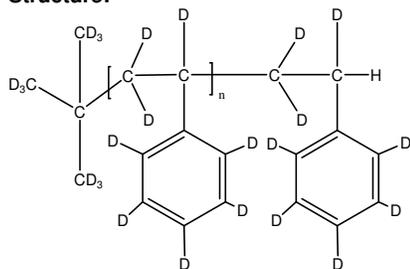


Sample Name: Deuterated Polystyrene (d₈)
Initiated by d₉ tert.butyl lithium
Sample #: P18791-dPS

Structure:



Composition:

| | |
|----------------------|------|
| Mn x 10 ³ | PDI |
| 6.0 | 1.08 |

Synthesis Procedure:

Deuterated polystyrene-d₈ is obtained by living anionic polymerization of styrene-d₈ using d₉ tert.butyl lithium initiator

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.

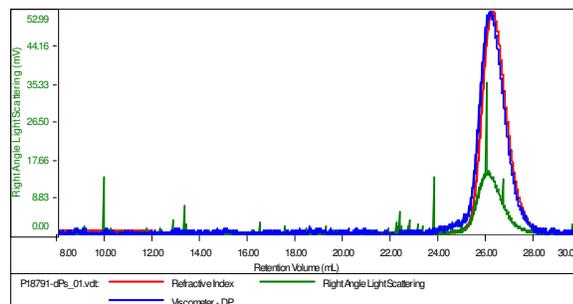
Solubility:

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

SEC of Homopolymer:

Sample ID: P18791-dPS

| | |
|-----------------------|----------------------------|
| Concentration (mg/mL) | 0.7677 |
| Sample dwt: (mL/g) | 0.1850 |
| Method File | PS80K-July11-2014-0000.vcm |
| Column Set | 3x PL 1113-6300 |
| Solvent | THF |



| Sample | Mn | Mw | Mp | Mw/Mn | IV |
|-------------------|-------|-------|-------|-------|--------|
| P18791-dPs_01.vdt | 6,048 | 6,549 | 6,106 | 1.083 | 0.4687 |

