SFC Analytical and Preparative Columns

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SFC Analytical and Preparative Columns

Torus, Trefoil, and Viridis Columns for Achiral and Chiral SFC Separations

The Torus, Trefoil,™ and Viridis™ Column Chemistries, combined with Waters SFC Instrumentation, will enable separation scientists to better access the power of normal-phase chromatography with the ease and reliability of reversed-phase chromatography. These achiral and chiral SFC column chemistries provide the ability to handle achiral and chiral separations with unequaled speed and unparalleled confidence.

Column Characteristics

Column	Particle Shape	Particle Size	Pore Volume	Pore Size	Surface Area	Carbon Load	Chemistry
Torus Analytical & Preparative Achiral SFC Columns							
Torus 2-PIC	Spherical	1.7, 5 µm	0.7 cc/g	130 Å	185 m^2/g	–	2-Picolylamine
Torus DEA	Spherical	1.7, 5 µm	0.7 cc/g	130 Å	185 m^2/g	–	Diethylamine
Torus DIOL	Spherical	1.7, 5 µm	0.7 cc/g	130 Å	185 m^2/g	–	High density diol
Torus 1-AA	Spherical	1.7, 5 µm	0.7 cc/g	130 Å	185 m^2/g	–	1-Aminoanthracene
Trefoil Analytical Chiral SFC Column							
Trefoil AMY1	Spherical	2.5 µm	–	–	–	–	Amylose tris-(3, 5-dimethylphenylcarbamate)
Trefoil CEL1	Spherical	2.5 µm	–	–	–	–	Cellulose tris-(3, 5-dimethylphenylcarbamate)
Trefoil CEL2	Spherical	2.5 µm	–	–	–	–	Cellulose tris-(3-chloro-4-methylphenylcarbamate)
Viridis Analytical & Preparative Achiral SFC Columns							
Viridis BEH	Spherical	1.7, 3.5, 5 µm	0.7 cc/g	130 Å	185 m^2/g	N/A	Unbonded
Viridis BEH 2-EP	Spherical	1.7, 3.5, 5 µm	0.7 cc/g	130 Å	185 m^2/g	9%	2-Ethylpyridine
Viridis CSH Fluoro-Phenyl	Spherical	1.7, 3.5, 5 µm	0.7 cc/g	130 Å	185 m^2/g	10%	CSH fluoro-phenyl
Viridis HSS C_{18} SB	Spherical	1.8, 3.5 µm	0.7 cc/g	100 Å	230 m^2/g	8.5%	C_{18}
Viridis Silica	Spherical	5 µm	0.9 cc/g	100 Å	340 m^2/g	N/A	Unbonded
Viridis Silica 2-EP	Spherical	5 µm	0.9 cc/g	100 Å	340 m^2/g	8%	2-Ethylpyridine

The use of compressed liquid CO_2 as the primary mobile phase in convergence chromatography unleashes the powerful orthogonal capability of normal-phase separations. Gradient separations performed across the widest polarity range bring the full detection capabilities of mass spectrometry into everyday use as a mainstream technique. You can now separate most compounds and mixtures soluble in organic solvents and, in addition, separate structural analogs, isomers, and enantiomeric and diastereomeric mixtures—all of which are notoriously difficult to separate by other means.

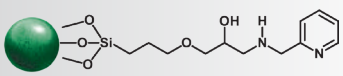
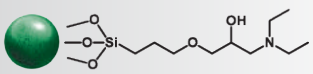
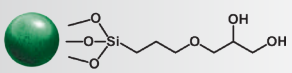
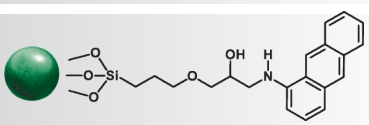
Torus Columns for Achiral SFC Separations

Torus Columns offer:

- Excellent peak shapes
- A wide range of unique selectivities with unique ligands
- Highest efficiency and QC-ready robustness
- Waters OBD Technology

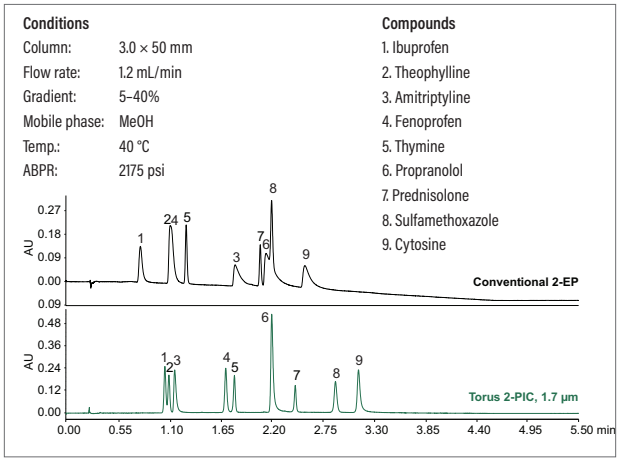
Torus Columns are designed for achiral SFC separations, offer a wide range of selectivity, excellent peak shape, and are suited for method transfer and method scale-up. Torus Columns are offered in 1.7 and 5 µm chemistries in both analytical and preparative column formats.

The Torus Phases are based on patent-pending two-stage functionalization of ethylene bridged hybrid (BEH) particles. The initial bonding provides a hydrophilic surface that controls the retention characteristics of the sorbent, and is responsible for minimizing unwanted surface interactions, which lead to retention and selectivity changes over time. The second step of the functionalization is responsible for the individual selectivity and peak shape characteristics of each of the Torus Chemistries. The results of these steps are a series of stationary phases with broad ranging selectivities, which maintain robust chromatographic performance over the lifetime of the column.

Torus 2-PIC, 1.7 and 5 µm Columns 2-Picolylamine	
Torus DEA, 1.7 and 5 µm Columns Diethylamine	
Torus DIOL, 1.7 and 5 µm Columns High Density Diol	
Torus 1-AA, 1.7 and 5 µm Columns 1-Aminoanthracene	

TORUS 2-PIC (2-PICOLYLAMINE)

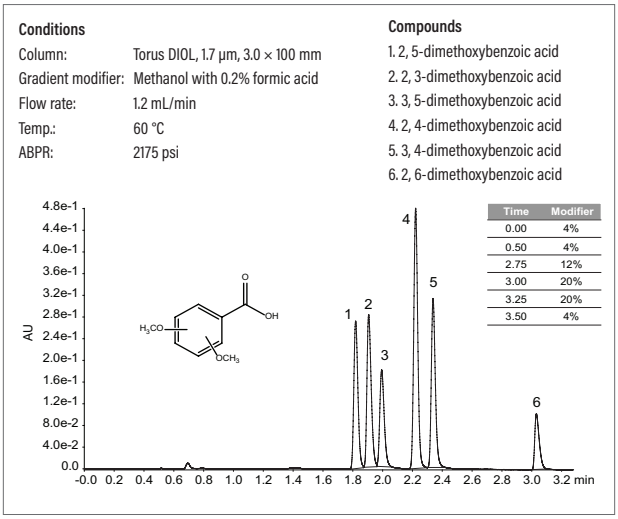
Torus 2-PIC Columns were designed for general use and are the first choice for a wide range of applications with acidic and basic compounds. The Torus 2-PIC phase demonstrates enhanced performance compared to conventional 2-ethylpyridine (2-EP), displaying improved peak shape, added retention, and novel selectivity.



Torus 2-PIC has excellent peak shape characteristics for wide ranges of acidic and basic compounds.

TORUS DIOL (HIGH-DENSITY DIOL)

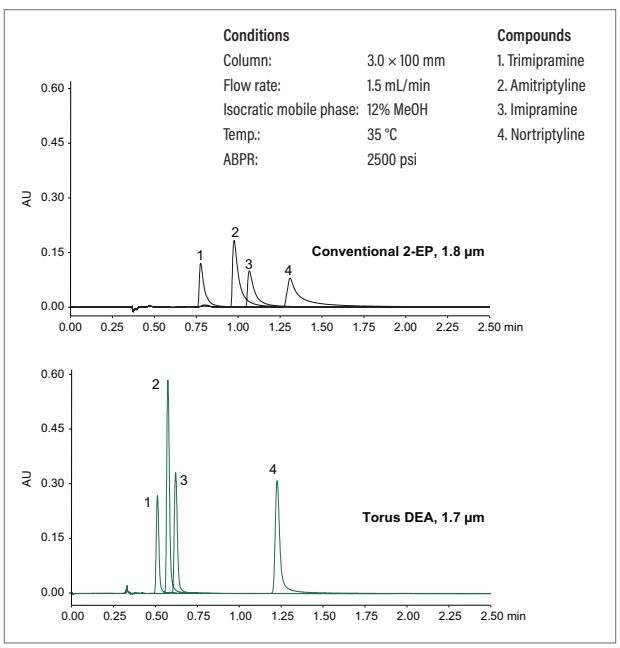
Torus DIOL Columns were developed to provide additional selectivity choices. High-density diol surface bonding offers chromatography performance similar to that of traditional, unbonded silica phases, and adds overall method robustness when utilized with additives.



Torus DIOL Columns show good peak shapes for acidic compounds, as demonstrated by the separation of six isomeric forms of dimethoxybenzoic acid.

TORUS DEA (DIETHYLAMINE)

Torus DEA Columns are designed to be orthogonal to the Torus 2-PIC phase. Designed to provide superior peak shape for very strong bases, these columns provide a complementary selectivity to the 2-PIC stationary phase.



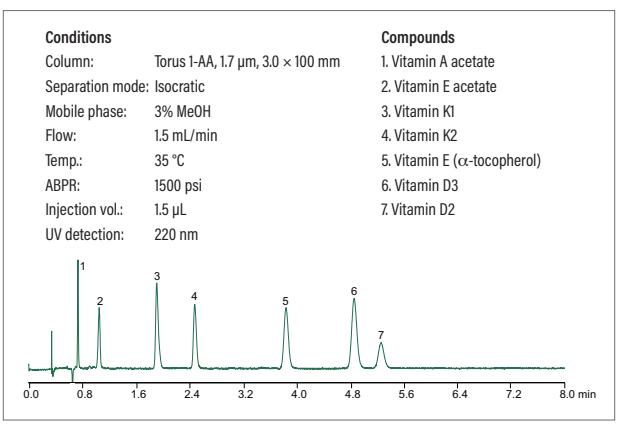
Torus DEA exhibits excellent peak shape for strong basic compounds when compared to a silica 2-EP column.

TORUS 1-AA (1-AMINOANTHRACENE)

Torus 1-AA Columns are designed to be the superior choice for separating neutral compounds such as polar and non-polar steroids, and hydrophobic compounds such as lipids and fat-soluble vitamins. This chemistry also provides an orthogonal selectivity to the 2-PIC phase, making it very useful in method development.

Torus 1-AA Columns are best used for:

- Hydrophobic (lipophilic) compounds
- Free fatty acids
- Fat-soluble vitamins
- Lipids
- Natural products
- Steroids



Torus 1-AA Column shows good peak shape and resolution of fat-soluble vitamins.

Torus Columns for Achiral Method Development

For method development, it is crucial to have a series of columns that have significantly differing selectivities and good retentivity. The Torus Chemistries were specifically chosen to provide a breadth of selectivities for acids, bases, and neutral analytes. For more information on achiral SFC method development, visit **www.waters.com/torus** and view the webcast titled "Torus Columns for Achiral Method Development".

Visit www.waters.com/torus

Ordering Information

Torus Analytical Columns

Dimension	Particle Size: 1.7 µm			
	P/N	P/N	P/N	P/N
	2-PIC	DEA	DIOL	1-AA
VanGuard Pre-column, 2.1 × 5 mm, 3/pk	186007604	186007622	186007613	186007631
2.1 × 50 mm	186007596	186007614	186007605	186007623
2.1 × 75 mm	186007597	186007615	186007606	186007624
2.1 × 100 mm	186007598	186007616	186007607	186007625
2.1 × 150 mm	186007599	186007617	186007608	186007626
3.0 × 50 mm	186007600	186007618	186007609	186007627
3.0 × 75 mm	186007601	186007619	186007610	186007628
3.0 × 100 mm	186007602	186007620	186007611	186007629
3.0 × 150 mm	186007603	186007621	186007612	186007630

Dimension	Particle Size: 5 µm			
	P/N	P/N	P/N	P/N
2.1 × 150 mm	186008543	186008563	186008554	186008572
3.0 × 50 mm	186008544	186008564	186008555	186008573
3.0 × 100 mm	186008545	186008565	186008556	186008574
3.0 × 150 mm	186008546	186008566	186008557	186008575
3.0 × 250 mm	186008549	186008567	186008558	186008576
4.6 × 50 mm	186008550	186008568	186008559	186008577
4.6 × 100 mm	186008551	186008569	186008560	186008578
4.6 × 150 mm	186008552	186008570	186008561	186008579
4.6 × 250 mm	186008553	186008571	186008562	186008580

Torus Column Method Development Kits

Dimension	Particle Size: 1.7 µm
	P/N
Torus Column Screening Kit, 2.1 × 50 mm (2-PIC, DEA, DIOL, 1-AA), 4/pk	176003579
Torus Column Method Development Kit, 3.0 × 100 mm (2-PIC, DEA, DIOL, 1-AA), 4/pk	176003580

Torus Preparative Achiral SFC Columns

Combining state-of-the-art media manufacturing with industry-leading column technology, Torus Achiral Columns impart a new level of robustness to laboratory-scale purification.

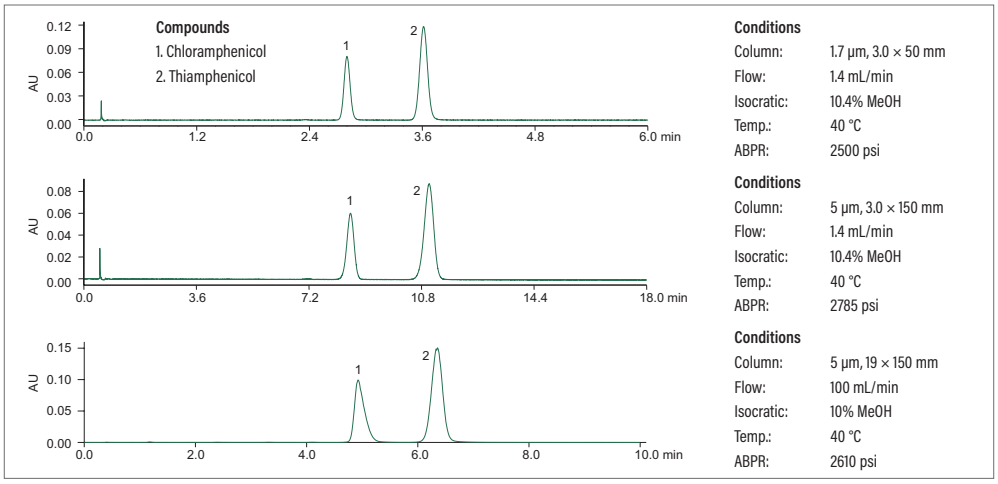
You can base a scale up of screening methods on any of the four Torus analytical column chemistries to perform 5 µm Torus Preparative SFC Separations.

Torus 2-PIC 1.7 µm Columns → Torus 2-PIC 5 µm Preparative Columns

Torus DEA 1.7 µm Columns → Torus DEA 5 µm Preparative Columns

Torus DIOL 1.7 µm Columns → Torus DIOL 5 µm Preparative Columns

Torus 1-AA 1.7 µm Columns → Torus 1-AA 5 µm Preparative Columns



Scale up of an analytical method from a Torus 2-PIC, 1.7 µm Column of two closely related antibiotics, chloramphenicol and thiamphenicol, to a Torus 2-PIC, 5 µm, Preparative Column.

Ordering Information

Torus OBD Preparative Columns

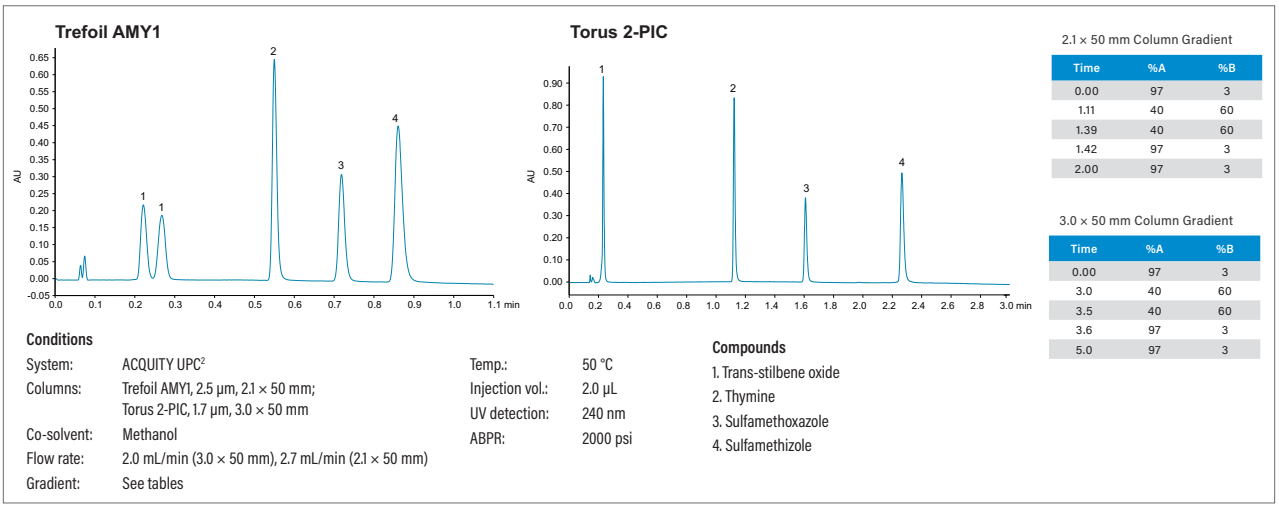
Dimension	Particle Size: 5 µm			
	P/N	P/N	P/N	P/N
	2-PIC	DIOL	DEA	AA
OBD 10 × 50 mm	186008581	186008598	186008615	186008632
OBD 10 × 100 mm	186008582	186008599	186008616	186008633
OBD 10 × 150 mm	186008583	186008600	186008617	186008634
OBD 10 × 250 mm	186008584	186008601	186008618	186008635
19 × 10 mm Guard Cartridge*	186008741	186008742	186008743	186008744
OBD 19 × 50 mm	186008585	186008602	186008619	186008636
OBD 19 × 100 mm	186008586	186008603	186008620	186008637
OBD 19 × 150 mm	186008587	186008604	186008621	186008638
OBD 19 × 250 mm	186008588	186008605	186008622	186008639
30 × 10 mm Guard Cartridge**	186008650	186008651	186008652	186008653
OBD 30 × 50 mm	186008589	186008606	186008623	186008640
OBD 30 × 75 mm	186008590	186008607	186008624	186008641
OBD 30 × 100 mm	186008591	186008608	186008625	186008642
OBD 30 × 150 mm	186008592	186008609	186008626	186008643
OBD 30 × 250 mm	186008593	186008610	186008627	186008644
OBD 50 × 50 mm	186008594	186008611	186008628	186008645
OBD 50 × 100 mm	186008595	186008612	186008629	186008646
OBD 50 × 150 mm	186008596	186008613	186008630	186008648
OBD 50 × 250 mm	186008597	186008614	186008631	186008649

* Requires 19 mm I.D. Prep Guard Holder, p/n: 186008745.
** Requires 30 mm I.D. Prep Guard Holder, p/n: 186006912.

ACQUITY UPC^2 System: Quality Control Reference Materials

The Quality Control Reference Materials (QC Reference Materials) for the ACQUITY UPC^2™ System provide a simple, reliable way to monitor a system's performance. Prepared for use with Trefoil and Torus Columns, this four-component mixture is optimized to ensure these key aspects of performance:

- The efficacy of chiral separation (by means of a chiral compound included in the mixture)
- The performance of mass spectrometry (by means of an ionizing compound included in the mixture)
- The well-separated nature of compounds in a wide elution range
- The detectability of all compounds by UV



2.1 × 50 mm Column Gradient

Time	%A	%B
0.00	97	3
1.11	40	60
1.39	40	60
1.42	97	3
2.00	97	3

3.0 × 50 mm Column Gradient

Time	%A	%B
0.00	97	3
3.0	40	60
3.5	40	60
3.6	97	3
5.0	97	3

Single QC Reference Material for Trefoil and Torus Columns on an ACQUITY UPC^2 System.

HOW DO YOU KNOW YOUR CHROMATOGRAPHIC SYSTEM IS OPERATING PROPERLY?

QC Reference Materials contain mixtures of standards chosen to provide an easy and reliable way to monitor the performance of any chromatographic system. They assure you that your column and system are ready to analyze samples. Regular use of QC Reference Materials also provides an opportunity to benchmark chromatographic systems and note their performance over time, making it easier to proactively identify problems and correct them sooner.

Ordering Information

Quality Control Reference Materials

Product Name	Intended Use	Chromatographic Mode	System	Contents	P/N
UPC² QC Reference Material	Provides chromatographic performance information inclusive of mobile-phase pH for both chiral and achiral modes.	Convergence Chromatography, SFC ▪ chiral ▪ achiral	ACQUITY UPC²	1. 0.50 mg/mL (+/-) trans-stilbene oxide 2. 0.50 mg/mL thymine 3. 0.50 mg/mL sulfamethoxazole 4. 0.50 mg/mL sulfamethizole In a 1 mL solution of 75:25 ACN:MeOH Store refrigerated 2–5 °C	186007950

Standards for SFC and ACQUITY UPC² Systems

Description	P/N
Waters Prep 15/30 SFC System Test Mix and Internal Standard	700005675
Waters Prep 100 SFC System Test Mix and Internal Standard	700005674

Standards for ACQUITY UPC² Systems

Description	Contents	P/N
UPC² Standard Mix	2 mg/mL each: 3-benzoylpyridine, cortisone, 4-nitroaniline, 4, 4′-biphenol in methanol, 1 mL	186006372
UPC² Gradient Standard	1 mg/mL coumarin, 1 mg/mL flavone, 2 mg/mL caffeine, 1 mg/mL thymine, 2 mg/mL prednisone in 2-propanol, 1 mL	186006551
UPC² Caffeine Standard	1.0 mg/mL caffeine in 2-propanol, 2 mL	186006614
UPC² Standards Kit	1.0 mg/mL caffeine in 2-propanol, 2 mL 1 mg/mL coumarin, 1 mg/mL flavone, 2 mg/mL caffeine, 1 mg/mL thymine, 2 mg/mL prednisone in 2-propanol, 1 mL	176002811
UPC² Flavone Standard	1 mg/mL in 2-propanol, 2 mL	186006523
UPC² Flurbiprofen Standard	1 mg/mL in 2-propanol, 2 mL	186006524
UPC² Ibuprofen Standard	1 mg/mL in 2-propanol, 2 mL	186006521
UPC² Ketoprofen Standard	1 mg/mL in 2-propanol, 2 mL	186006522

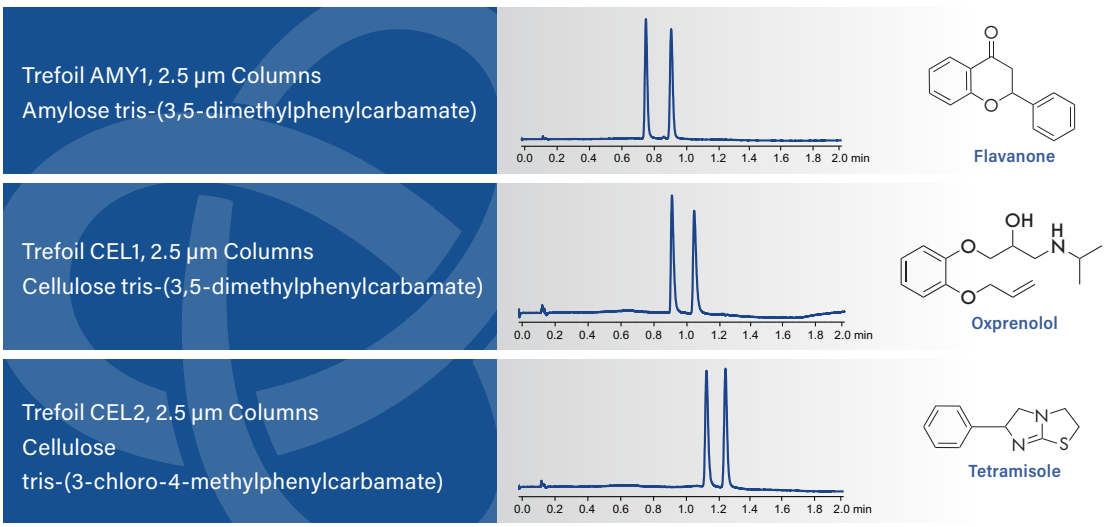
Trefoil Columns for Chiral SFC Separations

Trefoil™

Trefoil Columns offer:

- Optimized particle size, column dimensions, and flow rates for the ACQUITY UPC² System
- The full advantage of mass-spectrometry detection
- Faster results when following method-development protocols
- High quality, consistent, and reproducible columns

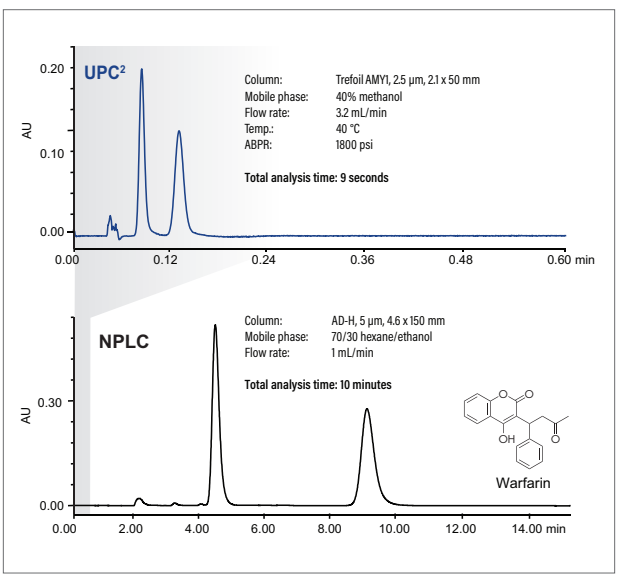
Trefoil modified polysaccharide-based stationary phases provide broad spectrum chiral selectivity. Trefoil AMY1, Trefoil CEL1, and Trefoil CEL2 Column Chemistries are complementary to each other and independently offer different retention characteristics for separating chiral compounds. Selectivity can be further enhanced by blends of modifiers and additives that most favorably modulate chiral recognition. These columns are designed to separate enantiomers and their stereoisomers, metabolites, degradants, and impurities with greater resolution and speed.



Chiral separations were all run using the two-minute screening method.

TRANSFER NORMAL-PHASE METHODS TO CONVERGENCE CHIRAL METHODS

Legacy normal-phase chiral methods can be easily transferred to the ACQUITY UPC² System using Trefoil Columns. Many of these old methods have undesirable characteristics such as long run times and often use chlorinated solvents in combination with THF or hexane which are costly to purchase and dispose. With simple redevelopment, new, cost-effective methods can be obtained using inexpensive and non-toxic compressed liquid CO_2 as the primary mobile phase and can be coupled to mass spectrometers for greater information.

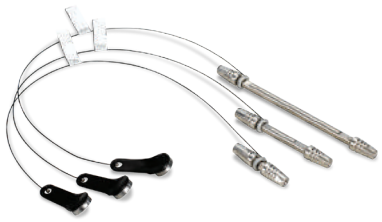


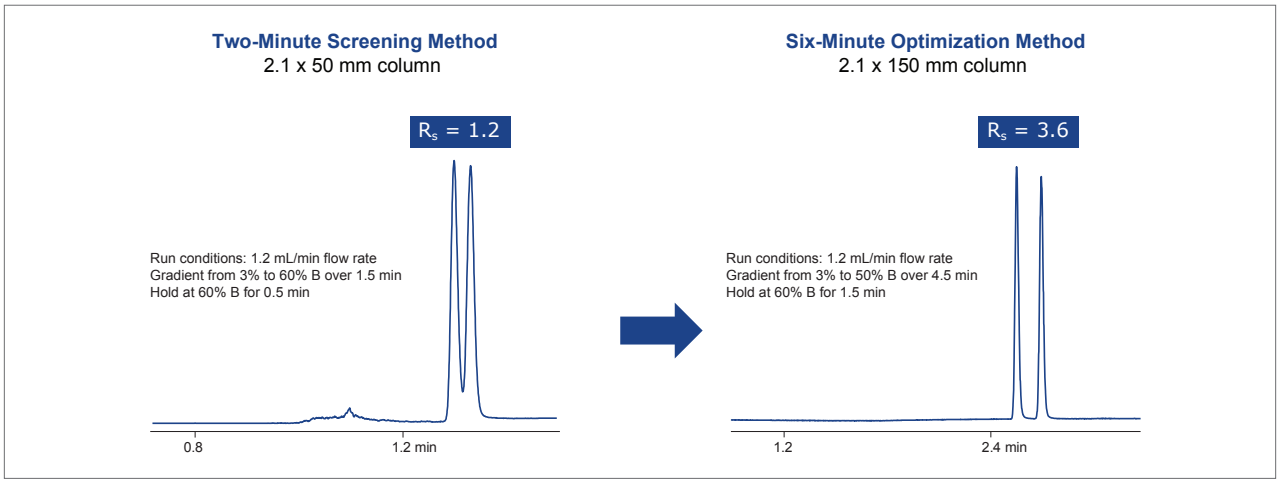
ACQUITY UPC² System with Trefoil Columns can be more than 30 times faster, use 75 times less solvent per run, and cost 100 times less per analysis.

DID YOU KNOW...

CHIRAL METHODS USING TREFOIL COLUMNS

Faster method development is possible when taking advantage of the dependable, high performance, low dispersion analytical ACQUITY UPC² System when used together with the Trefoil chiral stationary phases. Using short, narrow-bore columns with a small number of well selected co-solvents and mass spectrometry compatible additives enables this holistic combination to achieve routine gradient screening runs in two minutes. To view a webcast on the Trefoil Columns Method Development Strategy, please visit **www.waters.com/trefoil**





An example of the increased resolution expected when you transition from the two-minute screening method to the six-minute optimization method.

Ordering Information

Trefoil Columns

Dimension	Particle Size: 2.5 µm		
	P/N	P/N	P/N
	Trefoil AMY1	Trefoil CEL1	Trefoil CEL2
2.1 × 50 mm	186007457	186007461	186007654
2.1 × 150 mm	186007458	186007462	186007655
3.0 × 50 mm	186007459	186007463	186007656
3.0 × 150 mm	186007460	186007464	186007657

Trefoil Column Method Development Kits

Description	Particle Size: 2.5 µm
	P/N
Trefoil Column Screening Kit, 2.1 × 50 mm (AMY1, CEL1, CEL2), 3/pk	176003577
Trefoil Column Optimization Kit, 3.0 × 150 mm (AMY1, CEL1, CEL2), 3/pk	176003578

Viridis Columns

VIRIDIS HYBRID AND HSS SFC COLUMNS

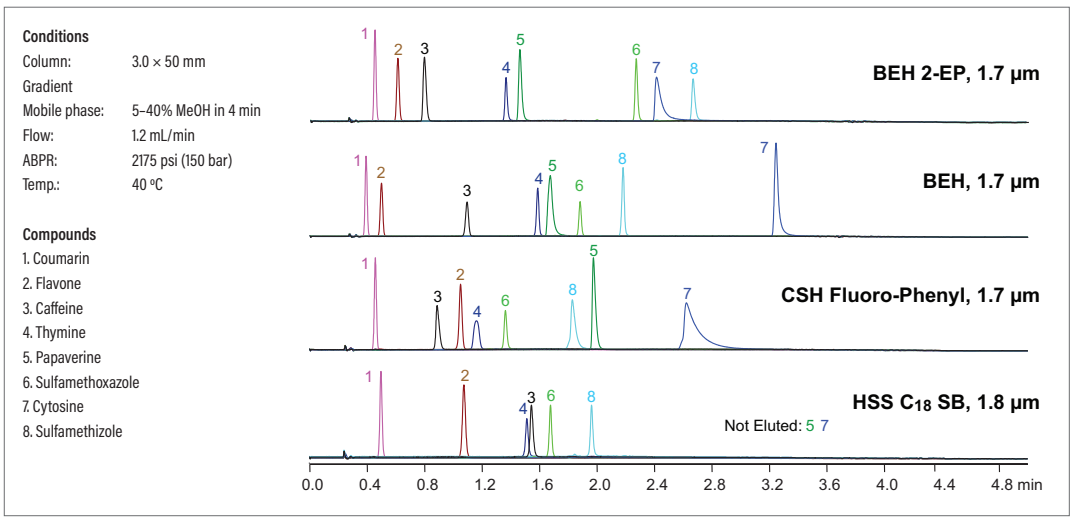
Viridis Columns offer an added range of achiral SFC selectivities. These columns are based on the patented Ethylene Bridged Hybrid (BEH) particle technology, Charged Surface Hybrid (CSH) particle technology, and High-Strength Silica (HSS) particle technology. The reduction and control of surface silanol activity on Viridis particles delivers, under SFC conditions, excellent peak shapes—even for well-retained basic achiral compounds.

Viridis BEH 2-EP, 1.7, 3.5, and 5 µm Columns

Viridis BEH, 1.7, 3.5, and 5 µm Columns

Viridis CSH Fluoro-Phenyl, 1.7, 3.5, and 5 µm Columns

Viridis HSS C_{18} SB, 1.7 and 3.5 µm Columns



Viridis Analytical Columns provide multiple selectivities.

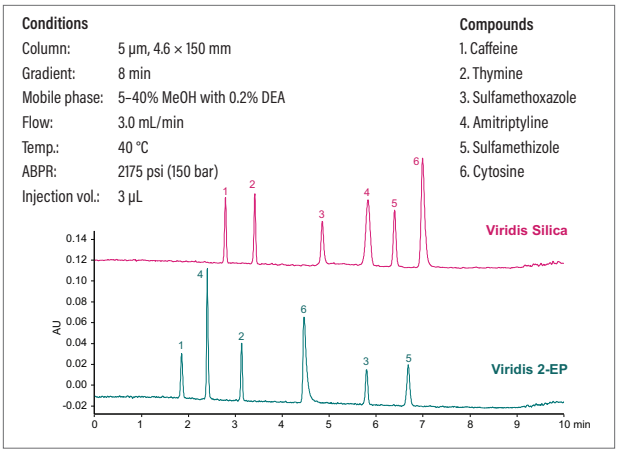
VIRIDIS SILICA-BASED SFC COLUMNS

Based on Waters long history of chromatographic silica production, the Viridis Silica Columns are designed to be highly reproducible and predictable based on tight product specifications and very low metal content. They are available for both analytical screening and in preparative column dimensions for purification. Separation methods can be optimized and scaled up to Viridis Preparative OBD Columns.

Viridis Silica 2-EP, 5 µm Columns

Viridis Silica, 5 µm Columns

Widely used in achiral SFC separations, exhibiting good retention, peak shape, and selectivity properties both with and without the use of additives.



Viridis SFC Preparative Columns.

Ordering Information

Viridis BEH, CSH, and HSS 1.7 and 1.8 µm Columns

Dimension	Particle Size: 1.7 µm			Particle Size: 1.8 µm
	P/N	P/N	P/N	P/N
	BEH 2-EP	BEH	CSH Fluoro-Phenyl	HSS C_{18} SB
2.1 × 50 mm	186006576	186006558	186006567	186006617
2.1 × 75 mm	186006577	186006559	186006568	186006618
2.1 × 100 mm	186006578	186006560	186006569	186006619
2.1 × 150 mm	186006579	186006561	186006570	186006620
3.0 × 50 mm	186006580	186006562	186006571	186006621
3.0 × 75 mm	186006581	186006563	186006572	186006622
3.0 × 100 mm	186006582	186006564	186006573	186006623
3.0 × 150 mm	186006688	186006686	186006687	186006685
VanGuard Pre-column, 2.1 × 5 mm, 3/pk	186006575	186006557	186006566	186006616

Viridis BEH, CSH, and HSS 3.5 µm Columns

Dimension	Particle Size: 3.5 µm			
	P/N	P/N	P/N	P/N
	BEH 2-EP	BEH	CSH Fluoro-Phenyl	HSS C_{18} SB
2.1 × 50 mm	186006652	186006634	186006643	186006625
2.1 × 75 mm	186006653	186006635	186006644	186006626
2.1 × 100 mm	186006654	186006636	186006645	186006627
2.1 × 150 mm	186006655	186006637	186006646	186006628
3.0 × 50 mm	186006656	186006638	186006647	186006629
3.0 × 75 mm	186006657	186006639	186006648	186006630
3.0 × 100 mm	186006658	186006640	186006649	186006631
3.0 × 150 mm	186006659	186006641	186006650	186006632
VanGuard Pre-column, 2.1 × 5 mm, 3/pk	186006651	186006633	186006642	186006624

Viridis 5 µm Analytical SFC Columns

Dimension	Particle Size: 5 µm				
	P/N	P/N	P/N	P/N	P/N
	BEH 2-EP	BEH	CSH Fluoro-Phenyl	Silica 2-EP	Silica
2.1 × 150 mm	186006545	186006544	186006543	186006542	186006541
3.0 × 50 mm	186005750	186005719	186005688	186005800	186005804
3.0 × 100 mm	186005751	186005720	186005689	186005801	186005805
3.0 × 150 mm	186005752	186005721	186005690	186005802	186005806
3.0 × 250 mm	186005753	186005722	186005691	186005803	186005807
4.6 × 50 mm	186005754	186005723	186005692	186004935	186004908
4.6 × 100 mm	186005755	186005724	186005693	186004936	186004909
4.6 × 150 mm	186005756	186005725	186005694	186004937	186004910
4.6 × 250 mm	186005757	186005726	186005695	186004938	186004911

Viridis 5 µm Preparative SFC Columns

Dimension	Particle Size: 5 µm				
	P/N	P/N	P/N	P/N	P/N
	BEH 2-EP	BEH	CSH Fluoro-Phenyl	Silica 2-EP	Silica
OBD 10 × 50 mm	186008256	186008252	186008248	186008232	186008228
OBD 10 × 100 mm	186008257	186008253	186008249	186008233	186008229
OBD 10 × 150 mm	186008258	186008254	186008250	186008234	186008230
OBD 10 × 250 mm	186008259	186008255	186008251	186008235	186008231
OBD 19 × 50 mm	186005762	186005731	186005700	186004943	186004916
OBD 19 × 100 mm	186005763	186005732	186005701	186004944	186004917
OBD 19 × 150 mm	186005764	186005733	186005702	186004945	186004918
OBD 19 × 250 mm	186005765	186005734	186005703	186004946	186004919
30 × 10 mm Guard Cartridge*	186006909	186006910	186006911	186006908	186006907
OBD 30 × 50 mm	186005766	186005735	186005704	186004947	186004920
OBD 30 × 75 mm	186005767	186005736	186005705	186004948	186004921
OBD 30 × 100 mm	186005768	186005737	186005706	186004949	186004922
OBD 30 × 150 mm	186005769	186005738	186005707	186004950	186004923
OBD 30 × 250 mm	186005770	186005739	186005708	186004951	186004924
OBD 50 × 50 mm	186005771	186005740	186005709	186004952	186004925
OBD 50 × 100 mm	186005772	186005741	186005710	186004953	186004926
OBD 50 × 150 mm	186005773	186005742	186005711	186004954	186004927
OBD 50 × 250 mm	186005774	186005743	186005712	186004955	186004928

*Requires 30 mm I.D. Prep Guard Holder, p/n: 186006912.

Viridis Method Development Kits

Description	P/N
Viridis Method Development Kit, 3.0 × 100 mm (BEH 2-EP, BEH, CSH Fluoro-Phenyl, HSS C_{18} SB), 4/pk	176003050
Viridis Column Screening Kit, 2.1 × 50 mm (BEH 2-EP, BEH, CSH Fluoro-Phenyl, HSS C_{18} SB), 4/pk	176003091

Quality Control Reference Materials

Product Name	Intended Use	Chromatographic Mode	System	Contents	P/N
UPC² QC Reference Material	Provides chromatographic performance information inclusive of mobile-phase pH for both chiral and achiral modes	Convergence Chromatography, SFC ▪ chiral ▪ achiral	ACQUITY UPC²	1. 0.50 mg/mL (+/-) trans-stilbene oxide 2. 0.50 mg/mL thymine 3. 0.50 mg/mL sulfamethoxazole 4. 0.50 mg/mL sulfamethizole In a 1 mL solution of 75:25 ACN:MeOH Store refrigerated 2–5 °C	186007950

Standards

Description	Contents	P/N
Waters Prep 15/30 SFC System Test Mix and Internal Standard		700005675
Waters Prep 100 SFC System Test Mix and Internal Standard		700005674
UPC² Standard Mix	2 mg/mL each: 3-benzoylpyridine, cortisone, 4-nitroaniline, 4, 4′-biphenol in methanol, 1 mL	186006372
UPC² Gradient Standard	1 mg/mL coumarin, 1 mg/mL flavone, 2 mg/mL caffeine, 1 mg/mL thymine, 2 mg/mL prednisone in 2-propanol, 1 mL	186006551
UPC² Caffeine Standard	1 mg/mL caffeine in 2-propanol, 2 mL	186006614
UPC² Standards Kit	1 mg/mL caffeine in 2-propanol, 2 mL 1 mg/mL coumarin, 1 mg/mL flavone, 2 mg/mL caffeine, 1 mg/mL thymine, 2 mg/mL prednisone in 2-propanol, 1 mL	176002811
UPC² Flavone Standard	1 mg/mL in 2-propanol, 2 mL	186006523
UPC² Flurbiprofen Standard	1 mg/mL in 2-propanol, 2 mL	186006524
UPC² Ibuprofen Standard	1 mg/mL in 2-propanol, 2 mL	186006521
UPC² Ketoprofen Standard	1 mg/mL in 2-propanol, 2 mL	186006522