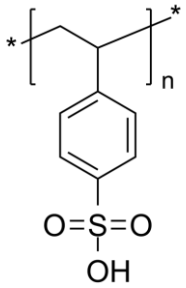
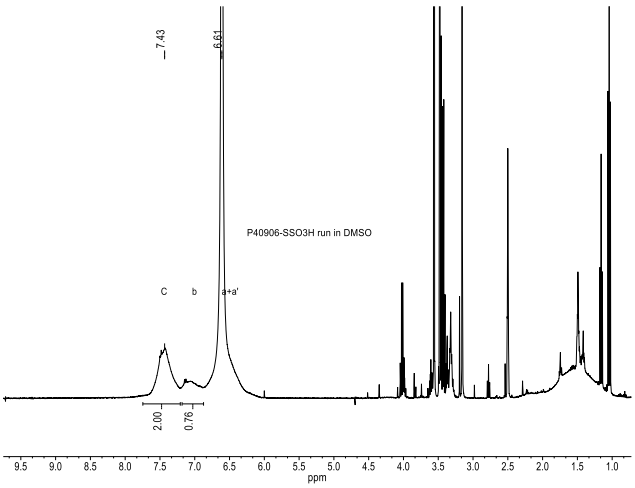
Sample Name: **Poly(4-styrene sulfonic acid)**

Sample #: **P40906-SSO3H**

Structure:

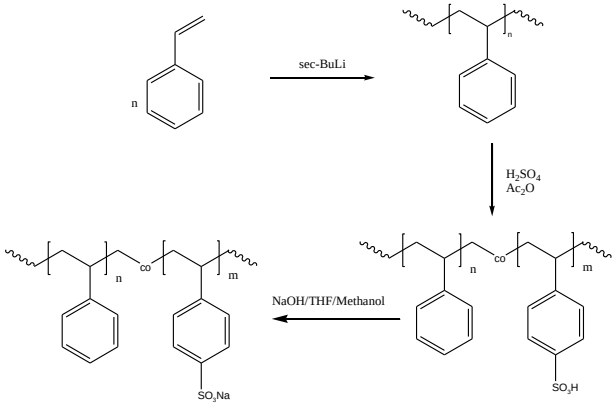




Composition:

Mn x 10^3	Mole% of SO3H	PDI
6	80%	1.09

Synthesis Procedure:
Polymer is synthesized by partially sulfonation of monodispersed polystyrene and the reaction scheme is shown below.

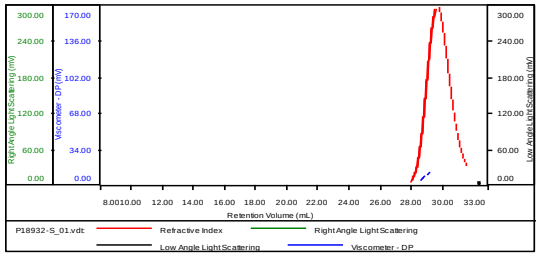


Characterization:
The product was characterized by size exclusion chromatography (SEC) and H NMR.

Solubility:
Polymer is soluble in methanol.

SEC elugram of Polystyrne used for sulfonation process:

Concentration (mg/mL)	1.3362
Sample dn/dc (mL/g)	0.1850
Method File	PS80K-1020-2014-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



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

^{1}HNMR spectrum of the Sample runs in DMSO: