

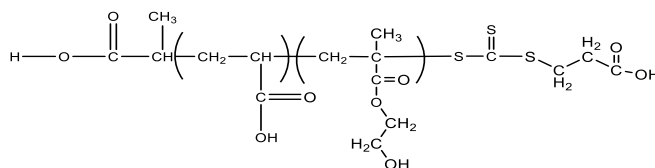
Product Profile

Identification

Product Name: Poly(acrylic acid)-b-poly(2-hydroxyethyl methacrylate)

Product Lot Number: P44653B-AAHEMA

Product Chemical Architecture:

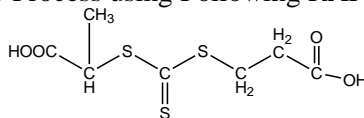


Composition:

Mn x 10 ³ AA-b-HEMA	Mw/Mn (PDI)
3.5-b-110.0	2.3
Dp of each block: AA ₅₀ -b-HEMA ₈₅₁ from ¹ H NMR	

Method of Synthesis

The polymer is synthesized by RAFT Process using Following RAFT reagent.



Solubility in different solvents:

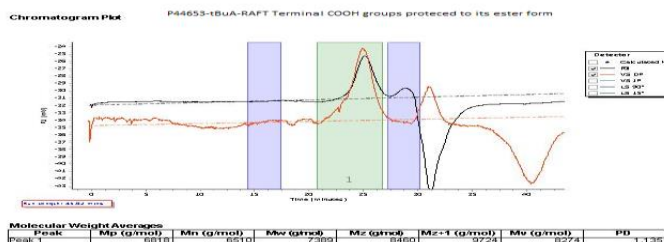
Product after removing ester and trimethylsiloxy group can not be dried completely and formation of gel like architecture owing to the formation of inter and intra molecular ester fortmation. Product in semi dry form transfer to either methanol or FDMF and can be prepared 50% solution and keep in cold.

THF	✓	Ethanol	✓
Methanol	✓		
DMF	✓		

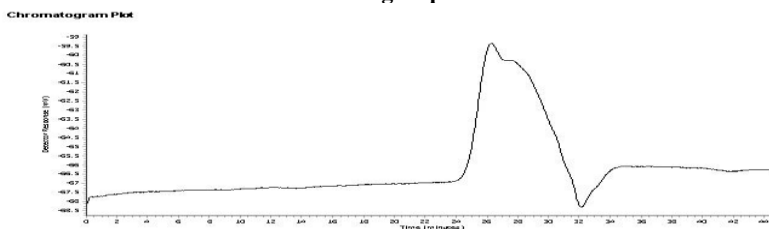
Purification of Polymer to remove traces amount of un-reacted Poly tBuA.

Validation of Architecture

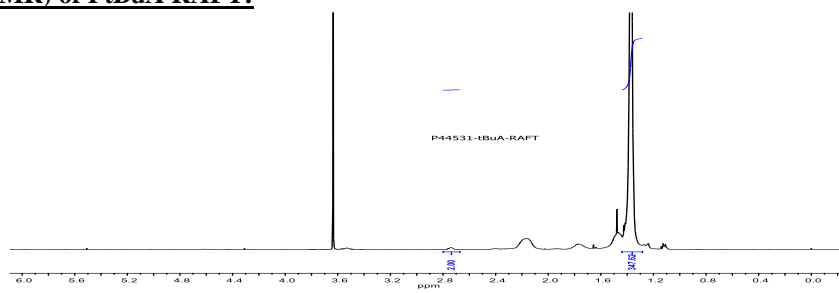
A. Gel Permeation Chromatography (GPC), SEC- of PtBuA and its Blopck copolymer:



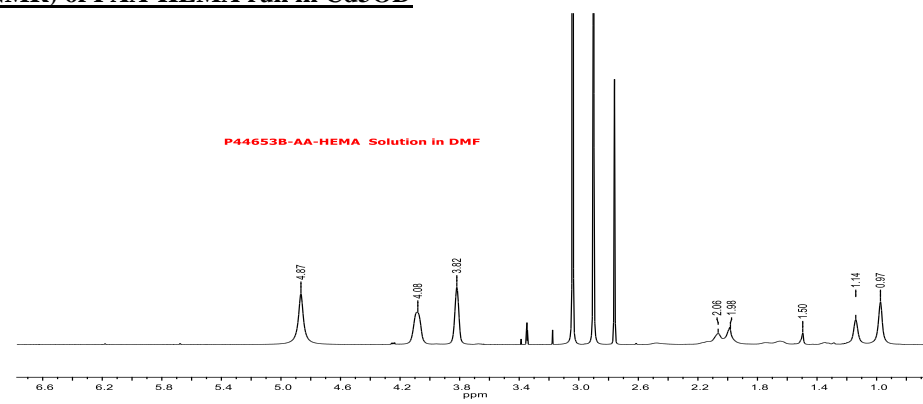
GPC Profile with Free COOH terminal groups:



B. NMR (HNMR) of PtBuA RAFT:



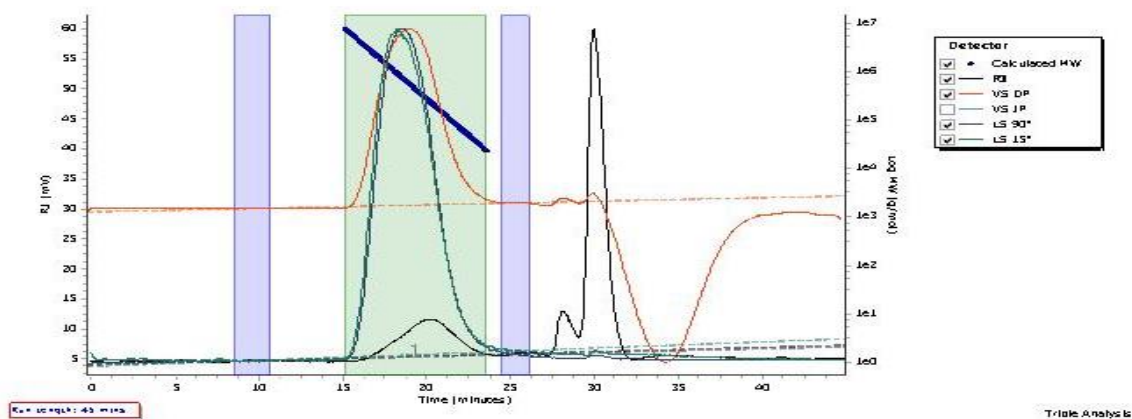
C. NMR (HNMR) of PAA-HEMA run in Cd3OD



D. GPC profile for PtBuA-HEMATMS

Chromatogram Plot

P44653B-tBuAHEMA-TMS



Molecular Weight Averages

Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	228824	180527	420904	863306	1325781	824719	2.332