Agilent Technologies

Agilent Poroshell 300

A collection of citations to advance your research

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Biologics and biosimilars

Evaluation of columns packed with shell particles with compounds of pharmaceutical interest

Journal of Chromatography A, **1228**, 221-231 (2011)
Joséphine Ruta *et al.*

Tags
Poroshell 300, Poroshell 120 EC-C18, biologics and biosimilars, physicochemical characterization

Abstract
Several HPLC columns with shell particles were compared using pharma compounds, including Agilent Poroshell 120 EC-C18 and Poroshell 300. Published by Elsevier B. V.

Materials testing and research

Shell particles, trials, tribulations and triumphs

Journal of Chromatography A, **1218**, 1915-1938 (2011)
Georges Guiochon, Fabrice Gritti

Tags
Poroshell 300SB, materials testing and research, materials research and development

Abstract
The development history, performance and future prospects for HPLC columns using shell particles are reviewed. Agilent Poroshell 300SB0 columns are among those evaluated successfully. Published by Elsevier B. V.

Applications of superficially porous particles: High speed, high efficiency or both?

Journal of Chromatography A, **1228**, 72-88 (2011)
Xiaoli Wang, William E. Barber, William J. Long

Tags
Poroshell 300SB-C8, Poroshell 300SB-C18, Poroshell 120 SB-C18, ZORBAX RRHD StableBond SB-C18, 1200 Infinity Series, materials testing and research, materials research and development

Abstract
Agilent Poroshell 120 and Poroshell 300SB-C18 superficially porous columns provide better chromatographic efficiency compared to totally porous particles. The columns were used in an Agilent 1200 Infinity Series. Published by Elsevier B. V.

Efficiency in supercritical fluid chromatography with different superficially porous and fully porous particles ODS bonded phases

Journal of Chromatography A, **1228**, 89-98 (2011)
E. Lesellier

Tags
Poroshell 300SB, Poroshell 120 EC-C18, ZORBAX Eclipse Plus C18, Pursuit UPS, materials testing and research, materials research and development

Abstract
Agilent ZORBAX Eclipse Plus C18, Poroshell 300SB, Poroshell 120 EC-C18, and Pursuit UPS were used in a comparison of columns used for supercritical fluid chromatography. Published by Elsevier B. V.

Proteomics and protein sciences

Sensitive and Reproducible Intact Mass Analysis of Complex Protein Mixtures with Superficially Porous Capillary Reversed-Phase Liquid Chromatography Mass Spectrometry

Analytical Chemistry, **83**, 9586-9592 (2011)
Michael J. Roth *et al.*

Tags
Poroshell 300SB-C18, proteomics and protein sciences quantitative proteomics

Abstract
The compatibility of superficially porous (SP) resin for label-free intact protein analysis with online capillary LC/MS is demonstrated to give improved chromatographic resolution, sensitivity, and reproducibility. The robustness of the platform was measured against several samples of varying complexity and sample loading amount. The results indicate that capillary SP columns provide high loading capacities and that 6 s chromatographic peak widths are typical for standard proteins in simple mixtures and proteins isolated from cell and tissue lysates. Subfemtomole detection limits for standard proteins were consistently observed, with the lowest levels at 12 amol for ubiquitin. The analysis of total heart homogenates shows that capillary SP columns provide theoretical peak capacity of 106 protein forms with 30 min total analysis time and enabled detection of proteins from complex mixtures with a single high-resolution scan. The SPLC/MS platform also detected 343 protein forms from two HeLa acid extract replicate analyses that consumed 5 × 104 cells and 30 min analysis time, each. Comparison of all the species observed in each HeLa replicate showed 90% overlap (309 forms) with a Pearson correlation coefficient of 89.9% for the common forms observed in the replicates. Efficient acid extract of 1 × 104 HeLa cells allowed reproducible detection of common modification states and members from all five of the histone families and demonstrated that capillary SPLC/MS supports reproducible label-free profiling of histones in <15 min total analysis time. The data presented demonstrate that a capillary LC/MS platform utilizing superficially porous stationary phase and a LTQ-Orbitrap FT-MS is fast, sensitive, and reproducible for intact protein profiling from small tissue and cell amounts. Reprinted with permission from Analytical Chemistry.

[Retention times and bandwidths in reversed-phase gradient liquid chromatography of peptides and proteins]

Journal of Chromatography A, **1218**, 8874-8889 (2011)
Pavel Jandera, Zdeňka Kučerová, Jiří Urban

Tags
Poroshell 300SB-C18, ZORBAX 300SB-C18, proteomics and protein sciences quantitative proteomics

Abstract
This paper reviews the performance of nine columns for the assessment of peptides and proteins, including Agilent ZORBAX 300SB-C18 and Poroshell 300SB-C18 columns. Published by Elsevier B. V.

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