



If you are not completely satisfied with the performance of Onyx, simply return the product within 45 days for a FULL REFUND.



2.0 mm ID

Take The Fast Track!

Onyx puts your sample throughput on the fast track, avoiding many problems associated with particulate columns.

Onyx Monolithic Columns \rightarrow Finish First

Particulate Columns \rightarrow X

- High backpressures limit faster flow rates to speed analysis time
- Biological samples clog column without lengthy sample cleanup procedures
- Re-equilibration time between samples slows overall sample throughput

How It Works!

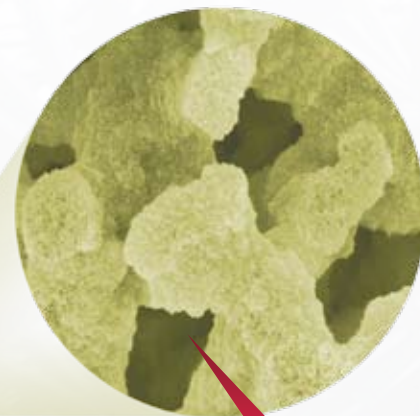
Using a fused silica rod with a bimodal pore structure, Onyx provides the ideal vehicle for fast sample throughput without the concerns of high backpressures or column failure due to contamination.

Silica Rod

The fused silica rod has a high mechanical strength and permeability, allowing fast flow rates without compromising structural integrity.

Macroporous Structure

The 1.5 μm^* macropores provide highly efficient channels through the silica rod, enabling fast flow rates without the eddy diffusion problems associated with particulate columns.



Mesoporous Structure

The 130 Å mesopores provide the high surface area needed (300 m^2/g) for solute interaction with the stationary phase, leading to successful chromatographic separation.

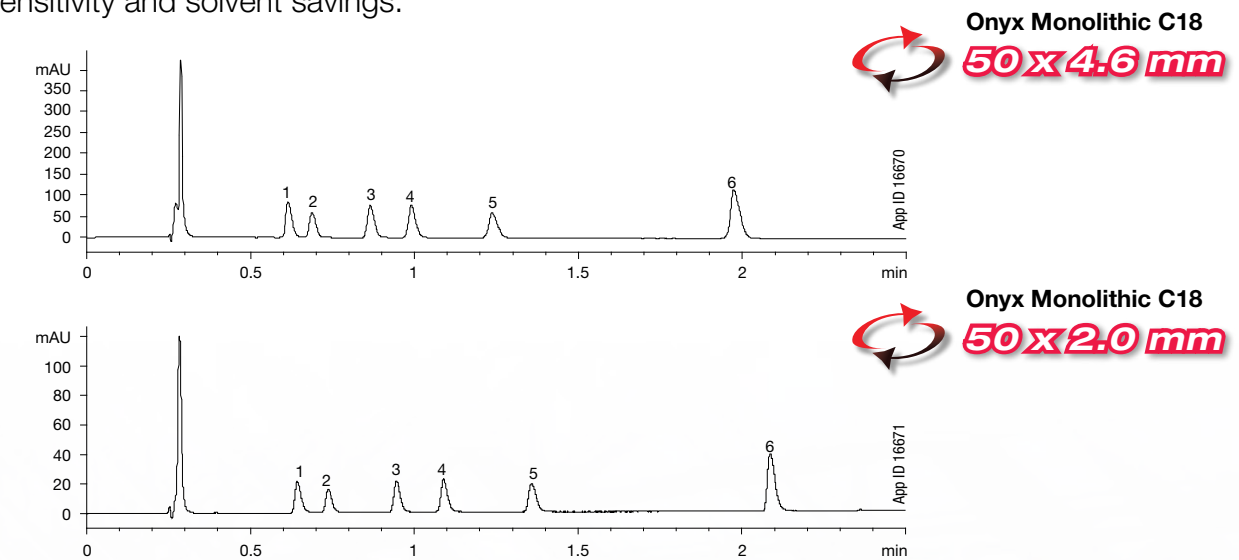


*50 x 2.0 mm ID only. Other Onyx columns have 2.0 μm macropores.

Versatile Performance!

Onyx can be used in a variety of reversed phase methods – anytime you want the advantage of speed and throughput, put Onyx to the test!

You can also scale existing Onyx methods to the new 50 x 2.0 mm ID to gain advantages in sensitivity and solvent savings.



Antihistamines

Conditions same for both separations:

Mobile Phase: A: 0.1 % Phosphoric Acid in Water
B: 0.1 % Phosphoric Acid in Acetonitrile
Gradient: 10 % to 50 % B in 3.4 min
Temperature: Ambient
Flow Rate: 0.56 mL/min for 2.0 mm ID
3.0 mL/min for 4.6 mm ID

Detection: UV @ 210 nm

Sample: 1. Pyrilamine
2. Triphenylamine
3. Chlorpheniramine
4. Brompheniramine
5. Chloropyramine
6. Diphenhydramine

Ordering Information

Part No.	Size (mm)	Description	Price
Capillary Columns			
CHO-7646	150 x 0.1	Onyx Monolithic C18	
Analytical Columns			
CHO-8373	50 x 2.0	Onyx Monolithic C18	
CHO-8158	100 x 3.0	Onyx Monolithic C18	
CHO-7643	100 x 4.6	Onyx Monolithic C18	
CHO-7644	50 x 4.6	Onyx Monolithic C18	
CHO-7645	25 x 4.6	Onyx Monolithic C18	
Other Phases Available:			
CHO-7647	100 x 4.6	Onyx Monolithic C8	
CHO-7648	100 x 4.6	Onyx Monolithic Si	
SemiPrep Columns			
CHO-7878	100 x 10.0	Onyx Monolithic C18	

Part No.	Size (mm)	Description	Price
Guard Cartridge System			
KJO-7651	5 x 4.6	Onyx Monolithic C18 Guard Cartridge Kit (3 pk cartridges + holder + wrench)	
CHO-7649	5 x 4.6	Onyx Monolithic C18 Guard (3/pk)	
KJO-7652	10 x 4.6	Onyx Monolithic C18 Guard Cartridge Kit (3 pk cartridges + holder + wrench)	
CHO-7650	10 x 4.6	Onyx Monolithic C18 Guard (3/pk)	
Method Validation Kit			
KHO-7653	100 x 4.6	Onyx Monolithic C18 Method Validation Kit (3 columns from different batches)	
Column Coupler			
AQO-7654		Onyx Column Coupler	
Column Performance Check Standards			
ALO-7835		Onyx Monolithic NP (Normal Phase) for Si (Silica) columns, 2 mL	
ALO-7836		Onyx Monolithic RP (Reversed Phase) for C8 and C18 columns, 2 mL	

Trademark

Onyx is a trademark of Phenomenex, Inc.

Disclaimer

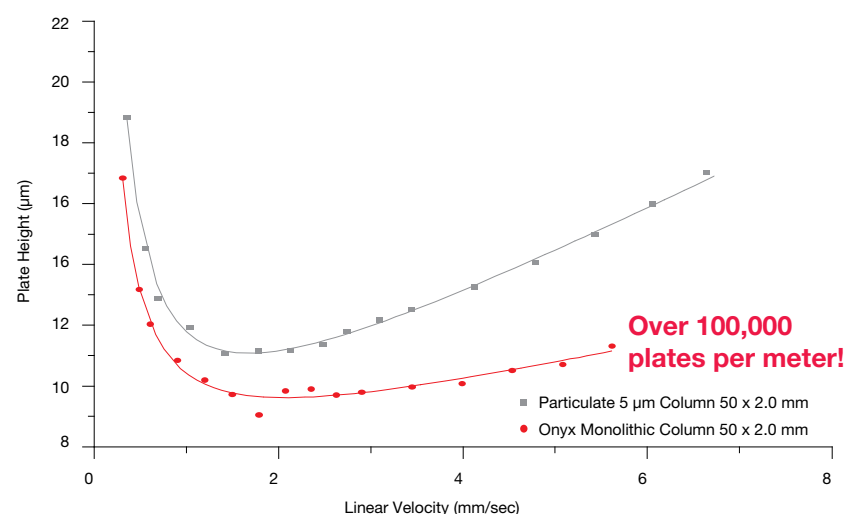
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High Efficiencies

Onyx 2.0 mm ID columns have a reduced macropore of 1.5 μm , providing excellent efficiencies.



Over 100,000 plates per meter!

Conditions same for both separations:

Columns: Particulate 5 μm Column 50 x 2.0 mm ID
Onyx Monolithic Column 50 x 2.0 mm ID

Mobile Phase: Acetonitrile/Water (65:35)

Detection: UV @ 254 nm

Temperature: 30 $^{\circ}\text{C}$

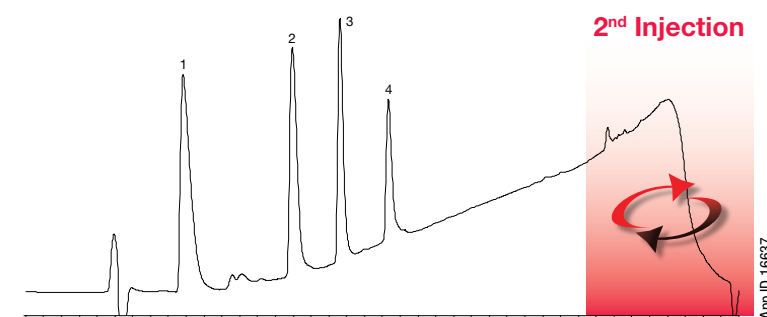
Flow Rate: As noted

Samples: 1. Uracil
2. Acetophenone
3. Benzene
4. Toluene
5. Naphthalene

Faster Throughput for BioAnalytical Samples

In DMPK/ADME and clinical environments, polar drugs and metabolites must be separated from complex matrices. This often involves rigorous sample cleanup procedures prior to injection onto the HPLC. In addition, aggressive gradient conditions often employed require lengthy column re-equilibration times between injections.

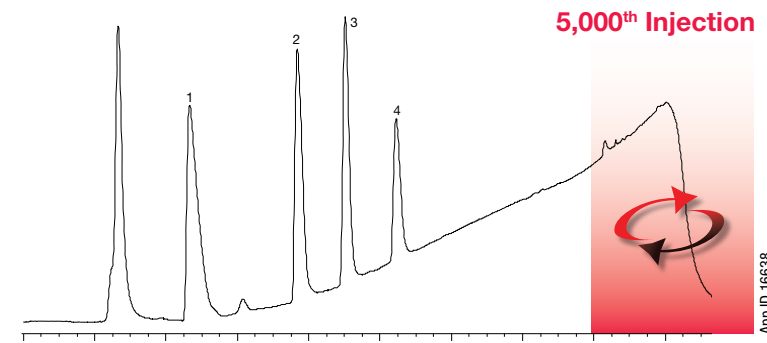
With backpressure no longer a concern, gradient cycle times can be decreased by increasing flow rate during the hold and re-equilibration step, significantly improving the speed of sample throughput.



Fast Cycle Times!

0.6 mL/min \rightarrow 1 mL/min

Over 40 hours saved!
Compared to a traditional re-equilibration strategy at 0.6 mL/min for 1.0 min



Conditions same for both separations:

Column: Onyx Monolithic C18

Dimension: 50 x 2.0 mm

Mobile Phase: A: 0.1 % Formic acid in Water
B: 0.1 % Formic acid in Acetonitrile

Gradient: 5 % B to 95 % B in 1.5 min at 0.6 mL/min

Equilibrate: 5 % B for 0.5 min at 1.0 mL/min

Temperature: 45 $^{\circ}\text{C}$

Detection: UV @ 230 nm

Samples: (100 $\mu\text{g}/\text{mL}$) in 1:3 Human plasma:
Acetonitrile
1. Atenolol
2. Pindolol
3. Metoprolol
4. Alprenolol

Fast. Efficient. Unstoppable.



ONYX 2.0 mm ID



You Have A Problem

Countless numbers of samples need to be analyzed and separated by HPLC and you only have a limited amount of time.

Enter The Solution

New Onyx™ 2.0 mm ID columns put sample throughput on the fast track! Monolithic technology brings substantial benefits, not just in speed of analysis, but by decreasing time taken up by rate-limiting processes in sample throughput, such as re-equilibration times and sample cleanup.

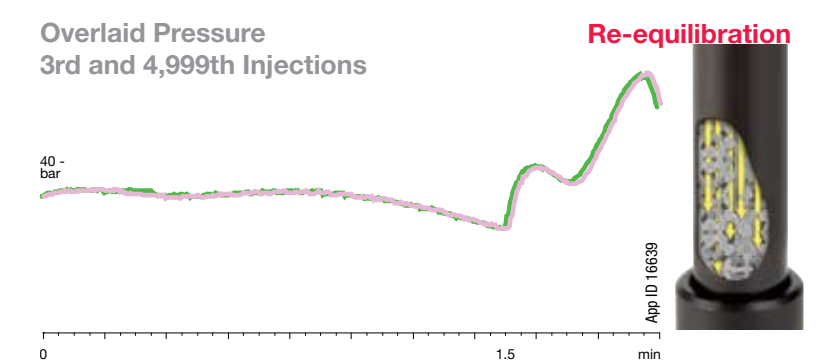


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High Permeability Results in Low Pressure and Long Lifetime

Onyx offers advantages when it comes to difficult samples. With the highly permeable monolithic structure, time consuming sample preparation steps can be drastically reduced. Viscous solvents and dirty samples enter onto the monolithic silica rod directly. There are no frits to be clogged and steady pressure readings are produced run after run.



Conditions same for both separations:

Column: Onyx Monolithic C18

Dimension: 50 x 2.0 mm

Mobile Phase: A: 0.1 % Formic acid in Water
B: 0.1 % Formic acid in Acetonitrile

Gradient: 5 % B to 95 % B in 1.5 min at 0.6 mL/min

Equilibrate: 5 % B for 0.5 min at 1.0 mL/min

Temperature: 45 $^{\circ}\text{C}$

Detection: UV @ 230 nm

Samples: (100 $\mu\text{g}/\text{mL}$) in 1:3 Human plasma:
Acetonitrile
1. Atenolol
2. Pindolol
3. Metoprolol
4. Alprenolol

