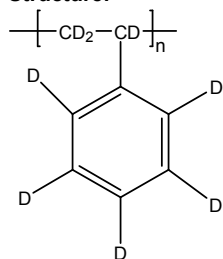


Sample Name: Deuterated Polystyrene (d₈)

Sample #: P3686D-dPS

Structure:

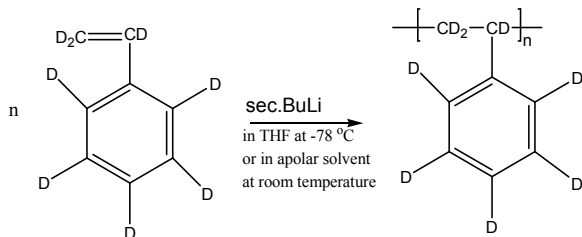


Composition:

$M_n \times 10^3$	PDI
17.0	2.7

Synthesis Procedure:

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



Characterization:

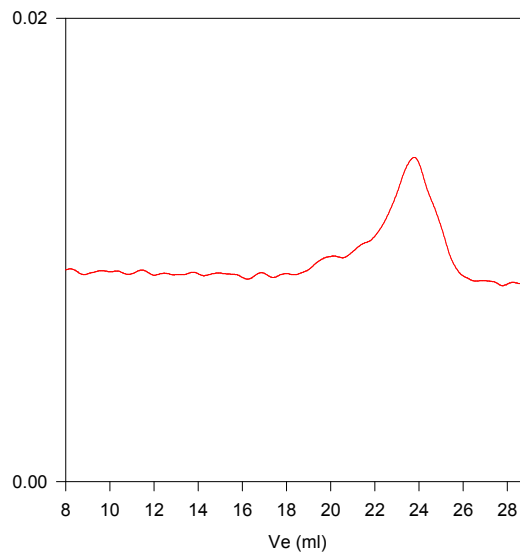
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors from Viscotek Co. Three SEC columns from Supelco (G6000-4000-2000 HXL)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

Solubility:

Deuterated polystyrene-d₈ is soluble in DMF, THF, toluene and $CHCl_3$. It precipitates from methanol, ethanol, water and hexanes.

SEC of Homopolymer:

P3686D-dPS



Size exclusion chromatograph of deuterated polystyrene (d₈):

$M_n=17000$, $M_w=45000$ PI=2.7