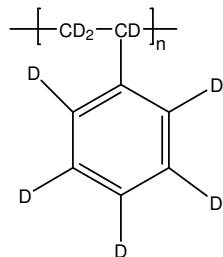


Sample Name: Deuterated Polystyrene (d₈)

Sample #: P1632-dPS

Structure:

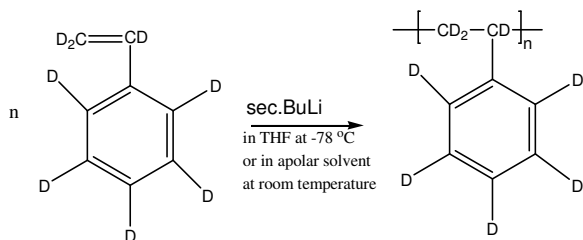


Composition:

Mn x 10 ³	PDI
3.5	1.05

Synthesis Procedure:

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



Characterization:

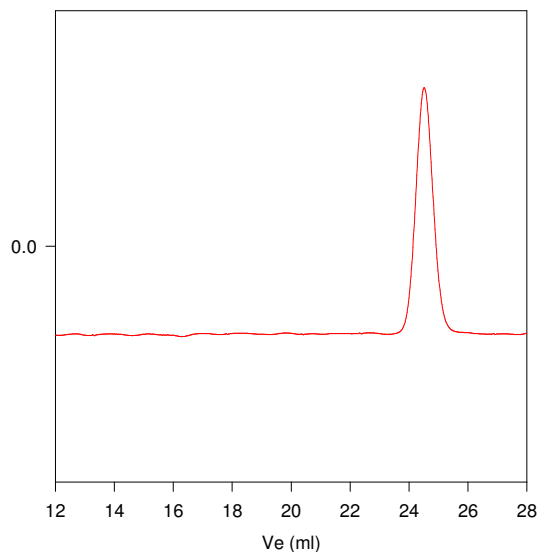
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors from Viscotek Co. Three SEC columns from Supelco (G6000-4000-2000 HXL)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

P1632-dPS



Size exclusion chromatography of deuterated polystyrene(d₈):

M_n=3500 M_w=3650, PI=1.05