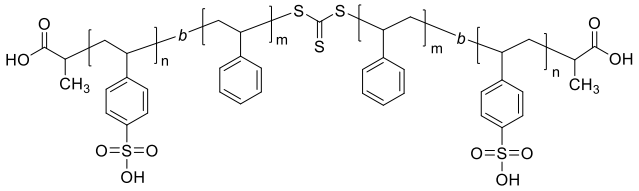
Sample Name: **Poly (4-styrene sulfonic acid–*b*–styrene–*b*–4-styrene sulfonic acid) triblock copolymer with RAFT moiety in center**

Sample #: **P16416-SSO3H-S-SSO3H**

Structure:

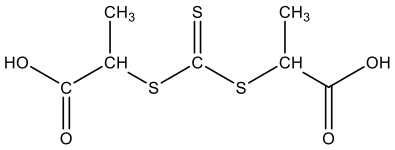


Composition:

Mn x 10^3 SSO3H-b-S-b-SSO3H	PDI
3.5-b-9.5-b-3.5	1.28

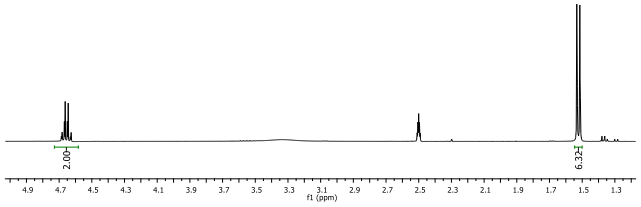
Synthesis Procedure:
The polymer was synthesized by RAFT process using following bifunctional initiator:

Structure:

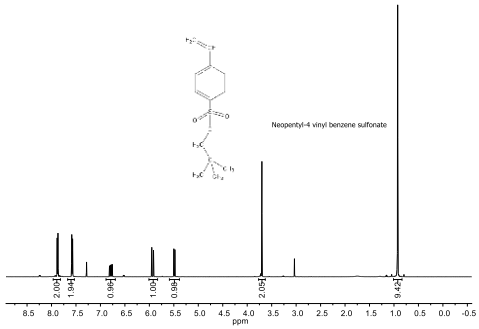


Characterization:
The chemical structure of the product was confirmed by FT-IR and ^{1}H NMR and GPC in DMF.

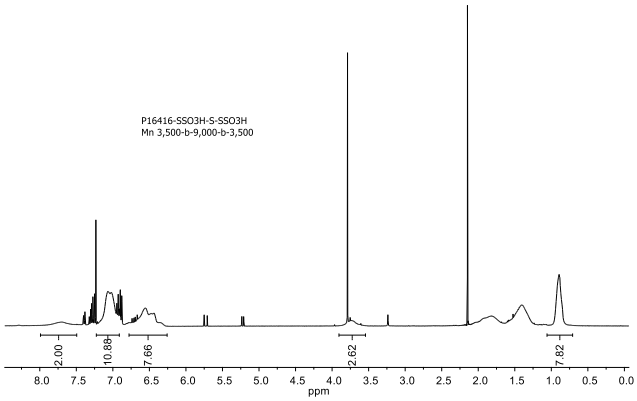
^{1}H NMR (400 MHz, DMSO-d_6) of RAFT



^{1}H NMR of Monomer:



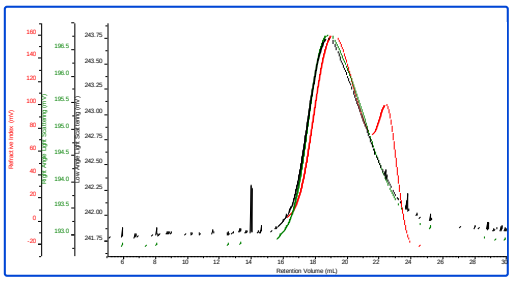
^{1}H NMR spectrum of the Triblock copolymer:



SEC chromatogram:

P16416-SSO3N Pester

dn/dc	0.1650
Flow Rate	0.7000
Solvent	DMF with LiBr
Method	PSS column-PMMA60K-Jan3-2019-0003.vcm



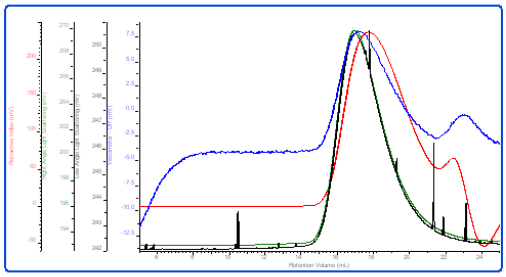
Sample	Mn	Mw	Mp	Mw/Mn
P16416-1_1_2019-07-	9,818	10,277	8,752	1.047

After Thermolysis of Neopenty Group Mn : 7000

SEC chromatogram of the product:

P16416

dn/dc	0.1650
Flow Rate	0.7000
Solvent	DMF with LiBr
Method	PSS column-PMMA60K-Jan3-2019-0003.vcm



Sample	Mn	Mw	Mp	Mw/Mn
P16416-2_1_2019-07-	16,665	21,415	21,645	1.285