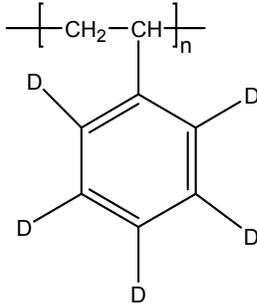


Sample Name: Deuterated Polystyrene (d₅)

Sample #: P40538-d5PS

Structure:



Composition:

Mn x 10 ³	PDI
31.5	1.08

Synthesis Procedure:

Deuterated polystyrene-d₅ is obtained by living anionic polymerization of high purity styrene-d₅ monomer.

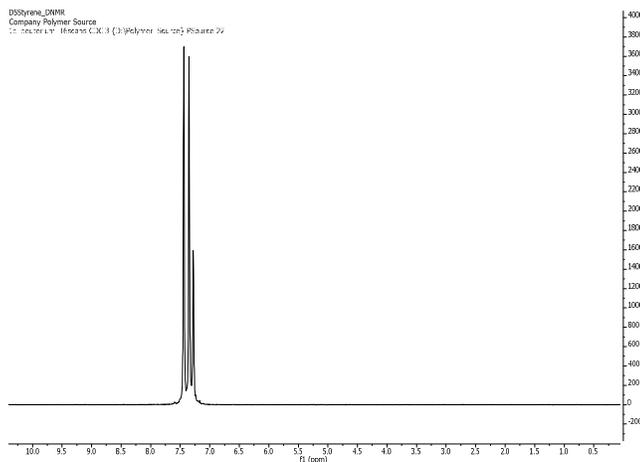
Characterization:

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

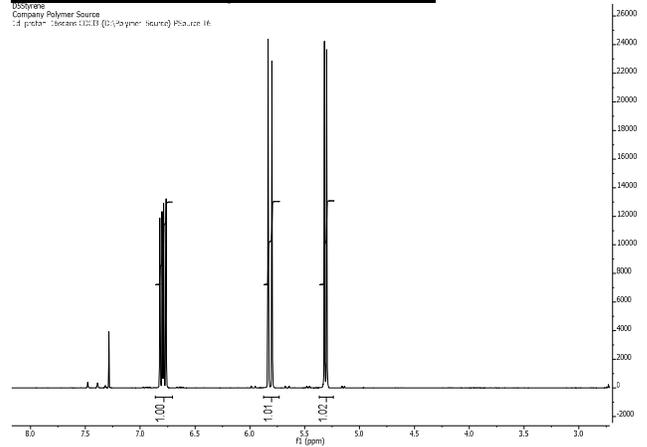
Solubility:

Deuterated polystyrene-d₅ is soluble in DMF, THF, toluene and CHCl₃. It precipitates from methanol, ethanol, water and hexanes.

D² NMR of d₅-Styrene Monomer:



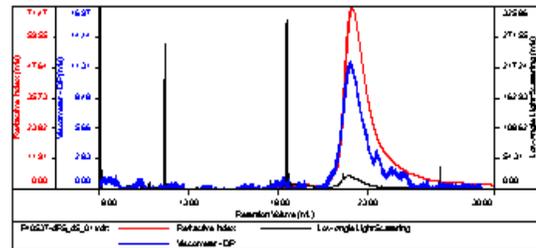
¹H NMR of d₅-Styrene Monomer:



SEC of d₅-Styrene Homopolymer:

P40538-d5PS

Concentration (mg/mL)	1.00
Sample concn (mg)	0.100
Method File	PSEC-PeBS01-000000
Column Set	3x PL11E800
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
4PS_d5_01.nc	31,410	33,994	1.082	0.4303	33,828