



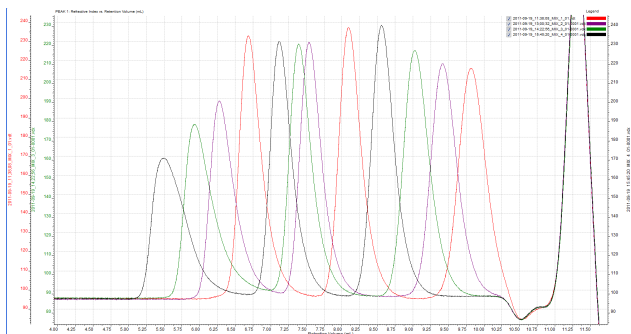
CCS-PS Application Note #14

Polystyrene Conventional Calibration Standards (CCS-PS)

CCS-PS is a new class of GPC standards designed for quick and reproducible column calibration work. The preparation procedure is similar to Triple Detection Standards (TDS) where an aliquot (2 to 5 mL) of solvent is added to the pre-weighed Mixes. The resulting standard solutions will be very consistent from calibration to calibration which is important for MWD results consistency. The 12 Polystyrene fractions are grouped into 4 mixes that can be easily resolved by a single high-resolution linear column. The following are the experiment conditions.

Solvent	THF
Samples	All 4 Mixes are diluted with 5 mL THF
Columns	1 X HM--MBHMW-3078
Flow Rate	1 mL/min
Column Temp	30C

The following is an example Conventional Calibration Curve using the CCS-PS Mixes.



Mixes	PS Stds	Mp	mg/Vial
1	PS1200	1,200	4.1
1	PS29K	29,100	3.7
1	PS389K	388,500	3.3
2	PS2400	2,430	4.0
2	PS78K	77,500	3.6
2	PS874K	874,200	3.2
3	PS5600	5,640	3.9
3	PS94K	94,200	3.5
3	PS1880	1,877,8	3.1
4	PS13K	12,630	3.8
4	PS165K	165,100	3.4
4	PS4750	4,748.0	3.0