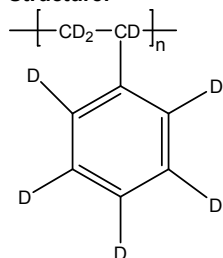


Sample Name: Deuterated Polystyrene (d_8)

Sample #: P5554-dPS

Structure:

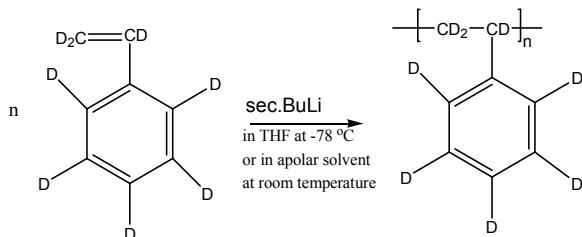


Composition:

$M_n \times 10^3$	PDI
20.0	1.08

Synthesis Procedure:

Deuterated polystyrene- d_8 is obtained by living anionic polymerization of styrene- d_8 as illustrated below:



Characterization:

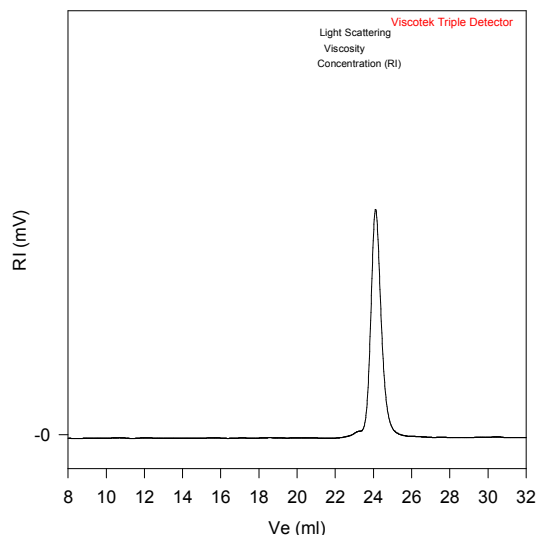
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors from Viscotek Co. Three SEC columns from Supelco (G6000-4000-2000 HXL)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

Solubility:

Deuterated polystyrene- d_8 is soluble in DMF, THF, toluene and $CHCl_3$. It precipitates from methanol, ethanol, water and hexanes.

SEC of Homopolymer:

P5554-dPS



Size Exclusion Chromatography of deuterated polystyrene (d_8)

— $M_n = 20,000$, $M_w = 21,600$, $M_w/M_n = 1.08$