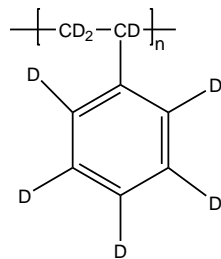


Sample Name: Deuterated Polystyrene (d₈)

Sample #: **P8520-dPS**

Structure:

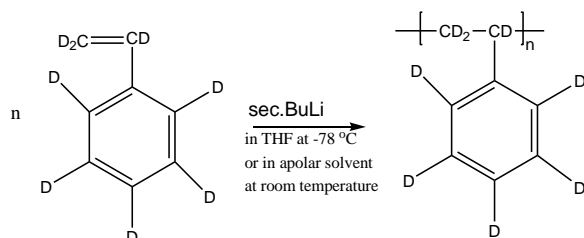


Composition:

Mn x 10 ³	PDI
600.0	1.20

Synthesis Procedure:

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



Characterization:

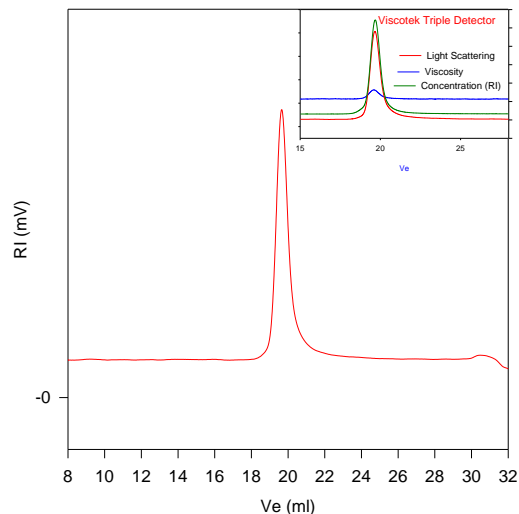
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors from Viscotek Co. Three SEC columns from Supelco (G6000-4000-2000 HXL)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

Solubility:

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

SEC of Homopolymer:

P8520-dPS



Size Exclusion Chromatography of deuterated polystyrene (d₈)

— M_n = 600,000, M_w = 720,000, M_w/M_n = 1.2

Light Scattering data: dn/dc in THF at 35 °C: 0.185 ml/g

Solution Viscosity in THF at 35 °C: 2.10 dl/g

R_g: 35.72 nm