2.1mm x 150mm	15190510215
		3.0mm x 150mm	15190510315
		4.6mm x 150mm	15190510515
		10.0mm x 150mm	15190511015
5µm	200Å	2.1mm x 150mm	15190520215
		3.0mm x 150mm	15190520315
		4.6mm x 150mm	15190520515
		10.0mm x 150mm	15190521015

Bio-C8

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	200Å	2.1mm x 50mm	15220320205
		2.1mm x 100mm	15220320210
		2.1mm x 150mm	15220320215
		3.0mm x 50mm	15220320305
		3.0mm x 100mm	15220320310
		3.0mm x 150mm	15220320315
5µm	200Å	4.6mm x 100mm	15220320510
		4.6mm x 150mm	15220320515
		2.1mm x 150mm	15220520215
		3.0mm x 150mm	15220520315
		4.6mm x 150mm	15220520515
		10.0mm x 150mm	15220521015

Bio-C8

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	300Å	2.1mm x 50mm	15220330205
		2.1mm x 100mm	15220330210
		2.1mm x 150mm	15220330215
		3.0mm x 50mm	15220330305
		3.0mm x 100mm	15220330310
		3.0mm x 150mm	15220330315
5µm	300Å	4.6mm x 100mm	15220330510
		4.6mm x 150mm	15220330515
		2.1mm x 150mm	15220530215
		3.0mm x 150mm	15220530315
		4.6mm x 150mm	15220530515
		10.0mm x 150mm	15220531015

S-Peptide

Order Info

Tel:400-650-3365

Bio-C4

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	300Å	2.1mm x 50mm	15210330205
		2.1mm x 100mm	15210330210
		2.1mm x 150mm	15210330215
		3.0mm x 50mm	15210330305
		3.0mm x 100mm	15210330310
		3.0mm x 150mm	15210330315
		4.6mm x 100mm	15210330510
		4.6mm x 150mm	15210330515
5µm	300Å	2.1mm x 150mm	15210530215
		3.0mm x 150mm	15210530315
		4.6mm x 150mm	15210530515
		10.0mm x 150mm	15210531015

Bio-RP/WAX

Particle Size	Pore Size	Column Specification	Part Number		
2.8µm	100Å	2.1mm x 50mm	15380310205		
		2.1mm x 100mm	15380310210		
		2.1mm x 150mm	15380310215		
		3.0mm x 50mm	15380310305		
		3.0mm x 100mm	15380310310		
		3.0mm x 150mm	15380310315		
		4.6mm x 100mm	15380310510		
		4.6mm x 150mm	15380310515		
5µm	100Å	2.1mm x 150mm	15380510215		
		3.0mm x 150mm	15380510315		
		4.6mm x 150mm	15380510515		
		10.0mm x 150mm	15380511015		
		5µm	200Å	2.1mm x 150mm	15380520215
				3.0mm x 150mm	15380520315
		4.6mm x 150mm	15380520515		
		10.0mm x 150mm	15380521015		

Bio-RP/WCX

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	100Å	2.1mm x 50mm	15390310205
		2.1mm x 100mm	15390310210
		2.1mm x 150mm	15390310215
		3.0mm x 50mm	15390310305
		3.0mm x 100mm	15390310310
		3.0mm x 150mm	15390310315
		4.6mm x 100mm	15390310510
		4.6mm x 150mm	15390310515
5µm	100Å	2.1mm x 150mm	15390510215
		3.0mm x 150mm	15390510315
		4.6mm x 150mm	15390510515
		10.0mm x 150mm	15390511015

Bio-RP/WCX

Particle Size	Pore Size	Column Specification	Part Number
5µm	200Å	2.1mm x 150mm	15390520215
		3.0mm x 150mm	15390520315
		4.6mm x 150mm	15390520515
		10.0mm x 150mm	15390521015



ACCHROM

Bio-Amide

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	100Å	2.1mm x 50mm	15170310205
		2.1mm x 100mm	15170310210
		2.1mm x 150mm	15170310215
		3.0mm x 50mm	15170310305
		3.0mm x 100mm	15170310310
		3.0mm x 150mm	15170310315
		4.6mm x 100mm	15170310510
5µm	100Å	2.1mm x 150mm	15170510215
		3.0mm x 150mm	15170510315
		4.6mm x 150mm	15170510515
		10.0mm x 150mm	15170511015

Bio-Amphion

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	100Å	2.1mm x 50mm	15120310205
		2.1mm x 100mm	15120310210
		2.1mm x 150mm	15120310215
		3.0mm x 50mm	15120310305
		3.0mm x 100mm	15120310310
		3.0mm x 150mm	15120310315
		4.6mm x 100mm	15120310510
5µm	100Å	2.1mm x 150mm	15120510215
		3.0mm x 150mm	15120510315
		4.6mm x 150mm	15120510515
		10.0mm x 150mm	15120511015

Bio-Amide

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	200Å	2.1mm x 50mm	15170320205
		2.1mm x 100mm	15170320210
		2.1mm x 150mm	15170320215
		3.0mm x 50mm	15170320305
		3.0mm x 100mm	15170320310
		3.0mm x 150mm	15170320315
		4.6mm x 100mm	15170320510
5µm	200Å	2.1mm x 150mm	15170520215
		3.0mm x 150mm	15170520315
		4.6mm x 150mm	15170520515
		10.0mm x 150mm	15170521015

Bio-Amphion

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	200Å	2.1mm x 50mm	15120320205
		2.1mm x 100mm	15120320210
		2.1mm x 150mm	15120320215
		3.0mm x 50mm	15120320305
		3.0mm x 100mm	15120320310
		3.0mm x 150mm	15120320315
		4.6mm x 100mm	15120320510
5µm	200Å	2.1mm x 150mm	15120520215
		3.0mm x 150mm	15120520315
		4.6mm x 150mm	15120520515
		10.0mm x 150mm	15120521015

S-Alkaloid

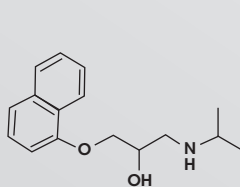
Innovative and Comprehensive Service for the Separation Analysis of Alkaloids

Based on the advantage and experience of separation materials and technology, Acchrom has developed various chromatographic materials with diverse separation modes. Besides different types of separation materials, solves of preparative purification for given samples are also provided.

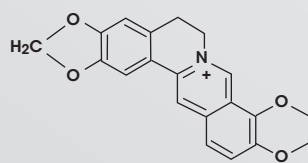
- Perfect peak shape in low pH without salt and ion pair
- High loading capacity
- High compatibility with pure aqueous phase
- Good retention for polar compounds

Superior Peak Shape and High Loading Capability for Basic Compounds

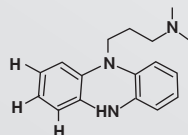
S-Alkaloids PCP-C18 columns are designed for alkaloids to obtain superior peak shapes and high separation efficiency with common mobile phase of acetonitrile/water.



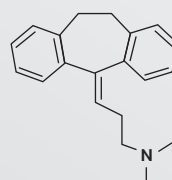
Propranolol



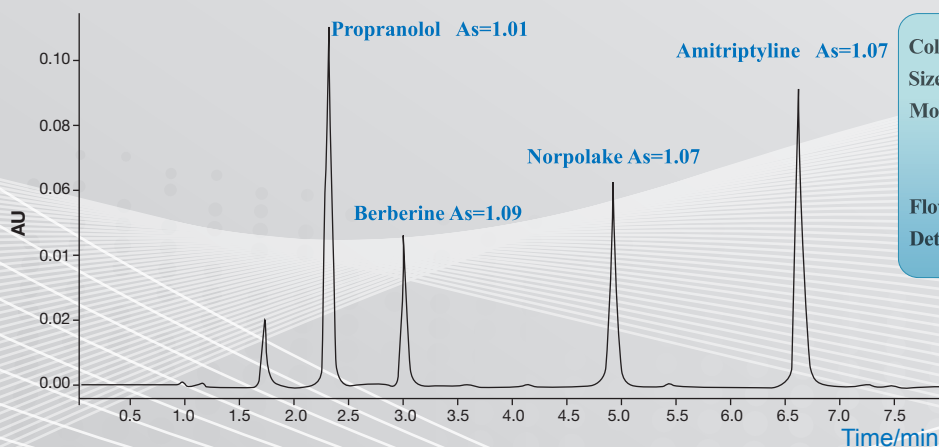
Berberine



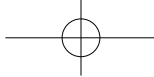
Norpolake



Amitriptyline



Column: S-Alkaloid PCP-C18
Size: 150 mm x 4.6 mm i.d., 5 μ m
Mobile phase: A: Acetonitrile (containing 0.1%FA)
B: Water (containing 0.1%FA)
A/B(20/80, v/v)
Flow rate: 1 mL/min
Detection: 260 nm

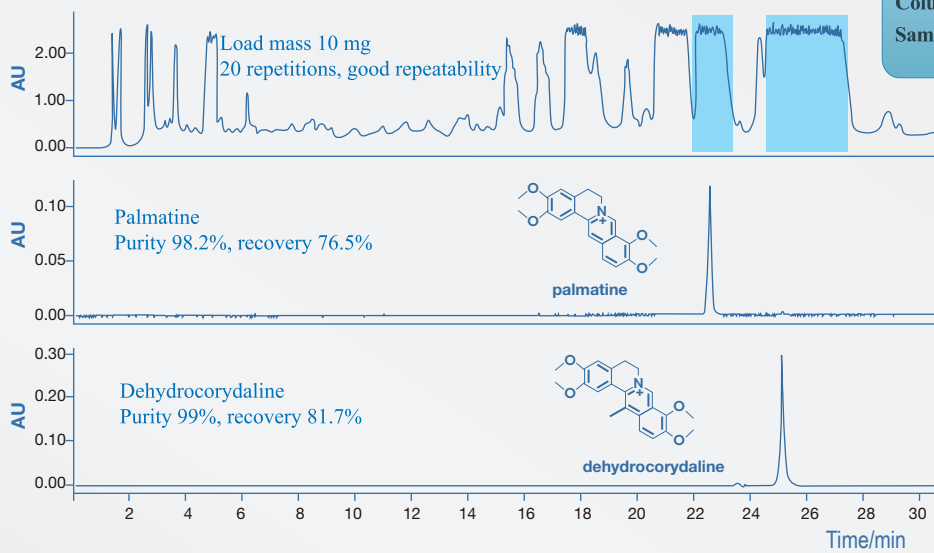


ACCHROM

Easy to Realize Preparation on Analytical Columns

Milligram level of alkaloid sample preparation can be realized on the analytical column leading to favorable application for scale-up purification of alkaloids.

Column: S-Alkaloid PCP-C18
Size: 150 mm×4.6 mm i.d., 5 μm
Mobile phase: A: Acetonitrile(containing 0.1%FA)
B: Water(containing 0.1%FA)
Gradient: 0~30 min, 0~20%A
Flow rate: 1 mL/min
Column temperature: 30 °C
Sample: Alkaloids from *Corydalis yanhusuo*



S-Alkaloid

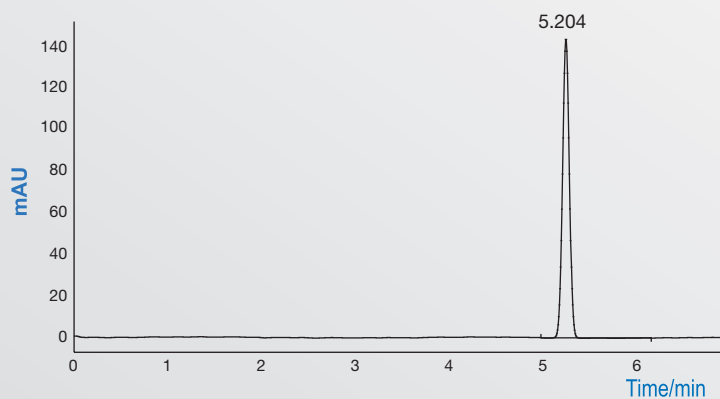
Different Materials, Various Choice

- Superior peak shape
- High loading capacity for the purification demand
- Applicable to most basic compounds, including high polar alkaloids
- Diverse selection to reversed phase column

◎ High efficiency

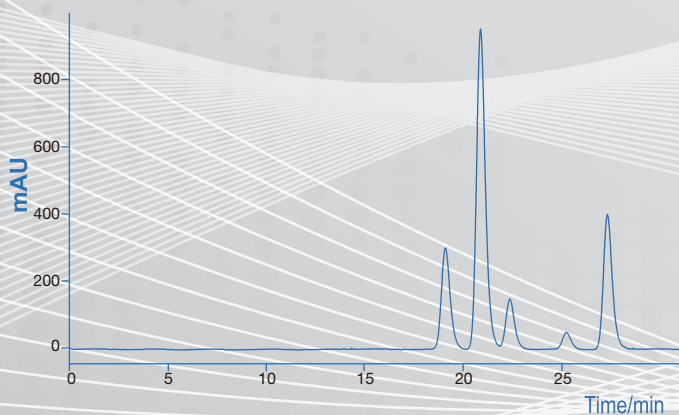
S-Alkaloid PCP-SCX columns provide similar efficiency to reversed phase columns.

Column: S-Alkaloid PCP-SCX
Size: 250 mm×4.6 mm i.d., 5 μm
Mobile phase: 50 mM KH₂PO₄ (pH=3.0)
/ Acetonitrile (70/30, v/v)
Flow rate: 1 mL/min
Column temperature: 30 °C
Sample: Melamine
(N=74000/m)



◎ Special selectivity

Some structure similar compounds which have similar hydrophobic interaction are difficult to separate on reversed phase column. S-Alkaloid PCP-SCX is an alternative to reversed column. It can be used to separate compounds with similar structures, especially for their purification.



Column: S-Alkaloid PCP-SCX
Size: 150 mm×10 mm i.d., 5 μm
Mobile phase: A:50 mM NaClO₄ (containing
25 mM NaH₂PO₄, pH=2.5),
B: Acetonitrile
A/B (50/ 50, v/v)
Flow rate: 3.5 mL/min
Column temperature: 30 °C
Sample: Extractive of Coptischinensis



Order Info

Tel: 400-650-3365

PCP C18

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	100Å	2.1mm x 50mm	13190310205
		2.1mm x 100mm	13190310210
		2.1mm x 150mm	13190310215
		3.0mm x 50mm	13190310305
		3.0mm x 100mm	13190310310
		3.0mm x 150mm	13190310315
		4.6mm x 100mm	13190310510
		4.6mm x 150mm	13190310515
5µm	100Å	2.1mm x 150mm	13190510215
		3.0mm x 150mm	13190510315
		4.6mm x 150mm	13190510515
		10.0mm x 150mm	13190511015

PCP WCX

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	100Å	2.1mm x 50mm	13550310205
		2.1mm x 100mm	13550310210
		2.1mm x 150mm	13550310215
		3.0mm x 50mm	13550310305
		3.0mm x 100mm	13550310310
		3.0mm x 150mm	13550310315
		4.6mm x 100mm	13550310510
		4.6mm x 150mm	13550310515
5µm	100Å	2.1mm x 150mm	13550510215
		3.0mm x 150mm	13550510315
		4.6mm x 150mm	13550510515
		10.0mm x 150mm	13550511015

PCP SCX

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	100Å	2.1mm x 50mm	13510310205
		2.1mm x 100mm	13510310210
		2.1mm x 150mm	13510310215
		3.0mm x 50mm	13510310305
		3.0mm x 100mm	13510310310
		3.0mm x 150mm	13510310315
		4.6mm x 100mm	13510310510
		4.6mm x 150mm	13510310515
5µm	100Å	2.1mm x 150mm	13510510215
		3.0mm x 150mm	13510510315
		4.6mm x 150mm	13510510515
		10.0mm x 150mm	13510511015

XAmide

Best Choice for Separation Compounds with High Polarity

Industry leader for separation of polar compounds

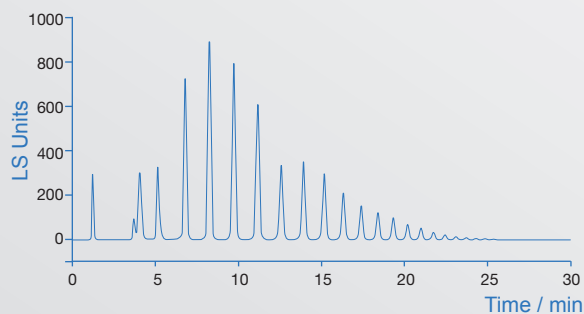
Effective Retention of Highly Polar Compounds

The unique structure of neutral amide bonded phase in XAmide columns brings improved hydrophilicity and eliminates the acidity and heterogeneity of the silanol group on the surface of underivatized silica. Highly polar compounds which are poorly retained on RPLC column have good retention on XAmide columns with common mobile phase of acetonitrile/ water or aqueous buffer.

Chromatographic conditions

XAmide column, 150 mm×4.6 mm i.d., 5 μm

- **Mobile phase:** A: Acetonitrile, B: Water
- **Gradient:** 0~30 min, 25% B~60% B
- **Flow rate:** 1.0 mL/min
- **Column temperature:** 30 °C
- **Sample:** Fructo-oligosaccharides



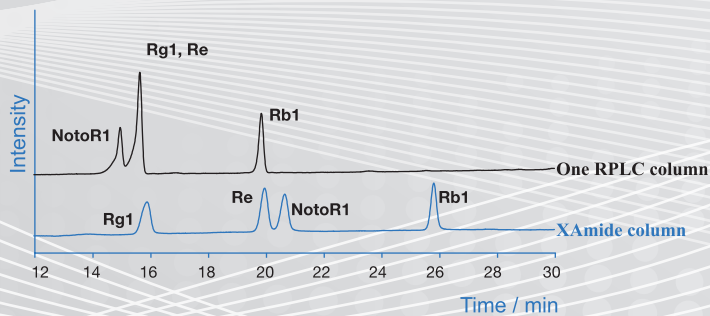
Complementary Selectivity

The separation mechanism of highly polar compounds on XAmide columns is primarily dependent on partitioning interactions, hydrogen interactions and electrostatic interactions. Thus XAmide has good orthogonality to RPLC, which makes it suitable for constructing 2-D hyphenated systems to improve the separation of complex samples.

Chromatographic conditions

XAmide column, 150 mm×4.6 mm i.d., 5 μm

- **Mobile phase:** A: Water, B: Acetonitrile
- **Gradient:** 0~60 min, 5% A~40% A
- **Flow rate:** 1.0 mL/min
- **Column temperature:** 30 °C
- **Sample:** Saponin standards



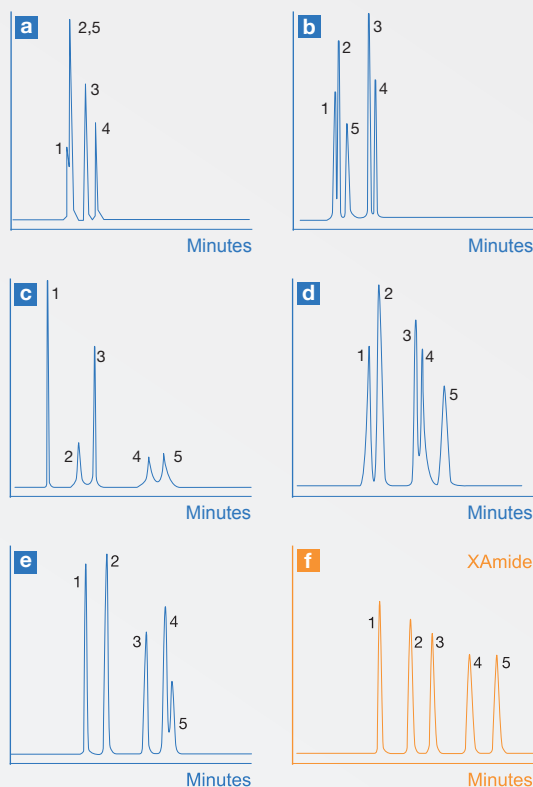
Wide Application

XAmide column overcomes the electrostatic interaction when amine and bare silica columns are used. XAmide column is applicable to variety of polar compounds, and improved peak shape and good resolution can be obtained for the separation of acidic, basic and neutral compounds.

Chromatographic conditions

a-e: HILIC columns manufactured by foreign company,
f: XAmide column, 150 mm × 4.6 mm i.d., 5 μm

- **Mobile phase:** A: Acetonitrile, B: 100 mM ammonium formate (pH 3.2) A/B (85/15,v/v)
- **Flow rate:** 1.0 mL/min
- **Column temperature:** 30 °C
- **Sample:** 1 Uracil, 2 Uridine, 3 Cytosine, 4 Cytidine, 5 Oroticacid



Order Info

Tel: 400-650-3365

XAmide

Particle Size	Pore Size	Column Specification	Part Number
2.8μm	100Å	2.1mm x 50mm	19170310205
		2.1mm x 100mm	19170310210
		2.1mm x 150mm	19170310215
		3.0mm x 50mm	19170310305
		3.0mm x 100mm	19170310310
		3.0mm x 150mm	19170310315
		4.6mm x 100mm	19170310510
		4.6mm x 150mm	19170310515

XAmide

Particle Size	Pore Size	Column Specification	Part Number
5μm	100Å	2.1mm x 50mm	19170510205
		2.1mm x 100mm	19170510210
		2.1mm x 150mm	19170510215
		3.0mm x 50mm	19170510305
		3.0mm x 100mm	19170510310
		3.0mm x 150mm	19170510315
		4.6mm x 150mm	19170510515
		4.6mm x 250mm	19170510525
		10.0mm x 150mm	19170511015
		10.0mm x 250mm	19170511025
10μm	100Å	4.6mm x 150mm	19171010515
		4.6mm x 250mm	19171010525
		10.0mm x 150mm	19171011015
		10.0mm x 250mm	19171011025
		20.0mm x 150mm	19171012015
		20.0mm x 250mm	19171012025

Electrostatic Adjusting Technology

Perfect Balance and Independent Control in Hydrophobicity/Static Electricity

Sharp & Symmetric Peak Shape

A huge challenge for the separation of alkaloids is to avoid the ionic interactions between silanol groups and ionized alkaloids.

Based on our unique "polar-copolymerized" preparation technology, XCharge columns successfully realize the perfect balance between the shield of the active silanol groups and the adjustable of ionic interactions, which is capable to ensure to obtain perfect peak shape and high resolution for basic compounds.

High Loading Capacity for Basic Compounds

The separation efficiency of basic compounds usually decreases sharply as the injection amount increases, which makes it difficult for their effective separation and purification.

XCharge columns have successfully addressed such problem and high resolution and symmetrical peak shapes for basic compounds can be obtained for the large injection amount. It will be helpful to the separation and purification of impurity analysis for basic medicines.

Chromatographic conditions

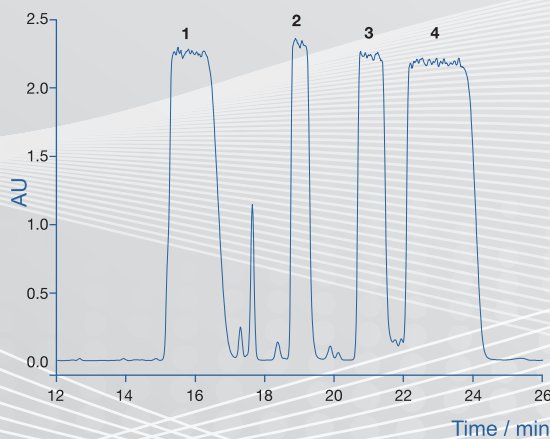
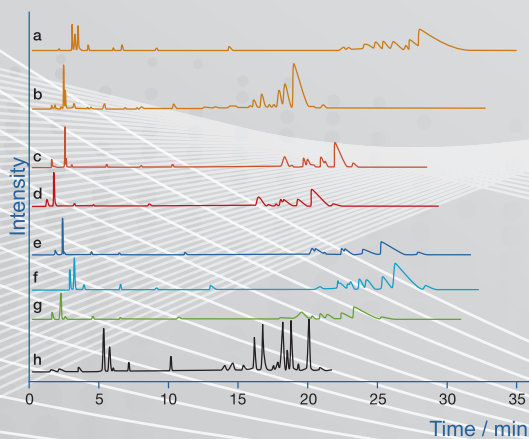
a-g: C18 columns from abroad, h: XCharge C18 column
150 mm x 4.6 mm i.d., 5 μ m

- **Mobile phase:** A: Acetonitrile (containing 0.1%FA)
B: Water (containing 0.1%FA)
- **Gradient:** 0~30 min, 5%~30%A
- **Flow rate:** 1 mL/min
- **Column temperature:** 30 °C
- **Sample:** alkaloids obtained from *Corydalis yanhusuo*

Chromatographic conditions

XCharge C18, 150 mm x 4.6 mm i.d., 5 μ m

- **Mobile phase:** A: Acetonitrile B: Water (containing 0.1%FA)
- **Gradient:** 0~30 min, 0~30%A
- **Flow rate:** 1 mL/min
- **Column temperature:** 30 °C
- **Sample:** 1. Propranolol (2 mg); 2. Berberine (0.125 mg);
3. Norpolake (0.5 mg); 4. Amitriptyline (2 mg)



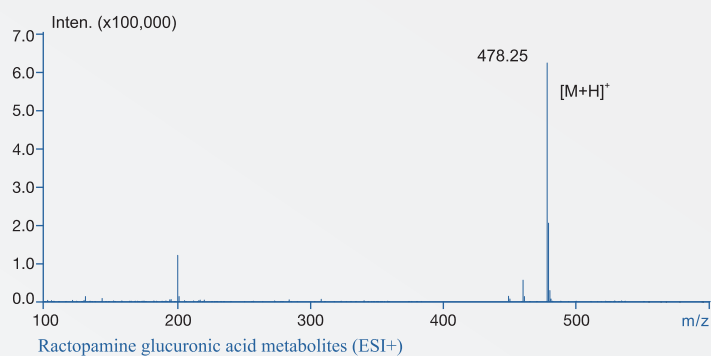
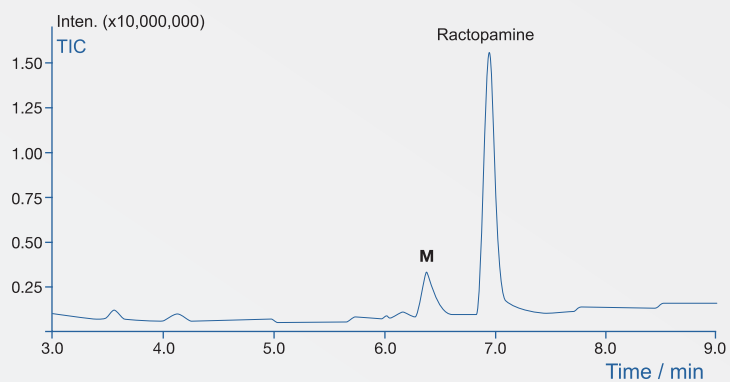
MS Compatibility

For the separation of basic compounds, high ionic strength of mobile phase is always needed to improve their peak shapes. However, this is incompatible with LC/MS or reduces the sensitivity of LC/MS. XCharge columns have addressed the effective separation of basic compounds by using mobile phase with low ionic strength. This ensures good compatibility and high sensitivity when coupling LC with MS.

Chromatographic conditions

XCharge C18 column 150 mm X 4.6 mm i.d. , 5 μ m

- **Mobile phase:** A: Acetonitrile (containing 0.1%FA)
B: Water (containing 0.1%FA)
- **Gradient:** 0~8 min, 0~15%A
- **Flow rate:** 1 mL/min
- **Column temperature:** 30 °C
- **Sample:** Ractopamine metabolism sample



XCharge

Order Info

Tel: 400-650-3365

XCharge C18

Particle Size	Pore Size	Column Specification	Part Number
2.8 μ m	100Å	2.1mm x 50mm	18190310205
		2.1mm x 100mm	18190310210
		2.1mm x 150mm	18190310215
		3.0mm x 50mm	18190310305
		3.0mm x 100mm	18190310310
		3.0mm x 150mm	18190310315
		4.6mm x 100mm	18190310510
		4.6mm x 150mm	18190310515
		5 μ m	100Å
2.1mm x 100mm	18190510210		
2.1mm x 150mm	18190510215		
3.0mm x 50mm	18190510305		
3.0mm x 100mm	18190510310		
3.0mm x 150mm	18190510315		
4.6mm x 150mm	18190510515		
4.6mm x 250mm	18190510525		
10.0mm x 150mm	18190511015		
10.0mm x 250mm	18190511025		
10 μ m	100Å	4.6mm x 150mm	18191010515
		4.6mm x 250mm	18191010525
		10.0mm x 150mm	18191011015
		10.0mm x 250mm	18191011025
		20.0mm x 150mm	18191012015
20.0mm x 250mm	18191012025		



Order Info

Tel: 400-650-3365

XCharge SAX

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	100Å	2.1mm x 50mm	18500310205
		2.1mm x 100mm	18500310210
		2.1mm x 150mm	18500310215
		3.0mm x 50mm	18500310305
		3.0mm x 100mm	18500310310
		3.0mm x 150mm	18500310315
		4.6mm x 100mm	18500310510
		4.6mm x 150mm	18500310515
5µm	100Å	2.1mm x 50mm	18500510205
		2.1mm x 100mm	18500510210
		2.1mm x 150mm	18500510215
		3.0mm x 50mm	18500510305
		3.0mm x 100mm	18500510310
		3.0mm x 150mm	18500510315
		4.6mm x 150mm	18500510515
		4.6mm x 250mm	18500510525
		10.0mm x 150mm	18500511015
		10.0mm x 250mm	18500511025

XCharge SCX

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	100Å	2.1mm x 50mm	18510310205
		2.1mm x 100mm	18510310210
		2.1mm x 150mm	18510310215
		3.0mm x 50mm	18510310305
		3.0mm x 100mm	18510310310
		3.0mm x 150mm	18510310315
		4.6mm x 100mm	18510310510
		4.6mm x 150mm	18510310515
5µm	100Å	2.1mm x 50mm	18510510205
		2.1mm x 100mm	18510510210
		2.1mm x 150mm	18510510215
		3.0mm x 50mm	18510510305
		3.0mm x 100mm	18510510310
		3.0mm x 150mm	18510510315
		4.6mm x 150mm	18510510515
		4.6mm x 250mm	18510510525
		10.0mm x 150mm	18510511015
		10.0mm x 250mm	18510511025

XCharge WAX

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	100Å	2.1mm x 50mm	18530310205
		2.1mm x 100mm	18530310210
		2.1mm x 150mm	18530310215
		3.0mm x 50mm	18530310305
		3.0mm x 100mm	18530310310
		3.0mm x 150mm	18530310315
		4.6mm x 100mm	18530310510
		4.6mm x 150mm	18530310515
5µm	100Å	2.1mm x 50mm	18530510205
		2.1mm x 100mm	18530510210
		2.1mm x 150mm	18530510215
		3.0mm x 50mm	18530510305
		3.0mm x 100mm	18530510310
		3.0mm x 150mm	18530510315
		4.6mm x 150mm	18530510515
		4.6mm x 250mm	18530510525
		10.0mm x 150mm	18530511015
		10.0mm x 250mm	18530511025

XCharge WCX

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	100Å	2.1mm x 50mm	18550310205
		2.1mm x 100mm	18550310210
		2.1mm x 150mm	18550310215
		3.0mm x 50mm	18550310305
		3.0mm x 100mm	18550310310
		3.0mm x 150mm	18550310315
		4.6mm x 100mm	18550310510
		4.6mm x 150mm	18550310515
5µm	100Å	2.1mm x 50mm	18550510205
		2.1mm x 100mm	18550510210
		2.1mm x 150mm	18550510215
		3.0mm x 50mm	18550510305
		3.0mm x 100mm	18550510310
		3.0mm x 150mm	18550510315
		4.6mm x 150mm	18550510515
		4.6mm x 250mm	18550510525
		10.0mm x 150mm	18550511015
		10.0mm x 250mm	18550511025

Unique Polar Bonding Technology

Perfect Balance and Independent Control in Hydrophobicity /Hydrophilicity
The Leader of Polar Modified RPLC Column

Excellent Stability in Pure Aqueous Phase

To improve the retention of strong polar compounds on typical RPLC column, the common practice is to increase the proportion of water in mobile phase. But under the condition of almost 100% aqueous in mobile phase, the retention of analytes may be reduced or lost completely, which is the typical phenomenon of "Hydrophobic collapse". However, the XAqua columns could provide excellent compatibility with 100% aqueous mobile phase, resulting from the introduction of polar groups onto the stationary phases.

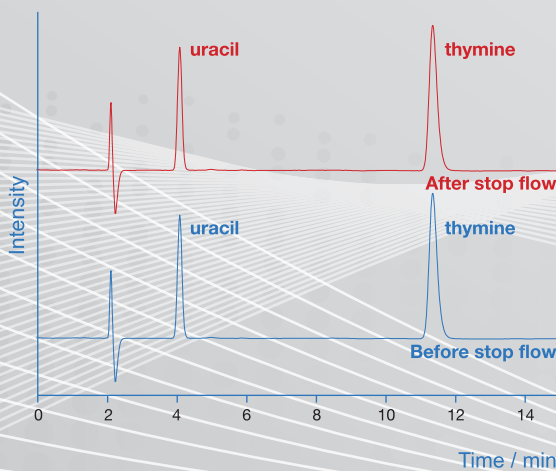
Unique Selectivity for Polar Compounds

The outstanding chromatographic properties of XAqua columns are attributed to the special structure of bonded phases and unique bonding technique. Due to easy control of polar and hydrophobic amount on the stationary phase, XAqua columns offer dramatically improved retention and selectivity for polar compounds.

Chromatographic conditions

XAqua C18, 150 mm×4.6 mm i.d., 5 μm

- **Mobile phase:** 10 mM ammonium formate solution (pH 3.0)
- **Flow rate:** 1.0 mL/min
- **Column temperature:** 30°C
- **Sample:** 1 Uracil, 2 Thymine

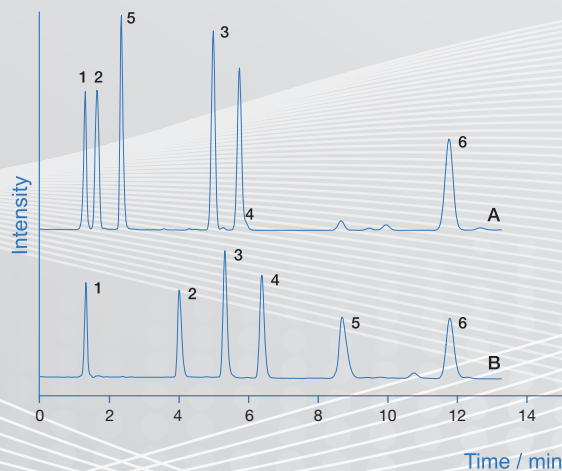


Chromatographic conditions

A: XUnion C18

B: XAqua C18, 150 mm×4.6 mm i.d., 5 μm

- **Mobile phase:** 20 mM ammonium formate solution (pH 3.0)/ Acetonitrile (45/55, v/v)
- **Flow rate:** 1.0 mL/min
- **Column temperature:** 30°C
- **Sample:** 1 Uracil, 2 Propranolol, 3 Diethyl phthalate, 4 Butyl paraben, 5 Amitriptyline, 6 Naphthalene.





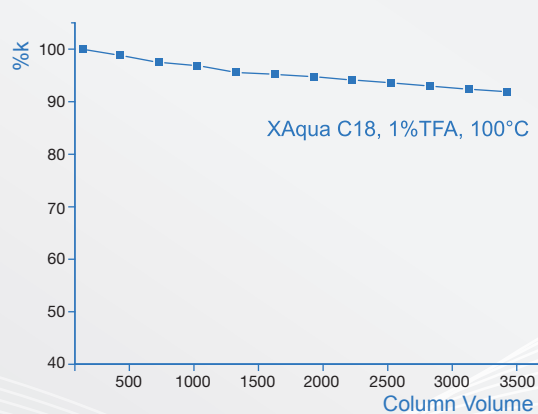
Longer Column Lifetime at Low pH Value

The hydrolysis of bonded phase would be observed on the conventional C18 columns under highly acidic conditions ($\text{pH} < 2$), resulting in many problems such as the change of retention time and the deterioration of column efficiency. Based on unique polar bonding technology, the bonded phase is uniformly coated on the surface of XAqua columns. Therefore, the hydrolysis of bonded phases is greatly alleviated under highly acidic condition, leading to excellent stability and extended lifetime in the most demanding conditions.

Chromatographic conditions

XAqua C18, 50 mm \times 2.1 mm i.d., 5 μm

- **Mobile phase:** Acetonitrile/ Water (contain 1% TFA)
(10/90, v/v)
- **Flow rate:** 0.5 mL/min
- **Column temperature:** 100°C
- **Sample:** Phenol



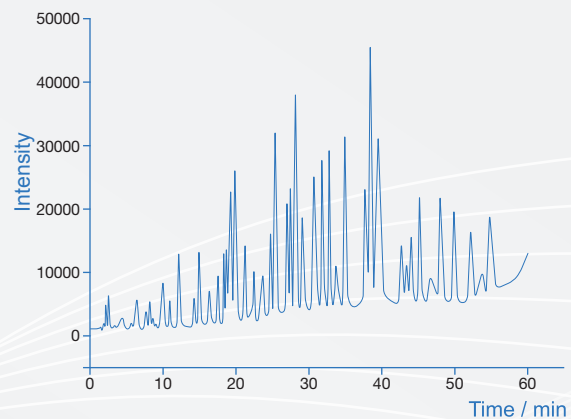
Perfect Balance in Hydrophilic / Lipophilic

When the sample covers an enormous dynamic range, it is tough to simultaneously retain and separate complex mixture of polar and weak-polar compounds with conventional reverse-phase columns. XAqua columns are composed of mixed polar and hydrophobic groups based on unique polar bonding technology. The presence of polar groups improves the selectivity and retention for polar compounds. Hence, XAqua columns are available to properly separate complex sample of polar and non-polar compounds.

Chromatographic conditions

XAqua C18, 150 mm \times 4.6 mm i.d., 5 μm

- **Mobile phase:** A: Acetonitrile (containing 0.1%TFA),
B: Water (containing 0.1%TFA)
- **Gradient:** 0~60 min, 5%~50% A
- **Flow rate:** 1.0 mL/min
- **Column temperature:** 30°C
- **Sample:** BSA tryptic digest



XAqua

Order Info

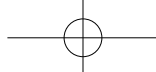
Tel: 400-650-3365

XAqua C18

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	100Å	2.1mm x 50mm	17190310205
		2.1mm x 100mm	17190310210
		2.1mm x 150mm	17190310215
		3.0mm x 50mm	17190310305
		3.0mm x 100mm	17190310310
		3.0mm x 150mm	17190310315
		4.6mm x 100mm	17190310510
		4.6mm x 150mm	17190310515
5µm	100Å	2.1mm x 50mm	17190510205
		2.1mm x 100mm	17190510210
		2.1mm x 150mm	17190510215
		3.0mm x 50mm	17190510305
		3.0mm x 100mm	17190510310
		3.0mm x 150mm	17190510315
		4.6mm x 150mm	17190510515
		4.6mm x 250mm	17190510525
10µm	100Å	10.0mm x 150mm	17190511015
		10.0mm x 250mm	17190511025
		4.6mm x 150mm	17191010515
		4.6mm x 250mm	17191010525
		10.0mm x 150mm	17191011015
		10.0mm x 250mm	17191011025
20.0mm x 150mm	17191012015	20.0mm x 250mm	17191012025

XAqua C8

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	100Å	2.1mm x 50mm	17220310205
		2.1mm x 100mm	17220310210
		2.1mm x 150mm	17220310215
		3.0mm x 50mm	17220310305
		3.0mm x 100mm	17220310310
		3.0mm x 150mm	17220310315
		4.6mm x 100mm	17220310510
		4.6mm x 150mm	17220310515
5µm	100Å	2.1mm x 50mm	17220510205
		2.1mm x 100mm	17220510210
		2.1mm x 150mm	17220510215
		3.0mm x 50mm	17220510305
		3.0mm x 100mm	17220510310
		3.0mm x 150mm	17220510315
		4.6mm x 150mm	17220510515
		4.6mm x 250mm	17220510525
10µm	100Å	10.0mm x 150mm	17220511015
		10.0mm x 250mm	17220511025
		4.6mm x 150mm	17221010515
		4.6mm x 250mm	17221010525
		10.0mm x 150mm	17221011015
		10.0mm x 250mm	17221011025
20.0mm x 150mm	17221012015	20.0mm x 250mm	17221012025



Order Info

Tel: 400-650-3365

XAqua C8

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	300Å	2.1mm x 50mm	17220330205
		2.1mm x 100mm	17220330210
		2.1mm x 150mm	17220330215
		3.0mm x 50mm	17220330305
		3.0mm x 100mm	17220330310
		3.0mm x 150mm	17220330315
		4.6mm x 100mm	17220330510
5µm	300Å	4.6mm x 150mm	17220330515
		2.1mm x 50mm	17220530205
		2.1mm x 100mm	17220530210
		2.1mm x 150mm	17220530215
		3.0mm x 50mm	17220530305
		3.0mm x 100mm	17220530310
		3.0mm x 150mm	17220530315
		4.6mm x 150mm	17220530515
		4.6mm x 250mm	17220530525
		10.0mm x 150mm	17220531015
10.0mm x 250mm	17220531025		

XAqua CN

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	100Å	2.1mm x 50mm	17280310205
		2.1mm x 100mm	17280310210
		2.1mm x 150mm	17280310215
		3.0mm x 50mm	17280310305
		3.0mm x 100mm	17280310310
		3.0mm x 150mm	17280310315
		4.6mm x 100mm	17280310510
5µm	100Å	4.6mm x 150mm	17280310515
		2.1mm x 50mm	17280510205
		2.1mm x 100mm	17280510210
		2.1mm x 150mm	17280510215
		3.0mm x 50mm	17280510305
		3.0mm x 100mm	17280510310
		3.0mm x 150mm	17280510315
		4.6mm x 150mm	17280510515
		4.6mm x 250mm	17280510525
		10.0mm x 150mm	17280511015
10.0mm x 250mm	17280511025		

XAqua Phenyl

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	100Å	2.1mm x 50mm	17330310205
		2.1mm x 100mm	17330310210
		2.1mm x 150mm	17330310215
		3.0mm x 50mm	17330310305
		3.0mm x 100mm	17330310310
		3.0mm x 150mm	17330310315
		4.6mm x 100mm	17330310510
5µm	100Å	4.6mm x 150mm	17330310515
		2.1mm x 50mm	17330510205
		2.1mm x 100mm	17330510210
		2.1mm x 150mm	17330510215
		3.0mm x 50mm	17330510305
		3.0mm x 100mm	17330510310
		3.0mm x 150mm	17330510315
		4.6mm x 150mm	17330510515
		4.6mm x 250mm	17330510525
		10.0mm x 150mm	17330511015
10.0mm x 250mm	17330511025		

XAqua C3

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	100Å	2.1mm x 50mm	17590310205
		2.1mm x 100mm	17590310210
		2.1mm x 150mm	17590310215
		3.0mm x 50mm	17590310305
		3.0mm x 100mm	17590310310
		3.0mm x 150mm	17590310315
		4.6mm x 100mm	17590310510
5µm	100Å	4.6mm x 150mm	17590310515
		2.1mm x 50mm	17590510205
		2.1mm x 100mm	17590510210
		2.1mm x 150mm	17590510215
		3.0mm x 50mm	17590510305
		3.0mm x 100mm	17590510310
		3.0mm x 150mm	17590510315
		4.6mm x 150mm	17590510515
		4.6mm x 250mm	17590510525
		10.0mm x 150mm	17590511015
10.0mm x 250mm	17590511025		

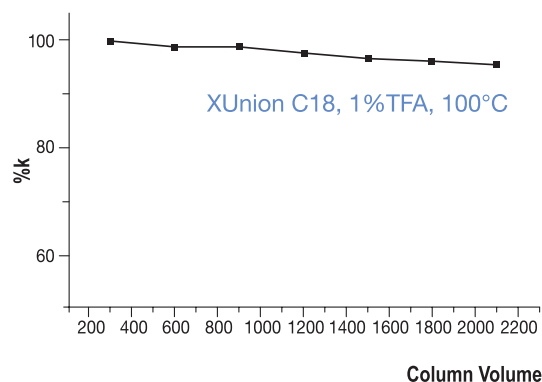
Excellent Stability and Loading Capacity

XUnion C18 and C8 RP columns

Acchrom has developed XUnion C18 and C8 columns with superior chromatographic properties after long-term dedicated research.

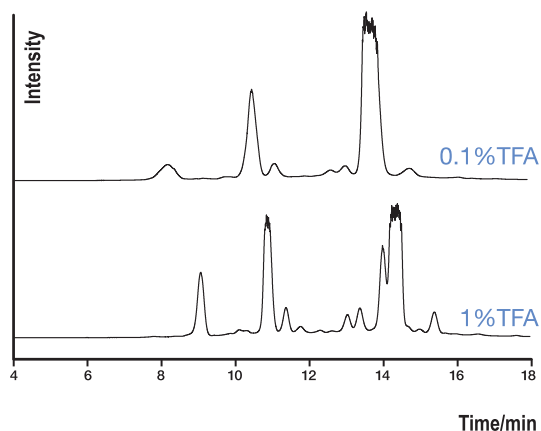
Excellent Chemical Stability

XUnion C18 columns provide excellent chemical stability under highly acidic conditions compared to other commercial columns, which enables the method development great flexibility and extended column lifetime in the most demanding conditions.



- Instrument: Agilent 1200 LC
- Column: XUnion C18, 50 mm×2.1 mm i.d., 5μm
- Mobile phase: Acetonitrile/Water (containing 1%TFA) (10/90, v/v)
- Flow rate: 0.5 mL/min
- Column temperature: 100°C
- Sample: Phenol

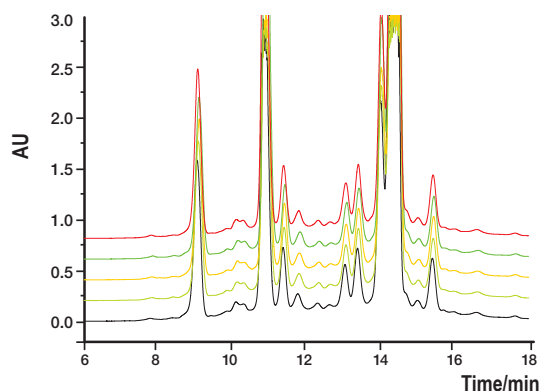
The usual solution to obtain satisfactory peak shapes of anthocyanins is to conduct separation under highly acidic conditions. XUnion C18 columns demonstrate high stability in low pH, so they are available to achieve proper separation for anthocyanins.



- Column: XUnion C18, 150 mm×4.6 mm i.d., 5μm
- Mobile phase: A: Acetonitrile, B: Water (containing TFA)
- Gradient: 0~20 min, 5%~35% A
- Flow rate: 1.0 mL/min
- Column temperature: 30°C
- Sample: extract of *Lycium ruthenicum* Murr.

The reproducibility of fifty times injections for the separation of anthocyanins with large loading mass

- Column: XUnion C18, 50 mm×2.1 mm i.d., 5μm
- Mobile phase: A: Acetonitrile, B: Water (containing 1%TFA)
- Gradient: 0~20 min, 5%~35% A
- Flow rate: 1.0 mL/min
- Column temperature: 30°C
- Sample: extract of *Lycium ruthenicum* Murr.





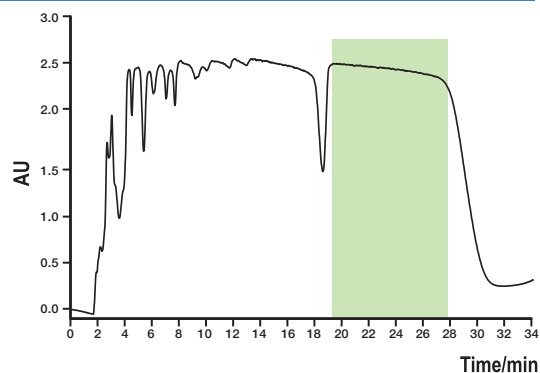
High Loading Capacity

Purification separation depends on not only the peak shape and column efficiency, but also the loading capacity of columns to different compounds. XUnion columns offer much higher loading capacity than that of other commercial columns owing to their unique high density bonding technology.

Anticipated high preparation efficiency would be obtained if the using preparative column can give best separation, so it is significant important for the compounds purification to chose a proper preparative method. The following chromatogram shows that alkaline antibiotics are well separated under optimized conditions on the XUnion C18 column.

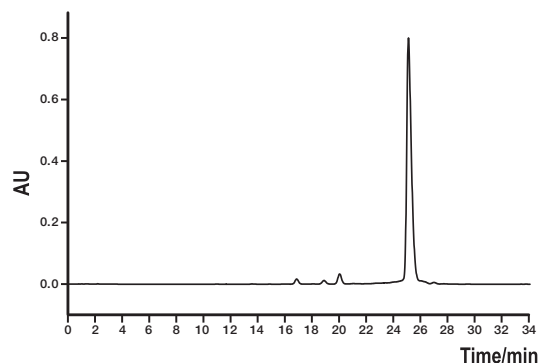
Chromatographic conditions

- **Column:** XUnion C18, 250 mm×20 mm i.d., 10 μm
- **Mobile phase:** Acetonitrile / 1%TEAA aqueous solution (pH 9.2) (65/35, v/v);
- **Flow rate:** 20 mL/min
- **Loading mass:** 500 mg
- **Sample:** fermentation liquor of Clindamycin (the purity of Clindamycin is 60%)



Chromatographic conditions

- **Column:** XBridge C18, 150 mm×4.6 mm i.d., 5 μm
- **Mobile phase:** A: Acetonitrile, B: 50 mM K₂HPO₄ (pH=8.2)
- **Gradient:** 0~30 min, 50%~70% A
- **Flow rate:** 1.0 mL/min
- **Column temperature:** 30°C
- **Sample:** fraction of the Clindamycin (the purity of Clindamycin is more than 95%)



XUnion

Order Info

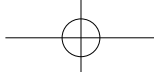
Tel: 400-650-3365

XUnion C18

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	100Å	2.1mm x 50mm	16190310205
		2.1mm x 100mm	16190310210
		2.1mm x 150mm	16190310215
		3.0mm x 50mm	16190310305
		3.0mm x 100mm	16190310310
		3.0mm x 150mm	16190310315
		4.6mm x 100mm	16190310510
		4.6mm x 150mm	16190310515
5µm	100Å	2.1mm x 50mm	16190510205
		2.1mm x 100mm	16190510210
		2.1mm x 150mm	16190510215
		3.0mm x 50mm	16190510305
		3.0mm x 100mm	16190510310
		3.0mm x 150mm	16190510315
		4.6mm x 150mm	16190510515
		4.6mm x 250mm	16190510525
10µm	100Å	10.0mm x 150mm	16190511015
		10.0mm x 250mm	16190511025
		4.6mm x 150mm	16191010515
		4.6mm x 250mm	16191010525
		10.0mm x 150mm	16191011015
		10.0mm x 250mm	16191011025
20.0mm	150mm	20.0mm x 150mm	16191012015
		20.0mm x 250mm	16191012025

XUnion C8

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	100Å	2.1mm x 50mm	16220310205
		2.1mm x 100mm	16220310210
		2.1mm x 150mm	16220310215
		3.0mm x 50mm	16220310305
		3.0mm x 100mm	16220310310
		3.0mm x 150mm	16220310315
		4.6mm x 100mm	16220310510
		4.6mm x 150mm	16220310515
5µm	100Å	2.1mm x 50mm	16220510205
		2.1mm x 100mm	16220510210
		2.1mm x 150mm	16220510215
		3.0mm x 50mm	16220510305
		3.0mm x 100mm	16220510310
		3.0mm x 150mm	16220510315
		4.6mm x 150mm	16220510515
		4.6mm x 250mm	16220510525
10µm	100Å	10.0mm x 150mm	16220511015
		10.0mm x 250mm	16220511025
		4.6mm x 150mm	16221010515
		4.6mm x 250mm	16221010525
		10.0mm x 150mm	16221011015
		10.0mm x 250mm	16221011025
20.0mm	150mm	20.0mm x 150mm	16221012015
		20.0mm x 250mm	16221012025



ACCHROM

XUnion C4

Particle Size	Pore Size	Column Specification	Part Number
2.8µm	300Å	2.1mm x 50mm	16210330205
		2.1mm x 100mm	16210330210
		2.1mm x 150mm	16210330215
		3.0mm x 50mm	16210330305
		3.0mm x 100mm	16210330310
		3.0mm x 150mm	16210330315
		4.6mm x 100mm	16210330510
		4.6mm x 150mm	16210330515
		5µm	300Å
2.1mm x 100mm	16210530210		
2.1mm x 150mm	16210530215		
3.0mm x 50mm	16210530305		
3.0mm x 100mm	16210530310		
3.0mm x 150mm	16210530315		
4.6mm x 150mm	16210530515		
4.6mm x 250mm	16210530525		
10.0mm x 150mm	16210531015		
10.0mm x 250mm	16210531025		

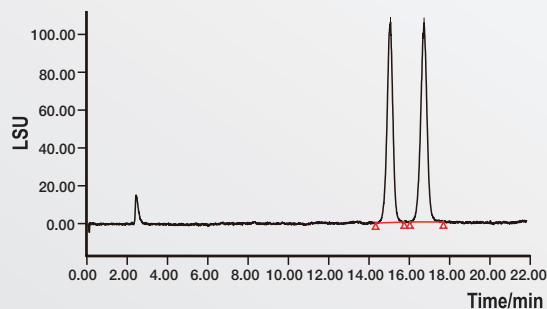


Ideal Choice for Good Separation of Sugar Alcohol and Oligosaccharide

Chromatographic conditions

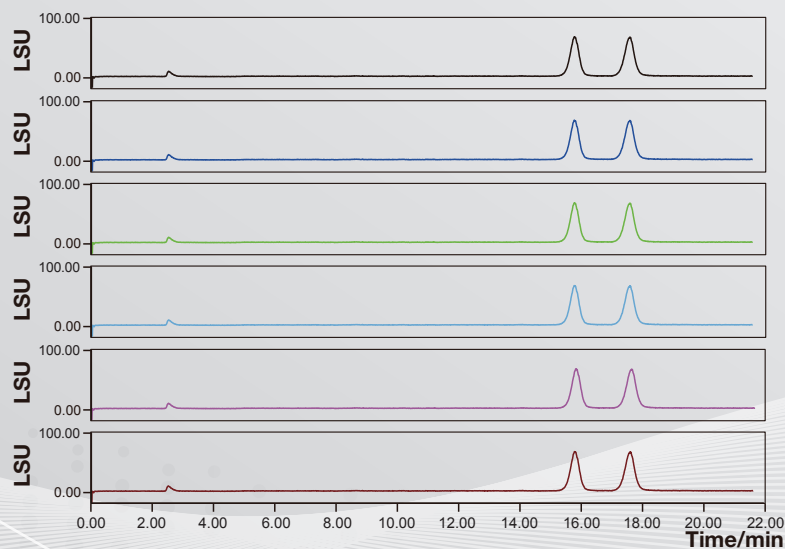
After screening and optimizing the suitable columns, good separation of sorbitol and mannitol is achieved and the resolution is better than 2.0.

- Sample: the sample were dissolved with acetonitrile / water (1/2,v/v) and the concentration was 10 mg/mL
- Column: XAmino, 4.6×150 mm i.d., 5 μm
- Mobile phase: A: Acetonitrile; B: Water A/B (85/15, v/v)
- Flow rate: 1.0 mL/min
- Column temperature: 35 °C
- Detection: ELSD
- Injection volume: 1 μL

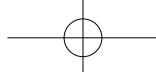


Under the pharmacopoeia method, the retention time of the two compounds is about 15 min. And sorbitol and mannitol are separated well with the selectivity of 1.12 and the resolution of 3.08. The results demonstrate that this column has well met the requirement.

The results of Separation Repeatability



Through continuously injecting the sample six times, the result shows that the XAmino column has good repeatability for the separation of the sorbitol and mannitol.



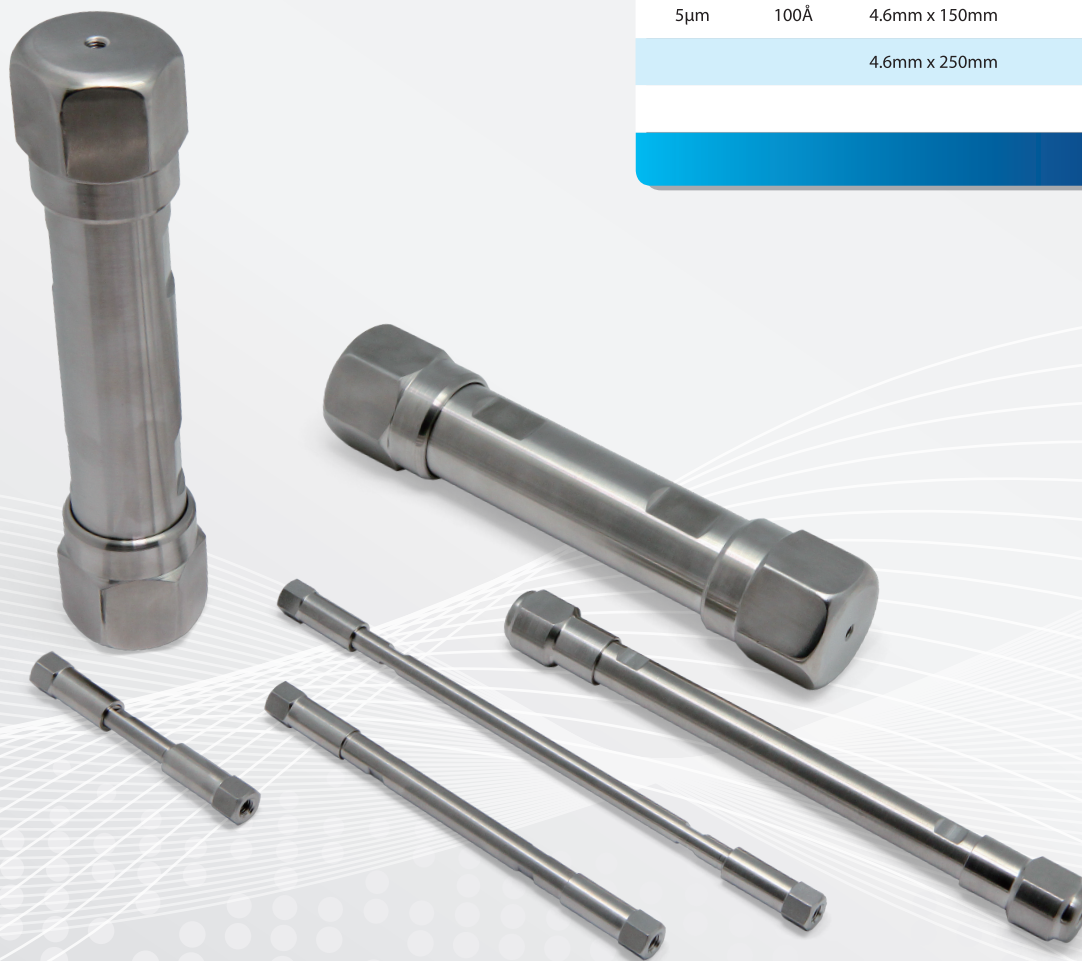
ACCHROM

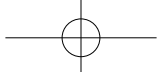
Order Info

Tel: 400-650-3365

XAmino

Particle Size	Pore Size	Column Specification	Part Number
2.8 μ m	100Å	2.1mm x 50mm	20110310205
		2.1mm x 100mm	20110310210
		2.1mm x 150mm	20110310215
		3.0mm x 50mm	20110310305
		3.0mm x 100mm	20110310310
		3.0mm x 150mm	20110310315
5 μ m	100Å	4.6mm x 100mm	20110310510
		4.6mm x 150mm	20110310515
		4.6mm x 250mm	20110510525





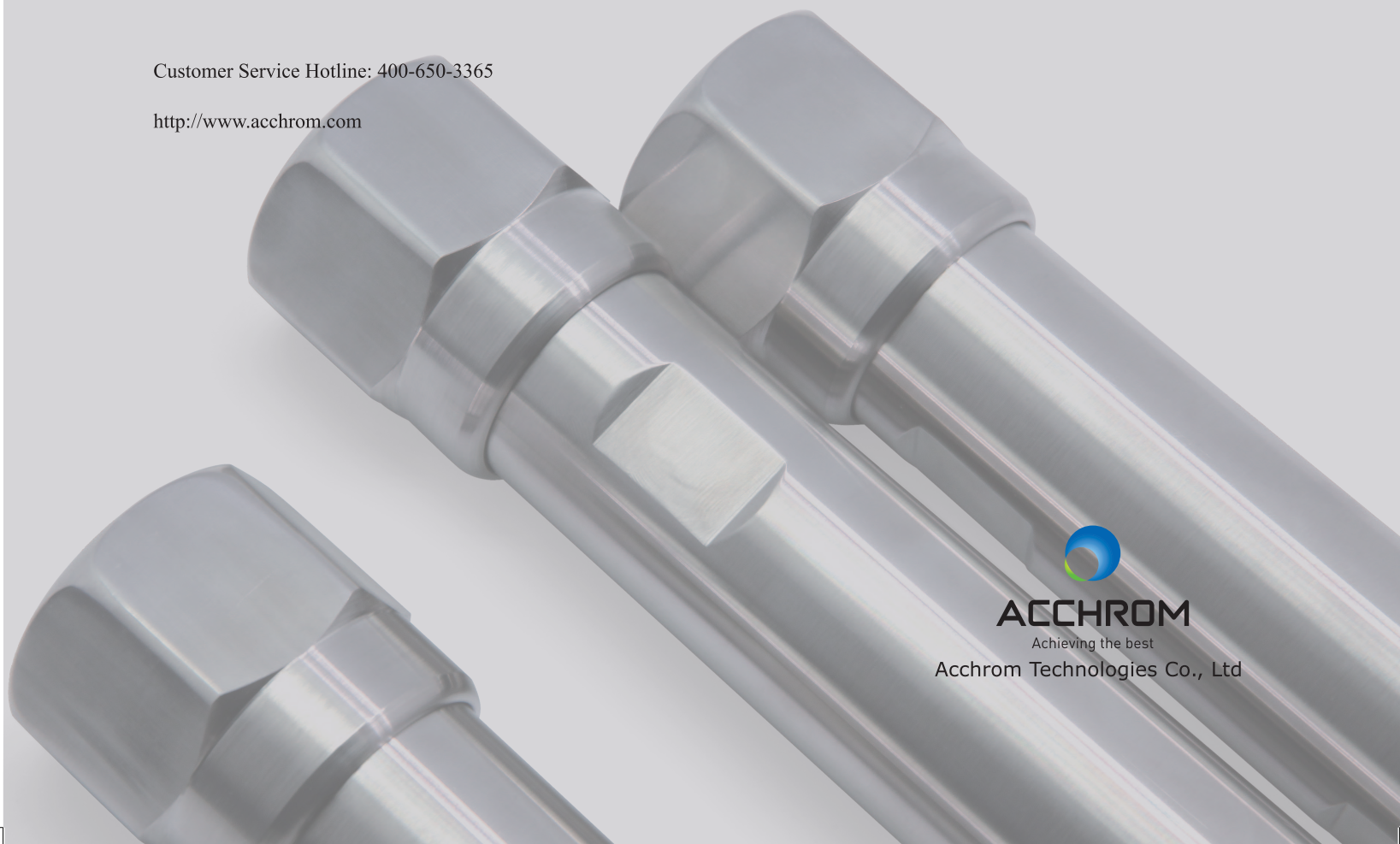
Add: Rm819, Tower A, Qiancun Business Building, No.3, Zone
5 AnZhenXiLi, ChaoYang District, Beijing, China
Tel: 010-84109315
Fax: 010-84843742

Add: No 911, Huangpu road, Hi-tech Development District,
Dalian City, P.R. China
Tel: 0411-84820111
Fax: 0411-84820777

Add: No.1, Bingang Road, Jingang Development Zone, Binhai
Town, Wenling City, Zhejiang, China
Tel: 0576-86501218
Fax: 0576-86501216

Customer Service Hotline: 400-650-3365

<http://www.acchrom.com>




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