

### TYPE-C Silica

**Based HPLC Columns** 

Separate
Everything
with Cogent
Type-C Columns

You CAN do more!



# Finally a new technology that saves you time and money!

#### The Difference

There have been some really great advancements in chromatography over the past 10 years but it is the silica hydride technology that offers real advancements in HPLC column technology.

Ordinary silica is populated with silanols (Si-OH) even after bonding and extensive end capping. These silanols are the main reason for the strong association with water and the resulting "hydration shell" that surrounds all silica based columns.

Structure Impacts Performance!

Ordinary Silica
Silica Hydride

O O O
O-Si-OH
O-Si-OH
O-Si-O-Si-H
O O
O-Si-O-Si-H

TYPE- $C^{\text{TM}}$  silica, is the same as ordinary silica but is populated with silicon hydrides (Si-H) instead of silanols leaving the remaining surface, after bonding, slightly hydrophobic. With TYPE- $C^{\text{TM}}$  silica there is no permanent "hydration shell" producing many chromatographic benefits.

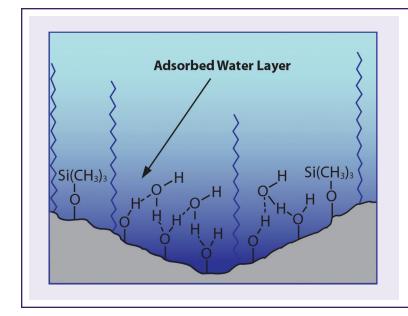
**Ordinary Silica** 

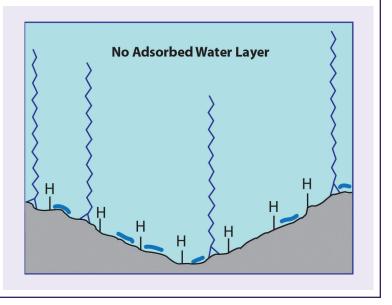
$$\sin$$
 $O$  $+$  $O$  $+$ 

Strong association with water.

Silica Hydride

Strong association with water.





Visit our website for methodologies and our full application note library along with our technical support information.

COGENT. Cogent-HPLC.com

#### What TYPE-C™ Silica Columns do

Don't be trapped by outdated and older technology just because that is what you know. Stop using work arounds for compounds with columns that are not designed for them or columns that require additives or reagents to make your method work. Use silica hydride column technology to save time and money at no additional cost over ordinary HPLC columns.

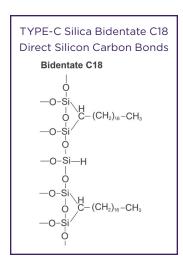


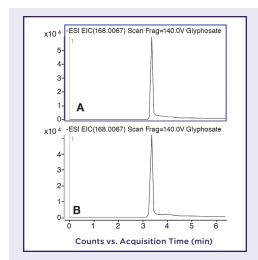
#### **Direct Silicon Carbon Bonds**

Using our patented technology, bonded phases such as C18, C8, Cholesterol, Phenyl and our "Diamond Hydride" are attached to the silica hydride surface with direct silicon-carbon bonds. These extremely stable bonds offer stability unknown in HPLC until now. Use at pH 1.5 with no effect on the column lifetime.

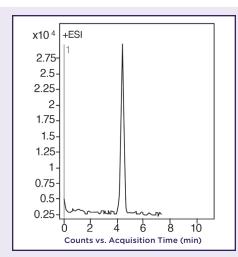
Cogent TYPE-C™ silica based columns can operate with an extremely wide range of HPLC solvents due to our bonding technology and the silica hydride surface without any consequences to the column lifetime. Because of this, all TYPE-C columns can be operated in 3 modes of chromatography: Reversed Phase, Normal Phase or Aqueous Normal Phase (ANP\*). You can switch from mode to mode with little to no hysteresis.

\*ANP is normal phase chromatography with reversed phase solvents.

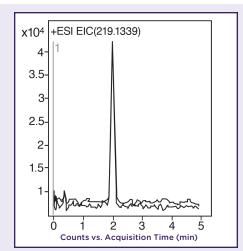




Extremely Polar Compounds
Precision & Speed
Glyphosate A= first run B=5th run



Drug Product
Fast & Easy & No SPE
Gabapentin



Clinical Analysis by LCMS
No SPE from plasma
Meprobamate from Patients

#### YOU WON'T BELIEVE HOW EASY IT WAS WITH COGENT COLUMNS



#### Do more runs per hour with a column that lasts a very long time.

Yes, HPLC is very expensive to operate and it is up to everyone to make it as affordable as possible to help your lab's bottom line and budget. With Cogent TYPE-C™ silica based columns you will save money and time but more importantly, you will be able to do more runs in a given period of time if you follow our methodologies. The long lifetime of these columns not only saves the cost of acquisition but also the time saved by fewer in situ failures and repeated runs. Save on your lab budget and produce more runs with better data.

Using these columns, you can use the same column for polar, non polar and mixtures of compounds since you can change the mode from reversed phase to ANP simply by changing the mobile phase concentration. You can perform orthogonal runs on the same column saving time.

Most methods developed so far have been with 3 solvents: Acetonitrile, Water & Methanol even for the most polar compounds and the most complex mixtures.

To learn more about this column technology and stay updated, visit our website or call our technical support department.

From the same company that brings you RSA Glass™ autosampler vials for improved results.

## TOP 10 REASONS you should learn more about TYPE-C™ columns.

- 1 HPLC is expensive.
- 2 Increased selectivity.
- 3 Precision the way you would want it.
- 4 Orthogonality within one column.
- 5 Robust methods with fast equilibration.
- 6 Very long column lifetime.
- 7 Use singular mobile phases.
- 8 Fast method development.
- 9 Work with water labile compounds or NP with ease.
- 10 Get technology competitive.