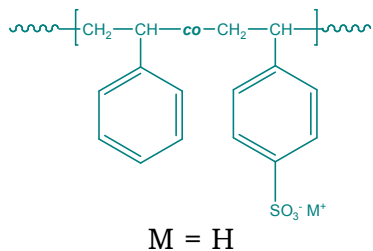


Sample Name: **Ionomer of Poly(styrene-co-4-styrene sulfonic acid)**

Sample #: **P3019-SSO3H**

**Structure:**

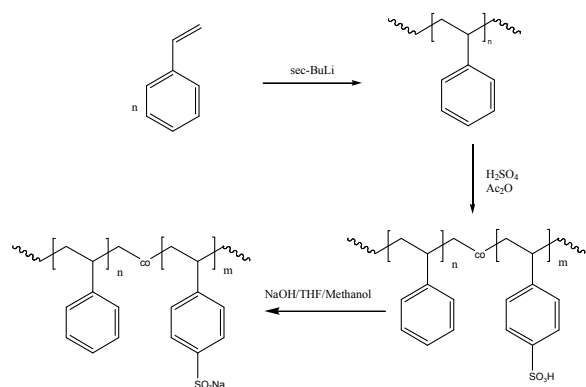


**Composition:**

Mn x 10 <sup>3</sup>	Mole% of SO <sub>3</sub> 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:**

