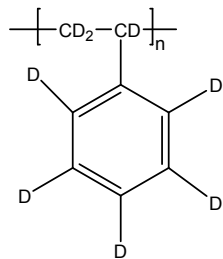


Sample Name: Deuterated Polystyrene (d₈)

Sample #: **P10188-dPS**

Structure:

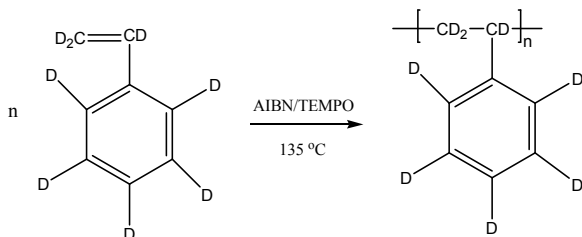


Composition:

$M_n \times 10^3$	PDI
150.0	1.09

Synthesis Procedure:

Deuterated polystyrene-d₈ is obtained by controlled radical polymerization of styrene-d₈ as illustrated below:



Characterization:

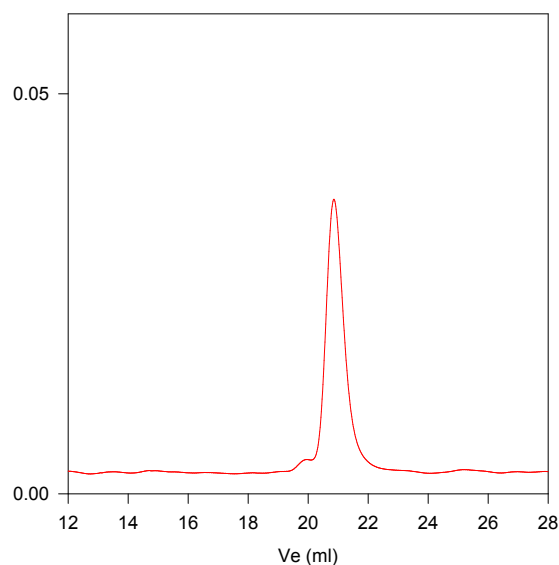
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple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

Solubility:

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

SEC of Homopolymer:

P10188-dPS



Size exclusion chromatography of deuterated polystyrene(d₈):

$M_n=150,000$ $M_w=163,000$, $PI=1.09$