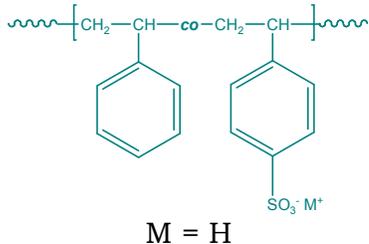


Sample Name: **Ionomer of Poly(styrene-co-4-styrene sulfonic acid)**

Sample #: **P3019-SSO3H**

Structure:

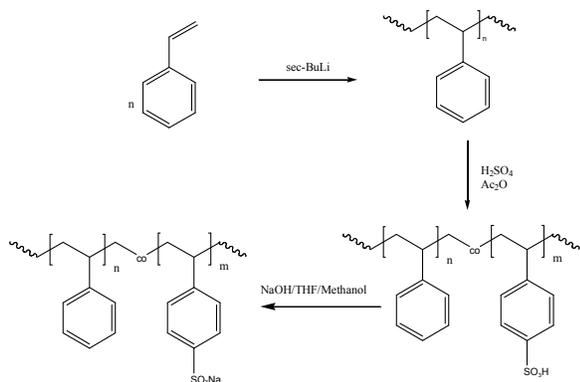


Composition:

Mn x 10 ³	Mole% of SO ₃ H	PDI
24.5	83%	1.04

Synthesis Procedure:

Poly(styrene-co-4-styrene sulfonic acid) is synthesized by partially sulfonation of monodispersed polystyrene and the reaction scheme is shown below.



Characterization:

The molecular weight and polydispersity index (PDI) of parent polymer are obtained by size exclusion chromatography. The degree of sulfonation is determined by element analysis or titration.

Solubility:

Poly(styrene-co-4-styrene sulfonic acid) is soluble in DMF, chloroform, dichloroethane or alcohols dependent on its chemical composition. It precipitates hexanes.

SEC of Homopolymer:

