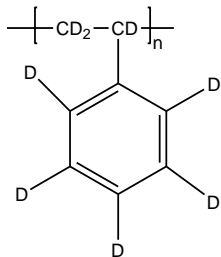


Sample Name: Deuterated Polystyrene-d₈

Sample #: P19105C-dPS

Structure:

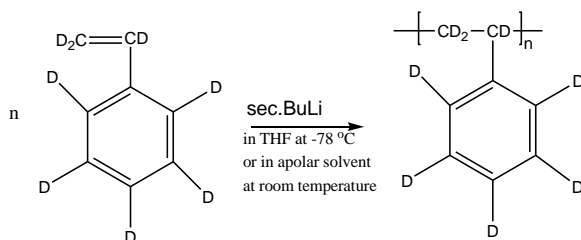


Composition:

Mn x 10 ³	0.8
Mw x 10 ³	1.0
PDI	1.25

Synthesis Procedure:

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



Characterization:

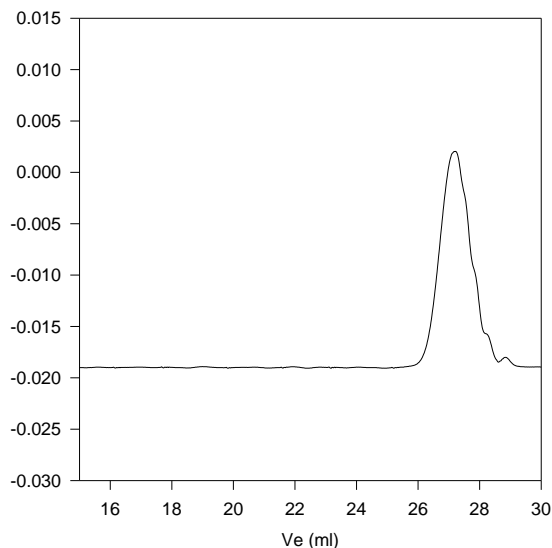
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple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

Solubility:

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

SEC of deuterated polystyrene:

P19105C-dPS



Size exclusion chromatograph of d₈ deuterated polystyrene:

M_n=800, M_w=1,000 PI=1.25

D NMR:

