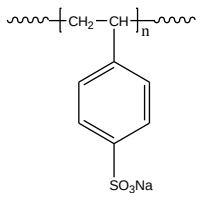
Sample Name: **Poly (4-styrene sulfonic acid Sodium salt)**

Sample #: **P42085A-SSO3Na**

dialysed form

Structure:



Composition:

Mn x 10^3	PDI
7.0	1.05

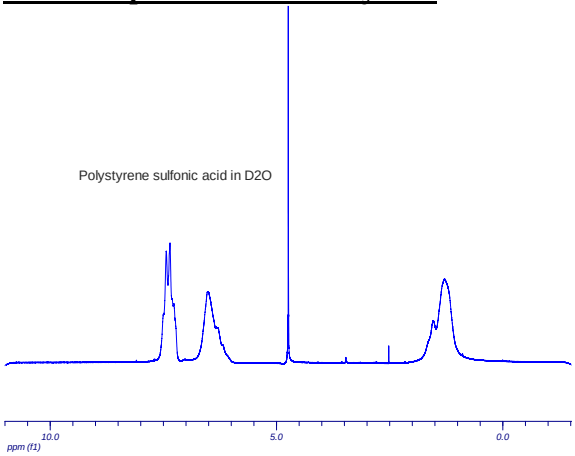
Sulfonation degree > 95%

Synthesis Procedure:
Poly (styrene sulfonic acid Sodium salt) is obtained from the sulfonation of polystyrene. Polystyrene was obtained by anionic living polymerization.

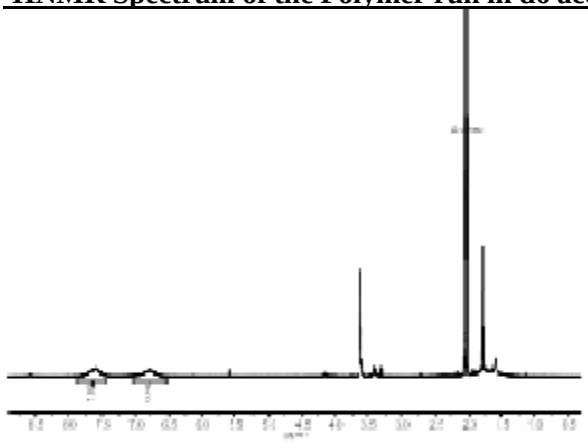
Characterization:
The molecular weight and polydispersity index (PDI) of poly (styrene sulfonic acid) are obtained by size exclusion chromatography. The degree of sulfonation is determined by acid/base titration and by elemental analysis.

Solubility:
Poly (styrene sulfonic acid Sodium salt) is soluble in methanol and water. It precipitated out from the hexane, THF and toluene.

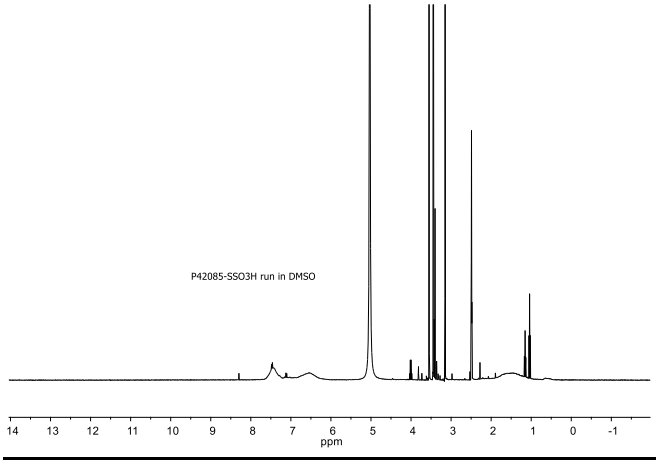
^{1}HNMR Spectrum of the Polymer:



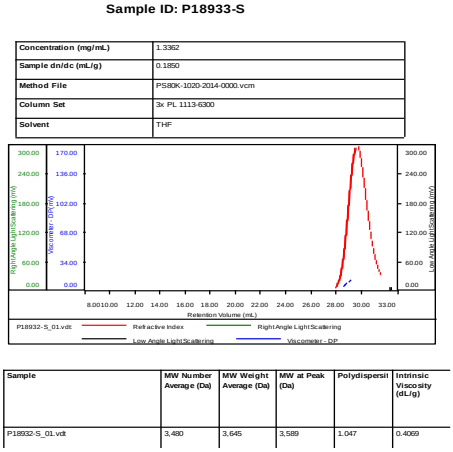
^{1}HNMR Spectrum of the Polymer run in d6 acetone



^{1}HNMR Spectrum of the Polymer run in d6 DMSO



SEC of Homopolymer used for the sulfonation Lot# P18933 Mn 3,500 Mw/Mn 1.05



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersit	Intrinsic Viscosity (dL/g)
P18932-S_01.vdt	3,480	3,645	3,589	1.047	0.4069