

*Use a better
column*

VDSpher[®]

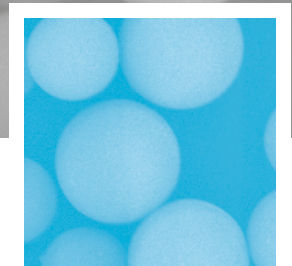
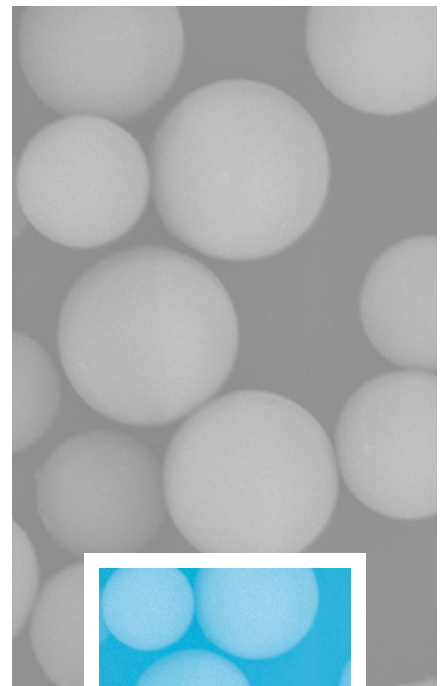


VDS optilab
Chromatographie
Technik GmbH



VDSpher[®]
OptiAqua

Your column
brand for
100% aqueous
Reversed Phase
Chromatography



BGB GC|LC
MS|CE

VDSpher® OptiAqua

– your column brand for
100% aqueous reversed
phase chromatography

VDSpher® OptiAqua phases have been specially developed for highly hydrophilic applications. Special polar endcapping makes it possible to use 100% water as a solvent while still maintaining RP properties.

Based on spherical, porous and ultra-pure silica (VDSpher® OptiAqua > 99.95% Si, VDSpher® OptiAqua PUR > 99.995% Si) with narrow

particle and pore size distributions, various VDSpher® OptiAqua reversed phases with C18, C8 and C4 bonding have been created that deliver high plate numbers and sharp peaks.

A total of five VDSpher® OptiAqua phases with various pore and particle sizes are available, suitable for a broad range of applications. Please refer to Table 1 for possible combinations.

Table 1: VDSpher® OptiAqua phases

	Pore size [Å]	Particle sizes [µm]
OptiAqua 100 C18	100	5/10
OptiAqua PUR 100 C18	100	3/5/10
OptiAqua PUR 150 C18	150	5
OptiAqua PUR 100 C8	100	5
OptiAqua PUR 100 C4	100	5

This product range is thus ideal for both preparative and analytical HPLC and is optimally suited for different sizes of analytes. Various

molar mass ranges can be covered depending on the pore size of the modified silica (see Table 2).

Table 2: Recommended analyte sizes for VDSpher® OptiAqua phases

	Analyte size [g/mol]
OptiAqua 100 C18	30 - 800
OptiAqua PUR 100 C18	30 - 800
OptiAqua PUR 150 C18	120 - 3200
OptiAqua PUR 100 C8	30 - 800
OptiAqua PUR 100 C4	30 - 800



VDSpher® OptiAqua phases can also be used to separate polar substances. Examples of typical analytes include:

- Antibiotics
- Biomolecules
- Drugs
- Nucleobases
- Organic acids
- Parabens
- Pesticides
- Sulfonamides
- Water-soluble vitamins
- Xanthines

All VDSpher® OptiAqua phases are stable from pH 2 to 7.5 and can be used up to temperatures of 60 °C without problem. For further specifications, please refer to Table 3.

Table 3: Specifications for VDSpher® OptiAqua phases

	Endcapping	Carbon load [%]	Surface area [m ² /g]	USP
OptiAqua 100 C18	✓	13.0	300	L1
OptiAqua PUR 100 C18	✓	13.0	300	L1
OptiAqua PUR 150 C18	✓	6.9	175	L1
OptiAqua PUR 100 C8	✓	7.4	300	L7
OptiAqua PUR 100 C4	✓	6.5	300	L26

VDSpher® OptiAqua columns come in a range of dimensions from 1 - 63 mm inside diameter and 30 - 300 mm length. Guard

cartridges are likewise available. For a more detailed overview, please refer to our price list.



Switzerland: BGB Analytik AG • Rohrmattstrasse 4 • 4461 Böckten • Phone +41 61 991 00 46 • Fax +41 61 991 00 25 • sales@bgb-analytik.com

BGB Analytik SA • Route de Pré-Bois 20 • 1215 Genève 15 • Phone +41 22 788 49 43 • Fax +41 22 788 49 45 • sales.fr@bgb-analytik.com

Benelux: BGB Analytik Benelux B.V. • Drielandendreef 42-44 • 3845 CA Harderwijk • Phone +31 341 700270 • Fax +31 341 700271 • sales.benelux@bgb-analytik.com

France: BGB Analytik France S.A.S. • 81 Vie de l'Etraz • 01630 St. Jean de Gonville • Phone +33 450 488567 • Fax +33 450 562378 • sales.fr@bgb-analytik.com

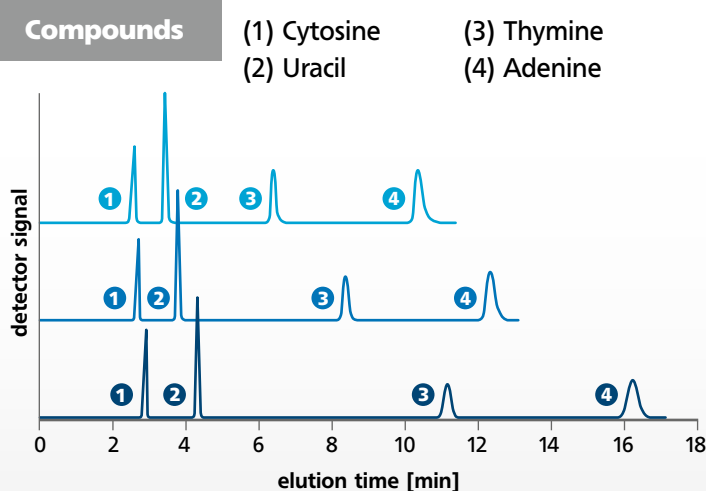
Germany: BGB Analytik Vertrieb GmbH • Mühlestraße 1 • 79539 Lörrach • Phone +49 7623 7173110 • Fax +49 7623 7173199 • sales.de@bgb-analytik.com

Turkey: BGB Analytik Laboratuvar Malzemeleri Ticaret A.Ş. • Şefika Sokak No: 10 • Dumankayaflex A Blok Daire 6 • Kurtköy, Pendik, Istanbul • Phone +90 2169092048 • sales.tr@bgb-analytik.com

Example of application

Made in Germany

VDSpher® OptiAqua PUR 100 C18 vs C8 vs C4 – Separation of Nucleobases



© 2016 VDS optilab Chromatographietechnik GmbH

Use a better Column
VDSpher®

Column

VDSpher® OptiAqua PUR 100 C4

VDSpher® OptiAqua PUR 100 C8

VDSpher® OptiAqua PUR 100 C18

(5 µm, 150 mm x 4.6 mm)

Chromatographic conditions

Solvents: Water
(10 mM KH₂PO₄)

Flow rate: 1.0 ml/min

Temp.: Ambient

VDSpher® OptiAqua is a registered trademark of VDS optilab Chromatographietechnik GmbH.

© 2016 VDS optilab Chromatographietechnik GmbH

VDS optilab
Chromatographietechnik GmbH

Wiesenweg 11a
D-10365 Berlin

Phone: +49 (0) 30 55 15 39 01

Fax: +49 (0) 30 55 15 39 03

Email: info@vdsopilab.de

Internet: www.vdsopilab.de