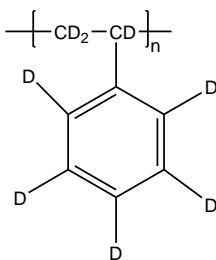


Sample Name: Deuterated Polystyrene (d₈)

Sample #: P41212A-dPS

Structure:

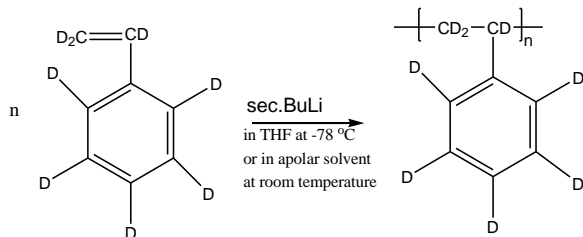


Composition:

Mn x 10 ³	PDI
91.0	1.09

Synthesis Procedure:

Deuterated polystyrene-d₈ is obtained by living anionic 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 UV light scattering detectors from Viscotek Co. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used.

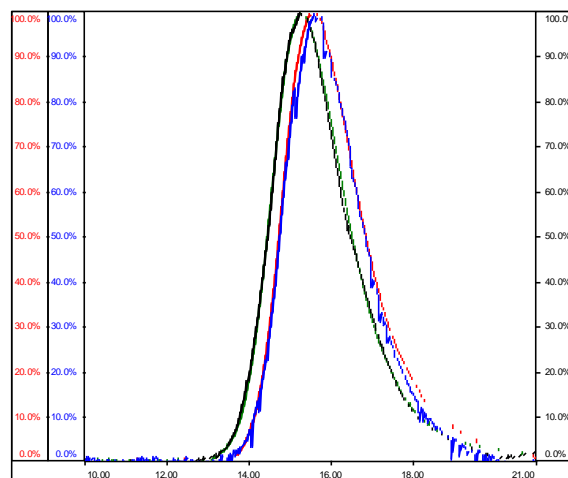
Solubility:

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

SEC elugram of the Homopolymer:

P41212A-dPS

Conc	2.9478
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
P41212A-dPS_01.vdt	90,996	99,494	96,664	1.093	0.8551