

*Use a better
column*

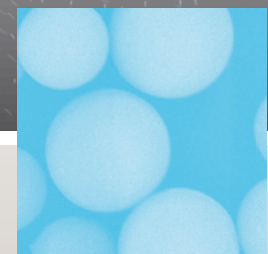
VDSspher[®]



VDS optilab
Chromatographie
Technik GmbH

VDSspher[®]
MS

Separation phases
for
LC/MS Analytics



BGB

GC	LC
MS	CE

VDSpher® MS

Separation phases for LC/MS Analytics

The significance of mass spectrometry as an online detection method is increasing rapidly. The requirements of LC/MS analytics consequently reflect in the design of HPLC columns. The columns are generally preferred with smaller dimensions in order to reduce the solvent quantity and to avoid jeopardizing the vacuum created in mass spectro-

meter. It is recommended to use silica gel with smaller particle size for the columns in order to further benefit through a high resolution. VDSpher® MS meets this requirement with 2.5 microns separation phases. If this resolution does not play a major role, then VDSpher® MS columns are also available with 4 micron silica gels.

VDSpher® MS - Separation phases...

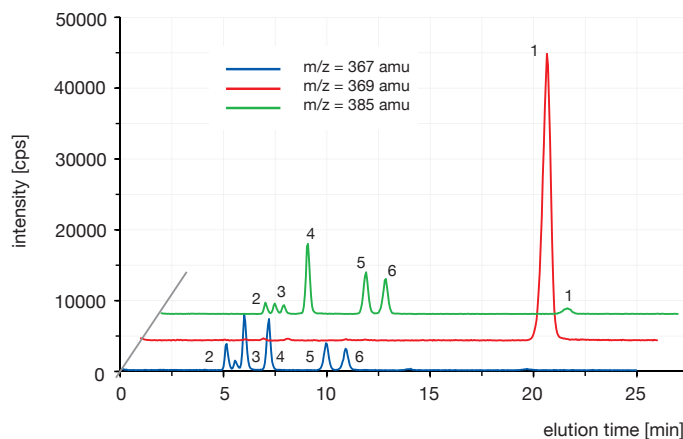
Phase	Endcapping	Carbon Load [%]	pH-Range	USP-Code
VDSpher® MS 100 C18-DE	yes	17,2	2 – 9	L1
VDSpher® MS 100 C18-B	no	17,7	2 – 7.5	L1
VDSpher® MS 100 C18-B-DE	yes	20,1	2 – 10	L1
VDSpher® MS 100 C18-H	polar	11,5	2 – 7.5	L1
VDSpher® MS 100 C18-LC-H	hydrophil	13,5	2 – 8	L1
VDSpher® MS 100 C8-B-DE	yes	11,2	2 – 10	L7
VDSpher® MS 100 C4-B-DE	yes	7,3	2 – 9	L26
VDSpher® MS 100 Phenyl-DE	yes	10,9	2 – 9	L11
VDSpher® MS 100 CN-DE	yes	7,2	2 – 9	L10
VDSpher® MS 100 CN-DE-RP	yes	7,2	2 – 9	L10

Basically every VDSpher® column can be used for LC/MS. Since mass spectrometry is a sensitive detection method which is able to detect the smallest impurities, depend-

ing on the type of application e.g. caused by carryovers from previous injections, the VDSpher® MS phases are specially selected for avoiding this effect. Overall, ten different

STEROLS AND OXYSTEROLS – Separation of Cholesterol and Its Oxidation Products

- | | | |
|------------------|------------------------------|----------------------------|
| Compounds | (1) Cholesterol | (4) 7-β-Hydroxycholesterol |
| | (2) 22(S)-Hydroxycholesterol | (5) β-Epoxy-Cholesterol |
| | (3) 25-Hydroxycholesterol | (6) α-Epoxy-Cholesterol |



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Use a better column
VDSpher®

Column (2.5 µm, 150 mm x 2.0 mm)
 VDSpher® MS 100 C18-H
Order number: N1520E184VMF

Chromatographic conditions

Solvents: A: 0.1% Formic acid
 B: Acetonitrile/Methanol (50:50 v:v)

Method isocratic 95%B

Flow rate: 0.2 ml/min

Temp.: 12 °C

Detection APCI-MS (ion monitoring at m/z=367 amu, 369 amu, 385 amu)

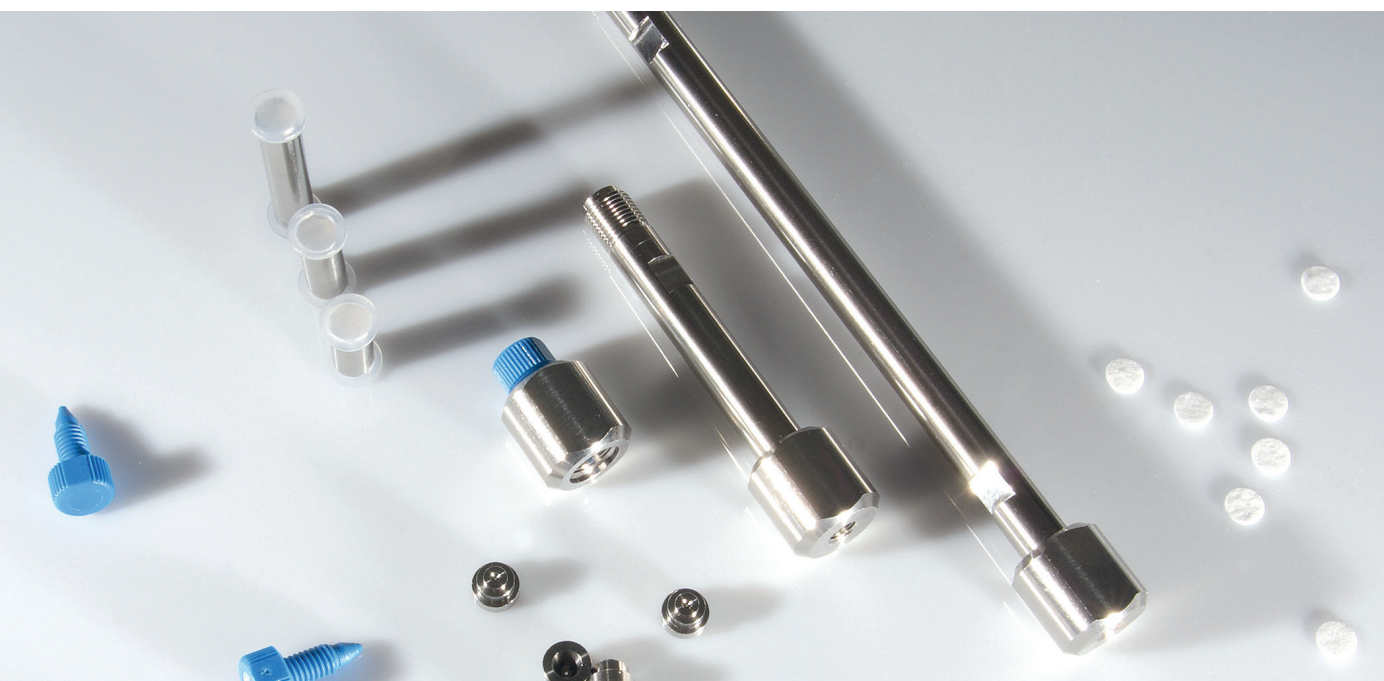
For more information, quotation requests and purchase orders please visit our website (www.vdsoptilab.de) or contact us: info@vdsoptilab.de

Origin: A.Becker, R. Buchholz (Friedrich-Alexander Universität Erlangen-Nürnberg, Institute of Bioprocess Engineering)

modifications are available. The C18 phases enable a wider range of hydrophilic (C18-H, C18-LC-H) and hydrophobic (C18-DE, C18-B-DE) applications. The phase C18-B without endcapping is of medium hydrophobicity. Additionally the hydrophobic VDSpher® MS phases with C8, C4, phenyl and CN modifications are also available.

The pore diameter of all VDSpher® MS phases is 100 Å. The available column dimensions cover an area of 30 to 150 mm length and 2.0 to 4.6 mm inner diameter (longer columns available upon request). For further information, please visit our website or contact us directly.

- 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 7621 5884270 • Fax +49 7621 5884289 • sales.de@bgb-analytik.com
- Turkey:** BGB Analytik Laboratuvar Malzemeleri Ticaret A.Ş. • Cevizli Mah. 30 Ağustos Cad. No: 13 • B-Blok, Kat: 14 Daire 127 • 34846 Maltepe, Istanbul
Phone +90 2169092048 • sales.tr@bgb-analytik.com



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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
E-mail: info@vdsoutilab.de
Web: www.vdsoutilab.de