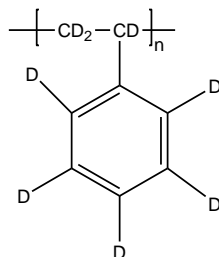


Sample Name: Deuterated Polystyrene (d₈)

Sample #: P2401B-dPS

Structure:

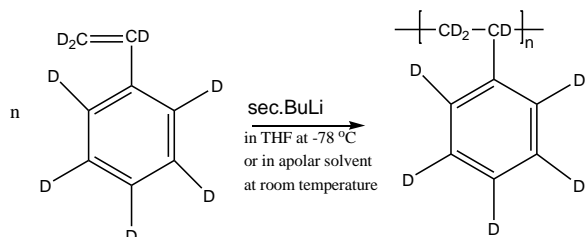


Composition:

Mn x 10 ³	PDI
165.5	1.3

Synthesis Procedure:

Deuterated polystyrene-d₈ is obtained by living anionic polymerization of styrene-d₈ as illustrated below:



Characterization:

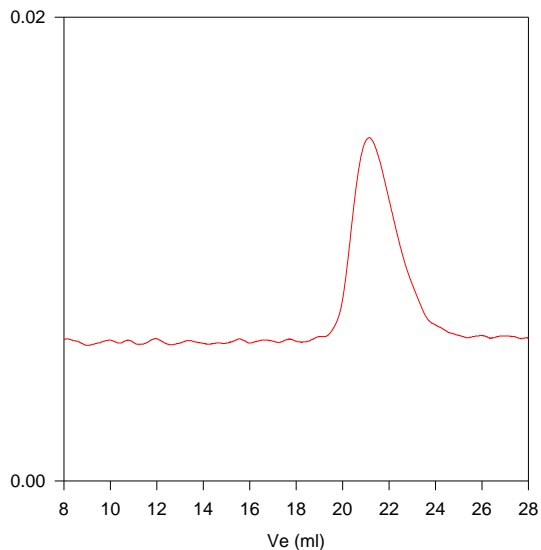
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors from Viscotek Co. Three SEC columns from Supelco (G6000-4000-2000 HXL)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

Solubility:

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

SEC profile of Homopolymer:

P2401B-dPS



Size exclusion chromatography of deuterated polystyrene(d₈):
M_n=165500 M_w=215000, PI=1.3