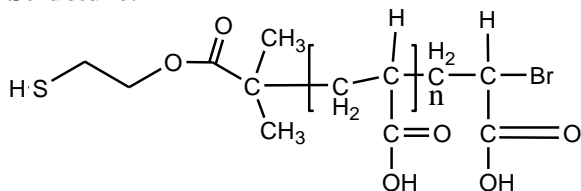


Sample Name: Thiol terminated Poly (acrylic acid)

Sample #: P41180-AASH

Structure:

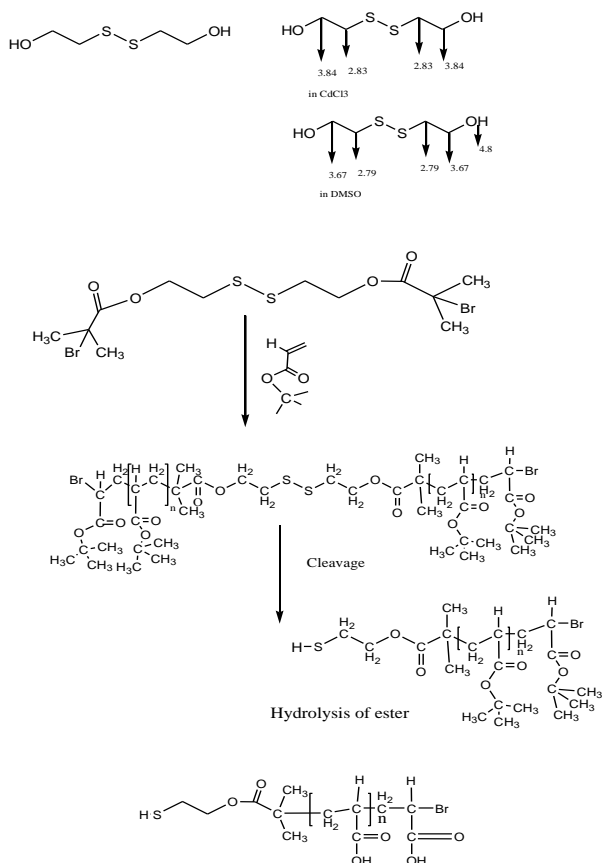


Composition:

Mw x10 ³	Mn x10 ³	PDI
55.0	39.0	1.4

Synthesis Procedure:

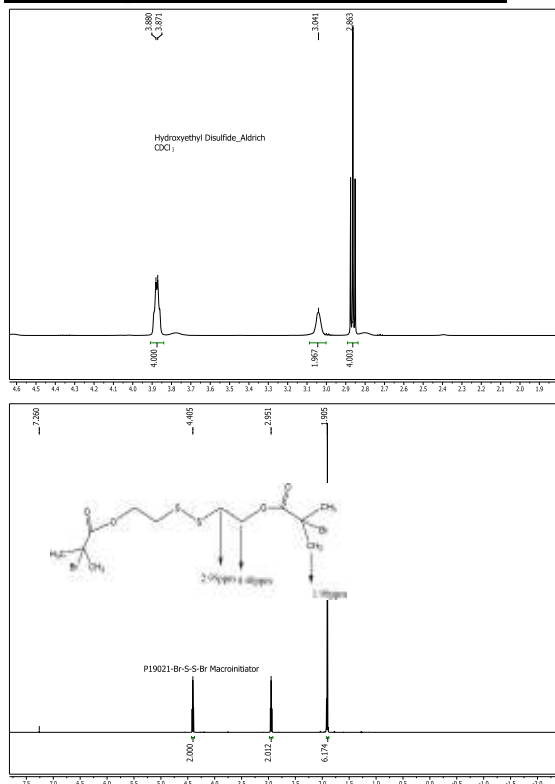
The polymer was synthesized by ATRP polymerization process. The following reaction scheme shows how the product was prepared:



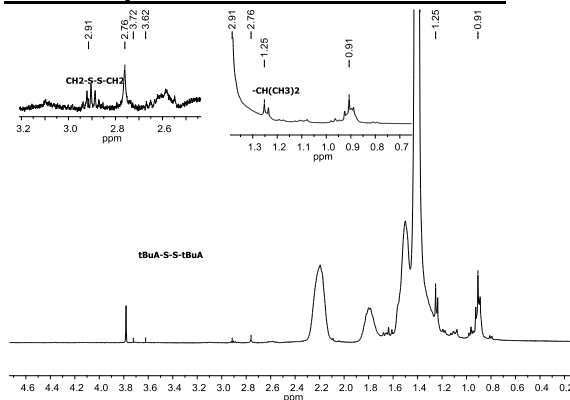
Characterization:

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

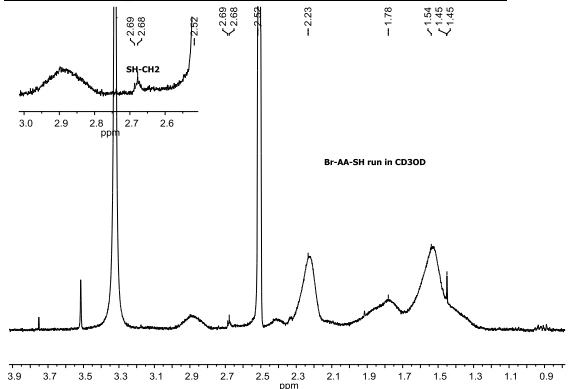
H NMR spectrum of the macroinitiator:



H NMR spectrum of the Disulfide form:



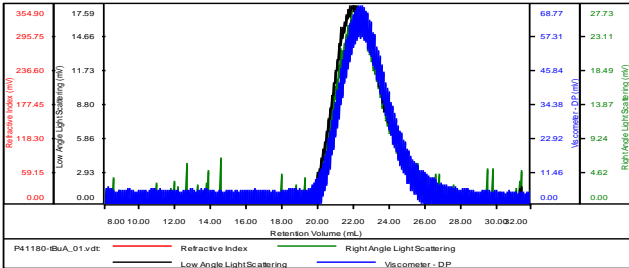
H NMR spectrum of the free thiol form:



SEC elugram of the PtBuA-S-StBuA:

P41180-tBuA-S-S-tBuA

Concentration (mg/mL)	4.4631
Sample dn/dc (mL/g)	0.0620
Method File	PS99K-May-2018-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF

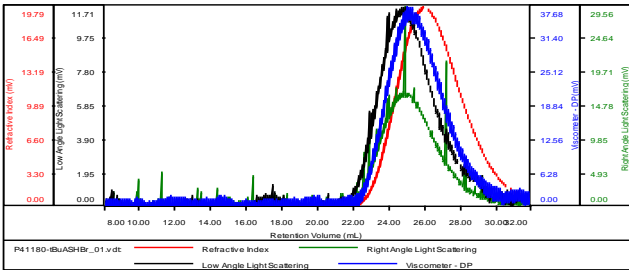


Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P41180-tBuA_01.vd	100,719	152,363	1.513	0.9695	133,854

SEC elugram of the PtBuA-S-H:

P41180-tBuA-SH-Br

Concentration (mg/mL)	2.2814
Sample dn/dc (mL/g)	0.0840
Method File	PS99K-May-2018-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P41180-tBuASHBr_01.vd	71,545	101,384	1.417	1.2289	101,963

After Hydrolysis of tert-butyl ester:
PAA-SH Mw: 55,000 Mw/Mn: 1.4