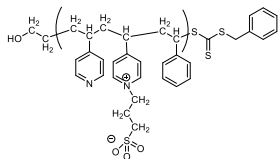


Sample Name: Poly (styrene-co-4-vinylpyridine-co-1-(3-Sulfopropyl)-4-vinylpyridinium), random

Sample #: P44103D-S4VP4VPSPran

Structure:

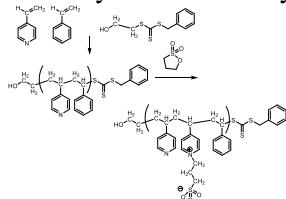


Composition:

Mn x 10 ³ PS-co-P4VP	PDI
13.5	1.09
P4VP (mol%): 20	
S:4VP:4VPSP 8:0:20	
CAS Number: 26222-40-2 for S4VPran	

Synthesis Procedure:

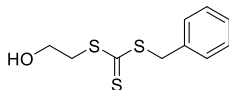
The polymer is prepared by RAFT polymerization of styrene and 4-vinylpyridine.



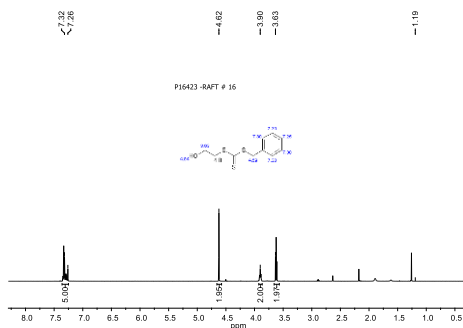
Following RAFT reagent was used.

Benzyl-2-hydroxyethyltrithiocarbonat

Structure:



¹H-NMR spectrum of RAFT (400 MHz, CDCl₃):



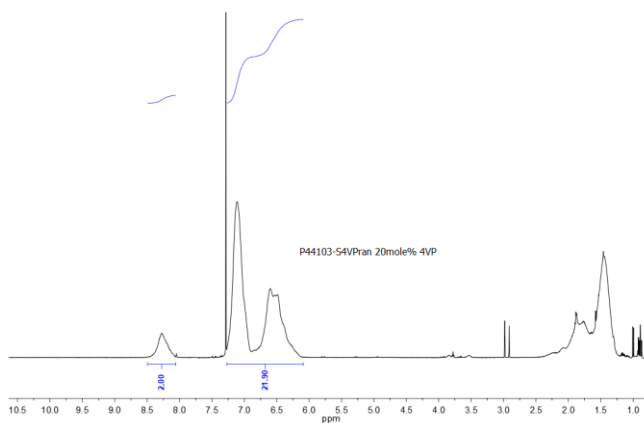
Characterization:

The product was characterized by size exclusion chromatography (SEC) and ¹H NMR data analysis.

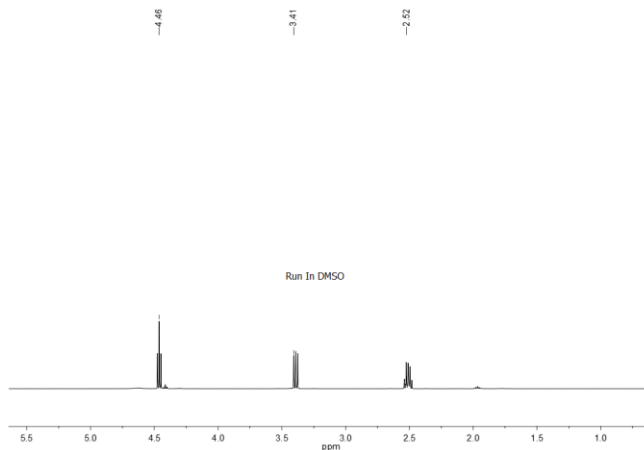
Solubility:

CHCl ₃	Soluble
Acetone	Hazy solution
DMF	Soluble
THF	Soluble
Methanol	Insoluble
Water	Insoluble

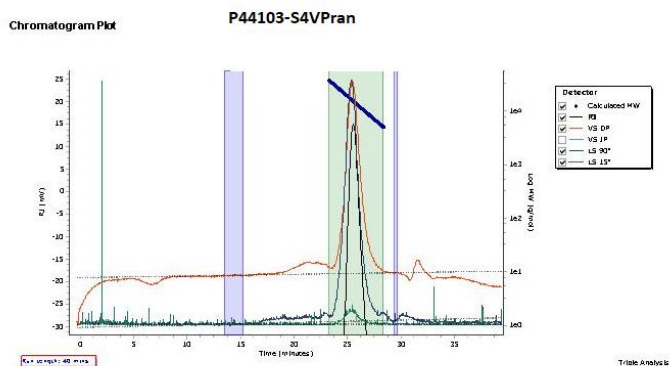
¹H-NMR Spectrum of the S4VP random copolymer:



¹H-NMR spectrum of Propane sultone in DMSO:



SEC elugram of the S4VPrandom copolymer:



Molecular Weight Averages

Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mu (g/mol)	PD
Peak 1	15235	13458	14640	15758	16818	15542	1.088

¹H-NMR Spectrum of the S4VP with propane sultone random copolymer run in CDCl₃:

