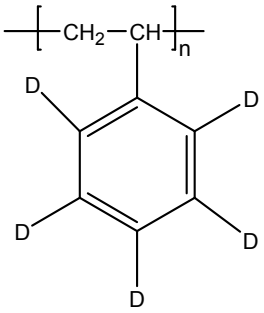
Sample Name: **Deuterated Polystyrene (d_5)**

Sample #: **P40557-d5PS**

Structure:



Composition:

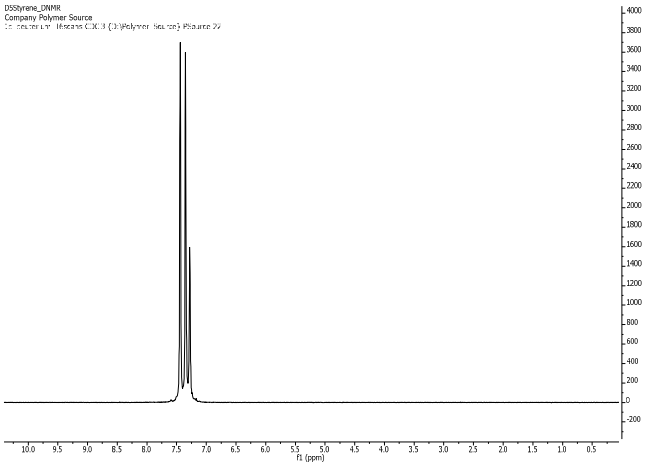
Mn x 10^3	PDI
64.0	1.05

Synthesis Procedure:
Deuterated polystyrene-d5 is obtained by living anionic polymerization of high purity styrene-d5 monomer.

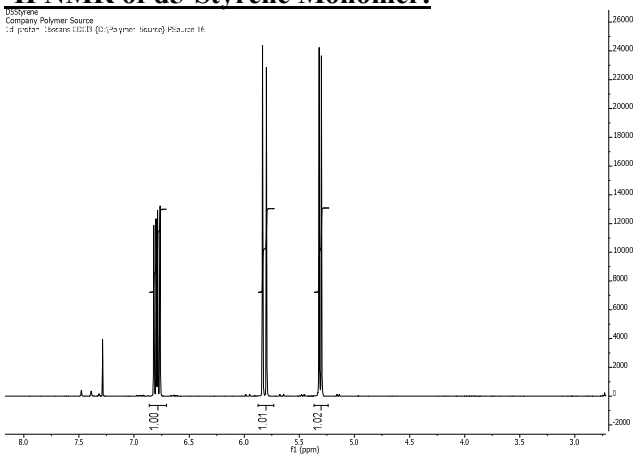
Characterization:
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in DMF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and light scattering detectors from Viscotek Co. Three SEC columns from Supelco (G6000-4000-2000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

Solubility:
Deuterated polystyrene-d_5 is soluble in DMF, THF, toluene and $CHCl_3$. It precipitates from methanol, ethanol, water and hexanes.

D^2 NMR of d5-Styrene Monomer:



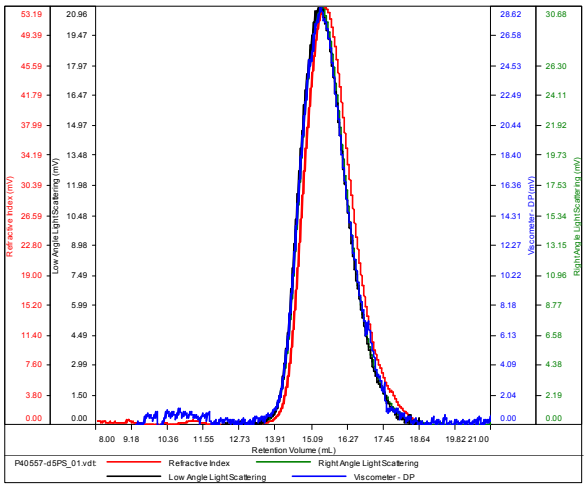
^{1}H NMR of d5-Styrene Monomer:



SEC of d5-Styrene Homopolymer:

P40557-d5PS

Conc	3.6794
dn/dc	0.1650
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS80k-March2017-0002.vcm



Sample	Mn	Mw	Mp	Mw/Mn	IV
P40557-d5PS_01.vdt	63,925	66,804	66,479	1.045	0.1574