

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

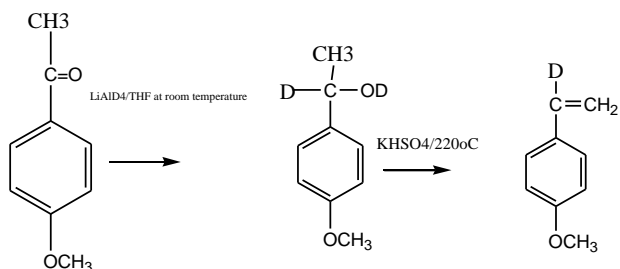
**Sample #:** P8121B-d1P4MeOs

**Composition:**

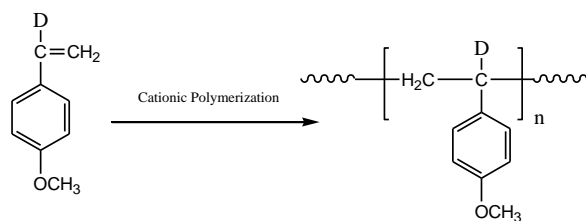
Mn x 10 <sup>3</sup>	PDI
0.9	1.2

**Synthesis Procedure:**

Deuterated monomer synthesis:



Cationic Polymerization in THF.



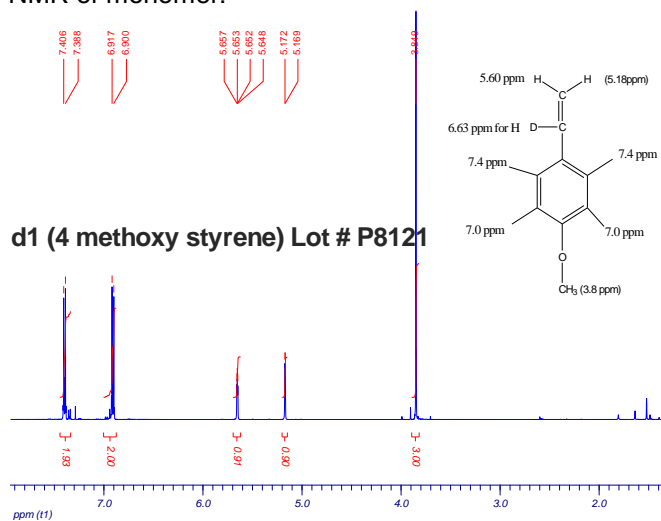
**Characterization:**

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

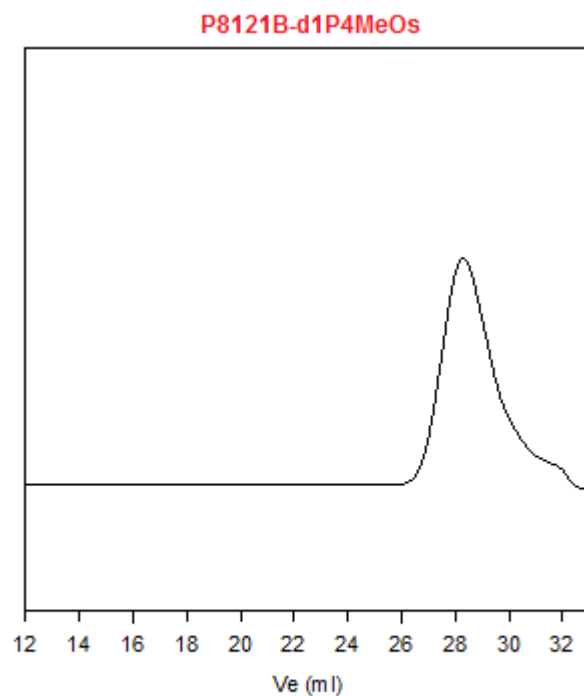
**Solubility:**

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

**NMR of monomer:**



**SEC of Sample:**



Size exclusion chromatography of Partially deuterated (d1)poly(4-methoxy styrene):  
M<sub>n</sub>=900, M<sub>w</sub>=1050, PI=1.2