HPLC, LC/MS Columns

Inertsil ODS-HL

Ultra High Retentivity
Ideal for Separation of Basic Molecules & its Related Substances, Process Impurities

Physical Properties

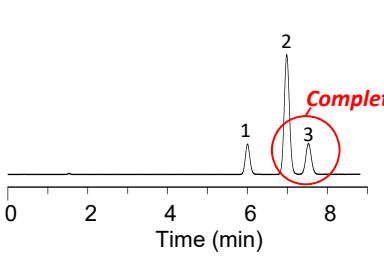
- Silica : 3 Series High Purity Silica Gel
- Particle Size : 3 µm, 5 µm, 10 µm
- Surface Area : 450 m^2/g
- Pore Size : 100 Å (10 nm)
- Pore Volume : 1.05 mL/g
- Bonded Phase : Octadecyl Groups
- End-capping : Yes
- Carbon Loading : 23 %
- pH Range : 2～7.5
- USP Code : L1

GL Sciences

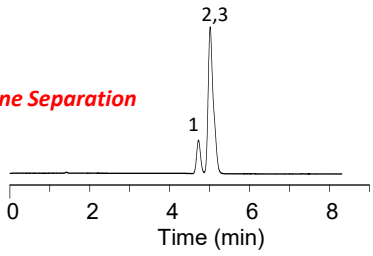
Inertsil ODS-HL

High-Density Bonding of C18 Phase Delivers Alternative Selectivity to Conventional C18 Columns

A mixture of *o*-, *m*- and *p*-terphenyl were separated under Acetonitrile and Water to compare the performance of planar molecule recognition between Inertsil ODS-HL and conventional C18 column. These three analytes differ only in their three-dimensional structure and not in their hydrophobicity or polarity.
As shown below, Inertsil ODS-HL recognizes even slight steric differences achieving complete baseline separation while other conventional C18 column fails.



Inertsil ODS-HL
(Carbon Loading 23 %)

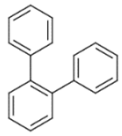


InertSustain C18
(Carbon Loading 14 %)

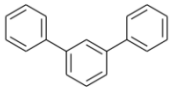
Conditions

Column	: 5 µm,150 × 4.6 mm I.D.
Eluent	: A) CH_3CN B) H_2O A/B = 85/15, v/v
Flow Rate	: 1.0 mL/min
Col.Temp.	: 40 ℃
Detection	: UV 254 nm

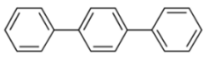
Sample :



1. *o*-Terphenyl



2. *m*-Terphenyl

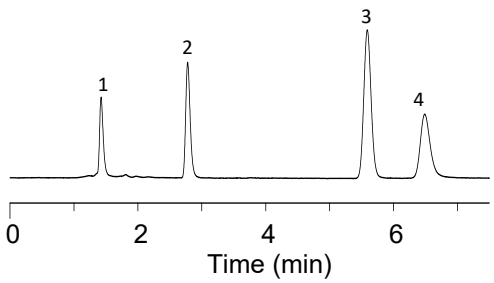


3. *p*-Terphenyl

Benefits of Highly Inert Packing Material

High-density bonding of C18 phase columns available in the market show severe tailing of peaks due to the presence of silanols in the packing. Inertsil ODS-HL employs a highly inert packing material which provides pure hydrophobic interaction between analytes without generating any secondary interaction delivering sharp peaks.

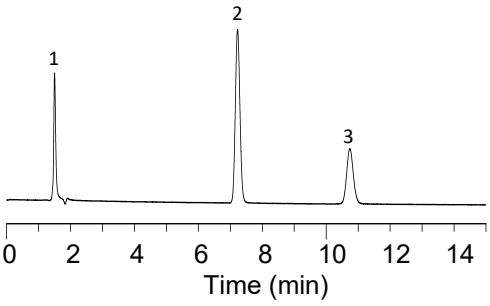
Basic Compound Test



Conditions

Column	: 5 µm,150 × 4.6 mm I.D.
Eluent	: A) CH_3CN B) 25 mM K_2HPO_4(pH 7.0) A/B = 30/70, v/v
Flow Rate	: 1.0 mL/min
Col.Temp.	: 40 ℃
Detection	: UV 230 nm
Sample	: 1. Uracil 2. Pyridine 3. Phenol 4. Berberine

Acidic Compound Test



Conditions

Column	: 5 µm,150 × 4.6 mm I.D.
Eluent	: A) CH_3CN B) 0.1% H_3PO_4 A/B = 25/75, v/v
Flow Rate	: 1.0 mL/min
Col.Temp.	: 40 ℃
Detection	: UV 230 nm
Sample	: 1. Uracil 2. Phenol 3. Salicylic acid

GL Sciences' Recommended HPLC Column Selection Guide

InertSustain C18	• First Choice C18 Column
InertSustain AQ-C18	• Ideal for Maximizing Retention for Highly Polar Compounds in Reversed Phase Methods with Highly Aqueous Mobile Phases
InertSustainSwift C18	• Rapid Elution of Samples in Isocratic Methods and Rapid Column Equilibration Time in Gradient Methods
Inertsil ODS-HL	• Ultra High Retentivity, High-Density Bonding of C18 Phase • Ideal for Separation of Basic Molecules & its Related Substances, Process Impurities

Ordering Information

Inertsil ODS-HL Analytical Columns

	Length / I .D. (mm)	2.1	3.0	4.6
HP Series Particle Size : 3 µm Max. Operating Pressure: 50 MPa (500 Bar)	30	5020-87315	5020-87321	5020-87327
	50	5020-87316	5020-87322	5020-87328
	75	5020-87317	5020-87323	5020-87329
	100	5020-87318	5020-87324	5020-87330
	150	5020-87319	5020-87325	5020-87331
	250	5020-87320	5020-87326	5020-87332

	Length / I.D. (mm)	2.1	3.0	4.0	4.6
Particle Size : 3 µm	30	5020-87226	5020-87234	5020-87242	5020-87250
	50	5020-87227	5020-87235	5020-87243	5020-87251
	75	5020-87228	5020-87236	5020-87244	5020-87252
	100	5020-87229	5020-87237	5020-87245	5020-87253
	125	5020-87230	5020-87238	5020-87246	5020-87254
	150	5020-87231	5020-87239	5020-87247	5020-87255
	250	5020-87232	5020-87240	5020-87248	5020-87256
	Length / I.D. (mm)	2.1	3.0	4.0	4.6
Particle Size : 5 µm	30	5020-87102	5020-87110	5020-87118	5020-87126
	50	5020-87103	5020-87111	5020-87119	5020-87127
	75	5020-87104	5020-87112	5020-87120	5020-87128
	100	5020-87105	5020-87113	5020-87121	5020-87129
	125	5020-87106	5020-87114	5020-87122	5020-87130
	150	5020-87107	5020-87115	5020-87123	5020-87131
	250	5020-87108	5020-87116	5020-87124	5020-87132

Inertsil ODS-HL

Ordering Information

Cartridge Guard Column E

I.D. of the Analytical Column Applicable (mm)	Lengtzh (mm)	I.D. (mm)	Replacement Cartridge E Guard Column (2 EA.) Particle Size		Cartridge E Holder / Cartridge Set (2 Cartridge E Guard Columns & 1 Holder) Particle Size	
			3 µm	5 µm	3 µm	5 µm
1.0	10	1.0	5020-87305	5020-87209	5020-87306	5020-87210
1.5,2.1		1.5	5020-87307	5020-87211	5020-87308	5020-87212
2.1,3.0		3.0	5020-87303	5020-87207	5020-87304	5020-87208
4.0,4.6		4.0	5020-87301	5020-87205	5020-87302	5020-87206
2.1,3.0	20	3.0	5020-87311	5020-87215	5020-87312	5020-87216
4.0,4.6		4.0	5020-87309	5020-87213	5020-87310	5020-87214
Holder for Cartridge Guard Column E				For 10 mm Length		5020-08500
				For 20 mm Length		5020-08550

Inertsil ODS-HL is now available in 10 µm particle size to allow the purification scientist the flexibility to choose the best combination of particle size and column dimension to easily purify the most complex samples.

Inertsil ODS-HL Analytical Columns

Particle Size : 10 µm Max. Operating Pressure: 20 MPa (200 Bar)	Length / I .D. (mm)	4.6
	150	5020-89550
	250	5020-89551

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