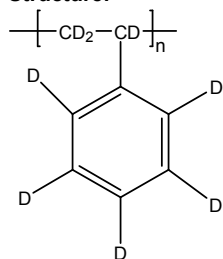


## Sample Name: Deuterated Polystyrene (d<sub>8</sub>)

Sample #: P14072-dPS

### Structure:

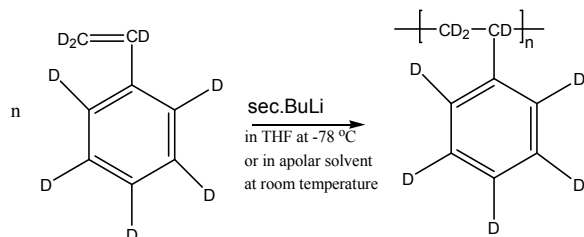


### Composition:

Mn x 10 <sup>3</sup>	PDI
65.0	1.05
53.0 (w.r.t PS reference)	1.08

### 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 light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

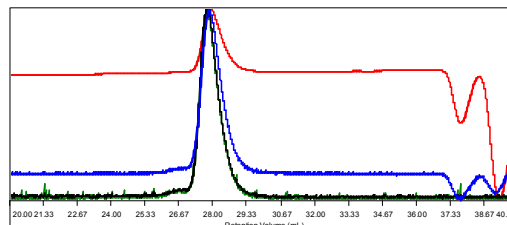
### Solubility:

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 Homopolymer:

Sample ID: P14072-dPS

Concentration	1.2287
Sample dn/dc	0.1700
Method File	PS99K-Oct13-0000.vcm
Column Set	3x PL 1113-6300
System	System 1



Sample	Mn	Mw	Mz	Mw/Mn	IV	Rh
2010-10-20_13:31:59_P14072_01.vd	65,299	68,814	73,036	1.054	0.3274	9.21

