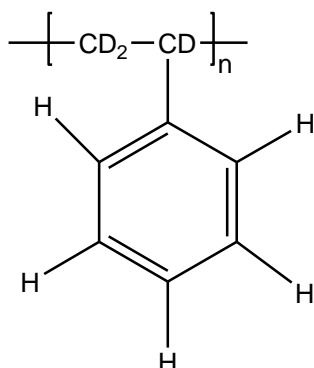


Sample Name: Deuterated Polystyrene (d₃)

Sample #: P18507-d3PS

Structure:

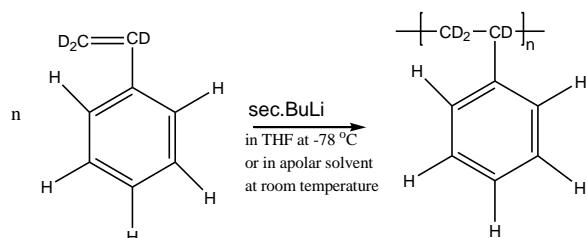


Composition:

Mn x 10 ³	PDI
2.7	1.11

Synthesis Procedure:

Deuterated polystyrene-d₃ is obtained by living anionic polymerization of styrene-d₃ 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.

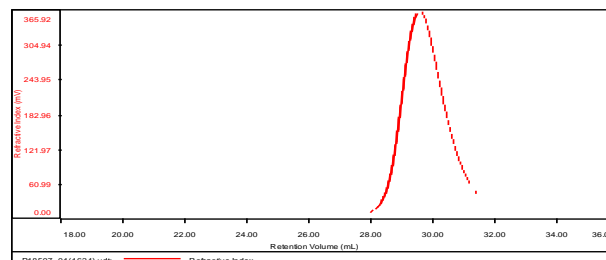
Solubility:

Deuterated polystyrene-d₃ is soluble in DMF, THF, toluene and $CHCl_3$. It precipitates from methanol, ethanol, water and hexanes.

SEC profile of the product:

P18507

Concentration (mg/mL)	16.1214
Sample dn/dc (mL/g)	0.1850
Method File	PS105K-April16-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P18507_01(1624).v	2,667	2,960	1.110	0.0564	2,595