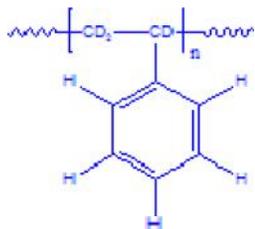


Sample Name: Deuterated Polystyrene (d₃)

Sample #: P2187-d3PS

Structure:

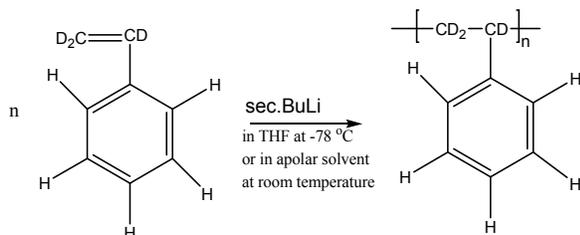


Composition:

Mn x 10 ³	PDI
63.5	1.05

Synthesis Procedure:

Deuterated polystyrene-d₃ is obtained by living anionic polymerization of styrene-d₃ as illustrated below:



Characterization:

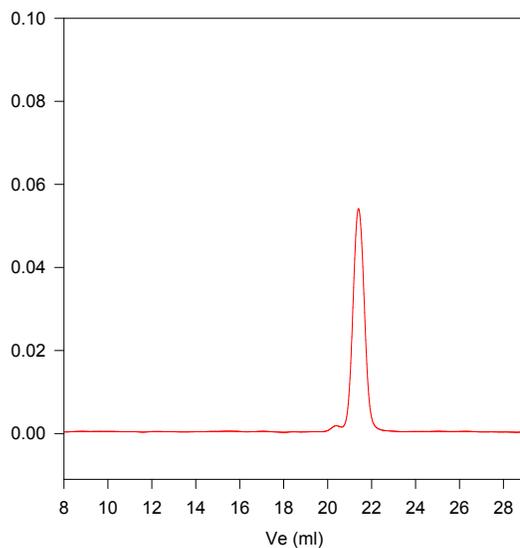
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors from Viscotek Co. Three SEC columns from Supelco (G6000-4000-2000 HXL) 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:

P2187-d₃PS



Size exclusion chromatograph of deuterated polystyrene(d₃):
 $M_n=63500$ $M_w=66600$ $PI=1.05$