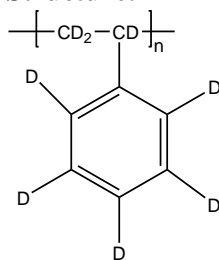


**Sample Name: Deuterated Polystyrene (d<sub>8</sub>)**

**Sample #: P41212-dPS**

**Structure:**

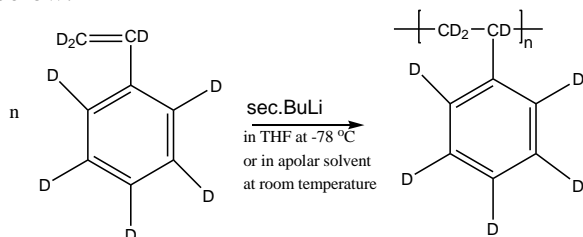


**Composition:**

Mn x 10 <sup>3</sup>	PDI
125.0	1.06

**Synthesis Procedure:**

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

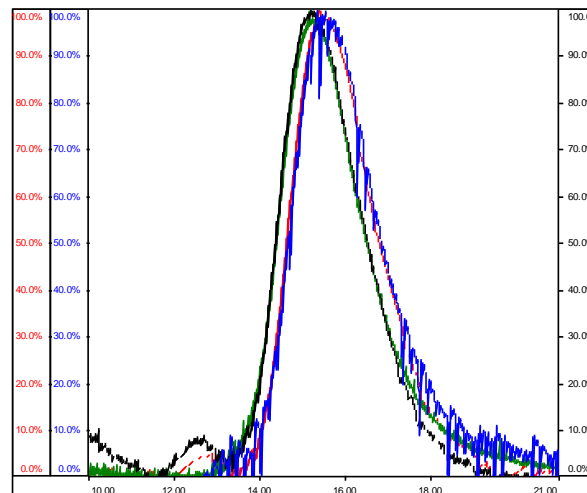
**Solubility:**

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 Homopolymer:**

**P41212-dPs**

Conc	0.8226
dn/dc	0.1650
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS99K_2018-05-30-0000.vcm



Sample	Mn	Mw	Mp	Mw/Mn	IV
P41212-dPS_01.xdt	124,915	132,717	127,154	1.062	1.0558