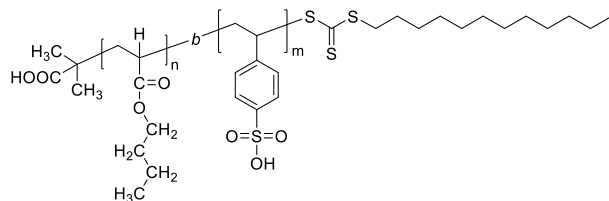


**Sample Name:** Poly (n-Butyl acrylate)-b-poly (4-styrene sulfonic acid)

**Sample #:** P16432A-nBuASSO3H

**Structure:**

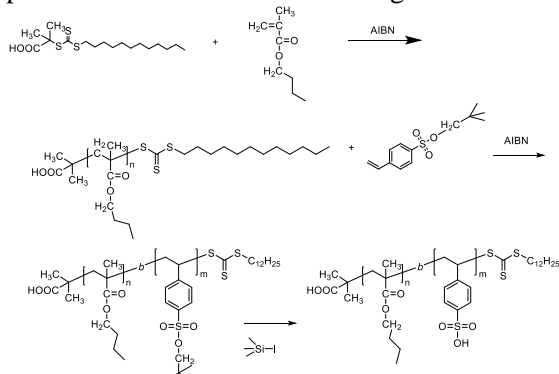


**Composition:**

Mn × 10 <sup>3</sup> PnBuA-b-PSSO3H	PDI
9.0-b-3.0	1.15

**Synthesis Procedure:**

The polymer was synthesized by RAFT polymerization process as shown in the following reaction scheme:



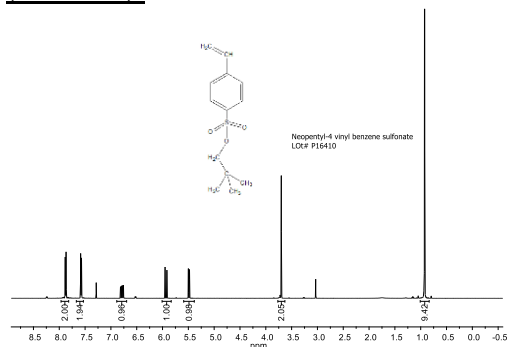
**Characterization:**

The molecular weight was calculated from <sup>1</sup>H NMR and polydispersity of product was characterized by size exclusion chromatography (SEC).

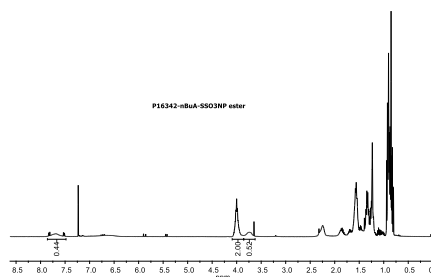
**Solubility:**

The polymer is soluble in DMSO and Acetone.

**<sup>1</sup>H NMR of neopentyl-4-styrene sulfonate (SSO3NP):**



**<sup>1</sup>H NMR spectrum of the nBuA-SSO3NP diblock copolymer:**

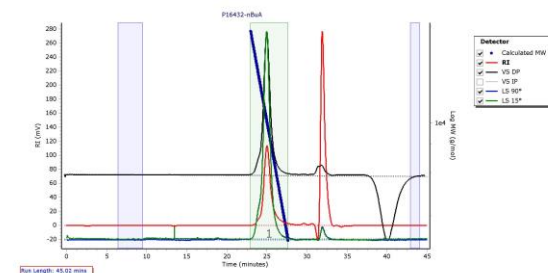


**SEC of first block nBuA-RAFT:**

Agilent GPC/SEC Software

P16432-nBuA

Chromatogram Plot



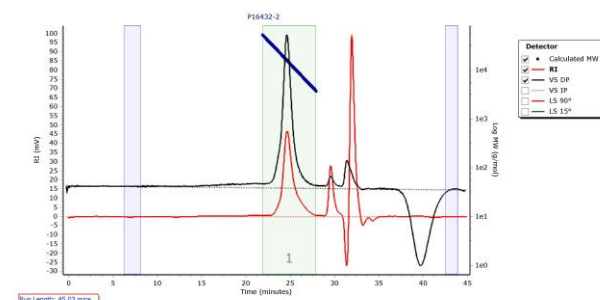
Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	10219	8701	9886	10933	11998	10756	1.138

**SEC of nBuA-b-SSO3NP diblock copolymer:**

Agilent GPC/SEC Software

P16432-2

Chromatogram Plot



Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	15603	12779	14771	16866	19563	16700	1.156