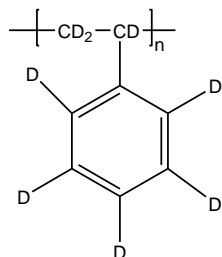


Sample Name: Deuterated Polystyrene-d₈

Sample #: P18456A-dPS

Structure:

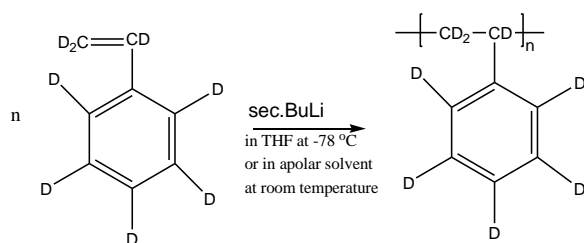


Composition:

Mn x 10 ³	28.0
Mw x 10 ³	31.0
PDI	1.10

Synthesis Procedure:

Deuterated polystyrene-d₈ is obtained by anionic living polymerization of styrene-d₈ 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.

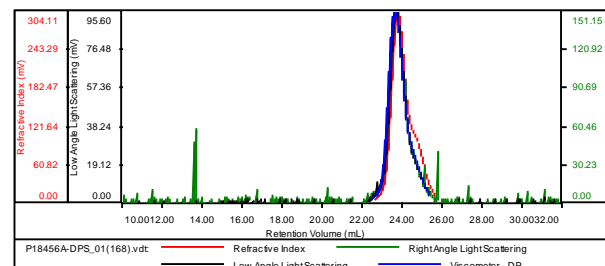
Solubility:

Deuterated polystyrene-d₈ is soluble in DMF, THF, toluene and CHCl₃. It precipitates from methanol, ethanol, water and hexanes.

SEC of deuterated polystyrene:

Sample ID: P18456A-dPS

Concentration (mg/mL)	5.2802
Sample dn/dc (mL/g)	0.1850
Method File	PS80K-Feb10-2014-0000.vcm
Column Set	3x PL 1113-6300
System	System 1



Sample	Mn	Mw	Mp	Mw/Mn	IV
P18456A-DPS_01(168).vdt	28,279	30,985	33,095	1.096	0.3844

