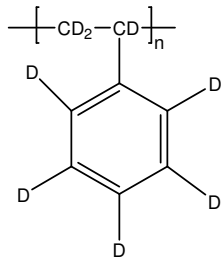


Sample Name: **Deuterated Polystyrene-d<sub>8</sub>**

Sample #: **P19152B-dPS**

**Structure:**

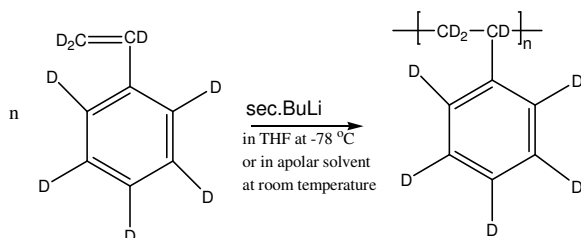


**Composition:**

Mn x 10 <sup>3</sup>	54.0
Mw x 10 <sup>3</sup>	81.5
PDI	1.55

**Synthesis Procedure:**

Deuterated polystyrene-d<sub>8</sub> is obtained by anionic living polymerization of styrene-d<sub>8</sub> 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 light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

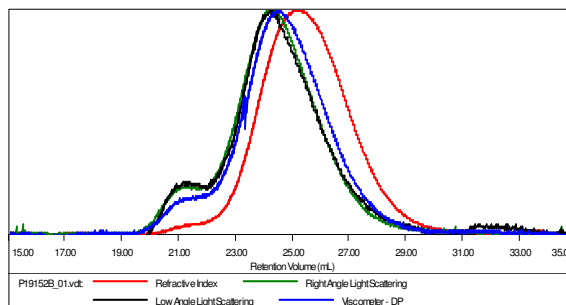
**Solubility:**

Deuterated polystyrene-d<sub>8</sub> is soluble in DMF, THF, toluene and CHCl<sub>3</sub>. It precipitates from methanol, ethanol, water and hexanes.

**SEC of deuterated polystyrene:**

**Sample ID: P19152B-dPS**

Concentration (mg/mL)	5.9205
Sample dn/dc (mL/g)	0.1850
Method File	PS80K-March6-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
P19152B_01.vdt	53,912	81,595	66,361	1.513	0.2893

**D NMR:**

