

**Sample Name:** random copolymer of deuterated styrene (d8) and partially Deuterated (d7) 4-methoxy styrene.

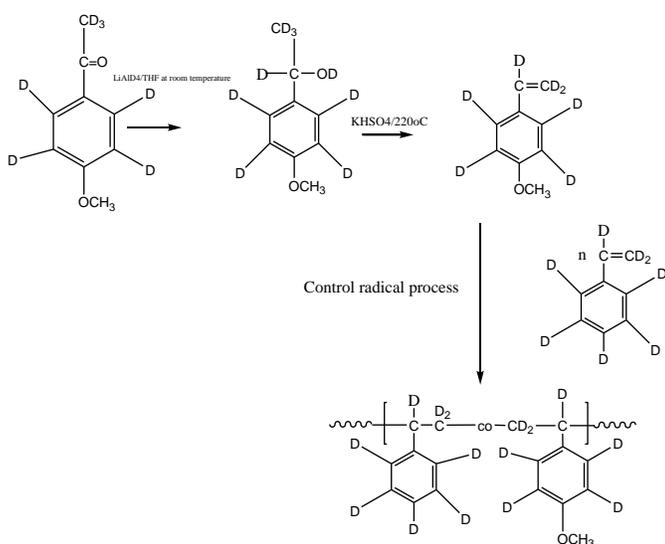
**Sample #:** P8187-dPS4MeOsrn

**Composition:**

Mn x 10 <sup>3</sup>	PDI
9.5	1.10

**Synthesis Procedure:**

Partially deuterated 4 methoxy styrene monomer was synthesis. The copolymerization was carried out by control radical process.



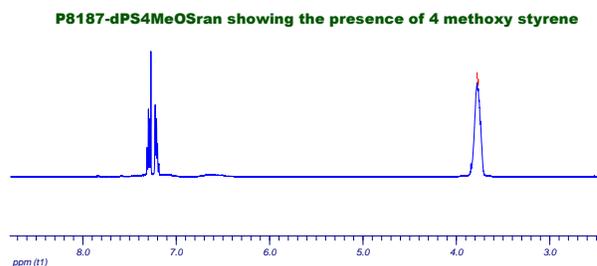
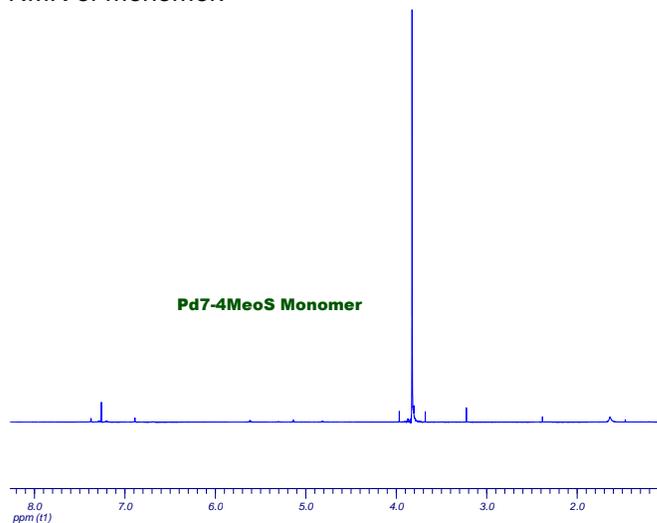
**Characterization:**

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

**Solubility:**

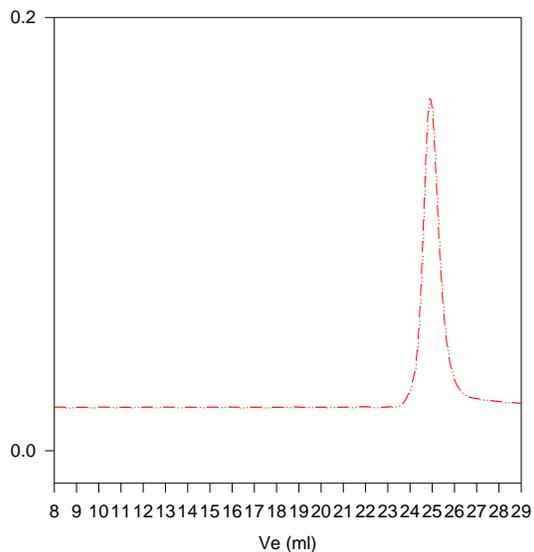
Deuterated polymer is soluble in THF, chloroform, and toluene. The polymer is insoluble methanol and water.

**NMR of monomer:**



**SEC of Sample:**

**P8187-dPS4MeOsrn**



--- Random copolymer of deuterated styrene and partially deuterated 4-methoxy styrene (d7)  
M<sub>n</sub>=9500, M<sub>w</sub>=10500, PI=1.10  
d7MeOS: 10 wt% by FTIR analysis