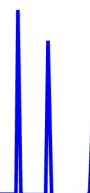




ZirChrom®

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... For Peak Performance

Comparison of Normalized Pressure Drops for Zirconia, Silica, Polymeric and Alumina Columns

The table below shows the pressure drop (Δp) for a wide range of reversed-phase columns under identical LC conditions. These results indicate that the observed pressure drop for zirconia-based columns (ZirChrom-CARB, ZirChrom-PBD and DiamondBond-C18) is significantly lower than for any other substrate materials tested after the effect of particle size (d_p) is properly accounted for.

Column Name*	Substrate	d_p (mm)	Dp (bar)†	Dp* d_p^2	Norm. to CARB
ZirChrom-CARB	Zirconia	3.0	110	990	1.0
DiamondBond-C18	Zirconia	3.0	119	1071	1.1
ZirChrom-PBD	Zirconia	3.0	122	1098	1.1
Supelcosil ABZ+Plus	Silica	3.0	122	1098	1.1
Phenomenex Luna	Silica	3.0	155	1395	1.4
Waters Symmetry C18	Silica	3.5	123	1507	1.5
Zorbax 300SB-C18	Silica	3.5	132	1617	1.6
Hypersil HyPurity Elite	Silica	5.0	103	2575	2.6
Polymer Labs PLRP-S	Polymer	5.0	90	2250	2.3
Jordi Gel DVB SM-500	Polymer	5.0	94	2350	2.4
Jordi Gel DVB C18	Polymer	5.0	126	3150	3.2
Hamilton PRP-1	Polymer	5.0	132	3300	3.3
Gammabond RP-1/P	Alumina	5.0	54	1350	1.4

† LC Conditions: 150 mm x 4.6 mm i.d., Mobile Phase, 65/35 ACN/Phosphate Buffer (50 mM monobasic, pH = 3.2); Flow Rate, 1.0 ml/min.; 254 nm detection, Column Temperature, 21 C. Solutes: uracil, phenol, pyridine, 4-butylbenzoic acid, N,N-dimethyl aniline, toluene.

* Column names are the trademarks of their respective manufacturers.

