

**Sample Name:** Partially Deuterated (d1) Poly(4-methoxy styrene)

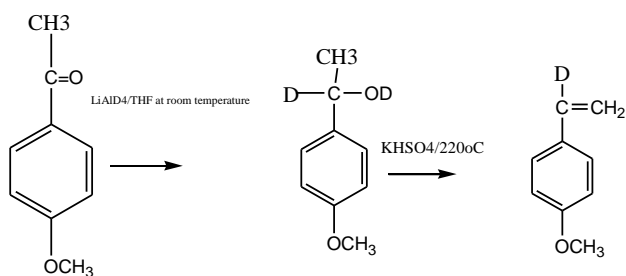
**Sample #:** P8140A-d1P4MeOS

**Composition:**

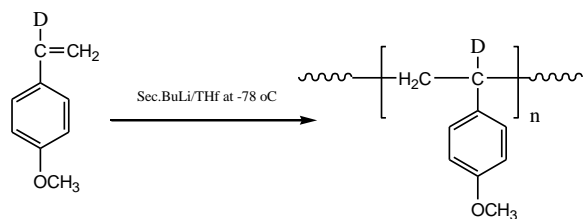
Mn x 10 <sup>3</sup>	PDI
2.0	1.2

**Synthesis Procedure:**

Deuterated monomer synthesis:



Anionic Polymerization in THF initiated by sec-BuLi:



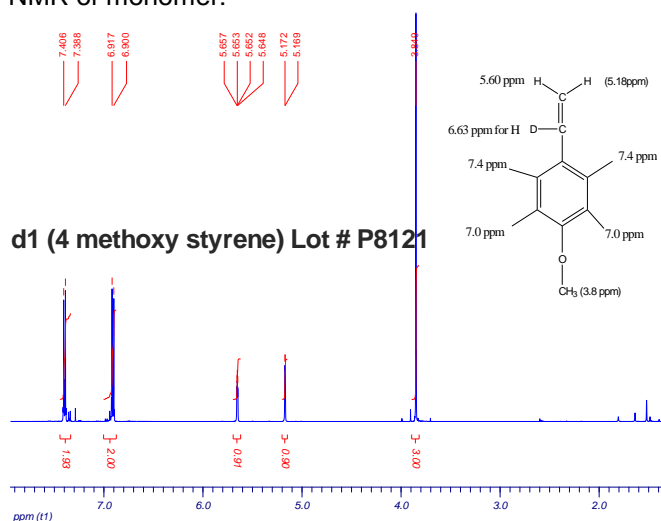
**Characterization:**

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography.

**Solubility:**

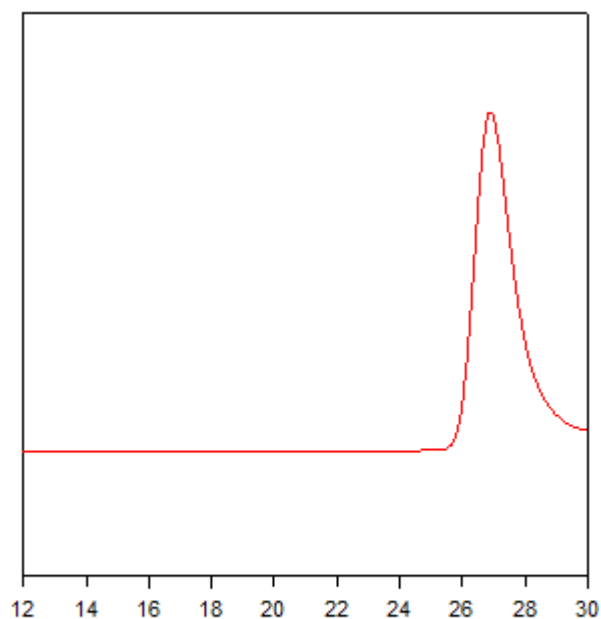
Deuterated polymer is soluble in THF, chloroform, and toluene. The polymer is insoluble in methanol and water.

**NMR of monomer:**



**SEC of Sample:**

P8140A-d1P4MeOS



Size exclusion chromatography of  
Partially deuterated (d1) poly(4-methoxy styrene):  
M<sub>n</sub>=2000, M<sub>w</sub>=2500, PDI=1.2