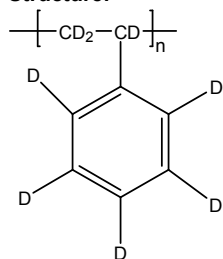


Sample Name: Deuterated Polystyrene (d_8)

Sample #: P3160-dPS

Structure:

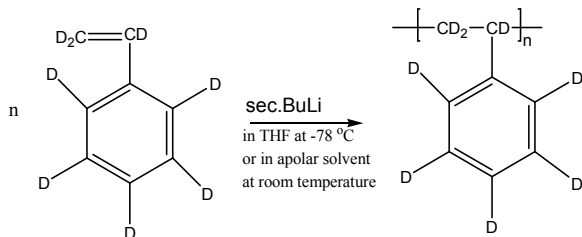


Composition:

$M_n \times 10^3$	PDI
38.5	1.07

Synthesis Procedure:

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



Characterization:

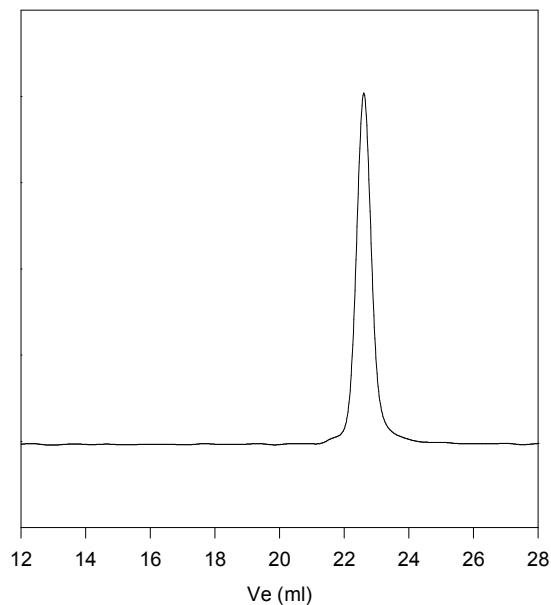
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors from Viscotek Co. Three SEC columns from Supelco (G6000-4000-2000 HXL)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

P3160-dPS



Size exclusion chromatography of deuterated polystyrene(d_8):

$M_n=38500$ $M_w=41200$, $PI=1.07$

$R_g = 7.96$ nm
(from Viscotek Triple Detector)