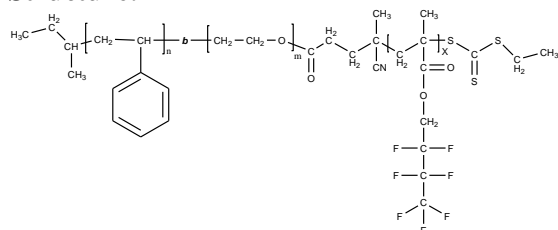


Sample Name: Poly (styrene-b-ethylene oxide-b-Hepta fluorobutylmethacrylate)

Sample #: P41517C-SEOHFBMA

Structure:



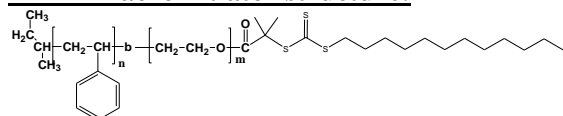
Composition:

Mn x 10 ³	PDI
S-b-EO-b-HFBMA	
9.0-b-19.5-b-4.0	1.05

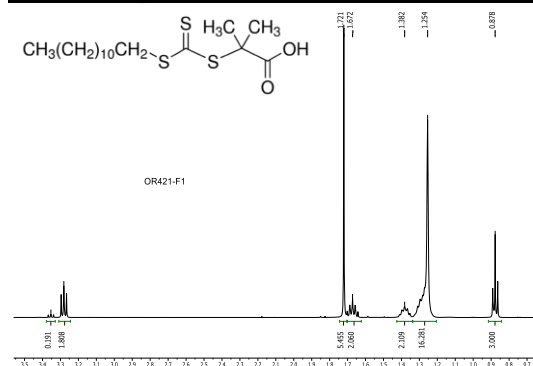
Synthesis Procedure:

The polymer was prepared by combination of anionic and RAFT polymerization process.

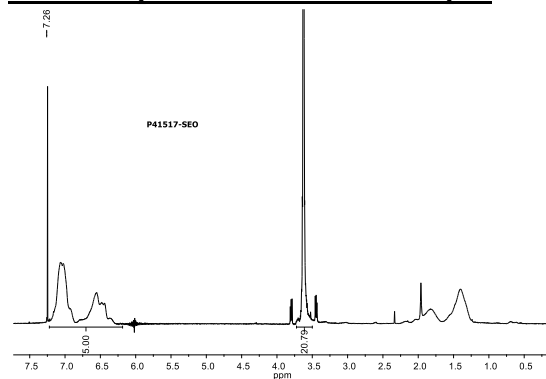
RAFT macroinitiator structure:



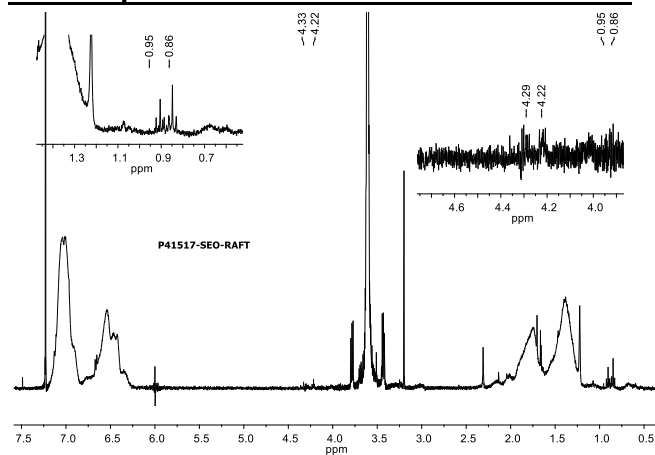
¹H NMR spectrum of the RAFT macroinitiator:



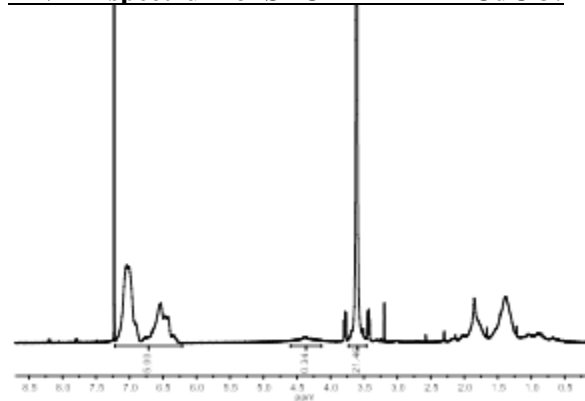
¹H NMR spectrum of the SEO sample:



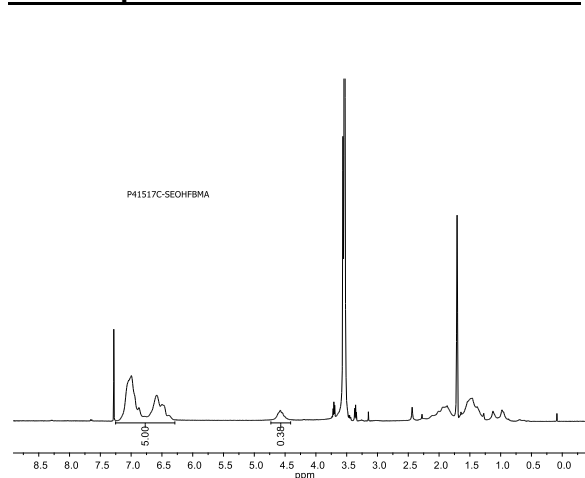
¹H NMR spectrum of SEO-terminated with RAFT:



¹H NMR spectrum of SEOHFBMA in CdCl₃:



¹H NMR spectrum of SEOHFBMA in d₈-THF:

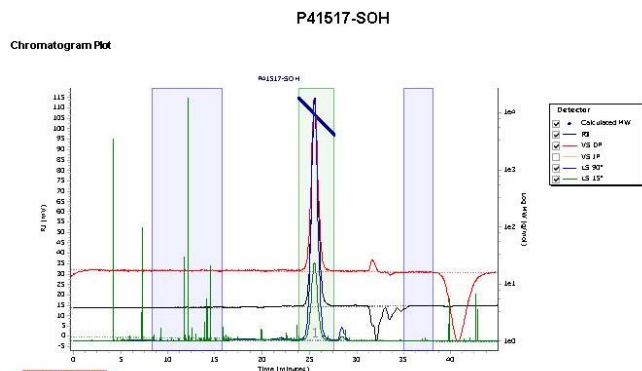


¹H NMR analysis of the triblock copolymer:

¹H NMR analysis in CdCl₃, D₆ Acetone gives ambiguity compositions of HFBMA moiety. Following are the results in CdCl₃. THF was found the good solvent for the determination of HFBMA composition in triblock copolymer.

SEC profile of the SOH Sample:

Agilent GPC/SEC Software

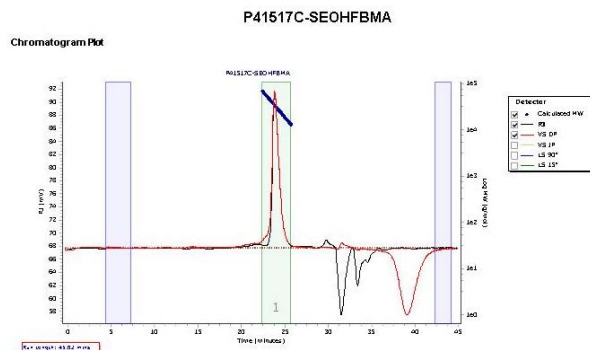


Molecular Weight Averages							
Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	9199	9030	9229	9427	9630	9379	1.022

Processing Parameters

SEC elugram of the Sample:

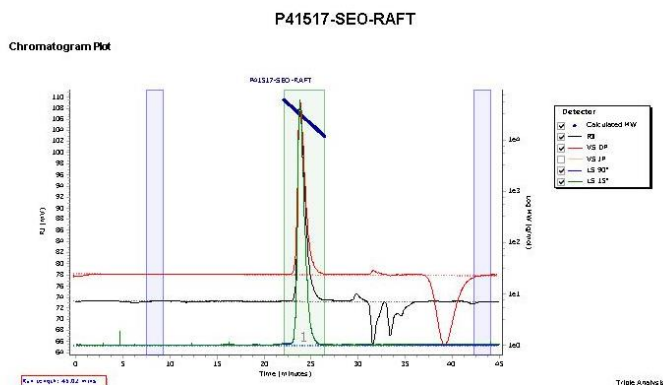
Agilent GPC/SEC Software



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	34265	29659	31438	32969	34558	32911	1.093

SEC elugram of the SEO-RAFT Sample:

Agilent GPC/SEC Software



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	32039	28324	29294	30125	30874	29833	1.034

Solubility in Different solvents:

CHCL3	Insoluble
THF	Clear at 35 °C
Acetone	Soluble at Room temperature
DMF	Insoluble

GPC of the final polymer shows elution counts retarded in comparison to SEO RAFT diblock copolymer. From GPC only, molecular weight distribution calculated and compositions from its HNMR analysis.

Furthermore, Homo poly 2,2,3,3,4,4-Heptafluorobutyl methacrylate polymer shows negative dn/dc in THF.