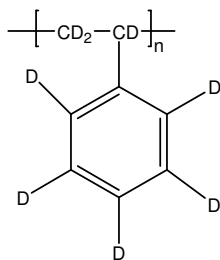


Sample Name: Deuterated Polystyrene (d₈)

Sample #: P19911H1-dPS

Structure:

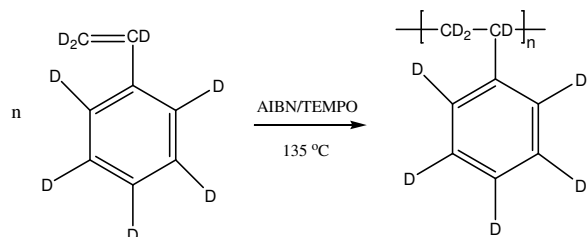


Composition:

Mn x 10 ³	PDI
541.0	1.30

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.

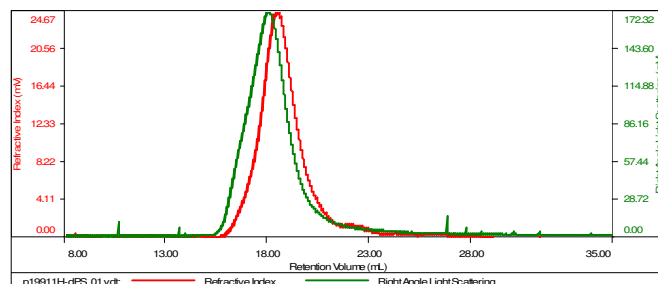
Solubility:

Deuterated polystyrene-d₈ is soluble in DMF, THF, toluene and CHCl₃. It precipitates from methanol, ethanol, water and hexanes.

SEC elugram of Homopolymer:

Sample ID: P19911H-dPS

Concentration (mg/mL)	1.1363
Sample dn/dc (mL/g)	0.1850
Method File	PS80K-4August2016-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
p19911H-dPS_01.vdt	540,843	708,429	1.310	1.6591	536,552