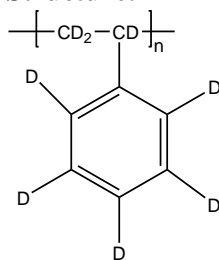


Sample Name: Deuterated Polystyrene (d₈)

Sample #: P3585F3A-dPS

Structure:

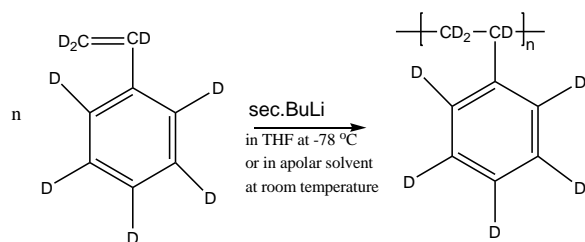


Composition:

| Mn x 10 ³ | PDI |
|----------------------|------|
| 2,253.0 | 1.09 |

Synthesis Procedure:

Deuterated polystyrene-d₈ is obtained by living anionic polymerization of styrene-d₈ as illustrated below:



Characterization:

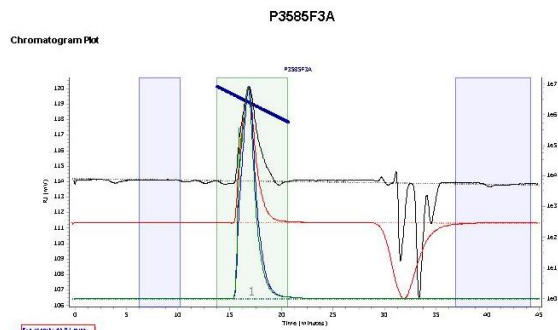
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors from Viscotek Co. Three SEC columns from Supelco (G6000-4000-2000 HXL)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

Solubility:

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

SEC elugram of Homopolymer:

Agilent GPC/SEC Software



| Peak | Mp (g/mol) | Mn (g/mol) | Mw (g/mol) | Mz (g/mol) | Mz+1 (g/mol) | Mw (g/mol) | PDI |
|--------|------------|------------|------------|------------|--------------|------------|-------|
| Peak 1 | 2493463 | 2253023 | 2445441 | 2622610 | 2761156 | 2587223 | 1.085 |