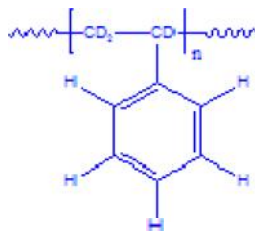


Sample Name: Deuterated Polystyrene (d₃)

Sample #: P1783-d3PS

Structure:

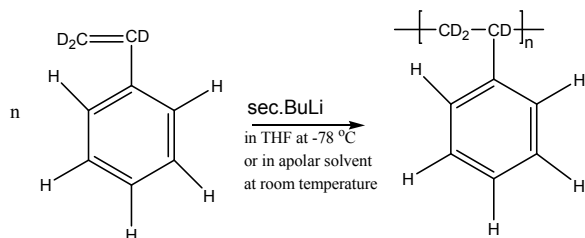


Composition:

| $M_n \times 10^3$ | PDI |
|-------------------|------|
| 12.1 | 1.03 |

Synthesis Procedure:

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



Characterization:

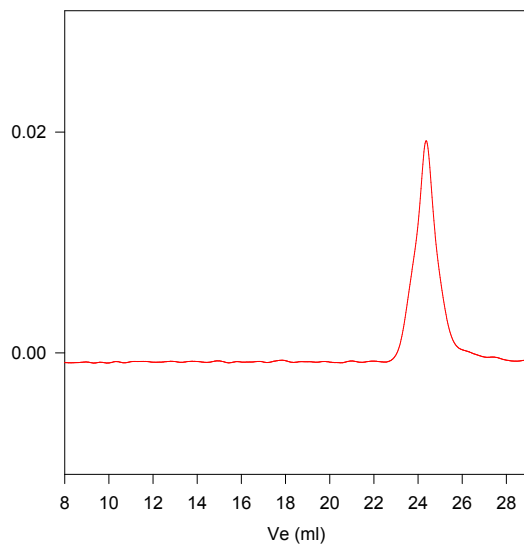
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors from Viscotek Co. Three SEC columns from Supelco (G6000-4000-2000 HXL)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

P1783-d₃PS



$M_n=12100$ $M_w=12500$ $PI=1.03$