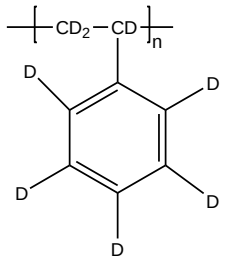
Sample Name: **Deuterated Polystyrene (d_8)**

Sample #: **P1372-dPS**

Structure:

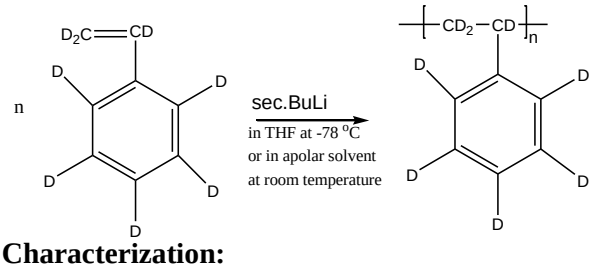


Composition:

Mn x 10^3	PDI
19.0	1.04

Synthesis Procedure:

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



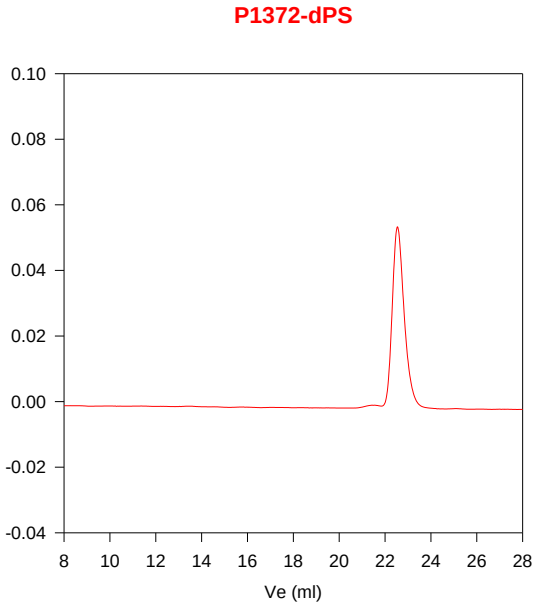
Characterization:

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 profile of Homopolymer:



Size exclusion chromatography of deuterated polystyrene(d_8):

M_n=19000 M_w=19900, PI=1.04