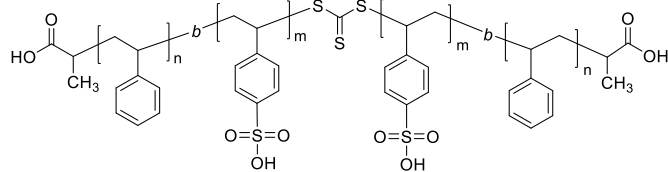


**Sample Name:** Poly (styrene-*b*-4-styrene sulfonic acid-*b*-styrene) triblock copolymer with RAFT moiety in center

**Sample #:** P16415-S-SO3H-S

**Structure:**



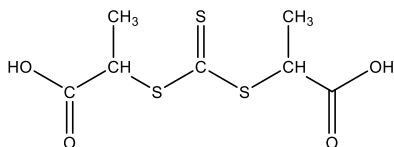
**Composition:**

Mn x 10 <sup>3</sup> S-b-SSO3H-b-S	PDI
3.5-b-1.5- b-3.5	1.08

**Synthesis Procedure:**

The polymer was synthesized by RAFT process using following bifunctional initiator:

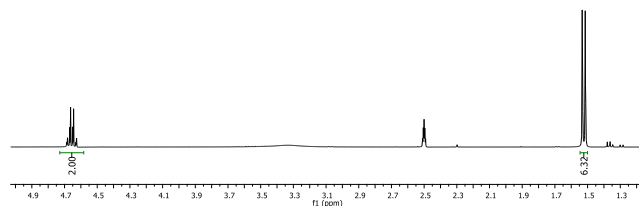
**Structure:**



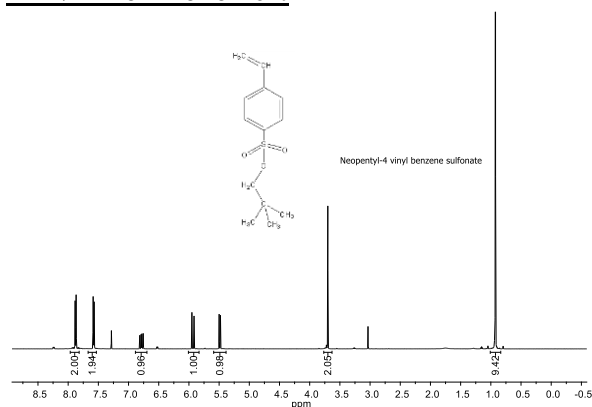
**Characterization:**

The chemical structure of the product was confirmed by FT-IR and <sup>1</sup>H NMR and GPC in DMF.

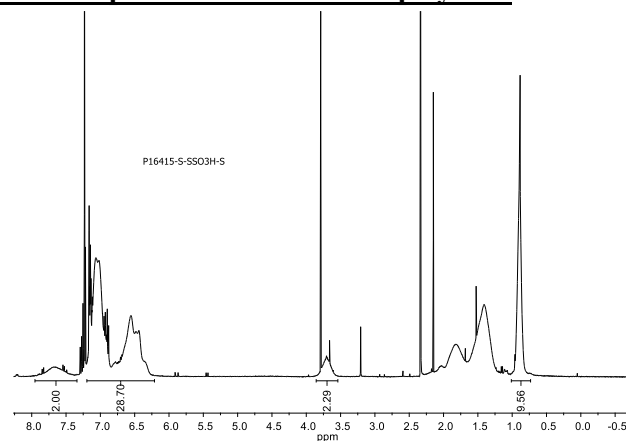
**<sup>1</sup>H NMR (400 MHz, DMSO-d<sub>6</sub>) of RAFT**



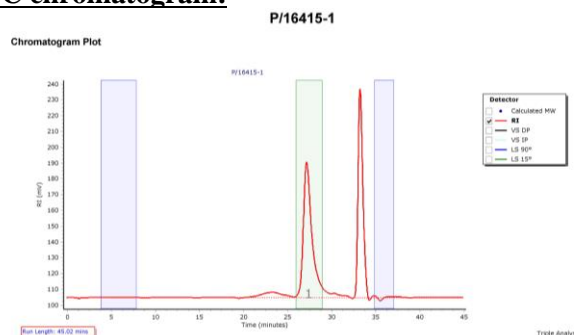
**<sup>1</sup>H NMR of Monomer:**



**<sup>1</sup>H NMR spectrum of Triblock copolymer:**



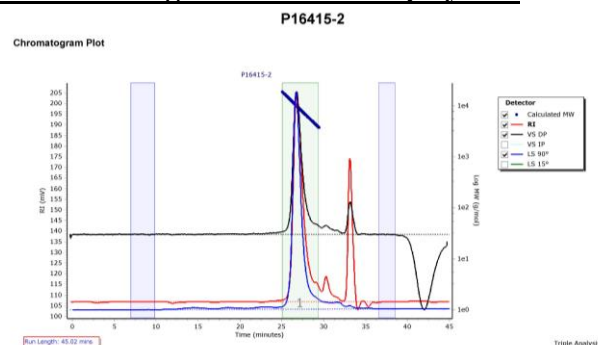
**SEC chromatogram:**



Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	8042	6915	7414	7862	8256	7739	1.072

**Processing Parameters**  
 Method: RI  
 Concentration Detector Used in Analysis: RI  
 Injection volume (μL): 100.00  
 Flow rate (mL/min): 1.00  
 Concentration options: Calculate Sample Concentration from Entered Sample Properties  
 Entered dn/dc (mL/g): 0.184

**SEC chromatogram of triblock copolymer:**



Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	9081	8365	8990	9527	10000	9424	1.075

**Processing Parameters**  
 Method: RI  
 Concentration Detector Used in Analysis: RI  
 Injection volume (μL): 100.00  
 Flow rate (mL/min): 1.00  
 Concentration options: Calculate Sample Concentration from Entered Sample Properties  
 Entered dn/dc (mL/g): 0.184

After Thermolysis of Neopentyl Group Mn: about 1500