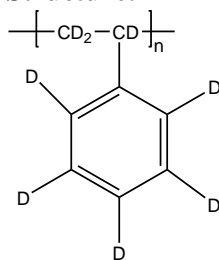


Sample Name: Deuterated Polystyrene (d₈)

Sample #: P41438-dPS

Structure:

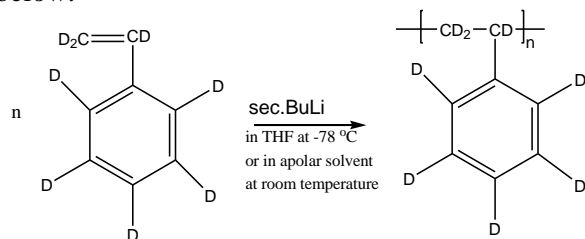


Composition:

Mn x 10 ³	PDI
1,446.0	1.11

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:

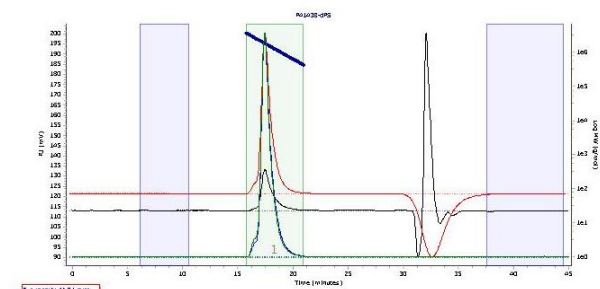
Deuterated polystyrene-d₈ is soluble in DMF, THF, toluene and CHCl₃. It precipitates from methanol, ethanol, water and hexanes.

SEC elugram of Homopolymer:

Agilent GPC/SEC Software

P41438-dPS

Chromatogram Plot



Molecular Weight Averages

Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mu (g/mol)	PDI
Peak 1	1821977	1446567	1606704	1727464	1825250	1709520	1.111