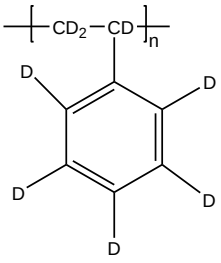
Sample Name: **Deuterated Polystyrene (d_8)**

Sample #: **P3686BF-dPS**

Structure:

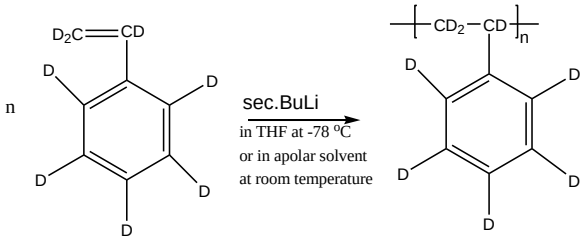


Composition:

Mn x 10^3	PDI
1,629.0	1.14

Synthesis Procedure:

Deuterated polystyrene-d_8 is obtained by living anionic polymerization of styrene-d_8 as illustrated below:



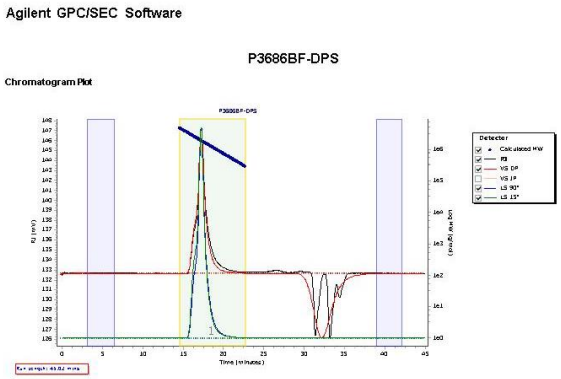
Characterization:

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors from Viscotek Co. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used.

Solubility:

Deuterated polystyrene-d_8 is soluble in DMF, THF, toluene and $CHCl_3$. It precipitates from methanol, ethanol, water and hexanes.

SEC elugram of Homopolymer:



Molecular Weight Averages

Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	1929158	1628900	1844668	1990358	2105715	1972553	1.132