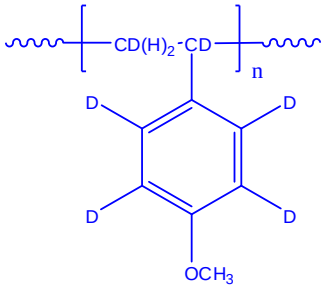
Sample Name: Partially Deuterated Poly(4-methoxy styrene)

Sample #: **P6363-dMeOS**

Structure:

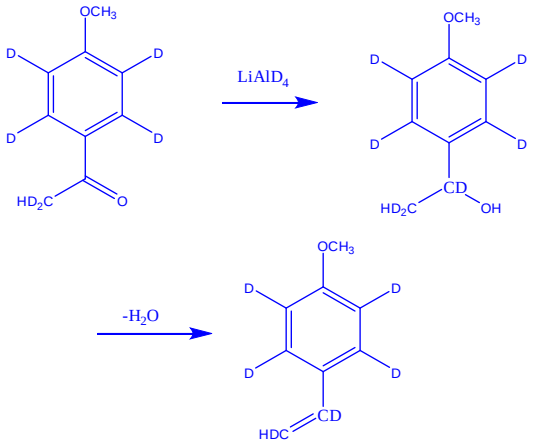


Composition:

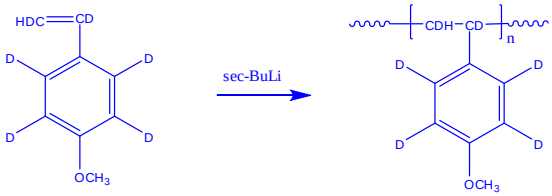
Mn x 10^3	PDI
81.8	1.27

Synthesis Procedure:

Deuterated monomer synthesis:



Anionic Polymerization in THF initiated by sec-BuLi:



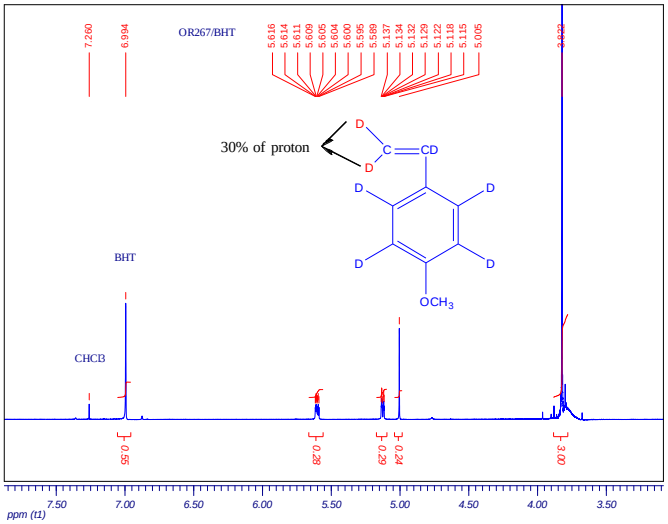
Characterization:

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

Solubility:

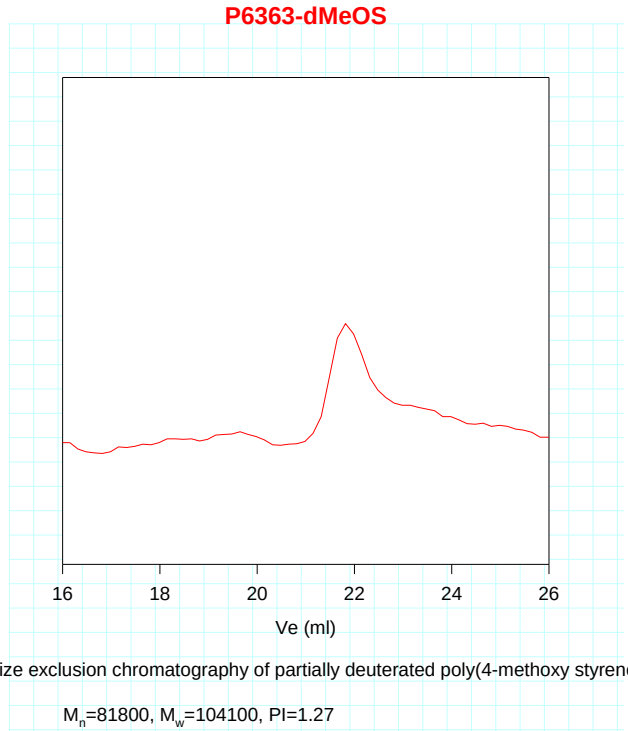
Deuterated polymer is soluble in THF, chloroform, and toluene. The polymer is in soluble methanol and water.

NMR of monomer:



There is about 30% of proton contaminated on the β-position of double bond.

SEC of Sample:



Size exclusion chromatography of partially deuterated poly(4-methoxy styrene):

M_n=81800, M_w=104100, PI=1.27