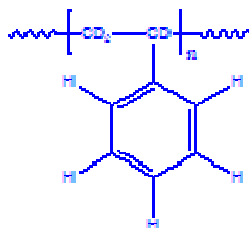


## Sample Name: Deuterated Polystyrene (d<sub>3</sub>)

Sample #: P18722A-d3PS

Structure:

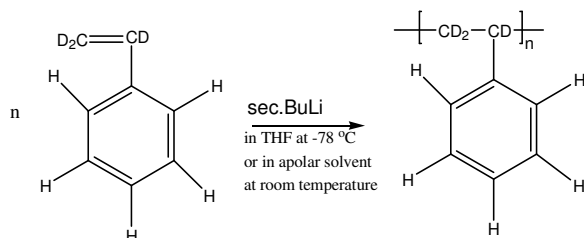


Composition:

Mn x 10 <sup>3</sup>	PDI
977.0	1.14

### Synthesis Procedure:

Deuterated polystyrene-d<sub>3</sub> is obtained by living anionic polymerization of styrene-d<sub>3</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.

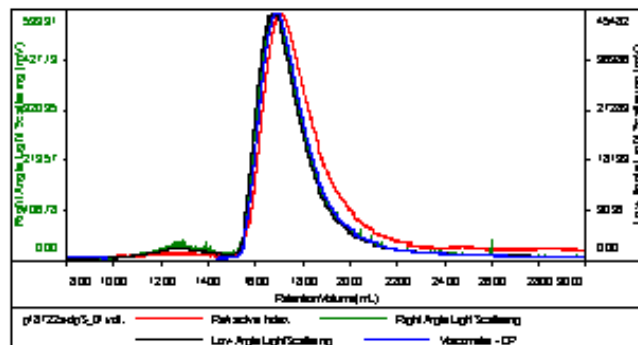
### Solubility:

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

### SEC profile of the product:

Sample ID: P18722A-d3dPS

Concentration (mg/mL)	667.38
Sample dn/dc (mL/g)	0.1850
Method File	PS8014Apr1520140000.ucm
Column Set	3x PL 1113-6000
Solvent	THF



Sample	Mn	Mw	PDI	Mw/Mn	PDI
p18722adps_01.udt	977,236	1.110e 6	1.289 e 6	1.135	1.1522

