

APPLICATION NOTE

STYROS® Simulated-Monolith™ Polymeric Reversed Phase. Performance of PS-DVB stationary phase of different manufacturers with Methanol.

Not all stationary phases made of polystyrene divinyl benzene perform the same when using MeOH as diluent.

In application note 125 we have shown the performance of STYROS® media using MeOH as mobile phase.

Here we have run a similar Narrow Bore column at twice the speed of the previous runs: 0.4 ml/min that is close to 700 cm/hr.

The separations remain base line yet the time is reduced to half and the pressure is only 150 bar that includes the system pressure.

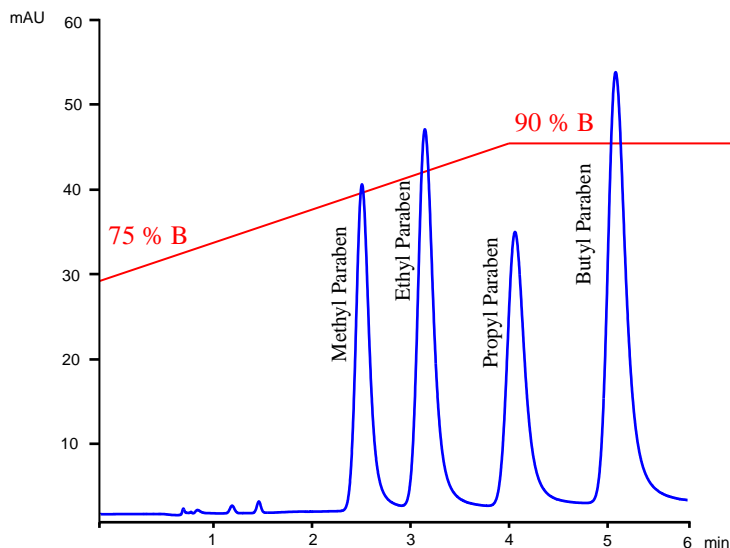


Table 1. Operating parameters.

HPLC System.	Agilent 1290 Infinity with thermostatted column compartment.
Columns	STYROS® 2R/XH 2.1X150 mm
Mobile phase.	A: DI H2O B: MeOH
Flow rate	0.4 ml/min. (~700cm/hr)
Gradient	75 to 90 % B in 4 minutes.
Temperature	30°C
Detection	254 nm
Injection volume	2 µl
Pressure Drop	150 bar at the start of gradient (includes the system pressure)
Sample:	Supelco HPLC Gradient System Mix part number 48271

This run is compared with runs using the same size Narrow Bore columns of 2.1x 150 mm from different manufacturers. Same conditions for all the runs.

